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**VIA EMAIL AND U.S. MAIL**

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Millennium Bulk Terminals-Longview EIS  
c/o ICF International  
710 Second Ave  
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**Re: Millennium Bulk Terminals Longview Project- EIS Scoping Comments**

Dear Lead Agency Officials:

**I. INTRODUCTION**

On behalf of Millennium Bulk Terminals Longview (“Millennium”) we thank you for this opportunity to submit comments on the scope of the review that each of you will be engaging in under the National Environmental Policy Act (“NEPA”) and the State Environmental Policy Act (“SEPA”). Millennium looks forward to working with Cowlitz County, the Department of Ecology, and the U.S. Army Corps of Engineers (lead agencies) to ensure that the EIS drafting process is thorough, accurate, and robust, and completed in a timely manner. Millennium is committed to fulfilling its NEPA and SEPA responsibilities and providing achievable mitigation as reasonably necessary and appropriate.

As explained in more detail below, the NEPA and SEPA lead agencies should prepare an Environmental Impact Statement (“EIS”) that rigorously adheres to Supreme Court precedent controlling what should and should not be analyzed, and the manner in which the EIS analysis should be conducted. As described more fully below, the agencies should focus on:

- The incremental impact of Millennium’s proposed coal export project (the “Project”) on the environment, understanding that the project will be constructed on an industrial, brownfield site that previously housed an aluminum smelter.



- The impacts with a close causal relationship to Millennium's Project. When properly conducted, the impacts associated with Millennium's Project must be compared against those impacts that would result whether or not Millennium's project is approved.
- Whether the amount of Asian coal combustion has a close causal relationship to the Project. Millennium will not affect Asian demand for coal to provide a stable source of electricity for urban use and rural electrification. Asian electricity producers will use the same amount of coal regardless of whether Millennium's Project is built. Accordingly, the quantity of coal handled by Millennium will not have a noticeable effect on global greenhouse gas emissions or on any effects of those emissions. The maximum quantity of coal Millennium could potentially handle represents a very small fraction of the total coal used world-wide and would generate an even smaller fraction of the annual greenhouse gases produced globally.
- A robust description of the "no action" alternative. A properly conducted analysis would show that Millennium's proposed dock construction will not produce additional coal consumption or greenhouse gas emissions as a result of Asian consumption of U.S. coal, and will not result in measurable climate impacts generally, or discernible adverse environmental effects in Washington State. Because the same amount of coal will be burned by Asian consumers with or without approval of Millennium's project, emissions from exported coal --if analyzed at all-- should only be addressed in the "no action" alternative.
- An accurate description of the difficulty in attributing climate change impacts to any one project. For example, a recent Obama Administration analysis of burning the annual production of Powder River Basin coal (ten times the quantity proposed for the Millennium Project) concluded that it was not possible to attribute "any specific climate related effects at any given time or place."
- Local rail transportation effects experienced in Longview, rather than rail transportation on the main inter-state railway which



provides system-wide capacity. The EIS should *not* attribute the effects associated with the rail transportation of U.S. coal mined from the Powder River Basin or the western U.S. to Millennium's Longview, Washington facility. Train traffic will increase proportionate to existing mainline rail capacity regardless of whether Millennium's Project is constructed. Because Millennium is only proposing to use *existing, pre-approved* and *anticipated* rail capacity, the effects of such rail use-- if addressed at all-- would be accounted for as part of the "no action" alternative.

- A recognition that vessel traffic on the Columbia River will continue and will increase regardless of whether the Millennium Project is built. The recent Channel Improvement Project deepened the Columbia River shipping channel expressly to promote economic development to accommodate the current and future fleet of international bulk cargo ships, including the vessels that will call on Millennium's port as a result of the construction and operation of Millennium's Project. Future increases in vessel traffic on the Columbia will continue to occur whether or not Millennium's Project is permitted; therefore, it should be analyzed as part of the "no action" alternative.

Project opponents' allegation that Millennium's Project raises "controversial" issues is not a basis for departing from the scoping precedents previously established by the courts and in practice. If the lead agencies issue scoping decisions that follow the guidance provided in these scoping comments, Millennium is confident that the ensuing environmental analyses will be legally sound and judicially sanctioned. After five scoping meetings (two of which were jointly held by both federal and state agencies), and more than three months of public comment, Millennium is equally confident that the lead agencies have more than ample information to promptly complete the scoping report that will govern future analyses necessary for the draft and final Environmental Impact Statement for Millennium's proposed coal export facility.

#### **A. The Project and its Benefits**

Millennium proposes to build a deep-water coal export terminal along the Columbia River in Longview, Washington on a 540-acre parcel brownfield site (the Reynolds site) housing the former Reynolds Metals aluminum smelter. The coal will be shipped by train to the Project site where it will be trans-loaded by Millennium to ocean-going vessels for export. While



Millennium does not own the coal, it provides its customers who own the coal a trans-loading service. A portion of the site is currently being used as a bulk products terminal and has an existing dock (Dock 1) that will continue to be used and may be expanded for non-coal commodities.

Once built, the proposed Project will transform a substantial portion of an existing but under-utilized (“brownfield”) site into a productive coal export facility. The coal export terminal will be capable of receiving, stockpiling, blending, and loading coal by conveyor onto ocean-going ships for export. The Project site has a long history of industrial use and was initially developed as an aluminum smelter to support World War II efforts. Since smelter operations ceased in 2001, the site has continued to support industrial operations and is currently used as a bulk product terminal handling smaller amounts of coal and alumina.

## **1. Project Description**

The proposed terminal will be built on property zoned for heavy industrial use with access to existing rail capacity and deep water for ocean-going ships (the Project site). The Project will encompass up to 190 acres and will receive, stockpile, blend, and load coal by conveyor onto ocean-going ships for export.

As proposed by Millennium, the Project will include two new docks in the Columbia River and associated rail and coal handling facilities on existing disturbed industrial lands, adjacent uplands and some wetlands. The project will include rail unloading, coal handling and storage, and ship loading areas. At full operation, the facility will have the capacity to export 44 million metric tonnes per year (“MMTPY”) of coal.

The Project will be built in two stages. During Stage 1, Millennium will construct:

- Two docks (docks 2 & 3) to be used for coal handling<sup>1</sup>;
- One shiploader and related conveyers;
- A stockpile area including stock pile pads;
- Rail car unloading facilities;
- One operational unloading rail track;
- Up to eight rail storage tracks for train parking;
- Site area ground improvements; and
- Associated facilities and infrastructure.

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<sup>1</sup> During Stage 1, Dock 3 will be used only for berthing and not for coal handling.



Millennium will also conduct dredging necessary to construct, support, and provide berthing access for the two new docks. At completion, Stage 1 work will allow Millennium to maintain a throughput capacity of up to 25 MMTPY of coal.

Stage 2 facilities will consist of installing:

- a shiploader and related conveyors on Dock 3,
- associated stockpiles, and
- conveyors and equipment necessary to increase throughput by approximately 19 MMTPY for a total of 44 MMTPY.

## **2. Project Need and Benefits**

There are a variety of important reasons Millennium's Project is needed in the Region. First, the Project would help reduce unemployment in Cowlitz County by creating family-wage jobs in the Longview, Washington area. For that reason, Millennium has the support of the International Longshore and Warehouse Union, and recently entered into a Project Labor Agreement with the Longview-Kelso Buildings and Construction Trades to afford local labor unions jobs- preference for the construction of the Project. This is very significant because at 10.4% Cowlitz County has the highest unemployment rate of any county in Washington and has historically had a higher unemployment rate than the State as a whole. 3900 people out of 41,110 eligible workers are out work. In addition, four of the six hardest hit counties are in southwest Washington (Cowlitz, Lewis, Pacific and Grays Harbor) with a total of 10,800 eligible workers out of work. Millennium's export Project will add thousands of direct, and indirect jobs in southwest Washington during construction, and 135 full time family wage operational jobs, totaling more than 300 direct, indirect, and induced jobs, while contributing substantially to the state and county tax bases. *See Economic and Fiscal Impacts of Millennium Bulk Terminals Longview (April 2012) by BERK (attached hereto as Ex. A).* The number of construction jobs created by the Project is projected to comprise about 25% of the unemployed in Cowlitz County. *Id* at 23.

Cowlitz County has struggled to maintain a strong revenue base since the Great Recession of 2008. *Id.* at 14. In total, Millennium's Project will generate \$146 million (in 2012 dollars) in state, county, and special purpose district tax revenues over a 30-year period. It will generate \$43.1 million in state, county and special purpose tax revenues from construction, and another \$5 million annually from on-going operations. *Id.*

In addition to benefitting the regional economy, Millennium's Project will benefit the national economy by helping to fulfill President Obama's Export Initiative goal of doubling the nation's



exports by 2015. That is among the reasons-- in addition to providing badly needed jobs to the Longview and Cowlitz County metropolitan areas-- that the U.S. Chamber of Commerce and the Tacoma-Pierce County Chamber, officially endorsed Millennium's Project. *See* Bellingham Herald editorial submitted by Karen Harbert and Tom Pierson, "Millennium Export Terminal Right for Washington, (Nov. 7, 2013), (attached as Ex. B). Citing the strong and growing international demand for coal in the next few years and beyond, the Chamber emphasized that "trade is the foundation upon which the economy of the Pacific Northwest is built, accounting for as many as one in four jobs in the region." *Id.*

Second, the Project will diversify Washington's trade-based economy by providing a major new terminal for exporting natural resources. As forty percent of Washington's economy is based on trade, it is among-- if not the most-- trade dependent state in the Union.

Third, the Project will provide U.S. coal producers with an opportunity to expand their share of the seaborne international coal market. The relatively close proximity of the Millennium site to Asian coal markets and the fact that the City of Longview was specifically built to accommodate trade and port-related infrastructure, makes this site an ideal location for a coal export terminal; indeed, the site provides a shorter, more direct shipping route than from the east coast or gulf coast areas. Although coal is available from a wide variety of sources found worldwide, there is nonetheless a significant demand for Powder River coal in Asian and other markets due to its low sulfur and mercury content and resulting reduced air emissions relative to other coals. Through the construction of a facility designed to efficiently trans-load coal from rail to ocean-going vessels, the Project will allow U.S. coal to compete in the Pacific international coal supply market by providing Asian consumers with the choice to purchase low sulfur coal.

## **B. Project and EIS Schedule**

Millennium's Project, like all significant infrastructure projects, is time-sensitive. In developing its proposal, Millennium reasonably relied on permitting time frames established under NEPA and SEPA and the Army Corps of Engineers ("Corps'") applicable implementing regulations. Those time frames have been greatly exceeded in Millennium's case. The Corps' regulations contemplate that an EIS would generally-speaking enable a final permit decision to be made within a year of the submittal of a completed permit application. *See e.g.*, 33 C.F.R. § 325.2; 33 C.F.R. §230.17(a)(emphasizing that EISs should normally take one year to prepare); WAC 197-11-030(d) (agencies must initiate SEPA process early in conjunction with other agencies to avoid delay and duplication). In this case, it took more than 18 months for the protracted EIS scoping process to even commence after Millennium filed its permit application in February of 2012, and *stipulated* to the need to prepare an EIS. Issuance of the scoping reports are expected to take



another few months after the close of the five scoping meetings held over the course of a 95-day comment period.

In short, the amount of public input and process has been both extraordinary and unprecedented, yet has come at the expense of the timely regulatory process owed Millennium. 33 C.F.R §320.1(a)(4) (Corps should work to reduce delays to ensure that applicants are provided timely permitting decisions). While the lead agencies are obligated to provide the public with an opportunity to comment on the proposed Project within regulatorily established time-frames, they are not obligated to provide citizens a wide-ranging opportunity to express their views on the merits of coal as an energy source.

The Supreme Court has admonished that “[t]he political process, and not NEPA, provides the appropriate forum in which to air policy disagreements. *Metro. Edison Co. v People Against Nuclear Energy*, 460 U.S. 766, 777, 103 S.Ct. 1556, 75 Led 2d 534 (1983). While project opponents contend that Millennium’s Project presents controversial issues regarding the role of coal in domestic energy export policies, the NEPA/SEPA process is not the appropriate venue to resolve those questions. *See Sancho v U.S. DOE*, 578 F. Supp. 2d. 1258, 1269 (D. Haw. 2008)(explaining that although the international particle accelerator project at issue raised complex policy questions about ramifications from the project’s operation, “Congress did not enact NEPA for the purpose of allowing this debate to proceed in federal court”); *Sabine River Auth v U.S. Dept of Interior*, 745 F. Supp. 388, 396 (E.D. Tex. 1990) (noting that objections to agency action were “more akin to a political dispute over policy choices than a legal dispute over compliance with the procedural requirements of NEPA”).

The protracted permitting process Millennium has endured to date is not only contrary to applicable regulations, but is also a significant departure from both federal and state Executive Branch policies. Indeed, President Obama has emphasized the need to “speed infrastructure development through more efficient and effective permitting and environmental review.” *See* White House Memorandum dated August 2011 (attached as Exhibit C). The purpose of this Initiative is to expedite the permitting process for important infrastructure projects to “maintain our Nation’s competitive edge” and “to ensure that the United States has fast, reliable ways to move goods and energy.”

President Obama also issued Executive Order (“E.O”) 13534 entitled “A National Export Initiative.” The White House issued this E.O. to create domestic jobs and stimulate domestic economic growth “by ensuring that American businesses can actively participate in international markets by increasing their export of goods, services and products. . . to create high paying jobs.” *See* Ex. D (attached). Because Millennium’s Project is the type of project that is



described by this E.O., the lead agencies should redouble their efforts to efficiently and fairly proceed through the permitting process to regain some of the time lost and so that the delay does not become an end in itself for Project opponents.

An efficient permitting process is also compelled by Guidance issued by the Council on Environmental Quality in 2012 “to improve the process for preparing efficient and timely environmental review under NEPA.” *See* Ex. E (attached). That recently-issued CEQ Guidance urges agencies to “develop meaningful and expeditious timelines for environmental reviews” and to coordinate multi-agency review and approvals. Similarly, Ecology emphasizes its newly emphasized “lean permitting process” to maximize efficiencies in state permitting processes. *See* Ex. F (attached).

Millennium’s permitting proposal should not be treated differently simply because of the commodity that Millennium has chosen to export. *See* WAC 197-11-020(1) (emphasizing purpose of SEPA rules is to provide for *uniformity* in the execution of SEPA processes). For all these reasons, Millennium is entitled to issuance of a final EIS in a timely manner.

## II. THE LAW GOVERNING SCOPING

### A. Purpose of NEPA and SEPA

NEPA requires federal agencies to evaluate the environmental impacts of any proposed major federal action that may significantly affect the quality of the human environment. 42 U.S.C. §4332(2)(C). Similarly, the primary purpose of SEPA is to provide decision-makers with sufficient information to understand the environmental impacts of their actions by preparing an EIS for “major actions having a probable significant, adverse environmental impact.” RCW 43.21C.031; *see Citizens Alliance to Protect Our Wetlands v. City of Auburn*, 126 Wn.2d 356, 362, 894 P.2d 1300 (1995). Whether under NEPA or SEPA, EISs must evaluate the direct, indirect and cumulative impacts of a proposed action, and alternatives thereto.

NEPA is entirely procedural in nature and does not mandate that the agency choose a particular result. Rather, “[a]ll that is required is that the agency identify the reasonable alternatives to the contemplated action and look hard at the environmental effects of its decision.” *Midcoast Interstate Transmission, Inc. v FERC*, 198 F.3d 960, 967 (D.C. Cir. 2000)(internal quotation marks, brackets, and citation omitted). Once it reviews the alternatives and the impacts, “the agency is not constrained by NEPA from deciding that other values outweigh the environmental costs.” *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 350, 109 S.Ct 1835, 104 L.Ed.2d 351 (1989).



In contrast, SEPA is substantive in nature, and authorizes state agencies to condition or deny an action based on identifiable policies. RCW 43.21C.060. After considering an action's probable impacts, state agencies may impose mitigation measures "related to" "specific adverse environmental impacts" so long as the measures are "reasonable and capable of being accomplished." An agency may also condition a proposal but must first find that (1) the proposal would be likely to result in significant adverse environmental impacts and (2) that there are reasonable and feasible measures which the project proponent can take to offset those impacts that are required by law. WAC 197-11-660(1). To this end, the lead agencies should include in their analyses a discussion of reasonable and feasible mitigation measures that could be taken to offset the Project's significant environmental effects.

## **B. Defining the Proper Scope**

The "scope" of an EIS is defined as "the range of actions, alternatives, and impacts to be considered in an [EIS]." 40 C.F.R. §1508.25; WAC 197-11-792(1).<sup>2</sup> Agencies have "considerable discretion" to define the scope of an EIS. *Nw Res. Info. Ctr., Inc. v. Nat'l Marine Fisheries Serv.*, 56 F. 3d 1060, 1067 (9th Cir. 1999) (quoting *Thomas v Peterson*, 753 F. 2d 754, 758 (9th Cir. 1985)). However, as discussed below, agency discretion is limited.

"Direct" effects of the action are those impacts "which are caused by the action and occur at the same time and place." 40 C.F.R. §1508.8(a); WAC 197-11-792(2)(c). "Indirect" effects of the action are those impacts "which are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable." 40 C.F.R. §1508.8(b); WAC 197-11-792(2)(c). "Cumulative impacts" are "the impacts[s] on the environment which result[] from the incremental impact[s] of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such . . . actions." 40 C.F.R. §1508.7; WAC 197-11-792(2)(c).

Under both statutes, agencies are directed to look only at the probable effects, not those that have only a mere possibility of occurring and are remote or speculative. WAC 197-11-782; *see also* RCW 43.21C.031 (circumscribing the review under SEPA to "only those probable adverse

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<sup>2</sup> The Corps has further circumscribed the scope of its NEPA analysis through regulations published at 33 C.F.R. part 325, appendix. B (7)(b). The scope of a Corps EIS is limited to only those actions over which the Corps has "sufficient control and responsibility" as informed by the extent of cumulative Federal control and responsibility. *Id.* at (7)(b)(2)(iv). The Ninth Circuit has repeatedly upheld the Corps' NEPA regulations and analysis thereof, emphasizing the Council on Environmental Quality's prior review and approval of these regulations. *See e.g., Sylvester v. U.S. Army Corps of Engineers*, 884 F.2d 394, 399 (9th Cir. 1989); *Andrus v. Sierra Club*, 442 U.S. 347, 358, 99 S.Ct. 2335, 60 L. Ed.2d 943 (1979) (CEQ's interpretation of NEPA is entitled to substantial deference).



environmental impacts which are significant”). In other words, an EIS “must concentrate on the issues that are truly significant to the action in question, rather than amassing needless detail” or “extraneous background data.” 40 C.F.R. §1500.1(b), 2(b); WAC 197-11-030(2)(b).

For these reasons, it is incumbent on the lead agencies to “[i]dentify and eliminate from detailed study the issues which are not significant or which have been covered by prior environmental review.” 40 C.F.R. §1501.7(a)(3). Towards this end, the scoping process must narrow the issues to be addressed in-depth in the EIS. *Kootenai Tribe of Idaho v. Veneman*, 313 F.3d 1094, 1117 (9th Cir. 2002)(critical role of scoping is to limit issues to be analyzed in depth); WAC 197-11-408(1)-(2).

The EIS scope is both governed by and defined through principles of causation. As the U.S. Supreme Court explained in *Department of Transportation v. Public Citizen*, 541 U.S. 752, 767, 124 S.Ct 2204, 159 L.Ed. 2d 60 (2004), a direct, indirect or a cumulative impact is within the scope of the NEPA impact analysis only if there is “a reasonably close causal relationship between the environmental effect and the alleged cause.” (internal quotation marks and citation omitted). *Public Citizen* and other Supreme Court precedent further directs agencies to go beyond a purely “but for” test for determining causation and employ the “proximate cause [analysis] from tort law.” *Metro. Edison Co.* 460 U.S. at 774. The proximate cause test requires reasonable foreseeability; accordingly “[s]ome effects that are ‘caused by’ a change in the physical environment in the sense of ‘but for’ causation[] will nonetheless not fall within [NEPA] because the causal chain is too attenuated.” *Id.*

## **1. Direct Effects**

Using the framework established above, Millennium encourages the lead agencies to include in their EISs a thorough discussion of the reasonably probable and significant direct effects of its Project. Because Millennium’s Project will be developed on a brownfield site, and will essentially convert a previously developed but under-utilized site into one that is fully operational and put to productive economic use, the EISs should focus on the *incremental* impact of the new proposed use on the following elements of the environment:

- Wetlands and streams
- Endangered or threatened species and their critical habitat
- Upland or terrestrial habitat and wildlife
- Water quality and aquatic habitat and wildlife
- Air quality
- Land use



- Socio economic factors
- Vehicular traffic
- Noise

Millennium has and will continue to submit background technical information to assist the lead agencies and their contractor in developing this analysis and hopes to work cooperatively and interactively with agency staff to produce thorough, accurate and timely EISs.

## **2. Indirect Effects**

Analysis of the Project's indirect effects is often a less straight-forward exercise. As explained above, it requires the agencies to apply a proximate cause, not a "but for" test, in defining the proper, legal, scope. Applying these principles, courts have agreed that an agency need not consider indirect effects that are remote or speculative, or where the chain of causation relies on too many independent actions. *See e.g., Ctr for Biological Diversity v. U.S. Dept of Hous & Urban Dev.*, 541 F. Supp. 2d 1091 (D. Ariz. 2008) (agency considering federal loan guarantee program need not look at impact of housing on water table; those impacts are controlled by local developers and planners); *see also Guidance for Ecology Including Greenhouse Gas Emissions in SEPA Reviews* at 3 (June 3, 2011) ("GHG Guidance") (citing and endorsing proximate cause scoping principles established in *Public Citizen*, 541 U.S. at 754).

The lead agencies have separately published scoping reports for SSA Marine's Cherry Point coal export facility that will inform how they will individually approach scoping for Millennium's Project. Because the Corps' and Ecology's scoping decisions are vastly divergent in how they define the proper geographic scope of indirect and cumulative effects, we will discuss them separately.

- a. Greenhouse gas emissions from the combustion of coal exported to Asia**
  - (i) Ecology's GHG scoping decision for SSA Marine should not be applied to Millennium's Project**

Departing from all prior SEPA precedent, Ecology decided that SSA Marine must study the effects of GHG emissions resulting from Asian end-use of coal transported across the project proponent's dock. In so doing, Ecology has assumed causation before studying it and has erroneously concluded that (1) the export of coal across new docks in Washington State will cause GHG emissions that would not otherwise have occurred; and (2) the additional GHG



emissions resulting from the end- use of the exported coal will result in discernible adverse environmental effects in Washington State in the form of increased ocean acidification, and associated environmental effects to coastal waters.

Ecology's SSA Marine scoping decision has numerous flaws and should not be used to define the effects of Millennium's Project. *See* Ex. G (attached). First, it cannot simply be assumed that coal entering the Asian market from any particular source or via any particular route will result in emissions that would not otherwise occur. To the contrary, coal is an abundant commodity in a thriving international market; Asian economies make use of imported coal from a variety of places around the globe, including Indonesia, Australia, South Africa, Canada, and elsewhere along the Gulf, East and West Coasts in the United States. *See* Scoping Comments submitted on behalf of SSA Marine dated January 21, 2013 at 18-26 (incorporated herein by referenced and attached as Exhibit H). For example, over the last decade, Asian nations increased their coal consumption from 2 billion TPY to 5 billion TPY annually, or more than 5 times the rate at which the U.S. currently burns coal, without recourse to American exports. *See* U.S. Energy Information Administration (EIA 2011). Asian consumers are not waiting on Ecology and Corps permitting decisions to determine whether to use coal for power generation and are in no way dependent on U.S. coal, let alone, the 0.044 billion TPY of coal that Millennium hopes to someday export.

If Millennium is not authorized to construct a new coal export facility that would allow for shipments of coal to Asia from Longview, Asian consumers will continue to do what they do today, which is to make use of domestic and a wide array of available international suppliers to obtain coal for power generation. There is no shortage of available coal that is constraining power generation in Asian economies and there is no evidence that Asian economies are awaiting the opening of new terminals in Washington State, before they opt to construct additional coal burning power plants.

Coal use is a direct function of choices by Asian nations to build electrical generating plants to supply modern cities and rural and agrarian areas with electricity; there is no evidence Asian coal consumption capacity is a function of U.S. export capacity. Therefore, it is likely that the same amount of coal will be consumed in Asia in the foreseeable future with or without approval of the three northwest coal export projects (estimated at a total capacity of 100 MMTPY).<sup>3</sup> Accordingly, emissions from coal consumption should be accounted for in the "no action" alternative and discussed as a baseline, or non-project impact.

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<sup>3</sup> In addition to SSA Marine, Ambre Energy is also proposing to construct a coal export facility at its Coyote Island, Oregon facility.



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In short, there is simply no evidence, other than results-oriented assumptions and speculation, that the export of 44 MMTPY across the Millennium Project's docks will cause new or additional GHG emissions. Those emissions will occur whether or not this Project is ever permitted and are therefore not the proximate result of Millennium's Project.

Second, even if one were to assume (contrary to the facts established above) that Millennium's export of coal will result in additional GHG emissions, it would be sheer speculation to insist that any increase in GHG emissions resulting from the export of coal from Millennium's facility will result in tangible adverse effects on Washington's coastal waters. Ecology can cite no evidence demonstrating a causal link between GHG emissions from the combustion of 44 MMTPY of coal in Asia and discernible levels of impact to the Washington State environment--because it simply does not exist.

To the contrary, the Bureau of Land Management ("BLM") analyzed the GHG emissions resulting from the use of all Powder River Basin coal currently authorized by government-issued leases (up to 450 MMTPY, or more than ten times the amount Millennium proposes to handle) and found that it could not conclude that the combustion of that amount of coal would cause any discernible effects. The BLM Wright Area EIS further concluded on p. 4-142-144 that it is "not currently possible to associate any particular action and its specific project-related emissions with the creation or mitigation of any specific climate related effects at any given time or place." See Letter dated January 22, 2013 from Eric Laschever re: Millennium's Scoping Comments on Gateway Pacific Terminal's EIS (attached as Ex. I)(attaching excerpts of July 2010 BLM EIS for the Wright Area Coal Lease Applications). Because the BLM already accounted for the GHG emissions when it originally authorized the extraction of the coal itself and its ultimate-end use, accounting for them again in this Project's EIS would be inappropriate and result in double counting.

More recently, the Ninth Circuit dismissed a case attempting to link the GHG emissions from Washington refineries to climate change impacts in Washington State. In *Washington Environmental Council v. Bellon*, 732 F.3d 1131 (9th Cir. 2013) (attached as Ex. J), the Ninth Circuit dismissed claims that climate change effects in Washington could be linked in any proximate way to Ecology's failure to issue air emission controls for these refineries. The unanimous panel found that there was no close causal connection between Ecology's failure to issue Clean Air Act regulations and the increased snowmelt, declines in shellfish production, rising sea levels coastal flooding and increasing acidification of marine waters allegedly occurring in Washington. The Court emphasized the "natural disjunction" between the localized injuries alleged by Plaintiffs and the global accumulation of greenhouse gases experienced over the course of many decades. The Court further explained that current research on how



greenhouse gases influence global climate change has focused on the cumulative environmental effects from aggregate regional or global sources in the absence of scientific capability to detect or measure the relationship between a certain GHG emission source and localized climate impacts in a given region. Quoting from a U.S. Geological Survey, the Court observed that “it is currently beyond the scope of existing science to identify a specific source of CO<sub>2</sub> emissions and designate it as the cause of specific climate impacts at an exact location.” *Id.* at 1143 (internal quotation marks, brackets, and citation omitted).

On that basis, the Court found that “it is not possible to quantify a causal link, in any generally accepted scientific way, between GHG emissions from any single oil refinery in Washington or the collective emissions of all five oil refineries located in Washington, and direct, indirect or cumulative effects on global climate change in Washington or anywhere else.” *Id.* Instead, the Court found that there are “numerous independent sources of GHG emissions, both within and outside the United States which together contribute to the greenhouse effect.” *Id.* Concluding that the collective contribution of all five oil refiners’ GHG emissions in Washington state is “scientifically indiscernible” (despite the fact that together they amount to 6% of all GHG emissions produced in Washington), the Court held that a multitude of intervening causes, and third parties, were responsible for the climate changes contributing to Plaintiff’s alleged injuries and that the “causal chain [was] too tenuous” to support standing. *Id.* at 1144.

In light of this significant and squarely precedential Ninth Circuit decision, it is neither appropriate nor legal for Ecology to include in Millennium’s EIS a requirement to study GHG emissions using the expansive scope established in its SSA Marine scoping decision. *See also Barnes v. U.S. Dept. of Transp.*, 655 F.3d 1124, 1140 (9th Cir. 2011) (concluding that greenhouse gas emissions from all domestic aviation activity does not translate into locally-quantifiable environmental impacts given the global nature of climate change).

Finally, Ecology’s scoping decision runs the risk of violating the presumption against extraterritoriality which prohibits agencies- whether federal or state- from applying a statute to regulate conduct beyond U.S. borders. *See e.g., EEOC v. Arabian Am. Oil Co.*, 499 U.S. 244, 111 S.Ct 1227, 113 L.Ed. 2d 274 (1991) (re-affirming principle that rules of U.S. statutory law, prescribed by federal or state authority, apply only to conduct occurring within or having an effect within the U.S.). Because it cannot be demonstrated that Asian consumption of U.S. exported coal will have a discernible impact in Washington State, any attempt by Ecology to use its SEPA scoping decision to substantively influence conduct overseas would violate this well established foreign commerce principle.



**(ii) The Corps' SSA Marine Scoping Decision for GHG Effects Should Be Adopted for Millennium's Project**

In contrast to Ecology's decision to study the effects of the international end-use of an exported product, the Corps determined it lacked authority under NEPA or any other authority to conduct such a geographically expansive, attenuated, and speculative analysis. Citing 33 C.F.R. part 325, appendix B 7(b)(1), the Corps approaches its scoping decision by determining the degree of "control and responsibility" it has for activities outside of waters of the U.S. such that issuance of a permit would amount to approval of those activities. *See* Memorandum For Record (Corps' July 3, 2013 SSA Scoping decision at 4-6) (attached as Ex. K). Using that regulatory guidance, (which is another way of expressing the Supreme Court's Public Citizen proximate cause test) the Corps concluded that since it had no control over how Asian consumers would use the exported coal, and could not force Asian governments to adopt controls, it should therefore not study its effects. Regardless, it also concluded that GHG effects from the burning of coal overseas and the shipping of coal itself were far too attenuated from the Corps' permitting decision and on that basis should not be studied. Ex. K at 6, n.2

Millennium agrees that the *Public Citizen* proximate cause standard prohibits the lead agencies from studying the effects of coal burning overseas and accordingly urges the lead agencies to adopt the position articulated by the Corps on these GHG issues. *See Sierra Club v Clinton*, 746 F. Supp. 2d 1025, 1045-46 (D. Minn. 2010)(pipeline project is not the proximate cause of oil sands production in Canada because oil sands can be transported using other means); *see also Consejo de Desarrollo Economico de Mexicali, AC v. United States*, 438 F. Supp. 2d. 1207, 1237-38 (D. Nev. 2006)(refusing to require NEPA analysis where the Bureau of Reclamation lacked control over decisions by the Mexican government that would modify the ultimate impact of the Bureau's actions and where the Bureau could not force Mexico to implement mitigation measures that would alleviate those impacts that might be causally related to the proposed action).

**b. Effects from Mining of Coal**

The lead agencies decided not to study the effects of coal mining, and Millennium concurs. *See* Corps' SSA Scoping Decision, Ex. K at 6 (concluding that the extraction of coal is already occurring and will continue to occur independent of the proposed projects under review). Put otherwise, Millennium's Project is not the proximate cause of coal mining because mine operators obtained mining leases after appropriate environmental review some years ago; the mining of coal continues under those leases in response to domestic and international market demand, independent of whether coal will ever be exported from Millennium's facility.



In addition, effects from the BLM's past decisions to grant coal mining leases in the Powder River Basin have already been studied under NEPA and should not be repeated here. Millennium again incorporates the scoping comments submitted by SSA Marine on this issue (Exhibit H) at 25-26 (citing the Wright Area Coal Lease EIS which includes an in depth discussion of the associated GHG emissions resulting from mining activities). *See also* 40 C.F.R. §1506.3-4 (allowing NEPA documents to incorporate prior analyses by reference); WAC 197-11-600(4)-630 (discouraging unnecessary repetition).

### **c. Rail Effects**

For the SSA Marine Project, Ecology also decided to require an expansive rail effects analysis covering the geographic scope "from mine to mouth." In other words, Ecology decided to study the effects of rail transportation of coal mined from the Powder River Basin in Wyoming and Montana to its destination in Washington State. Ecology concluded it necessary to study rail transportation effects in major cities along the route, and more generally throughout the transportation corridor.

The Corps, in contrast, concluded that it had limited control and responsibility over rail impacts and would limit its NEPA analysis to the effects of SSA's decision to add an additional rail spur ("the Custer Spur") to support the Bellingham project.

In considering the scope of review of rail effects for Millennium, the lead agencies should be mindful of the fact that Millennium is proposing to simply utilize the rail system currently in existence. Because Millennium is not proposing to build new offsite rail capacity, the breadth of the NEPA and SEPA analysis should be limited to the effects experienced locally in the Longview community as a result of the development of the coal-export facility. In other words, Millennium recognizes that there will be new, and induced effects felt locally as a result of its decision to build and operate a coal export facility where one presently does not exist. It is for these reasons that Millennium has incorporated into its project design the additional train parking spaces to minimize local rail impacts.

However, NEPA does not require that rail traffic on the main line be analyzed in an EIS for commodities in transit. There is no precedent for asserting anything to the contrary. The EIS scope should not be expanded for a coal export facility any more than it should be for the construction of an export facility for any other commodity. A decision to require analysis of main line rail system use would necessarily be extended to require a similar analysis for the transportation of any commodity on railways, highways, waterways or on any other transportation mode or existing system. Because Millennium is only proposing to use existing



rail capacity, the effects of such rail use should be accounted for as part of the “no action” alternative as rail use on the mainline is already authorized. Millennium’s proposed facility construction is not the proximate cause of rail impacts that occur as a result of the use of the present capacity of the already- approved rail system.

This framework-- *which has been applied in every other export terminal facility EIS previously issued*-- makes sense because looking at the use of the entire rail system as part of any particular project would result in an analysis that will produce duplicative and redundant analyses across the full range of projects proposed over time. Looking project-by-project at the entire system would require an analysis of the same train impacts over and over again, resulting in double and triple counting. That is why train traffic effects are analyzed exclusively by the Surface Transportation Board when it authorizes new capacity, or proposes changes to the rail system currently in place.<sup>4</sup>

Ecology has chosen to abandon the applicable legal framework for addressing main line rail use because of its policy concerns with the particular product to be exported through this proposed terminal. But that is neither a rational nor a legally authorized basis to depart from the required NEPA and SEPA approach which focuses on addressing induced growth from the construction of *new* rail capacity. *See* WAC 197-11-020(1) (SEPA rules designed to provide for *uniformity* in the execution of SEPA processes)(emphasis added).

The framework discussed above is not only appropriate, it is legally required. Ecology simply has no authority to regulate the in-state use of the existing main line rail network. Under 49 U.S.C. § 10901, the Surface Transportation Board has exclusive licensing authority for the construction and operation of rail lines. Ecology is prohibited under doctrine of federal preemption and under the interstate commerce clause of the U.S. Constitution from imposing mitigation on Millennium’s project to address alleged rail effects. *City of Auburn v United States*, 154 F.3d 1025 (9th Cir. 1998)(holding that the Surface Transportation Board has exclusive jurisdiction over the construction and operation of rail tracks or facilities; this authority preempts any other remedy provided under state law); *see also Ass’ of Am. Railroads v S. Coast Air Quality Mgmt Dis.*, 622 F.3d 1094 (9th Cir. 2010) (invalidating California air quality regulations that were intended to reduce railroad emissions because the Interstate Commerce

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<sup>4</sup> In any event, adding Millennium’s train use at full build-out would be consistent with the increases of cross-state rail traffic anticipated in State Rail capacity studies. *See* Pacific Northwest Marine Cargo Forecast Update and Rail Capacity Assessment Final Report, BST Associates( December 2011) (attached as Ex. L) at 11, 14, 41(anticipating increased levels of coal transported by rail for export through the lower Columbia River ports). According to the Burlington Northern Santa Fe railroad, rail traffic on the mainline in Washington State is currently 25% below peak levels experienced in 2006.



Commission Termination Act of 1995 preempts the direct economic regulation of rail by states). Because Ecology lacks the ability to redress any of the rail effects it may want to otherwise study under SEPA, it should not engage in such an analysis for the sake of analysis alone. SEPA should not be used as a policy development surrogate. *Metro Edison Co.*, 460 U.S. at 777.

#### **(d) Vessel Impacts**

Millennium encourages the lead agencies to look at the indirect impacts of vessel traffic using a proximate cause analysis that identifies those vessel effects that can be closely and causally traced to Millennium's project. Using this framework, the lead agencies should look at vessel traffic from the mouth of the Columbia River to Millennium's facility and specifically any increase in vessel traffic in that geographic area as a result of Millennium's Project.

The navigation channel at the mouth of the Columbia River is currently experiencing an increase in the amount of vessel traffic accommodated by the Columbia River Channel Improvement Project ("CIP") finally completed by the Corps in 2010. The CIP deepened the federal navigation channel to 43 feet to accommodate deeper-draft and Panamax vessels that call on our region's ports. The CIP was specifically designed to bring new businesses to our region, anticipating their use of the improved waterway transportation system. This increase in vessel traffic on the Columbia will continue to occur whether or not Millennium's Project is ever permitted; therefore, it should be analyzed as part of the "no action" alternative and be compared against the vessel traffic proximately caused by Millennium's project. *See* comments submitted by the Pacific Northwest Waterways Association dated October 25, 2013(attached as Ex. M).

Once the vessels leave the mouth of the Columbia and enter into general ocean waters, it will be impossible to predict with any degree of certainty where they will travel and the effects that may result. The vessels may travel to any number of different foreign ports, using any number of alternative routes. It would be purely speculative to attempt to predict or analyze the environmental impacts that might result from vessel traffic beyond the clearly foreseeable route from Millennium's docks to the mouth of the Columbia River. *Trout Unlimited v. Morton*, 509 F.2d 1276, 1283 (9th Cir. 1974) (EISs need not analyze potential impacts that are remote or speculative).

### **3. Cumulative Effects**

Both NEPA and SEPA require a cumulative effects analysis. 40 C.F.R. §1508.7; WAC 197-11-792(2)(c)(iii). The analysis of a project's cumulative effects is bounded by the same rule of reason, and the same proximate cause limitations, that are used to analyze a project's indirect



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effects. Cumulative impacts are described as “the impact on the environment which results from the incremental impact of the action when added to other past, present and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions.” 40 C.F.R §1508.7; *see e.g., Bering Strait Citizens for Responsible. Res. Dev. v. U.S. Army Corps of Eng’rs*, 524 F.3d 938, 954 (9th Cir. 2008)(rule of reason governs analysis of cumulative effects).

Millennium is committed to a robust cumulative effects analysis that closely adheres to the proximate cause test set forth in *Public Citizen*, 541 U.S. at 767 (requiring a close causal relationship between the environmental effect and the alleged cause). While there are other pending coal projects in the region, the effects from those proposals should only be addressed in Millennium’s cumulative effects analysis to the extent the lead agencies can determine that the effects will be felt in the same geographic area as Millennium’s Project. Indeed, cumulative impacts arise only when projects share environmental resources within a defined geographic area, *e.g.*, the same water or airshed, or critical habitat area.

Millennium hereby incorporates by reference comments it previously submitted in response to requests for a Programmatic or Area-Wide EIS. *See* letter from Beth S. Ginsberg to Colonel Bruce Estok dated May 3, 2012 (attached as Ex. N). That letter urged the Corps to not conduct either a Programmatic or Area-Wide EIS that encompassed all pending coal project proposals because those proposals are not pending in the same geographic area and constitute neither similar nor cumulative actions. *See Earth Island Inst. v. U.S. Forest Serv.*, 351 F.3d 1291, 1306-07 (9th Cir. 2003)(there is no requirement to evaluate similar actions in one comprehensive EIS; agencies are accorded great deference and may properly decide not to prepare a comprehensive EIS when the individual proposals involve different geographic boundaries). In testimony before Congress, Senior Corps officials concurred with this view, declining to prepare a Programmatic or Area-Wide EIS for these very reasons. *See* Ex O (attached).

Accordingly, the fact that Ambre Energy’s Coyote Island, Oregon Project and SSA Marine’s Cherry Point, Washington Project each propose to use rail and ocean- going vessels to export coal to Asia does not mean that the effects of both of these projects should be automatically considered cumulative effects of Millennium’s Project. SSA Marine’s Cherry Point, Washington project will affect Puget Sound and the Strait of Juan de Fuca, not the Columbia River. Ambre’s Coyote Island project will affect barge traffic on a segment of the Columbia River from Port Morrow to Port Westward, vessel traffic between Port Westward and Astoria, and extending westward to the Pacific from Port Westward. While some aspects of Ambre’s Project may impact vessel traffic areas shared by Millennium, other aspects of its Project-- along with all



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aspects of SSA Marine's Project-- are located in geographically distinct water and airsheds and should not be included in Millennium's cumulative impact analysis.

Similarly, while all pending coal export projects propose to use some measure of train transport, the trains will use a host of different rail routes from a variety of different mines in Wyoming, Montana, Colorado and Utah to transport coal to geographically distinct destination points in Oregon and Washington. The potential train impacts to various communities are as diverse as the number of communities on the various rail routes in the Northwest and Rocky Mountain states.

Moreover, while all three pending coal projects plan to export coal to Asia and elsewhere where the coal will be used (combusted) for power generation, the cumulative effects analysis from the greenhouse gas emissions from the end use of coal should acknowledge as demonstrated above: (1) the lack of causation between these projects and any increased GHG emissions; and (2) the difficulties inherent in attempting to attribute any discernible local impacts that may be linked to increases in global GHG concentrations that occur over the course of many decades, to these proposed actions.

The fact that there are two other pending projects-- in addition to Millennium's proposed-- does not make the a causal linkage to specific effects experienced in Western Washington any less remote or speculative than if Millennium's proposal were the sole coal export proposal. Just as it is impossible to discern the degree of effects on Washington coastal waters from the Asian end use of the coal exported from Millennium's Project alone, it is similarly impossible to predict with any certainty the degree of local greenhouse gas effects resulting from the combination of all three pending coal export proposals. *See Bellon, 732 F.3d 1131; Barnes, 655 F.3d at 1140.*

Finally, the fact that there is opposition to all three pending projects does not justify departing from the framework discussed previously. "The term 'controversial' refers 'to cases where a substantial dispute exists as to the size, nature, or effect of the major federal action rather than to the existence of opposition to a use.'" *Found. for N. Am. Wild Sheep v. U.S. Dep't of Agric.*, 681 F. 2d 1172, 1182 (9th Cir.1982)(citation omitted). Accordingly, the "controversy" surrounding the pending Pacific Northwest coal export project proposals concerns our national energy policy and the means by which the international community choses to generate electricity. While Project opponents clearly cannot prevent foreign countries from generating electricity through coal use, to the extent Project opponents wish to change our national policy to prohibit the export of domestic coal resources, they must engage Congress to effectuate that result. But in any case, the desire for a referendum on the future use of domestic coal resources is not the type of



“controversy” that triggers a specific NEPA or SEPA outcome or that influences the manner in which an EIS is prepared.

### **C. Alternatives Analysis and the No Action Alternative**

In addition to the “no action” alternative, both NEPA and SEPA require that an EIS consider alternatives to the proposed project, and the alternatives’ potential impacts, to determine whether the proposal can be carried out in a less environmentally damaging manner. 42 U.S.C. §4332 (2)(C)(iii); 40 C.F.R. § 1502.14; RCW 43.21C.030(2)(c)(iii).

#### **1. The Reasonable Alternatives Standard**

The alternatives analysis is governed by rules of reason and considerations of feasibility. To determine the range of reasonable alternatives to be considered in an EIS, the agencies must first factor in the private permit applicant’s purpose and need for the project. The lead agencies have no obligation to consider alternatives that do not accomplish the applicant’s purpose and need for the project. 33 C.F.R. part 325, app. B 9.b (5)(A) (Corps’ NEPA regulations emphasize that feasibility of an alternative focuses on accomplishment of underlying purpose and need of applicant); *City of Angoon v. Hodel*, 803 F.2d 1016 (9th Cir. 1986)(Corps’ regulatory scheme requires consideration of private applicant’s purpose and need to fashion reasonable range of alternatives); *see also, Mid States Coal. for Progress v. Surface Transp.Bd.*, 345 F.3d 520, 546 (8th Cir. 2003)(upholding decision to not consider new railroad track alignment that would not meet applicant’s purpose and need).

Accordingly, alternatives that do not advance the purpose of the proposed project need not be considered because they are neither reasonable nor appropriate. *Native Ecosystems v U.S. Forest Serv.*, 428 F.3d 1233, 1247 (9th Cir. 2005) (holding that the Forest Service need not consider alternatives to timber management proposal designed to reduce fire risk if alternatives would actually increase fire risk); *Westlands Water Dist v. U.S. Dept of Interior*, 376 F. 3d 853, 868 (9th Cir. 2004)(“[t]he range of alternatives that must be considered in the EIS need not extend beyond those reasonably related to the purposes of the project.”); *Akiak Native Cmty v. U.S. Postal Serv.*, 213 F.3d 1140, 1148 (9th Cir. 2000)(observing that it makes no sense for the Postal Service to consider alternatives that do not promote the goal of improving efficiency when the agency’s purpose is to accomplish that one thing).



## 2. The No-Action Alternative

While the alternatives analysis is designed to assess whether there are modifications to the proposal that could be employed to reduce the adverse environmental effects stemming from the applicant's preferred alternative, analysis of the "no action alternative" is used to help decision-makers distinguish between the significant environmental effects of the proposed project from those impacts that will occur whether or not the proposed project is permitted, such as the re-development of the existing brownfield site under current zoning regulations. The "no action" alternative is used to compare baseline effects against the effects of the proposal and its reasonable alternatives. The "no action" alternative under Corps regulations include alternatives that are unavailable to the applicant and should be evaluated "only to the extent necessary to allow a complete and objective evaluation of the public interest and a fully informed decision." 33 C.F.R. part 325, app. B. 9. b(5)(c); *see also Weyerhaeuser v. Pierce Cnty.*, 125 Wn.2d 26, 38, 873 P.2d 498 (1994) (alternatives analysis under SEPA need not include off-site alternative when applicant is a private party); WAC 197-11-440(5)(d) (emphasizing that "[w]hen a proposal is for a private project on a specific site, the lead agency shall be required to evaluate only the no action alternative plus other reasonable alternatives for achieving the proposal's objective on the same site.") (emphasis added).

## 3. Alternatives That Should Be Included in the Millennium EIS

With this framework in mind, the purpose of Millennium's proposed coal export project is to (1) make use of existing rail infrastructure and an efficient, direct shipping route to Asia; and (2) reuse and redevelop an existing and under-utilized brownfield site into a Pacific Coast export terminal capable of exporting up to 44 MMTPY coal to meet Asian demand. In pursuit of an adequate facility from which it could pursue this development objective, Millennium looked at sites along the West Coast, including in California, Oregon and Washington, as well as British Columbia. It screened from consideration sites that did not have adequate rail facilities, or adequate port shipping facilities, including sites that did not have access to deep water berthing facilities, or those that were located in greenfields, or non-industrial areas. It also eliminated from further consideration those sites where the owners were not willing to sell a leasehold to accommodate a coal-export facility.

Using these criteria, Millennium purchased a leasehold at the Longview, Washington site because that site is zoned industrial, is a brownfield site (previously supporting the former Reynolds Metals Aluminum smelter), has adequate rail facilities, deep water berthing areas capable of supporting ocean-going Panamax vessels, and provides enough space for the necessary coal transfer and stockpile facilities capable of handling more than 40 MMTPY of



coal. It was further selected because it is in Cowlitz County which has: (1) a strong existing base of skilled and available construction and transportation workers; (2) a population that widely supports the development of trade, and the construction of port infrastructure; and (3) is proximately located to the Asian markets that are committed to using coal. The site thus has clear and outstanding advantages for redevelopment as a coal export terminal.

There are no other reasonably feasible sites from which Millennium could pursue its proposed coal export project, nor do NEPA or SEPA require the lead agencies to consider an alternative that would fail to meet the applicant's purpose and need by utilizing a different site than the one Millennium now leases. For these reasons, the lead agencies should focus on developing a reasonable range of alternatives that involve varying levels of development on the *existing* site, in addition to the "no action" alternative. Those alternatives would include:

- An approximately 190- acre development that incorporates two parcels of property currently owned by Bonneville Power Administration ("BPA"), adjacent to the parcel currently subleased by Millennium;
- An approximately 175-acre development incorporating one of the parcels currently owned by BPA;
- An approximately 170-acre development that would not include either of the adjacent BPA parcels.

### III. CONCLUSION

Millennium recognizes that the lead agencies must balance Millennium's development needs with those of the general public, and in so doing, must seek public input in evaluating Millennium's coal export project and in preparing a robust and transparent EIS. The lead agencies should accomplish these important objectives by timely processing Millennium's application in accordance with an established schedule that reflects the timeframes contemplated in federal and state law. The lead agencies should resist the temptation to treat Millennium's Project differently simply because Project opponents claim it is controversial because it involves coal. Millennium's permit application should be evaluated fairly, in a timely manner, and in accordance with established regulations, and general, time-worn procedures.

Millennium also urges the lead agencies to adhere to an established schedule and a manageable permit process notwithstanding the Corps' decision to conduct a separate scoping process and to prepare a separate NEPA EIS as a result of Ecology's decision to pursue a much broader SEPA



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analysis for the SSA Marine proposal than has ever before been performed. While Millennium appreciates the Corps' motivations in insisting on a separate NEPA process, Millennium is concerned that this decision could lead to additional delay, unnecessary process, and inconsistent results. The lead agencies should closely collaborate and share information with ICF-- the technical contractor hired to assist the agencies in the NEPA/SEPA EIS process-- to avoid further delays, and to ensure that the environmental analyses are ultimately complementary rather than unnecessarily protracted or redundant.

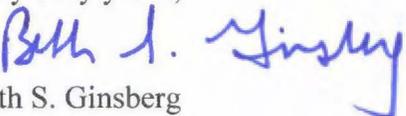
While evaluating the environmental impacts of its proposed project, Millennium urges the lead agencies to not lose sight of the important benefits of this proposed project including the fact that it will: (1) provide hundreds of badly needed family-wage jobs in a community suffering from high levels of unemployment; (2) support the diversification of Washington state's trade-based economy; and (3) provide significant State and County tax revenues. In other words, Millennium's coal export Project will prove to be very important economically for the State, Cowlitz County, and for the region as whole.

Nor should the lead agencies lose sight of the critical fact that Asian power generators and consumers will continue to have a high demand for coal for the foreseeable future. The export of Powder River Basin coal will allow Asian consumers to substitute coal containing a lower sulfur and reduced mercury content in lieu of alternative coal sources.

Finally, the lead agencies should be mindful of the fact that the manner in which they process Millennium's application and evaluate the probable environmental effects is a reflection of our State more generally. Although Millennium's Project is framed by Project opponents as controversial, it is equally deserving of a fair, transparent, and timely permitting process, as are the more routine projects. The fact that certain vocal sectors of the region have marshaled a vigorous campaign against the permitting of this export facility should not lead the lead agencies to depart from established permitting precedent ensuring an even-handed, transparent, commodity- neutral, timely and efficient treatment of Millennium's permit application. Investors are closely watching this Project and will chose not to do business in Washington if they perceive that the permitting process is not even-handed, transparent, and efficient.

Thank you in advance for carefully considering these comments.

Very truly yours,

  
Beth S. Ginsberg

# Exhibit A

# ECONOMIC & FISCAL IMPACTS OF MILLENNIUM BULK TERMINALS LONGVIEW

April 12, 2012





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**MICHAEL HODGINS**, PRINCIPAL

**JAY ROGERS**, LEAD ANALYST

**EMMY MCCONNELL**, ANALYST

# EXECUTIVE SUMMARY

**Millennium Bulk Terminals Longview, LLC (Millennium)** plans to reinvest in an underutilized industrial facility in Cowlitz County to:

- Conduct environmental remediation on the site
- Upgrade the existing import/export bulk facility
- Construct a coal receiving, storage, and shipping terminal

The current 416-acre site includes two former aluminum producing plants, a carbon plant and carbon transfer area, amongst other industrial uses.

The centerpiece of the project and focus of this analysis is the construction of a new coal export terminal, which will encompass more than 100 acres of the site. Millennium will be investing an estimated \$600 million in this multi-year construction project which will result in a state-of-the-art facility to support the increasing global demand for coal. The facility would be expected to begin operations in 2015 and full site capacity of 44 million metric tonnes of coal will be in place by 2018.



## ABOUT COWLITZ COUNTY

- Cowlitz County has a population of 102,410
- The largest employment sector in the county is manufacturing, which employs about 20% of the total workforce; construction comprises 8% of total county employment
- In 2010, the county had an unemployment rate of 11.1% and a median household income of \$41,000
- County general tax revenues have been hard hit by the recession. Adjusted for inflation, revenues have declined both in total and on a per capita basis since 2006
- About 52% of workers living in the county are employed within the county; the County has a net job outflow of more than 8,000 jobs

## Economic Development Opportunities

**The Cowlitz-Wahkiakum Council of Governments** is leading a separate Environmental Impact Statement (EIS) effort involving a large infrastructure project that would increase capacity and improve crossings along the Columbia River.

- The project would include up to \$200 million in public and private infrastructure improvement investments
- A large, long-term tenant such as Millennium would help secure public and private investment (beyond Millennium's investments in the site) for these necessary improvements, which have regional significance and benefit
- Improvements to the freight transportation network along the Columbia River will increase the value and attractiveness of other industrial properties

**Exhibit A**

The Coal Export Terminal will result in economic and fiscal benefits to the local area and to Washington. For a number of years now, Cowlitz County has been an economically challenged area that has typically lagged behind state averages for growth. The Coal Export Terminal project represents an opportunity to locate a significant new industrial project on underutilized industrial land. State and local benefits will include new and significant jobs, wages, output, and tax revenue. It is also expected that the majority of the positions would be filled from the local labor pool.

## ECONOMIC IMPACTS OF COAL EXPORT TERMINAL

- Construction activity is estimated to support **1,350 temporary direct jobs, \$70 million in direct wages, and \$232 million in direct output**
  - The indirect and induced impacts in the local, regional, and state economies resulting from construction of the export facility are estimated to be an additional 1,300 additional jobs, \$65.0 million in wages, and \$203 million in output
- At buildout, ongoing site operations are expected to produce **135 direct jobs, \$16 million in direct wages, and \$49 million in direct output** per year
  - The subsequent secondary (indirect and induced) impacts in the local, regional, and state resulting from the operation of the export facility are about 165 additional jobs, \$9 million in wages, and \$21 million in output

### Economic Impacts of the Coal Export Terminal

	Construction	Operations (Stage 1)	Operations (Buildout)
<b>Jobs Total</b>	<b>2,650</b>	<b>230</b>	<b>300</b>
Direct	1,350	112	135
Indirect & Induced	1,300	118	165
<b>Wages Total</b>	<b>\$135.0 M</b>	<b>\$20.0 M</b>	<b>\$25.0 M</b>
Direct	\$ 70.0 M	\$ 13.0 M	\$ 16.0 M
Indirect & Induced	\$ 65.0 M	\$ 7.0 M	\$ 9.0 M
<b>Output Total</b>	<b>\$435.0 M</b>	<b>\$40.0 M</b>	<b>\$70.0 M</b>
Direct	\$ 232.0 M	\$ 21.0 M	\$ 49.0 M
Indirect & Induced	\$ 203.0 M	\$ 19.0 M	\$ 21.0 M

Note: Indirect and induced impacts reflect the multiplier effects resulting from respending of direct wages and output (business spending)

## DIRECT FISCAL IMPACTS OF COAL EXPORT TERMINAL

- The coal export facility is estimated to generate **\$146 million (2012 dollars) in tax revenues over 30-year period**
  - Approximately 26% of this is revenue to the County; 54% to the State; and 20% to special purpose districts
- Ongoing site operations are estimated to annually generate **\$2.2 million in state tax revenues, \$1.7 million in county tax revenues, and \$1.5 million to special purpose districts**
- Construction will generate **\$37.2 million state tax revenues and \$5.9 million in county tax revenues**
  - The majority of revenues from construction are sales tax related. A smaller portion is related to the state business & occupation tax (B&O)

### Direct Fiscal Impacts of the Coal Export Terminal

Fiscal Impacts	30-Year PV (2012)	Annual Average (2012)	One-time Construction (2012)
<b>County</b>	<b>\$ 38.24 M</b>	<b>\$ 1.65 M</b>	<b>\$ 5.87 M</b>
Property Tax	\$ 29.47 M	\$ 1.5 M	-
Construction Sales Tax	\$ 5.87 M	-	\$ 5.87 M
Ongoing Sales Tax	\$ 2.9 M	\$ 0.15 M	-
<b>State</b>	<b>\$ 78.99 M</b>	<b>\$ 2.18 M</b>	<b>\$ 37.21 M</b>
Property Tax	\$ 18.05 M	\$ 0.92 M	-
Construction Sales Tax	\$ 34.7 M	-	\$ 34.7 M
Ongoing Sales Tax	\$ 17.12 M	\$ 0.91 M	-
Construction B&O Tax	\$ 2.51 M	-	\$ 2.51 M
Ongoing B&O Tax	\$ 4.59 M	\$ 0.24 M	-
Utility Taxes	\$ 2.01 M	\$ 0.11 M	-
<b>Special Purpose Districts</b>	<b>\$ 28.54 M</b>	<b>\$ 1.45 M</b>	<b>-</b>
Property Tax	\$ 28.54 M	\$ 1.45 M	-
<b>Total</b>	<b>\$ 145.77 M</b>	<b>\$ 5.28 M</b>	<b>\$ 43.09 M</b>

## Exhibit A

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## Project Description

Millennium Bulk Terminals Longview, LLC (Millennium) is proposing to build and operate a coal receiving, storage, and shipping terminal that would be located adjacent to the Columbia River in unincorporated Cowlitz County, Washington near the City of Longview. The current 416-acre site includes two former aluminum producing plants, a carbon plant and carbon transfer area, amongst other industrial uses.

Millennium acquired the above-ground fixed assets and improvements from the previous terminal operator, Chinook Ventures Inc., while Northwest Alloys/ALCOA has retained ownership of the real estate, which Millennium will occupy on a leased basis.

Millennium plans to invest heavily in the site to undertake a three separate projects:

- Conduct environmental remediation on the site;
- Upgrade and maintain the existing import/export bulk facility; and
- Construct a coal export terminal.

The most significant element of this project is the coal export terminal, which will greatly increase the activity on the site. The focus of this analysis is to assess the fiscal and economic impacts of the construction and operation of the coal export facility.

## Study Purpose

BERK was retained to develop an Economic and Fiscal Impact Assessment and broad understanding regarding the potential economic and fiscal impacts of the new coal export terminal. Impacts will come in the following forms:

- Jobs, wages, and output during construction of the facility as well as on an ongoing basis once the site is operating
- Multiplier effects as the wages and other spending by the operations at the new facility ripple through the state and local economy
- Tax revenues to the County, special purpose districts, and the State from both construction and ongoing operations

April 12, 2012

This study places the estimated economic and fiscal benefits of the Millennium coal export project into the context of the current fiscal and economic climate in Cowlitz County and describes how the project could advance broader economic development goals through the increase in local economic activity and related infrastructure improvements.

## Report Contents

This study is organized into the following sections:

- **Economic Profile of Cowlitz County.** This section presents an overview of the current conditions and recent economic and fiscal trends in Cowlitz County so that the impacts of the Millennium project can be understood in context
- **Project Description.** This section describes the project in more detail, elaborating on the operations of the proposed coal export terminal as well as expected levels and timing of investments during the construction phase
- **Economic and Fiscal Impacts.** This section presents the economic and fiscal impacts associated with the construction and ongoing operation of the facility. Impacts include jobs, wages, output, and tax revenues
- **Economic Development Impacts.** This section discusses how the increased economic activity from the Millennium project could provide a foundation for other economic development opportunities in Cowlitz County

# ECONOMIC PROFILE OF COWLITZ COUNTY

People make decisions on where to live and work based on the relative attractiveness of local areas. An area’s ability to attract and retain residents is contingent on the ability of the local economy to provide opportunities that can support a way of life that meets residents’ needs.

This section addresses this dynamic and presents the current economic and fiscal conditions of Cowlitz County, the local area analyzed for this study and the area most directly affected by the introduction of the Millennium project. Existing population trends, educational attainment, employment statistics, income levels, and County taxes are examined and in some cases compared to the broader Washington State economy to gain a better understanding of the economic environment of the area.

Cowlitz County is located in the southwestern corner of Washington State, along the Oregon border. About 43% of the population of Cowlitz County lives in unincorporated areas. The major population centers are the Cities of Longview and Kelso; other incorporated areas include the Cities of Castle Rock, Kalama, and Woodland. The closest major metropolitan area is Portland, Oregon, across the Columbia River to the southeast.

## Historical Population Trends

Cowlitz County’s population has been increasing steadily over the last few decades, but has been growing more slowly than Washington’s population as a whole. As shown in **Exhibit 1**, population growth has also slowed in the last decade—growth averaged about 1.2% per year from 1990 to 2000, but slowed to slightly less than 1.0% per year between 2000 and 2010. While this mirrors a similar drop in the statewide trend, Cowlitz County still has slower population growth than the state as a whole.

**Exhibit 1**

**Historical Population Growth (1980 – 2010)**

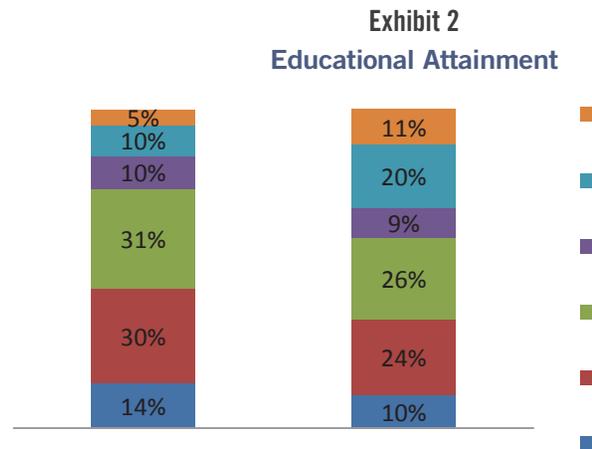
	1980	1990	2000	2010
Cowlitz County	79,548	82,119	92,948	102,410
<i>Annual average growth</i>		0.3%	1.2%	1.0%
Washington State	4,132,353	4,866,669	5,894,121	6,724,540
<i>Annual average growth</i>		1.6%	1.9%	1.3%

Source: Washington State Office of Financial Management, 2012; BERK, 2012.

## Educational Attainment

The ability for Millennium to draw from the local labor pool will be determined by the ability to match business needs with the available skill-set present in the County's workforce. Educational attainment within the County offers a way to understand those available skills. By comparing the local labor characteristics with overall state averages one can also get a picture of the relative competitiveness of the County in terms of the types of employers that might be drawn to the area.

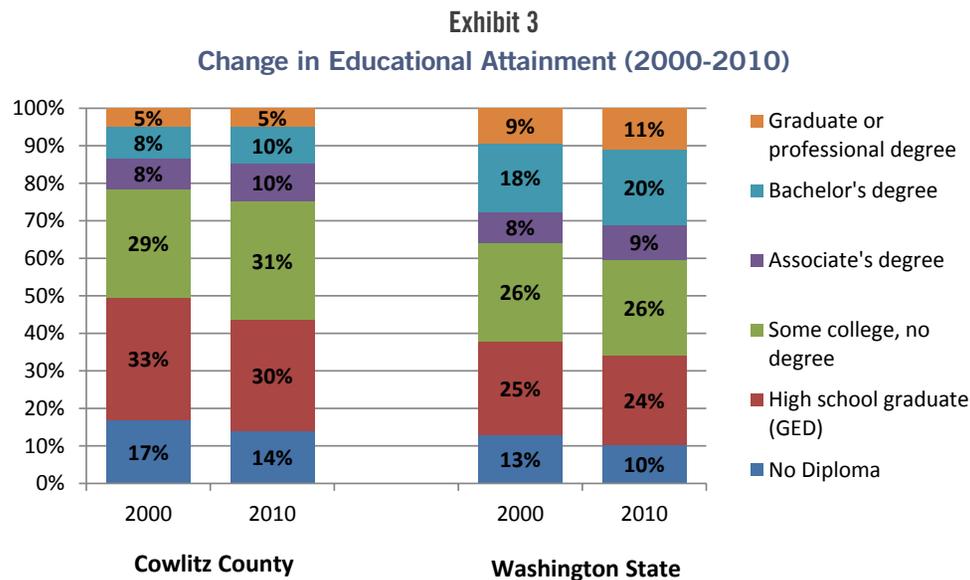
**Exhibit 2** shows US Census data on the educational attainment of County residents. Of all residents over the age of 25, about 14% have not achieved a high school diploma or equivalent. This is higher than the statewide rate of 10%. Additionally, only about 15% of Cowlitz County residents have a Bachelors' degree or higher, which is about half the degree attainment rate statewide (31%).



Source: U.S. Census 2008-2010 American Community Survey 3-year estimates

**Exhibit 3** shows that both Cowlitz County and the State have seen improvements in educational attainment since 2000, leading to increases in the underlying skill-set present in the workforce. In Cowlitz County, the percent of residents over 25 with no diploma has decreased from 17% to 14%. Meanwhile, the percent of residents with at least a Bachelors' degree has increased from 13% to 15%.

So while the overall improvement in the educational attainment characteristics of the local population has improved markedly over the past decade, the improvements are largely consistent with the overall statewide trend and do not suggest a shift in local competitiveness or relative change in the types of economic activity that might be attracted to the area.



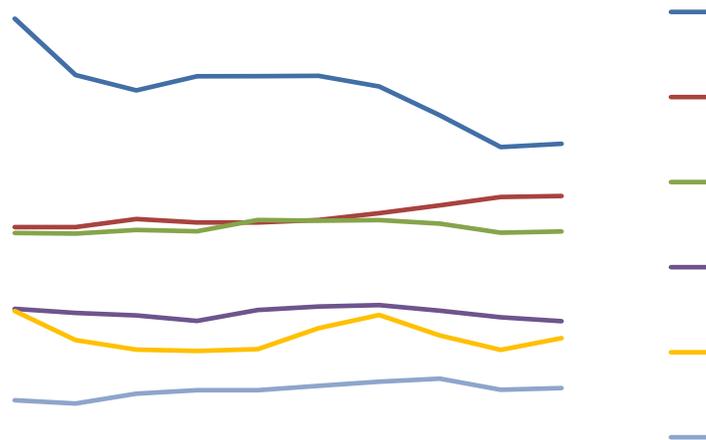
Source: US Census 2000 and US Census 2008-2010 American Community Survey 3-year estimates.

## Employment Trends by Sector

A key indicator of the health of an economic system is the level of new job creation as measured by the overall growth in regional employment. The Millennium project would directly impact employment within the construction and transportation industries. Additionally, the decision for Millennium to locate this export facility in Cowlitz County would likely have spillover effects and impact other employment sectors of the County as the workforce becomes more diverse and more people choose to live in the County.

According to the Washington State Employment Security Department, total covered employment within the County has decreased by about 2,500 jobs over the past decade. As **Exhibit 6** shows, most industries have seen relatively minor shifts in employment, though manufacturing, representing roughly 20% of the County's covered employment, seems to have been particularly hard hit by job losses. The construction sector, which accounts for about 8% of total County employment, is also well below levels seen in 2001. However, this industry experienced a slight increase in 2010, primarily due to investments made in a new grain terminal, new steel pipe plant, and two new Wal-Marts.

**Exhibit 6**  
**Employment Trends for Major Industries in Cowlitz County (2001-2010)**



Source: Washington Employment Security Department, 2011

## Unemployment Trends

**Exhibit 7** shows that the unemployment rate in Cowlitz County in 2010 was about 11.1%, which was higher than the statewide average of 7.6%. The County also had a lower labor participation rate than the state (59%) and a higher percentage of residents living below the poverty level (11.8%).

**Exhibit 7**  
**Labor Statistics for Market Area (2010)**

	2010 Civilian Labor Force	Unemployment Rate	Labor Participation Rate	% Under Poverty Level
Cowlitz County	46,704	11.1%	59.0%	11.8%
Washington State	3,380,744	7.6%	65.2%	8.2%

Source: US Census Bureau; 2010 American Community Survey 5-year estimates

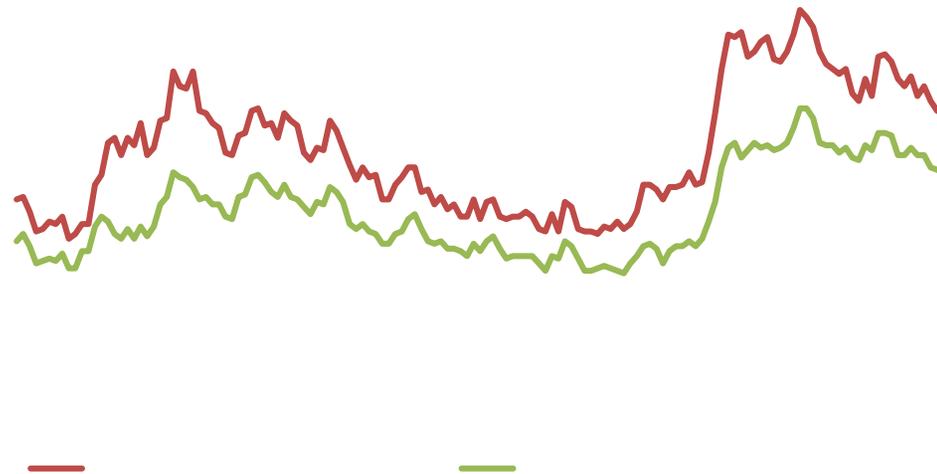
Cowlitz County has historically had a higher unemployment rate than the State as a whole. **Exhibit 8** shows the unemployment rates for the County and the State over the last decade. While the two rates have generally followed the same overall trend, the County's unemployment rate has been consistently higher and exhibits greater volatility than that experienced by the state economy as a whole. The local unemployment rate also tends to be proportionally worse than the state average during times of recession, as seen during the 2001-2003 period and the 2009-2011 periods where the gap between the state rate and the local rate is substantially greater than during periods of more consistent economic growth.

### LOCAL IMPACTS OF THE GREAT RECESSION

Growth within the last decade, as well as the recent economic downturn, has not fared well for the County compared to the State or nation.

- Unemployment soared to 14% at one point in 2010.
- Job losses were concentrated to lower wage positions, paying below \$12 per hour.
- Housing permits dropped from an annual average of 200 in 2008 to about 100 for both 2009 and 2010.
- Wood products, which once produced over 6,000 jobs for the County, fell from 1,500 jobs in 2000 to 800 jobs in 2010 due primarily to mill closures.
- Similarly, the Reynolds aluminum smelter closed in 2001, resulting in the loss of about 900 jobs.

**Exhibit 8**  
**Non-Seasonally Adjusted Unemployment Rate (2000-2011)**



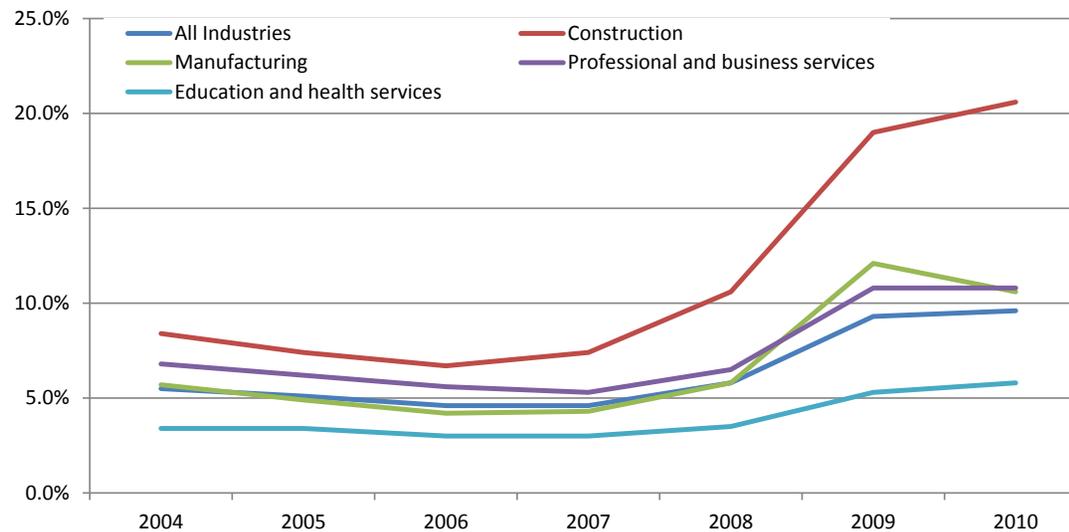
Source: Washington State Employment Security Department, 2012; BERK, 2012.

When the recessions hit in the early 2000s and again in 2008, some industries were hit harder than others. In Cowlitz County, manufacturing and construction are both industries that saw job numbers decline by a greater percentage than the overall job decline in the County during these periods. Since these industries make up such a high percentage of the County's employment, the County sees a more dramatic spike in its unemployment rate compared to the State, which has a more diversified employment picture.

**Exhibit 9** shows that, on the national level, the construction industry has been one of the hardest hit by the current economic recession. This is due to the significant slow down in development projects, which has resulted in the unemployment rate for the construction industry being nearly four times the national unemployment rate for all industries.

Based on 2010 labor force statistics, there are approximately 5,180 unemployed workers in Cowlitz County. Assuming that the 2010 construction labor force was about 3,750 in Cowlitz County (8% of total civilian labor force), applying the County's unemployment rate of 11.1% would suggest that there were about 415 unemployed construction workers in Cowlitz County. However, if the County's unemployment rate was similar to the nationwide average of 20.6%, shown below in **Exhibit 9**, this would imply there are about 770 unemployed construction workers in Cowlitz County (multiplying 20.6% by Cowlitz County's 2010 construction labor force of 3,750).

**Exhibit 9**  
**Nationwide Unemployment Rate by Industry (2004-2010)**



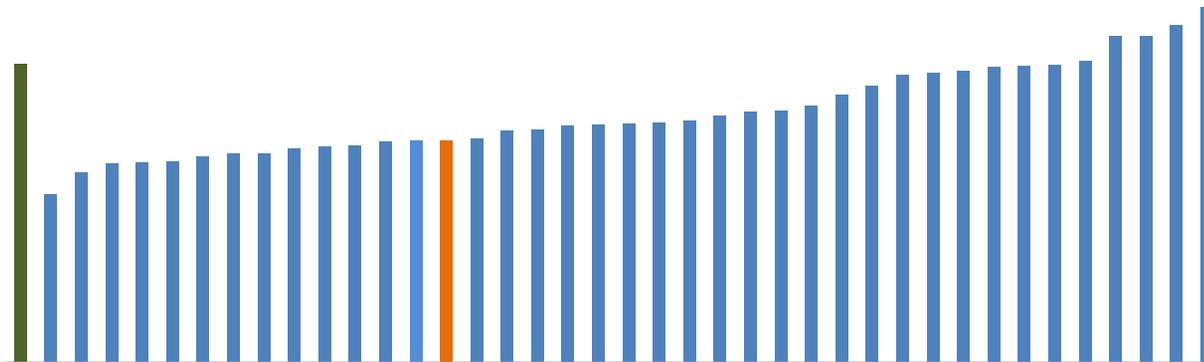
Source: The 2012 Statistical Abstract, US Census, 2011

## Income Level

The capacity of a local area to sustain and improve the quality of life for its residents is correlated to the relative prosperity of the region. Looking towards future economic development within the County, it is not only useful to look at the potential for job creation, but to also understand the income dynamics of these new jobs.

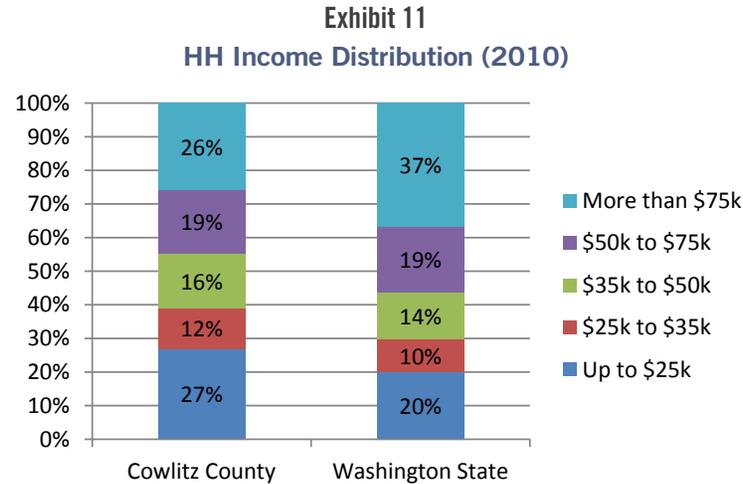
According to the State Office of Financial Management, median household income in Cowlitz County in 2010 was about \$41,000 per year, compared to \$55,000 statewide. This has been a worsening trend since 2000 since median household income has been growing more slowly in Cowlitz County than statewide—from 2000 to 2010, on an inflation-adjusted basis, median household income grew about 2.2% per year statewide and only about 1.5% per year in Cowlitz County.

**Exhibit 10**  
**Median Household Income; 2010**



Source: Bureau of Economic Analysis, 2011

Looking into the share of households in the County and the state that fall into each income bracket, **Exhibit 11** shows that more than one-half of Cowlitz County households (about 55%) have annual income of less than \$50,000, and more than one-quarter of households bring home less than \$25,000 per year.



Source: U.S. Census 2008-2010 American Community Survey 3-year estimates

## Labor Market Area and Commute Flows

Existing commute patterns from home to work were analyzed to understand where Cowlitz County residents currently work. The most recent travel pattern data available (published by the US Census) for people who live in Cowlitz County suggest that only about 52% of residents are employed within the County. About 48% of residents commute to jobs outside of the County. **Exhibit 10** illustrates that since 2002 there has been an increase of County residents commuting to jobs outside of the County. This is known as net job outflow. In 2002, net job outflow represented about 12% of the Countywide workforce. This increased to more than 22% in 2009.

**Exhibit 12**  
**Number and Percent of County Residents Employed in Other Counties (Net Job Outflow) (2002-2009)**



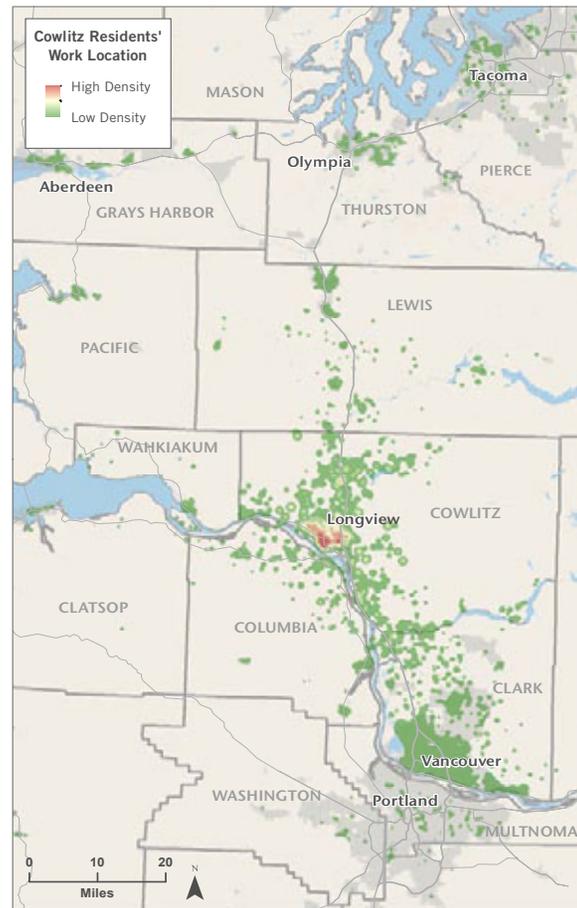
Source: US Census LEHD, 2002-2009.

**Exhibit 13** graphically illustrates where Cowlitz County residents work. Those not employed in the County travel to neighboring counties for jobs. Although some workers who live outside of the County commute in to County jobs, there is still a net outflow of about 8,300 jobs. So, not surprisingly, as the total number of jobs in the County has decreased, the number of local residents that need to look farther afield for employment has increased. Particularly noteworthy is that the net outflow has grown by more than 4,000, while the decline of jobs in the County over the same period has been approximately 2,500, suggesting that people are choosing to live in Cowlitz County even when there are fewer local job opportunities.

**Exhibit 13**

**Where Cowlitz County Residents Work (2009)**

As **Exhibit 13** illustrates the concentration of those living and working within Cowlitz County are centered in and around the Longview area. The exhibit also shows a sizeable portion of residents commuting to nearby Clark County, which is not surprising since Vancouver is the nearest major metropolitan area to Cowlitz County. What it also noteworthy is that almost 3,000 County residents are commuting to King County each day (more than 50 miles per direction) for work. This dynamic of workflow likely changes year by year depending on the quality and quantity of local job opportunities. New construction and operations jobs created by the Millennium project could reduce this net outflow to the extent that they are filled by the local labor pool.



Source: US Census LEHD, 2009.

Count	% Share
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## Fiscal Conditions

Like most jurisdictions around the state, Cowlitz County has struggled to maintain a strong revenue base since the recession began in 2008. In 2010, the County had general fund revenues of about \$37 million, which was only a 1% increase since 2006. When revenue increases are lower than the rate of inflation, it results in a loss in purchasing power in real terms and makes it very difficult to maintain service levels.

The primary components of the general fund in 2010 were property tax (44%), fees and charges for service (21%), sales tax (18%), and intergovernmental transfers (12%). The County's largest source of revenue, property tax, is constrained to 1% annual growth on the existing tax base. The only real growth in this revenue stream comes from construction projects, such as Millennium, where the value of new construction can be added on top of the 1% limit.

One of the largest drops in local revenues has come in the fees and charges for service, specifically from building, structure, and equipment permits. This category totaled \$1.6 million in 2006, and dropped to nearly zero to 2010. Plan review and other development fees have seen a similar precipitous decline, from \$1.3 million in 2006 to \$100,000 in 2010, reflecting the substantial decline in construction activity over this period. The overall general fund budget has stayed relatively flat due to the strong performance of both property and sales tax revenues, resulting from previously-planned construction projects coming online.

### Exhibit 14

#### Cowlitz County General Fund Revenues (2006-2010)

2006	2007	2008	2009	2010
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Source: State Auditor's Office Local Government Financial Reporting System, 2012; BERK, 2012.

**Exhibit 15** shows that the recessionary impacts on tax revenues have affected the County’s expenditures. The County’s total general fund expenditures have been nearly stagnant over the last five years—increasing at first in 2007 but then declining once the recession began in 2008.

In both nominal and inflation-adjusted terms, general fund spending per resident has decreased over the last five years. Some expense areas have remained relatively stable or continued to grow, such as public safety services (law enforcement and fire and emergency medical services). This is likely due to the high priority that public safety services tend to receive in local budgeting and because many of these services have costs that are set in contracts years in advance, which may require wage and spending increases regardless of the current County budget.

Given the constraints on revenue, some expense items have had to decrease. These reductions have happened in spending on natural resources and capital expenditures. Additionally, the amount spent on general government operations has remained nearly flat, which implies a decline in real dollars and on a per-capita basis.

**Exhibit 15**  
**Cowlitz County General Fund Expenditures (2006-2010)**

	2006	2007	2008	2009	2010
Law & Justice Services	21,638,417	23,974,208	25,736,287	23,416,580	23,764,581
Fire & Emergency Services	578,867	622,409	657,317	570,095	556,594
Health & Human Services	53,212	85,561	134,312	72,042	94,337
Transportation	-5,543	5,511	-477	18,150	20,149
Natural Resources	2,572,349	3,798,715	1,455,888	1,586,411	1,569,421
General Government	6,481,209	6,660,878	7,072,436	6,390,750	6,474,976
Capital	182,528	126,076	39,354	5,638	54,002
<b>Total General Fund Expenditures</b>	<b>31,501,039</b>	<b>35,273,358</b>	<b>35,095,117</b>	<b>32,059,666</b>	<b>32,534,060</b>
<i>County Population</i>	<i>96,800</i>	<i>97,800</i>	<i>99,000</i>	<i>99,600</i>	<i>102,410</i>
<i>Spending Per Capita</i>	<i>\$325</i>	<i>\$361</i>	<i>\$354</i>	<i>\$322</i>	<i>\$318</i>

Source: State Auditor’s Office Local Government Financial Reporting System, 2012; BERK, 2012.

## PROJECT DESCRIPTION

### Current Site Operations

The current 416-acre site consists of: two aluminum producing plants, a carbon plant and carbon transfer area, a cable mill, a demolished cryolite plant, waste water treatment plant, casting facility, wharf and ship-unloading system. Millennium has acquired the above ground fixed assets and improvements from the previous terminal operator, Chinook Ventures Inc. Northwest Alloys/ALCOA have retained ownership of the real estate, including the real estate beneath the aluminum making equipment and buildings, which Millennium will occupy on a lease basis.

### Planned Improvements

The centerpiece of the improvement program for the site is the introduction of a new coal export terminal, which will encompass more than 100 acres of the site. This multi-year construction project will cost an estimated \$600 million and will result in a state-of-the-art facility that will support the increasing global demand for coal. The eventual goal will be to begin operations in 2015 and gradually ramp up to full site capacity of 44 million metric tonnes of coal by 2018.

Millennium plans to invest heavily in the site to undertake a three separate projects:

- Conduct environmental remediation on the site;
- Upgrade and maintain the existing import/export bulk facility; and
- Construct a coal export terminal.

The most significant element and focus of this analysis is the coal export terminal, which will greatly increase the activity on the site.

### CONSTRUCTION OF THE TERMINAL

Construction of the project would occur in late 2013 and take place in two overlapping stages: 1) an infrastructure and upland construction stage and 2) a marine construction stage. The overall schedule for construction after receipt of the necessary permits will take approximately five years, though the export terminal will be operational after 2015. This estimate takes into account the following assumptions:

- **Engineering design** will run concurrent with permitting activities and be completed prior to the permits being issued.
- **Procurement activities**, including purchasing of large equipment and contractor negotiation and selection, will commence during the permitting process.
- Major equipment procurement duration of 16 to 24 months.
  - Construction is estimated to total about \$600 million in constant dollars. As **Exhibit 16** illustrates, estimated direct costs which do not include taxes or indirect costs, are estimated to be about \$643 million in year of expenditure (YOE) dollars.

**Exhibit 16**  
**Summary of Direct Construction Costs (YOE\$)**

Stage 1 2013-2016	Stage 2 2016-2018	Total

Source: Millennium Bulk Terminals Coal Export Facility Feasibility Study, 2011

## ONGOING OPERATION OF THE TERMINAL

The basic operations of the coal export facility would begin when transported coal enters the site by way of rail cars from the Western United States. Rail cars would then be unloaded and coal would either be placed into one of four stockpiles or directly onto ships at port. The berthing and maneuvering of ships as they move from the dock down the Columbia River will be carried out by Pilots (combination of both Columbia River Bar and Columbia River Pilots) and Tug and Lines Services.

The eventual goal of 44 million metric tonnes per year (mmtpy) of coal going through the terminal would likely be phased in over time. This analysis assumes that the operation would begin with enough throughput to warrant 358 days of operation per year at 16 hours per day. Each year, throughput would increase until the facility was at full operational capacity; operating at 24 hours per day, 358 days per year, and three shifts per day. This ramp-up is assumed to take three years from initial opening. **Exhibit 17** illustrates the study's assumptions regarding the ramp-up of operations.

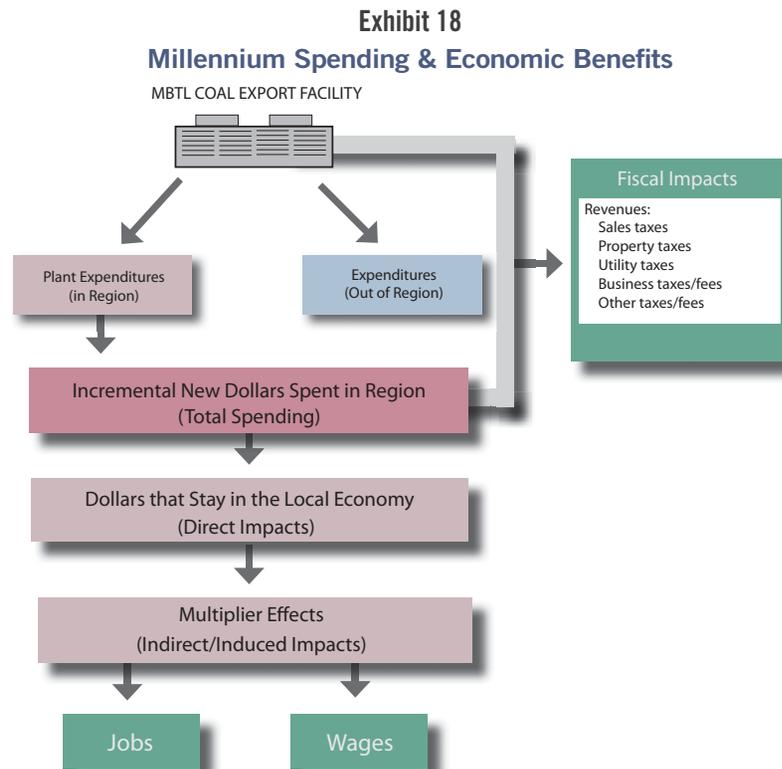
**Exhibit 17**  
**Operational Ramp-up**

	2015	2016	2017	2018
Operating Hours Per Day	16.0	16.0	24.0	24.0
Operating Days per Year	90.0	358.0	358.0	358.0
Shifts Per Day	2.0	2.0	3.0	3.0
<b>Total Employees</b>	<b>112.0</b>	<b>112.0</b>	<b>135.0</b>	<b>135.0</b>
Terminal Admin Staff	25.0	25.0	25.0	25.0
Waterfront Staff	16.0	16.0	30.0	30.0
Terminal Upland Staff	71.0	71.0	80.0	80.0
<b>Total Wages (in Millions)</b>	<b>\$3.5</b>	<b>\$14.5</b>	<b>\$19.5</b>	<b>\$20.1</b>
<i>Average per Employee</i>	<i>\$31,487</i>	<i>\$129,725</i>	<i>\$144,504</i>	<i>\$148,839</i>

Source: Millennium Bulk Terminals Coal Export Facility Feasibility Study, 2011; BERK, 2012

## Economic & Fiscal Benefits

The coal export terminal will result in economic and fiscal benefits to the local area and to the State of Washington. Historically, Cowlitz County has been an economically challenged area that has lagged behind state averages for growth. The coal export terminal project represents a chance to place a meaningful project on an underutilized piece of industrial land in the County. State and local benefits will include new jobs, wages, output, and tax revenue. Given the County's current economic and employment situation, it is expected that the majority of the positions would be filled from the local labor pool.



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Positive economic benefits associated with the development and operation of the Millennium project will be from increases in net local spending, which creates demand for local labor, goods, and services. This analysis focuses on how the Millennium project construction and operation in Cowlitz County will affect the local tax base, as well as the potential statewide economic impacts in terms of increased jobs, output, and wages (exclusive of benefits).

There will be jobs, wages, and fiscal impacts created along the entire supply chain associated with the coal export terminal, from the point of extraction to the ultimate delivery of the material. However, for the purposes of this analysis, the assumption is that the coal that would be handled at the Millennium site would be extracted even without the new export facility. The jobs and business activity associated with the mining and transportation of the coal are likely to occur regardless.

As a result, the scope of the economic and fiscal benefit analysis is focused on impacts relating to on-site construction and operations, since the key issue that is being explored is what the local and state benefits might be if the material is exported through the proposed Millennium facility.

### **ECONOMIC IMPACTS**

The direct economic benefits are based on the expected staffing and expenditure plan for the proposed Millennium project. There would also be benefits beyond the site because the coal export terminal does not operate in isolation – it is supported by ship networks that operate on the Columbia River and rail networks that operate throughout Washington State and beyond. The impacts on these industries are not included in the indirect and induced effects, but will be discussed separately, including:

- Value of increased rail activity to rail companies
- Value of railroad infrastructure improvements to rail companies as well as other local industrial sites.
- Value of increased shipping activity to shipping companies (likely not an impact to Washington State)
- Value of increased shipping activity to Columbia River and Columbia River Bar Pilots.

The analysis of indirect and induced jobs and wages was conducted using the Washington State Input-Output model, which captures inter-industry relationships and allows for the estimation of multiplier effects.

## Construction Impacts

Total construction expenditures are estimated to be about \$600 million. However, as much as half of this cost is for equipment purchases that are not expected to result in any direct job impacts in Washington, as the equipment is most likely to come from out-of-state equipment manufacturers. Accounting for these costs reduces the on-site construction expenditures resulting in direct job impacts to about \$232 million. This \$232 million in direct construction output is estimated to support 1,350 temporary direct jobs and \$70 million in direct wages. The subsequent secondary (indirect and induced) impacts in the local, regional, and state economy resulting from construction of the export facility are estimated to be about 1,300 additional jobs, \$65 million in wages, and \$203 million in additional economic output.

It is likely that a large portion of new workers hired would be drawn from the local pool of unemployed and underemployed construction workers. Based on current labor force statistics, the number of construction jobs estimated to be created by the Millennium project would comprise about 25% of the unemployed in Cowlitz County (1,300 construction jobs / 5,180 unemployed) and about 5% of the unemployed within the entire market area (1,300 construction jobs / 27,000 unemployed). As reported in the previous section, there are likely 400 to 800 unemployed construction workers in Cowlitz County. This would represent 30 to 60 percent of the total estimated construction workforce for the project.

## Ongoing Operation Impacts

In terms of direct effects, the initial stage of the coal export facility would create an estimated 112 new jobs and roughly \$24 million in annual direct output. Once the coal export facility ramps-up to full buildout and operational capacity the total direct impact would be about 135 jobs, direct wages totaling \$16 million, and direct output totaling \$49 million. The majority of the positions would be expected to be filled from the local labor pool.

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**OFF-SITE DIRECT IMPACTS**

This study counts only on-site activity when estimating direct impacts. However, there are additional direct impacts that would be related to the Millennium project, but occur off-site. These off-site impacts are not included in the estimates presented in **Exhibit 19**, but may have real benefits to the region:

- **River Pilots.** The Columbia River Pilots and Columbia River Bar Pilots guide vessels in from the Pacific Ocean. These organizations currently handle about 3,600 trips per year.

The MBTL project will be served by about 300 ships annually, resulting in 600 new trips. This 16% increase in traffic will likely result in additional Pilot jobs, though these jobs may not be located in Cowlitz County or even Washington State.

- **Rail Companies.** New traffic of about 3,000 unit trains annually will increase employment, wages, and tax revenue from rail companies serving the MBTL site. However, these impacts will occur both in and out of Washington State, and mostly outside of the Cowlitz County impact area. The most likely localized benefit from the increased rail activity would be increases in state taxes from rail operators.

The analysis shows that for every direct job at the Coal Export facility, roughly 1.22 additional indirect and induced jobs will be supported within the local, regional, or state economy. This estimate is based on economic multiplier effects that have been identified through the development of the Washington State Input-Output model. These subsequent secondary (indirect and induced) impacts in the local, regional, and state economy resulting from the full operation of the export facility are about 165 additional jobs, \$9 million in wages (about \$54,500 per job), and \$21 million in output. The indirect jobs, wages, and output are based on the respending of direct wages and Millennium’s local spending on goods and services.

**Exhibit 19**  
**Summary of Economic Impacts from Facility Construction & Operations**

	Construction	Operations (Stage 1)	Operations (Buildout)
<b>Jobs Total</b>	<b>2,650</b>	<b>230</b>	<b>300</b>
<b>Wages Total</b>	<b>\$135.0 M</b>	<b>\$20.0 M</b>	<b>\$25.0 M</b>
<b>Output Total</b>	<b>\$435.0 M</b>	<b>\$40.0 M</b>	<b>\$70.0 M</b>

The direct impact analysis suggests that the permanent full-time jobs added on-site would be reasonably well suited to the local labor force, suggesting some portion of the new jobs being filled from the existing labor force and that the average wages would be higher than the current average income level in the County.

**Exhibit A**

## Fiscal Benefits

**Exhibit 20** illustrates estimated tax revenues of the taxing jurisdictions that would directly benefit from the construction and operation of the coal export facility, primarily Cowlitz County, Washington State, and other special districts. The estimates are presented as both average annual and as a present value (PV) over 30 years from 2012.

- The 30 year PV of cash flow resulting from the construction and operation of the coal export facility would be approximately \$146 million. Tax revenues to the State represent the largest share of total tax revenues, totaling \$79 million, or 54%. Tax revenues to the County would represent \$38 million, or 26%. Tax revenues to special districts would represent \$29 million, or 20% of total revenues.
- Construction-related revenues from business and occupation (B&O) and sales taxes total \$43 million, or about 30% of total revenues. Sales tax estimates are based on the values supplied by Millennium for the cost of construction, equipment purchases, construction labor, etc. B&O tax estimates represent taxes paid to the State by construction companies for the value of the income they receive from this project.
- Property taxes comprise the majority of annual operating revenues, about \$3.9 million. The total levy capacity of each associated taxing jurisdiction would increase as a result of construction of the Coal Export facility. Property taxes are based on current levy rates multiplied by the taxable value of the facility, which is estimated to be equal to the value of the investment added in the property. Property tax revenues are limited to grow by 1% after the initial year of construction to reflect the 1% cap on property tax increases imposed by Initiative-747 which results in project-related property tax revenues declining slightly over time. The property taxes estimates do not include district bond levies or excess levies since the Coal Export facility would not increase revenues to the taxing districts, but would rather redistribute the taxing burden amongst other tax payers within the districts.
- Ongoing sales taxes are only applied to consumable goods and services that would be purchased by the company to support operations.
- Utility tax revenues are based on annual estimates of utility expenditures (electricity and water) on-site. Utility taxes would only be paid to the State because the site is located in unincorporated Cowlitz County (i.e. counties in Washington State do not currently have utility tax authority).

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- Based on 2010 revenue levels for the County, this project could represent a 10% increase in property tax revenues and an increase of 2% to sales tax revenues. Given the magnitude of this project, it is likely that the overall net impact to the County will be an increase in general fund revenues per capita, allowing the County more flexibility in meeting the services needs of residents. However, it is worth noting that over 50% of the property tax revenues are related to the County's Road levy, which requires that funds be dedicated specifically for transportation purposes.
- There would likely be additional revenues to the State from taxes associated with increased rail and shipping activity as well as increased fuel taxes resulting from increased rail use. However, the focus of the fiscal analysis was limited to benefits derived from on-site construction and operations.

**Exhibit 20**

**Summary of Fiscal Impacts from Facility Construction & Operations**

<b>Fiscal Impacts</b>	<b>30-Year PV (2012)</b>	<b>Annual Average (2012)</b>	<b>One-time Construction (2012)</b>
<b>County</b>	<b>\$ 38.24 M</b>	<b>\$ 1.65 M</b>	<b>\$ 5.87 M</b>
<b>State</b>	<b>\$ 78.99 M</b>	<b>\$ 2.18 M</b>	<b>\$ 37.21 M</b>
<b>Special Purpose Districts</b>	<b>\$ 28.54 M</b>	<b>\$ 1.45 M</b>	
<b>Total</b>	<b>\$ 145.77 M</b>	<b>\$ 5.28 M</b>	<b>\$ 43.09 M</b>

**Exhibit A**

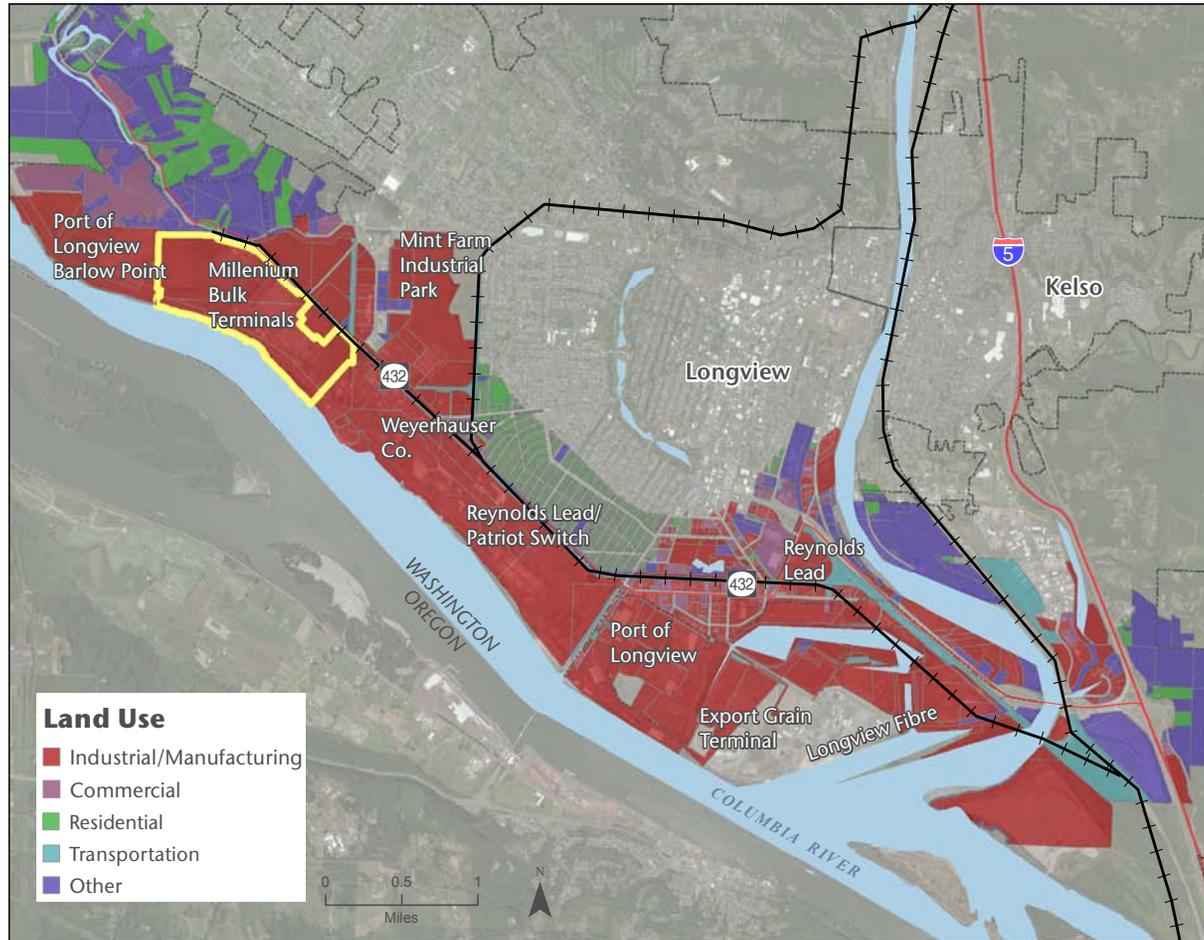
## ECONOMIC DEVELOPMENT IMPACTS

The Metropolitan Planning Organization (MPO) for the region, the Cowlitz-Wahkiakum Council of Governments (CWCOG), is leading a large Rail Realignment and Highway Improvements project that would modernize rail lines including those running parallel to the Columbia River that serve the Millennium site and neighboring industrial properties. They are undertaking this project because the existing rail and transportation systems are becoming congested as the industrial waterfront changes from manufacturing activities to a global bulk commodity trade center.

The 2008 State Route 432 Realignment Feasibility Study estimated that the identified improvements would bring increased capacity and fewer delays to the industrial rail corridor. Other major benefits of the project include improving signalization, separating vehicular traffic from increased rail traffic, improving unit train capacity enhancements, increasing passenger rail capacity, and alleviating BNSF mainline chokepoint.

The Millennium project, as well as the recently opened Export Grain Terminal, would help these rail improvements get implemented. These types of large-scale projects would enhance the potential of acquiring private investment in these rail improvements since investors would likely have more confidence investing in an area with existing long-term businesses in place. Once in place, the rail improvements would likely support the expansion of economic development opportunities in Cowlitz County, specifically in the industrial areas along the Columbia River. As **Exhibit 21** illustrates, there are a number of industrial parcels along and adjacent to the riverfront that would benefit from the planned improvements, including the 306 acres of undeveloped waterfront property at Barlow Point that the Port of Longview recently acquired in 2010 and the inland Mint Farm Industrial Park.

**Exhibit 21**  
**Map of Industrial Properties Benefiting from Planned Rail Improvements**



Source: BERK, 2012.

## Underlying Assumptions

This analysis relied on a range of assumptions in order to arrive at reasonable estimates. Some of the main assumptions are described below.

### CONSTRUCTION COSTS & STAGING

The construction schedule and cost estimates are based on the 2011 Millennium Bulk Terminals Coal Export Facility Feasibility Study. The study envisioned construction of the project would occur in late 2013 and take place in two overlapping stages: an infrastructure and upland construction stage and a marine construction stage. The overall schedule for construction after receipt of the necessary permits is estimated to take approximately 18-24 months. Cost estimates were based on 2011 estimates and were escalated 3% per year resulting in a total cost (less taxes and indirect costs) of about \$643 million in year of expenditure (YOE) dollars.

### FACILITY OPERATION

It is assumed that the facility will open in 2015 and the eventual goal of 44 metric million tons per year (mmtpy) of coal going through the terminal would likely ramp up over time. This analysis assumes that the operation would begin with enough throughput to warrant 358 days of operation per year at 16 hours per day. Each year throughput would increase until the facility was at full operational capacity; operating at 24 hours per day, 358 days per year, and three shifts per day. Full site capacity of 44 million metric tonnes of coal will be in place by 2018. **Exhibit A-1** illustrates the study's assumptions regarding the ramp-up of operations.

**Exhibit A-1**  
**Operations (2015-2018)**

	2015	2016	2017	2018
Operating Hours Per Day	16.0	16.0	24.0	24.0
Operating Days per Year	90.0	358.0	358.0	358.0
Shifts Per Day	2.0	2.0	3.0	3.0
<b>Total Wages (in Millions)</b>	<b>\$3.5</b>	<b>\$14.5</b>	<b>\$19.5</b>	<b>\$20.1</b>
<i>Average per Employee</i>	<i>\$31,487</i>	<i>\$129,725</i>	<i>\$144,504</i>	<i>\$148,839</i>

April 12, 2012

- All direct labor (staffing and wages) associated with the coal export facility is based on the 2011 Millennium Bulk Terminals Coal Export Facility Feasibility Study. BERK estimated that the majority of positions would be variable in nature and would scale based on the output of the facility. All administrative positions are assumed to be hired prior to opening. Labor costs are escalated at 3% per year.
- The composition of total operating costs by business varies depending on the type of business. Labor can comprise as much as 70% of total operating expenditures. Given the high cost of supplies, equipment maintenance, and utilities associated with the coal export facility, it is unlikely that this labor percentage is as high. For this analysis we have assumed that labor, which is based on the Feasibility Study, comprises about 45% of total annual operating costs and all other non-labor expenditures would comprise about 55%.
- Utility expenditures, which are necessary to derive utility tax revenues, are estimated to be about 8% of total operating expenditures (14% of non-labor costs). About 90% of utility expenditures are assumed to be taxable (mainly electricity and water). The remaining utility expenditures are assumed to be not tax related.
- For estimating gross business income of the coal export facility, we developed a price per ton of coal moving through the facility that would essentially bring the 30 year internal rate of return to just a little over zero. This represents a conservative estimate of gross income derived from operations given that most businesses gauge the desirability of a potential project based on its internal rate of return and would likely not proceed with a project that achieves less than a 0% internal rate of return.

**Exhibit A**

## Economic Impacts

The root of economic impacts is spending. Money spent within an economy is passed from person to person, creating more economic activity than just the original transaction. This is called a multiplier effect: one dollar spent within the community can become more than one dollar of economic activity when passed along several times. On the flip side, one dollar spent in a community can become less than one dollar of economic activity if some of that money is sent out of the region.

If the goal of an economic impact analysis is to get a realistic view of how a given action will affect a regional economy, then it is important to understand the mechanisms by which that effect will be felt in the region. Input-output models are designed to identify impacts of newly introduced demand in a local economy. In other words, input-output models show economic impacts at the point of production, translating new demand into additional sales (and production) of local goods and services.

The focus on economic effects means that input-output models make a clear distinction between new expenditures in an area and new demand for local goods and services. In economic terms, expenditures only impact the local economy to the extent that those expenditures drive demand for some local economic component of production. For example, a new dollar spent has a direct economic effect in a region only to the extent that some portion of the production of the good or service purchased occurs in that same region. The difference between the dollar spent and the amount that accrues to local entities is referred to in input-output models as the margin.

In this study, economic impacts come from two places: (1) money spent on construction of the new facility and (2) money spent to operate the facility on an ongoing basis. This study measures the three main types of economic impacts:

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- **Direct Impacts.** Direct impacts are not necessarily the amount of money spent on an initial purchase. They are, instead, **the amount of that initial purchase that will remain within the local economy.** For example, when the construction company purchases tools from a local company, that supplier may send some of that money to their headquarters and some to their manufacturers in another country, and the rest will be spent on local employees and purchases from businesses within the region. The direct impact is only the amount that the supplier re-spends within the region because that is the portion that affects the local economy.
- **Indirect Impacts.** Indirect impacts result **when an industry makes purchases from another industry.** For example, when the construction company purchased a tool from a supply store, that store owner must then make more purchases from its suppliers. This is an indirect impact.
- **Induced Impacts.** Induced impacts occur from the **expenditures of employee wages.** When the construction company purchased a tool from the supply store, the salesperson received a wage for working in the shop. The wages that are then put back into the local economy as that employee makes purchases for his or her household is the induced effect of the tool purchase.

## Estimating the Multiplier Effects

Statewide economic impacts are modeled using the Washington State Input-Output Model developed for the Washington State Office of Financial Management. This model was developed to trace the ripple effects of an expenditure that occurs within the economy. The model tracks how an economic action will ripple through an economy creating different levels of revenue, jobs, and income based on the economic sector.

For more information on the State's model, please visit: <http://www.ofm.wa.gov/economy/io/>

## Estimating Direct Impacts

**Construction.** The elements of the construction project that will result in direct economic impacts include:

- The cost of construction supplies; and
- The cost of construction labor.

Temporary construction jobs and wages were estimated using the Washington State Input-Output Model (I/O Model) developed for the Washington State Office of Financial Management. The I/O Model estimates that for every \$1 million (2010\$) of direct business spending (output) would result in about 5.82 direct construction jobs and \$0.30 in direct wages. Total construction expenditures are estimated to be about \$600 million, which are based on the 2011 Millennium Bulk Terminals Coal Export Facility Feasibility Study. However, as much as half of this cost is for equipment purchases that would not result in any direct job impact. Accounting for these costs reduces the on-site construction expenditures that would result in direct job impacts to about \$232 million. This \$232 million in direct construction output will produce 1,350 temporary direct jobs and \$70 million in direct wages.

**Operations.** The elements of facility operation that will result in direct economic impacts include:

- The number of employees on-site;
- The cost of ongoing supply and equipment purchases; and
- The cost of operations labor.

In terms of direct effects, the initial stage of the coal export facility would create an estimated 112 new jobs and roughly \$21 million in annual direct output. Once the coal export facility ramps-up to full buildout and operational capacity, the total direct impact would be about 135 jobs, direct labor income totaling \$16.0 million, and direct output totaling \$49 million. Direct jobs and wage estimates were based on the 2011 Millennium Bulk Terminals Coal Export Facility Feasibility Study.

## Fiscal Impacts

In addition to the economic impacts generated, this analysis also looked at how both the construction and operation activity generates tax revenue to the local government and to the state. The fiscal contribution identified in this study only takes into account the direct impacts of construction and operations—tax revenue generated from induced and indirect impacts are not estimated.

**Construction.** This study analyzed the following tax streams related to facility construction:

- Sales Tax - Analysis assumes a total sales tax rate of 7.6%; 6.5% of which would go to the State and the remaining 1.1% would be distributed to the County. The County rate includes the 0.1% criminal justice tax.
- B&O Tax - Analysis assumes that gross business income derived from construction would be taxed at the retailing B&O rate which 0.00471.

**Operations.** This study analyzed the following tax streams related to facility operation:

- Sales Tax - Taxable retail sales associated with the coal export facility's operations were based on an annual estimate of taxable purchases occurring on-site. This included items such as supplies and maintenance of equipment. The analysis assumes a total sales tax rate of 7.6%; 6.5% of which would go to the state and the remaining 1.1% would be distributed to the County. The County rate includes the 0.1% criminal justice tax.
- B&O Tax - Analysis assumes that gross business income derived from operations would be taxes at the retailing B&O rate which 0.00471. This is the same rate that applies to other stevedoring operations in the state.
- Utility Tax - Analysis assumes electricity, water, and sewer utility rates of 3.783%, 5.029%, and 3.852%, respectively. Tax estimates are derived by applying these rates to annual estimated utility expenditures. About 45% of utility expenditures are assumed to be related to electricity expenditures. Another 45% is related to other utility expenditures such as water. The remaining utility expenditures are assumed to be not tax related.
- Property Tax - Analysis reflects the most recent levy rate information that would apply to this site. The breakdown of rates by jurisdiction is presented below in **Exhibit A-2**.

**Exhibit A-2**  
**Levy Rates by Taxing Jurisdiction\***

	Rate per \$1,000 of AV
<b>State Schools</b>	2.37
<b>County Levies:</b>	
Current Expense	1.84
County Road	2.04
<b>Special District Levies</b>	
Longview School Dist #122	3.53
Port of Longview	0.22
<b>Total Combined Levy Rate</b>	<b>10.00</b>

\*Does not include excess or bond levies

# Exhibit B

# The News Tribune

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Public plays its part in debate over coal export facility

## Millennium Export Terminal right for Washington

Published: November 7, 2013

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Holbert HOLBERT



**Exhibit B**



**Exhibit B**

By KAREN HARBERT AND TOM PIERSON — Tacoma News Tribune

The Millennium Export Terminal in Longview is an opportunity for Washington to create thousands of jobs and generate millions in revenue.

As representatives of the U.S. Chamber of Commerce – the world’s largest business organization – and the Tacoma-Pierce County Chamber, our focus is always on job creation and economic growth. That’s why we support this critical project.

The Millennium project will take a dormant piece of land and turn it into a bustling, state of the art port terminal. The Terminal makes good on the promise of expanding our markets and selling more American products to the 95 percent of the world’s consumers that don’t live in America. Increased exports are a key component of America’s economic recovery, which is why in 2010 President Obama committed to doubling exports by 2015.

Initially, the Millennium terminal will export coal to Asia and other markets outside the United States. With global energy demand going up by 50 percent over the next 30 years, demand for coal is strong. Just as the U.S. relied on coal to grow our economy, other nations whose citizens still lack access to electricity will benefit from coal. So will the citizens of Washington, as the Millennium terminal will create over 3,000 jobs and generate \$37 million in revenue to the state.

Normally, construction of projects such as this one proceed after a review and approval process led by the U.S. Army Corps of Engineers. The Corps has held five hearings and is conducting a thorough analysis.

But in an unprecedented move, the Washington Department of Ecology has decided to conduct its own parallel process, which is inconsistent with U.S. environmental regulations.

The project’s opponents’ requests for this review are stretching legal possibilities and the truth. Their insistence on modeling the global impact of 30 years of exported coal in another sovereign nation on a continent across the Pacific Ocean is neither achievable nor legally relevant to this review. A thorough and balanced process, not hype and fear-mongering, is required.

The reality is that China and other developing nations need all the energy, including coal, that they can obtain. Developing nations will use coal; the only question is where it will be coming from. They are already buying coal from other worldwide suppliers as well as the U.S, and they are going to keep doing so regardless of whether the Millennium terminal is built.

Trade is the foundation upon which the economy of the Pacific Northwest is built, accounting for as many as one in four jobs in the region. Stopping an infrastructure project that will benefit Washington’s economy simply because some folks don’t happen to like the product being exported would set a dangerous precedent.

Furthermore, what’s happening with Millennium here is occurring all over the country, and that’s a major cause for concern.

Infrastructure projects are being sidelined completely or significantly delayed while projects are “reviewed” for years. The Keystone XL pipeline is another unfortunate example. Keystone would bring oil from Canada to the United States, allowing us to use less oil from unfriendly nations overseas. It would create jobs and generate millions in revenue for local and state governments. But the pipeline has been delayed for over five years by an endless regulatory process.

**Exhibit B**

Unfortunately, America is becoming known as a place that is not open for business. Potential trading partners interested in buying American goods are well aware of these troubling signals. Investors are being scared off, because they don't want their capital locked into projects that are endlessly delayed.

We support a thorough, comprehensive review of Millennium. No corners should be cut. But there should be a definite timeline and a date certain for an answer – instead of regulatory limbo. There is a long-established federal review process, and it should be respected. Otherwise, our opportunities for economic growth will become fewer and fewer. Given the fragile state of America's economy and our lagging job growth, that's the last thing we can afford.

Karen Harbert is president and CEO of the Institute for 21st Century Energy at the U.S. Chamber of Commerce, and Tom Pierson is president and CEO of the Tacoma-Pierce County Chamber.

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**Public plays its part in debate over coal export facility**

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**Exhibit B**

# Exhibit C

The White House  
Office of the Press Secretary

For Immediate Release

August 31, 2011

## Presidential Memorandum--Speeding Infrastructure Development through More Efficient and Effective Permitting and Environmental Review

MEMORANDUM FOR THE HEADS OF EXECUTIVE DEPARTMENTS AND AGENCIES

SUBJECT: Speeding Infrastructure Development through More Efficient and Effective Permitting and Environmental Review

To maintain our Nation's competitive edge, we must ensure that the United States has fast, reliable ways to move people, goods, energy, and information. In a global economy, where businesses are making investment choices between countries, we will compete for the world's investments based in part on the quality of our infrastructure.

Investing in the Nation's infrastructure brings both immediate and long-term economic benefits -- benefits that can accrue not only where the infrastructure is located, but also to communities all across the country. And at a time when job growth must be a top priority, well-targeted investment in infrastructure can be an engine of job creation and economic growth.

In partnership with State, local, and tribal agencies, the Federal Government has a central role to play in ensuring that smart infrastructure projects move as quickly as possible from the drawing board to completion. Through permitting processes, Federal executive departments and agencies (agencies) ensure that projects are designed and constructed consistent with core protections for public health, safety, and the environment. Additionally, the environmental review process requires agencies to consider alternatives and public input, which helps agencies identify project designs that are safe and cost-effective, and that enjoy public support.

In the current economic climate it is critical that agencies take steps to expedite permitting and review, through such strategies as integrating planning and environmental reviews; coordinating multi-agency or multi-governmental reviews and approvals to run concurrently; setting clear schedules for completing steps in the environmental review and permitting process; and utilizing information technologies to inform the public about the progress of environmental reviews as well as the progress of Federal permitting and review processes. Of course, the Federal Government is only one actor in the multifaceted permitting and review processes. Infrastructure projects can be delayed due to project design or uncertain funding, or while awaiting reviews or approvals required by State, local, tribal, or other jurisdictions beyond the control or authority of the Federal Government. Nevertheless, agencies must do everything in their control to ensure that their processes for reviewing infrastructure proposals work efficiently to protect our environment, provide for public participation and certainty of process, ensure safety, and support vital economic growth.

As an immediate step to improve the effectiveness and efficiency of Federal permitting and review processes, this memorandum instructs agencies to (1) identify and work to expedite permitting and environmental reviews for high-priority infrastructure projects with significant potential for job creation; and (2) implement new measures designed to improve accountability, transparency, and efficiency through the use of modern information technology. Relevant agencies should monitor the progress of priority projects; coordinate and resolve issues arising during permitting and environmental review; and develop best practices for expediting these decisions that may be instituted on a wider scale, consistent with applicable law.

**Section 1. Expedited Review of High-Priority Infrastructure Projects.** (a) Within 30 days of the date of this memorandum, the Secretaries of Agriculture, Commerce, Housing and Urban Development, the Interior, and Transportation shall each select up to three high-priority infrastructure projects subject to review by their respective departments for expedited review based on the criteria outlined in subsection (b) of this section, and shall submit their selections to the Chief Performance Officer, who also serves as the Deputy Director for Management of the Office of Management and Budget.

(b) The secretaries identified in subsection (a) of this section shall select high-priority projects, in consultation with heads of other relevant agencies, based on the following criteria:

- (i) the project will create jobs, with consideration given to the magnitude and timing of the direct and indirect employment impacts;



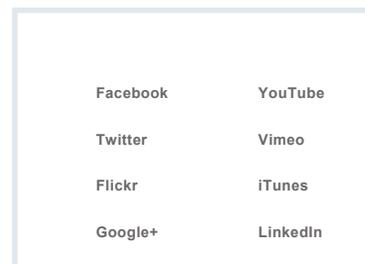
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November 08, 2013 1:05 PM EST  
[Shining a Light on our Researchers, Doctors, Nurses, and Caregivers](#)  
Vice President Joe Biden and Dr. Jill Biden hosted the 2nd Annual Breast Cancer Awareness Reception, joined by survivors, caregivers, families, doctors, researchers, and advocates who have all been touched by breast cancer.

November 08, 2013 12:40 PM EST  
[Insurance Companies Now Must Cover Mental Health Benefits at Parity with Medical Benefits](#)  
Insurance companies must cover mental health and addiction benefits at parity with medical and surgical benefits.

November 08, 2013 10:08 AM EST  
[The Employment Situation in October](#)  
Today we learned that total nonfarm payroll employment rose by 204,000 in October. America's resilient businesses have added jobs for 44 consecutive months, with private sector employment increasing by a total of 7.8 million over that period.

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(ii) all necessary funding to implement the project has been identified and is reasonably expected to be secured within 6 months of completion of the Federal permitting and review processes; and

(iii) the significant remaining permit decisions, environmental reviews, consultations, or other actions required before construction can commence on the project are within the control and jurisdiction of the executive branch of the Federal Government and can be efficiently and effectively completed within 18 months of the date of this memorandum, with priority given to projects for which required Federal actions can be completed within 12 months of the date of this memorandum.

(c) All agencies rendering permitting decisions, conducting environmental reviews, completing consultations, or taking other actions related to the high-priority projects selected pursuant to this memorandum shall, consistent with applicable law and to the maximum extent practicable, expedite and coordinate their reviews, decisions, consultations, or other actions, and take related actions as necessary, consistent with available resources, including those actions relating to safety, public health, environmental protection, and public participation.

(d) Agencies, consistent with applicable law, shall use the experience gained from expediting the high-priority projects selected under this memorandum, and from reviewing other projects throughout the permitting process, to identify and implement administrative, policy, technological, and procedural best practices that will improve the efficiency and effectiveness of Federal permitting and environmental review for infrastructure projects, while providing for public participation and protecting public health, safety, and the environment.

Sec. 2. Improving Accountability, Transparency, and Efficiency through Information Technology. To improve the accountability, transparency, and efficiency of Federal permitting and review processes, each agency rendering permitting decisions, conducting environmental reviews, completing consultations, or taking other actions related to any of the projects selected under section 1 of this memorandum shall, consistent with applicable law, make relevant information readily available to the public. To this end:

(a) For each selected high-priority project, within 60 days of the date of this memorandum and on a regular basis thereafter, agencies shall track, and make available to the public on agency websites, information related to the actions required to complete Federal permitting, reviews, and other actions required to proceed with the priority project, including:

(i) a list of all the actions required by each applicable agency to complete Federal permitting, reviews, and other actions necessary to proceed with the project;

(ii) the expected completion date for each such action;

(iii) a point of contact at the agency accountable for each such action; and

(iv) in the event that an action is still pending as of the expected date of completion, a brief explanation of the reasons for the delay.

(b) Within 90 days of the date of this memorandum, the Chief Information Officer (CIO) and the Chief Technology Officer (CTO) shall work with appropriate counterparts at agencies to launch the pilot phase of a centralized, online tool that aggregates the information for each of the priority projects described under section 1 of this memorandum, in a manner that facilitates easy access, enables the public to assess the status of permits required for infrastructure projects, and engages the public in new and creative ways of using the information.

(c) Within 120 days of the date of this memorandum, the Chair of the Council on Environmental Quality, in coordination with the CIO and the CTO, shall work with appropriate counterparts at agencies to deploy in one or more agencies information technology tools with significant potential to reduce the time and cost required to complete permitting and environmental reviews, such as by enabling online submission and processing of public comments, or by allowing personnel from different agencies or jurisdictions to coordinate review timelines, share data, and review documents through a common, internet-based platform.

Agencies shall provide all support, documentation, and assistance necessary to implement these directives.

Sec. 3. General Provisions. (a) This memorandum shall be implemented consistent with applicable law and subject to the availability of appropriations.

(b) Nothing in this memorandum shall be construed to impair or otherwise affect the functions of the Director of the Office of Management and Budget relating to budgetary, administrative, and legislative proposals.

(c) Independent agencies are strongly encouraged to comply with this memorandum.

(d) This memorandum is not intended to, and does not, create any right or benefit, substantive or procedural, enforceable at law or in equity by any party against the United States, its departments, agencies, or entities, its officers, employees, or agents, or any other person.

BARACK OBAMA

**Exhibit C**

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# Exhibit D

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**The White House**

Office of the Press Secretary

For Immediate Release

March 11, 2010

**Executive Order 13534 - National Export Initiative**EXECUTIVE ORDER  
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NATIONAL EXPORT INITIATIVE

By the authority vested in me as President by the Constitution and the laws of the United States of America, including the Export Enhancement Act of 1992, Public Law 102-429, 106 Stat. 2186, and section 301 of title 3, United States Code, in order to enhance and coordinate Federal efforts to facilitate the creation of jobs in the United States through the promotion of exports, and to ensure the effective use of Federal resources in support of these goals, it is hereby ordered as follows:

**Section 1. Policy.** The economic and financial crisis has led to the loss of millions of U.S. jobs, and while the economy is beginning to show signs of recovery, millions of Americans remain unemployed or underemployed. Creating jobs in the United States and ensuring a return to sustainable economic growth is the top priority for my Administration. A critical component of stimulating economic growth in the United States is ensuring that U.S. businesses can actively participate in international markets by increasing their exports of goods, services, and agricultural products. Improved export performance will, in turn, create good high-paying jobs.

The National Export Initiative (NEI) shall be an Administration initiative to improve conditions that directly affect the private sector's ability to export. The NEI will help meet my Administration's goal of doubling exports over the next 5 years by working to remove trade barriers abroad, by helping firms -- especially small businesses -- overcome the hurdles to entering new export markets, by assisting with financing, and in general by pursuing a Government-wide approach to export advocacy abroad, among other steps.

**Sec. 2. Export Promotion Cabinet.** There is established an Export Promotion Cabinet to develop and coordinate the implementation of the NEI. The Export Promotion Cabinet shall consist of:

- (a) the Secretary of State;
- (b) the Secretary of the Treasury;
- (c) the Secretary of Agriculture;
- (d) the Secretary of Commerce;
- (e) the Secretary of Labor;
- (f) the Director of the Office of Management and Budget;
- (g) the United States Trade Representative;
- (h) the Assistant to the President for Economic Policy;
- (i) the National Security Advisor;
- (j) the Chair of the Council of Economic Advisers;
- (k) the President of the Export-Import Bank of the United States;
- (l) the Administrator of the Small Business Administration;
- (m) the President of the Overseas Private Investment Corporation;
- (n) the Director of the United States Trade and Development Agency; and
- (o) the heads of other executive branch departments, agencies, and offices as the President may, from time to time, designate.

The Export Promotion Cabinet shall meet periodically and report to the President on the progress of the NEI. A member of the Export Promotion Cabinet may designate, to perform the NEI-related functions of that member, a senior official from the member's department or agency who is a full-time officer or employee. The Export Promotion Cabinet may also establish subgroups consisting of its members or their designees, and, as appropriate, representatives of other departments and agencies. The Export Promotion Cabinet shall coordinate with the Trade Promotion Coordinating Committee (TPCC), established by Executive Order 12870 of September 30, 1993.

**Sec. 3. National Export Initiative.** The NEI shall address the following:

- (a) **Exports by Small and Medium-Sized Enterprises (SMEs).** Members of the Export Promotion Cabinet shall develop programs, in consultation with the TPCC, designed to enhance export assistance to SMEs, including programs that improve information and other technical assistance to first-time exporters and assist current exporters

**BLOG POSTS ON THIS ISSUE**

November 08, 2013 1:05 PM EST

[Shining a Light on our Researchers, Doctors, Nurses, and Caregivers](#)

Vice President Joe Biden and Dr. Jill Biden hosted the 2nd Annual Breast Cancer Awareness Reception, joined by survivors, caregivers, families, doctors, researchers, and advocates who have all been touched by breast cancer.

November 08, 2013 12:40 PM EST

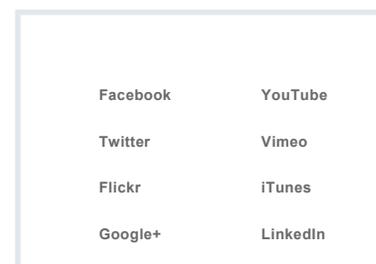
[Insurance Companies Now Must Cover Mental Health Benefits at Parity with Medical Benefits](#)

Insurance companies must cover mental health and addiction benefits at parity with medical and surgical benefits.

November 08, 2013 10:08 AM EST

[The Employment Situation in October](#)

Today we learned that total nonfarm payroll employment rose by 204,000 in October. America's resilient businesses have added jobs for 44 consecutive months, with private sector employment increasing by a total of 7.8 million over that period.

[VIEW ALL RELATED BLOG POSTS](#)**Exhibit D**

in identifying new export opportunities in international markets.

- (b) Federal Export Assistance. Members of the Export Promotion Cabinet, in consultation with the TPCC, shall promote Federal resources currently available to assist exports by U.S. companies.
- (c) Trade Missions. The Secretary of Commerce, in consultation with the TPCC and, to the extent possible, with State and local government officials and the private sector, shall ensure that U.S. Government-led trade missions effectively promote exports by U.S. companies.
- (d) Commercial Advocacy. Members of the Export Promotion Cabinet, in consultation with other departments and agencies and in coordination with the Advocacy Center at the Department of Commerce, shall take steps to ensure that the Federal Government's commercial advocacy effectively promotes exports by U.S. companies.
- (e) Increasing Export Credit. The President of the Export-Import Bank, in consultation with other members of the Export Promotion Cabinet, shall take steps to increase the availability of credit to SMEs.
- (f) Macroeconomic Rebalancing. The Secretary of the Treasury, in consultation with other members of the Export Promotion Cabinet, shall promote balanced and strong growth in the global economy through the G20 Financial Ministers' process or other appropriate mechanisms.
- (g) Reducing Barriers to Trade. The United States Trade Representative, in consultation with other members of the Export Promotion Cabinet, shall take steps to improve market access overseas for our manufacturers, farmers, and service providers by actively opening new markets, reducing significant trade barriers, and robustly enforcing our trade agreements.
- (h) Export Promotion of Services. Members of the Export Promotion Cabinet shall develop a framework for promoting services trade, including the necessary policy and export promotion tools.

Sec. 4. Report to the President. Not later than 180 days after the date of this order, the Export Promotion Cabinet, through the TPCC, shall provide the President a comprehensive plan to carry out the goals of the NEI. The Chairman of the TPCC shall set forth the steps taken to implement this plan in the annual report to the Committee on Banking, Housing, and Urban Affairs of the Senate and the Committee on Foreign Affairs of the House of Representatives required by the Export Enhancement Act of 1992, Public Law 102-249, 106 Stat. 2186, and Executive Order 12870, as amended.

Sec. 5. General Provisions. (a) Nothing in this order shall be construed to impair or otherwise affect:

- (i) authority granted by law to an executive department, agency, or the head thereof, or the status of that department or agency within the Federal Government; or
- (ii) functions of the Director of the Office of Management and Budget relating to budgetary, administrative, or legislative proposals.

- (b) This order shall be implemented consistent with applicable law and subject to the availability of appropriations.
- (c) This order is not intended to, and does not, create any right or benefit, substantive or procedural, enforceable at law or in equity by any party against the United States, its departments, agencies, or entities, its officers, employees, or agents, or any other person.

BARACK OBAMA

THE WHITE HOUSE,  
March 11, 2010.

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# Exhibit E



## Council on Environmental Quality

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# White House Council on Environmental Quality Announces Steps to Modernize and Reinvigorate the National Environmental Policy Act

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EXECUTIVE OFFICE OF THE PRESIDENT  
COUNCIL ON ENVIRONMENTAL QUALITY  
WASHINGTON, D.C. 20503

FOR IMMEDIATE RELEASE:

February 18, 2010

### White House Council on Environmental Quality Announces Steps to Modernize and Reinvigorate the National Environmental Policy Act

**WASHINGTON, DC** – In conjunction with its 40th Anniversary, the White House Council on Environmental Quality (CEQ) today proposed four steps to modernize and reinvigorate the National Environmental Policy Act (NEPA). These measures will assist Federal agencies to meet the goals of NEPA, enhance the quality of public involvement in governmental decisions relating to the environment, increase transparency and ease implementation.

Enacted in 1970, NEPA is a cornerstone of our Nation's efforts to protect the environment and a fundamental tool to harmonize our economic and environmental aspirations. It recognizes that many Federal activities affect the environment and mandates that Federal agencies consider the environmental impacts of their proposed actions before acting. NEPA emphasizes public involvement in government actions affecting the environment by requiring that the benefits and the risks associated with proposed actions be assessed and publicly disclosed.

"Our country has been strengthened by the open, accountable, informed and citizen-involved decision-making structure created by NEPA," said Nancy Sutley, Chair of the White House Council on Environmental Quality. "We are committed to making NEPA workable and effective, and believe that these changes will contribute significantly to both goals."

To modernize NEPA, CEQ is issuing draft guidance for public comment on: when and how Federal agencies must consider greenhouse gas emissions and climate change in their proposed actions; clarifying appropriateness of "Findings of No Significant Impact" and specifying when there is a need to monitor environmental mitigation commitments; clarifying use of categorical exclusions; and enhanced public tools for reporting on NEPA activities.

#### Draft Guidance on the Consideration of Greenhouse Gases

CEQ is releasing draft guidance for public comment on when and how Federal agencies must consider greenhouse gas emissions and climate change in their proposed actions. CEQ has been asked to provide guidance on this subject informally by Federal agencies and formally by a petition under the Administrative Procedure Act. The draft guidance explains how Federal agencies should analyze the environmental impacts of greenhouse gas emissions and climate change when they describe the environmental impacts of a proposed action under NEPA. It provides practical tools for agency reporting, including a presumptive threshold of 25,000 metric tons of carbon dioxide equivalent emissions from the proposed action to trigger a quantitative analysis, and instructs agencies how to assess the effects of climate change on the proposed action and their design. The draft guidance does not apply to land and resource management actions and does not propose to regulate greenhouse gases. CEQ will receive public comment on this guidance for 90 days.

#### Draft Guidance Clarifying Appropriateness of "Findings of No Significant Impact" and Specifying When There is a Need to Monitor Environmental Mitigation Commitments

Many Federal actions receive an environmental review, known as an Environmental Assessment. In those instances, NEPA compliance is usually completed with a "Finding of No Significant Impact" (FONSI) on the environment, thus a

**Exhibit E**

more detailed Environmental Impact Statement is not required. The draft guidance clarifies that the environmental impacts of a proposed action may be mitigated to the point when the agency may make a FONSI determination. When the FONSI depends on successful mitigation, however, such mitigation requirements should be made public and be accompanied by monitoring and reporting. The draft guidance also applies to monitoring and reporting of mitigation commitments agencies make in an EIS and Record of Decision. CEQ has released this draft guidance for 90 days of public comment.

**Revised Draft Guidance Clarifying Use of Categorical Exclusions**

Many Federal actions do not have significant effects on the environment. When these actions fall into broad categories of activities, agencies may apply a "categorical exclusion" from further NEPA review. This draft guidance clarifies the rules for categorical exclusions and ensures that there is a concise public record when agencies apply them. While CEQ previously has sought public comments on this matter, this guidance provides additional clarifications, so it will seek additional public comment for 45 days.

**Enhanced Public Tools for Reporting on NEPA Activities**

Technology has greatly enhanced the government's transparency and accountability and these tools have improved the quality of governmental decision-making, including decisions made following a NEPA analysis. CEQ has updated its NEPA webpage, [www.nepa.gov](http://www.nepa.gov), and is providing a wide range of information about NEPA through this portal. CEQ continues to upgrade this site to include the status of reviews of agency NEPA guidance, Recovery Act NEPA reporting, and real-time NEPA review status. These upgrades are designed to improve public participation and the quality of Federal agency administration of NEPA.

All public comments may be submitted to [www.whitehouse.gov/ceq/initiatives/nepa](http://www.whitehouse.gov/ceq/initiatives/nepa).

###

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# Exhibit F



## About Lean

Results Washington is Gov. Jay Inslee's enterprise performance management system to build a thriving Washington by:

- fostering the spirit of continuous improvement
- enhancing the conditions for job creation
- preparing students for the future
- valuing our environment, our health and our people

Lean provides proven principles that are helping Washington state government to:

- create a culture that encourages respect, creativity and innovative problem solving
- continuously improve and eliminate waste from government processes
- align efforts across state agencies
- deliver results that matter to Washingtonians

## Our approach

Results Washington calls on state agencies to apply Lean thinking and tools, report regularly on their progress on the Governor's five goals and be accountable for making improvements and delivering results for the citizens of Washington through regularly held review meetings.

- [Read The Lean Transformation Report: 2012 and Beyond \(PDF\)](#) to learn the latest about key activities and agency projects.
- Watch these videos produced by our private-sector partner Cimira Studios about Lean in Washington state government:
  - [Lean in Washington state government](#) (an introduction to how Lean was started in Washington and highlights of early wins).
  - [Impact Washington's](#) role in helping Lean efforts.
- Check our [2012 Washington State Government Lean Transformation Conference](#) page for presentations and videos.
- Read the Governor's [Executive Order 13-04 \(PDF\)](#) on Lean.
- Review the [Jan. 25, 2012, Lean Overview for Leaders session](#) for Washington state agency leaders.

## Learn more about Lean

- [Check out Lean resources](#)

# Exhibit G



[Ecology home](#) > [News](#) > News Release

**Joint Release: Whatcom County, Washington State Department of Ecology, U.S. Army Corps of Engineers  
July 31, 2013**

**13-197**

## **Agencies set scope of environmental impact statement for proposed Cherry Point export project**

SEATTLE – An environmental review of proposed bulk cargo and railroad spur projects at Cherry Point in Whatcom County will closely study their direct effects at the site and evaluate a broad range of indirect and cumulative impacts likely to occur within and beyond Washington.

Whatcom County, the Washington Department of Ecology (Ecology), and the U.S. Army Corps of Engineers (Corps) – known together as the co-leads – are producing a joint Environmental Impact Statement (EIS) for the proposed Gateway Pacific Terminal and BNSF Railway (BNSF) Custer Spur track expansion.

The Gateway Pacific Terminal – proposed by Pacific International Terminals – would provide storage and handling of exported dry bulk commodities, including coal, grain, iron ore, salts and alumina. To support the Gateway Pacific Terminal and other industries at Cherry Point, BNSF proposes to add rail facilities and install a second track along its 6-mile branch line.

At full capacity, the shipping terminal would export 54 million metric tons per year of bulk commodities – including up to 48 million metric tons per year of coal – and could generate 18 train trips (9 round trips) per day and more than 18 deep-draft “Capesize” vessel trips per week.

Whatcom County and Ecology must follow the State Environmental Policy Act (SEPA), and the Corps must follow the National Environmental Policy Act (NEPA). The joint process enables the co-lead agencies to avoid duplication when the two laws overlap and to meet each statute’s separate requirements.

The NEPA co-lead agency (Corps) and the SEPA co-lead agencies (Whatcom County and Ecology) have independently determined the preliminary scope, or subject matter, it will require in the EIS:

### **NEPA: Corps**

The Corps has issued a [Memorandum for the Record](#) (pdf) documenting its determinations regarding the scope of study for the EIS under NEPA. The memo’s instructions require an extensive analysis of the projects’ on-site and nearby impacts, including environmental effects on wetland, shoreline and intertidal areas, water and air quality, cultural and archeological resources, fish and wildlife, noise and vibration, among other possible effects. The Corps will also conduct a detailed evaluation of vessel traffic to a point 8 miles west of the J Buoy offshore of Cape Flattery.

### **SEPA: Whatcom County and Ecology**

The SEPA lead agencies have determined that the preliminary scope of the project impacts will be examined fully under all applicable environmental elements which include earth, air, water, plants and animals, energy and natural resources, environmental health, land and shoreline use, transportation, and public services and utilities.

Whatcom County and Ecology will require:

**Exhibit G**

- A detailed assessment of rail transportation impacts in Whatcom County near the project site, specifically including Bellingham and Ferndale.
- An assessment of how the project would affect human health, including impacts from related rail and vessel transportation in Whatcom County.
- An evaluation of greenhouse gas emissions from terminal operations, and rail and vessel traffic.

In addition, Ecology will require:

- A detailed assessment of rail transportation on other representative communities in Washington and a general analysis of out-of-state rail impacts.
- An assessment of how the project would affect human health in Washington.
- A general assessment of cargo-ship impacts beyond Washington waters.
- An evaluation and disclosure of greenhouse gas emissions of end-use coal combustion.

The combined EIS will address all of the co-lead agencies' scoping requirements. The co-lead agencies could revise the scope for the draft EIS in response to new findings or other information as development of the draft EIS moves forward. The co-leads will seek public comment on a draft of the EIS, which they expect will take about two years to prepare. Then they will prepare a joint final EIS.

The joint EIS will inform the public and decision makers about the impacts of the proposed projects. It will identify the potential environmental impacts from the proposed projects and various alternatives, and discuss possible mitigation measures.

The EIS will disclose the extent to which information in the joint document is for NEPA analysis and/or SEPA analysis only. It is up to each co-lead agency to determine the relevance and weight the information in the EIS will be given by each co-lead agency when making its own agency determinations, based on each agency's respective statutes, responsibilities, and legal requirements.

Other agencies making permit decisions must follow separate requirements that may dictate the range and type of information they may consider.

The co-lead agencies reviewed and considered approximately 125,000 comments received during a 121-day public comment period last fall and winter on the scope for the EIS. A [report](#) previously posted online summarizes and categorizes those comments.

The official joint EIS website, [www.eisgatewaypacificwa.gov](http://www.eisgatewaypacificwa.gov), provides the co-lead agencies' scope-related documents, additional details about the scoping process, project proposals, and displays comments received.

###

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- U.S. Army Corps of Engineers: Patricia Graesser, 206-764-3750, [patricia.graesser@us.army.mil](mailto:patricia.graesser@us.army.mil)

#### **For more information:**

- Official EIS website: <http://www.eisgatewaypacificwa.gov/>
- Ecology: <http://www.ecy.wa.gov/geographic/gatewaypacific/>
- Whatcom County: <http://www.co.whatcom.wa.us/pds/plan/current/gpt-ssa/index.jsp>
- Army Corps of Engineers: <http://www.nws.usace.army.mil>

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# FAQ on Scope of EIS Studies for Gateway Pacific Terminal (GPT)

July 31, 2013

## Introduction

On July 31, 2013, Whatcom County Planning and Development Services (County), the Washington State Department of Ecology (Ecology), and the U. S. Army Corps of Engineers (Corps) - known together as the co-lead agencies - announced the State Environmental Policy Act (SEPA) scope of analysis and the National Environmental Policy Act (NEPA) scope of analysis, as well as the geographic extent of evaluation, for the Environmental Impact Statement (EIS) for the proposed Gateway Pacific Terminal (GPT) and Custer Spur improvement projects. Information can be accessed via <http://www.eisgatewaypacificwa.gov/resources/project-library>. Here are questions and answers about this decision.

## Definitions

**Q: What is the “scope” of the studies for the EIS?**

A: The “scope” -- or extent of evaluation -- means the range of actions, alternatives, and impacts to be analyzed in an environmental document. Those impacts may be direct, indirect or cumulative. The scope includes the geographic range to be studied, as well as which elements of the natural and built environment that will be studied.

**Q: What is SEPA?**

A: In Washington, SEPA stands for State Environmental Policy Act. It sets up a process to review proposed projects or government actions that result in likely environmental impacts. Proposed projects undergo a first-level review to determine whether the impacts are likely to be significant. If it is determined that a proposed project will result in significant adverse environmental impacts, a Determination of Significance is issued and the proposal requires the development of an Environmental Impact Statement (EIS). SEPA applies to projects that require local or state permits.

**Q: What is NEPA?**

A: NEPA stands for National Environmental Policy Act. NEPA requires federal officials to consider environmental values alongside the technical and economic considerations that are inherent factors in federal decision making. NEPA calls for the evaluation of reasonable alternatives to a proposed federal action; solicitation of input from organizations and individuals that could potentially be affected; and the unbiased presentation of direct, indirect, and cumulative environmental impacts of the federal action. This information is used by a federal official before a decision is made. The Corps has agency-specific procedures for implementing NEPA that can be found at 33 CFR 325 Appendix B.

**Q: What is an Environmental Impact Statement?**

A: An environmental impact statement (EIS) must be prepared when the lead agency (or agencies) determines a proposal is likely to result in significant adverse environmental impacts. The EIS provides an impartial discussion of reasonable alternatives, significant environmental impacts, and mitigation measures that could avoid or reduce significant impacts. For the Gateway Pacific Terminal/Custer Spur proposals, the co-lead agencies will issue a draft EIS with at least a 30-day comment period to allow other agencies, tribes, and the public to comment on the environmental analysis and conclusions. The co-lead agencies will consider these comments before they finalize the environmental analysis and issue a final EIS.

**Q: Who is preparing the EIS?**

A: The three co-lead agencies, Whatcom County Planning and Development Services (County), Washington State Department of Ecology (Ecology), and the U. S. Army Corps of Engineers (Corps), are preparing the EIS. To avoid duplication, the EIS will meet the requirements of both SEPA and NEPA. The three agencies have hired a consulting firm, CH2M HILL, to assist them. CH2M HILL has assembled specialists on the many different types of impacts the EIS is expected to assess. It is not uncommon for a draft EIS to take two or more years for large and/or complex project proposals.

**Q: Why are you releasing information on the scope now?**

A: The scope, or extent of evaluation as determined by the co-lead agencies, provides the consultant with the range of elements to be included in the EIS and the geographical extent to which direct, indirect, and cumulative impacts must be evaluated. The scope enables the consultant to begin developing the methods to analyze possible impacts of the proposals, an important step in preparing a draft EIS.

**Process****Q: How was the scope determined?**

A: The co-lead agencies considered the comments received during the scoping comment period, conferred with one another, and reviewed the NEPA and SEPA laws and regulations. The joint scope for the EIS reflects the co-lead agencies' combined NEPA and SEPA requirements on the overall assessment of environmental impacts suitable to address each agency's regulatory needs. It is up to each co-lead agency to determine the relevance and weight the information in the EIS will be given in making its respective agency determination. During the development of the draft EIS, additional information or research could affect the extent of analysis for any particular area of study.

**Q: How did you take into consideration the extensive public input you received during the scoping comment period?**

A: The contractor hired by the co-lead agencies catalogued, tabulated and categorized the nearly 125,000 comments received. Of these, 15,894 comments contained unique messages (Most comments came as form-messages in response to organized comment campaigns). The co-lead agencies reviewed all comments and evaluated summaries that provided topic-by-topic comment assessments. The comments are available via the EIS website: <http://www.eisgatewaypacificwa.gov> . There were a wide range of comments and concerns provided by individuals and entities throughout and outside of Washington state. This scoping input prompted a broad consideration of topics to be studied.

## **Content of Environmental Review**

**Q: What effects will be studied for these proposals?**

A: Based on the combined needs of the co-lead agencies, the EIS will analyze the proposed projects' direct, indirect and cumulative impacts on the following environmental elements:

### ***Biological/Natural Environment***

1. Earth/Geology
  - Geology, soils, topography (includes analysis of erosion/enlargement of land area (accretion) and unique physical features)
  - Coastal areas and shorelines (physical oceanography and coastal processes)
  - Geological hazards
2. Air
  - Air quality
  - Climate and climate change, including greenhouse gases
3. Water
  - Surface water
  - Wetlands
  - Water quality
  - Floods and floodplains
  - Groundwater
  - Water supplies
4. Energy and Natural Resources
  - Wildlife and terrestrial habitat, including migration routes
  - Vegetation communities (forests, etc.)
  - Fish and aquatic habitat, including migration routes
  - Unique species
  - Threatened or endangered species

### ***Built Environment: Social Aspects***

1. Land use
  - Land uses, land-use plans, and growth management, including relationship to existing land-use plans and to estimated population
  - Recreation
  - Agricultural and farmlands, including agricultural crops

2. Transportation
  - Vehicular traffic, including transportation systems, traffic patterns, and hazards and safety
  - Waterborne traffic, including transportation systems, traffic patterns, and hazards and safety
  - Rail traffic, including transportation systems, traffic patterns, and hazards and safety
3. Cultural Resources
  - Historic and cultural preservation
4. Tribal treaty rights
5. Aesthetics
  - Light and glare
  - Visual impacts
  - Viewsheds
6. Public services and utilities
  - Services, including police, fire, EMS, maintenance, other governmental services
  - Utilities including electricity, water, sewer, solid waste, other utilities

***Built environment: Human aspects***

1. Noise and vibration
2. Health and safety
  - Hazards and risks
  - Safety, including public risk
  - Public health
3. Human environment
  - Employment
  - Local tax base
  - Environmental justice

***Cumulative Impacts Assessment***

The EIS also will provide an assessment of whether measures can be taken to avoid or reduce (mitigate) those environmental impacts.

**Q: What is the difference between direct, indirect, and cumulative impacts?**

**A:** After establishing the scope of analysis, the co-lead agencies must analyze the direct, indirect, and cumulative environmental effects (or impacts) of those activities under both SEPA and NEPA. Under NEPA, the Corps analyzes those effects that are subject to Federal control and responsibility if the permit is granted.

The definitions of impacts, according to the U.S. Council of Environmental Quality regulations are:

(a) **Direct effects** are caused by the action and occur at the same time and place.

(b) **Indirect effects** are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable. Indirect effects may include growth-inducing effects and other effects related to induced changes in the pattern of land use, population density or growth rate, and related effects on air and water and other natural systems, including ecosystems.

(c) **Cumulative Effects:** The impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.

**Q: Will off-site impacts be studied?**

**A:** Yes. Some indirect and cumulative off-site impacts will be studied. The extent will vary based on the element to be studied and impact pathways.

### **SEPA compared to NEPA**

**Q: What are the specific scopes unique to SEPA and NEPA regulations?**

**A:** The U.S. Army Corps of Engineers (Corps) implements NEPA consistent with 33 CFR 325, Appendix B – NEPA Implementation Procedures for the Regulatory Program. The Corps only extends its scope of analysis beyond the activities requiring a Department of the Army permit when the Corps has sufficient control and responsibility to warrant review. The Corps is not considering impacts that may occur in association with the overall coal export process such as rail traffic, coal mining, shipping coal beyond the territorial seas and/or burning coal overseas to be the effects of the Corps' action. These activities are beyond the Corps' control and responsibility.

Whatcom County and Ecology implement SEPA in accordance with chapter 197-11 WAC, and must consider any probable, significant, adverse environmental impacts from a proposed project consistent with WAC 197-11-060. Such impacts are subject to review, and possibly mitigation and/or denial if the impacts cannot be mitigated. SEPA does not limit its scope to those aspects within the jurisdiction of the lead agency or agencies, including local or state boundaries. Extent of the SEPA analysis (whether in a checklist to inform a threshold determination or in an EIS) is case-by-case based on facts.

In addition to the other co-lead agencies' scoping requirements, Ecology will require:

- A detailed assessment of rail transportation impacts on communities near the proposed project site and other representative communities in Washington, with a more general analysis of out-of-state rail impacts;
- A general assessment of cargo-ship impacts beyond Washington waters;
- An assessment of how the proposed project would affect human health, including impacts from related rail and vessel transportation in Washington;

- An evaluation of greenhouse gas emissions from terminal operations, rail and vessel traffic, and end-use coal combustion.

**Q: What is the combined scope of the EIS?**

A: The combined scope reflects the needs of the SEPA and NEPA processes, where they overlap and where they are different. The EIS will disclose the extent to which information in the joint document is for NEPA analysis and/or SEPA analysis only. Each agency may consider issues differently because of their specific regulatory authority and, therefore, will individually determine the relevance and weight to give the information in the EIS. On-site impacts will be studied to satisfy both NEPA and SEPA analyses, as will the environmental impacts of vessel traffic. The SEPA co-lead agencies are additionally directing a study of a statewide effects of rail traffic and related environmental effects. While all elements of the environment will be consistently studied, Ecology is specifically including the transportation (rail and vessel) effects on increased air, noise, greenhouse gas emissions and the relationship of these transportation effects on human health. Lastly, the SEPA co-lead agencies have decided to develop a Health Impact Assessment parallel to and integrated into the draft EIS.

**Q: How was the geographic scope determined?**

A: The geographic scope, or extent, for impact analyses has been defined based on determinations made by each of the co-lead agencies and input provided by the public, agencies, and Tribes during the scoping period. The geographic extents for the EIS have been established to ensure that adequate analysis is provided to meet the regulatory requirements of all co-lead agencies. It is the responsibility of each co-lead agency to determine what portion of the geographic extent will be relevant in making its respective agency determination.

**Q: Does including an environmental element in the scope indicate that the permitting agencies intend to regulate it?**

A: No. An EIS is not a permit and it does not directly regulate the proposed project. The intent of the EIS, in terms of inclusion of environmental elements, is to provide to decision-makers information on which to base decisions about regulatory conditions. Merely because an impact or aspect of the proposed project is described in the EIS under a specific environmental element does not mean it will be regulated.

## **Transportation**

**Q: What is the extent of the analysis of rail impacts?**

A: Based on requirements of SEPA, the joint EIS will study rail transportation impacts using a tiered approach.

- The first tier includes analysis within Washington state. In this tier, direct impacts within the proposed action areas (Whatcom County) and indirect impacts within the state of Washington will be studied. The SEPA co-lead agencies anticipate the studies to identify and conduct analyses for representative conditions in order to describe effects along in-state routes.

- The second tier of analysis will be for areas outside the state (to the point where the extraction of natural resources originates) and include qualitative, or less-detailed, studies that would provide information relevant to out-of-state communities with similar situations along the routes.

**Q: What is the extent of the analysis of the marine vessel impacts?**

A: As with rail transportation, vessel transportation will be examined using a tiered approach.

- The first tier analysis, for SEPA and NEPA, will include a vessel traffic study for examination of impacts in U. S. territorial waters, which includes a detailed risk analysis to determine the risk of an oil spill, as well as other marine traffic-related issues.
- The second tier analysis, conducted for SEPA only, will include a qualitative assessment for impacts beyond Washington state waters, and will not include detailed analyses.

## **Greenhouse Gases**

**Q: Will the EIS analyze greenhouse gases?**

A: The co-lead agencies will analyze greenhouse gases differently because of their different regulatory requirements.

- For NEPA, the extent of evaluation will generally be limited to the proposed project site and the potential construction of project site facilities.
- For SEPA, the greenhouse gas emissions resulting from the transportation of the commodities will be calculated. In addition, Ecology will require the greenhouse gas emissions from the end-use of coal, the predominate commodity to be shipped from the facility, to be addressed.

**Q: Why are greenhouse gases a concern?**

A: Greenhouse gases are a concern because they are considered a pollutant, affect the global climate and contribute to ocean acidification. Climate change includes changes in earth's temperature, wind patterns, precipitation, and intensity and frequency of storms. Emissions from the burning of coal also change the chemistry of our oceans, including Puget Sound, with negative impacts on sea life such as shellfish. In light of the polluting nature of greenhouse gases, local and federal agencies with expertise in air pollution commented during the scoping process that the EIS should assess greenhouse gas emissions from the combustion of coal proposed to be exported from the project.

**Q: Does state law allow study outside the borders of the United States, such as the combustion of coal-causing greenhouse gas emissions in Asia?**

A: SEPA is broadly worded to require consideration of environmental impacts, and directs agencies to act "to the fullest extent possible" when assessing the environmental impact of a proposal. In addition, SEPA rules direct lead agencies to look beyond their jurisdictional boundaries for environmental impacts that are likely and not merely speculative that could occur as a result of the proposed project.

**Q: Is the environmental review for the Gateway Pacific Terminal project being approached differently than for other proposals?**

A: No. While not a common practice, the approach of preparing a joint NEPA/SEPA EIS is promoted by U.S. Council of Environmental Quality (CEQ) to avoid unnecessary duplication. The requirements of SEPA and NEPA are being applied to these projects in ways that are consistent with other proposals that have been reviewed by the agencies.

As with all reviews, the agencies look at what is being proposed and, through an initial review, determine the appropriate EIS scope in relation to the potential for significant adverse environmental impacts. In this instance, the extent of analysis is based on what is required under NEPA and SEPA regulations, and what has been learned about the proposed projects so far.

The process for NEPA compliance is consistent with how the Corps has analyzed potential impacts from other bulk facilities in the Corps' jurisdiction in other parts of the country.

With regard to SEPA, Ecology has determined that GPT proposal requires broad environmental review: 1) to be responsive to public comment; 2) because of the expected probable, significant and adverse impacts caused by the scale and nature of the project (e.g., emissions associated with exported coal generates more greenhouse gas pollution than all current sources in Washington State combined); and 3) because state law discourages greenhouse gas pollution and coal power.

### **Health Assessment, Mine Impacts**

**Q: Will there be a Health Impact Assessment?**

A: Yes. The SEPA co-lead agencies plan to conduct a health impact assessment. The analysis area will focus on the communities near the project site and along transportation corridors. Direct and indirect impacts to human health will be evaluated.

**Q: Will the EIS study the environmental effects of the mining operations at the coal mines?**

A: No. The proposal is for transportation and storage of dry bulk commodities, not for mining.

**Q: Will cumulative impacts be studied?**

A: Yes, cumulative impacts will be studied to the extent they are identified in the EIS process. Cumulative impacts could include vessel and rail traffic impacts and human health impacts from similar projects proposed in the state, such as the Millennium Bulk Terminals Longview proposal.

### **Process, Next Steps, Expected Timeline**

**Q: What are the next steps in the EIS process?**

A: The co-lead agencies will direct CH2M HILL to begin gathering data, conduct studies using the scoping document guidance, and begin writing the draft EIS. The draft EIS will clearly state what

was studied and the source-materials used to produce the document. After the draft EIS is published, the co-lead agencies will seek public comment and conduct public hearings. A Final EIS will be produced after considering comments.

**Q: How long will it take to produce a draft EIS?**

A: A draft EIS for a proposed project of this size could take two years to complete.

**Q: Will the EIS make use of other studies, such as “crowdfunded” research?**

A: As part of the EIS process, the consultant team seeks and can utilize unbiased information such as scientific journal articles, studies, papers, etc., that are available during the time the EIS is being prepared. Several independent organizations have stated their intentions to conduct their own independent analyses of the proposed project’s impacts. Some of these studies may be appropriate to reference in the EIS. The co-lead agencies’ analysts will review the methods, validate source data, and determine whether information can be used in the development of an unbiased EIS. No entities other than the co-lead agencies have the statutory responsibility to conduct a rigorous and impartial review of the project. The co-lead agencies reserve the right to not use data or studies that are incomplete, flawed, subjective, or misleading.

**Q: Who are the experts on the CH2M HILL team, including subcontractors, and what are their credentials?**

A: Now that the co-lead agencies have determined the joint scope, CH2MHILL can assemble its team to address these specific areas. The co-lead agencies selected the CH2MHILL team including 14 subconsultants through a competitive proposal and interview process in April 2012. The consultants have no involvement in the decision making process. The team is an assembly of analysts with expertise to develop an objective and unbiased EIS on behalf of the co-lead agencies to meet the NEPA and SEPA requirements.

# Exhibit H



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January 21, 2013

Via USPS and via e-mail to [comments@eisgatewaypacificwa.gov](mailto:comments@eisgatewaypacificwa.gov)

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

Mr. Randel Perry  
U.S. Army Corps of Engineers, Regulatory Branch, NW Field Office

Ms. Alice Kelly  
Washington Department of Ecology, Northwest Regional Office

Mr. Tyler Schroeder  
Whatcom County, Planning & Development Services

**RE: Gateway Pacific Terminal Project – EIS Scoping**

Dear Co-Lead Agencies SEPA Officials:

Pacific International Terminals, Inc., is the applicant proposing to construct and operate the Gateway Pacific Terminal. We thank you for this opportunity to comment on the appropriate scope of the Environmental Impact Statement (EIS).

On September 21, 2012, the U.S. Army Corps of Engineers published a Notice of Intent to prepare an EIS for the Gateway Pacific Terminal project and related Custer Spur Rail Expansion project pursuant to the National Environmental Policy Act (NEPA). See 77 Fed. Reg. 58531 (Sept. 21, 2012). On September 24, 2012, Whatcom County issued a Determination of Significance and Request for Comments on the Scope of the EIS pursuant to the State Environmental Policy Act (SEPA).

The U.S. Army Corps of Engineers, the Washington Department of Ecology, and Whatcom County Planning and Development Services (collectively "the Co-Lead Agencies") have held seven public meetings at locations throughout Washington. They have also been holding an "on-line public meeting" over the internet, and have invited the submission of written comments. During these meetings, Pacific International Terminals has been able to hear the public comments provided and the concerns expressed. We appreciate the productive input offered by many of the commenters and as the EIS process unfolds, we are committed to a careful evaluation of mitigation opportunities and project adjustments aimed at addressing public concerns and identified project impacts.



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The purpose of these meetings and the public comment period, however, is to gather information about the appropriate scope of the EIS, not to consider the merits of the project. The Co-Lead Agencies have been quite clear in focusing these meetings on scoping. In their "Guide to participating," the Lead Agencies emphasized that "[c]omments about the merits (pro or con) of the proposal . . . will not be considered in determination of the scope of the EIS" and that "[a]ll comments-whether received once or numerous times . . . will receive the same consideration." Despite these clear instructions, many opponents of the Project have attempted to use the scoping process to encourage public protests and unproductive grandstanding, sending numerous people to public meetings to repeat the same comments, and submitting numerous copies of form letters and emails.

We appreciate this opportunity to provide comments on the proposed scope of the EIS. This letter outlines Pacific International Terminals' comments. It does not address rail issues and the related proposal to upgrade the Custer Spur. Those issues are addressed in a separate letter being submitted by BNSF Railway Company (BNSF).

## **I. Project Proposal**

Pacific International Terminals proposes to construct and operate the Gateway Pacific Terminal ("Terminal" or "Project"), a deep-water, multimodal terminal for the export and import of dry bulk commodities. The proposed Terminal will be located in the Cherry Point Industrial Urban Growth Area of Whatcom County, Washington, on property that has been zoned for Heavy Industrial Development.

Detailed information concerning the project proposal is provided in the Major Project Permit and Shoreline Substantial Development Permit Applications (June 10, 2011) and Supplemental Applications (March 16, 2012), the Project Information Document (February 28, 2011), and the Revised Project Information Document (March 2012). In addition, the following technical discipline reports have been or soon will be provided to the Co-Lead Agencies:

- AMEC, Wetland Determination and Delineation, Gateway Pacific Terminal Project (Feb. 22, 2008)
- AMEC, Wetland Identification and Delineation, Parcel 14 at Pacific International Terminals, Inc. Property (Sept. 26, 2011)
- AMEC, Engineered Traffic Study – REVISION 1, Gateway Pacific Terminal (Sept. 2012)
- AMEC, Preliminary Conceptual Compensatory Mitigation Plan – Revision 1, Gateway Pacific Terminal (March 2012)

- AMEC, 2011 Baseline Sediment Sampling Report, Gateway Pacific Terminal (June 15, 2012)
- AMEC, 2011 Hydrologic and Hydrogeologic Investigation Report, Gateway Pacific Terminal (June 15, 2012)
- AMEC, Avian Baseline Inventory Report, Gateway Pacific Terminal (June 15, 2012)
- AMEC, Freshwater Streams Baseline Inventory Report, Gateway Pacific Terminal (June 15, 2012)
- AMEC, Marine Biology Baseline Inventory, Gateway Pacific Terminal (June 15, 2012)
- Environ, Gateway Pacific Terminal Air Quality Technical Report (forthcoming)
- Environ, Gateway Pacific Terminal Environmental Noise Technical Report (Aug. 15, 2012)
- Finance & Resources Management Consultants, Inc., Review of Martin Associates Economic Impact Study (Oct. 24, 2011)
- Martin Associates, The Proposed Economic Impacts for the Development of a Bulk Terminal at Cherry Point (July 2011)

The proposed Terminal will consist of a wharf and trestle, materials handling and storage areas and associated equipment, and a rail connection and on-site rail loops. The Terminal has been designed with a capacity to export or import a maximum of 54 million metric tons of dry bulk commodities annually. The specific commodities shipped through the Terminal will depend upon market conditions and customer demand, and are likely to change over time.

Pacific International Terminals plans to construct the Terminal in two phases. At full build-out, the Terminal will have an East Loop providing open-air commodity storage, and a West Loop providing covered or silo storage. The East Loop would have capacity to ship up to 48 million metric tons per year of commodities, such as coal or calcined petroleum coke, that can be stored in open air, and the West Loop would have capacity to ship up to 6 million metric tons per year of commodities requiring covered storage, such as grains or potash.

As a separate but related project, BNSF plans to upgrade the Custer Spur, the existing rail line that runs approximately 6 miles from the main north-south rail line at Custer Wye to the Terminal.

## **II. Legal Framework**

NEPA requires federal agencies to prepare "a detailed statement . . . on the environmental impact" of any proposed federal project "significantly affecting the quality of the human



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environment." 42 U.S.C. § 4332(2)(C)(i). SEPA imposes a similar obligation on state agencies and local jurisdictions in Washington. RCW 43.21C.030(2)(c).

The EIS must present decisionmakers with a "reasonably thorough discussion of the significant aspects of the probable environmental consequences" of the agency's decision. Trout Unlimited v. Morton, 509 F.2d 1276, 1283 (9th Cir. 1974); Residents Opposed to Kittitas Turbines v. State Energy Facility Site Evaluation Council, 165 Wash.2d 275, 311, 197 P.3d 1153, 1171 (2008). In doing so, the EIS "must concentrate on issues that are truly significant to the action in question, rather than amassing needless detail." 40 C.F.R. § 1500.1(b).

The EIS should provide information necessary to evaluate the environmental consequences that are likely to occur and that are reasonable foreseeable. Sierra Club v. Marsh, 976 F.2d 763, 767 (1st Cir. 1992). It need not address potential impacts that are unlikely, remote or highly speculative. Sierra Club, 976 F.2d at 767; Trout Unlimited, 509 F.2d at 1283. The EIS should focus on significant impacts and not on "the accumulation of extraneous background data." 40 C.F.R. § 1500.2(b); accord WAC 197-11-030(2)(b).

During the scoping process, the Co-Lead Agencies are to determine the significant issues that require in-depth analysis in the EIS, and also to "[i]dentify and eliminate from detailed study the issues which are not significant or have been covered by prior environmental review." 40 C.F.R. § 1501.7(a)(2)-(3). Courts have emphasized that an important part of the scoping process is to narrow the issues to be addressed in-depth in the EIS. Kootenai Tribe of Idaho v. Veneman, 313 F.3d 1094, 1117 (9th Cir. 2002); see also WAC 197-11-408(1)-(2).

With this legal framework in mind, the following sections suggest how the EIS should address some of the potential direct, indirect and cumulative effects associated with the Gateway Pacific Terminal Project, and suggest some alternatives that the EIS should evaluate.

### III. Direct Effects

Consistent with judicial decisions interpreting NEPA and SEPA, Pacific International Terminals encourages the Co-Lead Agencies to include in the EIS a thorough discussion of significant direct effects of the proposed Gateway Pacific Terminal. Pacific International Terminals has provided the Co-Lead Agencies with considerable technical information regarding these direct effects in the Project Information Document, the Revised Project Information Document and numerous technical discipline reports. The technical reports



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are based on sound science and rely upon widely accepted scientific methods and protocols.

#### **A. Air Quality and Emissions**

The EIS should address the Project's potential effects on air quality as well as the design features, operational practices and commitments that Pacific International Terminals has made to avoid and minimize the Project's potential effects on air quality. Air quality issues are addressed in considerable detail in the report entitled "Gateway Pacific Terminal: Air Quality Technical Report."

The Project's primary potential direct impact on air quality stems from the potential for airborne dust and particulate matter resulting from the handling and storage of bulk commodities at the Terminal. As described in the Air Quality Technical Report, Pacific International Terminals will implement the best available technology to minimize and control these emissions. In addition to the possibility of airborne dust, the sources of air emissions include train locomotives operating on site, and vessels at and near the wharf. These sources will comply with applicable air quality regulations. The Air Quality Technical Report presents the results of detailed modeling of the potential emissions from the facility.

The Gateway Pacific Terminal will not have a significant direct effect on greenhouse gas emissions. The Air Quality Technical Report estimates greenhouse gas emissions from the construction of the Project to be approximately 12,537 metric tons of CO<sub>2</sub>e, and estimates annual direct greenhouse gas emissions during operations to be approximately 97 metric tons. The Project's construction emissions would represent less than 0.01% of annual greenhouse gas emissions in Washington, and less than 0.0002% of annual emission in the United States. The emissions during operations would represent less than 0.0001% of the annual Washington emissions, and less than 0.000001% of U.S. emissions.<sup>1</sup> Accordingly, Project emissions would not have a significant effect on the environment.

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<sup>1</sup> These percentages were calculated based on WDOE's estimate of Washington State greenhouse gas emission in 2008 of 101.1 million metric tons CO<sub>2</sub>e, and EPA's estimate of U.S. greenhouse gas emission in 2010 of 6,821.8 million metric tons CO<sub>2</sub>e. See WDOE, Washington State Greenhouse Gas Emissions Inventory 1990-2008 Table 2 (Dec. 2010) available at [http://www.ecy.wa.gov/climatechange/ghg\\_inventory.htm](http://www.ecy.wa.gov/climatechange/ghg_inventory.htm); EPA, Inventory of U.S. Greenhouse Gas Emission and Sinks: 1990-2010 Table ES-2 (Apr. 15, 2012) available at <http://www.epa.gov/climatechange/ghgemissions/usinventoryreport.html>.

The Air Quality Technical Report also calculates indirect GHG emissions from purchased energy, rail delivery and vessel traffic. Together annual direct and indirect GHG emissions during maximum capacity are



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Individuals and groups who have raised concerns about greenhouse gas emissions in connection with the Project have focused on the alleged indirect effects of the Project. In particular, they have questioned whether the Project would lead to more coal being burned in Asia. As explained in greater detail in the Part IV of this letter, this is not a likely result of the Project, and therefore, should not be considered in the EIS.

**B. Water Resources and Water Quality**

Pacific International Terminals intends to implement substantial measures to avoid adverse impacts to water resources and water quality. The primary potential for the Project to affect water quality directly arises from water runoff.

During construction, substantial earth moving will occur and that brings with it the possibility of erosion, sedimentation and stormwater runoff to nearby wetlands, streams and drainage areas. As described in the Revised Project Information Document, Pacific International Terminals will implement measures during construction that are consistent with the Department of Ecology's General Permit for Construction Stormwater. It will also design and construct a stormwater management system consistent with the Stormwater Manual for Western Washington.

Once in operation, wastewater discharge will be limited to runoff from water used to control dust during site operations and sanitary wastewater. Runoff from Terminal operations will be managed through sediment basins and other related controls. The sanitary wastewater will be treated in prefabricated wastewater treatment systems and will eventually be discharged to septic fields pursuant to applicable requirements. Sanitary sewage from the washroom facility to be installed on the wharf would be treated, and trucked off site for further treatment and disposal in accordance with applicable regulatory requirements. No significant impacts are anticipated.

**C. Wetlands & Streams**

The EIS should address the Terminal's direct effect on wetlands, streams and related functions. Construction of the Terminal is expected to result in the permanent filling of approximately 147.5 acres of wetland and the temporary disturbance of approximately 11.3 wetland acres. It is also expected to permanently impact approximately 14,932 linear feet of streams and ditches, and temporarily impact approximately 3,437 linear feet of streams and ditches. Pacific International Terminals has proposed an extensive mitigation

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expected to be approximately 50,000 metric tons, which is less than 0.05% of annual GHG emissions in Washington, and less than 0.0007% of annual GHG emissions in the U.S.



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plan to compensate for these impacts by creating and enhancing wetlands and stream channels to replace and restore overall watershed functions.

Information about wetlands, potential impacts and mitigation is presented in:

- AMEC, Wetland Determination and Delineation Gateway Pacific Terminal Property (Feb. 22, 2008);
- AMEC, Wetland Identification and Delineation Parcel 14 at Pacific International Terminals, Inc. Property (Sept. 26, 2011);
- AMEC, Preliminary Conceptual Compensatory Mitigation Plan – Revision 1, Gateway Pacific Terminal (Mar. 2012); and
- AMEC, Freshwater Streams Baseline Inventory Report (June 15, 2012)

#### **D. Terrestrial Habitat and Wildlife**

The EIS should address the Terminal's potential direct effects on terrestrial wildlife and habitat. The Terminal would require the development of approximately 334 acres of land that includes forested and shrub habitat, as well as pasture and hayfields. Information concerning existing conditions and potential impacts can be found in the Revised Project Information Document and the Avian Baseline Inventory Report.

#### **E. Aquatic Habitat and Wildlife**

The EIS should address the potential direct effects of the Terminal on aquatic habitat and wildlife. The proposed Terminal includes a marine trestle and wharf that would be constructed in the nearshore environment on state-owned tidelands that would be leased from the Washington Department of Natural Resources.

The construction and operation of the marine trestle and wharf has the potential to affect marine resources. The Cherry Point area is recognized by the State of Washington as an aquatic reserve, with an environment that balances multiple unique features, including important natural habitats and deepwater access for industrial use. The herring stock found there has supported important commercial fisheries in the past and is an important resource for local Native American Tribes. The Cherry Point nearshore area also supports other fish species, marine mammals, and marine birds. Several federally listed species could occur in the vicinity of the Strait of Georgia, including Chinook salmon, steelhead trout, humpback whale, killer whale and Steller sea lion.

Detailed technical information concerning existing conditions, potential impacts and Pacific International Terminals' proposed mitigation measures can be found in the following documents:

- AMEC, Marine Biology Baseline Inventory (June 15, 2012)
- AMEC, 2011 Baseline Sediment Sampling Report (June 15, 2012)
- Pacific International Terminals, Revised Project Information Document (March 2012)

**F. Vehicle Traffic**

The EIS should address the potential direct effects of the Terminal on vehicle traffic in the vicinity of the Terminal. Most of the direct effects on vehicle traffic will be associated with Project construction, when various trucks and construction worker vehicles will be coming to and from the Project site. Once in operation, employee vehicles could also affect traffic in the vicinity. These impacts are addressed in greater detail in the technical discipline report prepared by AMEC entitled "Engineered Traffic Study." The Whatcom County Planning Department determined the scope of the study documented in that report and identified particular intersections that should be considered. The EIS should use the same scope for its analysis.

The Engineered Traffic Study did not include an analysis of the effects of future additional trains on the flow of street traffic due to at-grade crossings. A separate report prepared by BNSF entitled "BNSF Custer Spur Highway/Railway Grade Crossing Traffic Impact Study" provides that analysis.

**G. Socioeconomics**

The socioeconomic impacts of the Gateway Pacific Terminal are significant and should be discussed in detail in the EIS. Both the federal government and Washington State have adopted policies and commenced initiatives to expand interstate commerce and export trade. The Project would help to implement both the President's National Export Initiative<sup>2</sup> and Governor Gregoire's 6-Point Export Plan.<sup>3</sup> At the local level, Whatcom County's

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<sup>2</sup> Executive Order 13534 (Mar. 11, 2010), available at [www.whitehouse.gov/the-press-office/executive-order-national-export-initiative](http://www.whitehouse.gov/the-press-office/executive-order-national-export-initiative).

<sup>3</sup> Office of the Governor (June 22, 2010) available at: [www.governor.wa.gov/news/newsview.asp?pressrelease=1517&newstype=1](http://www.governor.wa.gov/news/newsview.asp?pressrelease=1517&newstype=1).



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Comprehensive Plan calls for continued development of the Cherry Point Industrial Urban Growth Area.<sup>4</sup>

The Gateway Pacific Terminal project is a \$665 million privately-funded project. The Project's construction and operation will have significant economic benefits for the local community and the region. Martin Associates, an economic consulting firm that has evaluated the economic impacts of hundreds of projects, performed an economic modeling analysis to estimate the economic impacts of the proposed project.<sup>5</sup> Martin Associates concluded that construction of the facility would:

- Support approximately 21.7 million person hours of construction-related employment;
- Generate approximately \$411 million in wages;
- Generate approximately \$624 million in local purchases; and
- Generate approximately \$70.8 million in state and local tax revenues.<sup>6</sup>

At full build out, Martin Associates estimated that the project would result in:

- Approximately 1,230 direct, induced and indirect jobs in the regional economy;
- Approximately \$11 million in annual state and local tax revenues;
- Approximately \$17 million in local purchases by businesses each year;
- Approximately \$126 million in annual regional economic activity through payrolls and purchase of goods and services; and
- Approximately \$1.4 billion in revenue each year for businesses providing handling, vessel and other services to the Terminal.<sup>7</sup>

In addition to considering the Martin Associates study, the EIS preparers should consider a peer review of the study prepared by Jedidiah W. Brewer, Ph.D., Hart Hodges, Ph.D. and David M. Nelson, Ph.D.<sup>8</sup> These three Western Washington University economics professors concluded that Martin Associates' estimates of employment impacts were

<sup>4</sup> Whatcom County, Comprehensive Plan (2010).

<sup>5</sup> Martin Associates, The Projected Economic Impacts for the Development of a Bulk Terminal at Cherry Point (July 2011).

<sup>6</sup> Id. at 6-7.

<sup>7</sup> Id. at 5.

<sup>8</sup> Finance & Resource Management Consultants, Inc. Review of Martin Associates Economic Impact Study (Oct. 24, 2011).



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reasonable. They also provided their own more conservative estimates of the project's likely economic impact. They attributed the different results to the use of different economic models, pointing out that both of the models used are nationally recognized and respected.

Others will likely encourage the EIS preparers to consider a report prepared by Public Financial Management, Inc., for Communitywise Bellingham.<sup>9</sup> In our view, this report does not present a serious analysis of the Project's potential economic impacts. It speculates about a wide range of potential impacts, without presenting any rigorous analysis or supporting information that might help to determine whether the hypothesized impacts are likely to materialize.

For example, the following is a typical statement in the Public Financial Management report: "To the extent that the perception of Bellingham and Whatcom County as 'clean and green' wanes, it could put potential gains in tourism and in-migration of skilled workers and entrepreneurs at risk."<sup>10</sup> The report does not assess the likelihood that the Project would cause a change in the area's clean and green reputation, and if so, how much the reputation might change. Likewise, it speculates that a reputation change could result in a reduction of tourism and in-migration, but presents no analysis demonstrating the likelihood or extent of such a result. In fact, the authors acknowledge that "it is possible that none of the risks identified in the prior section will be realized," that "we do not attempt to quantify a specific level of risk" and that "[o]ur analysis of risks makes a series of assumptions – each of which is uncertain."<sup>11</sup> The EIS preparers should review this report, but not accord it more consideration than it deserves. We believe it presents the type of speculation that should not be included in the EIS. See Sierra Club, 976 F.2d at 767; Trout Unlimited, 509 F.2d at 1283.

## H. Land Use

The EIS should include a thorough discussion of land use and the relationship between the Project and the Whatcom County Comprehensive Plan. Whatcom County first adopted the Comprehensive Plan in 1996, and last updated it in January 2010. It is intended to guide growth in unincorporated areas of Whatcom County for the next 20 years. The purpose of the Comprehensive Plan is to establish a framework of goals, policies, and action items for the more detailed growth planning and implementation actions that will occur in designated urban growth areas and in the county's rural areas.

<sup>9</sup> Public Financial Management, Inc., The Impact of the Development of the Gateway Pacific Terminal on the Whatcom County Economy (March 6, 2012).

<sup>10</sup> Id. at 27.

<sup>11</sup> Id. at 27.



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Under Whatcom County's 2009 Comprehensive Plan update, the area where the Project is located is designated as the Major Port/Industrial UGA, which covers approximately 7,000 acres. The subarea plan includes goals and policies aimed at guiding future land-use policies, regulations, and development.

The Cherry Point Heavy Impact Industrial zone where the Project is located has special characteristics of regional and international significance for the siting of large industrial facilities, including deep water and access to rail transportation. The BP Cherry Point Refinery, ALCOA-Intalco Works, and ConocoPhillips Ferndale Refinery together occupy approximately 4,100 acres in Whatcom County's Cherry Point Heavy Impact Industrial zone. All of these industries are dependent on water and rail access for moving commodities to and from their facilities.

Whatcom County identified this area for deep-water port industrial development, and the Comprehensive Plan and zoning regulations provide for this type of development (WCC 20.68.010). Whatcom County Code 20.68.050 (Permitted uses), subsection .059, specifically identifies "Bulk commodity storage facilities, and truck, rail, vessel and pipeline transshipment terminals and facilities" as an outright permitted use.

The County's Shoreline Management Program designates the shoreline within the Project area as part of the Cherry Point Management Area. This designation is intended to balance the natural habitat features found in the Cherry Point area with the unique features that make it ideal for water-dependent facilities. The Shoreline Management Program specifically identifies water-dependent industrial facilities as the preferred use in the area, and the proposed Terminal is consistent with the Shoreline Management Program for the development of the project site.

#### **IV. Indirect Effects**

In addition to considering the direct effects of a proposed action, NEPA and SEPA require an EIS to address the significant indirect effects of a proposed action. 42 U.S.C. § 4332(2)(C); 40 C.F.R. 1502.16, 1508.8. Unlike "direct effects" that are caused by a proposed action and "occur at the same time and place," "indirect effects" are effects that are "caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable." 40 C.F.R. § 1508.8(a)-(b).

An EIS need only consider effects that are proximately caused by the proposed action. Sabine River Authority v. U.S. Dep't of Interior, 951 F.2d 669, 680 (5th Cir.), cert. denied, 506 U.S. 823 (1992). As the Supreme Court has explained, "a 'but for' causal relationship is insufficient to make an agency responsible for a particular effect under NEPA . . . . NEPA

requires a 'reasonably close causal relationship' between the environmental effect and the alleged cause." U.S. Dep't of Transp. v. Public Citizen, 541 U.S. 752, 767 (2004) (internal citations omitted). "Some effects that are 'caused by' a change in the physical environment in the sense of 'but for' causation, will nonetheless not fall within [NEPA's requirement] because the cause chain is too attenuated." Metropolitan Edison Co. v. People Against Nuclear Energy, 460 U.S. 766, 774, 103 S.Ct. 1556, 1561 (1983); see also Washington Department of Ecology, Guidance for Ecology Including Greenhouse Gas Emission in SEPA Reviews 3 (June 3, 2011).

The following sections address the extent to which various issues would be appropriate to consider in the EIS analysis of indirect effects.

**A. International Bulk Commodity Trade**

The Gateway Pacific Terminal will provide infrastructure to allow the export and import of dry bulk commodities over the next 50 to 100 years. The applicant, Pacific International Terminals, will not decide what is shipped through the Terminal. Rather, the particular commodities shipped through the Terminal will depend upon the market forces that affect international trade. The amounts and kinds of commodities shipped through the Terminal are likely to change over time.

Like any other sector of the economy, international trade is subject to a complex mix of market forces. Population growth, economic growth and the availability of credit all affect global demand for commodities. The demand for commodities from the U.S. is affected by the U.S. supply, prices and the relative strength or weakness of the U.S. dollar.

In fact, the volume, value and type of goods exported from the United States vary considerably from year-to-year and over longer periods of time. For example, the total value of products exported from the United States was \$1.16 trillion in 2007, \$1.30 trillion in 2008, \$1.06 trillion in 2009, \$1.28 trillion in 2010, and \$1.48 trillion in 2011.<sup>12</sup> The total volume of waterborne foreign trade with the United States (in metric tons) also varies:

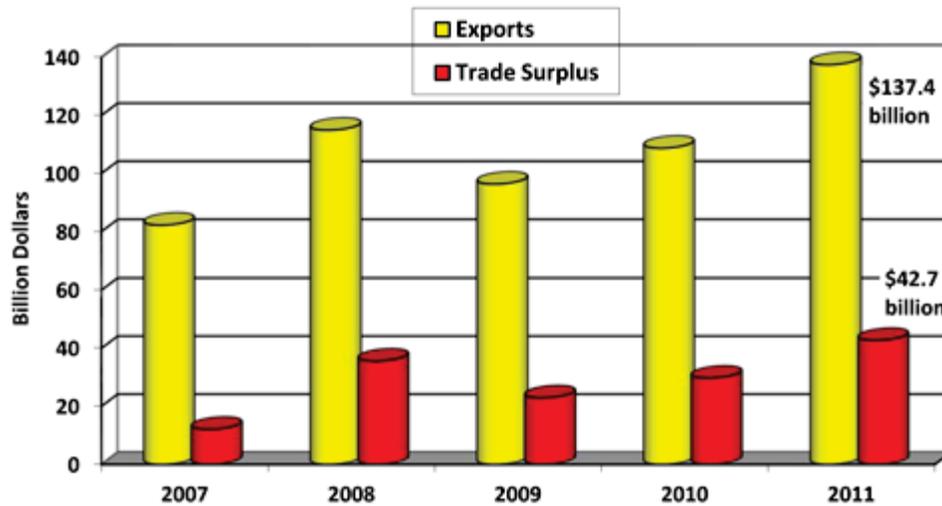
2007	2008	2009	2010 <sup>13</sup>
1,375,931,614	1,376,529,311	1,202,017,487	1,304,934,773

<sup>12</sup> International Trade Centre, Trade Map – International Trade Statistics, available at [http://www.trademap.org/tradestate/Product\\_SelCountry\\_TS.aspx](http://www.trademap.org/tradestate/Product_SelCountry_TS.aspx).

<sup>13</sup> U.S. Marine Administration, Maritime Statistics, available at [http://www.marad.dot.gov/library\\_landing\\_page/data\\_and\\_statistics/Data\\_and\\_Statistics.htm](http://www.marad.dot.gov/library_landing_page/data_and_statistics/Data_and_Statistics.htm).

Exports of particular commodities or types of commodities are even more variable than the total amount of exports. For example, the value of agriculture exports during the 2007 to 2011 period ranged from a low of just over \$80 billion to a high of almost \$140 billion:<sup>14</sup>

**Fiscal Year Agricultural Exports and Trade Surplus**



The following table comparing export volumes of various agricultural commodities forecasted for fiscal years 2012 and 2013 (in million metric tons) with fiscal year 2011 exports shows considerable variability in only three years:<sup>15</sup>

Commodity	FY 2011 Actual	FY 2012 Forecast	FY 2013 Forecast
Wheat	34.5	28.5	32.0
Corn	45.2	39.0	33.5
Soybeans	40.3	37.3	30.2

<sup>14</sup> U.S. Department of Agriculture, International Agricultural Trade Report (Nov. 16, 2011), available at [http://www.fas.usda.gov/info/IATR/111611\\_Exports/default.asp](http://www.fas.usda.gov/info/IATR/111611_Exports/default.asp).

<sup>15</sup> U.S. Department of Agriculture, Outlook for U.S. Agricultural Trade (Aug. 30, 2012), available at <http://www.ers.usda.gov/publications/aes-outlook-for-us-agricultural-trade/aes75.aspx>.

Fertilizer is another example of a variable export commodity. The volume of fertilizers exported (in tons) has varied greatly over the past two decades:

1990	1995	2000	2005	2010 <sup>16</sup>
23,408,759	21,566,998	16,417,808	13,181,820	10,571,377

Coal exports reflect a similar volatility. According to the Energy Information Administration, annual U.S. coal exports in short tons for the past decade have been:<sup>17</sup>

2001	2002	2003	2004	2005
50,012,000	40,393,000	43,735,000	49,316,000	51,690,000

2006	2007	2008	2009	2010
51,264,000	60,607,000	83,478,000	60,404,000	83,178,000

2011
107,000,000

Given the lifespan of an infrastructure project like the Gateway Pacific Terminal and the variability that international trade is likely to experience during that lifespan, it is impossible to predict which commodities might be transported through the Terminal at any particular time.

Some have urged the Co-Lead Agencies to conduct a lifespan analysis of the environmental impacts associated with the production, transportation and consumption of commodities that may be transported through the Terminal. In particular, some have asked that the EIS consider the environmental impacts associated with mining and combusting coal. If it were appropriate to analyze impacts of mining and combusting coal in the EIS, however, it would be equally appropriate to analyze the environmental impacts associated with the

<sup>16</sup> USDA at <http://www.ers.usda.gov/data-products/fertilizer-importsexports/standard-tables.aspx>.

<sup>17</sup> Energy Information Administration at <http://www.eia.gov/cfapps/ipdbproject/iedindex3.cfm?tid=1&pid=1&aid=4&cid=regions&syid=2000&eyid=2010&unit=TST> and at <http://www.eia.gov/todayinenergy/detail.cfm?id=6750>

According to the National Mining Association, during the period 1985-2011, coal exports have been as high as 109 million short tons (in 1991), and as low as 39 million short tons (in 2002). In 2009, the U.S. exported only 59 million short tons, but then exported 107 million short tons in 2011. NMA, *U.S. Bituminous Coal Exports, 1985-2011* available at <http://nma.org/index.php/coal-statistics/coal-exports>



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production and consumption of agricultural commodities, potash and every other commodity that could conceivably be transported through the Terminal. Such an analysis would be difficult if not impossible to perform, highly speculative, and of no practical value in informing the permitting process for the Project.

The following discussion focuses on coal because people have urged the Co-Lead Agencies to address the potential impacts associated with coal mining and combustion in the EIS. The discussion demonstrates that the Terminal will not be the proximate cause of either coal mining or coal combustion. Although this discussion addresses coal in considerable detail, the same principles explain why the EIS should not contain a life-cycle analysis of any other commodity that might be shipped through the Terminal.

#### **B. Coal Mining and Combustion**

Several individuals and groups appear to believe that the NEPA/SEPA process for the Gateway Pacific Terminal Project should provide an opportunity to debate questions about the mining and combustion of coal. Although those may be legitimate topics of public policy debate, the EIS process is not the proper forum for that debate.

The EIS process is not intended to provide citizens a wide-ranging opportunity to express their views on all public policy issues. On the contrary, the Supreme Court has made clear that "[t]he political process, not NEPA, provides the appropriate forum in which to air policy disagreements." Metro. Edison Co. v. People Against Nuclear Energy, 460 U.S. 766, 777 (1983). The EIS process is intended to be used to analyze the environmental effects of a proposed project and its alternatives.

Major projects requiring NEPA review often implicate complex and controversial policy questions, but the Act is not intended to provide answers to these questions. See Sancho v. United States DOE, 578 F. Supp. 2d 1258, 1269 (D. Haw. 2008) (plaintiffs' objections to government participation in a particle accelerator project overseas raised a "complex debate" among scientists about the possible ramifications of the operation of the project, but "Congress did not enact NEPA for the purpose of allowing this debate to proceed in federal court.") Ultimately, NEPA is a procedural planning statute, not a mechanism for policy dispute resolution. See Sabine River Authority v. United States Dep't of Interior, 745 F. Supp. 388, 396 (E.D. Tex. 1990) (a water authority's objections to federal conservation easement on land where the authority intended to construct a reservoir was "more akin to a political dispute over policy choices than a legal dispute over compliance with the procedural requirements of NEPA").

The EIS is not intended to address every policy issue raised by the Project, but rather to address the Project's effects on the physical environment. The mining or combustion of

coal is certainly not a direct effect of the Gateway Pacific Terminal Project. The question is whether the Project might indirectly result in an increase in coal mining or coal combustion. The following sections confirm that these activities are not indirect effects of the Project, and therefore, should not be addressed in the EIS.

**1. Coal Mining**

Although the proposed Project is expected to transfer significant quantities of Powder River Basin coal from trains to ships, the EIS need not and should not include an in-depth evaluation of the environmental impacts associated with coal mining. First, the Project will not cause an increase in coal mining. Second, the impacts associated with mining in the Powder River Basin have already been considered in NEPA documents prepared in connection with mining leases.

**a. The Gateway Pacific Terminal will not Cause an Increase in Coal Mining in the Powder River Basin.**

The Gateway Pacific Terminal will not cause an increase in coal mining in the Powder River Basin. There will continue to be strong incentives to mine coal reserves whether or not the Gateway Pacific Terminal Project goes forward. The U.S. Energy Information Agency (EIA) estimates that domestic coal production will increase at an average rate of 0.3 percent per year, from 1,084 million short tons in 2010 to 1,188 million short tons in 2035. Western mines account for nearly all of this projected increase in production.<sup>18</sup> In 2011, Wyoming produced 438 million tons of coal, or almost 40% of the coal mined in the United States.<sup>19</sup> Powder River Basin coal is now used in 38 states. The largest market is Texas, which consumed over 64 million tons in 2008. Illinois is the next largest market at 54 million tons, and Missouri is third at 42.6 million tons.<sup>20</sup>

Coal remains the largest source of electricity generation in the United States. There are more than 1,400 coal-fired electricity generating units in operation at more than 600 plants across the country. These power plants generate over 40% of the electricity produced in

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<sup>18</sup> EIA, Annual Energy Outlook 2012, Early Release Overview, at 9 (Jan. 2012), available at [http://www.eia.gov/forecasts/aeo/er/pdf/0383er\(2012\).pdf](http://www.eia.gov/forecasts/aeo/er/pdf/0383er(2012).pdf).

<sup>19</sup> EIA, What is the role of coal in the United States? (July 2012), available at [http://www.eia.gov/energy\\_in\\_brief/article/role\\_coal\\_us.cfm](http://www.eia.gov/energy_in_brief/article/role_coal_us.cfm).

<sup>20</sup> Timothy J. Considine, *Powder River Basin Coal: Powering America*, Final Report to the Wyoming Mining Association, at 19 (Dec. 2009), available at [http://www.wma-minelife.com/coal/Powder\\_River\\_Basin\\_Coal/PRB\\_Coal.htm](http://www.wma-minelife.com/coal/Powder_River_Basin_Coal/PRB_Coal.htm)



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the United States and consume more than 900 million short tons of coal per year.<sup>21</sup> Construction permits have been issued for at least fifteen more coal-fired power plants in the U.S.<sup>22</sup> EPA predicts the costs of carbon capture and sequestration will decline in the future as the technology matures and is utilized more widely, which will make it possible to permit more coal-fired power plants in the future.<sup>23</sup> Indeed, EIA expects that coal will remain the largest source of electricity generation in the U.S. through 2035, and western coal production is projected to increase throughout this period.<sup>24</sup>

There are many ways that Powder River Basin coal can get to market. Trains deliver coal to markets throughout the United States. Numerous existing and proposed port facilities in the United States and Canada can be used to export Powder River Basin coal. There are already more than a dozen U.S. ports with coal loading capacity totaling at least 160 million short tons per year, and in 2011, Reuters reported that terminal or expansion projects had been proposed with a total capacity of more than 125 million tons.<sup>25</sup>

For this reason, construction of the Gateway Pacific Terminal Project cannot be considered the proximate cause of coal mining in the Powder River Basin. See Sierra Club v. Clinton, 746 F. Supp. 2d 1025, 1045-46 (D. Minn. 2010) (proposed pipeline is not the proximate cause of oil sands production in Canada because oil sands can be transported in other ways).

**b. Mining Impacts Have Been Thoroughly Evaluated In Other Documents.**

An EIS need not address the indirect effects that have already been thoroughly analyzed in other environmental documents. At most, the Co-Lead Agencies need only adopt portions of prior NEPA documents by reference if they conclude that the effects considered in those documents are relevant to a new project. See 40 C.F.R. § 1506.3-4; WAC 197-11-600(4), -630.

<sup>21</sup> EIA, What is the role of coal in the United States? (July 2012), available at [http://www.eia.gov/energy\\_in\\_brief/article/role\\_coal\\_us.cfm](http://www.eia.gov/energy_in_brief/article/role_coal_us.cfm).

<sup>22</sup> EPA, Proposed Rule: Standards of Performance for Greenhouse Gas Emissions for New Stationary Sources: Electric Utility Generating Units, at 16, 44, 154-57 (pre-publication version) (Mar. 27, 2012), available at <http://epa.gov/carbonpollutionstandard/pdfs/20120327proposal.pdf>.

<sup>23</sup> Id. at 39.

<sup>24</sup> EIA, Annual Energy Outlook 2012, at 87, 98 (June 2012), available at [http://www.eia.gov/forecasts/archive/aeo12/pdf/0383\(2012\).pdf](http://www.eia.gov/forecasts/archive/aeo12/pdf/0383(2012).pdf).

<sup>25</sup> Reuters, *FACTBOX – Proposed, existing capacity for U.S. coal exports* (June 9, 2011), available at <http://www.reuters.com/article/2011/06/09/usa-coal-exports-idUSN0915182220110609>.



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Mining in the Powder River Basin requires a variety of federal permits and approvals, including federal leases that trigger environmental analysis under NEPA. It makes much more sense to evaluate the environmental impacts of mining operations when leases are granted than it does to consider them in the context of a particular export terminal project.

The environmental impacts associated with mining in the Powder River Basin have been considered extensively by the Bureau of Land Management (BLM). BLM has completed a regional technical study called the Powder River Basin Coal Review to help evaluate the cumulative impacts of coal and other mineral development in the Powder River Basin.<sup>26</sup> The study considers an “upper coal production scenario” that includes a projected 576 million tons per year of production by 2020, and considers the total acres of disturbance, the total CO<sub>2</sub> emissions assuming all of the coal produced is burned, and other potential environmental impacts.

BLM refers back to this study in mine-specific EISs completed in the region. The Powder River Basin Coal Review and the particular mining lease EIS documents address both the local impacts of coal production and the global impacts of coal combustion.

## **2. Coal Combustion in Asia**

Although the Gateway Pacific Terminal is expected to load significant quantities of coal onto ships bound for Asia, the EIS need not and should not include an in-depth evaluation of the environmental impacts associated with that coal ultimately being combusted in Asia. First, and most importantly, the Project will not be the proximate cause of an increase in coal combustion. Second, other NEPA environmental documents have already addressed the impacts associated with burning Powder River Basin coal. Third, the Co-Lead Agencies need not analyze indirect effects in foreign countries that are beyond their jurisdiction to control.

### **a. The Gateway Pacific Terminal Project will not Cause an Increase in Coal Combustion.**

As discussed above, an EIS should only address indirect effects that are the proximate result of the proposed Project. U.S. Dep't of Transp. v. Public Citizen, 541 U.S. at 767. In particular, the Washington Department of Ecology has advised that an EIS need only

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<sup>26</sup> See BLM, Powder River Basin Coal Review, available at [http://www.blm.gov/wy/st/en/programs/energy/Coal\\_Resources/PRB\\_Coal/prbdocs.html](http://www.blm.gov/wy/st/en/programs/energy/Coal_Resources/PRB_Coal/prbdocs.html).



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consider greenhouse gas emissions that are "proximately caused" by the project.<sup>27</sup> In this case, there are several reasons why the Gateway Pacific Terminal will not cause an increase in coal combustion.

First, coal will be exported from the United States to Asia regardless of whether the Gateway Pacific Terminal Project is built. Coal is currently being exported from more than a dozen ports in the United States.<sup>28</sup> In 2011, the United States exported more than 107 million tons of coal.<sup>29</sup> Several new export terminal and terminal expansions have been proposed along the East, West and Gulf Coasts, which would allow additional exports.<sup>30</sup> The following table shows current and proposed export capacity at other terminals along the West Coast:

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<sup>27</sup> WDOE, Guidance for Ecology Including Greenhouse Gas Emissions in SEPA Reviews, at 3 (June 3, 2011), available at [http://www.ecy.wa.gov/climatechange/docs/sepa/20110603\\_SEPA\\_GHGinternal\\_guidance.pdf](http://www.ecy.wa.gov/climatechange/docs/sepa/20110603_SEPA_GHGinternal_guidance.pdf).

<sup>28</sup> Reuters, *FACTBOX – Proposed, existing capacity for U.S. coal exports* (June 9, 2011), available at <http://www.reuters.com/article/2011/06/09/usa-coal-exports-idUSN0915182220110609>.

<sup>29</sup> EIA, Quarterly Coal Report 2011, Table 4 (Apr. 2012), available at <http://www.eia.gov/coal/production/quarterly/>.

<sup>30</sup> EIA, International Energy Outlook 2011, at 78-79, available at [http://www.eia.gov/forecasts/ieo/pdf/0484\(2011\).pdf](http://www.eia.gov/forecasts/ieo/pdf/0484(2011).pdf); The Columbian, *U.S. Coal Exports Surge, Riding Demand Abroad* (Apr. 12, 2012), available at <http://www.columbian.com/news/2012/apr/13/us-coal-exports-surge-riding-demand-abroad/>.

Port/Project Name	Location (Status)	Coal Export Capacity
Prince Rupert Port	British Columbia (Active)	Planning to double current capacity to 24-30 mtpy <sup>31</sup>
Roberts Bank Superport	British Columbia (Active)	33 mmpy <sup>32</sup>
Millenium Bulk Terminal	Washington (Proposed)	Up to 44 mmpy <sup>33</sup>
Port of St. Helen's	Oregon (Proposed)	Up to 38 mmpy approved <sup>34</sup>
Port of Morrow	Oregon (Proposed)	Up to 8 mmpy <sup>35</sup>
Port of Coos Bay	Oregon (Proposed)	Up to 10 mmpy <sup>36</sup>
<b>Total</b>		<b>Over 160 mmpy</b>

Coal will be exported whether or not the Gateway Pacific Terminal Project goes forward. Indeed, the Energy Department forecasts that exports will increase significantly by 2035.<sup>37</sup>

Second, coal combustion in China and India will continue to increase whether or not the Gateway Pacific Terminal is built. According to the International Energy Association, "[t]he policy decisions carrying the most weight for the [future] global coal balance will be taken in Beijing and New Delhi."<sup>38</sup> The EIA forecasts that 95% of the anticipated net increase in global coal consumption over the next 20 years will come from Asia, with India and China

<sup>31</sup> Platts, *British Columbia export terminal can more than double capacity: official* (Sept. 19, 2011), available at <http://www.platts.com/RSSFeedDetailedNews/RSSFeed/Coal/6494157>

<sup>32</sup> Westshore Terminals, *Background*, available at <http://www.westshore.com/background.html>

<sup>33</sup> The Oregonian, *Longview proposed coal export terminal to have joint environmental review* (Oct. 9, 2012), available at [http://www.oregonlive.com/environment/index.ssf/2012/10/longview\\_coal\\_export\\_terminal.html](http://www.oregonlive.com/environment/index.ssf/2012/10/longview_coal_export_terminal.html)

<sup>34</sup> The Oregonian, *Port of St. Helens approves coal export agreements with two companies* (Jan. 26, 2012), available at [http://www.oregonlive.com/environment/index.ssf/2012/01/port\\_of\\_st\\_helens\\_approves\\_coa.html](http://www.oregonlive.com/environment/index.ssf/2012/01/port_of_st_helens_approves_coa.html)

<sup>35</sup> The Morrow Pacific Project, available at <http://morrowpacific.com/the-project>.

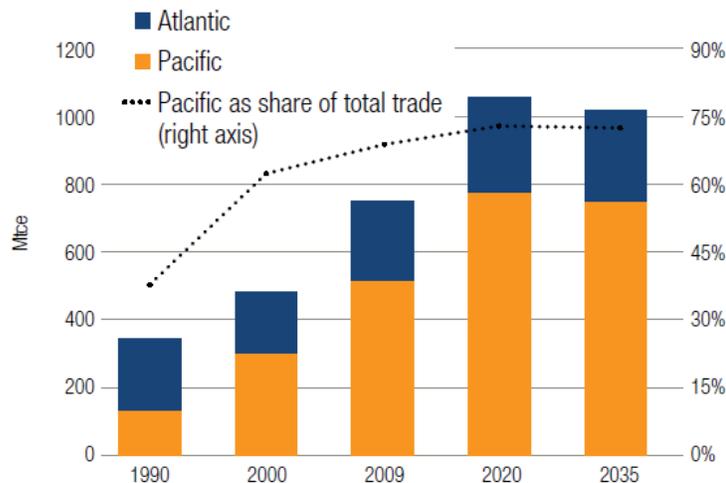
<sup>36</sup> The Coos Bay World, *Port enters negotiations with coal shipper* (Oct. 21 2011), available at [http://theworldlink.com/news/local/port-enters-negotiations-with-coal-shipper/article\\_e68fcd72-fc0b-11e0-affa-001cc4c002e0.html](http://theworldlink.com/news/local/port-enters-negotiations-with-coal-shipper/article_e68fcd72-fc0b-11e0-affa-001cc4c002e0.html)

<sup>37</sup> EIA, *International Energy Outlook 2001*, at 78 (Sept. 2011), available at [http://www.eia.gov/forecasts/ieo/pdf/0484\(2011\).pdf](http://www.eia.gov/forecasts/ieo/pdf/0484(2011).pdf)

<sup>38</sup> IEA, *World Energy Outlook 2012, Executive Summary*, at 5 (Nov. 2012), available at <http://iea.org/publications/freepublications/publication/English.pdf>

alone accounting for half of global energy growth through 2035.<sup>39</sup> By 2025, India is expected to overtake the United States as the world's second largest user of coal.<sup>40</sup>

### World Inter-regional Hard Coal Net Trade<sup>41</sup>



Rapid industrialization and urbanization drive energy demand in China, and the country's natural resources endowment have made coal the primary fuel choice. Coal comprised 70 percent of China's 2006 total energy consumption.<sup>42</sup> Coal consumption in China roles to almost 4 billion short tons in 2011.<sup>43</sup> The burgeoning coal-to-liquids industry in China may also add an additional 450 million metric tons of demand by 2025.<sup>44</sup> Several major studies conducted within the last ten years all lead to the conclusion that China's coal

<sup>39</sup> EIA, International Energy Outlook 2011, at 79, available at [http://www.eia.gov/forecasts/ieo/pdf/0484\(2011\).pdf](http://www.eia.gov/forecasts/ieo/pdf/0484(2011).pdf)

<sup>40</sup> IEA, World Energy Outlook 2012, Executive Summary, at 5 (Nov. 2012), available at <http://iea.org/publications/freepublications/publication/English.pdf>

<sup>41</sup> IEA, World Energy Outlook 2011, as presented in World Resources Institute, *Working Paper: Global Coal Risk Assessment*, at 12 (November 2012), available at [http://pdf.wri.org/global\\_coal\\_risk\\_assessment.pdf](http://pdf.wri.org/global_coal_risk_assessment.pdf)

<sup>42</sup> Nathaniel Aden et. al, *China's Coal: Demand, Constraints, and Externalities*, Ernest Orlando Lawrence Berkeley National Laboratory, at 14 (July 2009), available at [http://www.circleofblue.org/waternews/wp-content/uploads/2011/02/coal\\_bohai\\_report.pdf](http://www.circleofblue.org/waternews/wp-content/uploads/2011/02/coal_bohai_report.pdf)

<sup>43</sup> EIA, China available at <http://www.eia.gov/countries/cab.cfm?fips=CH>

<sup>44</sup> Nathaniel Aden et. al, *China's Coal: Demand, Constraints, and Externalities*, Ernest Orlando Lawrence Berkeley National Laboratory, at 27 (July 2009), available at [http://www.circleofblue.org/waternews/wp-content/uploads/2011/02/coal\\_bohai\\_report.pdf](http://www.circleofblue.org/waternews/wp-content/uploads/2011/02/coal_bohai_report.pdf)



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consumption will increase significantly in the coming decades.<sup>45</sup> A recent analysis by Wood Mackenzie indicates that Chinese coal import demand could reach one billion metric tons by 2030.<sup>46</sup>

India is also expected to burn increasing amounts of coal.<sup>47</sup> Even if India is able to satisfy sixty percent of its coal demand from domestic production, it will need to import an additional 106 million tons by 2015.<sup>48</sup> The Wood Mackenzie analysis indicates that India's imports could exceed 400 million metric tons by 2030.<sup>49</sup>

Finally, Japan, already the world's leading importer of coal, is likely to increase its reliance on coal in light of the country's increasing opposition to nuclear power in the wake of the Fukushima accident.<sup>50</sup>

Asian coal demand will increase regardless of whether the United States exports coal. Indeed, Asia has extraordinary coal resources of its own. China is the world's largest coal producer, producing almost 3.5 billion tons in 2011.<sup>51</sup> Because of its large domestic supplies, China is not dependent on imports. Rather, China imports heavily when the price is right and relies largely on domestic coal when the price of imports is not attractive. If imports were unavailable or more expensive, China would simply burn its own domestic supply.<sup>52</sup> India also produces large quantities of coal and has extensive reserves.<sup>53</sup>

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<sup>45</sup> Guodong Sun, *Coal in China: Resources, Uses, and Advanced Coal Technologies*, Pew Center on Global Climate Change, at 7 (Mar. 2010), available at <http://www.c2es.org/docUploads/coal-in-china-resources-uses-technologies.pdf>.

<sup>46</sup> Wood Mackenzie, *Coal Market Service: Thermal Trade*, Executive Summary, at 3 (Dec. 2011).

<sup>47</sup> EIA, *International Energy Outlook 2011*, at 72, available at [http://www.eia.gov/forecasts/ieo/pdf/0484\(2011\).pdf](http://www.eia.gov/forecasts/ieo/pdf/0484(2011).pdf)

<sup>48</sup> Platts International Coal Report, *India: Changing the World Coal Market*, at 21 (Nov. 2010), available at <http://www.platts.com/IM.Platts.Content%5Caboutplatts%5Cmediacenter%5Cindiacoalinsight.pdf>

<sup>49</sup> Wood Mackenzie, *Coal Market Service: Thermal Trade*, Executive Summary, at 3 (Dec. 2011).

<sup>50</sup> World Resources Institute, *Working Paper: Global Coal Risk Assessment*, at 12 (Nov. 2012), available at [http://pdf.wri.org/global\\_coal\\_risk\\_assessment.pdf](http://pdf.wri.org/global_coal_risk_assessment.pdf)

<sup>51</sup> World Coal Association, *Coal Facts 2012*, available at <http://www.worldcoal.org/resources/coal-statistics/>

<sup>52</sup> Richard K. Morse and Gang He, *The World's Greatest Coal Arbitrage: China's Coal Import Behavior and Implications for the Global Coal Market*, Working Paper #94, Stanford Program on Energy and Sustainable Development, at 20 (Aug. 2010), available at [http://iis-db.stanford.edu/pubs/22966/WP\\_94\\_Morse\\_He\\_Greatest\\_Coal\\_Arbitrage\\_5Aug2010.pdf](http://iis-db.stanford.edu/pubs/22966/WP_94_Morse_He_Greatest_Coal_Arbitrage_5Aug2010.pdf)

<sup>53</sup> EIA, *International Energy Outlook 2011*, at 73, available at [http://www.eia.gov/forecasts/ieo/pdf/0484\(2011\).pdf](http://www.eia.gov/forecasts/ieo/pdf/0484(2011).pdf).



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In addition, China, India and Japan are able to import coal from several countries other than the United States. According to the World Coal Association, in 2011, Indonesia, Australia and South Africa exported 309 million tons, 144 million tons, and 72 million tons of coal, respectively, in 2011.<sup>54</sup> Australia and Indonesia are expected to have the capacity to export 450 million tons by 2014-15, and coal exports from South Africa are also expected to increase.<sup>55</sup>

The EIA has described the United States as a marginal coal supplier over the long term, “responding to short-term disruptions or spikes in demand rather than significantly expanding its market share of world coal trade.”<sup>56</sup> Over time, the western United States is expected to become one of several new marginal suppliers to Asia, but this new marginal seaborne supply is only expected to complement existing coal production in Indonesia and Australia.<sup>57</sup>

For these reasons, the Gateway Pacific Terminal will not cause an increase in global coal consumption and associated environmental impacts. Given the other significant sources of coal available to Asian markets, exports transported through the Gateway Pacific Terminal are not the proximate cause of coal combustion in Asia and need not be considered in the EIS. See Sierra Club v. Clinton, 746 F. Supp. 2d 1025, 1046 (D. Minn. 2010) (“there has been no showing that it is reasonably foreseeable that the oil being transported through the AC Pipeline will increase overall oil consumption in the United States”).

Nonetheless, some have argued that U.S. coal exports will lower the price of coal in Asia and increase demand as a result. This argument has been made in an unpublished article written by University of Montana professor Thomas Power. There are several problems with Professor Power's argument.

First, Professor Power does not provide any support for a critical link in his argument. He cites two studies for the proposition that a long-term, 10 percent change in energy prices can lead to changes in energy use.<sup>58</sup> However, he does not show that coal exports from

<sup>54</sup> World Coal Assoc., *Coal Facts 2012*, available at <http://www.worldcoal.org/resources/coal-statistics/>

<sup>55</sup> See ABARES, *Australian Commodities*, vol. 17 n. 1, 156-158 (Mar. 2010), available at [http://adl.brs.gov.au/data/warehouse/pe\\_abare99014401/ac10\\_Mar\\_a.pdf](http://adl.brs.gov.au/data/warehouse/pe_abare99014401/ac10_Mar_a.pdf)

<sup>56</sup> EIA, *International Energy Outlook 2011*, at 79, available at [http://www.eia.gov/forecasts/ieo/pdf/0484\(2011\).pdf](http://www.eia.gov/forecasts/ieo/pdf/0484(2011).pdf); EIA, *International Energy Outlook 2010*, at 72, available at [http://www.eia.gov/forecasts/archive/ieo10/pdf/0484\(2010\).pdf](http://www.eia.gov/forecasts/archive/ieo10/pdf/0484(2010).pdf)

<sup>57</sup> Wood Mackenzie, *Coal Market Service: Thermal Trade*, Executive Summary, at 1 (Dec. 2011).

<sup>58</sup> See Thomas Power, “The Greenhouse Gas Impact of Exporting Coal from the West Coast,” (unpublished), at 7-8, available at <http://www.sightline.org/wp-content/uploads/downloads/2012/02/Coal-Power-White->

the United States would cause a long-term 10 percent change in coal prices in Asia, much less that exports from any particular terminal project would cause a change in coal prices.

Second, the economic evidence is clear that the amount of coal expected to be shipped through the Gateway Pacific Terminal would not be nearly enough to affect prices in Asia. Asian coal consumption alone reached 5 billion tons in 2010.<sup>59</sup> The maximum export capacity of the Gateway Pacific Terminal at full build-out would be 48 million tons, which is less than one percent of the amount of coal currently consumed in Asian.

Chinese coal imports could reach one billion metric tons by 2030, and India's imports will be at least 400 million metric tons in that same year.<sup>60</sup> Even if the maximum amount of coal shipped through the Gateway Pacific Terminal all went to Asia in 2030, those exports would constitute only 3 percent of Chinese and Indian imports.

Third, the price of coal does not significant affect the amount of coal consumed in China, although (as explained above) it may affect the source of coal being consumed. Market signals appear to have had little effect on Chinese energy use and related investment. Chinese energy prices are regulated and do not reflect underlying market scarcities."<sup>61</sup> One observer explained that the Chinese energy regulatory system is characterized by "price signals that have negligible effect on consumer behavior and investment."<sup>62</sup> Any effect U.S. exports might have on Chinese coal prices, would be short-lived and short-term price changes do not impact energy demand because of the expense and effort involved with modifying or replacing in-place energy technology to respond to price increases for a particular fuel.<sup>63</sup>

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[Paper.pdf](#), citing Robert S. Pindyck, *The Structure of World Energy Demand* (1979), and Jiao, J-L, Fan, Y. and Wei, Y-M, "The structural break and elasticity of coal demand in China: empirical findings from 1980-2006," *Int'l Journal of Global Energy Issues*, at 31 (2009).

<sup>59</sup> EIA, *International Energy Statistics* (2011), available at <http://www.eia.gov/cfapps/ipdbproject/IEDIndex3.cfm?tid=1&pid=1&aid=2>.

<sup>60</sup> *The European, China, India 2030 coal imports may hit 1.4 billion tonnes* (Mar. 14, 2012), available at <http://www.the-european.eu/story-340/china-india-2030-coal-imports-may-hit-1-4-billion-tonnes.html>.

<sup>61</sup> F. Gerard Adams and Yochanan Schachmurove, "Modeling and forecasting energy consumption in China: Implications for Chinese energy demand and imports in 2020," *Energy Economics*, at 1265-66 (2008).

<sup>62</sup> Angie Austin, "Energy and Power in China: Domestic Regulation and Foreign Policy," Foreign Policy Centre, at xiii (2005), available at <http://fpc.org.uk/fsblob/448.pdf>

<sup>63</sup> See Robert S. Pindyck, *The Structure of World Energy Demand* at 3 (1979); Jiao, J-L, Fan, Y. and Wei, Y-M, "The structural break and elasticity of coal demand in China: empirical findings from 1980-2006," 31 *Int'l Journal of Global Energy Issues* 342 (2009).



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In this context, it is extremely unlikely that U.S. coal exports through the Gateway Pacific Terminal would have any effect on the price of coal in Asia. CEQ guidance acknowledges that the courts have adopted a “rule of reason” to judge an agency’s actions with respect to the analysis of transboundary effects.<sup>64</sup> Agencies are not required to discuss remote and highly speculative consequences. Sierra Club, 976 F.2d at 767; Trout Unlimited, 509 F.2d at 1283. Any assessment of the potential indirect or cumulative effects of the Terminal on coal demand would be highly speculative given the wide-range of factors affecting the international coal market.

**b. The effects associated with burning Powder River Basin Coal have already been evaluated in other NEPA documents.**

As explained above, the BLM has prepared NEPA documents in connection with Powder River Basin coal leases that have analyzed the potential environmental effects associated with that coal being burned to generate electricity. Among other things, those documents include an in-depth discussion of the associated greenhouse gas emissions.<sup>65</sup> Significantly, in these documents, BLM has already acknowledged the potential for Powder River Basin coal to be sold outside the United States.<sup>66</sup> BLM concluded that it is unlikely that the pending coal lease applications would affect greenhouse gas emissions because “there are multiple other sources of coal that, while not having the cost, environmental, or safety advantages, could supply the demand beyond the time that [the relevant Powder River Basin mines] would complete recovery of their existing leases.”<sup>67</sup>

To the extent that the Co-Lead Agencies for the Gateway Pacific Terminal EIS conclude that these unlikely, remote, indirect effects should be addressed, they should simply adopt those other environmental documents by reference. See 40 C.F.R. 21 1506.3-4; WAC 197-11-600(4), -630.

<sup>64</sup> See CEQ, Memorandum to Heads of Agencies on the Application of the National Environmental Policy Act to Proposed Federal Actions in the United States with Transboundary Effects (July 1997), available at [http://www.ntc.blm.gov/krc/uploads/425/ApXS\\_CEQ-Guidance\\_TransboundaryImpacts.pdf](http://www.ntc.blm.gov/krc/uploads/425/ApXS_CEQ-Guidance_TransboundaryImpacts.pdf)

<sup>65</sup> See, e.g., Final EIS, Wright Area Coal Lease Applications, Vol. 1 at 3-323 to 3-327 and 4-129 (2009), available at <http://www.blm.gov/pgdata/etc/medialib/blm/wy/information/NEPA/hpdo/Wright-Coal/feis.Par.33083.File.dat/01WrightCoalVol1.pdf>

<sup>66</sup> Id. at 4- 137.

<sup>67</sup> Id. at 4-141.

c. **The Co-Lead Agencies need not Address Impacts Beyond Their Jurisdiction to Control.**

“Where an agency has no ability to prevent a certain effect due to its limited statutory authority over the relevant actions, the agency cannot be considered a legally relevant ‘cause’ of the effect.” *DOT v. Public Citizen*, 541 U.S. 752, 770 (2004). The Co-Lead Agencies have no authority to prevent coal consumption in Asia and, therefore, the EIS should not address the associated environmental impacts.

C. **The Production and Consumption of Other Bulk Commodities**

Although some parties have argued that the EIS should consider the environmental impacts of mining and consuming coal that may be shipped through the Gateway Pacific Terminal, the same reasoning could be used to suggest that the EIS should consider the environmental impacts associated producing and consuming any other bulk commodity that might be shipped through the Terminal. Two such commodities are calcined petroleum coke and grain. However, construction and operation of the Gateway Pacific Terminal would not cause an increase in the production or consumption of those or any other commodities shipped through the terminal.

Approximately 23 percent of worldwide petroleum coke production, excluding China, is earmarked for calcined petroleum coke.<sup>68</sup> Calcined petroleum coke is used to make anodes for the smelting industry, with the aluminum industry consuming 85% of the world's calcined coke. Annual worldwide production capacity for calcined coke is currently approximately 24 million tons.<sup>69</sup> China produces about 50% of the world's supply. BP produces 800,000 tons per year, the only calcined petroleum coke produced in Washington State. Some of this calcined coke might be exported through the Gateway Pacific Terminal, but there is no reason to believe that exports of at most three percent of the world's supply would cause any increase in the production or consumption of calcined coke.

Grains may also be shipped through the Gateway Pacific Terminal. In 2011, approximately 385 million metric tons of grain (corn, sorghum, barley, oats, wheat, rye and rice) were produced in the U.S., and approximately 73 million tons were exported.<sup>70</sup> At full build-out, the Gateway Pacific Terminal will have capacity to export 6 million tons of grain per year.

<sup>68</sup> See <http://www.oxbow.com/ContentPageSSL.asp?FN=ProductsCalcinedPetroleumCoke>

<sup>69</sup> Rain CII Heat Recovery Project for Power Production (08/17/2011), available at <http://www.raincii.com/news/>

<sup>70</sup> USDA, Agricultural Statistics at I-1 (2011).



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There is no reason to believe that this small amount of export capacity would change the amount of grain produced in the United States or consumed abroad.

#### **D. Vessel Traffic**

Vessel traffic is not a direct effect of the Gateway Pacific Terminal Project, but vessel traffic to and from the Terminal will be an indirect effect. The EIS should consider the impacts associated with vessel traffic, but the question is where to draw the geographic line when it comes to vessel traffic. The EIS must be bounded by the rule of reason. It is certainly foreseeable that vessels will be arriving at and departing from the proposed wharf. These vessels must enter Puget Sound at Cape Flattery, travel along the Strait of Juan de Fuca to Port Angeles, and then either travel through Haro Strait or Rosario Pass. It is reasonable, therefore, that the EIS consider the environmental impacts associated with vessels traveling those routes. The vessel impact study that is currently under way should provide useful information for the EIS.

Before vessels reach Cape Flattery and after they depart Puget Sound, it is impossible to predict with any degree of certainty where they will travel. The vessels could be bound for any number of other domestic or foreign ports, and could travel any number of routes to get there. Environmental impacts associated with that travel are too highly speculative to be addressed in this EIS. Trout Unlimited, 509 F.2d at 1283.

#### **V. Cumulative Impacts**

Both NEPA and SEPA require consideration of cumulative impacts. 40 C.F.R. § 1508.7; WAC 197-11-792(2)(c)(iii). A cumulative impact is "the impact on the environment which results from the incremental impact of the action when added to other past, present and reasonably foreseeable future actions regardless of what agency (Federal or non-federal) or person undertakes such other actions." 40 C.F.R. § 1508.7.

For each of the areas of direct effects addressed in the EIS, the EIS preparers will have to consider whether there are significant cumulative impacts that also warrant detailed analysis. The scope of cumulative impact analysis will necessarily depend upon the geographic area in which significant cumulative impacts are reasonably likely and foreseeable. CEQ guidelines emphasize that the purpose of the scoping process is to "narrow the focus of the cumulative effects analysis to important issues of national, regional, or local significance." CEQ, Considering Cumulative Effects Under the National Environmental Policy Act 12 (Jan. 1997).



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EPA has explained that the geographic boundaries of the cumulative impact analysis depend upon "the characteristics of the natural resources affected, the magnitude and scale of the project's impacts, and the environmental setting." See EPA, [Consideration of Cumulative Impacts in EPA Review of NEPA Documents](#) 10 (May 1999). "[T]he geographical boundaries should not be extended to the point that the analysis becomes unwieldy and useless for decision-making." Id. at 9. The appropriate geographic scope will be different for different resources and elements of the environment. CEQ, [Considering Cumulative Effects](#) at 15.

A couple of examples illustrate this point. The first example is air quality. In analyzing impacts to air quality, it is reasonable to consider whether significant cumulative impacts of the emissions associated with the proposed action, emissions from existing sources and emissions from any foreseeable new sources, but only in the geographic area in which models predict foreseeable significant impacts. The second example is wetlands. The geographic scope of the cumulative impact analysis may be much smaller when considering wetland impacts because wetland functions are generally confined to a particular watershed.

There are currently several proposals to construct new export terminals or expand existing terminals in the Pacific Northwest. Some have suggested that a NEPA cumulative impact analysis consider the potential cumulative effects of all of these proposals. We urge caution in doing so for a couple of reasons.

It is unlikely that all of these projects will go forward simultaneously. Although some of these proposals have advanced to the point of beginning the permitting process, others have not and may never. It would require significant speculation to analyze the potential effects of potential projects that have not been clearly defined in permit applications.

Even if two or more terminal projects were constructed in the Pacific Northwest, they would not be likely to have significant cumulative impacts. Cumulative impacts arise when projects share environmental resources within a defined geographic area, such as a single watershed or airshed. In this case, the proposed projects are in two different states, in locations that are as much as 500 miles apart. They are proposed to be located in and near different communities, airsheds, watersheds, and wildlife communities.

A more detailed discussion of the issues concerning programmatic EISs is found in the letter from William Lynn to Colonel Bruce Estok and Colonel John Eisenhower dated May 25, 2012, a copy of which is attached for your information. See also Letter from Jo-Ellen Darcy, Assistant Secretary of the Army, to Representative David McKinley dated Nov. 29, 2012.



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## VI. Alternatives

Both NEPA and SEPA require that an EIS consider potential alternatives to the proposed action and evaluate the potential environmental impacts of those alternatives. 42 U.S.C. 4332(2)(C)(iii); RCW 43.21C.030(2)(c)(iii). An important part of the scoping process is to identify the alternatives that warrant in-depth consideration in the EIS. Kootenai Tribe of Idaho v. Veneman, 313 F.3d 1094, 1117 (9th Cir. 2002).

### A. No Action Alternative

An EIS always considers the no-action alternative in addition to the proposed project. Doing so helps policymakers and the public to distinguish the significant environmental impacts that are likely to be caused by the proposed project from those environmental impacts that are likely to occur whether or not the project goes forward. This EIS should include a thorough discussion of the no-action alternative.

### B. Alternative Locations

In addition to the no action alternative, the EIS could consider other project alternatives. However, these alternatives must satisfy the applicant's purpose for the project. Native Ecosystems Council v. U.S. Forest Service, 428 F.3d 1233, 1247 (9th Cir. 2005); City of Shoreacres v. Waterworth, 420 F.3d 440, 450-51 (5th Cir. 2005). Indeed, under SEPA, when an applicant is a private party, as it is in this case, the EIS need not consider any offsite alternatives." Weyerhaeuser v. Pierce County, 873 P.2d 498, 505 (Wash. 1994).

The purpose of the proposed Gateway Pacific Terminal Project is:

To develop and successfully operate a multimodal marine terminal, including a deep-draft wharf with access trestle and other associated upland facilities, for export and import of multiple dry bulk commodities ("multimodal deep-water bulk terminal") within the Cherry Point Industrial Urban Growth Area to meet international and domestic demand.<sup>71</sup>

The Project responds to three principal needs, each of which provides a basis for the proposed project:

1. The need to ship bulk cargo to and from Asia and other markets to meet current and future market demand;

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<sup>71</sup> Pacific International Terminals, Inc., Revised Project Information Document, at 3-1(March 2012)

2. The need for deep-water, bulk marine terminals in the Puget Sound region; and
3. The need for community and economic development in Whatcom County consistent with the Whatcom County Comprehensive Plan for the Cherry Point Industrial UGA.<sup>72</sup>

To meet these needs, Pacific International Terminals requires a property that:

- Is located in the Pacific Northwest Region of the United States;
- Is of sufficient size to effectively accommodate the handling and storage of large quantities of dry bulk commodities;
- Is appropriately designated and zoned for use as a marine terminal;
- Can support a deep-water marine terminal and wharf;
- Has proximity and access to rail of sufficient length, configuration, and capacity to support the proposed terminal;
- Has proximity and access to major roads; and
- Has a sufficient supply of industrial water and energy.

The importance of deep water cannot be overstated. To ensure success, Pacific International Terminals needs to develop the Project in a manner that responds to existing and future market demands and economic development opportunities.

As the term implies, dry bulk commodities are voluminous, dry materials. They are shipped in bulk rather than as containerized cargo. Bulk commodities are transported in large ships with deep drafts because doing so is much more efficient and has a lower cost per ton than using smaller vessels. Using larger vessels also reduces traffic in ports and on constrained waterways.

The size of the bulk carrier fleet has grown steadily from an average of approximately 43,500 dry weight tons (dwt) in 1990 to an average of 64,400 dwt in 2012.<sup>73</sup> This increase reflects the deployment of Capesize vessels into the international bulk carrier fleet. These vessels are over 80,000 dwt, and in the past five years, more than 620 Capesize carriers over 150,000 dwt have been delivered.<sup>74</sup> Capesize vessels are up to 1,066 feet long with a

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<sup>72</sup> *Id.* at 3-1

<sup>73</sup> Institute of Shipping Economics and Logistics, *Shipping Statistics and Market Review*, Vol. 56, No. 4, 6 (2012).

<sup>74</sup> *Id.* at 6.



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draft of up to 65 feet. Only large, deep-water terminals are capable of receiving these vessels.

On the West Coast, Prince Rupert, Vancouver, DeltaPort, Cherry Point, Seattle, Tacoma, and Los Angeles/Long Beach are the only locations where navigation channels have sufficiently deep drafts to accommodate Capesize vessels.<sup>75</sup> Of the three U.S. locations in the Pacific Northwest, Seattle and Tacoma are already developed as ports. The Cherry Point Industrial Urban Growth Area is the only remaining location with the natural physical attributes to accommodate deep-draft vessels. Developing a port at another location would require significant dredging, with all of the associated environmental impacts.

Cherry Point has the following key advantages as a location for development of a dry bulk terminal:

- It has a natural deep-water, nearshore marine location that does not require dredging for development or maintenance of a deep-water wharf.
- Cherry Point's natural deep water enables the proposed wharf to accommodate up to 80-foot average draft vessels, including the largest oceangoing dry bulk cargo vessels, known as Capesize and Panamax vessels.
- It is a naturally protected inland marine water body.
- It has adequate available land zoned as Heavy Impact Industrial and a shoreline designation that supports water-dependent industrial use.
- It has adequate industrial water supply capacity and electrical infrastructure.
- It has easy access to Interstate 5.
- It has a ready connection to a Class 1 railroad (BNSF).
- It has a large, mainly flat area for short-term storage, transfer, and handling of commodities.
- It has sufficient upland area to process a train approximately 8,500 feet long without interfering with mainline rail traffic

An alternative location outside of the Pacific Northwest would clearly not satisfy the purpose or need for the proposed Project. To the extent that EIS preparers consider alternative locations for the bulk dry commodity export facility within the Pacific Northwest, the EIS preparers must consider whether these alternative locations present a commercially feasible alternative to the proposed location, as well as whether they would present an environmentally advantageous location.

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<sup>75</sup> Ausenco Sandwell, Pacific International Terminals: Gateway Coal Study Port Site Selection Overview (April 30, 2010).



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As explained above, the EIS should not include alternatives that would not meet the Project's objectives. Likewise, the EIS should not include in-depth discussions of alternatives that are remote or speculative. Laguna Greenbelt, Inc. v. U.S. Dept. of Transp., 42 F.3d 517, 525 (9th Cir. 1994); Gebbers v. Okanogan County Public Util. Dist. No. 1, 183 P.3d 324, 328 (Wash. App.), rev. denied, (Wash. 2008).

### **C. Alternative Terminal Size and Configurations**

The size of Panamax and Capesize vessels used increasingly in the transport of dry bulk commodities also has implications for the size of a terminal. A terminal must have sufficient land area, rail capacity, and ancillary infrastructure to marshal large quantities of bulk cargo quickly to or from a vessel.

Inside the site, there needs to be sufficient rail track to stage one full unit train leading into a rail car dumper with sufficient space at the exit end of the dumper for one unit train of empty cars. In addition, track is needed to allow for the storage of one full unit train with locomotives on site, while another is being dumped.

A large area is also needed to stockpile bulk materials for loading. The stockpile capacity required is proportional to annual throughput, since sufficient storage space must be available to handle cargo unloaded from trains and loaded into vessels efficiently.

Pacific International Terminals has worked with engineers to design the Project in a way that meets these objectives while at the same time minimizing unnecessary development. The EIS should not consider alternative configurations that would not meet these objectives.

### **D. Alternative Wharf Configurations**

Pacific International Terminal proposes to build a 2,980 foot wharf with access provided by a 1,100-foot-long, 50-foot-wide access trestle. The Shoreline Substantial Development Permit issued in 1997 by Whatcom County authorized the design and configuration for the wharf and trestle now being proposed. The EIS could consider alternative locations for the wharf, if such alternatives are environmentally preferable.

## **VI. Conclusion**

Pacific International Terminals thanks the Co-Lead Agencies for this opportunity to provide comments concerning the appropriate scope of the Gateway Pacific Terminal EIS and remains willing to assist the Co-Lead Agencies in developing the required environmental documents. Pacific International Terminals urges the Co-Lead Agencies to produce a



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document that provides a reasonably thorough discussion of significant environmental impacts that would be probable and proximately caused by the Project. The Co-Lead Agencies should use this scoping process as intended, to eliminate insignificant and improbable impacts from further consideration, so that the EIS can focus attention on those impacts that are probable and significant.

Sincerely,

A handwritten signature in black ink that reads 'Bob Watters'. The signature is written in a cursive, flowing style.

Bob Watters  
Senior Vice President, Business Development

Attachment:

May 25, 2012 Letter from William Lynn to Colonel Bruce Estok and Colonel John Eisenhower

William T. Lynn  
Direct: (253) 620-6416  
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May 25, 2012

Colonel Bruce Estok  
Seattle District Engineer  
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Colonel John Eisenhower  
Portland District Engineer  
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**Re: Bulk Export Terminal Projects**

Dear Colonel Estok and Colonel Eisenhower:

We are writing on behalf of Pacific International Terminals, Inc., the applicant for the Gateway Pacific Terminal project at Cherry Point in Whatcom County, Washington. We understand that some stakeholders have requested that the U.S. Army Corps of Engineers prepare a programmatic or regional EIS to comprehensively evaluate all bulk commodity export terminals that have been or may in the future be proposed in the Pacific Northwest.<sup>1</sup> A programmatic or regional EIS is neither required nor appropriate in this instance. Instead, to the extent that foreseeable projects may have cumulative effects on the environment, NEPA already provides for the evaluation of any clearly identifiable cumulative effects in project-specific NEPA documents.

The recent calls for a programmatic or regional EIS are a transparent attempt to try to kill the proposed export terminal projects by introducing an additional layer of environmental review that would unnecessarily delay the permitting process. NEPA was intended to provide decision makers with useful information about the environmental consequences of

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<sup>1</sup> We understand that six such projects have been identified but not all have reached the stage where a commitment has been made to initiate the permitting process: the Gateway Pacific Terminal at Cherry Point in Whatcom County, Washington, the Millennium Bulk Terminal's project in Longview, Washington, the RailAmerica proposal in Grays Harbor, Washington, the Ambre Energy proposal involving Port of Morrow and Port of St. Helens in Oregon, the Kinder Morgan proposal at Port of St Helens, Oregon, and a possible terminal at Coos Bay, Oregon.

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their decisions; it was never intended to be used to prevent projects by creating protracted delays. The call for a programmatic or regional EIS is simply the latest tactic in the campaign of groups and individuals who have declared "war on coal." Although these groups have a right to engage in public policy debate about coal, this is not the proper forum for that debate. Courts have repeatedly held that the EIS process should not be used as a vehicle for engaging in fundamental policy debates. Metro. Edison Co. v. People Against Nuclear Energy, 460 U.S. 766, 777 (1983); Churchill County v. Norton, 276 F.3d 1060, 1079 (9th Cir. 2001), as amended, 282 F.3d 1055 (9th Cir.), cert. denied, 537 U.S. 822 (2002); Foundation on Economic Trends v. Lyng, 817 F.2d 882, 886 (D.C. Cir. 1987).

The Corps should not attempt to prepare a programmatic or regional EIS to evaluate all of the export terminal projects currently proposed or still being formulated. Instead, the Corps should proceed with a project-specific EIS for each project as it reaches the permitting process, relying upon the well-developed body of law and agency procedures for evaluating potential cumulative impacts in project-specific EISs.

#### Programmatic EIS

Some stakeholders have suggested that the Corps prepare a programmatic EIS, which NEPA authorizes agencies to prepare in certain circumstances. 40 C.F.R. §§ 1502.4(b), 1508.18(b)(3). A programmatic EIS is appropriate when an agency is adopting "programs, such as a group of concerted actions to implement a specific policy" or "systematic and connected agency decisions allocating agency resources to implement a specific statutory program." Foundation of Economic Trends, 817 F.2d at 884 (quoting 40 C.F.R. § 1508.18(b)(3)).

The existence of a federal program is a prerequisite to preparing a programmatic EIS. Courts have explained that a programmatic EIS may be appropriate when the agency is adopting "a wide-ranging federal program," National Wildlife Fed'n v. Appalachian Regional Comm'n, 677 F.2d 883, 888 (D.C. Cir. 1981), or taking a series of "concerted actions" designed to "implement a specific policy or plan." Churchill County, 276 F.3d at 1074. Likewise, a programmatic EIS may be appropriate when an agency develops a plan that will govern future specific actions. E.g., City of Tenakee Springs v. Block, 778 F.2d 1402, 1407 (9th Cir. 1985) (requiring Forest Service to prepare programmatic EIS for land management plan); Blue Mountains Biodiversity Project v. Blackwood, 161 F.3d 1208, 1215 (9th Cir. 1998) (requiring an EIS for timber sales that were part of a timber salvage project), cert. denied, 527 U.S. 1003 (1999).

In the current circumstance, however, the Corps has not proposed any program related to the development of export terminals in the Pacific Northwest. In the absence of any program, the Corps should follow its long established procedures for considering permit applications on a case-by-case basis when they are filed with the agency. Courts have

repeatedly held that a programmatic EIS is not appropriate when an agency makes a series of discrete, independent actions. Foundation of Economic Trends, 817 F.2d at 885. In particular, a programmatic EIS is not appropriate when an agency is making several independent decisions on separate applications submitted by private parties. Kleppe v. Sierra Club, 427 U.S. 390, 399-401 (1976). For example, the Ninth Circuit has held that the Bonneville Power Administration was not required to prepare a programmatic EIS for several power contracts because there was no record showing of a master plan for development of the region. Sierra Club v. Hodel, 544 F.2d 1036, 1041 (9th Cir. 1976).

Indeed, without a program or policy defined by the Corps, it would be impossible to define the key elements of the EIS such as the Purpose and Need, the Proposed Action, and the scope of a programmatic EIS. As the Supreme Court has explained, "[a]bsent an overall plan . . . it is impossible to predict the level of . . . activity that will occur . . . and thus impossible to analyze the environmental consequences and the resources commitments involved in and the alternatives to, such activity." Kleppe, 427 U.S. at 402.

#### Regional EIS

Even without a federal program, some stakeholders have asked that a single regional EIS be prepared for all of the Pacific Northwest bulk export terminal projects because they are "similar" and may have "cumulative effects." NEPA regulations allow an agency to prepare a single EIS for multiple similar actions with substantial cumulative impacts, if doing so would be the best way to analyze their impacts 40 C.F.R. § 1508.25(3). An agency, however, is never required to prepare a single EIS for multiple independent projects. See Earth Island Inst. v. U.S. Forest Service, 351 F.3d 1291, 1306 (9th Cir. 2003); Izaak Walton League of Am. v. Marsh, 655 F.2d 346, 374 n. 73 (D.C. Cir.), cert. denied, 454 U.S. 1092 (1981).

Just as a programmatic EIS is not appropriate, there are at least four reasons not to prepare a regional EIS for the bulk export terminal projects being proposed or contemplated in the Pacific Northwest. First, the projects are private projects that are entirely independent of one another and are sponsored by different companies. A single EIS is most often prepared when there is a close interrelationship between two or more projects. Compare Blue Mountain Biodiversity Project, 161 F.3d at 1214-15 (requiring a single EIS for five timber sales within the same watershed that were part of a comprehensive forest recovery strategy), with Izaak Walton League, 655 F.2d at 374 (concluding a single EIS was not required for various unrelated river projects that were not part of an overall plan). Here the various projects are not economically or functionally interrelated, connected or otherwise interdependent.

Second, the projects are not "similar" in most relevant respects. As far as it can be determined from the information currently available, the projects are far more different than similar. They vary in location, with some projects proposed in Washington and some in

Oregon, some in the Puget Sound and some on the Columbia River, some on private land and some on public land, some on industrial land and others on commercial or agricultural land. They vary in proposed capacity from 5 to 54 million tons per year in commodity throughput. They vary in modes for transport, with some projects served by rail and large Cape-size ocean-going vessels, and others served by river-going barges and smaller ocean-going vessels. They vary in the commodities to be handled, with some apparently handling only coal and others designed to handle a wide range of dry bulk commodities. They vary in proposed operational date from as early as 2015 to others with no announced timeline. As a result of these and other differences, the project proposals will have very different potential environmental consequences.

Third, despite the assertions of project opponents, the six projects do not have significant cumulative impacts. Cumulative impacts arise when projects share environmental resources within a defined geographic area such as a single watershed or airshed. In this case, the project sites are spread across two states, in locations that are as much as 500 miles apart. They are proposed to be located in and near different communities, airsheds, watersheds, and wildlife communities. There is no reason to believe these geographically distant projects would have so many cumulative impacts that they could only be addressed meaningfully in a single EIS. On the contrary, to the extent that any cumulative impacts exist, they can be effectively analyzed in project-specific NEPA documents. See Resources Limited, Inc. v. Robertson, 35 F.3d 1300, 1306 (9th Cir. 1993) (a single EIS is not required as long as cumulative impacts are properly considered in project-specific EISs).

Fourth, a single EIS would not be a practical. See Kleppe, 427 at 414. An agency should only prepare a single EIS for multiple private projects if doing so would be the best way to provide relevant information to decision makers. The fundamental question is whether "the best way to assess adequately the combined impacts of similar actions" is a single EIS. Nevada v. Dept. of Energy, 457 F.3d 78, 92 (D.C. Cir. 2006) (quoting 40 C.F.R. § 1508.25(a)). With the varying stages of project development, the significant differences among projects, the absence of substantial cumulative impacts, and the number federal, state and local agencies and districts involved, preparing a single regional EIS would be much less effective than preparing project-specific EISs that include a discussion of cumulative impacts.

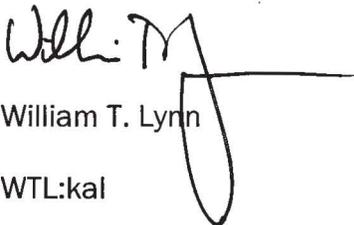
In similar circumstances, courts have upheld agency decisions not to prepare a single EIS. For example, in Churchill County v. Norton, 276 F.3d 1060, 1074-79 (9th Cir. 2001), the Fish and Wildlife Service had declined to prepare a single EIS concerning multiple water supply projects, even though they were all taking place within a single drainage basin and had been authorized by the same legislation. The Ninth Circuit upheld the agency's conclusion that a single EIS was not appropriate because the projects were not sufficiently integrated or equally well defined. The Ninth Circuit agreed that any cumulative impacts

could be addressed in project-specific EISs. Similarly, in League of Wilderness Defenders-Blue Mountain Biodiversity Project v. Bosworth, 383 F. Supp. 2d 1285, 1298 (D. Or. 2005), the court upheld the Forest Service's decision not to prepare a single EIS for multiple logging projects when "the projects were proposed at various times, they proceeded on their own time schedules, the project boundaries do not overlap, and the effects of the other projects were discussed in the [project-specific] EIS." See also Earth Island Inst. v. U.S. Forest Service, 351 F.3d 1291, 1305 (9th Cir. 2003).

#### Conclusion

For these reasons, Pacific International Terminals strongly urges the Corps to reject the suggestion that it prepare a single programmatic or regional EIS addressing all of the bulk export terminals being contemplated in the Pacific Northwest. Preparing a single EIS would be a significant departure for the agency's historic practice, and is not necessary or appropriate to evaluate the potential cumulative impacts of the various proposals. Instead, the Corps should follow its usual practice of preparing a project-specific EIS for each project as it becomes ripe in the permitting process, and include in the project-specific EIS an appropriate cumulative impact analysis that evaluates all the truly cumulative effects. Doing so will provide decision makers with sufficient information about environmental impacts to make informed decisions within their scope of their jurisdiction.

Very truly yours,



William T. Lynn

WTL:kal

cc: The Honorable Christine O. Gregoire, Governor  
Dennis McClerran, Regional Administrator, EPA Region X  
Kate Kelly, EPA Region X Director of Ecosystems, Tribal and Public Affairs  
Ted Sturdevant, Director Washington Department of Ecology  
Muffy Walker, Branch Chief, U.S. Army Corps of Engineers  
Don Brunell, Association of Washington Business  
Eric Johnson, Executive Director, Washington Public Ports Association  
Jeff Johnson, President, Washington State Labor Council, AFL-CIO  
Peter Goldmark, Commissioner of Public Lands, Washington State DNR

# Exhibit I

January 22, 2013

GPT/Custer Spur EIS  
c/o CH2M HILL  
1100 112th Avenue NE, Suite 400  
Bellevue, WA 98004

Dear Sir/Madam:

This letter, on behalf of Millennium Bulk Terminals -- Longview ("Millennium"), comments on the scope of the climate change impact analysis in the Environmental Impact Statement ("EIS") for the Gateway Pacific Terminal Project ("Terminal Project") under the National Environmental Policy Act ("NEPA") and the State Environmental Policy Act ("SEPA"). Millennium understands that Green House Gas (GHG) emissions and their environmental impacts will receive considerable attention in the EIS for both the Gateway and Millennium terminals and offers these comments at this time to promote a consistent approach for both projects. As discussed below, the review of this topic should (a) discuss environmental impacts when the science provides for such discussion, and note when the state of the science precludes such an analysis, (b) carefully consider causal relationships between emissions and activities, and (c) use existing information where available to discuss the issue..

**A. The EIS should discuss Greenhouse Gas impacts as well as quantities to the extent possible.**

Impact Statements often use quantities of GHG emissions as a surrogate for an analysis of actual climate change impacts. An analysis that only addresses emission quantities, however, stops short of NEPA and SEPA's central inquiry—that is an assessment of environmental effects. Therefore, the analysis should also—to the extent possible—assess environmental impacts. Where the state of the science precludes drawing conclusions regarding specific project impacts, the EIS should so note. The Bureau of Land Management used this approach in climate change analysis in its 2010 EIS for the Wright Area Coal Lease Applications (see attached).

**B. The GHG Analysis should carefully consider the extent of the causal connection between the project and various emissions.**

In general, NEPA only requires the analysis of impacts with a “reasonably close causal relationship” to the proposed action; “but-for causation by itself is generally insufficient.”<sup>1</sup> The terminal EIS should carefully determine whether the causal relationship between a given emission and the project is sufficiently close to attribute the emission (and any associated impact) to the project. If a close causal relationship cannot be established for emissions, they should be accounted for as part of the No Action Alternative as an impact that would have occurred without the project and studied nonetheless in the cumulative impact section of the EIS as a non-project impact.

For example, the U.S. Energy Information Agency projects that global coal consumption is likely to increase dramatically through at least the next decade based largely on the growth in Asian energy demands, with estimates of Asian consumption varying but on the order of 5 billion tonnes annually. Therefore, it is likely that the same amount of coal will be consumed in the foreseeable future with or without the three northwest terminal projects with pending applications (estimated at a total of 100 million tones). Under such a scenario, emissions from coal consumption would be accounted for in the No Action Alternative and discussed in the cumulative impact discussion as a non-project impact.

**C. The EIS’s climate change analysis should focus on cumulative impacts using existing information.**

Climate change has been recognized in court opinions as essentially a cumulative impact.<sup>2</sup> As discussed above, careful consideration of causality will help assign impacts properly to the No Action Alternative, cumulative impact discussion, and project alternatives. Existing information should also help in presenting cumulative impacts. Specifically, the Intergovernmental Panel on Climate Change (“IPCC”) has developed models for projecting climate change through 2100. Fortunately, NEPA encourages lead agencies to use existing resources such as the IPCC models rather than recreate them.

The IPCC models include varying development scenarios, each of which differently affects the pace of climate change. These scenarios illustrate the uncertainties and variables associated with the projections for appropriate consideration. The U.S. Army Corps of Engineers should consider using the IPCC models to identify the No Action Alternative and cumulative impact assessment and to frame the discussion of project level impacts. Again, the Wright Area EIS illustrates how one federal agency has recently used this approach in practice.

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<sup>1</sup> *U.S. Dep’t of Transp. v. Public Citizen*, 541 U.S. 752, 767 (2004)

<sup>2</sup> *Barnes v. U.S. Dept. of Transportation*, 655 F.3d 1124, 1139 (9<sup>th</sup> Cir. 2011).

GPT/Custer Spur EIS  
January 22, 2013  
Page 3

Thank you for this opportunity to comment.

Very truly yours,

K&L GATES LLP

By   
Eric Laschever

EL:klj

Enclosure

K:\2068123\00003\20439\_EL\20439L21F2

# ATTACHMENT

#### 4.0 Cumulative Environmental Consequences

Jacobs Ranch, and North Antelope Rochelle) from projected operations under the Proposed Actions and alternatives over the life of the actions.

##### 4.2.14.1 Greenhouse Gas Emissions, Global Warming and Climate Change

Ongoing scientific research has identified the potential impacts of anthropogenic (man-made) greenhouse gas (GHG) emissions and changes in biological carbon sequestration due to land management activities on global climate. Although GHG levels have varied for millennia, recent industrialization and burning of fossil carbon sources have caused the carbon dioxide equivalent (CO<sub>2</sub>e) concentrations to increase in our lower atmosphere. As with any field of scientific study, there are uncertainties associated with the science of climate change. This does not imply that scientists do not have confidence in many aspects of climate change science. Some aspects of the science are known with virtual certainty, because they are based on well-known physical laws and documented trends (EPA 2008a). However, the science is not settled and there is strong debate among the scientific community that natural variability is the overwhelming factor influencing climate rather than the accumulation of anthropogenic GHG emissions in the atmosphere.

The National Assessment of the Potential Consequences of Climate Variability and Change, an interagency effort initiated by Congress under the Global Change Research Act of 1990, Public Law 101-606, has confirmed that climate changes, while impacts in and of themselves, can affect other aspects of the environment. The Synthesis Report, the final part of the Fourth Assessment Report of the Intergovernmental Panel on Climate Change (IPCC) (available online at <http://www.ipcc.ch>), was released in preliminary form on November 17, 2007. The Synthesis Report (Bernstein et al. 2007) summarizes the results of the assessment carried out by the three working groups of the IPCC. Observations and projections addressed in the report include:

- “Warming of the climate system is unequivocal, as is now evident from observations of increases in global average air and ocean temperature, widespread melting of snow and ice, and rising global average sea level.”
- “Observational evidence from all continents and most oceans show that many natural systems are being affected by regional climate changes, particularly temperature increases.”

The term global warming is commonly used to refer to surface air temperature changes that are a response to increasing atmospheric GHG concentrations, along with other climate-influencing factors (NOAA 2007). From 1850 to present, historic trend data show an increase of 1° Centigrade (C) (1.8° Fahrenheit) in global mean temperature. However, the warming is not expected to be uniform over the globe, nor is it expected to be the same during all seasons of the year. There have been extended periods (decades) where temperature has dropped or stayed constant. This historic warming over that

same period has caused sea levels to rise by about 20 centimeters on average, and has also resulted in changes in climate patterns on land. In some areas near the equator, temperatures have cooled by about 5°C, while closer to the poles, temperatures have risen by equal amounts (Hansen and Lebedeff 1987). In northern latitudes (above 24° N), temperature increases of nearly 1.2°C (2.1° Fahrenheit) have been documented since 1900. The IPCC Fourth Assessment Report found that the "...projected warming in the 21<sup>st</sup> century shows scenario-independent geographical patterns similar to those observed over the past several decades. "Warming is expected to be greatest over land and at most high northern latitudes, and least over the Southern Ocean and parts of North Atlantic Ocean." Observations and computer models agree that arctic surface air temperatures are warming twice as fast as the global average, which is due partly to what is called the ice-albedo feedback (albedo is a term used to describe the fraction of sunlight reflected by an object) (NOAA 2007). Because temperature is a part of climate, the phenomenon of global warming is both an element of and a driving force behind climate change.

There has been, and continues to be, considerable scientific investigation and discussion as to the causes of the recent historic rise in global mean temperatures, and whether the warming trend will continue. Several activities contribute to the phenomena of climate change, including emissions of GHGs (especially carbon dioxide and methane) from fossil fuel development, large wildfires and activities using combustion engines; changes to the natural carbon cycle; and changes to radiative forces and reflectivity (albedo). It is important to note that GHG emissions will have a sustained climatic impact over different temporal scales (EPA 2008a).

Solar variability may play a role in global climate change, though the magnitude of the influence of increased sun activity is not well understood. Physical aspects of the sun, like sunspots and solar radiation output, are known to vary over time. The intensity of energy from the sun has varied through time and has resulted in global temperature variation.

Human population doubled to two billion from the period 1780 to 1930, then doubled again by 1974. The atmospheric concentrations of GHGs have increased as human populations have increased. More land and resources were used to provide for the needs of these populations. As human activities have increased, carbon-based fuels have been used to provide for those additional energy needs. Forests and vegetation were cleared in order to provide for food production and human use.

Carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), water vapor (H<sub>2</sub>O), ozone (O<sub>3</sub>), and nitrous oxide (N<sub>2</sub>O) are recognized as the major GHGs, although there are other gases that are considered GHGs. These are called "greenhouse gases" because, when released into the atmosphere, they prevent the escape of reflected solar radiation and heat from the Earth's surface. Through complex interactions on a regional and global scale, these GHG emissions and net losses of biological carbon sinks (i.e., forests) cause a net warming effect of the atmosphere,

#### 4.0 Cumulative Environmental Consequences

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primarily by decreasing the amount of heat energy radiated by the earth back into space. In this way, the accumulation of GHGs in the atmosphere exerts a “greenhouse effect” on the earth’s temperature. Like glass in a greenhouse, these gases trap radiation from the sun and act as an insulator around the Earth, holding in the planet’s heat. The present CO<sub>2</sub> concentration of about 385 parts per million (ppm) is about 30 percent above its highest level over at least the last 800,000 years. U.S. average temperature has increased by about 2° Fahrenheit over the last 50 years, which is more than the global average temperature increase (U.S. Global Change Research Program 2009).

According to the IPCC’s Synthesis Report (Bernstein et al. 2007):

- “Global atmospheric concentrations of carbon dioxide, methane, and nitrous oxide have increased markedly as a result of human activities since 1750 and now far exceed pre-industrial values determined from ice cores spanning many thousands of years.”
- “Most of the observed increase in globally-averaged temperatures since the mid-20<sup>th</sup> century is very likely due to the observed increase in anthropogenic greenhouse gas concentrations. It is likely there has been significant anthropogenic warming over the past 50 years averaged over each continent (except Antarctica).”
- “There is high agreement and much evidence that with current climate change mitigation policies and related sustainable development practices, global greenhouse gas emission will continue to grow over the next few decades.”
- “Continued greenhouse gas emissions at or above current rates would cause further warming and induce many changes in the global climate system during the 21<sup>st</sup> century that would be very likely to be larger than those observed during the 20<sup>th</sup> century.”
- “There is high confidence that by mid-century, annual river runoff and water availability are projected to increase at high latitudes and in some tropical wet areas and decrease in some dry regions in the mid-latitudes and tropics. There is also high confidence that many semi-arid areas (e.g., Mediterranean Basin, western U.S., southern Africa and northeast Brazil) will suffer a decrease in water resources due to climate change.”
- “Anthropogenic warming and sea level rise would continue for centuries due to the time scales associated with climate processes and feedbacks, even if greenhouse gas concentrations were to be stabilized.”
- “Anthropogenic warming and sea level rise could lead to some impacts that are abrupt or irreversible, depending upon the rate and magnitude of the climate change.”

- “There is high agreement and much evidence that all stabilization levels assessed can be achieved by deployment of a portfolio of technologies that are either currently available or expected to be commercialized in coming decades, assuming appropriate and effective incentives are in place for their development, acquisition, deployment and diffusion and addressing related barriers.”

The National Academy of Sciences has confirmed these findings, but also has indicated there are uncertainties regarding how climate change may affect different regions. Computer model predictions indicate that increases in temperature will not be equally distributed, but are likely to be accentuated at higher latitudes. Warming during the winter months is expected to be greater than during the summer, and increases in daily minimum temperatures is more likely than increases in daily maximum temperatures. Increases in temperatures would increase water vapor in the atmosphere, and reduce soil moisture, increasing generalized drought conditions, while at the same time enhancing heavy storm events. Although large-scale spatial shifts in precipitation distribution may occur, these changes are more uncertain and difficult to predict (EPA 2008a).

Relatively steep elevation gradients between valley floors and adjacent mountain ranges in the western U.S. produce considerable geographic climate variability. Warm, dry, semiarid conditions are typical on valley floors; moist and cool conditions are typical in higher parts of mountain ranges. Different plant communities occur within specific elevation zones. There also have been patterns of historic climatic variation in these areas for more than 10,000 years, during which plant communities gradually shift to higher or lower elevations depending on the direction of temperature and precipitation changes (Tausch et. al. 2004).

Temperature changes can result in shifts of weather patterns (rainfall and winds), which may then affect vegetation and habitat. If global warming trends continue into the foreseeable future, Chambers (2006) and the 2008 report by the U.S. Climate Change Science Program (U.S. Climate Change Science Program 2008a) indicate that the following changes may be expected to occur in the West:

- The amount and seasonal variability of precipitation will increase over most areas. IPCC (2001) climate model scenarios indicate that by 2100, precipitation will increase about 10 percent in summer, about 30 percent in fall, and 40 percent in winter. Less snowfall will accumulate in higher elevations, more precipitation will occur as rain, and snowmelt will occur earlier in the spring because of higher temperatures.
- Streamflow patterns will change in response to reduced snowpacks and increasing precipitation. Peak flows in spring are expected to occur earlier and be of lower magnitude because of snowpack changes. Runoff from greater amounts of winter rainfall will cause higher winter flows.

#### 4.0 Cumulative Environmental Consequences

climate change. To the extent that emission data were available or could be inferred from representative type data, potential GHG emissions that could result from development of the pending LBA tracts in the PRB (Table 1-2) have been identified, as well as emissions that would result from selection of the No Action alternatives.

Although the effects of GHG emissions and other contributions to climate change in the global aggregate are estimable, given the current state of science it is impossible to determine what effect any given amount of GHG emissions resulting from an activity might have on the phenomena of global warming, climate change, or the environmental effects stemming from it. It is therefore not currently possible to associate any particular action and its specific project-related emissions with the creation or mitigation of any specific climate-related effects at any given time or place. However, it is known that certain actions may contribute in some way to the phenomenon (and therefore the effects of) climate change, even though specific climate-related environmental effects cannot be directly attributed to them.

#### 4.2.14.3 U.S. Actions and Strategies to Address Greenhouse Gas Emissions

Potential regulatory policies to address climate change are in various stages of development at the federal, state, and regional levels (USDOE 2009b). A number of bills have been introduced in the U.S. Congress related to global climate change. At this time, there is no national policy or law in place that regulates GHG emissions.

The Lieberman-Warner Climate Security Act, which was introduced in October 2007 by Senators Joseph I. Lieberman (ID-CT) and John W. Warner (R-VA), would establish a cap-and-trade within the United States. In short, the “cap” would set a legal limit on the quantity of greenhouse gases that a region can emit each year and “trade” would allow companies to exchange the permission – or permits – to emit greenhouse gases. The cap would get tighter over time, until by 2050, emissions would be reduced by 63 percent below 2005 levels. The bill was approved by the Senate Environment and Public Works Committee in December, 2007 (<http://www.pewclimate.org>, accessed 12/21/2007). The bill was introduced in the Senate and read the first time on May 20, 2008. The Boxer-Lieberman-Warner substitute amendment to the Climate Security Act of 2008 was subsequently released by the Senate Environment and Public Works Committee on May 21, 2008. The bill was then read a second time and placed on the Senate Legislative Calendar under General Orders, Calendar No. 742. In June 2008 the U.S. Senate voted to invoke cloture on the Boxer amendment but did not pass the cap-and-trade legislation.

On June 26, 2009, the U.S. House of Representatives passed The American Clean Energy and Security Act of 2009. The legislation includes a federal GHG emissions cap-and-trade program that would take effect in 2012. The declining emissions cap requires that total GHG emissions be 17 percent below 2005 levels by 2020 and 83 percent below 2005 levels by 2050. In November 2009,

#### *4.0 Cumulative Environmental Consequences*

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cores (Section 3.18.2) is more than 20 times less than this estimate that is based on EIA's 2009 report (USDOE 2009c).

Since 1990, when BLM began leasing using the lease by application (LBA) process, total U.S. anthropogenic methane emissions declined from 783.5 million tonnes CO<sub>2</sub>e to 737.4 million tonnes CO<sub>2</sub>e in 2008. Total coal mining related emissions declined from 106.4 million tonnes CO<sub>2</sub>e to 82.0 million tonnes CO<sub>2</sub>e during the same time period. The EIA attributes the overall decrease in coal mine emissions of methane since 1990 to the fact that the coal production increases during that time had been largely from surface coal mines that produce relatively little methane (USDOE 2009c).

CBNG is currently being commercially produced on a large scale by oil and gas operators from wells located within and near the WAC LBA tracts. CBNG that is not recovered prior to mining would be vented to the atmosphere during the mining process. Selection of the No Action alternatives would potentially allow more complete recovery of the CBNG from the six WAC LBA tracts in the short term (roughly 10 years), during the time that the three applicant mines' currently leased coal is being recovered. However, BLM's analysis suggests that a large portion of the CBNG resources that are currently present on the tract would be recovered prior to mining under the Proposed Action or Alternatives 2 or 3 (a complete discussion is included in Section 3.3.2.1.2.1). Selection of the No Action alternatives would not be likely to directly decrease U.S. methane emissions attributable to coal mining in the long term because there are multiple other sources of coal that could supply the coal demand beyond the time that the Black Thunder, Jacobs Ranch, and North Antelope Rochelle mines recover the coal in their existing leases.

Nitrous oxide (N<sub>2</sub>O) is the one other GHG of concern that is associated with coal mining; however, the largest source in the U.S. is agricultural (about 76 percent comes from fertilization of soils and about 24 percent from management of animal waste) (USDOE 2009c).

Specific levels of significance have not yet been established for GHG emissions, and given the current state of science, it is not yet possible to associate specific actions with the specific climate impacts. As a consequence, impact assessments of effects of specific anthropogenic activities cannot be performed. Tools necessary to quantify incremental climatic changes associated with these GHG emission estimates for the projected coal mine development activities in the PRB are presently unavailable. Technology to conduct such an analysis at this spatial and temporal scale simply does not exist; therefore, conclusions as to the magnitude or significance of the emissions on climate change cannot be reached. The impacts of climate change represent the cumulative aggregation of all worldwide GHG emissions, land use management practices, and the albedo effect. The analysis does provide a meaningful context and measure of the relative significance of coal use from the overall projected PRB coal production on total GHG emissions. Therefore, climate change analysis in this EIS is limited to accounting for and disclosing of factors that contribute to

#### *4.0 Cumulative Environmental Consequences*

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Power plant buyers attempt to buy coal from suppliers at the most economical prices that meet their needs. PRB coal has competed well in this market due to its low sulfur content, providing a way for electric generators to achieve acid rain reduction requirements. This makes it valuable in lowering sulfur dioxide (SO<sub>2</sub>) pollution, as well as competitive mining costs when compared to delivered costs of coal from other coal producing areas.

Wyoming coal production has increased at a more rapid rate than other domestic coal. Coal coming out of the Wyoming PRB is mined using surface mining methods which are generally safer and less labor intensive than underground mining. Rural rangelands are the areas that are mainly mined; they are reclaimed according to WDEQ/LQD's standards (see Section 3.9.4). PRB coal reserves are in thick seams, resulting in more production from areas of similar land disturbance, and lower mining and reclamation costs.

Coal-fired power plants have been identified as principal sources of anthropogenic GHG emissions. Assuming that all coal produced from all coal mines in the Wyoming PRB would be burned to generate electricity; the amount of GHG emissions that could be attributed to that coal production can be estimated. This is done by relating the portion of coal mined in the PRB to the total emission of GHG from all coal mined in the U.S. It is assumed that all PRB coal is used for coal-fired electric generation as part of the total U.S. use of coal for electric generation. This gives an upper estimate of the GHG emissions resulting from the use of the total PRB coal production to produce electricity.

U.S. coal production increased from 1,029.1 million tons in 1990, when the Powder River Federal Coal Region was decertified, to 1,161.4 million tons in 2006, an increase of 12.9 percent (USDOE 2007a). Wyoming coal production increased from 184.0 million tons in 1990 to 444.9 million tons in 2006, an increase of 242 percent (Wyoming Department of Employment 1990 and 2006). The share of electric power generated by burning coal was consistently around 50 percent during that time frame. Also, the percentage of total U.S. CO<sub>2</sub> emissions related to coal consumption was consistently around 36 percent during that same time frame. The percentage of U.S. CO<sub>2</sub> emissions related to the coal electric power sector increased from about 30 percent in 1990 to about 33 percent in 2006 (USDOE 2009c).

In 2008, the Wyoming PRB coal mines produced approximately 451.7 million tons of coal. Using factors derived from laboratory analyses, it is estimated that approximately 749.6 million metric tons (tonnes) of CO<sub>2</sub> would be generated from the combustion of all of this coal (before CO<sub>2</sub> reduction technologies are applied). This number is based on an average Btu value of 8,600 per pound of Wyoming coal and using a CO<sub>2</sub> emission factor of 212.7 pounds of CO<sub>2</sub> per million Btu (USDOE 1994). The estimated 749.6 million tonnes of CO<sub>2</sub> represents approximately 35.3 percent of the estimated 2,125.2 million tonnes of U.S. CO<sub>2</sub> emission from coal combustion in 2008 (USDOE 2009c). In 2008, Wyoming PRB mines accounted for approximately 38.5 percent of the coal produced in the U.S. (USDOE 2009a).

#### 4.0 Cumulative Environmental Consequences

According to the U.S. Department of Energy (USDOE), Energy Information Administration's (EIA's) 2008 Emissions of Greenhouse Gases in the U.S. report (USDOE 2009c) and EIA's 2008 U.S. Coal Report (USDOE 2009a):

- CO<sub>2</sub> emissions represent about 83 percent of the total U.S. greenhouse gas emissions.
- Estimated CO<sub>2</sub> emissions in the U.S. totaled 5,839.3 million tonnes in 2008, which was a 1.5 percent decrease from 2006 (which was 5,928.7 million tonnes).
- Estimated CO<sub>2</sub> emissions from the electric power sector in 2008 totaled 2,359.1 million tonnes, or about 40.6 percent of total U.S. energy-related CO<sub>2</sub> emissions in 2008 (which was 5,814.4 million tonnes).
- Estimated CO<sub>2</sub> emissions from coal electric power generation in 2008 totaled 1,945.9 million tonnes or about 33.5 percent of total energy-related CO<sub>2</sub> emissions and about 82.5 percent of CO<sub>2</sub> emissions from the U.S. electric power sector in 2008.
- Coal production from the Wyoming PRB represented approximately 43.4 percent of the coal used for power generation in 2008, which means that combustion of Wyoming PRB coal to produce electric power was responsible for about 12.8 percent of the estimated U.S. CO<sub>2</sub> emissions in 2008.

As discussed earlier in this chapter, Task 2 of the PRB Coal Review projects coal development in the PRB into the future for the years 2010, 2015, and 2020. Due to the variables associated with future coal production, two projected coal production scenarios (representing an upper and a lower production level) were developed to bracket the most likely foreseeable regional coal production level. In the low scenario, the percentage of coal use for electric generation would stay about the same, assuming that all forms of electric generation would grow at a proportional rate to meet forecast electric demand. In the high scenario, percentage of coal use would also remain about the same, but with PRB coal displacing coal from other domestic coal regions. Table 4-37 shows the estimated annual CO<sub>2</sub> emissions that would be produced from the combustion of all of this coal (before CO<sub>2</sub> reduction technologies are applied).

In the following analysis, the contribution of the pending LBAs (Table 1-2) to cumulative effects on the environment by historic and projected development activity is evaluated. To do this, it is assumed that coal mining will proceed in accordance with existing permit conditions. It is further assumed that this coal will be sold to coal users in response to forecasts of demand for this coal. Historically these users have been electric utilities in the U.S., although there is potential for sales outside the U.S. This coal market is open and competitive and users can buy from the most cost effective suppliers that meet their needs.

4.0 Cumulative Environmental Consequences

Table 4-37. Estimated Annual CO<sub>2</sub> Emissions from Projected PRB Coal Production Levels According to Task 2 or the PRB Coal Review<sup>1</sup>.

Projected Coal Production Scenario	Year	Coal Production Rate (million tons per year)	CO <sub>2</sub> Emissions (million tonnes per year)
Lower	2010	411	682
	2015	467	775
	2020	495	821
Upper	2010	479	795
	2015	543	901
	2020	576	956

<sup>1</sup> BLM 2005a

The BLM does not determine the destination of this coal, and the use of the coal is determined by the coal consumer. The electric utilities where this coal has historically been used are throughout the U.S., and have a variety of coal combustion technologies and emission control, but all are licensed by the appropriate regulatory authorities in their locale, and operate under necessary permit requirements, and in compliance with regulation.

Table 4-38 shows the estimated cumulative annual CO<sub>2e</sub> emissions produced by all mines in the PRB that currently have LBAs pending (listed in Table 1-2). The cumulative emissions calculated are those associated with the actual mining operations and not from the combustion of the coal produced and sold on the open coal market. The LBA tracts are addressed individually in the following EISs: the South Gillette Area Coal (SGAC) Lease Applications FEIS (BLM 2009g), the Wright Area Coal (WAC) Lease Applications EIS (this document), the West Antelope II Coal Lease Application FEIS (BLM 2008d), and the Hay Creek II Coal Lease Application DEIS (BLM 2010). Under the Proposed Actions and Alternatives 2 and 3, the three applicant mines (Black Thunder, Jacobs Ranch, and North Antelope Rochelle) anticipate producing coal included in the North Hilight Field, South Hilight Field, West Hilight Field, West Jacobs Ranch, North Porcupine, and South Porcupine LBA Tracts at or less than currently permitted levels using existing production and transportation facilities. Estimates of greenhouse gas emissions resulting from the specific mine operations at the Black Thunder, Jacobs Ranch, and North Antelope Rochelle mines from projected operations under the Proposed Actions and alternatives are also included in Section 3.18.2.

The CO<sub>2</sub> emissions related to burning coal that is produced from the three applicant mines to generate electricity would be extended as a result of leasing and mining the WAC LBA tracts. Table 4-39 shows the estimated annual coal production of each of the three applicant mines and the related annual CO<sub>2</sub> emissions that would be produced from the combustion of the coal produced from each of the six WAC LBA tracts as applied for and as reconfigured under Alternative 2 (BLM's preferred alternative), if this coal is burned to generate electric power. The total contribution of CO<sub>2</sub> emissions that would be produced

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Table 4-38. Estimated Annual CO<sub>2</sub> Equivalent Emissions\* from Coal Production at PRB Mines With Pending LBAs.

Source	2007	With LBA Tracts
Four SGAC Mines/Four LBA Tracts	0.716	1.182
Three WAC Mines/Six LBA Tracts	1.245	2.503
Antelope Mine/West Antelope II Tract	0.225	0.348
Buckskin Mine/Hay Creek II Tract	0.197	0.197
<b>Total</b>	<b>2.535</b>	<b>4.229</b>

\* CO<sub>2</sub>e in million metric tons (tonnes)

Source: BLM 2008g, J&S 2009, WWC 2009

from the combustion of all the coal produced from each tract, if this coal is burned to generate electricity, are shown in Table 4-39. A scenario resulting in the maximum possible annual CO<sub>2</sub> emissions from burning the coal produced from the WAC LBA tracts would occur assuming all six tracts were leased under Alternative 2, and that coal removal from all six tracts were to be sequenced to maintain each of the three applicant mines at full permitted production until the new reserves were fully depleted. Under this scenario, the Black Thunder Mine would be able to extend production for 14.2 years, the North Antelope Rochelle Mine for 11.4 years, and the Jacobs Ranch Mine for 22.8 years.

It is not possible to accurately project the level of CO<sub>2</sub> emissions that burning the coal from the six WAC LBA tracts would produce due to the uncertainties about what emission limits would be in place at that time or where and how the coal in these LBA tracts would be used if they are leased and the coal is mined. Furthermore, the rate of mining and the timing of when coal removal from the tracts would actually begin are only the applicant mines' best estimate. As shown in Tables 2-2 through 2-13, under the No Action alternatives the mines are projecting that after 2008 approximately 10 to 11 years of currently permitted mine life remains. Therefore, coal removal from these six proposed maintenance lease tracts would not begin until approximately 2018 or 2019. More rapid improvements in technologies that provide for less CO<sub>2</sub> emissions, new CO<sub>2</sub> mitigation requirements, or an increased rate of voluntary CO<sub>2</sub> emissions reduction programs could result in significantly lower CO<sub>2</sub> emissions levels than are projected here.

The three WAC applicant mines produced 228.3 million tons of coal in 2008, which represents about 50.5 percent of the coal produced in the Wyoming PRB in 2008. Combustion of those 228.3 million tons of coal to produce electricity produced approximately 378.7 million tonnes of CO<sub>2</sub> emissions, or about 5.4 percent of the total estimated anthropogenic CO<sub>2</sub> emissions produced in the U.S. in 2008, which was approximately 7,052.6 million tonnes (USDOE 2009c). Under the No Action Alternative, CO<sub>2</sub> emissions attributable to burning coal produced by the Black Thunder, Jacobs Ranch, and North Antelope Rochelle mines would be extended at about this level for up to approximately 10 years

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Table 4-39. Estimated Annual CO<sub>2</sub> Emissions Produced from Combustion of Coal Produced from WAC LBA Tracts.

Applicant Mine/ LBA Tract	Anticipated Average Annual Coal Production by Applicant Mine <sup>1</sup> (mmtpy)	CO <sub>2</sub> Emissions Related to Annual Coal Production <sup>2</sup> (million tonnes)	Recoverable Coal Added Under Proposed Action <sup>1</sup> (mmt)	Mine Life Added Under Proposed Action <sup>1</sup> (years)	CO <sub>2</sub> Emissions Added by Proposed Action <sup>2</sup> (million tonnes)		Recoverable Coal Added Under Alternative 2 <sup>1</sup> (mmt)	Mine Life Added Under Alternative 2 <sup>1</sup> (years)	CO <sub>2</sub> Emissions Added by Alternative 2 <sup>2</sup> (million tonnes)	
					Total per LBA Tract	Average per Year			Total per LBA Tract	Average per Year
Black Thunder/ North Hilight Field	135	224.0	263.4	2.0	437.1	218.5	652.8	4.8	1,083.0	225.6
Black Thunder/ South Hilight Field	135	224.0	213.6	1.6	354.4	221.5	304.3	2.3	504.8	219.5
Black Thunder/ West Hilight Field	135	224.0	377.9	2.8	626.9	223.9	965.2	7.1	1,601.3	225.5
Jacobs Ranch/ West Jacobs Ranch	40	66.4	669.6	16.7	1,110.9	66.5	912.6	22.8	1,514.0	66.4
North Antelope Rochelle/ North Porcupine	95	157.6	601.2	6.3	997.4	158.3	745.4	7.8	1,236.6	158.5
North Antelope Rochelle/ South Porcupine	95	157.6	309.7	3.3	513.8	155.7	339.3	3.6	562.9	156.4

<sup>1</sup> Anticipated coal production rates at each applicant mine, coal tonnages within each LBA tract, and anticipated mine life added by each LBA tract are addressed in Chapter 2.

<sup>2</sup> Determined using emission factor of 1,659 tonnes CO<sub>2</sub>/ton of coal burned (USDOE 1994).

beyond 2008, while the mines recover their remaining estimated 2,483 million tons of currently leased coal reserves.

It is not likely that selection of the No Action alternatives would result in a decrease of U.S. CO<sub>2</sub> emissions attributable to coal mining and coal-burning power plants in the longer term, because there are multiple other sources of coal that, while not having the cost, environmental, or safety advantages, could supply the demand for coal beyond the time that the Black Thunder, Jacobs Ranch, and North Antelope Rochelle mines complete recovery of the coal in their existing leases.

In 2006, transportation sources accounted for approximately 29 percent of total U.S. GHG emissions (EPA 2008b). Transportation is the fastest growing source of U.S. GHGs, accounting for 47 percent of the net increase in total U.S. emissions since 1990. Transportation is also the largest end-use source of CO<sub>2</sub>, which is the most prevalent GHG (EPA 2008b). Transportation is also the largest end-use source of CO<sub>2</sub>, which is the most prevalent anthropogenic GHG (EPA 2008b, NOAA 2007).

Carbon dioxide is not the only GHG of concern. Another GHG, methane, in the form of coal bed natural gas (CBNG), is released into the atmosphere when coal is mined. The other major sources of U.S. methane emissions are from agriculture and waste management. According to the EIA (USDOE 2009a and 2009c):

- U.S. anthropogenic methane emissions totaled 722.7 million tonnes CO<sub>2</sub>e in 2007 and 737.4 million tonnes CO<sub>2</sub>e in 2008.
- U.S. 2008 methane emissions from coal mining were estimated at 82.0 million tonnes CO<sub>2</sub>e, which represents approximately 11.1 percent of the U.S. total anthropogenic methane emissions in 2008.
- Surface coal mining operations in the U.S. were estimated to be responsible for methane emissions of about 15.7 million tonnes of CO<sub>2</sub>e in 2008, which represents about 2.1 percent of the estimated U.S. anthropogenic methane emissions in 2008, and about 19.1 percent of the estimated methane emissions attributed to coal mining of all types.
- The Wyoming PRB produced approximately 55.5 percent of the coal mined in the U.S. in 2008 using surface mining techniques, which means that Wyoming PRB surface coal mines were responsible for approximately 1.17 percent of the estimated U.S. anthropomorphic methane emissions in 2008. The three applicant mines (Black Thunder, Jacobs Ranch, and North Antelope Rochelle) contributed about 50.5 percent of the Wyoming PRB production in 2008, which is the equivalent of about 4.4 million tonnes CO<sub>2</sub>e vented methane emissions. It should be noted that the estimated amount of annual methane emissions vented from the applicant mines based on the gas content analyses of local coal

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cores (Section 3.18.2) is more than 20 times less than this estimate that is based on EIA's 2009 report (USDOE 2009c).

Since 1990, when BLM began leasing using the lease by application (LBA) process, total U.S. anthropogenic methane emissions declined from 783.5 million tonnes CO<sub>2</sub>e to 737.4 million tonnes CO<sub>2</sub>e in 2008. Total coal mining related emissions declined from 106.4 million tonnes CO<sub>2</sub>e to 82.0 million tonnes CO<sub>2</sub>e during the same time period. The EIA attributes the overall decrease in coal mine emissions of methane since 1990 to the fact that the coal production increases during that time had been largely from surface coal mines that produce relatively little methane (USDOE 2009c).

CBNG is currently being commercially produced on a large scale by oil and gas operators from wells located within and near the WAC LBA tracts. CBNG that is not recovered prior to mining would be vented to the atmosphere during the mining process. Selection of the No Action alternatives would potentially allow more complete recovery of the CBNG from the six WAC LBA tracts in the short term (roughly 10 years), during the time that the three applicant mines' currently leased coal is being recovered. However, BLM's analysis suggests that a large portion of the CBNG resources that are currently present on the tract would be recovered prior to mining under the Proposed Action or Alternatives 2 or 3 (a complete discussion is included in Section 3.3.2.1.2.1). Selection of the No Action alternatives would not be likely to directly decrease U.S. methane emissions attributable to coal mining in the long term because there are multiple other sources of coal that could supply the coal demand beyond the time that the Black Thunder, Jacobs Ranch, and North Antelope Rochelle mines recover the coal in their existing leases.

Nitrous oxide (N<sub>2</sub>O) is the one other GHG of concern that is associated with coal mining; however, the largest source in the U.S. is agricultural (about 76 percent comes from fertilization of soils and about 24 percent from management of animal waste) (USDOE 2009c).

Specific levels of significance have not yet been established for GHG emissions, and given the current state of science, it is not yet possible to associate specific actions with the specific climate impacts. As a consequence, impact assessments of effects of specific anthropogenic activities cannot be performed. Tools necessary to quantify incremental climatic changes associated with these GHG emission estimates for the projected coal mine development activities in the PRB are presently unavailable. Technology to conduct such an analysis at this spatial and temporal scale simply does not exist; therefore, conclusions as to the magnitude or significance of the emissions on climate change cannot be reached. The impacts of climate change represent the cumulative aggregation of all worldwide GHG emissions, land use management practices, and the albedo effect. The analysis does provide a meaningful context and measure of the relative significance of coal use from the overall projected PRB coal production on total GHG emissions. Therefore, climate change analysis in this EIS is limited to accounting for and disclosing of factors that contribute to

climate change. To the extent that emission data were available or could be inferred from representative type data, potential GHG emissions that could result from development of the pending LBA tracts in the PRB (Table 1-2) have been identified, as well as emissions that would result from selection of the No Action alternatives.

Although the effects of GHG emissions and other contributions to climate change in the global aggregate are estimable, given the current state of science it is impossible to determine what effect any given amount of GHG emissions resulting from an activity might have on the phenomena of global warming, climate change, or the environmental effects stemming from it. It is therefore not currently possible to associate any particular action and its specific project-related emissions with the creation or mitigation of any specific climate-related effects at any given time or place. However, it is known that certain actions may contribute in some way to the phenomenon (and therefore the effects of) climate change, even though specific climate-related environmental effects cannot be directly attributed to them.

#### 4.2.14.3 U.S. Actions and Strategies to Address Greenhouse Gas Emissions

Potential regulatory policies to address climate change are in various stages of development at the federal, state, and regional levels (USDOE 2009b). A number of bills have been introduced in the U.S. Congress related to global climate change. At this time, there is no national policy or law in place that regulates GHG emissions.

The Lieberman-Warner Climate Security Act, which was introduced in October 2007 by Senators Joseph I. Lieberman (ID-CT) and John W. Warner (R-VA), would establish a cap-and-trade within the United States. In short, the “cap” would set a legal limit on the quantity of greenhouse gases that a region can emit each year and “trade” would allow companies to exchange the permission – or permits – to emit greenhouse gases. The cap would get tighter over time, until by 2050, emissions would be reduced by 63 percent below 2005 levels. The bill was approved by the Senate Environment and Public Works Committee in December, 2007 (<http://www.pewclimate.org>, accessed 12/21/2007). The bill was introduced in the Senate and read the first time on May 20, 2008. The Boxer-Lieberman-Warner substitute amendment to the Climate Security Act of 2008 was subsequently released by the Senate Environment and Public Works Committee on May 21, 2008. The bill was then read a second time and placed on the Senate Legislative Calendar under General Orders, Calendar No. 742. In June 2008 the U.S. Senate voted to invoke cloture on the Boxer amendment but did not pass the cap-and-trade legislation.

On June 26, 2009, the U.S. House of Representatives passed The American Clean Energy and Security Act of 2009. The legislation includes a federal GHG emissions cap-and-trade program that would take effect in 2012. The declining emissions cap requires that total GHG emissions be 17 percent below 2005 levels by 2020 and 83 percent below 2005 levels by 2050. In November 2009,

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the Senate Environment and Public Works Committee passed a GHG cap-and-trade bill that borrows much from the House American Clean Energy and Security Act and tightens the GHG emissions cap to 20 percent below 2005 levels by 2020. Several other committees are expected to weigh in before the final bill is crafted and brought before the Senate floor (USDOE 2009c).

On April 2, 2007, in *Massachusetts v. EPA*, the U.S. Supreme Court found that GHGs are air pollutants covered by the Clean Air Act (CAA). The Court held that the Administrator of the EPA must determine whether or not emissions of GHGs from new motor vehicles cause or contribute to air pollution which may reasonably be anticipated to endanger public health or welfare, or whether the science is too uncertain to make a reasoned decision. At that time, the court directed EPA to review the latest science on climate change in order to make a determination. On April 17, 2009, the Administrator signed Proposed Endangerment and Cause or Contribute Findings for Greenhouse Gases under Section 202(a) of the CAA. On December 7, 2009, the Administrator signed two distinct findings regarding GHGs under Section 202(a) of the CAA. The Administrator finds that the current and projected concentrations of the six key well-mixed greenhouse gases—carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF<sub>6</sub>)—in the atmosphere threaten the public health and welfare of current and future generations and that the combined emissions of these well-mixed GHGs from new motor vehicles and new motor vehicle engines contribute to climate change. The findings do not in and of themselves impose any emission reduction requirements but rather allow EPA to finalize the GHG standards proposed earlier in 2009 (EPA 2009c). The agency is now poised to regulate CO<sub>2</sub> as a pollutant, and the findings allow EPA to begin regulating GHG emissions from power plants, factories and major industrial polluters, although the precise details of that regulation have yet to be worked out. An endangerment finding under one provision of the CAA would not by itself automatically trigger regulation under the entire Act.

As a result of the Supreme Court's decision in 2007, the EPA drafted the Prevention of Significant Deterioration/Title V Greenhouse Gas Tailoring Rule. The draft rule, published in the Federal Register on October 27, 2009, limits the applicability of CO<sub>2</sub> emissions standards to new and modified sources that emit more than 25,000 tonnes CO<sub>2</sub>e annually, rather than applying the threshold of 250 tons per sources for triggering the regulation of criteria pollutants specified in Title V of the CAA. At the 25,000 tonnes CO<sub>2</sub>e annual level, the EPA expects that 14,000 large industrial sources, which are responsible for 70 percent of the U.S. GHG emissions, will be required to obtain Title V operating permits. That threshold would cover large power plants, refineries, and other large industrial operations (USDOE 2009c).

EPA has issued the Final Mandatory Reporting of Greenhouse Gases Rule (EPA 2010). The rule requires reporting of GHG emissions from large sources and suppliers in the U.S., and is intended to collect accurate and timely emissions data to inform future policy decisions. Under the rule, suppliers of fossil fuels

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or industrial greenhouse gases, manufacturers of vehicles and engines, and facilities that emit 25,000 tonnes or more per year of GHG emissions are required to submit annual reports to EPA. The gases covered by the proposed rule are carbon dioxide, nitrous oxide, methane, hydrofluorocarbons, perfluorocarbons, sulfur hexafluoride, and other fluorinated gases including nitrogen trifluoride (NF<sub>3</sub>) and hydrofluorinated ethers (HFE). The final rule was signed by the Administrator on September 22, 2009. EPA's new reporting system will provide a better understanding of where GHGs are coming from and will guide development of the best possible policies and programs to reduce emissions. Reporters must begin to monitor their emissions on January 1, 2010 and the first annual emissions reports will be due in 2011 (EPA 2010).

The American Recovery and Reinvestment Act of 2009 ("The Stimulus Bill") was signed into law by President Obama on February 17, 2009, and under the Act, the U.S. DOE received \$36.7 billion to fund renewable energy, carbon capture and storage, energy efficiency, and smart grid projects, among others. The projects are expected to provide reductions in both energy use and GHG emissions (USDOE 2009c).

Federal, state, and local governments are also developing programs and initiatives aimed at reducing energy use and emissions. The 2002 Clear Skies and Global Climate Change Initiative is a voluntary national program to reduce greenhouse gas emissions. There are federal tax incentives for energy efficiency and conservation, and some states have renewable energy and energy efficiency policies. Regional initiatives have been started in the northeast (Northeast Regional Greenhouse Gas Initiative) as well as the Western Climate Initiative in the western states. At this time, it is not possible to predict how all of these programs would be melded into a national regulatory process if one were to be enacted.

A number of U.S. financial and corporate interests have acknowledged that enactment of federal legislation limiting the emissions of CO<sub>2</sub> and other greenhouse gases seems likely (NARUC 2007). There is uncertainty about anticipated CO<sub>2</sub> emission limits and carbon capture/sequestration regulations. This has caused some proponents to cancel or delay their proposed projects that use existing and emerging technologies to produce electricity from coal (Casper Star Tribune 2007c). Capacity planning decisions for new generating plants and investment behavior in the electric power sector are being affected by the potential impacts of policy changes that could be made to limit or reduce GHG emissions (USDOE 2009b).

#### 4.2.14.4 Current and Future Energy Sources and Emissions of Greenhouse Gases in the U.S.

The key determinant of energy consumption is population. Population influences demand for goods, services, housing, and travel. In the U.S. the population has increased by about 20 percent and energy consumption by a

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comparable 18 percent since 1990, with variations in energy use per capita depending on factors such as weather and the economy. To meet the nationwide consumer demand and requirement for energy, coal is burned in power plants to produce electricity. Coal is an important component of the U.S. energy supply partly because it is the most abundant domestically available fossil fuel (USGS 2002b). One-quarter of the world's coal reserves are found within the U.S.; the energy content of U.S. coal resources exceeds that of all the world's known recoverable oil; and coal resources supply more than half of the electricity consumed by Americans (USDOE 2008 and 2009d). Many countries are even more reliant on coal for their energy needs than is the United States. More than 70 percent of the electricity generated in China and India comes from coal (USGS 2000). The value of coal is partially offset by the environmental impacts of coal combustion (USGS 2000).

In the USDOE 2007 Annual Energy Outlook, energy-related CO<sub>2</sub> emissions were projected to grow by about 35 percent from 2006 to 2030 (USDOE 2007b). By comparison, the USDOE 2008 Annual Energy Outlook projected energy-related CO<sub>2</sub> emissions to grow by 16 percent, from 5,890 million tonnes in 2006 to 6,851 million tonnes in 2030 (USDOE 2008). However, USDOE's 2009 Annual Energy Outlook projects energy-related CO<sub>2</sub> emissions to grow by 7 percent, from 5,991 million tonnes in 2007 to 6,414 million tonnes in 2030. The mix of sources for these generation projections include coal, natural gas, nuclear, liquids (petroleum), hydro-power, and non-hydro renewables (wind, solar, etc.). The most recent, lower projected emissions growth rate is due to a slower demand growth combined with increased use of renewables and a declining share of electricity generation that comes from fossil fuels (USDOE 2009b).

Total U.S. anthropogenic GHG emissions in 2008 were 2.2 percent below the 2007 total. The decline in total emissions—from 7,209.8 million tonnes CO<sub>2</sub>e in 2007 to 7,052.6 million tonnes in 2008—was largely the result of a 177.8 million tonne CO<sub>2</sub>e drop in CO<sub>2</sub> emissions. There were small percentage increases in emissions of other GHGs, but those increases were more than offset by the drop in CO<sub>2</sub> emissions. The decrease in U.S. CO<sub>2</sub> emissions in 2008 resulted from higher energy prices, economic contraction, and lower demand for electricity (USDOE 2009c).

Energy-related CO<sub>2</sub> emissions dominate (about 81 percent in 2008) the total U.S. GHG emissions. Petroleum is the largest fossil fuel source for energy-related CO<sub>2</sub> emissions, contributing 41.9 percent of the total, whereas coal is the second-largest fossil fuel contributor, at 36.5 percent. Petroleum made up 44.6 percent of total fossil fuel energy consumption in 2008, as compared with coal's 26.8 percent. Natural gas accounted for 28.5 percent of the fossil fuel energy use in 2008, but only 21.4 percent of total energy-related CO<sub>2</sub> emissions. Energy-related CO<sub>2</sub> emissions account for 98 percent of the total U.S. CO<sub>2</sub> emissions (USDOE 2009c).

The U.S. emits about 1,900 million tonnes annually from coal-fired power plants—33 percent of total energy-related CO<sub>2</sub> emissions and 81 percent of CO<sub>2</sub> emissions from the U.S. electric power sector (USDOE 2009c). If public sentiment results in changed electric demand, or if GHG emissions are ultimately regulated, the demand forecast for coal for electric generation could change. The potential impacts of policy changes that could be made to limit or reduce GHG emissions is affecting planning decisions for new power plants, particularly with respect to new coal-fired capacity.

To assess the national electric generation portfolio and the mix of future electric generation technologies, BLM reviewed the Annual Energy Outlook 2010 Report (USDOE 2009e). An independent study representing a forecast to the year 2035, it examined the ability of the domestic electric generation industry to alter the present electric generation portfolio (mix of electric generation technologies). This report compares the 2035 projection to the electric generation mix that existed in 2008. This most recent report incorporates the 2009 downturn in electric demand, which resulted from lowered electric demand for manufacturing in the depressed domestic economy of 2009. This forecast estimated the percentage of coal-fired electric generation in the domestic electric generation portfolio at 44 percent by 2035, based on a slowing in electric demand through 2035, and a doubling, to 17 percent, of renewable electric generation in the domestic electric generation portfolio by 2035. Based on this study, even with a considerably more optimistic projection for renewable sources, coal use continues to be projected as the largest portion of the domestic electric fuel mix.

Technologies for producing cleaner, more efficient and more reliable power from coal are currently available and are being improved. These include advanced pulverized coal, circulating fluidized bed, coal gasification or Integrated Gasification Combined Cycle (IGCC), and carbon sequestration or carbon capture and storage (CCS) technologies. Systems that utilize carbon capture technologies are being developed to capture at least 90 percent of emitted CO<sub>2</sub>, which would be stored within geological formations (i.e., oil and gas reservoirs, saline formations, unmineable coal seams). These technologies are not yet commercially established due to extremely high capital costs and low system reliability, which are the biggest obstacles to integration of these technologies into the power market. However, regulatory uncertainties are affecting planning decisions, for example, unless new coal-fired power plants are equipped with CCS equipment they could incur higher costs as a result of higher expenses for siting and permitting. However, costs would not be directly affected by regulatory uncertainty for nuclear and renewable power plants because they do not emit GHGs (USDOE 2009c).

The Electric Power Research Institute (EPRI) has also attempted to identify a scenario of how the full portfolio of technologies to provide for electric energy would respond if national policy were to require that CO<sub>2</sub> emissions be reduced to 1990 levels (James 2007). EPRI updated this research in an October 2009

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report, *The Power to Reduce CO<sub>2</sub> Emissions: The Full Portfolio* (EPRI 2009), which used the EIA's Annual Energy Outlook 2009 Report for comparison.

The EPRI study predicts that national policy that forces a reduction of CO<sub>2</sub> emissions to 1990 levels would promote increased energy efficiency, and the growth of "non carbon" sources such as nuclear and renewable. Renewable sources include wind and solar, as well as emerging technologies like tidal power, river turbines and others reported in the media. Hydropower is limited because most opportunities for hydropower have been used or require large infrastructure. Use of carbon based sources such as natural gas and petroleum are less than forecasted by the USDOE EIA, while coal use remains about the same in the EPRI forecast, mostly due to forecasted improvement in GHG emission reduction in coal-fueled generation. Both EIA and EPRI forecast increases in electricity cost.

Figure 4-13 shows the current (2008) electric generation mix, compared to the 2035 EIA forecast (USDOE 2009e) as well as the older 2030 EPRI forecast (EPRI 2009). Both forecasts are consistent that the amount of electric generation fueled by coal is expected to drop from nearly fifty percent of the total presently to about 40 percent of the total in future years. Coal is forecast to remain as the major electric generation component until at least 2035. Renewable energy (other than hydroelectric) and nuclear are forecast to increase, while natural gas and other fossil fuels (i.e., oil) are forecast to remain stable or decrease to a degree.

In 2003 the USDOE initiated the FutureGen project—a commercial-scale coal-fired power plant incorporating IGCC with CCS—thus being the first facility of its kind to combine and test several cutting-edge technologies. FutureGen is a public-private partnership between the USDOE and the FutureGen Alliance, a non-profit organization that represents some of the world's largest coal producers and electric utilities, to build a first-of-its-kind coal-fired near-zero emissions power plant. The FutureGen Alliance and the USDOE reached an agreement in June 2009 to proceed with the project, which will be located at Mattoon, Illinois. The project proposes to produce electricity by turning coal into gas, remove impurities, extract CO<sub>2</sub> from the waste stream, and then sequester the CO<sub>2</sub> underground. The Alliance is responsible for design, construction, and operation of the facility, and USDOE is responsible for independent oversight and coordinating participation of international governments. USDOE's financial contribution will come from the American Recovery and Reinvestment Act. The USDOE issued a NEPA Record of Decision (ROD) on July 14, 2009 to move forward toward the first commercial scale, fully integrated, carbon capture and sequestration project in the country (USDOE 2009f). The ROD allows the Alliance to proceed with site-specific activities, and over the following 8 to 10 months the project design, costs and funding plan will be refined. The USDOE and the Alliance will then decide in early 2010 whether to continue the project through construction and operation. When fully operational the FutureGen facility will produce 275 MW

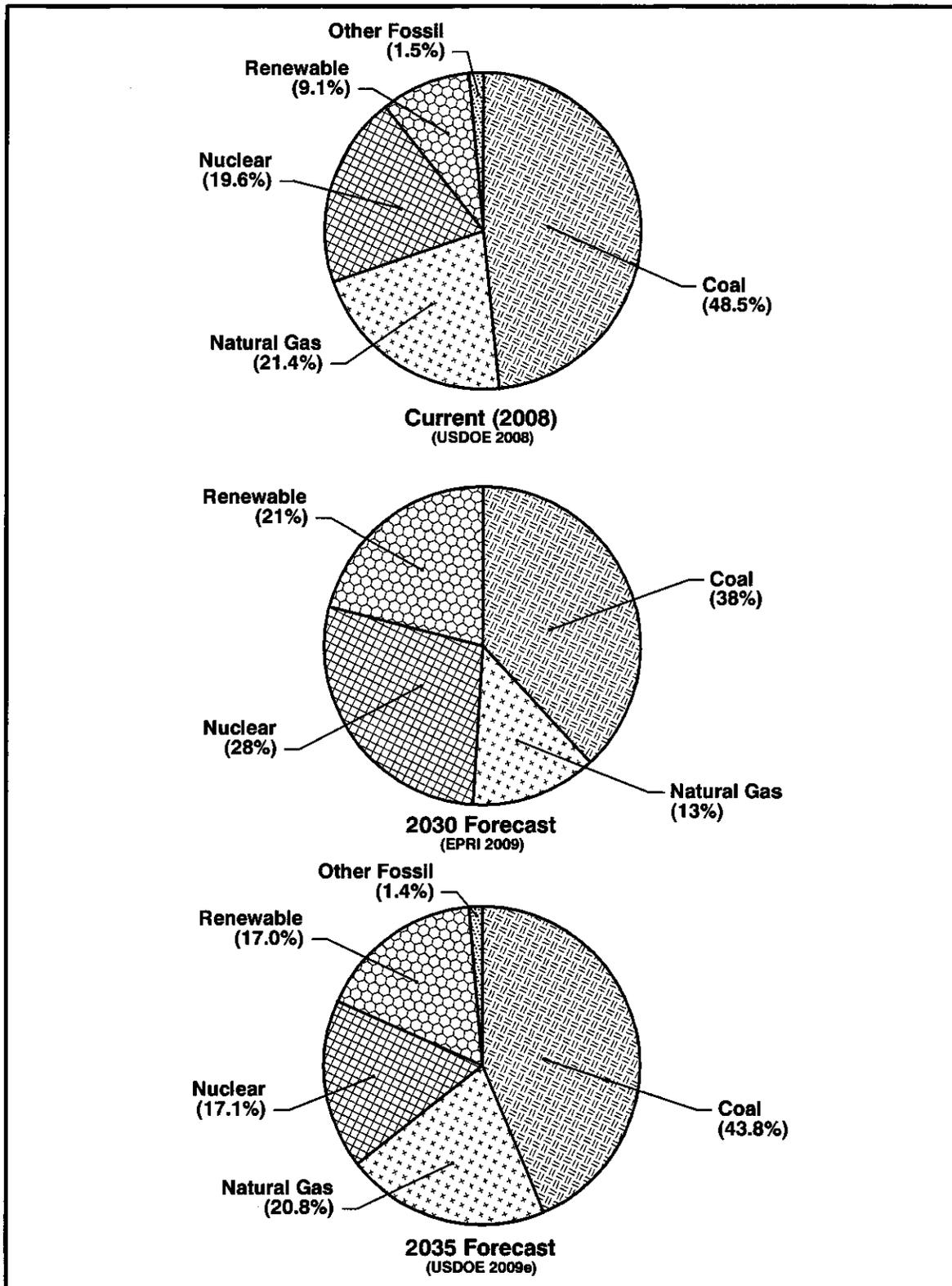


Figure 4-13. Current and Forecast Mix of Electric Generation Sources.

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of power and capture 90 percent of the carbon emissions; however, it may be operated at a 60 percent capture rate in the first 3 years to validate plant integration and sequestration capability, as well as manage the startup risks and costs. This technology should sequester a million tons of CO<sub>2</sub> annually (USDOE 2009f).

Other methods of generating electricity that result in fewer GHG emissions than burning coal include natural gas, nuclear, hydroelectric, solar, wind, and geothermal resources.

Natural gas plays a key role in meeting U.S. energy demands. Natural gas, coal and oil supply about 85 percent of the nation's energy, with natural gas currently supplying about 22 percent of the total. The percent contribution of natural gas to the U.S. energy supply is expected to remain fairly constant for the next 20 years. According to EIA's 2010 Annual Energy Outlook (USDOE 2009e), concerns about GHG emissions have little effect on construction of new capacity fueled by natural gas.

Unconventional natural gas resources are expected to play a larger role in the demand for natural gas for electricity generation (USDOE 2009b and 2009e). Natural gas production from hydrocarbon rich shale formations, known as "shale gas" is one of the most rapidly expanding trends in onshore domestic oil and gas exploration and production today. Analysts estimate that by 2011, most new natural gas reserves will come from unconventional shale gas reservoirs (NETL 2009). From 2007 to 2030, domestic production of natural gas is expected to increase by 22 percent (USDOE 2009b).

The nuclear share of power generation is projected by EPRI (2009) to increase to about 28 percent by 2030 as the addition of new power plants and upgrades at existing units increases overall capacity and generation, and the nuclear power share of total electricity generation remains somewhat constant at 17-19 percent by 2035 according to EIA (USDOE 2009e).

The share the nation's total electricity generation from renewables (i.e., biomass-based diesel, hydroelectricity, geothermal, solar, wind, ethanol), supported by federal tax incentives and state renewable programs, is expected to increase from 9 percent in 2008 to 17 percent in 2035 (USDOE 2009e). EPRI (2009) is more optimistic with renewable sources reaching 21 percent by 2030.

The estimated cumulative CO<sub>2</sub> emissions that would be produced annually from the conventional combustion of the coal produced from the six WAC LBA tracts, if they are all leased under either the Proposed Action or Alternative 2 (Section 4.2.14.2) are based on the applicant mines' projected future mining rates. Those estimates present a scenario that assumes the demand for coal in the future would not differ from current demand, technologies for producing cleaner, more efficient and more reliable power from coal (i.e., advanced pulverized coal, circulating fluidized bed, IGCC, and CCS) would not yet be

commercially established, and an explicit federal policy has not been enacted to limit or reduce U.S. GHG emissions. However, if there is a strong shift toward natural gas, nuclear, and renewable power generation, as well as fossil technologies with CCS equipment, those estimates of CO<sub>2</sub> emissions from the combustion of coal produced from the PRB would be lower than estimated in the prior discussion (Section 4.2.14.2).

#### 4.2.14.5 Mercury, Coal Combustion Residues, and Other By-Products

One of the concerns associated with burning coal for the production of electricity is the release of elements from coal to the environment (USGS 2000). When coal is burned, GHGs as well as mercury and other compounds and elements, including lead and cadmium, that may have direct or indirect effects on human health are released (EPA 2009d). The principal pollutants generated by coal combustion that can cause health problems are particulates, sulfur and nitrogen oxides, trace elements (including arsenic, fluorine, selenium, and radioactive uranium and thorium), and organic compounds generated by incomplete coal combustion (USGS 2000).

In coal combustion, concentrations of these elements and compounds vary depending on the chemistry of the coal deposits and on the type of air pollution controls in place when the coal is burned. Coal use in developing countries can potentially cause serious human health impacts (USGS 2000). Some coal mined in China is known to have caused severe health problems in several local populations because the coal was mined and burned with little regard to its chemical composition (USGS 2000). Chinese coals that contained high levels of arsenic, fluorine, selenium, and polycyclic aromatic hydrocarbons have caused severe, life-threatening health impacts to some residents that burned the coal in unvented stoves in their homes (USGS 2000).

Coal that is burned in the U.S. generally contains low to modest concentrations of potentially toxic trace elements and sulfur (USGS 2000). Specifically, PRB coal is recognized as being a clean burning coal due to its low sulfur and low ash properties. In a 2002 analysis conducted by USGS (2002b), PRB coal was found to contain, on average, approximately eight times less sulfur than coals being utilized from the Appalachian and Illinois basins to supply U.S. power plants (feed coal). PRB feed coal was also found to contain nearly half as much uranium (8.9 ppm), seven times less arsenic (17 ppm), five times less lead (19 ppm), and three times less cadmium (1.1 ppm) as compared to Appalachian and Illinois basin feed coals. When burned, PRB coal produced, on average, 38 percent less fly ash than Appalachian and Illinois basin coals (USGS 2002b). The fly ash resulting from combusted PRB coal contained approximately 39 times less mercury than fly ash that was generated from combusted Appalachian and Illinois basin coal (USGS 2002b).

Additionally, many U.S. coal burning power plants use sophisticated pollution-control systems that efficiently reduce the emission of hazardous elements (USGS 2000). The EPA conducted a detailed study of possible health impacts

# Exhibit J

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## H

United States Court of Appeals,  
Ninth Circuit.

**WASHINGTON ENVIRONMENTAL COUNCIL**; Sierra Club, **Washington** State Chapter, Plaintiffs–Appellees,  
v.

Maia D. BELLON, Director of Washington State Department of Ecology, in her official capacity; Mark Asmundson, Director, Northwest Clean Air Agency, in his official capacity; Craig T. Kenworthy, Director, Puget Sound Clean Air Agency, in his official capacity, Defendants–Appellants.

**Washington Environmental Council**; Sierra Club, **Washington** State Chapter, Plaintiffs–Appellees,  
v.

Maia D. Bellon; Mark Asmundson, Director, Northwest Clean Air Agency, in his official capacity; Craig T. Kenworthy, Defendants,  
and

Western States Petroleum Association, Intervenor–Defendant–Appellant.

**Washington Environmental Council**; Sierra Club, **Washington** State Chapter, Plaintiffs–Appellants,  
v.

Mark Asmundson, Director, Northwest Clean Air Agency, in his official capacity; Craig T. Kenworthy, Director, Puget Sound Clean Air Agency, in his official capacity; Maia D. Bellon, Director of Washington State Department of Ecology, in her official capacity, Defendants–Appellees,  
and

Western States Petroleum Association, Intervenor–Defendant.

Nos. 12–35323, 12–35324, 12–35358.  
Argued and Submitted July 10, 2013.  
Filed Oct. 17, 2013.

**Background:** Environmental advocacy organization brought action under Clean Air Act (CAA) against state and regional environmental agencies, alleging agencies failed to enforce state implementation plan (SIP) that required them to define reasonably available control technology (RACT) for greenhouse gases (GHG) and to apply RACT standards to oil refineries. After association representing refineries intervened, the United States District Court for the Western District of Washington, [Marsha J. Pechman](#), Chief District Judge, [834 F.Supp.2d 1209](#), granted summary judgment to environmental organization on one claim, and dismissed another claim. Both parties appealed.

**Holdings:** The Court of Appeals, [M. Smith](#), Circuit Judge, held that:

(1) casual nexus between failure of environmental agencies to define emissions limits was too attenuated to harms suffered by environmental organizations, for purposes of constitutional standing, and  
(2) there was no evidence that the imposition of emissions limits would curb a significant amount of greenhouse gas emissions.

Vacated and remanded with instructions.

West Headnotes

### [\[1\]](#) **Environmental Law 149E** **258**

[149E](#) Environmental Law

[149EVI](#) Air Pollution

[149Ek257](#) Implementation of Federal Standards

[149Ek258](#) k. In general. [Most Cited Cases](#)

When the Environmental Protection Agency (EPA) approves a State Implementation Plan (SIP) under the Clean Air Act (CAA), it becomes federal

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law and federally enforceable, and must be carried out by the state. Clean Air Act, § 110(a)(1), [42 U.S.C.A. § 7410\(a\)\(1\)](#).

## **[2] Federal Courts 170B** 776

[170B](#) Federal Courts

[170BVIII](#) Courts of Appeals

[170BVIII\(K\)](#) Scope, Standards, and Extent

[170BVIII\(K\)1](#) In General

[170Bk776](#) k. Trial de novo. [Most Cited](#)

[Cases](#)

The Court of Appeals reviews de novo the district court's assumption of jurisdiction.

## **[3] Federal Courts 170B** 29.1

[170B](#) Federal Courts

[170BI](#) Jurisdiction and Powers in General

[170BI\(A\)](#) In General

[170Bk29](#) Objections to Jurisdiction, Determination and Waiver

[170Bk29.1](#) k. In general. [Most Cited](#)

[Cases](#)

## **Federal Courts 170B** 31

[170B](#) Federal Courts

[170BI](#) Jurisdiction and Powers in General

[170BI\(A\)](#) In General

[170Bk29](#) Objections to Jurisdiction, Determination and Waiver

[170Bk31](#) k. Waiver or consent. [Most](#)

[Cited Cases](#)

## **Federal Courts 170B** 622

[170B](#) Federal Courts

[170BVIII](#) Courts of Appeals

[170BVIII\(D\)](#) Presentation and Reservation in

Lower Court of Grounds of Review

[170BVIII\(D\)2](#) Objections and Exceptions

[170Bk622](#) k. Organization and jurisdiction of lower court; venue. [Most Cited Cases](#)

A jurisdictional defect is a non-waivable challenge that may be raised at any time during the proceedings, including on appeal.

## **[4] Federal Courts 170B** 543.1

[170B](#) Federal Courts

[170BVIII](#) Courts of Appeals

[170BVIII\(B\)](#) Appellate Jurisdiction and Procedure in General

[170Bk543](#) Right of Review

[170Bk543.1](#) k. In general. [Most Cited](#)

[Cases](#)

The Court of Appeals has an independent duty to assure that standing exists, irrespective of whether the parties challenge it.

## **[5] Federal Civil Procedure 170A** 103.2

[170A](#) Federal Civil Procedure

[170AII](#) Parties

[170AII\(A\)](#) In General

[170Ak103.1](#) Standing in General

[170Ak103.2](#) k. In general; injury or interest. [Most Cited Cases](#)

A plaintiff must demonstrate standing for each claim he or she seeks to press and for each form of relief sought.

## **[6] Federal Civil Procedure 170A** 103.2

[170A](#) Federal Civil Procedure

[170AII](#) Parties

[170AII\(A\)](#) In General

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[170Ak103.1](#) Standing in General  
[170Ak103.2](#) k. In general; injury or  
interest. [Most Cited Cases](#)

The plaintiff bears the burden of proof to establish standing with the manner and degree of evidence required at the successive stages of the litigation.

**[7] Federal Civil Procedure 170A**  **103.2**

[170A](#) Federal Civil Procedure  
[170AII](#) Parties  
[170AII\(A\)](#) In General  
[170Ak103.1](#) Standing in General  
[170Ak103.2](#) k. In general; injury or  
interest. [Most Cited Cases](#)

**Federal Civil Procedure 170A**  **103.5**

[170A](#) Federal Civil Procedure  
[170AII](#) Parties  
[170AII\(A\)](#) In General  
[170Ak103.1](#) Standing in General  
[170Ak103.5](#) k. Pleading. [Most Cited  
Cases](#)

**Federal Civil Procedure 170A**  **2543**

[170A](#) Federal Civil Procedure  
[170AXVII](#) Judgment  
[170AXVII\(C\)](#) Summary Judgment  
[170AXVII\(C\)3](#) Proceedings  
[170Ak2542](#) Evidence  
[170Ak2543](#) k. Presumptions. [Most  
Cited Cases](#)

While at the pleading stage, general factual allegations of injury resulting from the defendant's conduct may suffice to establish standing, in responding to a summary judgment motion, the plaintiff can no longer rest on such mere allegations, but must set forth

by affidavit or other evidence specific facts, which for purposes of the summary judgment motion will be taken to be true.

**[8] Federal Civil Procedure 170A**  **103.2**

[170A](#) Federal Civil Procedure  
[170AII](#) Parties  
[170AII\(A\)](#) In General  
[170Ak103.1](#) Standing in General  
[170Ak103.2](#) k. In general; injury or  
interest. [Most Cited Cases](#)

A plaintiff's basis for standing must affirmatively appear in the record.

**[9] Associations 41**  **20(1)**

[41](#) Associations  
[41k20](#) Actions by or Against Associations  
[41k20\(1\)](#) k. In general. [Most Cited Cases](#)

Where plaintiffs are organizations, they may assert standing on behalf of their members as long as the members would otherwise have standing to sue in their own right, the interests at stake are germane to the organization's purpose, and neither the claim asserted nor the relief requested requires the participation of individual members in the lawsuit.

**[10] Federal Civil Procedure 170A**  **103.2**

[170A](#) Federal Civil Procedure  
[170AII](#) Parties  
[170AII\(A\)](#) In General  
[170Ak103.1](#) Standing in General  
[170Ak103.2](#) k. In general; injury or  
interest. [Most Cited Cases](#)

**Federal Civil Procedure 170A**  **103.3**

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[170A](#) Federal Civil Procedure

[170AII](#) Parties

[170AII\(A\)](#) In General

[170Ak103.1](#) Standing in General

[170Ak103.3](#) k. Causation; redressability. [Most Cited Cases](#)

For Article III standing, a plaintiff must satisfy three irreducible constitutional minimum requirements: (1) he or she suffered an injury in fact that is concrete, particularized, and actual or imminent; (2) the injury is fairly traceable to the challenged conduct; and (3) the injury is likely to be redressed by a favorable court decision. [U.S.C.A. Const. Art. 3, § 2, cl. 1](#).

#### [\[11\]](#) Environmental Law [149E](#) [651](#)

[149E](#) Environmental Law

[149EXIII](#) Judicial Review or Intervention

[149Ek649](#) Persons Entitled to Sue or Seek Review; Standing

[149Ek651](#) k. Cognizable interests and injuries, in general. [Most Cited Cases](#)

An environmental plaintiff may satisfy the injury requirement of constitutional standing by showing that the challenged activity impairs his or her economic interests or aesthetic and environmental well-being. [U.S.C.A. Const. Art. 3, § 2, cl. 1](#).

#### [\[12\]](#) Environmental Law [149E](#) [651](#)

[149E](#) Environmental Law

[149EXIII](#) Judicial Review or Intervention

[149Ek649](#) Persons Entitled to Sue or Seek Review; Standing

[149Ek651](#) k. Cognizable interests and injuries, in general. [Most Cited Cases](#)

An injury, sufficient to satisfy requirements of constitutional standing, may also include the risk of

future harm, including connection to the area of concern sufficient to make credible the contention that the person's future life will be less enjoyable, that he or she really has or will suffer in his or her degree of aesthetic or recreational satisfaction, if the area in question remains or becomes environmentally degraded. [U.S.C.A. Const. Art. 3, § 2, cl. 1](#).

#### [\[13\]](#) Environmental Law [149E](#) [652](#)

[149E](#) Environmental Law

[149EXIII](#) Judicial Review or Intervention

[149Ek649](#) Persons Entitled to Sue or Seek Review; Standing

[149Ek652](#) k. Organizations, associations, and other groups. [Most Cited Cases](#)

The causal nexus between the failure of state and regional environmental agencies in Washington to define emissions limits for greenhouse gases for five oil refineries and adverse environmental effects of global climate change was too attenuated to support the causality requirement of constitutional standing for environmental advocacy organizations, where greenhouse gases once emitted from a specific source, quickly mixed and dispersed in the global atmosphere and have a long atmospheric lifetime, and the five oil refineries were responsible for only 5.9% of the total greenhouse gas emissions in Washington. [U.S.C.A. Const. Art. 3, § 2, cl. 1](#); Clean Air Act, § 110(a)(1), [42 U.S.C.A. § 7410\(a\)\(1\)](#); [WAC 173-400-040](#); [West's RCWA 70.94.154](#).

#### [\[14\]](#) Federal Civil Procedure [170A](#) [103.3](#)

[170A](#) Federal Civil Procedure

[170AII](#) Parties

[170AII\(A\)](#) In General

[170Ak103.1](#) Standing in General

[170Ak103.3](#) k. Causation; redressability. [Most Cited Cases](#)

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To satisfy the causality element for Article III standing, plaintiffs must show that the injury is causally linked or fairly traceable to the defendants' alleged misconduct, and not the result of misconduct of some third party not before the court. [U.S.C.A. Const. Art. 3, § 2, cl. 1.](#)

**[15] Federal Civil Procedure 170A ↪103.3**

[170A](#) Federal Civil Procedure

[170AII](#) Parties

[170AII\(A\)](#) In General

[170Ak103.1](#) Standing in General

[170Ak103.3](#) k. Causation; redressability. [Most Cited Cases](#)

To satisfy the causality element for Article III standing, the line of causation between the defendant's action and the plaintiff's harm must be more than attenuated. [U.S.C.A. Const. Art. 3, § 2, cl. 1.](#)

**[16] Federal Civil Procedure 170A ↪103.3**

[170A](#) Federal Civil Procedure

[170AII](#) Parties

[170AII\(A\)](#) In General

[170Ak103.1](#) Standing in General

[170Ak103.3](#) k. Causation; redressability. [Most Cited Cases](#)

A causal chain, sufficient to support constitutional standing, does not fail simply because it has several links, provided those links are not hypothetical or tenuous and remain plausible, and standing does not require the defendant's action to be the sole source of injury; nevertheless, where the causal chain involves numerous third parties whose independent decisions collectively have a significant effect on plaintiffs' injuries, the causal chain is too weak to support standing. [U.S.C.A. Const. Art. 3, § 2, cl. 1.](#)

**[17] Federal Courts 170B ↪5**

[170B](#) Federal Courts

[170BI](#) Jurisdiction and Powers in General

[170BI\(A\)](#) In General

[170Bk3](#) Jurisdiction in General; Nature and Source

[170Bk5](#) k. Limited jurisdiction; dependent on constitution or statutes. [Most Cited Cases](#)

Federal courts may act only where the courts are granted power to do so by the Constitution and applicable statutes and regulations.

**[18] Environmental Law 149E ↪652**

[149E](#) Environmental Law

[149EXIII](#) Judicial Review or Intervention

[149Ek649](#) Persons Entitled to Sue or Seek Review; Standing

[149Ek652](#) k. Organizations, associations, and other groups. [Most Cited Cases](#)

There was no evidence that Washington's imposition of reasonably available control technology (RACT) emissions limits under the Clean Air Act (CAA) on five oil refineries in the state would curb a significant amount of greenhouse gas emissions, as required for redressability element of constitutional standing in environmental advocacy organizations' suit against state and regional environmental agencies, where greenhouse gas emissions were not a localized problem endemic to Washington, but a global occurrence that was the effected by worldwide emissions. [U.S.C.A. Const. Art. 3, § 2, cl. 1](#); Clean Air Act, § 110(a)(1), [42 U.S.C.A. § 7410\(a\)\(1\)](#); [WAC 173-400-040](#); [West's RCWA 70.94.154](#).

**[19] Federal Civil Procedure 170A ↪103.3**

[170A](#) Federal Civil Procedure

[170AII](#) Parties

[170AII\(A\)](#) In General

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[170Ak103.1](#) Standing in General

[170Ak103.3](#) k. Causation; redressability. [Most Cited Cases](#)

Redressability, for purposes of constitutional standing, does not require certainty, but only a substantial likelihood that the injury will be redressed by a favorable judicial decision. [U.S.C.A. Const. Art. 3, § 2, cl. 1.](#)

\*1134 [Laura J. Watson](#) (argued), Assistant Attorney General; [Robert M. McKenna](#), Attorney General; and [Katharine G. Shirey](#), Assistant Attorney General, Olympia, WA; [Svend A. Brandt-Erichsen](#), Marten Law PLLC, Seattle, WA; [Jennifer A. Dold](#), Puget Sound Clean Air Agency, Seattle, WA, for Defendants–Appellants/Cross–Appellees.

[Janette K. Brimmer](#) (argued), Earthjustice Legal Defense Fund, Seattle, WA; [Brian W. Chestnut](#) and [Joshua A. Osborne–Klein](#), Ziontz Chestnut Varnell Berley & Slonim, Seattle, WA, for Plaintiffs–Appellees/Cross–Appellants.

[Jeffrey W. Leppo](#) (argued), [Matthew Cohen](#), and [Jason T. Morgan](#), Stoel Rives LLP, Seattle, WA, for Intervenor–Defendant–Appellant.

Appeal from the United States District Court for the Western District of Washington, [Marsha J. Pechman](#), Chief District Judge, Presiding. D.C. No. 2:11–cv–00417–MJP.

Before: [ANDREW J. KLEINFELD](#), [MILAN D. SMITH, JR.](#), and [N. RANDY SMITH](#), Circuit Judges.

#### \*1135 OPINION

[M. SMITH](#), Circuit Judge:

The parties cross appeal the district court's decision granting in part and denying in part their dispositive motions regarding environmental claims brought by the Washington Environmental Council (WEC)

and the Sierra Club, Washington State Chapter, (collectively, Plaintiffs) under the citizen-suit provision of the federal Clean Air Act (CAA), [42 U.S.C. §§ 7401–7671q](#). Plaintiffs seek to compel the Washington State Department of Ecology (Ecology) and other regional agencies (collectively, the Agencies) <sup>FN1</sup> to regulate greenhouse gas emissions from the state's five oil refineries under the CAA. The Western States Petroleum Association (WSPA), whose members include those refineries, intervened on behalf of the Agencies. Specifically, Plaintiffs claim that the Agencies failed to define emission limits—called “reasonably available control technology” (RACT)—for greenhouse gases, and apply those limits to the oil refineries, in violation of two provisions of Washington's CAA State Implementation Plan (SIP): the “RACT Standard” and “Narrative Standard.” The district court awarded Plaintiffs summary judgment on their RACT claim, but dismissed their Narrative claim. The court enjoined Defendants to complete the RACT process for the refineries by May 2014.

<sup>FN1</sup>. Defendants are Maia D. Bellon, substituted for her predecessor Theodore L. Sturdevant, [Fed. R.App. P. 43\(c\)\(2\)](#); Mark Asmundson; and Craig T. Kenworthy, in their official capacities as directors of, respectively, the Washington State Department of Ecology; the Northwest Clean Air Agency; and the Puget Sound Clean Air Agency.

On appeal, WSPA argues that Plaintiffs lack Article III standing. We agree with WSPA, and hold that Plaintiffs failed to satisfy the causality and redressability requirements to establish [Article III](#) standing. Accordingly, we vacate the district court's order on the parties' dispositive motions and remand with instructions that the action be dismissed for lack of subject matter jurisdiction.<sup>FN2</sup>

<sup>FN2</sup>. Defendants and WSPA further argue that the district court lacked jurisdiction un-

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der the CAA's citizen-suit provision, [42 U.S.C. § 7604\(a\)\(1\)](#), in light of the Supreme Court's decision in [Bennett v. Spear](#), [520 U.S. 154](#), [117 S.Ct. 1154](#), [137 L.Ed.2d 281 \(1997\)](#). They urge this court to follow the Sixth Circuit's recent ruling in [Sierra Club v. Korleski](#), [681 F.3d 342 \(6th Cir.2012\)](#), where the court held that under [Bennett](#), the CAA's citizen-suit provision does not permit suit against government agencies acting in their regulatory capacity for alleged statutory violations under the CAA. Because we conclude that Plaintiffs lack Article III standing, we do not reach this issue. Nor do we reach the parties' other arguments as to whether the district court properly decided the merit claims.

## FACTS AND PRIOR PROCEEDING

### A. Greenhouse Gas Emissions

Greenhouse gases are gases that trap heat in the atmosphere and contribute to what is known as the “greenhouse effect.” See [Endangerment and Cause or Contribute Findings for Greenhouse Gases Under Section 202\(a\) of the Clean Air Act](#), [74 Fed.Reg. 66496–01](#), [66499 \(Dec. 15, 2009\)](#); [Massachusetts v. EPA](#), [549 U.S. 497](#), [504](#), [127 S.Ct. 1438](#), [167 L.Ed.2d 248 \(2007\)](#). Greenhouse gases consist of carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride, among others (collectively, [greenhouse gases or GHGs](#)). [74 Fed.Reg. at 66499](#). Both natural and man-made sources contribute to greenhouse gases, which are mixed and dispersed in the global atmosphere. *Id.* Although there is continuing scientific debate regarding some of the causes, projections, and effects of global warming, we assume for the purposes of \*1136 this opinion that global temperatures have increased over the past fifty years and that greenhouse gases are contributing to global climate change. The U.S. Environmental Protection Agency (EPA) has announced that six greenhouse gases taken in combination “may reasonably be anticipated both to endanger public

health and to endanger public welfare.” [74 Fed.Reg. at 66497](#); see also [id. at 66524–66535](#) (discussing adverse environmental effects and other dangers resulting from greenhouse gas emissions); [Am. Elec. Power Co. v. Connecticut](#), — U.S. —, [131 S.Ct. 2527](#), [2532–33](#), [180 L.Ed.2d 435 \(2011\)](#) ([AEP](#)).<sup>FN3</sup>

**FN3.** Like the Supreme Court in [AEP](#), [131 S.Ct. at 2533 n. 2](#), we take no position concerning the scientific issues related to greenhouse gas emissions and climate change.

In Washington, Plaintiffs allege—and Defendants admit—that greenhouse gases have caused climate-related changes, such as “rising sea levels, coastal flooding, acidification of marine waters, declines in shellfish production, impacts to snow pack and water supplies, agricultural impacts on the east side of the Cascades, and changes in forest fires.” Compl. ¶ 15. The Governor of Washington declared that “greenhouse gases are air contaminants within the meaning of the state's Clean Air Act and pose a serious threat to the health and welfare of Washington's citizens and the quality of the environment.” State of Wash. Governor Exec. Order 09–05, *Washington's Leadership on Climate Change* (May 21, 2009).

In this case, there is no dispute that the five oil refineries in Washington—BP Cherry Point, ConocoPhillips, Shell Oil, Tesoro, and U.S. Oil (collectively, Oil Refineries)—emit greenhouse gases. They are each members of Intervenor–Defendant WSPA, a non-profit trade association that represents the interests of the petroleum and petroleum products industry in several states, including Washington. Specifically, the refineries emit three greenhouse gases—carbon dioxide, methane, and nitrous oxides—during the conversion of crude oil into usable petroleum products, and they publicly report their annual greenhouse gas emission levels.<sup>FN4</sup> Most of the refineries' GHG emissions are carbon dioxide. The collective GHG emission levels for the five refineries in 2008 were

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5.94 million metric tons of carbon dioxide equivalents. This figure approximates current greenhouse gas emission levels from the refineries. Ecology reported that the total greenhouse gas emissions in Washington in 2008 were 101.1 million metric tons of carbon dioxide equivalents. Thus, in 2008, GHG emissions from the Oil Refineries were approximately 5.9% of the total greenhouse gas emissions in Washington.

[FN4](#). See “Washington State Greenhouse Gas Emissions Inventory, 1990–2008,” available at [www.ecy.wa.gov/biblio/1002046.html](http://www.ecy.wa.gov/biblio/1002046.html).

## B. Regulatory Framework—CAA and SIPs

The Clean Air Act authorizes the creation of air quality standards for a number of pollutants. These standards are called the National Ambient Air Quality Standards (NAAQS). [42 U.S.C. § 7409\(a\), \(b\)](#). The CAA instructs the EPA to publish a list of air pollutants that cause or contribute to air pollution and to issue NAAQS for each pollutant it has identified. [42 U.S.C. §§ 7408\(a\), 7409\(a\)](#). The EPA refers to the air pollutants for which it has established NAAQS as “criteria pollutants” or “NAAQS pollutants.” See [40 C.F.R. § 51.491](#). To date, the EPA has developed NAAQS for six criteria pollutants: sulfur dioxide, particulate matter, carbon monoxide, ozone, nitrogen dioxide, and lead. [40 C.F.R. § 50](#). The EPA has not established NAAQS for greenhouse gases.

\*[1137 \[1\]](#) To ensure that air quality standards are met, the CAA establishes a cooperative federal-state scheme that relies heavily on state participation. [Safe Air for Everyone v. EPA](#), 488 F.3d 1088, 1092 (9th Cir.2007); [42 U.S.C. §§ 7401–7431](#). Once the EPA sets the criteria pollutants, each state must propose a SIP for the “implementation, maintenance, and enforcement” of the ambient air quality standards, [42 U.S.C. § 7410\(a\)\(1\)](#), which is subject to the EPA’s review and approval. [Safe Air for Everyone](#), 488 F.3d at 1091; [Bayview Hunters Point Cmty. Advocates v.](#)

[Metro. Transp. Comm’n](#), 366 F.3d 692, 695 (9th Cir.2004). When the EPA approves a SIP, it becomes federal law and federally enforceable, and must be carried out by the state. [Safe Air for Everyone](#), 488 F.3d at 1091; [Bayview Hunters](#), 366 F.3d at 695.

In Washington, the Agencies are responsible for implementing the CAA requirements. The EPA approved certain revisions to the SIP submitted by Ecology in [1995, 60 Fed.Reg. 28,726–01 \(June 2, 1995\)](#). At issue in this case are two provisions in the EPA-approved SIP—the RACT Standard and Narrative Standard—codified in the Washington Administrative Code (WAC).

First, the RACT Standard provides in relevant part:

All emissions units are required to use reasonably available control technology (RACT) which may be determined for some sources or source categories to be more stringent than the applicable emission limitations of any chapter of Title 173 WAC. Where current controls are determined to be less than RACT, the permitting authority shall, as provided in [RCW 70.94.154](#), define RACT for each source or source category and issue a rule or regulatory order requiring the installation of RACT.

[WAC 173–400–040\(1\)](#). RACT is defined as “the lowest emission limit that a particular source or source category is capable of meeting by the application of control technology that is reasonably available considering technological and economic feasibility.” [WAC 173–400–030\(77\)](#). “Emissions unit” is “any part of a stationary source or source which emits or would have the potential to emit any pollutant subject to regulation under the Federal Clean Air Act.” [WAC 173–400–030\(29\)](#). As referenced in the RACT Standard, the Revised Code of Washington (RCW) states in part that “[i]n establishing or revising RACT requirements, ecology and local authorities shall ad-

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dress, where practicable, all air contaminants deemed to be of concern for that source or source category.” [RCW 70.94.154\(5\)](#). Oil refineries qualify as “sources” or “source categories.” See [WAC 173-400-030\(80\)-\(81\)](#); [RCW 70.94.030\(22\)](#). Each of the five oil refineries in Washington constitutes a “source” of “air contaminants” subject to the state’s SIP. [WAC 173-400-040\(1\)](#); [RCW 70.94.154\(1\)](#).

Second, the Narrative Standard provides:

No person shall cause or allow the emission of any air contaminant from any source if it is detrimental to the health, safety, or welfare of any person, or causes damage to property or business.

[WAC 173-400-040\(6\)](#). The term “air contaminant,” referenced in both the RACT and Narrative Standards, is synonymous with “air pollutant” and is broadly defined in the SIP to mean “dust, fumes, mist, smoke, other particulate matter, vapor, gas, odorous substance, or any combination thereof.” [WAC 173-400-030\(3\)](#); [RCW 70.94.030\(1\)](#). The Washington Governor’s 2009 executive order declared that “greenhouse gases are air contaminants.” Exec. Order 09-05. The Supreme Court \*1138 has also held that the sweeping definition of “air pollutant” under the CAA encompasses carbon dioxide and other greenhouse gases. [Massachusetts](#), 549 U.S. at 528-29, 127 S.Ct. 1438; [AEP](#), 131 S.Ct. at 2532-33.

The Agencies admit that they have never set or applied RACT standards for GHG emissions at the Oil Refineries. Plaintiffs insist, therefore, that the Agencies must do so pursuant to the mandate in SIP. Defendants argue that Washington’s SIP is not federally enforceable as to regulation of greenhouse gases under [RCW 70.94.154](#) because they are not properly criteria pollutants with recognized NAAQS.

### C. Procedural History

In March 2011, Plaintiffs filed their complaint

against the Agencies, asserting two claims under the CAA’s citizen-suit provision, [42 U.S.C. § 7604\(a\)\(1\)](#). Under Count I, Plaintiffs claim that the Agencies failed to establish RACT standards for greenhouse gas emissions from the Oil Refineries, in violation of the RACT Standard, [WAC 173-400-040](#) and [RCW 70.94.154](#). Under Count II, Plaintiffs claim that the Agencies have allowed the Oil Refineries to emit greenhouse gases, thereby failing to protect the health, safety, and welfare of Washingtonians, their property, and business, in violation of the Narrative Standard, [WAC 173-400-040\(6\)](#).<sup>FN5</sup> Plaintiffs seek declaratory relief and an injunction requiring the Agencies to set RACTs for GHG emissions from the Oil Refineries.

<sup>FN5</sup>. The Complaint cites to subsection (5) of [WAC 173-400-040](#), instead of subsection (6), but this is clearly a typographical error, since the quoted statutory text is from the latter. Subsection (5) pertains to the regulation of odors, which is not at issue in this case.

In July 2011, Plaintiffs moved for summary judgment on their claims. WSPA successfully moved to intervene as a defendant, and filed a cross-motion for summary judgment. WSPA further moved to strike several of Plaintiffs’ exhibits and standing declarations. The Agencies moved to dismiss the case under [Federal Rule of Civil Procedure 12\(b\)\(6\)](#).

In December 2011, the district court issued its order on the parties’ dispositive motions. The court granted Plaintiffs’ motion for summary judgment on Count I, concluding that the RACT provision plainly applies to greenhouse gases emitted by the Oil Refineries. The court, however, dismissed Plaintiffs’ Narrative claim as unenforceable because it concluded the provision was overly broad and aspirational. The court granted WSPA’s motion to strike several of Plaintiffs’ exhibits as irrelevant, but otherwise denied it as to Plaintiffs’ standing declarations. After additional briefing, the district court denied WSPA’s mo-

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tion for reconsideration. In March 2012, the district court issued its order on remedies enjoining Defendants to determine RACT for the Oil Refineries within 26 months. The parties timely appealed.

#### JURISDICTION AND STANDARD OF REVIEW

[2] We have jurisdiction under [28 U.S.C. §§ 1291](#) and [1292\(a\)\(1\)](#). We review de novo the district court's assumption of jurisdiction. [Natural Res. Def. Council v. EPA](#), 542 F.3d 1235, 1241 (9th Cir.2008) (*NRDC*). The jurisdiction of the federal courts is limited to “cases” and “controversies.” U.S. Const. art. III, § 2. “If the court determines at any time that it lacks subject-matter jurisdiction, the court must dismiss the action.” [Fed.R.Civ.P. 12\(h\)\(3\)](#).

#### DISCUSSION

[3][4] Defendants contend for the first time on appeal that this case must be \*1139 dismissed for lack of Article III standing, or in the alternative, because Plaintiffs lack statutory standing. Although Defendants did not advance these objections below, we may consider them here, since a jurisdictional defect is a non-waivable challenge that may be raised at any time during the proceedings, including on appeal. See [United States v. Hays](#), 515 U.S. 737, 742, 115 S.Ct. 2431, 132 L.Ed.2d 635 (1995); [Renee v. Duncan](#), 686 F.3d 1002, 1012 (9th Cir.2012). We also have an independent duty to assure that standing exists, irrespective of whether the parties challenge it. [Summers v. Earth Island Inst.](#), 555 U.S. 488, 499, 129 S.Ct. 1142, 173 L.Ed.2d 1 (2009).

#### I. Standing—General Requirements

[5][6][7][8] A plaintiff must demonstrate standing for each claim he or she seeks to press and for each form of relief sought. [DaimlerChrysler Corp. v. Cuno](#), 547 U.S. 332, 352, 126 S.Ct. 1854, 164 L.Ed.2d 589 (2006). The plaintiff also bears the burden of proof to establish standing “with the manner and degree of evidence required at the successive stages of the litigation.” [Lujan v. Defenders of Wildlife](#), 504 U.S. 555, 561, 112 S.Ct. 2130, 119 L.Ed.2d 351 (1992). While

“[a]t the pleading stage, general factual allegations of injury resulting from the defendant's conduct may suffice,” in responding to a summary judgment motion, “the plaintiff can no longer rest on such mere allegations, but must set forth by affidavit or other evidence specific facts, which for purposes of the summary judgment motion will be taken to be true.” *Id.* (citation and quotes omitted); accord [Gerlinger v. Amazon.com Inc.](#), 526 F.3d 1253, 1255–56 (9th Cir.2008). “A plaintiff's basis for standing must affirmatively appear in the record.” [Salmon Spawning & Recovery Alliance v. Gutierrez](#), 545 F.3d 1220, 1228 n. 5 (9th Cir.2008) (citation and quotes omitted).

[9] Where, as here, plaintiffs are organizations, they may assert standing on behalf of their members as long as the “members would otherwise have standing to sue in their own right, the interests at stake are germane to the organization's purpose, and neither the claim asserted nor the relief requested requires the participation of individual members in the lawsuit.” [Friends of the Earth, Inc. v. Laidlaw Envtl. Servs., Inc.](#), 528 U.S. 167, 181, 120 S.Ct. 693, 145 L.Ed.2d 610 (2000); see also [NRDC](#), 542 F.3d at 1244.

In this case, Plaintiffs WEC and the Sierra Club are non-profit conservation groups dedicated to environmental protection in Washington State. The WEC focuses on state level policy-making and implementation. It consists of roughly 3,500 member households and 55 member organizations. Its members routinely enjoy recreation in the North Cascades, Olympic, and Mount Rainer National Parks. The Sierra Club, with approximately 20,000 members in Washington, is dedicated to exploring, enjoying, and protecting waterways, mountains, forests, sustainable agriculture, air quality, and global and regional climates. The Sierra Club regularly organizes outings for its members in public places. In support of standing, three members of WEC and three members of the Sierra Club each submitted affidavits attesting to their current and future injuries resulting from elevated levels of greenhouse gases. Thus, the relevant inquiry

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is whether at least one member from each group has established standing to sue in his or her right. [Carrico v. City and Cnty. of San Francisco](#), 656 F.3d 1002, 1005 (9th Cir.2011).

## II. Constitutional Requirements

[10] For Article III standing, a plaintiff must satisfy three “irreducible constitutional minimum” requirements: (1) he or \*1140 she suffered an injury in fact that is concrete, particularized, and actual or imminent; (2) the injury is fairly traceable to the challenged conduct; and (3) the injury is likely to be redressed by a favorable court decision. [Lujan](#), 504 U.S. at 560–61, 112 S.Ct. 2130; see also [NRDC](#), 542 F.3d at 1244.

### A. Injury In Fact

[11][12] Plaintiffs allege that Defendants' failure to set and apply RACT standards has contributed to greenhouse gas pollution and caused their members to suffer recreational, aesthetic, economic, and health injuries, in violation of the RACT and Narrative provisions. An environmental plaintiff may satisfy the injury requirement by showing that the challenged activity impairs his or her “economic interests or ‘[a]esthetic and environmental well-being.’ ” [Natural Res. Def. Council v. EPA](#), 526 F.3d 591, 601 (9th Cir.2008) (quoting [Sierra Club v. Morton](#), 405 U.S. 727, 734, 92 S.Ct. 1361, 31 L.Ed.2d 636 (1972)); see also [Friends of the Earth](#), 528 U.S. at 183, 120 S.Ct. 693 (“[E]nvironmental plaintiffs adequately allege injury in fact when they aver that they use the affected area and are persons for whom the aesthetic and recreational values of the area will be lessened by the challenged activity.” (citation and quotes omitted)). Injury may also include the risk of future harm—*i.e.*, “‘a connection to the area of concern sufficient to make credible the contention that the person's future life will be less enjoyable—that he or she really has or will suffer in his or her degree of aesthetic or recreational satisfaction—if the area in question remains or becomes environmentally degraded.’ ” [Ocean Advocates v. U.S. Army Corps. Eng'rs](#), 402 F.3d 846, 859 (9th

[Cir.2005](#)) (quoting [Ecological Rights Found. v. Pac. Lumber Co.](#), 230 F.3d 1141, 1149 (9th Cir.2000)).

WEC and Sierra Club members have submitted declarations attesting to specific aesthetic and recreational injuries allegedly resulting from the Agencies' failure to control greenhouse gas emissions. Scott Stromatt, an officer and long-time member of the Sierra Club, states that his members' enjoyment of outings to Washington's natural areas has and will be diminished because those “areas have been impacted by climate change through changes in precipitation patterns, reduction of glaciers, changes in wildlife habitat, [and] increased risk of forest fire.” Stromatt Decl. ¶¶ 5–6. For example, Terese Vanassche—a member and volunteer of the Sierra Club for 20 years—is an avid snowshoer who routinely travels to Mt. Rainer, Mt. Shuksan and Baker, Stevens Pass Lanham Lake, and the Wild Sky Wilderness. Vanassche Decl. ¶ 3. She states that her “ability to engage in snowshoeing has been diminished because of elevated levels of greenhouse gases in the atmosphere,” which have increased temperatures and reduced snow pack in Washington. *Id.* ¶¶ 4–5. Due to reduced snow pack in 2008 and 2009, she was forced to either cancel snowshoeing and cross-country ski trips or change their venue. *Id.* ¶ 4. She states that future outings to those locations are threatened by poor snow pack and high avalanche conditions. *Id.* ¶¶ 5–6. Likewise, WEC members David Gorton and Jabez Blumenthal are life-long skiers who are concerned that increased alpine temperatures and decreased snow pack have reduced and will reduce the viability of their favorite ski spots at Snoqualmie Pass and shorten the ski season at those locations. Gorton Decl. ¶¶ 14–15; Blumenthal Decl. ¶ 9. In addition to skiing, Mr. Gorton enjoys backpacking at least five times a year throughout the Cascades and the Olympics. Gorton Decl. ¶ 16. He states that climate changes have degraded and will degrade the habitat of native species, thereby decreasing his enjoyment of the sub-alpine environments near Crater Peak. \*1141 *Id.* Mr. Blumenthal, too, enjoys other recreational activi-

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ties, including hiking, mountaineering, and glacier climbing. He is concerned that climate change will negatively affect his enjoyment of climbing the glaciated volcanoes in Washington and Mt. Rainier. Blumenthal Decl. ¶ 10.

WEC and Sierra Club members further state that their properties have been damaged by climate change. For example, Rodney Brown, a WEC officer and member, attests that flooding from the Teanaway River has eroded his 40-acre farmland. Brown Decl. ¶ 12. He is concerned that flooding and decreased water availability will further reduce the benefits from and enjoyment of his property. *Id.* ¶¶ 13–14. Mr. Gorton similarly states that flooding—particularly heavy rains in 2008—has damaged his Seattle home and threatens further harm to his property. Gorton Decl. ¶ 13. Mr. Blumenthal also attests that his 2,000-acre ranch in Eastern Washington has been, twice, burned by wildfires, charring his once tree-lined ridge into “a row of black dead spikes.” Blumenthal ¶¶ 11–13, 16. He fears that “as global climate change worsens, the frequency and intensity of wildfires near [his] property will increase,” and diminish the value and enjoyment of his property. *Id.* ¶ 15.

Finally, Plaintiffs' members claim that their or their family's health has been negatively affected by climate changes. For instance, Aaron Robins, a member of the Sierra Club, is an [asthma](#) patient who is concerned that his “health is personally endangered by uncontrolled climate pollution from oil refineries operating with outdated equipment and processes.” Robins ¶ 8. Ms. Vanassche's son also suffers from [muscular dystrophy](#) that has diminished his capacity to clear his lungs of air pollutants. She and her son live four miles from two oil refineries emitting greenhouse gases in Washington. Vanassche Decl. ¶ 7. She fears that higher air temperatures and ozone pollution—exacerbated by global warming—expose her son to increased respiratory problems. *Id.* Ms. Vanassche has expended significant time and resources in caring for her son while he suffers from air

quality-related ailments. *Id.*

Defendants do not dispute the accuracy of these statements of injuries. Nor do they challenge their legal sufficiency. For the purposes of this case, we assume without deciding, that the declarations submitted by WEC and Sierra Club members have provided “specific facts,” [Lujan](#), 504 U.S. at 561, 112 S.Ct. 2130, of immediate and concrete injuries. [Natural Res. Def. Council](#), 526 F.3d at 601; [Friends of the Earth](#), 528 U.S. at 183, 120 S.Ct. 693. Plaintiffs have therefore satisfied the first prong under [Lujan](#).

## B. Causality

[13] Plaintiffs allege that their injuries are causally linked to the Agencies' failure to set and apply RACT standards. WSPA contends that the chain of causality between Defendants' alleged misconduct and their injuries is too attenuated. WSPA argues that Plaintiffs do not, and cannot, show causality. We agree.

[14][15][16] To satisfy the causality element for Article III standing, Plaintiffs must show that the injury is causally linked or “fairly traceable” to the Agencies' alleged misconduct, and not the result of misconduct of some third party not before the court. See [Lujan](#), 504 U.S. at 560–61, 112 S.Ct. 2130. “The line of causation between the defendant's action and the plaintiff's harm must be more than attenuated.” [Native Vill. of Kivalina v. ExxonMobil Corp.](#), 696 F.3d 849, 867 (9th Cir.2012) (citations and quotes omitted), *cert denied*, — U.S. —, 133 S.Ct. 2390, 185 L.Ed.2d 1116 (2013). A “causal chain \*1142 does not fail simply because it has several links, provided those links are not hypothetical or tenuous and remain plausible.” *Id.* (citations, quotes, and bracket omitted). Nor does standing require the defendant's action to be the sole source of injury. See [Barnum Timber Co. v. EPA](#), 633 F.3d 894, 901 (9th Cir.2011). Nevertheless, “where the causal chain involves numerous third parties whose independent decisions collectively have a significant effect on plaintiffs' injuries, ... the causal

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chain is too weak to support standing.” [Native Vill. of Kivalina](#), 696 F.3d at 867 (citations, quotes, and bracket omitted).

We assume without deciding that man-made sources of GHG emissions are causally linked to global warming and detrimental climate change. See [Massachusetts](#), 549 U.S. at 507–09, 127 S.Ct. 1438; [Barnes v. U.S. Dep’t of Transp.](#), 655 F.3d 1124, 1140 (9th Cir.2011); [74 Fed.Reg. at 66524–66535](#). Plaintiffs provide a litany of adverse environmental effects in Washington, which Defendants do not dispute, and are supported by various research reports: increased temperatures, changes in precipitation and snow pack, flooding and storm damages, increased wildfires, adverse effects on agriculture and irrigation, disruptions to ecosystems, decreases in forest productivity, among others. The EPA, too, admonishes that “[e]ach additional ton of greenhouse gases emitted commits us to further change and greater risks.” [77 Fed.Reg. 22392, 22395 \(Apr. 13, 2012\)](#) (citation and quotes omitted).

[17] We do not discount the gravity of these asserted environmental effects or gainsay the EPA’s warning that continuing greenhouse gas emissions creates greater risks of harm. However, we may act only where we are granted power to do so by the Constitution and applicable statutes and regulations. [Exxon Mobil Corp. v. Allapattah Servs., Inc.](#), 545 U.S. 546, 552, 125 S.Ct. 2611, 162 L.Ed.2d 502 (2005). One such limitation on our power to act is Article III standing. See [Bender v. Williamsport Area Sch. Dist.](#), 475 U.S. 534, 541–42, 106 S.Ct. 1326, 89 L.Ed.2d 501 (1986). Under [Lujan](#)’s causality prong, Plaintiffs must show that a causal connection exists between their asserted injuries and the conduct complained of—*i.e.*, the Agencies’ failure to set and apply RACT standards. Therein lies the problem. Plaintiffs offer only vague, conclusory statements that the Agencies’ failure to set RACT standards at the Oil Refineries contributes to greenhouse gas emissions, which in turn, contribute to climate-related changes that result in their purported

injuries. See, *e.g.*, Vanassche Decl. ¶ 6 (“I fear that continuing greenhouse gas emissions from industrial facilities and other sources, including the oil refineries that operate in Washington State, will contribute to further reductions of winter snowpack in the region and make it more difficult or impossible for me to engage in snowshoeing in the future.”); Stromatt Decl. ¶ 7 (“[T]he failure of the Agencies to take the actions described ... will result in additional greenhouse gas emissions in Washington State that will exacerbate changes to the regional and global climates.”); Gorton Decl. ¶ 17 (“The failure of the clean air agencies to require [RACT] that can result in reductions to greenhouse gas emissions at the oil refineries has harmed me, and other WEC members, by failing to reduce and control air pollutant emissions that cause or contribute to climate change and its negative impacts on my property, my health, and my way of life.”). Plaintiffs’ causal chain—from lack of RACT controls to Plaintiffs’ injuries—consists of a series of links strung together by conclusory, generalized statements of “contribution,” without any plausible scientific or other evidentiary basis that the refineries’ emissions are the source of their injuries. While Plaintiffs need not connect each \*1143 molecule to their injuries, simply saying that the Agencies have failed to curb emission of greenhouse gases, which contribute (in some undefined way and to some undefined degree) to their injuries, relies on an “ ‘attenuated chain of conjecture’ insufficient to support standing.” [Salmon Spawning](#), 545 F.3d at 1228 (quoting [Ecological Rights Found.](#), 230 F.3d at 1152). Plaintiffs thus have failed to satisfy their evidentiary burden of showing causality at the summary judgment stage. See [Lujan](#), 504 U.S. at 561–62, 112 S.Ct. 2130.<sup>FN6</sup>

**FN6.** In a different context, the Second Circuit held that to satisfy the causality requirement, “[i]t is sufficient that [plaintiffs] allege that Defendants’ [GHG] emissions contribute to their injuries.” See [Connecticut v. Am. Elec. Power Co.](#), 582 F.3d 309, 347

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[\(2d Cir.2009\)](#), *rev'd on non-standing grounds* by [AEP, 131 S.Ct. at 2540](#). Contrary to Plaintiffs' argument, however, that ruling is unpersuasive here because the Second Circuit case involved a different procedural posture (a motion to dismiss, rather than summary judgment) and state entities—both of which permit less strenuous levels of proof to achieve standing. *See infra* n. 8.

Indeed, attempting to establish a causal nexus in this case may be a particularly challenging task. This is so because there is a natural disjunction between Plaintiffs' localized injuries and the greenhouse effect. Greenhouse gases, once emitted from a specific source, quickly mix and disperse in the global atmosphere and have a long atmospheric lifetime. Current research on how greenhouse gases influence global climate change has focused on the cumulative environmental effects from aggregate regional or global sources. But there is limited scientific capability in assessing, detecting, or measuring the relationship between a certain GHG emission source and localized climate impacts in a given region. As the U.S. Geological Survey observed, “[i]t is currently beyond the scope of existing science to identify a specific source of CO<sub>2</sub> emissions and designate it as the cause of specific climate impacts at an exact location.” Ltr. from Director, U.S. Geological Survey to Director, U.S. Fish & Wildlife Service, *The Challenges of Linking Carbon Emissions, Atmospheric Greenhouse Gas Concentrations, Global Warming, and Consequential Impacts* (May 14, 2008). Thus, according to the unchallenged declaration of WSPA's expert, “it is not possible to quantify a causal link, in any generally accepted scientific way, between GHG emissions from any single oil refinery in Washington, or the collective emissions of all five oil refineries located in Washington, and direct, indirect or cumulative effects on global climate change in Washington or anywhere else.” Umenhofer Decl. ¶ 8. We have also explained in a case involving potential GHG emissions from aviation activities that the causal chain

between those activities and localized environmental harm is untenable. *See Barnes, 655 F.3d at 1140* (stating that aviation activities accounting for .03% of U.S.-based greenhouse gas emissions do “not translate into locally-quantifiable environmental impacts given the global nature of climate change”).

Moreover, there are numerous independent sources of GHG emissions, both within and outside the United States, which together contribute to the greenhouse effect. As we noted in [Native Vill. of Kivalina](#), “global warming has been occurring for hundreds of years and is the result of a vast multitude of emitters worldwide whose emissions mix quickly, stay in the atmosphere for centuries, and, as a result, are undifferentiated in the global atmosphere.” [696 F.3d at 868](#). Here, the five oil refineries in Washington emit 5.94 metric tons of carbon dioxide equivalents, and are responsible for 5.9% of GHG emissions in Washington. According to WSPA's expert, however, the effect of this emission \*1144 on global climate change is “scientifically indiscernible,” given the emission levels, the dispersal of GHGs world-wide, and “the absence of any meaningful nexus between Washington refinery emissions and global GHG concentrations now or as projected in the future.” Umenhofer Decl. ¶ 10. Because a multitude of independent third parties are responsible for the changes contributing to Plaintiffs' injuries, the causal chain is too tenuous to support standing. [Native Vill. of Kivalina, 696 F.3d at 867](#).

In response, Plaintiffs argue that where, as here, they seek to enforce a specific regulatory obligation, a causal connection is inferred. That argument is unavailing. In [NRDC](#), we observed in the context of the Clean Water Act that “[w]here Congress has expressed the need for specific regulations relating to the environment, that expression supports an inference that there is a causal connection between the lack of those regulations and *adverse environmental effects*.” [542 F.3d at 1248](#) (emphasis added). Plaintiffs maintain that because the RACT provision applies to GHG

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emissions, we must infer a causal link between the Agencies' failure to set RACT standards and adverse environmental effects. But even assuming—without deciding—that Washington's SIP mandates control of GHG emissions, the critical inquiry for standing purposes is whether the Agencies' alleged misconduct causes injury to *Plaintiffs*. Injury to the environment alone is not enough to satisfy the causation prong for standing. [NRDC, 542 F.3d at 1245](#) (“The injury to the plaintiff, not to the environment, is the relevant showing.”). Here, Plaintiffs must still establish that their specific, localized injuries are fairly traceable to the Agencies' failure to set RACT standards for the GHG emissions from the Oil Refineries. As discussed above, Plaintiffs fail to satisfy this burden because the record shows no evidentiary support establishing this causal nexus.

Nor can we extend—as Plaintiffs urge—the holding of [Massachusetts v. EPA](#) to the present circumstances.<sup>FN7</sup> In that case, a group of states, local governments, and private organizations petitioned for review of an EPA order denying a rulemaking petition for regulation of GHG emissions from new motor vehicles under CAA § 202. [Massachusetts, 549 U.S. at 505, 127 S.Ct. 1438](#). As a threshold issue, the Court determined that the plaintiffs had Article III standing because at least one petitioner—Massachusetts—had standing to seek review. [Id. at 516–26, 127 S.Ct. 1438](#). The Court, however, relaxed the standing requirement for Massachusetts based on two factors. First, the Court noted that Massachusetts was exercising a procedural right to challenge the rejection of its rulemaking petition, which permitted it to “assert that right without meeting all the normal standards for redressability and immediacy.” [Id. at 517–18, 127 S.Ct. 1438](#) (citation and quotes omitted). Second, the Court emphasized at length, “the special position and interest of Massachusetts” as a “sovereign State.” [Id. at 518, 127 S.Ct. 1438](#). Quoting [Georgia v. Tennessee Copper Co., 206 U.S. 230, 237, 27 S.Ct. 618, 51 L.Ed. 1038 \(1907\)](#), a case where Georgia sued to protect its citizens from air pollution emanating from outside its

borders, the Court remarked that it has long recognized the interests of states, in their quasi-sovereign capacity, as “ ‘independent of and behind the titles of its citizens, in all the earth and air within its domain. It has the last word as to whether\*1145 its mountains shall be stripped of their forests and its inhabitants shall breathe pure air.’ ” [Id. at 518–19, 127 S.Ct. 1438](#). “Just as Georgia's independent interest ‘in all the earth and air within its domain’ supported federal jurisdiction a century ago, so too does Massachusetts' well-founded desire to preserve its sovereign territory today.” [Id. at 519, 127 S.Ct. 1438](#). The Court stressed that these two factors entitled Massachusetts to “special solicitude” in its standing analysis. [Id. at 520, 127 S.Ct. 1438](#); see also [Am. Elec. Power Co., 582 F.3d at 336–38](#) (discussing the effects of [Massachusetts](#) on the standing analysis). With that in mind, the Court determined that Massachusetts satisfied the [Lujan](#) requirements for standing. Specifically, with regard to causality, the Court rejected the EPA's argument that GHG emissions from new motor vehicles contribute too insignificantly to the petitioners' climate change-related injuries to justify standing. [Id. at 523–25, 127 S.Ct. 1438](#). The Court considered evidence that U.S. motor-vehicle emissions constituted 1.7 billion metric tons in 1999 alone, or over 6% of world-wide carbon dioxide emissions—which it concluded constitutes a “meaningful contribution” to GHG concentrations, and thus, to global warming. [Id. at 525, 127 S.Ct. 1438](#).

<sup>FN7</sup>. During oral argument, Plaintiffs identified [Massachusetts v. EPA](#) as the strongest case supporting their position.

In contrast to [Massachusetts v. EPA](#), the present case neither implicates a procedural right nor involves a sovereign state. Rather, Plaintiffs are private organizations, and therefore cannot avail themselves of the “special solicitude” extended to Massachusetts by the Supreme Court. See [Amnesty Int'l USA v. Clapper, 667 F.3d 163, 197 n. 2 \(2d Cir.2011\)](#) (Livingston, J., dissenting from denial of rehearing en banc) (ob-

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serving that the application of *Massachusetts* to the case was limited because the two factors warranting “special solicitude”—a procedural right and sovereign status—were absent); Richard H. Fallon, Jr., et al., *Hart and Wechsler's The Federal Courts and the Federal System* 146 (6th ed.2009) (suggesting *Massachusetts* may be “easily distinguishable on the ground that it involved ‘special solicitude’ for a state plaintiff protecting its quasi-sovereign interests”); Calvin Massey, *State Standing After Massachusetts v. EPA*, 61 Fla. L.Rev. 249, 253, 260–68 (2009) (interpreting the standing analysis in *Massachusetts* as only applying to state litigants to prosecute claims that would not be cognizable by individual plaintiffs).

But even if we assume that Plaintiffs' members are entitled to a comparable relaxed standard, the extension of *Massachusetts* to the present circumstances would not be tenable. As true of the plaintiffs in *Massachusetts*, 549 U.S. at 523, 127 S.Ct. 1438, the Agencies here do not challenge the causal link between man-made GHG emissions and global warming. At a minimum, therefore, the Agencies do not dispute that the lack of controls at the Oil Refineries “contribute” to Plaintiffs' injuries. But Plaintiffs further insist that any and all contribution of greenhouse gases must be curbed and that this justifies standing. See, e.g., Blumenthal Decl. ¶ 17 (“All greenhouse gas emissions worsen the global climate change problem, regardless of where on the planet they are emitted, and we need to reduce all the emissions that we can, wherever we can.”). The Supreme Court, however, did not endorse such a position, even as it acknowledged that it is error to assume that “a small incremental step, because it is incremental, can never be attacked in a federal judicial forum.” 549 U.S. at 524, 127 S.Ct. 1438. Rather, the Court observed that the GHG emission levels from motor vehicles were a “meaningful contribution” to global GHG concentrations, given that the U.S. motor-vehicle sector accounted for 6% of world-wide carbon dioxide emissions. Here, the GHG emissions are from five oil refineries in Washington, making up 5.9% of emissions\*1146 in *Washington*.

While this may be a significant portion of state emissions, Plaintiffs do not provide any evidence that places this statistic in national or global perspective to assess whether the refineries' emissions are a “meaningful contribution” to global GHG levels. Given the lack of evidence on this point and the fact that Plaintiffs are not sovereigns, we cannot logically apply the reasoning set forth in *Massachusetts* to this case.<sup>FN8</sup>

<sup>FN8</sup>. The Supreme Court's ruling on standing in *AEP* does not change our analysis. The Court in *AEP* summarily affirmed, by an equally divided Court, that the court below had jurisdiction and proceeded to the merits. *AEP*, 131 S.Ct. at 2535. Four of the Justices ruled that under *Massachusetts*, “which permitted a *State* to challenge EPA's refusal to regulate greenhouse gas emissions,” at least some plaintiffs in that case—which included eight states—had Article III standing to sue electric power companies for common law nuisance arising from their GHG emissions. *Id.* (emphasis added). The *AEP* plaintiffs alleged that the electric companies were the five largest emitters of carbon dioxide in the United States, collectively responsible for 650 million tons annually—equivalent to 25% of emissions from the domestic electric power sector, 10% of emissions from all human activities, and 2.5% of all man-made emissions worldwide. *Id.* at 2533–34. As in *Massachusetts*, however, at least some of the plaintiffs in *AEP* were sovereign states that were entitled to “special solicitude” for standing purposes. Moreover, the *AEP* plaintiffs, at the pleading stage, made claims specifying the defendants' contribution to global GHG levels. In contrast, Plaintiffs here fail to provide any allegation or evidence of global GHG levels at the summary judgment stage.

### C. Redressability

732 F.3d 1131, 13 Cal. Daily Op. Serv. 11,444, 2013 Daily Journal D.A.R. 13,868  
(Cite as: 732 F.3d 1131)

[18] Plaintiffs claim that their injuries would be redressed by a court order requiring Defendants to control greenhouse gas emissions from the Oil Refineries. We agree with WSPA that Plaintiffs fail to satisfy this prong for many of the same reasons they fail to meet the causality requirement.

[19] The Supreme Court has clarified that the “fairly traceable” and “redressability” components for standing overlap and are “two facets of a single causation requirement.” [Allen v. Wright, 468 U.S. 737, 753 n. 19, 104 S.Ct. 3315, 82 L.Ed.2d 556 \(1984\)](#) (citation and quotes omitted). The two are distinct insofar as causality examines the connection between the alleged misconduct and injury, whereas redressability analyzes the connection between the alleged injury and requested judicial relief. *Id.* Redressability does not require certainty, but only a substantial likelihood that the injury will be redressed by a favorable judicial decision. [Wolfson v. Brammer, 616 F.3d 1045, 1056 \(9th Cir.2010\)](#).

Here, as a preliminary matter, the record is devoid of any evidence that RACT standards would curb a significant amount of GHG emissions from the Oil Refineries. According to WSPA's uncontested evidence, the Director of Ecology's air program explained that when the Governor of Washington issued her climate change executive order in 2009, Ecology considered whether to use the RACT tool to reduce greenhouse gas emissions. Ecology ultimately decided not to pursue controls on its own initiative in light of its conclusion that “RACT would likely not result in meaningful greenhouse gas reductions because RACT is a low bar and many sources are likely already meeting or exceeding RACT.” Clark Decl. ¶ V. Instead, Ecology decided to use its “limited resources to pursue other efforts to reduce greenhouse gas emissions that presented a greater likelihood of meaningful greenhouse gas reductions.” *Id.*

Even if we assume that RACT standards would eliminate all GHG emissions from the Oil Refineries,

Plaintiffs have not submitted any evidence that an injunction \*1147 requiring RACT controls would likely reduce the pollution causing Plaintiffs' injuries. To the contrary, the evidence below supports the opposite conclusion. It is undisputed that GHG emissions is not a localized problem endemic to Washington, but a global occurrence. Because the effect of collective emissions from the Oil Refineries on global climate change is “scientifically indiscernible,” Umenhofer Decl. ¶ 10, Plaintiffs' injuries are likely to continue unabated even if the Oil Refineries have RACT controls.

Plaintiffs nevertheless insist that pursuant to [Massachusetts v. EPA](#), they need not show that RACT controls will completely eliminate greenhouse gas pollution or reduce emissions by a specific amount. Plaintiffs argue that it is enough that some control of greenhouse gas pollution causing their injury is contemplated by the RACT controls. Again, Plaintiffs' reliance on [Massachusetts](#) is misplaced. Plaintiffs attempt to transplant the relaxed standing rule the Court carved out for a sovereign state to their own circumstances. Plaintiffs are not sovereign states and thus the Court's standing analysis does not apply.

## CONCLUSION

Because Plaintiffs have not met their burden in satisfying the “irreducible constitutional minimum” requirements for Article III standing under either the causality or redressability prong discussed in [Lujan](#), the district court lacked jurisdiction to hear the parties' dispositive motions on the merits. We thus VACATE the district court's order on the parties' dispositive motions, and REMAND to the district court with instructions that the action be dismissed for lack of subject matter jurisdiction. [Maya v. Centex Corp., 658 F.3d 1060, 1067 \(9th Cir.2011\)](#).

**VACATED and REMANDED, with instructions.**

732 F.3d 1131, 13 Cal. Daily Op. Serv. 11,444, 2013 Daily Journal D.A.R. 13,868  
(Cite as: **732 F.3d 1131**)

C.A.9 (Wash.),2013.

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END OF DOCUMENT

# Exhibit K

CENWS-OD-RG

MEMORANDUM FOR RECORD

**REFERENCE:** NWS-2008-260, Pacific International Terminals, Inc.  
NWS-2011-325, BNSF Railways

**DATE:** 3 July 2013

**SUBJECT:** U.S. Army Corps of Engineers Scope of Analysis and Extent of Impact Evaluation for National Environmental Policy Act Environmental Impact Statement.

**AGENCIES:** The U.S. Army Corps of Engineers, Seattle District (Corps) is the Federal lead agency. The U.S. Environmental Protection Agency, U.S. Coast Guard, and U.S. Department of Transportation/Federal Railroad Administration are Federal cooperating agencies.

**1. ACTION SUMMARY:** Pacific International Terminals (PIT) proposes to construct and operate the Gateway Pacific Terminal (GPT), a multimodal marine terminal for export of multiple dry-bulk commodities including a deep-draft wharf with access trestle and other associated upland facilities. The PIT project would be developed on approximately 350 acres of a 1,500-acre site and would include a three-berth, deep-water wharf. The new wharf would be 2,980 feet long and 105 feet wide with access provided by an approximately 1,100-foot-long and 50-foot-wide trestle built on approximately 730 steel piles, each 48 inches in diameter. Upland facilities would include two commodity storage areas, each serviced by a rail loop. Each area would contain support facilities, such as roads, maintenance buildings, and stormwater treatment systems. A shared services area would connect the rail loops to the access trestle and wharf and would contain a roadway, conveyors, and service buildings. Commodities would be delivered to the PIT project site by rail via the existing BNSF Railway (BNSF) Custer Spur line off the Bellingham subdivision main line. The initial targeted commodity is coal from Powder River basin sources for export to Asian markets. Other bulk commodities include but are not limited to grains, potash, calcined petroleum coke, and ores.

Interrelated to the PIT project, the existing 6.2-mile-long Custer Spur extending from the BNSF mainline down into the Cherry Point Industrial Urban Growth Area would be upgraded to support increased traffic. The upgrades to the existing rail spur are proposed to service multiple industrial users in the Cherry Point area, but the Corps considers BNSF's proposed project "connected" to the PIT's proposed project because the PIT project cannot proceed without the BNSF project. See Title 40, Code of Federal Regulations (CFR), Part 1508.25. Upgrades would involve installation of receiving/departure tracks on the south side of the BNSF's Custer Spur (a.k.a. Cherry Point Subdivision line) starting from BNSF's Bellingham Subdivision Custer Wye through the Intalco Yard, across Valley View Road, and to Ham Road. Work includes new rail embankments, tracks, bridges and drainage structures; installation of a new main line adjacent to the Cherry Point main line from the Custer Wye about 6 miles in length to the proposed PIT project connection point; and installation of new terminal lead connecting tracks to include

improvements to BNSF's Elliot Yard to support rail connectivity to the proposed new PIT project.

The proposed PIT project would involve work or structures in or affecting the course, condition, location, or capacity of navigable waters of the U.S.; namely, the Strait of Georgia. In addition, both the PIT and BNSF projects will involve discharges of dredged and fill materials into waters of the U.S. (wetlands and tributaries). Therefore, both projects require authorization by a Department of the Army (DA) permit. The permit actions will be taken under authority delegated to the District Engineer from the Secretary of the Army and the Chief of Engineers by 33 CFR, Part 325.8, pursuant to Section 10 of the Rivers and Harbors Act of 1899 and Section 404 of the Clean Water Act.

The National Environmental Policy Act (NEPA) requires Federal agencies to analyze the environmental impacts of "Federal actions" and to prepare an Environmental Impact Statement (EIS) for any "major Federal action significantly affecting the quality of the human environment." See 40 USC 4332(C). In this case, the Federal action is the decision to issue, issue with conditions, or deny a DA permit to PIT and/or BNSF for the activities under Corps jurisdiction. On 2 June 2011, the Corps determined that the combined PIT/BNSF projects may have significant impacts and that issuance of DA permits would be major Federal actions significantly affecting the quality of the human environment and therefore requiring preparation of an EIS to comply with NEPA.

**2. PROJECT SETTINGS:** The following is a brief description of the project sites, their setting on the landscape, and aquatic resources:

a. PIT Project.

Location - The proposed project site is located in the Cherry Point Industrial Urban Growth Area (UGA) located northwest of Ferndale and south of Birch Bay, in the northwest portion of Whatcom County, Washington. See Attachment 1 - Project Setting Map.

Site Size and Upland Description - The overall project site is approximately 1,500 acres in size and is comprised of a mixture of pastures, hayfields, mowed utility corridors, and forest and scrub/shrub areas.

Watershed - Most of the project site lies in a small coastal basin of approximately 2,200 acres, referred to as the "Project Basin," which drains via two streams into the Strait of Georgia. The northwest corner of the site is part of a sub-basin of the Terrell Creek watershed identified as the "Industrial Tributary" sub-basin. The Industrial Tributary drains a 7.7-square-mile area within the 17 square mile Terrell Creek watershed (HUC# 171100020402) which drains to Birch Bay. See Attachment 2 - Project Watersheds and Basins.

Aquatic Features - The project site features two second-order streams--Streams 1 (WRIA 1 # 01.0100) and 2 (WRIA 1 # 01.0101)--and their tributaries. The outlets to Streams 1 and 2 flow through a shallow coastal wetland and into the Strait of Georgia. Natural drainage in the Project Basin has been altered by historic development activities. In addition to the two streams, other

surface water features in the project area include roadside ditches (Drainages 1 through 9) and approximately six agricultural ditches occurring throughout the property. These drainage features are directly connected to Streams 1 or 2. Wetlands comprise approximately 605 acres of the project area. All on-site wetlands drain to Stream 1 or 2 or directly to the Strait of Georgia.

Marine Waters - The wharf and trestle portion of the project site would occupy approximately 30 acres of intertidal and subtidal waters of the Strait of Georgia.

b. BNSF Custer Spur Project.

Location - The proposed project corridor consists of the width of the BNSF Custer Spur right-of-way (255 feet) between its connection point with the Bellingham Subdivision line near Custer, Washington to the end of the proposed work at the PIT project site. The Custer Spur continues beyond the project corridor south to its terminus at the Phillips 66 Refinery near Ferndale, Washington. See Attachment 1 - Project Setting Map.

Site Size and Upland Description - The overall corridor is approximately 6.50 miles long (approximately 200 acres) and is comprised of an existing dual rail line, switchyards, road crossings, and adjacent pastures, forests, and scrub/shrub areas.

Watershed - The project corridor is located in portions of the Terrell Creek and California Creek watersheds. The 17-square-mile Terrell Creek watershed (HUC# 171100020402) drains to Birch Bay while the 23-square-mile California Creek watershed (part of Dakota Creek HUC # 171100020401) drains to Drayton Harbor. See Attachment 2 - Project Watersheds and Basins.

Aquatic Features - The project corridor contains approximately 9 stream crossings and 35 acres of wetlands. These surface water features, including trackside ditches in the project corridor, drain into the Terrell Creek (WRIA 1 # 01.0089) or California Creek (WRIA 1 # 01.0045) systems.

**3. ENVIRONMENTAL REVIEW PROCESS:** The Corps has entered into an agreement with Whatcom County Planning and Development Services (County) and the Washington State Department of Ecology (Ecology)--jointly the co-lead agencies--to prepare a joint EIS pursuant to the requirements of NEPA and Washington's State Environmental Policy Act (SEPA). The Corps will serve as the lead agency for compliance with NEPA, and Whatcom County Planning and Development Services and the Washington State Department of Ecology will serve as lead agencies for compliance with SEPA.

The NEPA process is intended to assist the Corps in identifying and assessing the potentially significant environmental impacts of a proposed action before a decision on the proposed action is made. The Corps is responsible for ensuring compliance with NEPA and related environmental statutes for the proposed action requiring a DA permit decision. CH2M Hill, serving as third-party contractor, is assisting in preparation of the EIS pursuant to 40 C.F.R. § 1506.5 and 33 C.F.R. Part 325 Appendix B Section 8(f)(1). The co-leads are directing, supervising, and independently evaluating the preparation of the EIS to meet the requirements of each of the co-lead agencies. The U.S. Environmental Protection Agency (EPA), U.S. Coast

Guard (USCG), and U.S. Department of Transportation/Federal Railroad Administration (FRA) are cooperating agencies, pursuant to 40 C.F.R. § 1501.6. The Corps will decide whether or not to issue permits to PIT and/or BNSF pursuant to Section 404 of the Clean Water Act (33 U.S.C. §§ 1251-1376, as amended) and/or Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. § 403). Ecology will decide whether or not to issue a Water Quality Certification under Section 401 of the Clean Water Act, Coastal Zone Management Consistency Determinations (18 U.S.C. §§ 1451-1466), and National Pollution Discharge Elimination System permits under Section 402 of the Clean Water Act. The County will decide whether or not to issue Major Project Permits (Whatcom County Code 20.88) and a Substantial Shoreline Development Permit (Whatcom County Code 23.60).

As part of the NEPA review, the Corps is gathering and analyzing environmental information and data that will be used to compare the potential environmental effects of possible project alternatives and the “no action” alternative in the EIS. After issuance of this Memorandum for the Record determination, the Corps and other co-lead agencies, with input from the cooperating agencies, will prepare a Draft EIS (DEIS) for the proposed actions. Each co-lead agency may consider issues differently because of their specific regulatory authority. As such, the coverage of the joint SEPA/NEPA EIS document as a whole may be different than the Corps’ NEPA analysis which is set forth in this memorandum. The joint DEIS will include an analysis of the combined requirements of all of the co-lead agencies, but it is up to each co-lead agency to determine the relevance and weight that information in the EIS will be given in making its respective agency determination. The DEIS will identify the potential environmental impacts from the proposed projects and alternatives and address those environmental issues identified during the scoping process as detailed in the co-lead agencies’ determinations. The DEIS will distinguish between the analysis required pursuant to the different agencies’ roles under NEPA and SEPA and the subset of information which the Corps will utilize for to inform its decision under NEPA. It will also discuss a reasonable range of alternatives to the proposed action, including a no-action alternative, and recommend environmental mitigation measures as appropriate.

The DEIS will be made available upon completion for review and comment by the public, government agencies, and affected Tribes. A Final EIS (FEIS) will then be prepared that will respond to the public, agency, and Tribal comments received on the DEIS and include further analysis if needed. In reaching final permit decisions on the PIT and BNSF proposals, the Corps will take into account those portions of the environmental record--including the DEIS, the FEIS, and public, agency, and Tribal comments received--that the Corps determines is germane to its specific regulatory authorities.

**4. THE SCOPE OF ANALYSIS:** In determining the scope of analysis for the EIS, the Corps must identify the Corps’ action under consideration and must decide for the purposes of NEPA, whether the agency has “control and responsibility” for activities outside of waters of the U.S. such that issuance of a permit would amount to approval of those activities. See 33 CFR Part 325 Appendix B, Par. 7(b)(1). In this case, the proposed action to be taken by the Corps is the decision to issue, issue with conditions, or to deny a permit for various activities within the Corps’ jurisdiction for the PIT and BNSF proposed projects.

The specific activity requiring a Corps permit may, at times, be merely one component of a larger project. As a general rule, the Corps extends its scope of analysis beyond waters of the U.S. where the environmental consequences of upland elements of the project may be considered products of either the Corps permit action or the permit action in conjunction with other Federal involvement (33 CFR Part 325 Appendix B, Para. 7(b)(2)). When determining the extent to which the Corps is considered to have control and responsibility for portions of the project outside waters of the U.S., there are four typical factors set forth by regulation to consider. As previously mentioned, while both the PIT and BNSF proposals will be subject to separate DA permit decisions, the Corps has determined that it considers the BNSF project "connected" to the PIT project for purposes of the NEPA analysis and, thus, the Corps evaluation for these factors connects both projects into a single analysis.

These four factors as considered for the combined PIT Gateway Pacific Terminal and the BNSF Custer Spur projects are:

a. *Whether or not the regulated activity comprises "merely a link" in a corridor-type project:* There are no other proposed actions by either applicant outside of the combined project areas. The combined Gateway Pacific Terminal and Custer Spur project is a "stand alone" project and is not a link or component of any linear or corridor project.

b. *Whether there are aspects of the upland facility in the immediate vicinity of the regulated activity which affect the location and configuration of the regulated activity:* For the combined PIT/BNSF projects, aspects of the proposed upland facilities would affect the location and configuration of the regulated activities. For the Gateway Pacific Terminal, the rail and commodity handling and storage facilities (plus attendant features) would need to be constructed in reasonable proximity to the proposed wharf to facilitate the transfer of commodities onto oceangoing vessels. However, while there appears to be a strong relationship between the locations of the wharf and commodity handling facilities based primarily on cost and logistics, the extent of that relationship has not been fully determined at this time. Wetlands and uplands on the Gateway Pacific Terminal project site are distributed in a mosaic pattern. Given the minimum area the applicant states it needs, constructing a functional commodity receiving, handling, and storage facility on upland portions of the project site could probably not be accomplished without impacting neighboring waters of the U.S., including wetlands. Expansion of the Custer Spur would occur within the existing BNSF right-of-way, which contains a mixture of uplands, stream crossings, and wetlands. Given the narrow, linear nature of the BNSF project area and the need to construct a continuous track the length of this corridor, there is a strong relationship among the locations of proposed work in uplands and associated work in streams and wetlands.

c. *The extent to which the entire project will be within the Corps' jurisdiction:* The proposed Gateway Pacific Terminal project would include installing structures in the Strait of Georgia, a navigable water of the U.S. Both projects involve the discharge of fill material into waters of the U.S. (wetlands and tributaries) requiring a DA permit. Approximately 50% of the Gateway Pacific Terminal onshore facilities would occur in waters of the U.S. (wetland fill). The other onshore portions of the project are dependent on the portions occurring in the Corps' jurisdiction. Approximately 12% of the Custer Spur project would occur in waters of the U.S.

d. *The extent of cumulative Federal control and responsibility:* For the proposed construction of the Gateway Pacific Terminals, the Corps has authority under Clean Water Act Section 404 and Rivers and Harbors Act Section 10. For the proposed construction of the Custer Spur rail facilities, the Corps has authority under Clean Water Act Section 404. There are no other Federal agencies with control or responsibility over any other aspect of the proposed shipping terminal and/or rail improvement projects. The purpose of the Gateway Pacific Terminal is to export dry bulk-goods commodities which would be delivered to the site via BNSF rail lines. When considered in accordance with applicable laws and regulations, many of the activities of concern to the public, such as rail traffic, coal mining, shipping coal outside of U.S. waters and burning of coal overseas, are outside the Corps' control and responsibility. These activities are too attenuated and distant from the proposed activities being evaluated by the Corps to be considered effects of the Corps' permit actions. While other Federal agencies may have some regulatory oversight over certain aspects of a commodity's extraction or production, those activities are already occurring and will continue to be independent of the proposed projects under review by the Corps. There is limited Federal oversight of existing rail lines and traffic and no pending Federal approval or funding anticipated related to the proposed project.<sup>1</sup> Federal oversight of existing rail lines is limited to FRA authority over rail safety. There is, thus, not sufficient Federal control and responsibility over either existing main rail lines or use of the Custer Spur to substantiate the inclusion of these non-jurisdictional areas; therefore, portions of the Custer Spur and other rail systems (Bellingham Subdivision, etc.) outside the identified project corridor of the work requiring a DA permit are not included in the Corps' scope of analysis. There is limited Federal oversight for marine vessel traffic associated with the Gateway Pacific Terminal project. Federal oversight is limited to U.S. Coast Guard authority over vessel traffic and safety in territorial waters of the U.S. Vessel traffic is already occurring in U.S. waters along routes potentially used by vessels related to the Gateway Pacific Terminal, and use of these waters will continue independent of the proposed projects under review by the Corps. There is, thus, not sufficient Federal control and responsibility over vessel traffic to substantiate the inclusion of vessel routes out to the extent of territorial boundaries (12 miles); therefore, non-project portions of marine waters are not included in the Corps' scope of analysis.

Determination of the Scope of Analysis for the Draft EIS. Based on the analysis above, the scope of analysis includes both project sites (see Attachment 1 for project boundaries) and any offsite areas that might be used as compensatory mitigation for project impacts.<sup>2</sup>

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<sup>1</sup> If transportation of coal requires new rail lines, the Surface Transportation Board (STB) would be responsible for approving new rail lines that might be needed to move coal to its ultimate destination. For example, the STB recently issued a Notice of Availability for the Final Scope of Study for an EIS for proposed construction of an 83-mile long rail line in Montana. 78 Fed. Reg. 17752 (March 22, 2013). The Corps, Omaha District, is a cooperating agency in this EIS in order to assess potential impacts to jurisdictional waters. The purpose of the proposed rail line is to transport coal out of the Powder River Basin to utilities in Montana and the Midwest. The Federal Register notice also states that the coal could be transported to export markets in Asia or Europe or through ports on the Atlantic Coast, the Pacific Coast, the Gulf Coast, or through the Great Lakes. *Id.* at 17753. In the Notice, the STB states that it will use "modeling and other available information to project economically reasonable and feasible transportation movements" in order to inform the public and "take the requisite hard look at the environmental effects....". *Id.* at 17756.

<sup>2</sup> While this document does not establish a specific precedent for any other Department of the Army application review, the Corps intends to utilize similar criteria and apply it to the unique facts associated with the Millennium

**5. PUBLIC PARTICIPATION, AGENCY CONSULTATION, AND GOVERNMENT-TO-GOVERNMENT CONSULTATION:** Public input through the scoping process as required by 40 CFR § 1501.7 is a necessary step to inform the direct, indirect, and cumulative impacts analyzed in the EIS. As part of the environmental review process to date, the Corps, in cooperation with the other co-lead agencies, conducted a broad outreach effort to inform the public, Tribes, and government agencies about the proposed action and to facilitate participation in the NEPA process. The co-lead agencies have completed a public scoping process to obtain information and recommendations on the scope of the EIS. The scoping comment period ran from 24 September 2012 to 21 January 2013 and included seven public meetings and one agency meeting. More than 9,000 people participated in public scoping meeting and close to 125,000 total comments with 14,687 being non-form letters were received during the scoping period, including comments from Federal, State, and local government agencies, Tribes, and non-governmental organizations.

The Corps has consulted and will continue to consult Federal, State, and local agencies, Tribes, affected communities and all interested parties to gather information about the proposal. As part of that process, the Corps initiated government-to-government consultation with federally-recognized Tribal Governments to seek, discuss, and consider the views of the Tribes regarding the proposed action and alternatives.

**6. SUMMARY OF SCOPING COMMENTS:** The document titled, *Scoping Summary Report*, dated 29 March 2013, prepared under the direction of the co-lead agencies by CH2M Hill, summarizes the comments collected during the scoping period by issues of concern. The report can be found at <http://www.eisgatewaypacificwa.gov/resources/scoping-report>. Scoping comments requested that the EIS include an analysis of the combined projects' potential impacts to water resources, wetlands, geology and soils, terrestrial wildlife and vegetation, aquatic species and habitats, water quality, climate change/greenhouse gases, transportation including rail traffic, vessel traffic and navigation, land use, shoreline, and recreation, agriculture, human health, cultural, historical, and archaeological resources, Tribal treaty rights including Indian fishing and fishing treaty rights, economics and energy policy. Commenters also requested evaluation of a wide variety of impacts related to train traffic, including noise and vibration, dust, and hazards and risks to public safety. Additionally many people requested that the EIS evaluate impacts from the mining of coal to burning coal in China and that an "Area-Wide" EIS be developed to evaluate the cumulative impacts from all proposed coal export facilities. All comments can be found in the Scoping Summary Report. The Corps has reviewed all comments and considered the recommendations when making the following determinations.

**7. EXTENT OF DIRECT, INDIRECT, AND CUMULATIVE IMPACT EVALUATIONS FOR THE EIS:** Based on the above stated scope of analysis and public input provided during the scoping period, the following is a preliminary assessment of the extent of impact evaluation to be discussed in the EIS for NEPA.

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Bulk Terminals - Longview, LLC (MBTL) coal export terminal proposal. The Corps intends to seek public comment on the MBTL proposal through a public scoping process in the late summer/early fall of 2013. See 40 CFR 1501.7. The Corps plans on including a Scope of Analysis determination for MBTL in its Federal Register notice announcing the scoping process.

Proposed Actions: The EIS will address activities associated with the construction and operation of the proposed Gateway Pacific Terminal dry bulk-goods export facility and the Custer Spur serving the Cherry Point Industrial UGA and their potential environmental impacts, as discussed below:

Impact Categories: The EIS will analyze potential direct, indirect, and cumulative impacts for each of the following elements of the natural and human environment from the construction and operation of PIT's proposed Gateway Pacific Terminal and BNSF's Custer Spur expansion. The analysis will consider a range of reasonable alternatives, as well as the no-action alternative. The EIS will also include a discussion of mitigative actions to address identified impacts under each reasonable alternative and the no-action alternative.

As previously stated, the coverage of the draft and final EIS documents will be determined by combining the requirements of each co-lead agency pursuant to their specific regulatory authorities. What is set forth below is the Corps' extent of impact evaluation that will be considered under NEPA. The extent of evaluation for direct, indirect, and cumulative impacts provided in this document indicates the Seattle District Engineer's current assessment of available information; while the Corps' scope of analysis is established, the extent of impact evaluation is subject to modification to the extent that new information is made available throughout the remainder of the NEPA EIS development process.

The determinations for the extent of direct, indirect, and cumulative impacts<sup>3</sup> have been made based on the Corps' extent of control and responsibility, project information, information from scoping comments, experience from consultations with local, State, and Federal agencies for past Corps actions and the Corps' expertise in evaluating environmental impacts. Determinations for the extent of evaluation for direct impacts are based on factors discussed in Section 4 above. Determinations for indirect and cumulative impacts are given in the descriptions below in most cases. At this point, the geographic extent for some indirect and cumulative impacts could not be stated precisely. In these cases, the extent has been stated using terms such as "immediate vicinity". Further refinement of the extent of impact evaluation for these items will be made once potential impacts have been further evaluated during the development of the draft and final EIS.

The extent of impact evaluation for each of the following NEPA elements of the environment is as follows:

a. Water Resources. The EIS will describe the existing surface water and groundwater resources within the combined project areas as defined in Section 4--including streams, ponds, wetlands, and floodplains--and analyze the potential impacts on these resources resulting from the construction and operation of the proposed projects.

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<sup>3</sup> Direct effects are those which are caused by the action and occur at the same time and place. Indirect effects are those which are caused by the action and are later in time or farther removed in distance but are still reasonably foreseeable (40 CFR Sec. 1508.8). Cumulative impact is the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions (40 CFR Sec. 1508.7).

(1) Wetlands. For direct impacts, the extent of impact evaluation will be the combined PIT project site and the BNSF project corridor. For indirect and cumulative impacts of the PIT project, the geographic extent will be the Project Basin (Stream 1 and 2 sub-basins) and the Industrial Tributary sub-basin of the Terrell Creek watershed. The latter is based on only a small portion of the project site occurring in the Industrial Tributary basin and the location of the sub-basin in relation to the overall Terrell Creek watershed. For indirect and cumulative impacts of the BNSF project, the geographic extent will be the project corridor, the Terrell Creek watershed, and the upper reaches of California Creek watershed (upstream of Kickerville Road crossing) based on hydrological subdivisions within the watershed.

(2) Water Quality. For direct impacts, the extent of impact evaluation will be the entire PIT project site and the mixing zone extending 300 feet waterward of all points of discharge into marine waters and the entire BNSF project corridor and 300 feet downstream of the project boundary for all stream crossings (for suspended sediment and turbidity during construction). For indirect and cumulative impacts of the PIT project, the extent will be the entire Project Basin, the Industrial Tributary sub-basin of the Terrell Creek watershed, and marine waters off the Cherry Point Industrial UGA (from Phillips 66 Refinery to BP Refinery). For indirect and cumulative impacts of the BNSF project, the extent will be the Terrell Creek and California Creek watersheds. Indirect and cumulative impact extents are based on the potential to affect water quality downstream from the project locations.

(3) Surface Water (streams, etc.). For direct impacts, the extent of impact evaluation will be the PIT project site and the BNSF project corridor including 300 feet downstream of the project boundary for all stream crossings. For indirect and cumulative impacts of the PIT project, the extent of impact evaluation will be the Project Basin (Stream 1 and 2 sub-basins) and the Industrial Tributary sub-basin of the Terrell Creek watershed. For indirect and cumulative impacts of the BNSF project, the extent of impact evaluation will be the Terrell Creek and California Creek watersheds. Indirect and cumulative impact extents are based on the potential to affect water quantity and flow regimes downstream from the project locations.

(4) Floodplains. For direct impacts, the extent of impact evaluation will be the combined project site/project corridor. For indirect and cumulative impacts of the PIT project, the extent of impact evaluation will be the Project Basin (Stream 1 and 2 sub-basins) and the Industrial Tributary sub-basin of the Terrell Creek watershed. For indirect and cumulative impacts of the BNSF project, the extent of impact evaluation will be the Terrell Creek and California Creek floodplains. Indirect and cumulative impact extents are based on the potential to affect floodplain functions and values.

(5) Groundwater. For direct impacts, the extent of impact evaluation will be the combined project site/project corridor. For indirect and cumulative impacts of the PIT project, the extent of impact evaluation will be the Project Basin (Stream 1 and 2 sub-basins) and the Industrial Tributary sub-basin of the Terrell Creek watershed. For indirect and cumulative impacts of the BNSF project, the extent of impact evaluation will be the project corridor, the Terrell Creek watershed, and the upper reaches of California Creek watershed (upstream of Kickerville Road crossing) based on hydrological subdivisions within the watershed. Indirect

and cumulative impact extents are based on the potential to affect groundwater movements and groundwater support of downstream waterbodies (streams and wetlands).

b. Biological Resources. The EIS will describe the biological resources on the combined project sites and in the immediate vicinity--including vegetative communities, wildlife, fisheries, aquatic reserves, and Federal threatened or endangered species (including candidate species)--and analyze the potential impacts to these resources resulting from the construction and operation of the proposed projects.

(1) Fish and Aquatic Habitat. For direct impacts, the extent of impact evaluation will be the PIT project site and the footprint of construction in marine waters and the BNSF project corridor including 300 feet downstream of the project boundary for all stream crossings based on potential sediment and turbidity impacts during construction. For indirect and cumulative impacts of the PIT project, the extent will be the entire Project Basin, the Industrial Tributary sub-basin of the Terrell Creek watershed, and marine waters off the Cherry Point Industrial UGA including Washington State's Cherry Point Aquatic Reserve. For indirect and cumulative impacts of the BNSF project, the extent will be Terrell Creek and California Creek systems. Indirect and cumulative impact extents are based on the potential to affect species and habitat functions and features.

(2) Wildlife and Wildlife Habitat. For direct impacts, the extent of impact evaluation will be the combined project site/project corridor. For indirect and cumulative impacts, the extent of impact evaluation will be the PIT project site and the BNSF project corridor and adjacent habitats within 0.50 mile and connected by existing wildlife corridors (for potential disruption of wildlife movements). Indirect and cumulative impact extents are based on the potential to affect species and habitat functions and features.

(3) Terrestrial Vegetation Communities (forests). Forests represent the only large vegetation community in the combined projects' vicinity. All other vegetation communities have been altered or eliminated by development. For direct impacts, the extent of impact evaluation will be the combined project site/project corridor. For indirect and cumulative impacts, the extent of impact evaluation will be the combined project site/project corridor and adjacent, contiguous forested areas. Indirect and cumulative impact extents are based on the potential to affect continuity and function of large forested areas.

(4) Federal Threatened or Endangered Species. For direct impacts, the extent of impact evaluation will be the entire PIT project site and an area extending 0.50 mile around construction in marine waters (extent determined for noise impacts) and all streams in the BNSF project footprint affected by construction activities to 300 feet downstream from the crossings of Terrell Creek and California Creek (for sediment and turbidity impacts). For indirect and cumulative impacts of the PIT project, the extent will be the entire Project Basin, the Industrial Tributary sub-basin of the Terrell Creek watershed, and marine waters affected by wharf construction and (for marine mammals) vessel traffic to and from the site within the immediate vicinity based on the potential to affect species and habitat functions and features. For indirect and cumulative impacts of the BNSF project, the extent will be Terrell Creek and California Creek systems based on the potential to affect species and habitat functions and features.

c. Geology and Geographic Processes. The EIS will describe the geological resources within the combined project areas--including soils, physical processes (erosion, etc.), and geologically sensitive areas (unstable slopes, etc.)--and analyze the potential impacts to these resources resulting from the construction and operation of the proposed projects.

(1) Soils and Geology (Geomorphology). For direct impacts, the extent of impact evaluation will be the combined project site/project corridor. For indirect and cumulative impacts, the extent of impact evaluation will include the immediate vicinity surrounding the combined project site/project corridor. The determination of maximum extent will be refined following completion of initial analyses prepared for the DEIS.

(2) Coastal Areas and Shorelines (Physical Oceanography and Coastal Processes). Only the PIT project proposes work in coastal/shoreline areas. For direct impacts, the extent of impact evaluation will be the shoreline portion of the project site. For indirect and cumulative impacts, the extent of impact evaluation will be the drift cell extending from Point Whitehorn to the north, south to Sandy Point based on lateral sediment transport, erosive forces, and sediment contribution from Stream 1. Indirect and cumulative impact extents are based on the potential to disrupt shoreline processes.

(3) Geologically Unstable Areas. For direct impacts, the extent of impact evaluation will be the combined project site/project corridor. For indirect and cumulative impacts, the extent of impact evaluation will include the immediate vicinity surrounding the combined project site/project corridor. The determination of maximum extent will be refined following completion of initial analyses prepared for the DEIS.

d. Air Quality. The EIS will describe the air quality within the combined projects' vicinity and analyze the potential impacts to air quality resulting from the construction and operation of the proposed projects.

Air Quality. For direct impacts, the extent of impact evaluation will be a 1-mile radius around the combined project site/project corridor. For indirect and cumulative impacts, the extent of impact evaluation will be the Georgia Basin/Puget Sound Airshed. This extent may be reduced after analyzing prevailing wind patterns and the nature of potential airborne emissions and contaminants.

e. Aesthetics. The EIS will describe the existing conditions within the project vicinity around the combined projects--including ambient noise levels, noise sources, light sources, and current viewshed--and analyze the potential impacts to aesthetics from the construction and operation of the proposed projects.

(1) Noise. For direct, indirect, and cumulative impacts, the extent of impact evaluation will be the immediate vicinity for 1 mile around the combined project site/project corridor based on potential noise transmission limits from the PIT project site and BNSF corridor.

(2) Visual Impacts, Light, and Glare. For direct impacts, the extent of impact evaluation will be the combined project site/project corridor. For indirect and cumulative impacts, the extent will be the combined project site/project corridor and will include the shoreline of the Cherry Point Industrial UGA. The determination of maximum extent will be refined following completion of initial analyses prepared for the DEIS.

(3) Viewshed. For direct impacts, the extent of impact evaluation will be the combined project site/project corridor. For indirect and cumulative impacts, the scope will be the combined project site/project corridor and the viewshed of and from the shoreline of the Cherry Point Industrial UGA. The determination of maximum extent will be refined following completion of initial analyses prepared for the DEIS.

f. Land Use. The EIS will describe existing land uses within the combined projects' vicinity--including types of land use, land use planning and policies--and analyze the potential impacts to transportation resulting from the construction and operation of the proposed projects.

(1) Land Uses, Land Use Plans, and Growth Management. For direct impacts, the extent of impact evaluation will be the combined project site/project corridor. For indirect and cumulative impacts, the extent will be the immediate vicinity around the combined project site/project corridor within the Cherry Point Industrial UGA. The determination of maximum extent will be refined following completion of initial analyses prepared for the DEIS.

(2) Agricultural and Farmlands. For direct impacts, the extent of impact evaluation will be the combined project site/project corridor. For indirect and cumulative impacts, the extent will be the immediate vicinity around the combined project site/project corridor. The determination of maximum extent will be refined following completion of initial analyses prepared for the DEIS.

(3) Recreation. For direct impacts, the extent of impact evaluation will be the combined project site/project corridor. For indirect and cumulative impacts, the extent will be the immediate vicinity around the combined project site/project corridor including marine waters off the Cherry Point Industrial UGA and Washington State's Cherry Point Aquatic Reserve (waters used by recreational boaters and fishing). Indirect and cumulative impact extents are based on the potential to affect recreational use of the project vicinity.

g. Transportation. The EIS will describe existing transportation features in the vicinity of the combined projects--including surface roads, railroad facilities, and vessel traffic--and analyze the potential impacts to transportation resulting from construction and operation of the proposed projects.

(1) Vehicular Traffic. For direct impacts, the extent of impact evaluation will be the combined project site/project corridor. For indirect and cumulative impacts, the extent will be arterials and secondary roads to and from Interstate 5 utilized by vehicles associated with project construction and utilized by future operational employees for both projects. Indirect and cumulative impact extents are based on the potential of project-related traffic to affect local traffic patterns and volumes

(2) Rail Traffic. For direct impacts, the extent of impact evaluation will be the combined project site/project corridor. For indirect and cumulative impacts, the extent will be the entire length of the Custer Spur. Indirect and cumulative impact extents are based on potential affects to rail traffic on the spur line.

(3) Vessel Traffic and Navigation. For direct impacts, the extent of impact evaluation will be the project site waters (extending 50 feet around the terminal's wharf footprint) affected by construction activities. Commercial vessels calling at the Gateway Pacific Terminal will be required to operate within the U.S. Coast Guard's designated vessel traffic lanes until they reach the vicinity of the GPT where they will maneuver to dock at the GPT wharf or move to a local anchorage. For indirect and cumulative impacts, the extent will be a 1-mile-radius area around the proposed wharf (based on docking and departing vessel maneuvers and moorage) and all vessel routes northward to the Canada/U.S. border and from the Gateway Pacific Terminal westward to a point 8 miles west of the J Buoy offshore of Cape Flattery. The latter extent is to the point where concentrated vessel traffic using the Strait of Juan de Fuca enters the Coast Guard's Vessel Traffic Separation Scheme area and disperses to ocean crossing routes.<sup>4</sup>

h. Cultural and Historic Resources. The EIS will identify historic buildings, structures, sites, objects, or districts listed, or eligible for listing, on the National Register of Historic Places (NRHP) and Native American cultural sites and resources within the Area of Potential Effect (APE) as identified through the National Historic Preservation Act section 106 consultation process and analyze the potential impacts to archeological, historic, and cultural resources resulting from the construction and operation of the proposed projects.

Cultural, Historical, Archaeological, and Tribal Resources. For direct and indirect impacts, the extent of impact evaluation will be the combined project site/project corridor APE. For cumulative impacts, the extent will be the Cherry Point Industrial UGA based on affects to related resources in the area (Native American sites, etc.).

i. Human Environment (per 40 CFR 1508.14). The EIS will analyze the socioeconomic effects of the proposed actions, including effects on employment and tax revenues, demand on public services and utilities, and impacts to local businesses.

(1) Employment. For direct effects, the extent of impact evaluation will be the Cherry Point Industrial UGA. For indirect and cumulative impacts, the extent will be Whatcom County. The determination of maximum extent will be refined following completion of initial analyses prepared for the DEIS.

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<sup>4</sup> The extent of analysis for indirect and cumulative impacts from vessel traffic is consistent with the extent identified by the Corps for the DEIS currently being prepared for the BP Cherry Point Refinery Dock consistent with considerations applicable to the Magnusson Amendment to the Marine Mammal Protection Act 33 USC §476(A)(2). The determination is applicable to the subject of this Memorandum and does not set a precedent for the Corps' evaluation for any other actions.

(2) Local Tax Base. For direct effects, the extent of impact evaluation will be the Cherry Point Industrial UGA. For indirect and cumulative impacts, the extent will be Whatcom County. The determination of maximum extent will be refined following completion of initial analyses prepared for the DEIS.

(3) Public Services. For direct impacts, the extent of impact evaluation will be the combined project site/project corridor. For indirect and cumulative impacts, the extent will be the Cherry Point Industrial UGA. The determination of maximum extent will be refined following completion of initial analyses prepared for the DEIS.

(4) Public Utilities. For direct impacts, the extent of impact evaluation will be the combined project site/project corridor. For indirect and cumulative impacts, the extent will be the Cherry Point Industrial UGA which includes the Whatcom County PUD Number 1 water service area. The determination of maximum extent will be refined following completion of initial analyses prepared for the DEIS.

(5) Public Risk, Health, and Safety. For direct impacts, the extent of impact evaluation will be the combined project site/project corridor. For indirect and cumulative impacts, the extent will be the immediate vicinity of the combined project site/project corridor within the Cherry Point Industrial UGA. The determination of maximum extent will be refined following completion of initial analyses prepared for the DEIS.

(6) Environmental Justice. For direct impacts, the extent of impact evaluation will be populations and communities in the combined project site/project corridor vicinity. For indirect and cumulative impacts, the extent will be Whatcom County. The determination of maximum extent will be refined following completion of initial analyses prepared for the DEIS.

j. Tribal Treaty Rights. The EIS will identify all Tribes with Treaty Rights in the combined projects' vicinity and analyze the potential impacts from the construction and operation of the proposed projects to all Treaty Rights, including fishing rights. For treaty fishing rights, the EIS will evaluate impacts to (1) access to usual and accustomed fishing grounds or with fishing activities or shellfish harvesting, (2) fish runs and habitat, and (3) the Tribes' ability to meet moderate living needs. Identification of impacts to other rights will be determined based on consultations with affected Tribes.

The extent of impact evaluation for evaluation for impacts to Treaty Rights will be determined by the Corps following consultations with affected Tribes and the administrative record for establishing Usual and Accustomed boundaries.

## **8. COMPLIANCE WITH OTHER FEDERAL LAWS AND RESPONSIBILITIES**

The EIS will also address compliance with the following Federal laws:

a. Tribal Treaty and Trust Responsibilities - Government-to-Government consultation with affected Tribes.

b. Endangered Species Act - Formal consultation under Section 7 of the Act will be conducted.

c. Magnuson Stevens Fishery Conservation and Management Act - EFH consultation with the National Marine Fisheries Service will be conducted.

d. Marine Mammal Protection Act - Consultation with the National Marine Fisheries Service will be conducted.

e. Section 106 of the National Historic Preservation Act - Consultations with the Washington State Historic Preservation Officer and applicable Tribes will be conducted.

f. Coastal Zone Management Act - The State of Washington will review this work for consistency with the Washington Coastal Zone Management Program.

g. Section 401 of the Clean Water Act - The State of Washington will review this work for compliance with applicable State and Federal water quality standards.

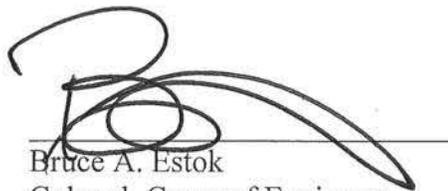
h. Clean Air Act - The Corps will evaluate the proposed actions for conformity with regulations implementing Section 176(c) of the Clean Air Act.

## 9. ADDITIONAL IMPACT ANALYSES.

In addition to the analysis contained in the EIS, the Corps will analyze the proposals' potential direct, indirect, and cumulative impacts as part of its public interest review (see 33 CFR § 320.4(a)(1)); analyses required under Clean Water Act Section 404(b)(1) Guidelines compliance determination (see 40 CFR § 230); and evaluation of comments received in response to the public notice. These analyses will be documented in the Corps' Record of Decision

9 JUL 2013

Date

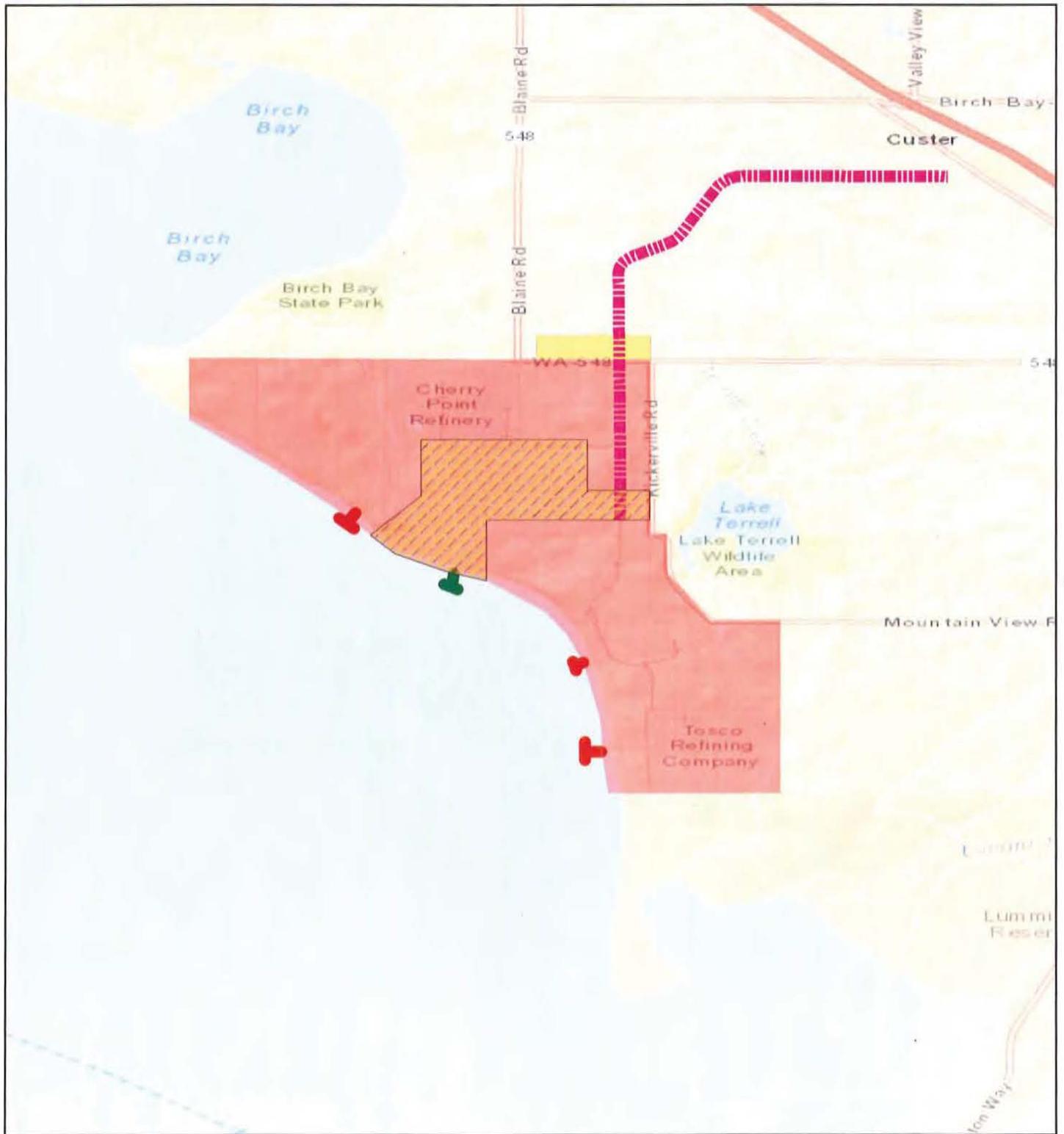


Bruce A. Estok  
Colonel, Corps of Engineers  
District Engineer

2 Attachments



# ATTACHMENT 1 - PROJECT SETTING FOR PIT'S PROPOSED GPT



-  GPT Project Site
-  BNSF Project Corridor
-  Industrial Docks
-  GPT Wharf Footprint

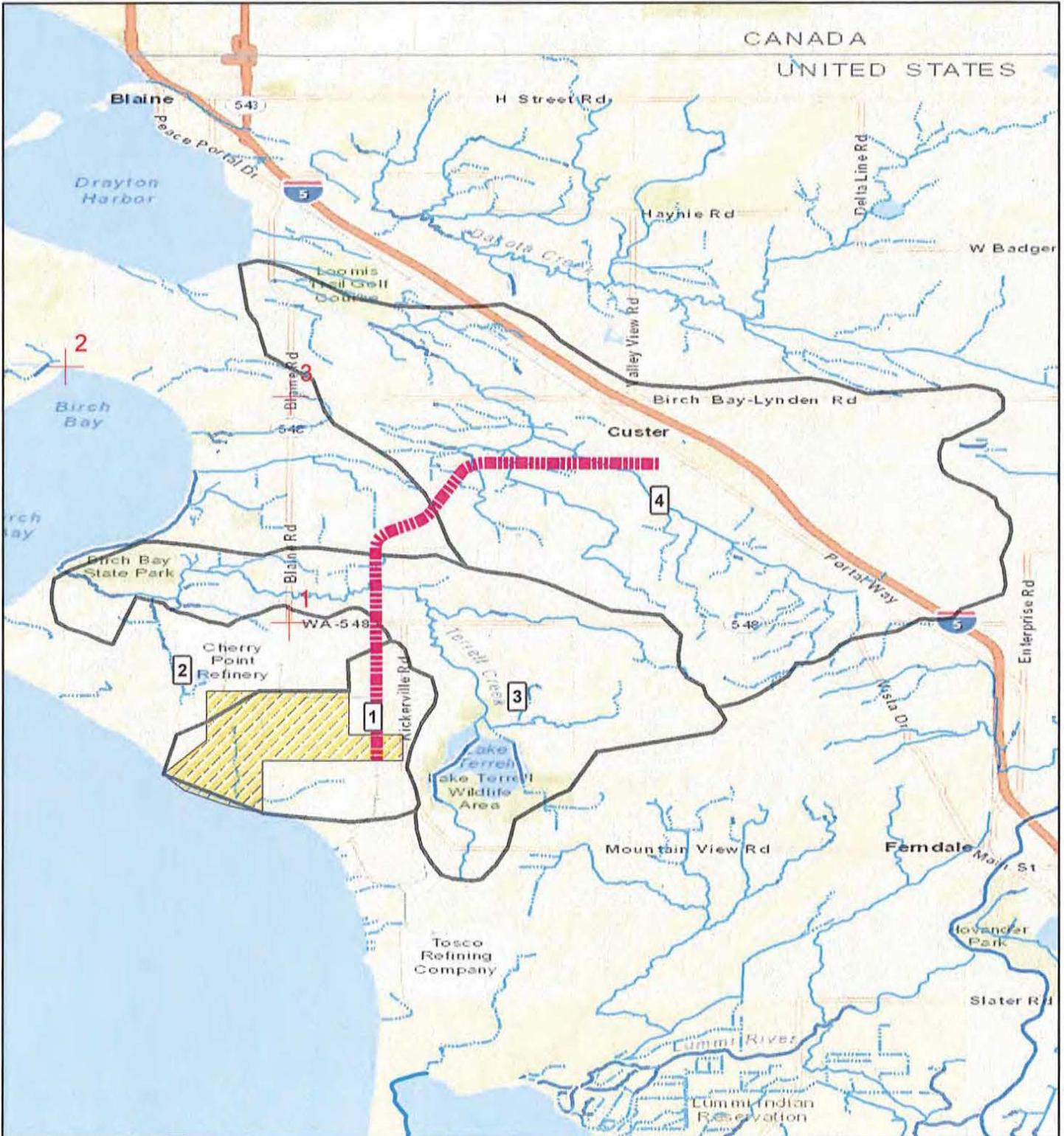
- ### Cherry Point UGA
-  Heavy Impact Industrial
  -  Light Impact Industrial



**DISCLAIMER** - While the United States Army Corps of Engineers, hereinafter referred to as USACE, has made a reasonable effort to ensure the accuracy of the maps and associated data, it should be explicitly noted that USACE makes no warranty, representation or guarantee, either express or implied, as to the content, sequence, accuracy, timeliness or completeness of any of the data provided herein. The USACE, its officers, agents, employees, or servants shall assume no liability of any nature for any errors, omissions, or inaccuracies in the information provided regardless of how caused. The USACE, its officers, agents, employees or servants shall assume no liability for any decisions made or actions taken or not taken by the user of the maps and associated data in reliance upon any information or data furnished here. By using these maps and associated data the user does so entirely at their own risk and explicitly acknowledges that he/she is aware of and agrees to be bound by the disclaimer and agrees not to present any claim or demand of any nature against the USACE, its officers, agents, employees or servants in any forum whatsoever for any damages of any nature whatsoever that may result from or may be caused in any way by the use of the maps and associated data.



# ATTACHMENT 2 - PROJECT WATERSHEDS AND BASINS



- - - - - BNSF Project Corridor
- GPT Project Site
- 1 Project Basin
- 2 Industrial Trib. Substation
- 3 Terrell Creek Watershed
- 4 California Creek Watershed



DISCLAIMER - While the United States Army Corps of Engineers, (hereinafter referred to as USACE) has made a reasonable effort to insure the accuracy of the maps and associated data, it should be explicitly noted that USACE makes no warranty, representation or guarantee, either express or implied, as to the content, sequence, accuracy, timeliness or completeness of any of the data provided herein. The USACE, its officers, agents, employees, or servants shall assume no liability of any nature for any errors, omissions, or inaccuracies in the information provided regardless of how caused. The USACE, its officers, agents, employees or servants shall assume no liability for any decisions made or actions taken or not taken by the user of the maps and associated data in reliance upon any information or data furnished here. By using these maps and associated data the user does so entirely at their own risk and explicitly acknowledges that neither the USACE, its officers, agents, employees or servants in any forum whatsoever for any damages of any nature whatsoever that may result from or may be caused in any way by the use of the maps and associated data.

# Exhibit L

# Pacific Northwest Marine Cargo Forecast Update and Rail Capacity Assessment

## Final Report

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**December 2011**

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# Chapter 1

## Executive Summary

The Pacific Northwest economy is inextricably tied to domestic and international markets. Efficient performance of the inland transportation system, especially in its linkage to the public and private port system, is critical to the economic health of the region.

Approximately every five years the Washington Public Ports Association (WPPA) and Washington State Department of Transportation (WSDOT) sponsor an update to the Washington State Marine Cargo Forecast. The most recent forecast was completed in March 2009, and provided unconstrained forecasts of cargo projected to move through public and private marine terminals on Puget Sound, the Washington Coast, and the Lower Columbia River in Washington and Oregon.

In the past two decades an increasing percentage of the commerce moving through Pacific Northwest ports has been carried by rail. The most recent two Marine Cargo Forecast studies have also included analyses of rail capacity. These rail capacity analyses modeled the various mainline rail segments in Washington, taking into account the projected marine cargo volumes as well as growth in domestic train traffic and passenger train traffic. Key outputs of these analyses were prioritized lists of rail system projects that would help to solve existing and anticipated capacity constraints.

The most recent marine cargo forecast was completed in the middle of the 2009 economic recession, a time of unusually sharp declines in marine cargo and rail traffic. However, since that report was completed rail traffic has rebounded to pre-recession levels. In addition, many of the ports in the region are anticipating major increases in cargo, especially exports of dry bulk such as grain, minerals, ores, and other bulk commodities. The anticipated volumes of these new cargos could significantly impact the mainline rail system in the northwest, impacting the marine cargos as well as passenger traffic and domestic cargo.

BST Associates (BST) and MainLine Management (MLM) were retained to prepare the following 2011 update to the 2009 report. The purpose of this analysis is to update the marine cargo forecasts, to compare the projected level of rail traffic with the capacity of the various mainline segments in the region, and to produce a prioritized list of projects to alleviate anticipated capacity constraints. An important addition to the 2011 analysis is the inclusion of the mainline rail system in Oregon.

The report was prepared at the request of the Ports of Everett, Seattle, Tacoma, Grays Harbor, Longview, Kalama, Vancouver and Portland. Additional entities participated in the preparation, including the Washington State Department of Transportation, Oregon Department of Transportation, and Washington Public Ports Association. The Class I railroads also participated in a review of the analysis, but this is not a Class I railroad product.

## Marine Cargo Forecasts

The marine cargo forecasts produced for this analysis are unconstrained, which assumes that the necessary marine terminals and rail capacity will be in place to meet market demand. The method for updating the 2009 forecast involved several steps.

- First, cargo volumes were updated by commodity and region using the most recent data available.
- Second, the forecasts provided in the 2009 Marine Cargo Forecast were then updated based upon adjusted trends and forecast growth rates. A key part of this step was the inclusion of potential market opportunities that are being evaluated by individual ports.
- Finally, the mode of inland transportation was estimated for each scenario by commodity, sub-region and growth scenario.

Potential new market opportunities included: ores, minerals, grain, containers and liquid bulks. For each of the commodity types two growth scenarios were projected: the high-growth forecast included all of the market opportunities currently under consideration, while the moderate growth forecast included a portion of the market opportunities (approximately one half).

A summary of cargo projections through the year 2030 is presented below

### Commodity Forecasts

#### **Containers**

In the 2009 marine cargo forecast, container traffic was projected to reach 10.4 million TEUs in 2030, with an average annual growth rate of 5.2 percent between 2010 and 2030.

Under the revised moderate growth forecast, containers are projected to reach 8.3 million TEUs by 2030 (4.1 percent annual growth). Under the revised high growth forecast, containers are projected to reach 12.3 million TEUs by 2030 (6.1 percent annual growth).

#### **Breakbulk/Neobulk**

In the 2009 marine cargo forecast, these commodities were projected to increase by an average annual 1.5 percent, reaching 11.1 million tons in 2030.

Under the moderate-growth scenario, breakbulk/neobulk cargoes are expected to grow by an average annual rate of 1.2 percent from 2010 to 2030, reaching 10.5 million tons in 2030. Under the high growth forecast, breakbulk/neobulk cargoes grow by an average annual rate of 2.2 percent from 2010 to 2030, reaching 12.7 million tons 2030.

A key difference between the 2009 study and the current one is that log exports grew rapidly over the past year and are expected to remain strong through the mid-term (approximately five years).

#### **Grain and Related Products**

Pacific Northwest grain and oilseed exports have shown impressive growth over the past decade, growing from approximately 20 million metric tons in 2000 to 34 million metric tons in 2010. Wheat, corn and soybeans are the most important commodities, but other products such as soybean meal and dried distiller's grains (DDGS) have become increasingly important.

BST Associates forecasts that Pacific Northwest grain and oilseed exports will increase from 34.1 million metric tons in 2010 to 39.1 million tons (moderate growth scenario) and 53.3 million metric tons in 2030 (high growth scenario).

### **Dry Bulk Cargoes**

The 2009 forecast projected relatively modest gains in bulk traffic, with volumes expected to reach 31.8 million tons in 2030, or at an average annual growth rate of approximately 1.0 percent between 2010 and 2030. However, the dry bulk forecast was based upon the existing commodity base and did not anticipate the strong interest in additional export cargo opportunities.

Under the revised moderate growth forecast, dry bulk cargoes are expected to reach 97.1 million tons in 2030 (average annual growth of 6.8 percent per year between 2010 and 2030). Under the revised high growth forecast, dry bulk cargoes could reach 155.3 million tons in 2030 (average annual growth of 9.3 percent per year between 2010 and 2030). Growth is driven by increasing mineral and ore exports, among other commodities.

### **Liquid Bulks**

The liquid bulk trades in the Pacific Northwest, which is dominated by crude oil, is expected to gradually change as regional refineries shift their source from Alaska to other domestic and foreign suppliers. The 2009 forecast projected modest growth for liquid bulk traffic, expecting volumes to reach 48.4 million tons in 2030 (0.8 percent annual growth).

Under the revised moderate growth forecast, liquid bulk cargoes are expected to reach 42.4 million tons in 2030 (0.2 percent per year), reflecting the changed sourcing patterns. Under the high growth forecast, liquid bulks are expected to reach 51.6 million tons in 2030 (1.2 percent per year). The high growth forecast incorporates new LNG imports/exports.

## **Sub-Region Forecasts**

### **Lower Columbia Oregon and Oregon Coast**

The Lower Columbia Oregon and Oregon Coast sub-region is projected to reach 44.6 million tons in 2030 under the moderate growth forecast (2.6 percent annual growth from 2010 to 2030) and 70.5 million tons in 2030 under the high growth forecast (5.0 percent annual growth).

Rail traffic is projected to reach 26.3 million tons in 2030 under the moderate growth forecast, and 47.5 million tons in 2030 under the high growth forecast.

### **Lower Columbia Washington**

The Lower Columbia Washington sub-region is projected to reach 49.4 million tons in 2030 under the moderate growth forecast (4.3 percent annual growth) and 82.5 million tons in 2030 under the high growth forecast (7.0 percent annual growth).

Rail traffic is projected to reach 43.0 million tons in 2030 under the moderate growth forecast, and 74.9 million tons in 2030 under the high growth forecast.

## **Puget Sound and Washington Coast**

The Puget Sound and Washington Coast sub-region is projected to reach 141.0 million tons in 2030 under the moderate growth forecast (2.6 percent annual growth) and 192.3 million tons in 2030 under the high growth forecast (4.2 percent annual growth).

Rail traffic is projected to reach 84.8 million tons in 2030 under the moderate growth forecast, and 131.6 million tons in 2030 under the high growth forecast.

## **Rail Capacity Assessment**

This section summarizes the rail capacity analysis. As noted above, rail volumes fell markedly during the recent recession, but they recovered strongly in 2010, reaching pre-recession levels. Coupled with this rapid pace of recovery, there are significant opportunities for growth in rail traffic, particularly in bulk train exports of minerals, ores and grain.

The rail forecasts include a projection of the number of trains under moderate and high growth scenarios, under both average and peak operating conditions. The rail forecasts are driven by the marine cargo forecast, but also include domestic freight traffic and passenger train volumes. Domestic traffic and passenger traffic was based on studies prepared for WSDOT and ODOT as well as on discussions with rail service providers.

The analysis assumes that existing trains absorb most of the growth in rail traffic before new trains are added. However, operational requirements sometimes necessitate new train starts, and this is included in the forecast. The capacity of the various main line segments was estimated based upon discussions with rail service providers, recent studies and consultant judgment.

Table 1-1 summarizes study results. Under the moderate growth scenario, the only segments that experience sustained capacity constraints are the Vancouver to Pasco and the Everett to Blaine lines. Under the high growth scenario, the constraints on the Vancouver to Pasco and the Everett to Blaine segments occur earlier. In addition, constraints are expected in the Pasco to Spokane, Vancouver to Kalama/Longview, and King Street Station to Everett lines. These results assume that a series of physical improvements are completed, and that certain operational protocols are changed.

**Table 1-1: Anticipated Year of Capacity Constraint, by Line Segment**

Line Segment	Moderate Growth Scenario		High Growth Scenario	
	Avg. Day	Peak Day	Avg. Day	Peak Day
<b>Pasco, WA to Vancouver, WA (BNSF)</b>				
Pasco, WA to Wishram, WA	2030	2025	2025	2020
Wishram, WA to Vancouver, WA	---	2030	2025	2024
<b>Hinkle, OR to Portland, OR (UP)</b>	---	---	---	---
<b>Pasco, WA to Spokane, WA (BNSF)</b>	---	---	2030	2025
<b>Spokane, WA to Sand Point, ID (BNSF)</b>	---	---	---	---
<b>Hinkle, OR to Eastgate, ID (UP)</b>	---	---	---	---
<b>Vancouver, WA to Tacoma, WA (Joint Line)</b>				
Vancouver, WA to Kalama/Longview, WA	---	---	---	2030
Kalama/Longview, WA to Tacoma, WA	---	---	---	---
<b>Tacoma, WA to Seattle, WA (Joint line)</b>				
Tacoma, WA to Auburn, WA	---	---	---	---
Auburn, WA to Seattle, WA	---	---	---	---
<b>Seattle, WA to Everett, WA (BNSF)</b>	---	---	2023	2020
<b>Everett, WA to Vancouver, BC (BNSF)</b>	---	2030	2025	2020
<b>Everett, WA to Spokane, WA via Stevens Pass (BNSF)</b>	---	---	---	---
<b>Auburn, WA to Pasco, WA via Stampede Pass (BNSF)</b>	---	---	---	---

Source: MainLine Management

In order for rail capacity to meet the of projected freight volumes, the authors of this report recommend a series rail system improvements. These projects generally fall into two categories, mainline improvements and port access improvements. However, the projects labeled as port access improvements also provide benefits to the mainline system. Reducing the amount of time that it takes for trains to move between the port terminals and the mainline reduces delays on the mainline system, and thereby increases mainline capacity.

The recommended mainline projects include:

- **Peninsula Junction to North Portland Junction, Portland.** (Funding is in place to complete preliminary engineering and the NEPA analysis, but not construction.)
- **Vancouver, WA Freight Rail Bypass.** (Construction is under way, and is anticipated to be complete in 2013.)
- **Point Defiance Bypass, Tacoma to Nisqually.** (Construction of Phase 1 is under way; Phase 2 is anticipated to be complete 2016.)
- **Blakeslee Junction Improvements, Centralia.** (Phase 1A & 1B are partially funded, and the funds have all been moved to a future biennium. Phases 2-5 are not funded.)

- **Third main line Kalama to Kelso –WSDOT Passenger Plan Option 3.** (North portion is funded, engineering is under way).
- **Vancouver to Kelso - WSDOT Passenger Plan Option 4.** (funding is in place for several of these projects, engineering is under way)

The recommended port access projects include:

- **Port of Vancouver, WA Freight Access Project.** (First phases are finished, entire project is scheduled to be complete in 2017)
- **Unit Train Staging/Storage Yard near Woodland.** (No action currently under way.)
- **Cowlitz River Bridge – Longview.** (Partial funding is in place to begin preliminary engineering and the NEPA analysis, with remaining funding expected in January 2010. Construction not funded.)
- **Bullfrog Junction Realignment, Tacoma.** (Preliminary planning is complete, project proponents are seeking funding.)

Growth in the volume of export bulk trains is expected to increase the demands on existing rail capacity in the region, and even moderate growth will require BNSF and UP to assess the capacity requirements necessary to meet the growing demand. Both railroads have the ability to increase capacity through a combination of physical and operational improvements, and should be able to meet growing demand well into the future.

## Chapter 2

# Marine Cargo Forecasts

This section provides summary of the marine cargo forecast. These summaries are presented by commodity group and by sub-region in the Pacific Northwest. The marine cargo forecasts are unconstrained, which assumes that the necessary marine terminals and rail capacity will be in place to meet market demand.

The method for updating the 2009 forecast involved several steps. First, current cargo volumes were updated by commodity and region using the most recent data (2010 for commodities moving on international routes and 2009 for commodities moving on domestic routes). Volumes for 2011 were estimated based upon data from individual ports, the Pacific Maritime Association, U.S. Department of Agriculture, and other industry and government sources.

Commodity handling groups were defined to include:

- Containers,
- Neobulk/breakbulk cargoes – breakbulk, autos and logs,
- Grain and related products – wheat, barley, corn, soybeans, soy meal, beet pulp pellets and like products,
- Dry bulk cargoes – minerals, ores, chemicals, fertilizers, wood chips, manufactured products and like products,
- Liquid bulk cargoes – crude oil, petroleum products, chemicals and like products.

The forecasts include all public and private terminals, which were divided into the following sub-regions:

- Lower Columbia River Oregon and Oregon Coast,
- Lower Columbia River Washington,
- Puget Sound and Washington Coast.

Second, the forecasts provided in the 2009 Marine Cargo Forecast were updated based upon adjusted trends and forecast growth rates. In addition, a key effort in this update was to consider the potential market opportunities that are being evaluated by individual ports. This process included a discussion with participating ports and the Class I railroads and literature review of industry resources.

Potential new market opportunities included: ores, minerals, grain, containers and liquid bulks.

For each commodity group two growth scenarios were projected. The high-growth forecast included all of the market opportunities currently under consideration. The moderate growth forecast included a portion of the market opportunities (approximately one half).

Third, the inland mode of transportation was estimated for each growth scenario, commodity, and sub-region.

The results of the forecast are presented below.

## Containers

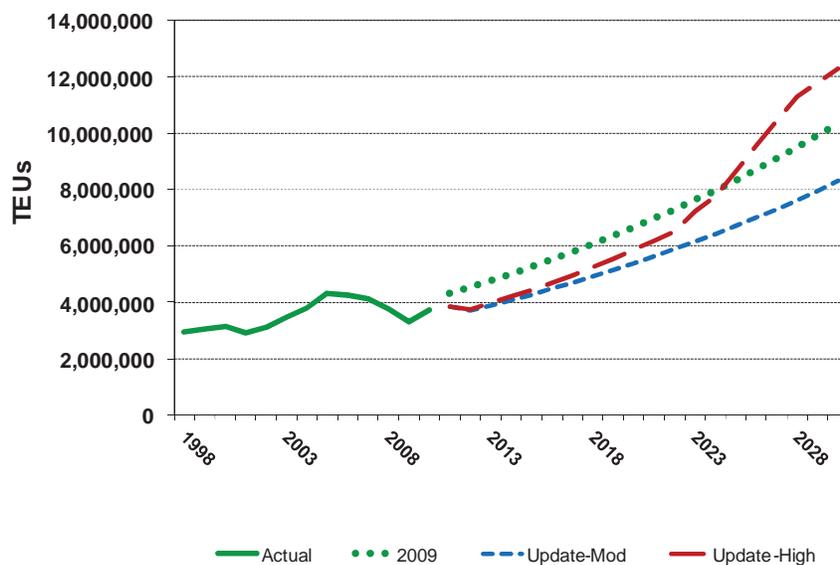
The revised Pacific Northwest container forecast is presented in Figure 2-1. The moderate-growth forecast is lower than the forecast presented in 2009 due to revised expectations about near-term growth and intensified competition from ports in Canada and on all-water routes (after completion of the Panama Canal improvements).

In the 2009 marine cargo forecast, containers were projected to reach 10.4 million TEUs in 2030, with average annual growth rate of 5.2 percent between 2010 and 2030. The revised forecast projects that container volumes will increase by:

- 4.1 percent under the moderate growth forecast, reaching 8.3 million TEUs, and,
- 6.1 percent under the high growth forecast, reaching 12.3 million TEUs,

Under the high growth forecast, container volumes are expected to increase at a slower rate than anticipated in the 2009 marine cargo forecast through 2020. However, the volumes expected for Puget Sound and Lower Columbia Oregon ports are comparable to the volumes expected in the prior forecast in 2030 (approximately 10 million TEUs). In the high growth scenario, container traffic is assumed to commence in Coos Bay in 2023 and increase to 2030.

**Figure 2-1: Pacific Northwest Container Cargo Trends and Forecast**



Source: Individual ports, BST Associates

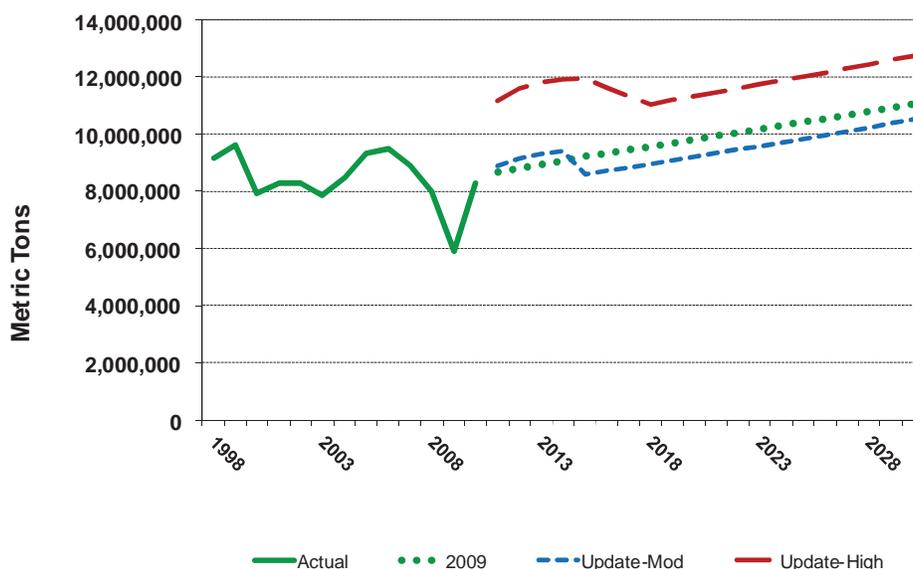
## Break and Neobulk Cargoes

The revised forecast for Pacific Northwest breakbulk and neobulk cargoes is presented in Figure 2-2. In the 2009 marine cargo forecast, these commodities were projected to increase by an average annual 1.5 percent, reaching 11.1 million tons in 2030.

Under the moderate-growth scenario, the forecast is slightly higher in the near-term than in the 2009 forecast, mainly due to increased log exports, which are expected to be relatively robust and then decline as the domestic housing industry begins to recover. Under the moderate growth forecast, breakbulk/neobulk cargoes are expected to grow by an average annual rate of 1.2 percent from 2010 to 2030, reaching 10.5 million tons in 2030.

Under the high growth forecast, breakbulk and neobulk volumes are expected to remain at higher levels. Log exports are projected to continue at a more rapid rate through approximately 2018 and then level out. Under the high growth forecast, breakbulk/neobulk cargoes grow by an average annual rate of 2.2 percent from 2010 to 2030, reaching 12.7 million tons 2030.

**Figure 2-2: Pacific Northwest Breakbulk and Neobulk Cargo Trends and Forecast**



Source: BST Associates

## Grain and Related Products

Pacific Northwest grain and oilseed exports have shown impressive growth over the past decade, increasing from approximately 20.1 million metric tons in 2000 to 34.1 million metric tons in 2010, or at an average annual growth rate of 5.4 percent per year.

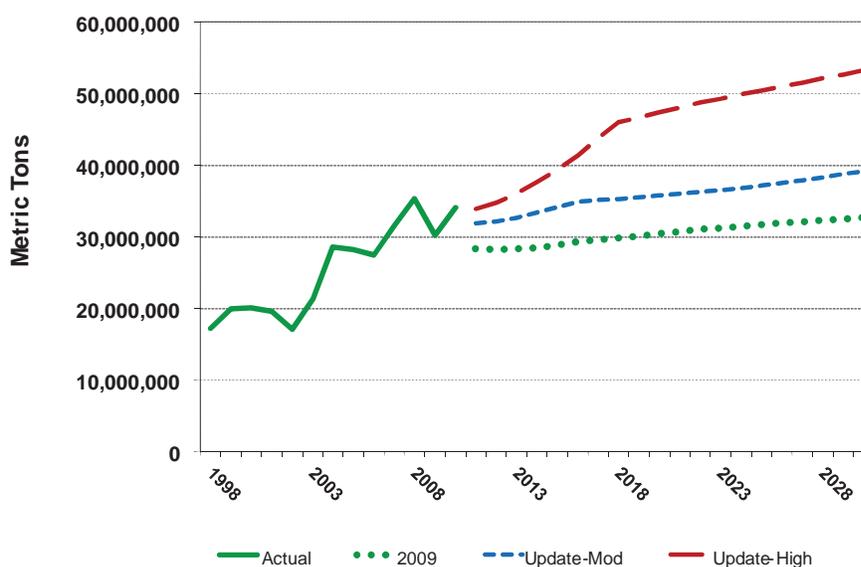
The 2009 forecast projected relatively modest gains in grain traffic, with volumes expected to reach 32.7 million tons in 2030. However, the forecast was based upon the reduced volumes in 2009 and did not anticipate the rapid increase in export volumes that occurred in 2010 (an increase of 4 million tons).

The revised Pacific Northwest forecast for grain and related products is presented in Figure 2-3. The new EGT elevator in Longview and expansion projects planned or under way in Portland, Vancouver, and Kalama will provide most of the capacity needed to absorb the forecast growth. The elevators in Seattle and Tacoma are operating at or near capacity and do not have expansion plans. Increased capacity is also being added at the AGP facility at the Port of Grays Harbor, and the proposed bulk port at Cherry Point north of Bellingham may include a grain facility.

Under the revised forecast, grain and related products are expected to reach:

- 39.1 million tons in 2030 under the moderate growth forecast, with average annual growth of 0.7 percent per year between 2010 and 2030,
- 53.3 million tons in 2030 under the high growth forecast, with average annual growth of 2.2 percent per year between 2010 and 2030.

**Figure 2-3: Pacific Northwest Grain & Oilseed Trend and Forecast**



Source: BST Associates, US Department of Commerce and WISERTrade data

## Dry Bulk Cargoes

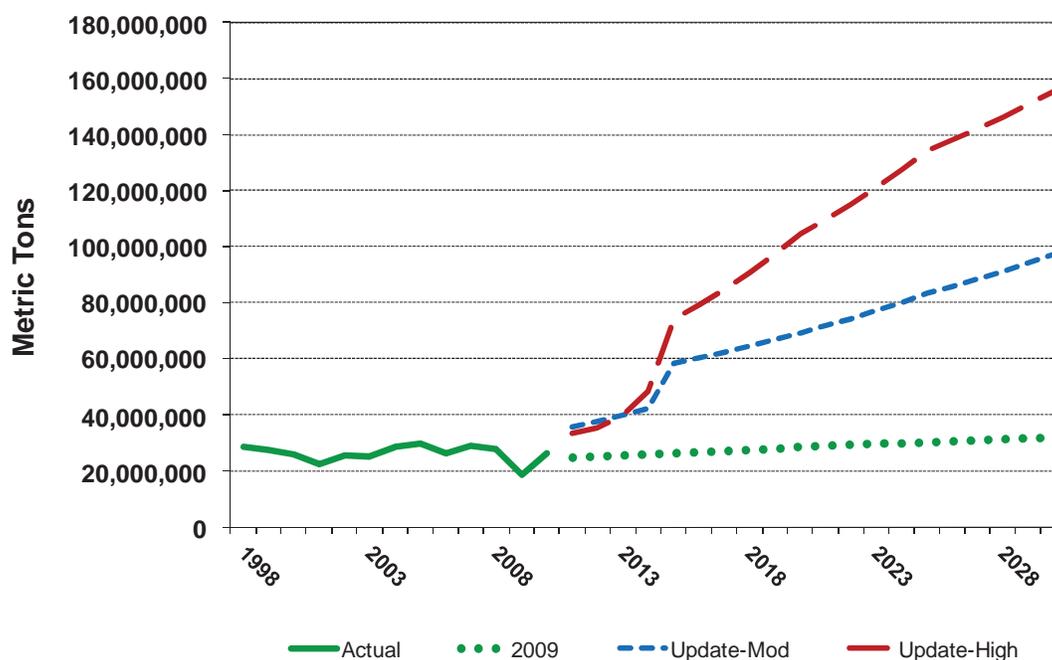
Dry bulk cargoes include a wide variety of products, such as woodchips, petroleum coke, potash, soda ash, gypsum, limestone, metal ores, and others. In addition, there is strong interest in coal, potash and ore exports. The revised Pacific Northwest forecast for dry bulk cargoes is presented in Figure 2-4.

The 2009 forecast projected 1.0 percent annual growth in bulk traffic, with volumes expected to reach 31.8 million tons in 2030. That forecast did not anticipate the rapid increase in dry bulk exports that actually occurred, where volumes jumped from 18.8 million tons in 2009 to 26.2 million tons in 2010.

Under the revised forecast, dry bulk cargoes are expected to reach:

- 97.1 million tons in 2030 under the moderate growth forecast, with average annual growth of 6.8 percent per year between 2010 and 2030,
- 155.3 million tons in 2030 under the high growth forecast, with average annual growth of 9.3 percent per year between 2010 and 2030.

**Figure 2-4: Pacific Northwest Dry Bulk Cargo Trends and Forecast**



Source: BST Associates

The expected growth in dry bulks is due to exports of potash, ores, coal and other commodities. Although there is uncertainty regarding volumes and export locations, the underlying basis of the export opportunity is sound for several reasons:

- there is strong international demand for these commodities,
- the regional transportation system is in place to move these commodities,
- the U.S. and Canada have substantial supplies of key commodities, and
- U.S. and Canadian exports can be delivered via Pacific Northwest ports at prices below the required delivered price.

## Liquid Bulks

The liquid bulk trades in the Pacific Northwest are dominated by petroleum, including crude oil and refined petroleum products. Other important commodities include chemicals, fertilizers and other products.

The revised forecast for Pacific Northwest liquid bulk cargoes is presented in Figure 2-5. Under the revised forecast, liquid bulk cargoes are expected to reach:

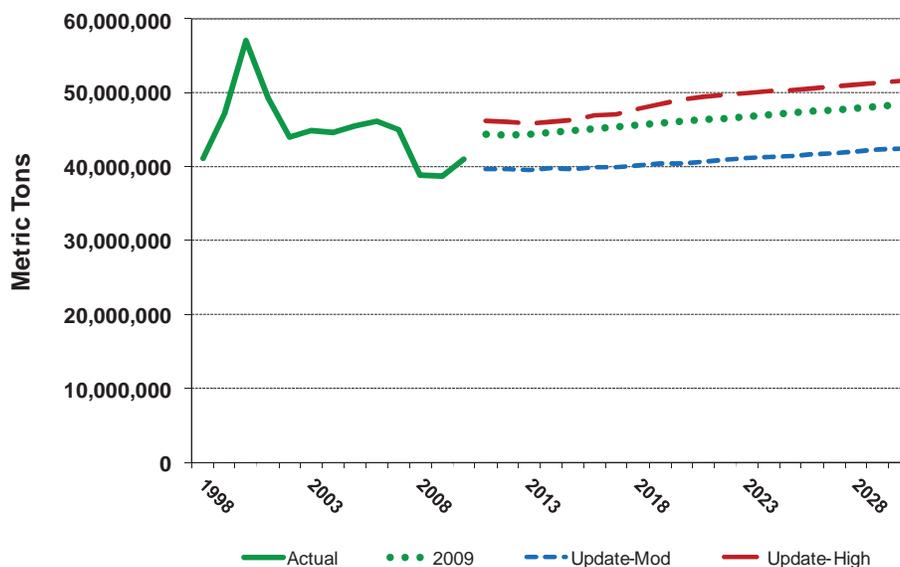
- 42.4 million tons in 2030 under the moderate growth forecast, with average annual growth of 0.2 percent per year between 2010 and 2030,
- 51.6 million tons in 2030 under the high growth forecast, with average annual growth of 1.2 percent per year between 2010 and 2030.

The 2009 forecast projected that liquid bulk traffic would reach 48.4 million tons in 2030, with average annual growth of approximately 0.8 percent between 2010 and 2030.

One significant change that is expected to impact liquid bulks is a shift in the source of crude oil for regional refineries. Under both the 2009 forecast and the current forecast the volume of crude oil from Alaska is expected to decline. The 2009 forecast assumed that the decline in domestic waterborne volumes from Alaska would be made up through a combination of waterborne foreign receipts and imports by pipeline. Under the current forecast the refineries in the region are also expected to begin receiving crude oil by rail from North Dakota, which may impact waterborne volumes. Under the moderate growth scenario, liquid bulk projections are lower to account for this shift.

New opportunities for liquid bulk cargo are also under consideration; most notably LNG imports (or perhaps exports) are being considered in Coos Bay and Astoria. The high growth scenario reflects these opportunities.

**Figure 2-5: Pacific Northwest Liquid Bulk Forecast**



Source: BST Associates

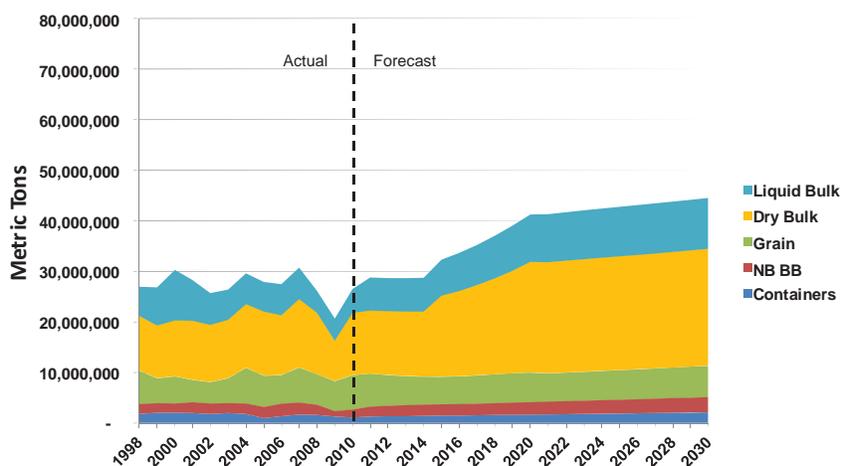
## Regional Forecasts by Commodity

This section summarizes expected growth for each sub-region and commodity group.

### Lower Columbia Oregon and Oregon Coast

Under the moderate growth forecast, the volume for the Lower Columbia Oregon region is projected to reach 44.6 million tons in 2030, with an average annual growth rate of 2.6 percent between 2010 and 2030. See Figure 2-6.

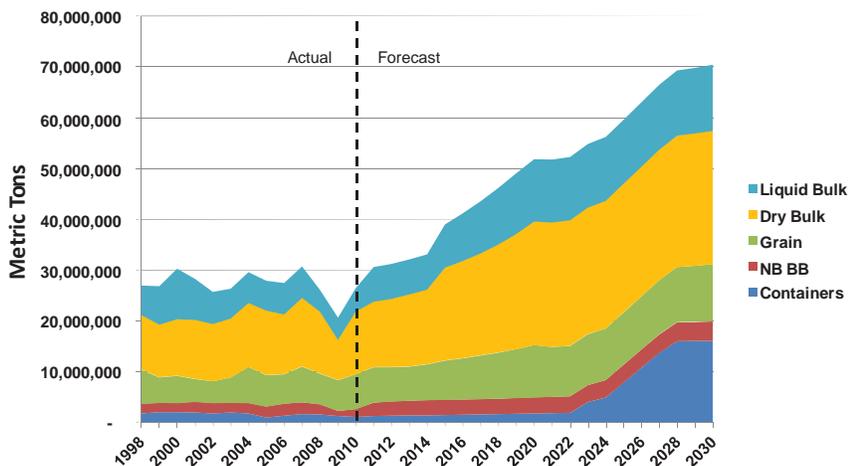
**Figure 2-6: Lower Columbia Oregon and Oregon Coast Forecast Moderate Growth Scenario**



Source: BST Associates

Under the high growth forecast, the volume for the Lower Columbia Oregon region is projected to reach 70.5 million tons in 2030, with an average annual growth rate of 5.0 percent between 2010 and 2030. See Figure 2-7.

**Figure 2-7: Lower Columbia Oregon and Oregon Coast Forecast High Growth Scenario**

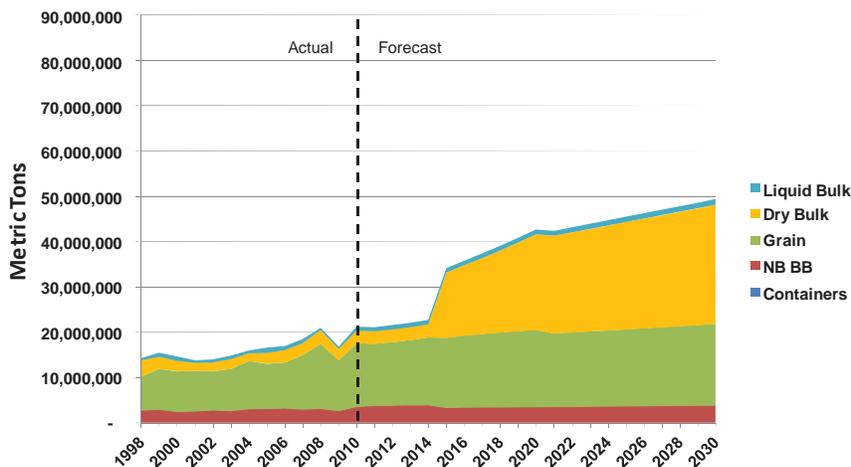


Source: BST Associates

### Lower Columbia Washington

Under the moderate growth forecast, the volume for the Lower Columbia Washington region is projected to reach 49.4 million tons in 2030, with an average annual growth rate of 4.3 percent between 2010 and 2030. See Figure 2-8.

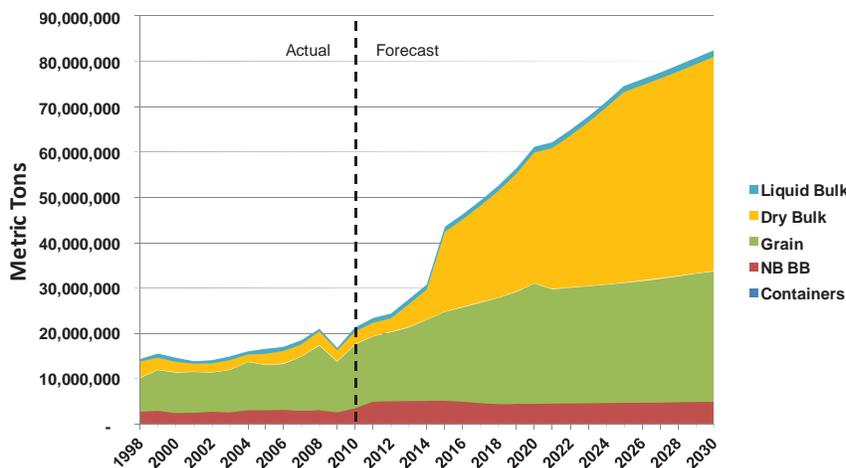
**Figure 2-8: Lower Columbia Washington Forecast  
Moderate Growth Scenario**



Source: BST Associates

Under the high growth forecast, the volume for the Lower Columbia Washington region is projected to reach 82.5 million tons in 2030, with an average annual growth rate of 7.0 percent between 2010 and 2030. See Figure 2-9.

**Figure 2-9: Lower Columbia Washington Forecast  
High Growth Scenario**

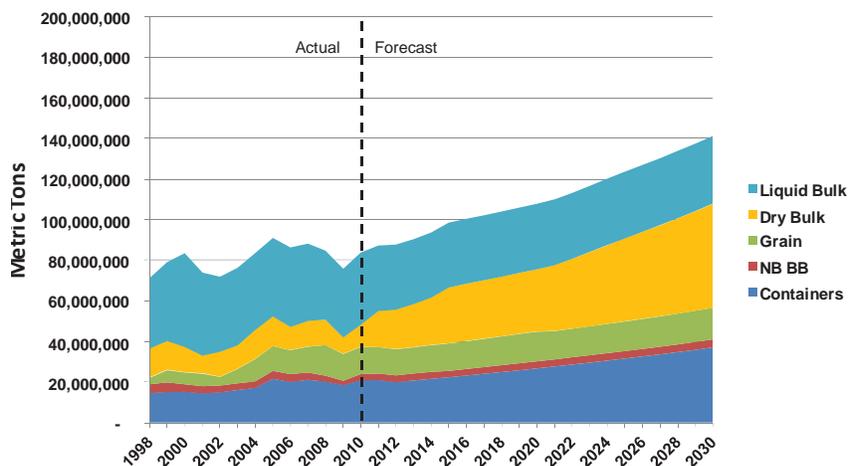


Source: BST Associates

### Puget Sound and Washington Coast

Under the moderate growth forecast, the volume for the Puget Sound and Washington Coast region is projected to reach 141.0 million tons in 2030, with an average annual growth rate of 2.6 percent between 2010 and 2030. See Figure 2-10.

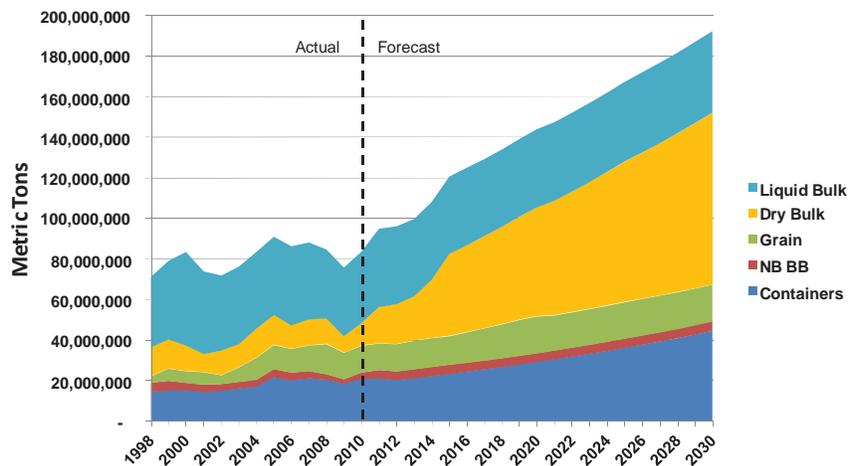
**Figure 2-10: Puget Sound and Washington Coast Forecast  
Moderate Growth Scenario**



Source: BST Associates

Under the high growth forecast, the volume for the Puget Sound and Washington Coast region is projected to reach 192.3 million tons in 2030, with an average annual growth rate of 4.2 percent between 2010 and 2030. See Figure 2-11.

**Figure 2-11: Puget Sound and Washington Coast Forecast  
High Growth Scenario**



Source: BST Associates

## Rail Forecasts by Region

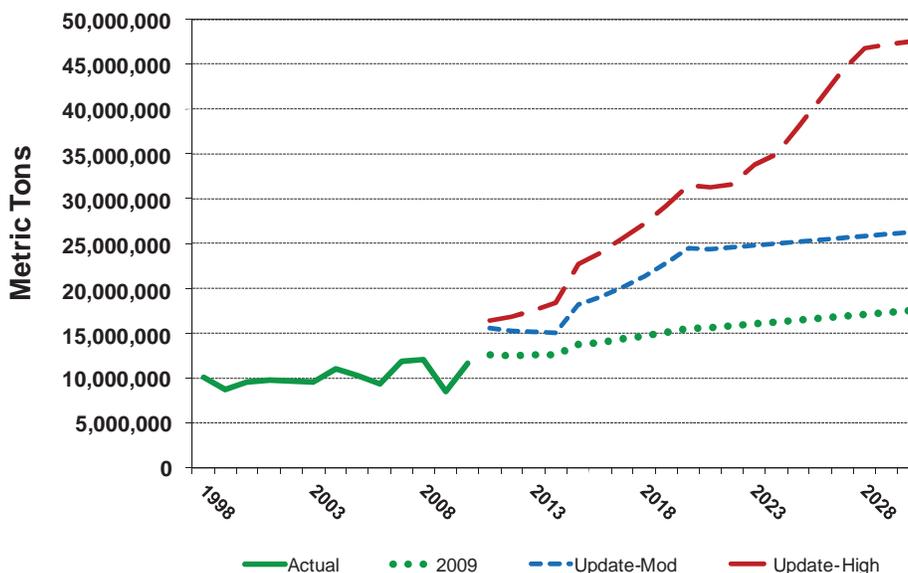
This section summarizes expected growth in rail traffic by sub-region.

### Lower Columbia Oregon and Oregon Coast

Rail traffic in the Lower Columbia Oregon and Oregon Coast sub-region is projected to grow as follows:

- A rail traffic projection for Oregon ports was not undertaken in 2009. However, using a similar process as that undertaken for Washington state ports, marine-related rail volumes would have been expected to increase from 11.7 million tons in 2010 to 17.5 million tons in 2030, or at an average annual growth rate of 2.0 percent.
- Under the current moderate growth forecast, marine-related rail traffic in this region is projected to reach 26.3 million tons in 2030, with an average annual growth rate of 4.1 percent between from 2010 and 2030.
- Under the high growth forecast, marine-related rail traffic in this region is projected to reach 47.5 million tons in 2030, with an average annual growth rate of 7.3 percent between 2010 and 2030. (See Figure 2-12)

**Figure 2-12: Lower Columbia Oregon and Oregon Coast Rail Traffic Forecast**



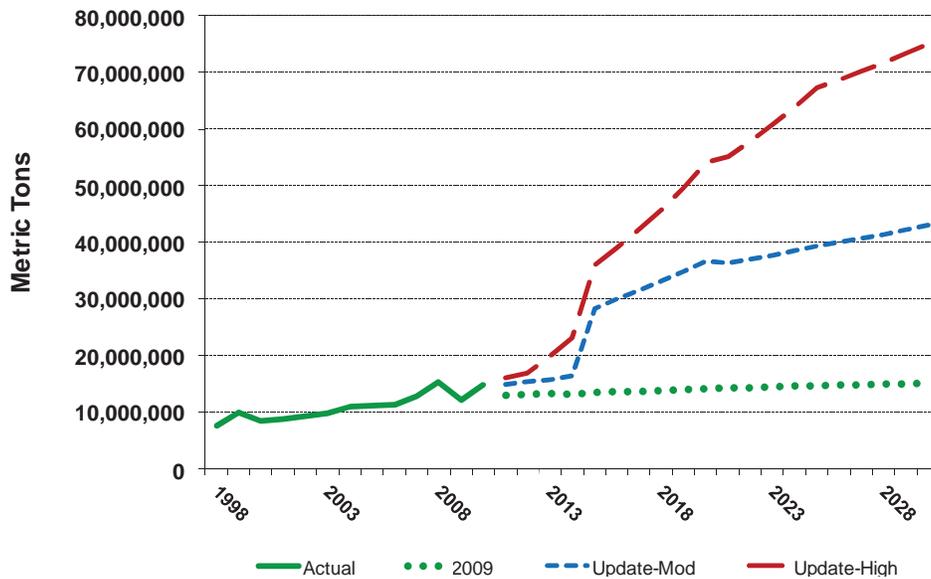
Source: BST Associates

### Lower Columbia Washington

Rail traffic in the Lower Columbia Washington sub-region is projected to grow as follows:

- In the 2009 Marine Cargo Forecast, rail volumes were expected to increase modestly from 14.8 million tons in 2010 to 15.1 million tons in 2030, or at an average annual growth rate of less than 0.2 percent.
- Under the moderate growth forecast, marine-related rail traffic in this region is projected to reach 43.0 million tons in 2030, with an average annual growth rate of 5.5 percent between 2010 and 2030.
- Under the high growth forecast, marine-related rail traffic in this region is projected to reach 74.9 million tons in 2030, with an average annual growth rate of 8.4 percent between 2010 and 2030. (See Figure 2-13)

**Figure 2-13: Lower Columbia Washington Rail Traffic Forecast**



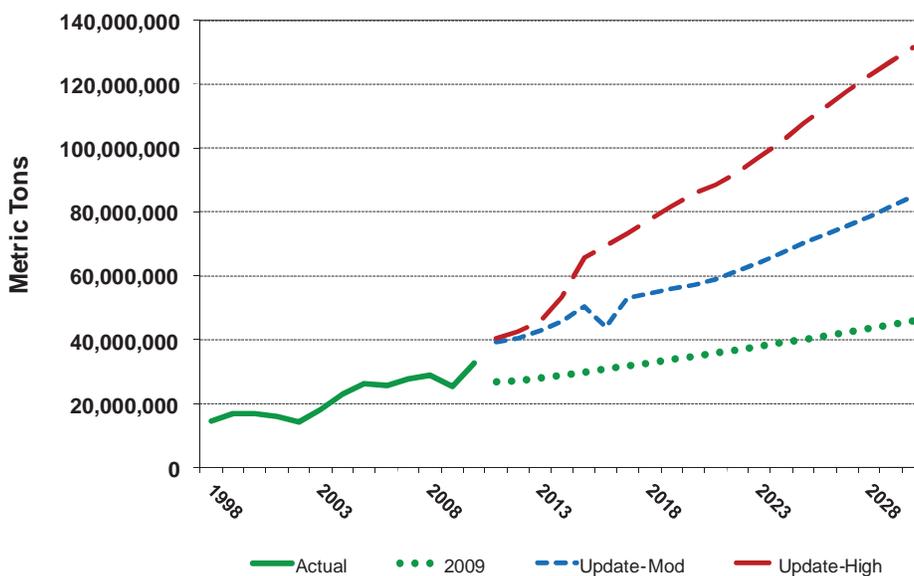
Source: BST Associates

### Puget Sound and Washington Coast

Rail traffic in the Puget Sound and Washington Coast sub-region is projected to grow as follows:

- In the 2009 Marine Cargo Forecast, rail volumes were expected to increase from 32.6 million tons in 2010 to 45.9 million tons in 2030, or at an average annual growth rate of 1.7 percent.
- Under the moderate growth forecast, marine-related rail traffic in this region is projected to reach 84.8 million tons in 2030, with an average annual growth rate of 4.9 percent between 2010 and 2030.
- Under the high growth forecast, marine-related rail traffic in this region is projected to reach 131.6 million tons in 2030, with an average annual growth rate of 7.2 percent between 2010 and 2030. (See Figure 2-14)

**Figure 2-14: Puget Sound and Washington Coast Rail Traffic Forecast**



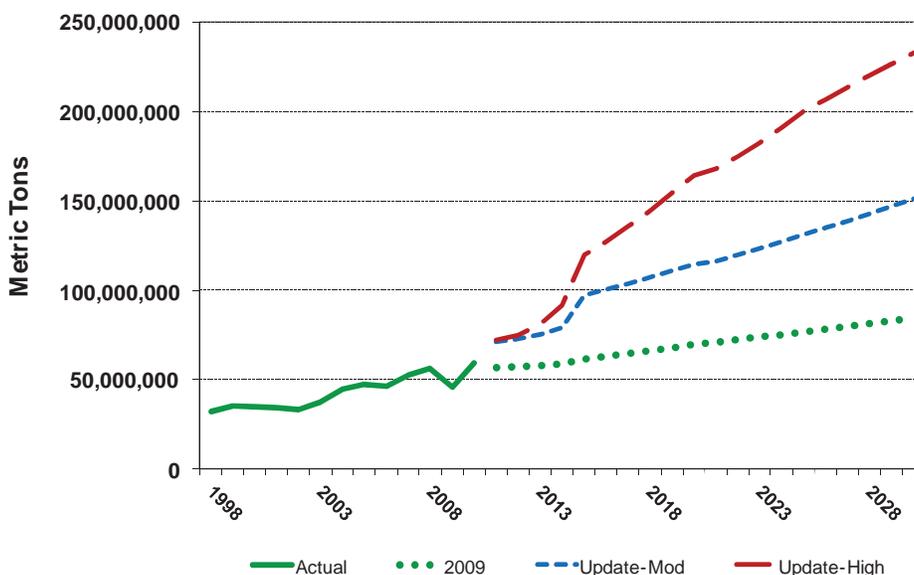
Source: BST Associates

### Pacific Northwest Region

Rail traffic in the Pacific Northwest region is projected to grow as follows:

- In the 2009 Marine Cargo Forecast, rail volumes were expected to increase from 59.2 million tons in 2010 to 78.5 million tons in 2030, or at an average annual growth rate of 1.4 percent.
- Under the moderate growth forecast, marine-related rail traffic in this region is projected to reach 151.1 million tons in 2030, with an average annual growth rate of 4.8 percent between 2010 and 2030.
- Under the high growth forecast, marine-related rail traffic in this region is projected to reach 232.8 million tons in 2030, with an average annual growth rate of 7.1 percent between 2010 and 2030. (See Figure 2-15)

**Figure 2-15: Pacific Northwest Rail Traffic Forecast**



Source: BST Associates

## Chapter 3

# Assessment of Rail Capacity

The following chapter provides an assessment of rail capacity. A primary objective of the rail capacity update is to identify and prioritize capacity improvements that would help mitigate main line capacity conflicts as rail traffic grows. This chapter was prepared by MainLine Management (MLM).

### Assumptions

Key assumptions about baseline conditions, train sizes and forecasts for domestic cargoes are summarized in the following section.

### Baseline Conditions

Based on discussions with rail service providers, the rail traffic volumes in 2008 were considered representative of volumes occurring in 2010. More importantly, data was available for rail traffic operations for major rail line segments for 2008. As a result, 2008 was used as the baseline condition for 2010.

### Train Sizes

Assumptions on train sizes are based upon discussions with rail providers, terminal operators and consultant experience:

- Unit grain sizes are expected to remain at approximately 110 cars.
- Unit coal trains are expected to remain at 115 to 120 cars.
- Export potash trains operate with 170 cars, approximately 8,500 feet in length.
- Container trains of 8,000 to 8,500 feet from the Puget Sound ports will continue to be operated as long as volumes are available and service requirements can be maintained. Otherwise, international container trains are sized to meet import demand and service requirements.
- Manifest trains will continue to operate at a maximum train size of approximately 7,000 feet.

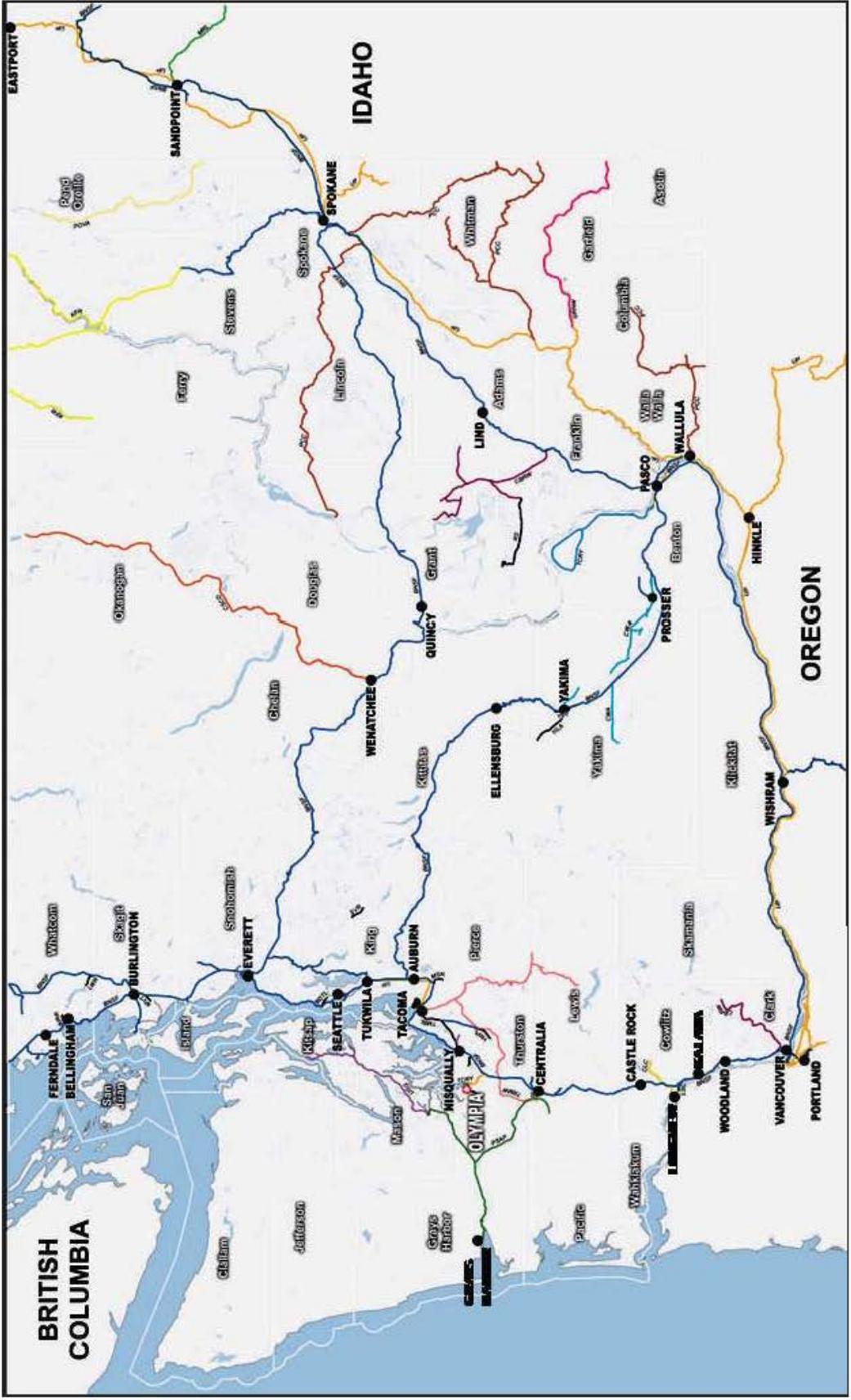
### Forecasts

The rail forecasts include a projection of the number of trains under moderate and high growth scenarios under both average and peak operating conditions.

The forecasts are driven by the marine cargo forecast, which is documented in Chapter Two. For other rail cargo (domestic traffic and passengers), the following assumptions were used:

- Forecasts for passenger trains were taken from studies prepared for WSDOT and ODOT.
- Merchandise trains are projected to grow at 2 percent annually.
- Domestic intermodal trains are projected to grow at 3.5 percent annually.

Figure 3-1: Map of Rail System



## Absorption

Currently, many of the existing trains in the region do not run at their maximum potential length. It is assumed that traffic growth will usually be absorbed by existing trains before new trains are deployed. However, this assumption recognizes that service requirements sometimes necessitate new train starts even though existing trains are not running at maximum length.

## Capacity by Mainline Segment

This section presents an assessment of the projected demand-capacity relationships at the key line segments over the study forecast period (through 2030). The line segments include:

- Pasco, WA to Vancouver, WA (BNSF)
- Hinkle OR to Portland, OR (UP)
- Pasco, WA to Spokane, WA (BNSF)
- Spokane, WA to Sand Point, ID (BNSF)
- Hinkle, OR to Eastgate, ID (UP)
- Vancouver, WA to Kalama/Longview, WA (Joint line)
- Kalama/Longview, WA to Tacoma, WA (Joint line)
- Tacoma, WA to Seattle, WA (Joint line)
- Seattle, WA to Everett, WA (BNSF)
- Everett, WA to Vancouver, BC (BNSF)
- Everett, WA to Spokane, WA via Stevens Pass (BNSF)
- Auburn, WA to Pasco, WA via Stampede Pass (BNSF)

In each of the following rail segment analyses, graphics are presented to illustrate the growth in rail traffic and growth in rail segment capacity. The increases in capacity indicated by the graphs reflect: 1) improvements that are currently planned or under way, and 2) other potential improvements that the consultants consider to be feasible. With the exception of projects that are contractually obligated under passenger rail plans, other improvements are up to the discretion of the individual railroads, and would likely be added only as needed to meet market demand.

### Pasco, WA to Vancouver, WA (BNSF)

BNSF has undertaken several improvements along the section of mainline from Pasco to Vancouver. All meet/pass sidings between Pasco and Wishram (near the middle of the Columbia Gorge) are at least 8,000 feet in length. Between Wishram and Vancouver, six of 11 existing sidings are 8,000 feet in length or longer. BNSF has a priority plan to extend sidings that are not currently 8,000 feet in length, as demand requires.

Figures 3-2 and 3-3 illustrate the consultants' opinion of the capacity of this line segment as well as the projected train volumes under the moderate and high growth scenarios. The analysis implies that:

- Pasco to Wishram
  - Under the high growth scenario, capacity will be reached by 2020 (peak daily traffic) and 2025 (average daily traffic).
  - Under the moderate growth scenario, capacity will be reached by 2025 (peak daily traffic) and 2030 (average daily traffic).

- Wishram to Vancouver:
  - Under the high growth scenario, capacity will be reached by 2024 (peak daily traffic) and 2025 (average daily traffic).
  - Under the moderate growth scenario, capacity will be reached by 2030 (peak daily traffic).

However, the capacity on this route can be enhanced beyond previous study assumptions through a combination of siding extensions and revised operating protocols, as discussed below.

The Pasco to Vancouver route hosts Amtrak trains, and is subject to implementation of Positive Train Control (PTC), as mandated by Congress. Industry analysis of the implementation of PTC indicates that it may negatively impact capacity, especially on line segments in which "fleeting"<sup>1</sup> is used. This is because PTC requires a larger safety zone for following trains than is required under the existing Centralized Traffic Control (CTC).

BNSF is evaluating a plan that would change the traffic flows and volumes on this segment over time. Under this plan, full export bulk trains would move westbound through the Columbia River Gorge. Empty bulk trains from Portland and Vancouver would move eastbound through the Gorge, but empty export bulk trains from Kalama north (i.e., Longview, Grays Harbor, Tacoma, Seattle, etc.) would be routed to Auburn and then over Stampede Pass. Most of the other train types that currently use the Gorge would continue to do so.

If implemented, this plan would create the opportunity for significant fleeting of westbound trains through the Columbia River Gorge.

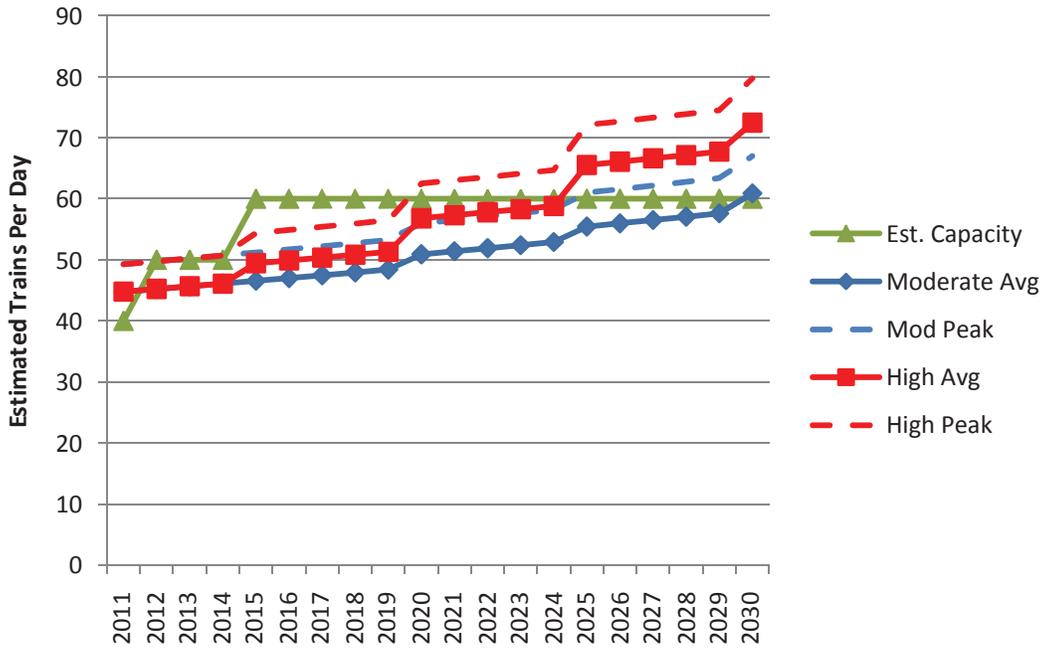
One area of concern is the single track BNSF rail bridge over the Columbia River at Pasco. The estimated capacity in the segment analysis assumes that BNSF will be able to operate a sufficient number of trains over the bridge to meet the projected long-term demand. Congestion, however, could be expected to be a problem in near the end of the forecast period.

Two potential increases in capacity are illustrated in Figures 3-2 and 3-3. These include adoption of the new operating plan, connecting individual sidings into sections of double-track main line, and the addition of siding extensions.

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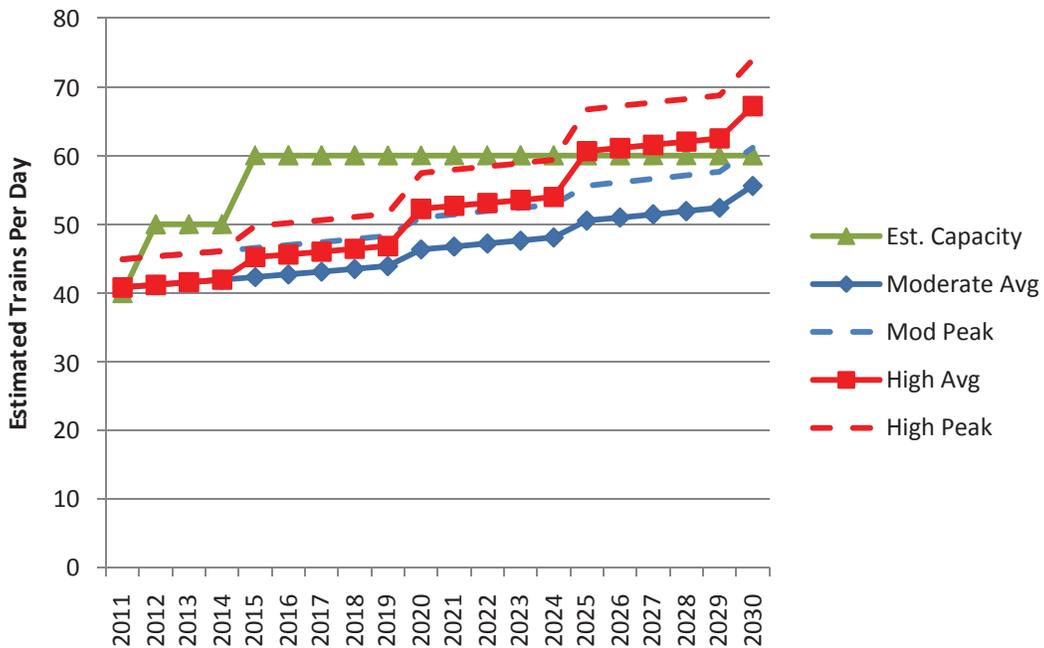
<sup>1</sup> "Fleeting" is a term used to describe train movements in which a series of trains are operated in one direction, and then in the other direction. This minimizes meet/pass requirements and can increase the practical capacity of a line segment.

**Figure 3-2: Rail Corridor Capacity – Pasco to Wishram (BNSF)**



Source: MainLine Management

**Figure 3-3: Rail Corridor Capacity – Wishram to Vancouver BNSF**



Source: MainLine Management

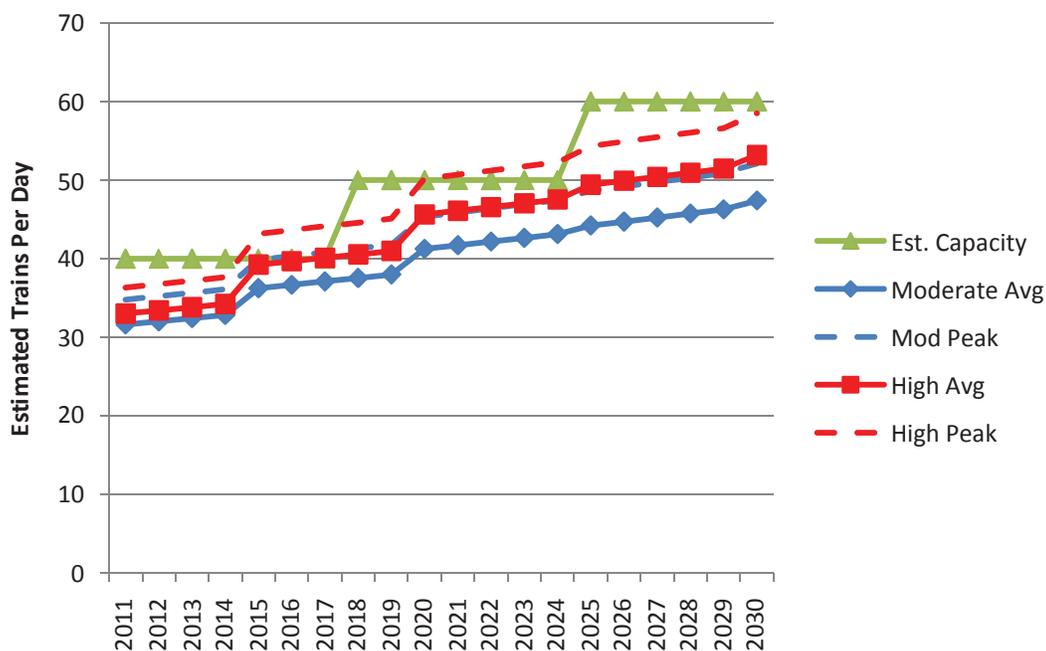
### Hinkle, OR to Portland, OR (UP)

The UP main line runs along the Oregon side of the Columbia River between Hinkle and Portland, and is similar to the BNSF line on the Washington side of the Columbia River between Vancouver and Pasco.

Options for increasing capacity on this segment are similar to those for the BNSF. These include fleeting of trains, along with siding expansion where constructable.

As Figure 3-4 demonstrates, no capacity constraints are expected under either the moderate or high growth scenarios. The capacity improvements illustrated in the graph are based on connecting individual sidings into sections of double-track main line, and the addition of siding extensions, and possible fleeting of trains.

**Figure 3-4: Rail Corridor Capacity, Hinkle to Portland (UP)**



Source: MainLine Management

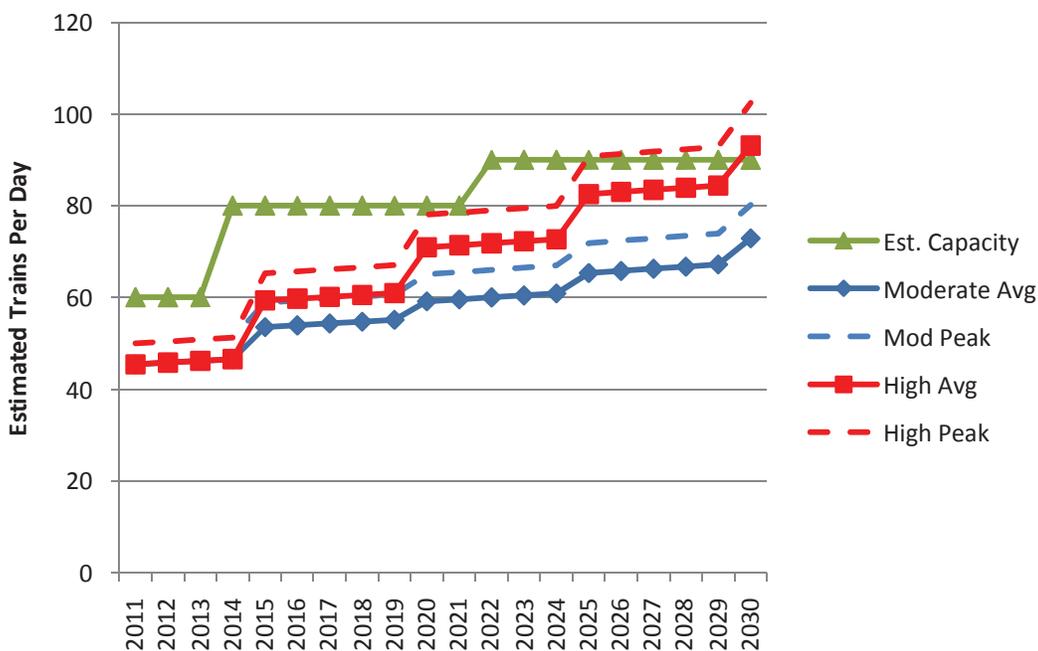
### Pasco, WA to Spokane, WA (BNSF)

Between Pasco and Spokane all sidings are 8,000 feet in length or longer and capacity exists to operate several more trains in each direction on the segment. As a result of the projected growth in export traffic, BNSF is planning for capacity expansion on this segment. In the consultant’s opinion, such an expansion would likely involve combining key sidings into long sections of double-track and adding high-speed crossovers to increase operational flexibility.

As shown in Figure 3-5, the analysis implies that the Pasco to Spokane segment will reach capacity by 2025 (peak) and 2030 (average) under the high growth scenario, but there are no capacity constraints under the moderate growth scenario.

Capacity increases illustrated in the graph result from connecting individual sidings into sections of double-track main line.

**Figure 3-5: Rail Corridor Capacity – Pasco to Spokane (BNSF)**



Source: MainLine Management

### Spokane, WA to Sand Point, ID (BNSF)

There are two main line segments between Spokane, Washington and Sand Point, Idaho, one operated by the BNSF and one by the UP.

Most of the BNSF corridor features multiple main tracks, but there are short stretches of single track between Irvin and Otis Orchard, WA (3.1 miles), Rathdrum and Athol, ID (11.1 miles with a siding at Ramsey) and between Algoma and Cocolalla, ID (2 miles). It is likely that BNSF can increase the capacity of this segment to meet demand, primarily by double-tracking the remaining single track segments between Spokane and Sandpoint, although some of those sections present certain difficulties and enhanced costs.

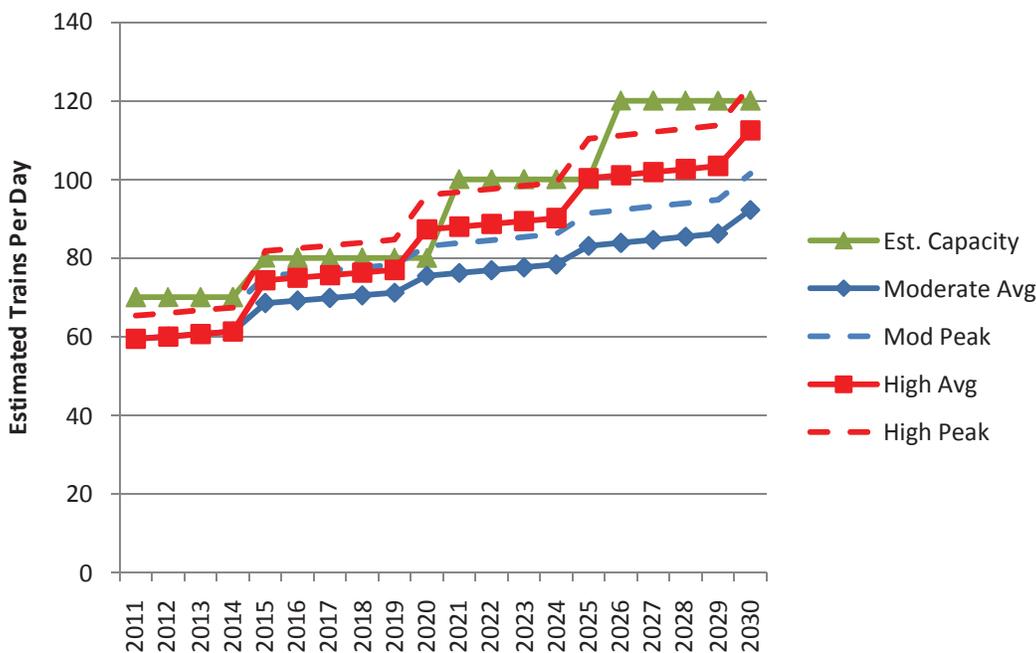
A capacity concern that may materialize over the long-term for BNSF is the single track bridge across Lake Pend Oreille. The train volumes indicated in the 2030 projections may require fleeting of traffic across the bridge. In addition, fleeting of trains may create the need for additional storage track on either side of the bridge to stage trains before crossing.

As shown in Figure 3-6, the analysis implies that the Sandpoint to Spokane segment has sufficient capacity under average conditions, but may be constrained under peak conditions. Under the moderate growth scenario, there are no sustained capacity constraints.

Capacity increases illustrated in the graph result from double-tracking three single-track segments, adding a third main line in key locations, and potentially adding staging tracks at either end of the Lake Pend Oreille Bridge.

The UP segment between Spokane and Sand Point is included in the next section of this chapter, Hinkle, OR to Eastgate, ID.

**Figure 3-6: Rail Corridor Capacity – Spokane to Sand Point (BNSF)**



Source: MainLine Management

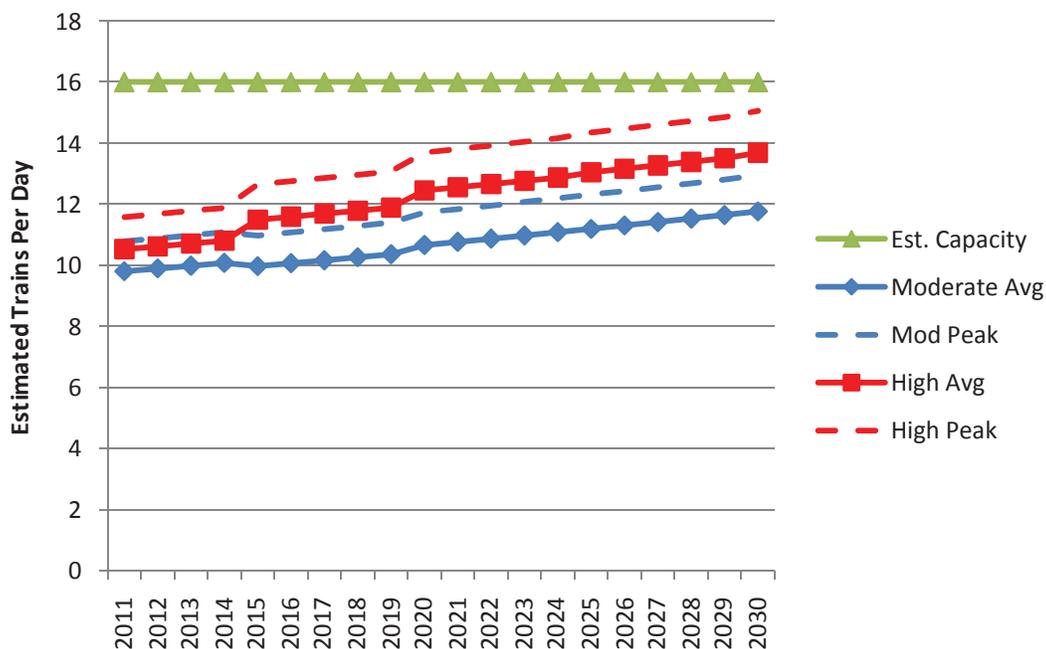
### Hinkle, OR to Eastgate, ID (UP)

This segment of mainline is a key route for Canadian cargo exported through Pacific Northwest ports, such as potash, which originate on the Canadian Pacific Railway and are interchanged with the Union Pacific at Eastport, Idaho.

Much of this segment consists of a single track operation operated by Track Warrant Control, which is non-signalized. The distance between meet/pass sidings limits capacity, but current available capacity is sufficient to meet projected traffic volumes under both growth scenarios, as shown in Figure 3-7.

The UP may be able to increase capacity by constructing additional meet/pass sidings if warranted by growth in cargo traffic. However, these potential increases in capacity are not included in Figure 3-7.

**Figure 3-7: Rail Corridor Capacity, Hinkle to Eastgate**



Source: MainLine Management

## Vancouver, WA to Tacoma, WA

Plans to increase volumes of intercity passenger rail have driven the infrastructure expansion proposals for this segment. The analysis of this segment is divided into two sections:

- Vancouver to Longview/Kelso, and
- Longview/Kelso to Tacoma.

The most significant capacity usage on this segment occurs in the Kalama/Longview area due to grain trains leaving/entering the main lines at Kalama and to yard operations at Longview Junction. In both cases, considerable main line capacity is consumed by trains slowly entering/departing the main lines to/from export grain facilities or while they are stopped to work in yard areas.

With the projected increase in loaded and empty bulk trains over this segment, it is possible that BNSF will consider fleeting loaded bulk export trains through the Gorge and running empty bulk trains eastbound over Stampede pass, as discussed above in the Vancouver to Pasco section. Empty and full export bulk trains on the UP system would continue to operate through the Gorge in both directions.

One potential capacity expansion project that may be revisited is the construction of a unit train staging/storage yard near Woodland. At one time this improvement was on the list of passenger-related improvements under consideration by WSDOT, but was cut when that plan was downsized. With the number of export bulk trains projected for this segment, an area for staging loaded bulk trains near Kalama may prove beneficial from a rail operating and service perspective.

Another potential project is to add a second single-track rail bridge to span the Cowlitz River or to replace the existing single-track Cowlitz River Bridge with a new double-track bridge. This bridge is located on the branch line that connects marine terminals at the Port of Longview as well as other industrial customers to the I-5 Corridor main line. The recent Port of Longview Master Plan demonstrated the need to for this project, and it was also identified in the SR432 Highway and Rail Improvement Project.

Passenger-related capacity improvements in the updated WSDOT *Amtrak Cascades Mid-Range Plan* focus on the Kalama/Longview area, and include adding a third main track that bypasses existing congestion points.

The following sections discuss the Vancouver to Tacoma segment in two parts, Vancouver WA to Kalama/Longview and Kalama/Longview to Tacoma.

### Vancouver, WA to Kalama/Longview, WA (Joint Line)

Much of the congestion on this segment occurs at Vancouver, and between Vancouver and Kalama/Longview. At Vancouver, through traffic on intersecting main line routes compete for line capacity with operations at the Vancouver Yard, and with trains entering and leaving the Port of Vancouver. Additional passenger train operations are likely to aggravate these conflicts unless sufficient mitigation is constructed to improve efficiency for all train operations in the Vancouver Terminal area.

Between Vancouver and Longview numerous trains arrive and depart the main line to access marine terminals and other customers in the Kalama/Longview area. These trains arriving and departing the mainline move at slow speeds, aggravating congestion issues on this segment.

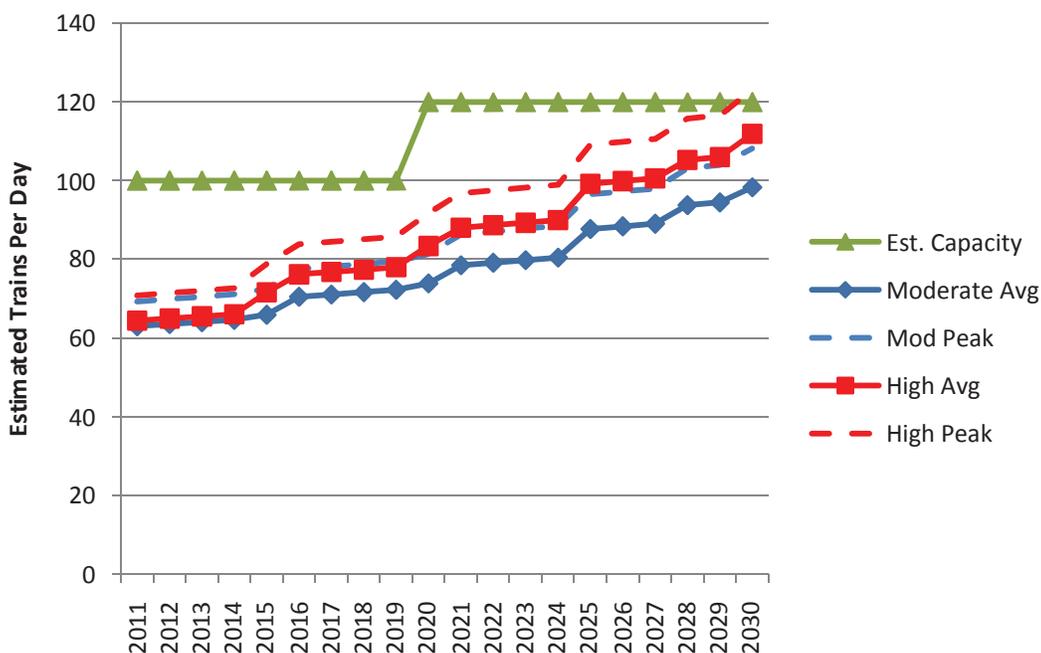
WSDOT’s *Amtrak Cascades Mid Range Plan* (Options 3 and 4)<sup>2</sup> will continue to provide the rail capacity needed over time to ensure that intercity passenger growth can occur in conjunction with projected freight growth. The directional operation of loaded and empty bulk trains by BNSF, coupled with the planned passenger rail improvements, should reduce the impact of growing freight and passenger traffic.

In the consultants’ opinion, the construction of a third main track through the Kalama/Longview area will be needed in the long-term, as well as construction of a bulk train staging and storage facility near Woodland.

As shown in Figure 3-8, the analysis implies that there is no capacity problem for the section of mainline from Vancouver to Longview under the moderate growth scenario. Under the high growth scenario, capacity is reached by 2030 during peak operations.

Capacity improvements reflected in this graph include completion of the Vancouver Bypass, the new Port of Vancouver Access Route, and the Option 3 passenger improvements (including construction of the third main track between Kalama and Kelso). Other improvements may include completion of third main track between Martin’s Bluff and Rocky Point, and expansion of the Cowlitz River Bridge at Longview. In addition, construction of improvements at North Portland Junction will compliment these improvements, even though the junction is not located within this segment.

**Figure 3-8: Rail Corridor Capacity – Vancouver (WA) to Kalama/Longview With Passenger Improvements**



Source: MainLine Management

<sup>2</sup> For a full list of projects, please access the Amtrak *Cascades* Mid-Range Plan at <http://www.wsdot.wa.gov/NR/rdonlyres/83B17378-CDC8-4D57-AA60-4CD64BAF6D94/0/AmtrakCascadesMidRangePlan.pdf>

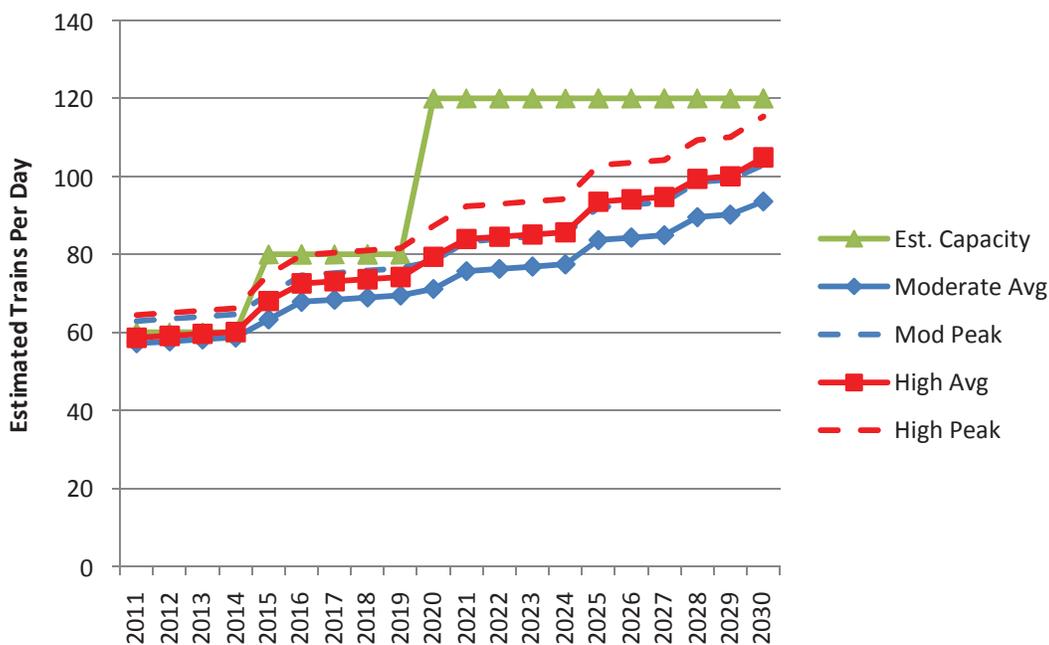
### Kalama/Longview, WA to Tacoma, WA (Joint Line)

Two single track tunnels near Tacoma (Nelson-Bennett Tunnel and Ruston Tunnel) are the primary capacity constraints between Longview/Kalama and Tacoma. However, the Point Defiance Bypass, which is planned to be completed by 2017, will alleviate mainline capacity constraints by shifting passenger trains from the existing main line to an alternate route between Nisqually and Reservation Interlocking in Tacoma. In addition, planned CTC high-speed crossovers will provide additional flexibility for train operations across this segment.

Capacity improvements illustrated in Figure 3-9 include completion of the Point Defiance Bypass and the addition of high-speed crossovers. These two projects will allow the Longview/Kalama to Tacoma segment to operate at or below capacity over the 20-year forecast period under both the moderate and high growth scenarios.

In addition, the Blakeslee Junction rail project would allow faster access and egress between the mainline and the Puget Sound and Pacific Railroad branch at Centralia. This project was originally considered for WSDOT’s Amtrak *Cascades* list of passenger-related capacity improvements. Completion of this project would also accommodate additional cargo opportunities at the Port of Grays Harbor.

**Figure 3-9: Rail Corridor Capacity –Kalama/Longview to Tacoma With Point Defiance Bypass**



Source: Mainline Management

### Tacoma, WA to Seattle, WA (Joint Line)

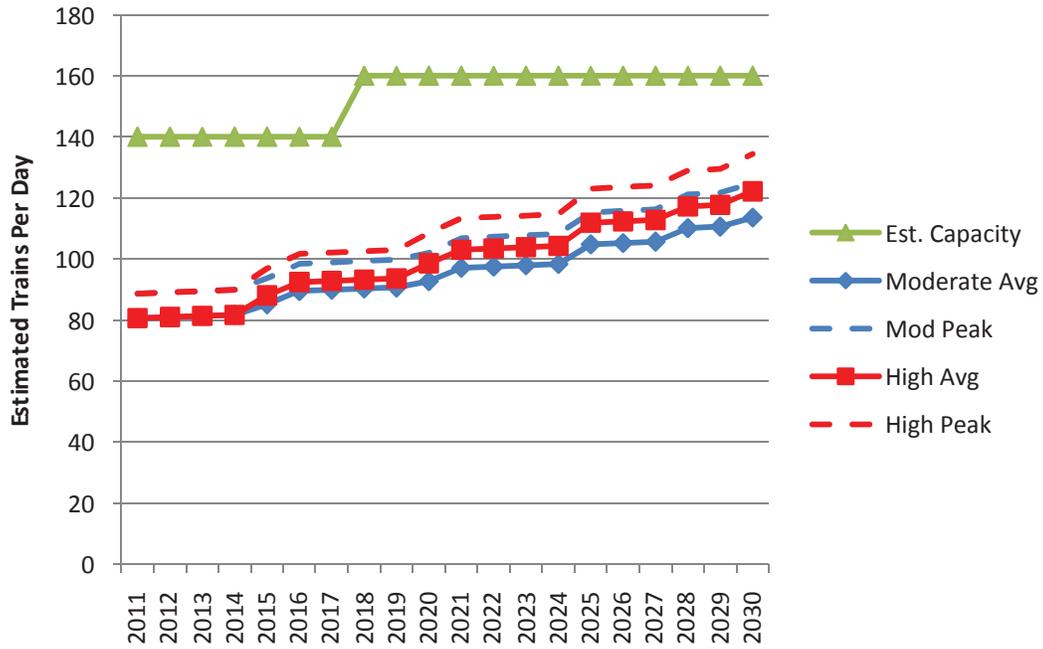
According to Sound Transit there are no conflicts between passenger and freight operations between Tacoma and Seattle, and the level of service provided by BNSF is very good. The Point Defiance Bypass project will further improve freight and traffic flows through Tacoma, and between Tacoma and Seattle.

Improvements at King Street Station in Seattle have improved the efficiency of freight and passenger operations in the Seattle area. BNSF is constructing a third main track approximately five miles long between Kent and Auburn. Approximately half of this track is on either side of the wye that accesses the Stampede Pass line. Presumably the purpose of this additional main line is to facilitate efficient freight operations between the existing main lines, Auburn Yard, and Stampede Pass. Given the potential to route empty bulk trains over Stampede pass, this additional track is needed to minimize the impact to current and projected commuter and intercity passenger trains.

The capacity of this segment was analyzed in two parts - Tacoma to Auburn and Auburn to King Street Station. The primary reason for splitting the analysis this way is that the traffic mix is likely to be different on each part if the BNSF routes empty bulk trains over Stampede Pass; the mix of loaded and empty bulk trains between Tacoma and Auburn would be slightly different than the mix north of Auburn.

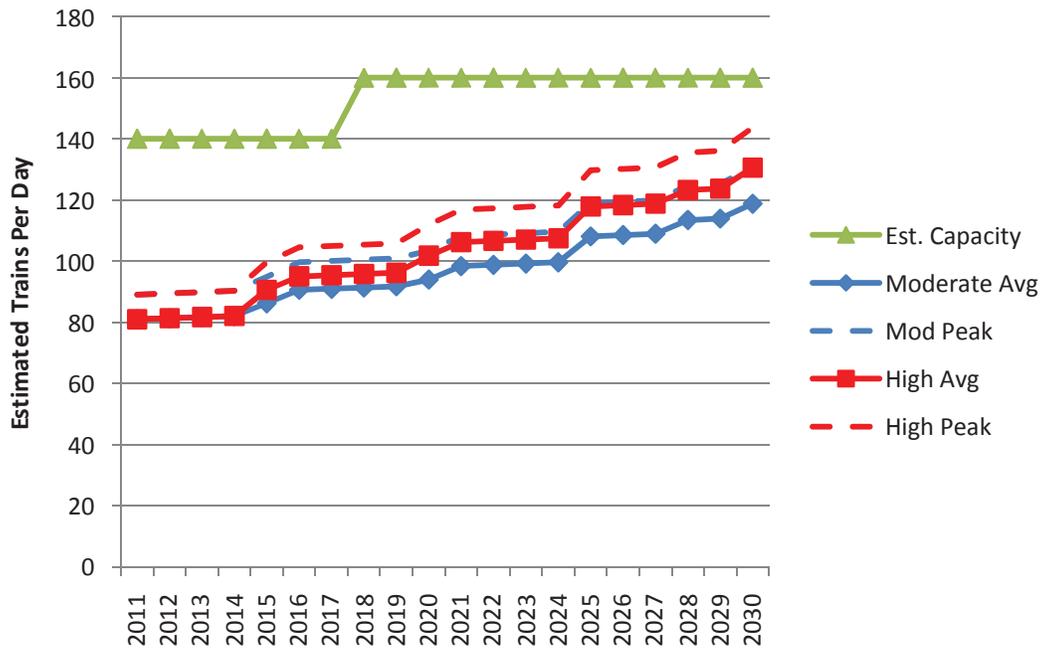
As shown in Figures 3-10 and 3-11, there are no capacity constraints under high-growth or moderate-growth scenarios.

**Figure 3-10: Rail Corridor Capacity – Tacoma to Seattle  
Joint Line Tacoma to Auburn**



Source: MainLine Management

**Figure 3-11: Rail Corridor Capacity – Tacoma to Seattle  
Joint Line Auburn to Seattle**



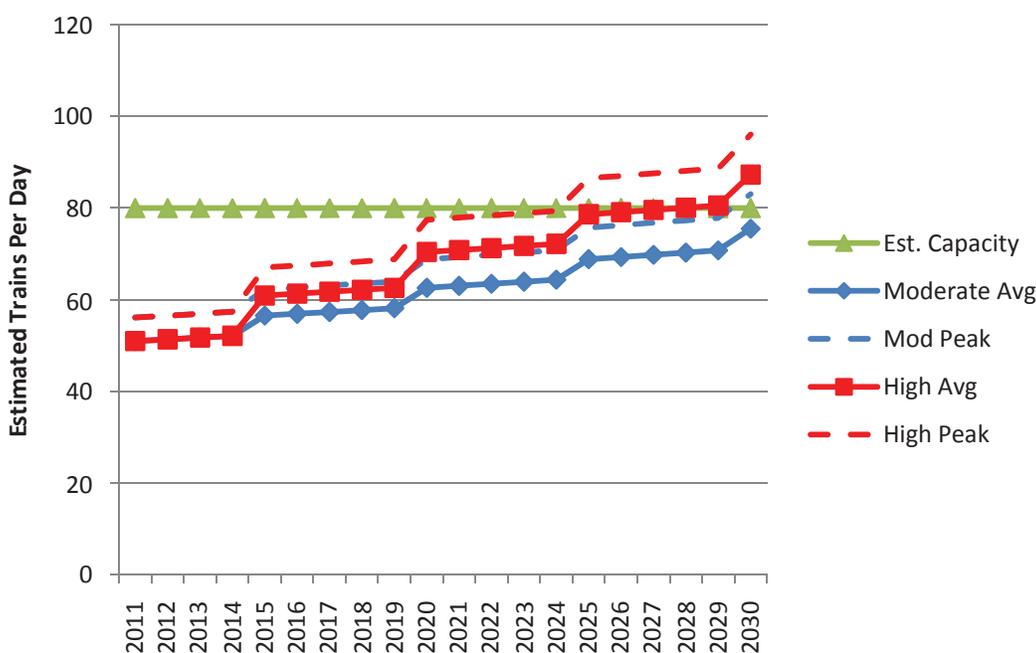
Source: MainLine Management

### Seattle, WA to Everett, WA (BNSF)

Capacity expansion on this line segment is driven by passenger rail service requirements, with no freight-related improvements currently planned. Under the agreement between Sound Transit and BNSF for commuter train operations over this segment, Sound Transit purchased "slots", which guaranteed specific passenger volumes and service levels. Under this agreement BNSF must ensure that these passenger service requirements are met, regardless of freight demand.

As shown in Figure 3-12, however, growth in export bulk trains destined north of Everett could result in capacity constraints, starting between 2020 and 2023 under the high growth scenario. That may result in BNSF proactively constructing additional capacity improvements to meet the requirements of the slot purchase arrangement with Sound Transit. Under the moderate growth scenario, there are no capacity constraints until 2030 (under peak operations).

**Figure 3-12: Rail Corridor Capacity – King Street Station to Everett**



Source: MainLine Management

### Everett, WA to Vancouver, BC (BNSF)

Capacity improvements currently planned for the Everett to Vancouver mainline segment are driven largely by passenger service. Three of the projects that are currently being designed or constructed include:

- Siding upgrade and extension at Stanwood,
- Siding upgrade and extension at Mount Vernon,
- Construction of a new siding at the Swift Customs Facility.

The siding extensions and upgrades at Stanwood and Mount Vernon would allow more efficient meet/pass operations involving freight and passenger operations. The new siding at Swift (Blaine) would allow additional capacity for freight train customs inspections while keeping the main line open for other train operations, including passenger.

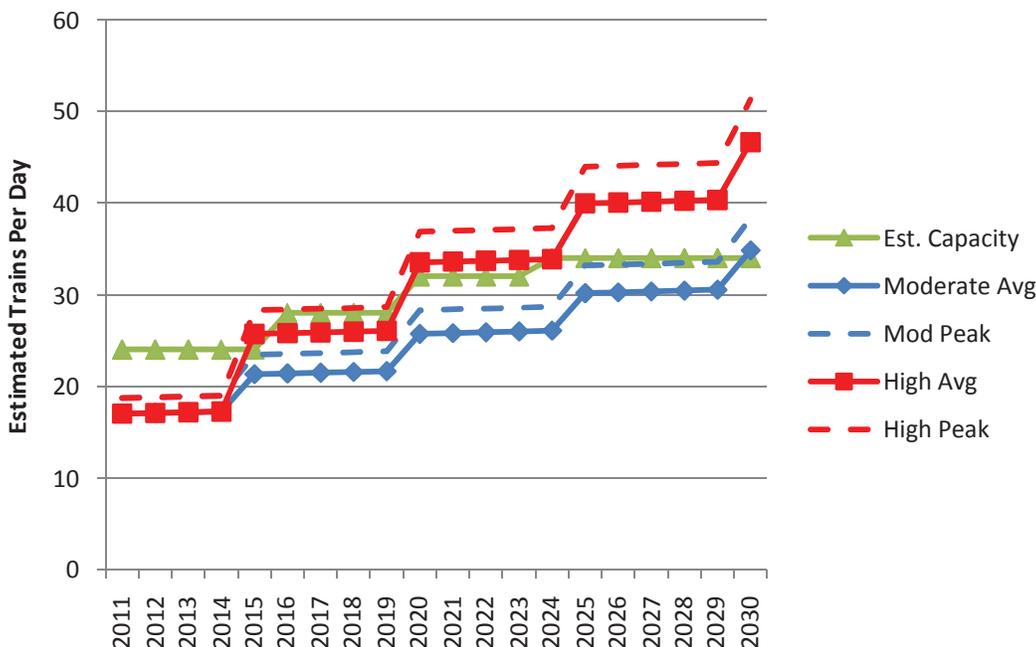
In addition to these improvements, BNSF recently constructed a 10,000 foot siding north of the border at Colebrook, BC. Colebrook is the location where the BNSF ties into the rail line that accesses the Deltaport and Westshore port facilities. Prior to construction of this siding BNSF had no meet/pass locations between the border and Brownsville, BC.

As shown in Figure 3-13, growth in export bulk commodities may lead to sustained capacity constraints along this segment. These constraints are projected to start between 2020 and 2025 under the high growth scenario, and between 2029 and 2030 under the moderate growth scenario.

The increases in sustainable capacity illustrated in Figure 3-13 reflect the consultants' view of potential improvements. Given the track profile of this segment, these potential improvements include the addition of new sidings and the extension of existing sidings.

In addition to the physical improvements, additional capacity improvements on this segment may be possible through the use of fleetings. Although this analysis does not assume a change in operating protocols, growth in the number of bulk trains may necessitate the use of fleetings operations. At lower traffic growth levels, targeted siding expansions would likely be able to accommodate traffic growth over the 20-year horizon.

**Figure 3-13: Rail Corridor Capacity – Everett to Vancouver (BC)**



Source: MainLine Management

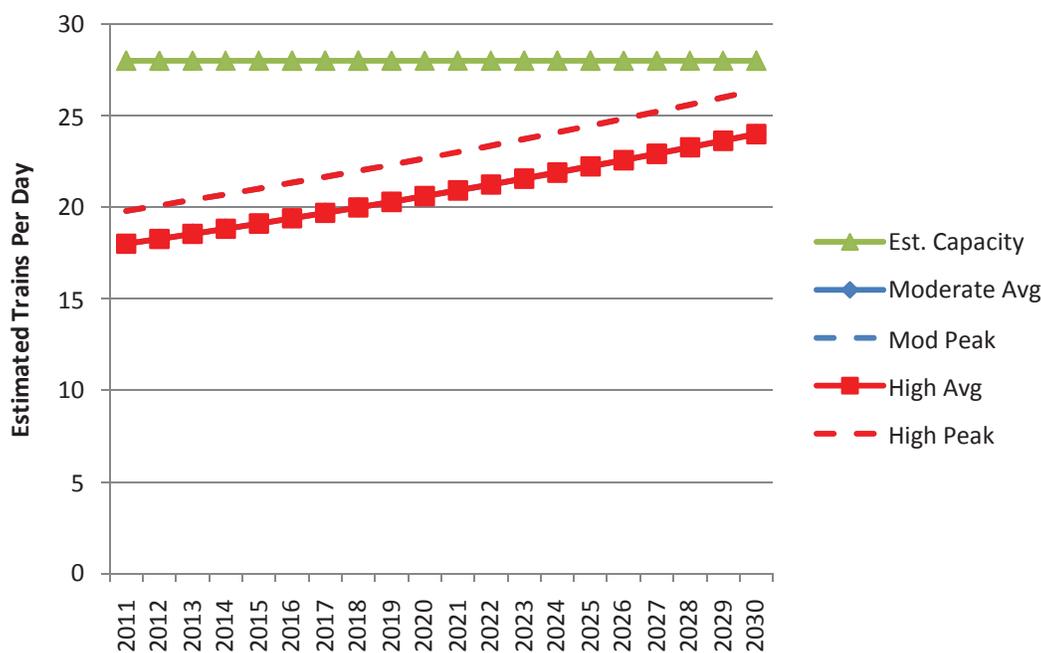
### Everett, WA to Spokane, WA via Stevens Pass (BNSF)

The primary capacity constraints on this segment are the approaches to the Cascade Tunnel under Stevens Pass and the throughput of the tunnel. The approaches include heavy curvature and steep grades (i.e. 2.2 percent), which require slow operation. Additionally, the tunnel restricts capacity because the air in the tunnel must be flushed between trains. Flushing takes approximately 40 minutes following eastbound trains and 20 minutes following westbound trains. The maximum sustained capacity through the tunnel is estimated at approximately 28 trains per day, with surge capacity of 30 to 32 trains per day.

BNSF currently operates trains of up to 8,000 feet in length via Stevens Pass so long as they do not exceed 5,500 tons without Distributive Power (DPU)<sup>3</sup>. With DPU, trains via Stevens Pass can be increased to 7,000 tons, resulting in fewer trains. BNSF has indicated that Stevens Pass capacity will be reserved for intermodal traffic and Amtrak.

As shown in Figure 3-14, capacity of this line segment will likely not be exceeded over a 20-year horizon under the high growth scenario.

**Figure 3-14: Rail Corridor Capacity – Everett to Spokane via Steven Pass (BNSF)**



Source: MainLine Management

<sup>3</sup> With distributive power (DPU), remotely controlled helper engines are placed in the middle or at the end of trains.

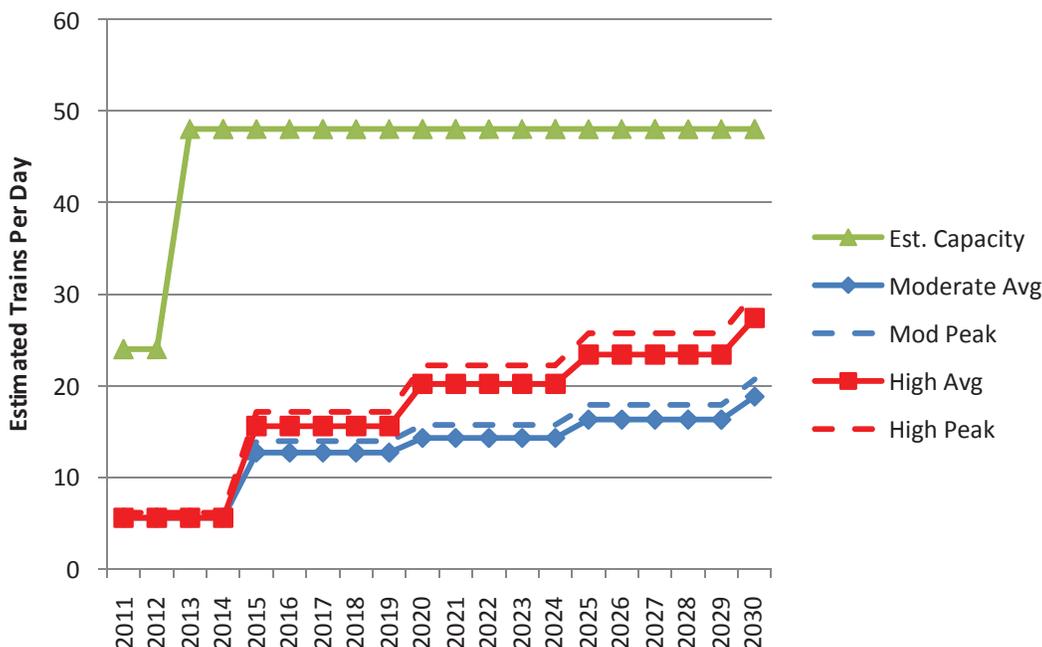
### Auburn, WA to Pasco, WA via Stampede Pass (BNSF)

As discussed in the Pasco to Vancouver segment analysis section, BNSF has indicated the potential for Stampede Pass being utilized as a "directional" route for empty bulk trains. The trains using the pass would be those generated on the BNSF system from Kalama north, thereby relieving the BNSF Columbia Gorge route of eastbound empty bulk trains, except for those originating in Portland and Vancouver. It is unclear when this routing protocol would occur, but it will likely be driven by route congestion on the Columbia Gorge segment. If the route does become an eastbound routing for empty BNSF bulk trains, it is also possible that BNSF would utilize the route for eastbound merchandise trains that originate from Everett, Seattle and Tacoma and are destined for the Pasco processing yard.

At some point, increased train operations will likely require upgrading the signal system on the Stampede Pass line to full CTC. The route currently has limited CTC but is predominantly dispatched utilizing Track Warrant Control (TWC). However, if the preponderance of traffic utilizing the route is eastbound only, TWC would likely be sufficient for some time into the future.

As Figure 3-15 demonstrates, use of Stampede Pass as described creates significant additional capacity. The increase in capacity reflects that, under the new operating protocol, the majority of trains using Stampede Pass will move eastbound.

**Figure 3-15: Rail Corridor Capacity – Auburn to Spokane  
Current Operations**



Source: MainLine Management

## Project Priorities

A key element of this analysis was the development of a prioritized list of system improvements that would allow the capacity of the regional rail system to match increasing demand.

These projects generally fall into two categories, mainline improvements and port access improvements. However, the projects labeled as port access improvements also provide benefits to the mainline system. Reducing the amount of time that it takes for trains to move between the port terminals and the mainline reduces delays on the mainline system, and thereby increases capacity.

Four projects recommended in the previous report are currently in the construction or detailed planning phase, with completion for each ranging from 2012 through the 2017/2018 timeframe. Completion of these four projects will provide a solid foundation for passenger and freight capacity in the Pacific Northwest. Three of these projects are primarily mainline improvements:

- Vancouver WA Freight Rail Bypass.
- Point Defiance Bypass, Tacoma to Nisqually.
- Third main line Kalama to Kelso (WSDOT Mid-Term Passenger Plan Option 3).

The fourth project is primarily a port access improvement:

- Port of Vancouver USA Freight Access Project.

In addition to these projects, certain main line segments will likely require additional capacity enhancements due to projected growth in rail traffic. Both the BNSF and UP likely have the ability to add the capacity needed through a combination of infrastructure expansion and changes to operations.

Six additional capacity improvement projects that would enhance overall rail operations under the moderate and high growth forecasts are listed below. Three of these projects are listed as mainline projects and three are port access. As described above, however, port access improvements also benefit mainline capacity. Descriptions of each of the projects are provided below the lists

The mainline projects include:

- Portland - Peninsula Junction to North Portland Junction,
- Vancouver to Kelso - WSDOT Passenger Plan Option 3 and 4,
- Centralia - Blakeslee Junction.

The **Peninsula Junction to North Portland Junction** project is a key series of improvements that are needed to improve both passenger and freight train capacity in the Portland area. Among other things, these projects would include reconfiguring the connection between the UP and BNSF at North Portland Junction and easing the curvature at Peninsula Junction. This would reduce congestion on the Columbia Gorge routes of both the BNSF and UP, as well as on the I-5 Corridor, and would allow for faster passenger train speeds. These improvements near the south end of the Columbia River Bridge would complement current projects at the north end of the bridge, including the Vancouver Bypass project, the West Vancouver Access project and upgrades of the main line in Vancouver. Funding is currently in place to complete preliminary engineering and the NEPA analysis, but not construction.

The improvements included in the **WSDOT Passenger Plan Options 3 and 4**<sup>4</sup> between Vancouver and Kelso include the completion of a third main line between Martin's Bluff and Rocky Point and a new siding near Kalama, which will be necessary to reach projected passenger train volumes.

The **Blakeslee Junction** project would improve access/egress efficiency between the I-5 Corridor main lines, and both the Puget Sound and Pacific Railway (PSAP) and Tacoma Rail lines at Centralia. Growth in the number of unit trains moving to and from the Port of Grays Harbor via the Puget Sound and Pacific has increased congestion at the interchange. This project includes a number of elements designed to increase the speed of trains through the interchange, and to increase the capacity of the Grays Harbor branch line. This will benefit both freight and passenger trains. The project is divided into five phases. Early planning has been completed on the project, but only partial funding for Phase 1A and 1B are available. Construction will require additional funding.

In addition, the Puget Sound and Pacific has recently obtained the necessary permits to construct a meet/pass siding on the Grays Harbor branch line. This siding should also improve capacity on the I-5 Corridor mainline through Centralia by providing a place off of the mainline for Grays Harbor trains to wait.

The additional port access projects that are recommended include:

- Unit Train Staging/Storage Yard near Woodland.
- Cowlitz River Bridge – Longview.
- Bullfrog Junction Realignment – Tacoma.

A **Unit Train Staging/Storage Yard near Woodland** would also increase the efficiency of both the BNSF and UP routes through the Columbia River Gorge routes and the I-5 Corridor. The BNSF currently stages unit grain trains in Pasco for movement to export terminals on the Lower Columbia River, Puget Sound, and Grays Harbor. The distance between the Pasco staging yard and the export terminals increases the potential for train delays. A storage yard in Woodland would reduce the distance to the export terminals. This project would also benefit passenger trains by reducing conflicts with slower-moving freight trains. This project is not currently in the planning phase.

The **Cowlitz River Bridge** provides access from the I-5 Corridor mainline at Longview Junction to most of the marine terminals and industrial customers in Longview. This single-track bridge is nearly 90 years old, and projected growth in traffic along the Longview branch line may require the addition of a second line. Options include adding a second single-track bridge or replacing the existing bridge with a new double-track bridge. This project would reduce congestion on the I-5 Corridor mainline (benefitting both passenger and freight trains) and increase the capacity of the Longview branch line. It was also identified in the recent Port of Longview Master Plan as a critical link. The project is estimated to cost \$36 million; partial funding is in place for preliminary engineering and NEPA analysis, with the remaining funding expected in January 2012. Construction is not funded.

The **Bullfrog Junction Realignment** project would increase the efficiency of access/egress between the I-5 Corridor mainline and the Port of Tacoma. All of the rail lines serving industries and port facilities on the Tacoma Tidelands currently funnel through the Bullfrog Junction area,

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<sup>4</sup> See footnote 2 on Page 30

seriously limiting the number of trains that can enter or leave the port area. In addition, yard activities in the area often use the mainline, reducing mainline capacity on the I-5 Corridor. The Bullfrog Junction area includes a number of chokepoints, including the junction itself, a single single-track bridge over the Puyallup River, and others. A preliminary plan for realignment was developed in 2006, and project proponents are now seeking funding for design and construction.

## Conclusion

Growth in the volume of export bulk trains is expected to increase the demand on existing rail capacity in the region. Even moderate growth will require BNSF and UP to assess the capacity requirements necessary to meet the growing demand. Both railroads have the ability to increase capacity through a combination of physical and operational improvements, and should be able to meet growing demand well into the future.

**Table 5-1: Current and Projected Number of Trains, by Line Segment**

	2011	Moderate Growth				High Growth			
		2020		2030		2020		2030	
Line Segment	Average	Average	Peak	Average	Peak	Average	Peak	Average	Peak
<b>Pasco, WA to Vancouver, WA (BNSF)</b>									
Pasco, WA to Wishram, WA	45	51	56	61	67	57	62	72	80
Wishram, WA to Vancouver, WA	41	46	51	56	61	52	57	67	74
<b>Hinkle, OR to Portland, OR (UP)</b>	32	41	45	47	52	46	50	53	59
<b>Pasco, WA to Spokane, WA (BNSF)</b>	45	59	65	73	80	71	78	93	102
<b>Spokane, WA to Sand Point, ID (BNSF)</b>	59	75	83	92	101	87	96	112	124
<b>Hinkle OR to Eastgate, ID (UP)</b>	10	11	12	12	13	12	14	14	15
<b>Vancouver, WA to Tacoma, WA (Joint line)</b>									
Vancouver, WA to Kalama/Longview, WA	63	74	81	98	108	83	92	112	123
Kalama/Longview, WA to Tacoma, WA	57	71	78	94	103	79	87	105	115
<b>Tacoma, WA to Auburn, WA (Joint line)</b>	81	93	102	114	125	99	108	122	134
<b>Auburn, WA to Seattle, WA (Joint line)</b>	81	94	103	119	131	102	112	131	144
<b>Seattle, WA to Everett, WA (BNSF)</b>	51	63	69	75	83	70	77	87	96
<b>Everett, WA to Blaine, WA (BNSF)</b>	17	26	28	35	38	34	37	47	51
<b>Everett, WA to Spokane, WA via Stevens Pass (BNSF)</b>	18	21	23	24	26	21	23	24	26
<b>Auburn, WA to Pasco, WA via Stampede Pass (BNSF)</b>	6	14	16	19	21	20	22	27	30

Note: Train numbers represent average daily volume. Short term peak volumes may exceed daily average by 10%. For all non-unit trains, growth is absorbed by existing trains before adding additional trains. Train volumes include locals, switchers and non-revenue movements.

Source: MainLine Management, BST Associates

**Table 5-2: Summary of Capacity Improvements, by Line Segment**

<b>Line Segment</b>
<b>Pasco, WA to Vancouver, WA (BNSF)</b>
<b>Pasco, WA to Wishram, WA</b>
- Siding extensions
- Connecting sidings into double track segments
- Westbound fleeting
<b>Wishram, WA to Vancouver, WA</b>
- Siding extensions
- Fleeting of trains westbound
<b>Hinkle, OR to Portland, OR (UP)</b>
- Siding extensions
- Connecting sidings into double track segments
<b>Pasco, WA to Spokane, WA (BNSF)</b>
- Connecting existing sidings into double track segments
<b>Spokane, WA to Sand Point, ID (BNSF)</b>
- Double tracking the existing single track segments
- Addition of third main track in key locations where available
- Staging tracks on both sides of the Lake Pend Oreille bridge
<b>Hinkle, OR to Eastgate, ID (UP)</b>
None
<b>Vancouver, WA to Tacoma, WA (Joint line)</b>
<b>Vancouver, WA to Kalama/Longview, WA</b>
- Completion of the Vancouver Bypass
- Completion of the new Port of Vancouver Access route
- Completion of WSDOT improvements for passenger plan Option 3, including construction of the 3rd main track between South Kalama and Kelso
- Additional improvements may include completion of 3rd main track between Martin's Bluff and Rock Point, expansion of the Skagit River Bridge at Longview
<b>Kalama/Longview, WA to Tacoma, WA</b>
- Completion of the WSDOT Option 3 and 4 improvements
- Addition of High-Speed crossovers
- Completion of Blakeslee Junction Project
- Completion of Point Defiance Bypass Project
<b>Portland, OR to Vancouver, WA</b>
- North Portland Junction and Peninsula Junction
<b>Tacoma, WA to Seattle, WA (BNSF and UP)</b>
- No projects specified. BNSF will meet passenger service agreements
<b>Seattle, WA to Everett, WA (BNSF)</b>
- No projects specified. BNSF will meet passenger service agreements
<b>Everett, WA to Vancouver, BC (BNSF)</b>
Siding extensions
Additional sidings
<b>Everett, WA to Spokane, WA via Stevens Pass (BNSF)</b>
None
<b>Auburn, WA to Pasco, WA via Stampede Pass (BNSF)</b>
New operating protocol with empty eastbound grain trains using Stampede Pass

Source: MainLine Management, BST Associates

# Exhibit M

October 25, 2013

U.S. Army Corps of Engineers  
Washington Department of Ecology  
Cowlitz County



*Re: Scope of Review for Millennium Bulk Terminals—Longview EIS*

Thank you for the opportunity to comment. I submit this letter on behalf of the Pacific Northwest Waterways Association (PNWA). PNWA is a regional trade association that advocates for federal policy and funding for navigation infrastructure projects in the Northwest. We represent multiple industries in the public and private sectors in Oregon, Washington, Idaho, and California. Members include public ports, terminals, navigation, transportation, international trade, tourism, agriculture, forest products, energy and local government interests. Since its founding in 1934, PNWA has supported the development of infrastructure for navigation, electric power and irrigated agriculture on the Columbia and Snake River System. In 1971, PNWA expanded, adding Puget Sound and coastal port members to provide a comprehensive regional perspective. Today, PNWA works with the U.S. Congress, federal agencies and regional decision leaders on transportation, trade, tourism, energy and environmental policy to enhance economic vitality in the Pacific Northwest.

PNWA would like to provide comment on the scope and review process for the Millennium Bulk Terminals project in Longview, WA, as well as the Columbia Snake River System's readiness for growth and ability to handle the additional tonnage that Millennium would bring to the river.

The Columbia Snake River System is a 470 mile transportation link for the states of Idaho, Montana, Oregon, Washington and beyond. The river system has great local, regional and national benefits. It is the number one U.S. export gateway for wheat and barley, and number one West Coast export gateway for wood and mineral bulk products. It is the third largest grain export gateway in the world. In 2010, over 42 million tons of cargo valued at more than \$20 billion moved on the Lower Columbia River, directly supporting over 40,000 local jobs.

In 2010, the region celebrated the completion of the Columbia River Channel Improvement Project. The State of Washington joined with the U.S. Army Corps of Engineers and the State of Oregon to invest over \$183 million to deepen the Columbia River navigation channel to 43 feet. The purpose of this project was to make the river system more marketable, enable more tonnage to move, and to bring new business and jobs to our region. Channel deepening, as well as significant recent lock repairs, have solidified the Columbia Snake River System's position as one of the nation's leading international trade gateways.

The goal of these infrastructure investments was to ensure that our navigation system is poised to accept an increase in vessel traffic and tonnage, and to handle more cargo than ever before. Ports and businesses along the Columbia Snake River System, including Millennium Bulk Terminals, would like to move more cargo on the river system. The promised job growth, tax revenue, and economic development for local communities which were promised from channel deepening can only be realized if ports and terminals are able to bring more cargo to the system.

Regardless of the commodity moved, PNWA supports project level review. Project level review must provide for a reasonable and unbiased scope for a terminal facility without regard to the commodity or product to be shipped. PNWA supports a thorough environmental review by state and federal agencies

**Exhibit M**

[www.pnwa.net](http://www.pnwa.net)

consistent with law. This process also provides opportunities for comment by elected officials and the public.

The permit requested by Millennium Bulk Terminals to construct and operate an export facility is similar to what could be requested for other terminals that would handle other commodities such as grain and other bulk products. Increasing or expanding the scope of the review process for this project would be inappropriate and would set a precedent of similar requirements for other terminal and transportation projects that is unacceptable. Such a scope of review would undermine past and present policy and investment commitments of the State of Washington.

In evaluating permits, state and federal agencies play the critical role of gatekeeper for the compliance with law and consistent and equitable application of law and policy. Decisions to expand the scope of the review, as was done with the Gateway Pacific Terminal, amount to a significant public policy shift. Specifically, the development and expansion of key elements of transportation infrastructure, such as a terminal facility, is not a reasonably close causal connection to the development or use of a product or commodity. The development or expansion of a federal channel, a state or interstate highway, or a terminal facility such as that proposed by Millennium does not cause or create, directly or indirectly, the impacts related to the extraction of any natural resource, the harvesting of any agricultural product, the manufacturing of any part or product, or the use of such resources, or products.

The requests for an expanded scope, which would certainly delay projects, are also at odds with the national and regional goals to increase exports and support economic development. In March 2010 as part of the Administration's National Export Initiative, President Obama announced an ambitious goal of doubling exports within five years. Washington State's Governor Inslee has also noted that his "top priority is to create and sustain a thriving economic climate that spurs job growth in every industry sector and every corner of Washington state." Millennium Bulk Terminals' project is an example of economic development and job creation for communities in the Lower Columbia region, a corner of Washington State that continues to slowly recover from the recession.

Thank you for the opportunity to provide comment. We respect and support the agencies' thorough review process, and encourage Washington Department of Ecology, the Corps and Cowlitz County to maintain a project-level scope and process consistent with law.

Sincerely,



Kristin Meira  
Executive Director  
Pacific Northwest Waterways Association

**Exhibit M**

[www.pnwa.net](http://www.pnwa.net)

# Exhibit N



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May 3, 2012

BETH S. GINSBERG  
*Direct (206) 386-7581*  
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**VIA FIRST CLASS MAIL**

Colonel Bruce A. Estok  
Seattle District Engineer  
U.S. Army Corps of Engineers  
P.O. Box 3755  
Seattle, WA 98124-3755

Muffy Walker  
Seattle District Regulatory Affairs Chief  
U.S. Army Corps of Engineers  
P.O. Box 3755  
Seattle, WA 98124-3755

**Re: Millennium Bulk Terminals- Longview**

Dear Colonel Estok and Ms. Walker:

**I. INTRODUCTION**

On behalf of Millennium Bulk Terminals Longview ("MBTL"), we are writing in response to recent requests that the U.S. Army Corps of Engineers ("Corps") undertake and develop a Programmatic Environmental Impact Statement ("EIS") evaluating the cumulative effects resulting from several proposed coal export projects in the Pacific Northwest, including MBTL's project in Longview, Washington. The proponents of this request have demanded that a Programmatic EIS be prepared prior to, and in addition to, project-specific EISs for the four (4) individual coal export terminal projects with permit applications currently pending approval before the Corps. For the reasons provided herein, MBTL urges the Corps to reject the requests for a Programmatic EIS and address the permit applications within the framework normally utilized by the Corps for NEPA review, including the thorough analysis of cumulative impacts being requested.

While MBTL agrees that a thorough cumulative impact analysis is appropriate, MBTL disagrees that a Programmatic EIS is the appropriate vehicle for carrying out such an analysis. In fact, the Corps is not required to undertake a Programmatic EIS or any other form of EIS that reviews all aspects of each of the proposed projects in one document. Rather, the Corps should move



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forward with the required individual environmental reviews for each project, including review of cumulative impacts. Because the cumulative analysis for all the proposed coal projects will be similar, the first coal project cumulative impacts analysis will provide the same analysis that is needed for all subsequent projects. This “hard look” at impacts will fulfill the Corps’ NEPA requirements without the problems that a Programmatic EIS would create. MBTL is eager to begin working with the Corps on an appropriately scoped cumulative effects analysis as soon as the Corps is ready. This analysis could then be efficiently incorporated into the consideration of each of the other coal terminal applicants and would avoid the difficulties of any sort of Programmatic or area-wide analysis.

## II. A PROGRAMMATIC EIS IS NOT WARRANTED

A Programmatic NEPA analysis is not the appropriate vehicle to develop a robust cumulative effects analysis for these projects. Under the National Environmental Policy Act (“NEPA”), a Programmatic EIS is compelled only when the Corps itself develops a proposal for legislation, or a program or policy that may itself result in significant environmental effects when implemented. 42 U.S.C. § 4332 (C); *Kleppe v. Sierra Club*, 427 U.S. 390, 399 (1976) (rejecting calls for a Programmatic EIS concerning individual coal leases, mining plans, and other federal actions involving coal reserves in the Powder River Basin in the absence of a federal report or recommendation or proposal for the Powder River region.); *Sierra Club v. Hodel*, 544 F. 2d 1036, 1040-1041 (1976) (adopting reasoning in *Kleppe* in rejecting argument that Programmatic EIS was required to analyze effect on other regional power users of BPA power contract with ALCOA in the absence of a regional plan of development. The Court explained that, “although there is a general ‘Pacific Northwest’ region to which Bonneville supplies a great amount of hydroelectric power, there is no record showing of a master plan for development of the region.”).

Here, like in *Kleppe* and *Sierra Club*, rather than engaging in a programmatic action, the Corps is simply processing individual permit applications on a broad range of geographically disparate projects. As the Supreme Court observed in *Kleppe*, where there is no programmatic action it is impossible to analyze environmental consequences and alternatives. In this case, as in *Kleppe* and *Sierra Club*, meaningful programmatic analysis is not possible because the Corps has no regional program or plan related to these individual projects.

## III. AN AREA-WIDE EIS IS SIMILARLY UNWARRANTED

Similarly, while these 4 pending projects all exist in the Pacific Northwest, that, by itself, does not require the Corps to prepare one comprehensive impact statement before considering the



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individual pending applications. *Kleppe*, 427 U.S. at 413 (emphasizing that it is not necessary for an agency to consider all pending proposals in a single region together in a comprehensive EIS). Instead, the Corps may discern whether to evaluate the individual permit applications together in an area-wide<sup>1</sup> EIS or separately based on a number of factors, including the timing and locations of the proposed projects, the scope and similarity of their likely effects, and the feasibility of preparing such a comprehensive analysis. *Kleppe*, 427 U.S. at 412; *Earth Island Institute v. U.S. Forest Service*, 351 F. 3d 1291, 1306-07 (9th Cir. 2003)(there is no requirement to evaluate similar actions in one comprehensive EIS; agencies are accorded great deference and may properly decide not to prepare a comprehensive EIS when the individual proposals involve separate supervisory personnel, disparate timetables, and different administrative (geographic) boundaries); *N. Plains Res. Council v. BLM*, 2005 U.S. Dist. LEXIS 46788, 36-38 (D. Mont. 2005) (agencies enjoy great deference in determining whether to combine the analysis of “similar actions” into a single EIS); *League of Wilderness Defenders v. Bosworth*, 383 F. Supp. 2d 1285, 1297 (D. Or. 2005) (single EIS not required when projects were proposed at various times, proceeded on their own time schedules, and did not have the same or overlapping project boundaries).

While the proposed coal terminal projects each involve the use of rail to transport coal domestically for vessel transport to Asia, these common attributes do not make these four projects “similar actions” within the meaning of 40 C.F.R. 1508.25 (a)(3) as the similarity of the projects is far outweighed by the many differences.<sup>2</sup> First, none of the projects share project

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<sup>1</sup> The Forty Most Asked Questions Concerning CEQ’s National Environmental Policy Act Regulations states that “an area-wide or overview EIS may be useful when similar actions, viewed with other reasonably foreseeable or proposed agency actions, share common timing or geography. For example, when a variety of energy projects may be located in a single watershed, or when a series of new energy technologies may be developed through federal funding, the overview or area-wide EIS would serve as a valuable and necessary analysis of the affected environment and the potential cumulative impacts of the reasonably foreseeable actions under that program or within that geographical area.” 46 Fed. Reg. 18026, 18033 (March 17, 1981). As explained below, the proposed coal export projects are not all located in the same geographic area or watershed and are thus not appropriate for an area-wide EIS.

<sup>2</sup> Similar actions “which when viewed with other reasonably foreseeable or proposed agency actions, have similarities that provide a basis for evaluating their environmental consequences (continued . . . )



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boundaries or geographic locations. The projects are located hundreds of miles apart from each other and span two separate states. Rather than affecting the same watershed and the same listed species, the 4 proposed projects have the potential to affect a variety of species depending on their precise geographic location and two distinct water-bodies, *i.e.*, Puget Sound and the Strait of Juan de Fuca, (Gateway Pacific project in Cherry Point, WA), and the Columbia River (MBTL project in Longview, WA and Ambre Energy's Coyote Island Terminal site at the Port of Morrow, Oregon).<sup>3</sup>

Second, rather than involving the same rail route, these individual projects will transport coal from a variety of mines (in Wyoming, Montana and Utah), to four geographically distinct destination points located in two different states in the Pacific Northwest. Thus, the potential impacts to various communities are as diverse as the number of communities on the various rail routes in the Northwest and Rocky Mountain states. Adding to this difficulty, the project applicants will be using two separate rail companies, each of which makes use of a variety of different transport routes. No designated route for coal transport currently exists to allow for an efficient and practical environmental evaluation. A central question for each project is the extent to which the discrete project, rather than use of the rail system more generally, is causing any particular impact. This level of analysis is best addressed project-by-project.

Third, these four individual projects involve two different Corps districts (Seattle and Portland), four different counties, and two different states agencies (Washington Department of Ecology and Oregon Department of Environmental Quality), all of which have chosen to participate as a co-lead agency. In addition to these administrative and practical difficulties, both the MBTL and the Gateway Pacific projects require preparation of State Environmental Protection Act ("SEPA") analyses, requiring the Corps to work jointly with Cowlitz and Whatcom Counties and the Washington State Department of Ecology in fashioning a joint NEPA/SEPA evaluation.

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(. . . continued)

together, such as common timing or geography." An agency may use its discretion to decide to evaluate these types of actions in the same impact statement. 40 C.F.R. §1508.25(a)(3).

<sup>3</sup> In addition to the four pending project proposals, Kinder Morgan is in the process of developing a Port of St. Helens coal proposal, while RailAmerica is contemplating a coal terminal project at the Port of Grays Harbor, in Washington on a third water body (Grays Harbor).



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Finally, the proposed projects are in various stages of the permitting process. Some projects have well-developed project engineering and environmental mitigation proposals while others may not, making preparation of a single EIS (requiring project specific detail) problematic from a timing and administrative perspective. *Wetlands Action Network v. U.S. Army Corps of Eng'rs*, 222 F. 3d 1105, 1119 (9th Cir. 2000) (allowing separate EAs when many of the details and planning decisions regarding aspects of the various projects had not yet been completed); *N. Plains Res. Council*, 2005 U.S. Dist LEXIS 4678, 33-36 (separate EISs allowed where timing of various proposals differed by six months, involved two state analyses that focused on different geographic areas, involved many different state and federal agencies, and where "one document would be so broad and cumbersome.").

#### IV. CONCLUSION

A thorough cumulative impact analysis, as part of the review of an actual Corps decision, allows the Corps to take a hard look at impacts before it acts. NEPA does not require the impractical or the impossible. *Wetlands Action Network v. U.S. Army Corps of Eng'rs*, 222 F. 3d 1105, 1119 (9th Cir. 2000). The Corps need not engage in an analysis that is as likely unworkable and formidable as this situation portends, especially when it can accomplish NEPA's purpose more effectively and efficiently through evaluation of the individual pending proposals. MBTL offers to provide information sufficient to develop one appropriately scoped cumulative analysis in MBTL's EIS that can be adopted or incorporated as appropriate for all projects.

Very truly yours,

Beth S. Ginsberg

cc: Francis Eugenio, Esq., (U.S. Army Corps)  
Dennis McClarren, Regional Administrator, EPA Region X  
Kate Kelly, EPA Region X Director of Office of Ecosystems, Tribal and Public Affairs

# Exhibit O

**DEPARTMENT OF THE ARMY**

**COMPLETE STATEMENT**

**OF**

**JENNIFER A. MOYER  
ACTING CHIEF, REGULATORY PROGRAM  
U.S. ARMY CORPS OF ENGINEERS**

**BEFORE**

**THE COMMITTEE ON ENERGY AND COMMERCE  
SUBCOMMITTEE ON ENERGY AND POWER**

**UNITED STATES HOUSE OF REPRESENTATIVES**

**ON**

**“U.S. Energy Abundance: Regulatory, Market and Legal Barriers to  
Export”**

**June 18, 2013**

Chairman Whitfield, Ranking Member Rush, and Members of the Subcommittee, I am Jennifer Moyer, Acting Chief of the Regulatory Program for the U.S. Army Corps of Engineers. Thank you for the opportunity to discuss the Army Corps of Engineers (Corps) regulatory authorities under Section 10 of the Rivers and Harbors Act of 1899 and Section 404 of the Clean Water Act (CWA). I will specifically discuss the Corps' role in the permitting of shipping facilities, with a focus on coal and the issues currently being discussed in the Pacific Northwest.

### **Background on Section 10 of the Rivers and Harbors Act and Section 404 of the Clean Water Act**

Section 10 of the Rivers and Harbors Act of 1899 gives the Corps authority to ensure that there are no obstructions to the navigable waters of the United States. Under this authority, the Corps regulates work and/or structures within navigable waters related to activities such as: construction of piers, jetties, and weirs; dredging projects; and other such projects. Section 404 of the Clean Water Act (CWA) established a program to regulate the discharge of dredged or fill material into "waters of the United States." Under the Section 404 authority, the Corps regulates discharges of dredged or fill material into jurisdictional waters of the United States including wetlands. Such discharges often are associated with activities such as highway construction; residential, commercial, and industrial developments; energy projects; and a variety of other projects. In addition to these two authorities, the Corps regulates the transport of dredged material for dumping in ocean waters under Section 103 of Marine Protection Research and Sanctuaries Act (MPRSA). In reviewing project proposals, the Corps must comply with other applicable statutes and regulations.

The Secretary of the Army, acting through the Chief of Engineers, has delegated responsibility for making final decisions on permit applications to the commanders in the 38 Corps districts. The regulatory program is implemented day-by-day at the district level by staff that knows their regions and resources, and the public they serve. Nationwide, the Corps makes tens of thousands of final permit decisions annually. In all but the very rarest of circumstances, these decisions are made at the district level. When implementing the Corps regulatory program, the Corps is neither an opponent nor a proponent for any specific project – the Corps’ responsibility is to process permit applications in accordance with all applicable laws and regulations, in order to make fair and objective and timely permit decisions. This responsibility of the Corps district includes preparing the appropriate environmental analysis and other appropriate work under the applicable laws and regulations.

### **Existing Export Facilities for Coal**

Information produced by the U.S. Energy Information Administration indicates that seaports on the Gulf Coast and East Coast have accounted for most U.S. coal exports over the past ten years. These facilities are located in the Baltimore, Norfolk, Mobile, and New Orleans areas. About 65 percent of the total U.S. exports of 107 million tons in 2011 was coking coal, which is used in making iron and steel. In 2012, U.S. exports increased to about 126 million tons due to a substantial increase in the amount of steam coal (used for generating electricity) exported at the Norfolk and New Orleans ports. Depending on the originating and port locations, this coal is shipped to the port facilities over existing rail networks or by barge on the inland waterways

navigation system. The New Orleans and Norfolk Districts of the Corps have received some objections while processing applications for Section 10 and/or Section 404 permits for the construction and operation of expanded coal export facilities in the New Orleans and Norfolk areas.

### **National Environmental Policy Act (NEPA)**

NEPA's mandate is to ensure a fully informed and well-considered decision and that agency conclusions be supported by critical thinking and reasoned analysis of the potential environmental consequences of a proposed agency action, such as a decision on a pending permit based on project-specific facts. NEPA does not mandate any particular result but ensures agencies fully explain the choices made. Corps NEPA documents should be fully transparent with the public, inform the decision-maker, and provide a sound basis for the decision on the Department of the Army permit application. They should also address, concurrently whenever practicable, the other relevant environmental requirements including any necessary consultation or coordination.

The Corps must identify the federal action under consideration and must decide, for purposes of NEPA, whether the Corps has sufficient "control and responsibility" for activities outside of its regulatory jurisdiction such that the issuance of a Corps permit would amount to approval of those activities. For purposes of the Corps regulatory program, the definition of "federal action" is straightforward. The Corps focuses its NEPA analysis on the federal actions defined either by the discharge of dredged and/or fill materials into waters of the United States, and/or by any work in navigable waters.

The specific activity requiring authorization by a Corps permit may, at times, be merely one component of a larger project involving upland activities. Identifying aspects of a broader project over which the Corps may have "control and responsibility" by virtue of its permitting authorities requires careful consideration. Pursuant to the provisions of its Appendix B NEPA regulations, the Corps includes in its reviews the specific activity requiring a Corps permit and those portions of the activity over which the Corps has sufficient control and responsibility to warrant review by the Corps under NEPA.

### **Proposed Shipping Facilities in the Pacific Northwest Under Review**

The Corps is evaluating proposals at three separate and independent shipping facilities in the Pacific Northwest that would require Department of the Army (DA) permit authorizations, as issued by the Corps. Because those three new facilities would involve placing structures in or over navigable waters and/or the discharge of dredged or fill material in other waters of the United States subject to Clean Water Act (CWA) jurisdiction, all three proposed projects require DA permits under Section 10 of the Rivers and Harbors Act of 1899 (RHA) and/or Section 404 of the CWA. The three proposed export terminals in Washington and Oregon have created considerable public interest, in part because the facilities' primary purpose would be to receive coal via rail from the Powder River Basin in Wyoming and Montana, and to ship that coal via barges and Panamax vessels for use in other locations, including Asia. Two of these proposed terminals would be located on the Columbia River – Coyote Island at Port of Morrow, OR (~mile point 270), being evaluated by the Portland District; and Millennium Bulk Terminal at Longview, WA (~mile point 63), being evaluated by the Seattle District. The

third of the proposed terminals, called the Gateway Pacific Terminal, located near Bellingham, WA on the Puget Sound, is also being evaluated by the Seattle District.

Although the proposed shipping facilities share a similar purpose, the facts and circumstances related to each differ substantially. Each of the three proposed facilities would cause very different types of impacts that are subject to regulation under the Corps Section 10 and/or Section 404 regulatory authorities. Section 103 of the MPRSA is not triggered by any of the proposed facilities.

Other potential shipping facilities (e.g. Coos Bay, Grays Harbor, etc.) have also been discussed during in the past several months: however, the Corps is not currently engaged in discussions with or processing permit applications for any facilities beyond the three identified above.

When considered in accordance with the laws and regulations discussed above, many of the activities of concern to the public, such as rail traffic, coal mining, shipping coal outside of U.S. territory, and the ultimate burning of coal overseas, are outside the Corps' control and responsibility for the permit applications related to the proposed projects. We note that coal mining in the Powder River Basin has been occurring for many years, with that coal being shipped by rail to many different destinations. The potential change in rail traffic patterns is beyond the control and expertise of the Corps, and requires no involvement from the Corps. Coal produced from the Powder River Basin currently transits the rail system to various destinations. Similarly, the possible future shipment of coal by oceangoing vessels across the Pacific Ocean beyond the limits of U.S. navigable waters, and the possible future off-loading, distribution, and burning of coal in Asia are attenuated and far removed from the activities regulated by

the Corps at any of the three shipping facilities. Commercial markets drive the need for and destination of coal which could change regardless of the Corps decision regarding the proposed activities in waters within our jurisdiction.

The draft NEPA EIS documents that will be available for public review will explain the Corps' approach to these issues. Indeed, the Corps expects to receive many comments on these issues from the public and from sister federal, state, and local agencies given the substantial interest in the production, transport, and use of coal that may transfer through a port facility that requires a Corps permit for some aspect of its construction. At that point, the public will be able to provide detailed feedback for the Corps to consider as it develops its final NEPA documents.

### **Preparation of NEPA Documents for the Three Pacific Northwest Shipping Facilities**

The Corps Seattle and Portland Districts are currently reviewing three separate proposals (one for each of the three proposed terminals) and preparing a project-specific NEPA document for each. Based on anticipated direct, indirect and cumulative impacts, the Corps is preparing a separate draft EIS for the Gateway project and another draft EIS for the Millennium project. For the Coyote Island project, the Portland District is currently preparing an environmental assessment. When that document is completed, the district will determine whether a site-specific EIS is required, or instead to prepare a Finding of No Significant Impact (FONSI). The scope of analysis that the Corps will establish in the review of each proposal will include the specific activity requiring a DA permit (issued by the Corps), the environmental impacts of that specific activity, and those portions of the entire project (that is, the portions that are beyond the

regulatory jurisdiction of the Corps) over which there is sufficient federal control and responsibility to warrant Corps NEPA review. The preparation of the NEPA documents for these projects is at an early stage.

The Corps has received feedback from members of the public suggesting that it should prepare a single EIS to assess the potential impacts of all three shipping facilities in the Pacific Northwest. Two concepts established by the Council on Environmental Quality NEPA regulations provide the framework for determining how to respond to these suggestions. First, the regulations require a programmatic EIS. One type of programmatic NEPA review is for a "federal action" that consists of "adoption of programs, such as a group of concerted actions to implement a specific policy or plan; systematic and connected agency decisions allocating agency resources to implement a specific statutory program or directive." 40 C.F.R. 1508.18(b)(3). The second type of programmatic NEPA review is often referred to as "area-wide" or "regional", where the NEPA review focuses on a range of federal actions that share certain commonalities. These would include broad actions occurring in the same general location or having relevant similarities such as timing or impacts. 40 C.F.R. §§ 1502.4(b)-(c) and 1508.25. There is no compelling justification for the preparation of a "programmatic EIS" with respect to the three proposed facilities under review. The Corps does not build or finance the construction of these or other land-side port facilities, nor is it allocating its resources to implement any plan for development. Rather, the Corps is dealing with them in its regulatory program responsibilities. They are independent projects in different locations, whose impacts are not related. (See 40 C.F.R. 1502.4(b) and 1508.18(b)(3)).

Regulations at 40 C.F.R. 1508.25 address how a federal agency that has decided to produce an EIS should determine the "scope" of that EIS in terms of the "range of actions" to be considered. This "range of actions" does not include "unconnected single actions." 40 C.F.R.1508.25. Federal actions that should be considered together include "connected actions," "cumulative actions" (actions with cumulatively significant impacts), and "similar actions" (those that have similarities that logically could be considered together, such as actions with common timing or geography) 40 C.F.R.1508.25. "Connected actions" are separate actions that may automatically trigger another, actions that cannot or will not proceed absent related actions, or actions that are "interdependent parts of a larger action and depend upon the larger action for their justification." (The labels "area-wide" or "regional" are sometimes used to describe one EIS that assesses multiple proposed federal actions in a geographic area, because those actions are connected or similar, or would have cumulative environmental effects). The Corps has determined that neither a Programmatic nor an area-wide/regional EIS are appropriate when considering the proposed permits in light of based on these NEPA regulations.

In addition to the shipping facilities, there is also a separate permit application for a new BNSF rail spur at the Gateway Terminal. In this context, the Gateway Pacific and BNSF proposals are being considered in a single NEPA document because they fall within the regulatory definitions of "cumulative actions," "connected actions," and "similar actions." The applicants for both of these projects propose fill of wetlands on a defined site, with implications for cumulative impacts to that resource; both projects are "connected" in that they are parts of a larger development of a port facility and "similar"

in that they have common timing and are proposed for the same site.

However, the other permit applications, for the Millennium Bulk Terminal and the Port of Morrow proposal, are being considered in separate project specific NEPA documents – separate both from each other and from the analysis of the Gateway Pacific/BNSF project. The three proposed facilities are in different watersheds and are not sufficiently close to one another from a cumulative impacts perspective to justify one EIS for all three permit applications.

## **Summary**

We are certainly aware of and appreciate the concerns that members of the public have expressed in association with the proposed shipping facilities in the Pacific Northwest. Our Seattle and Portland Districts are reviewing these proposals, and are carrying out the NEPA “scoping” process to determine which potential environmental effects to analyze in detail. As I clarified above, the scope of our analysis with respect to these proposals is defined by law and regulation. The Corps districts will therefore carefully consider each of these proposals on its merits, while appropriately bounding the scope of their analysis and their consideration of the impacts.

I appreciate the opportunity to be here today and I will be happy to answer any questions you may have.