EARTHJUSTICE

ALASKA CALIFORNIA FLORIDA MID-PACIFIC NORTHEAST NORTHERN ROCKIES
NORTHWEST ROCKY MOUNTAIN WASHINGTON, DC INTERNATIONAL

January 21, 2013

GPT/BNSF Custer Spur EIS Co-Lead Agencies
c/o CH_2M Hill
1100 – 112th Avenue N.E., Suite 400
Bellevue, WA 98004

Re: Scoping Comments on Proposed Gateway Pacific Coal Terminal Facility and Custer Spur Rail Expansion Project

Greetings:

Enclosed are the Scoping Comments From Climate Solutions *et al.* on the Proposed Gateway Pacific Coal Terminal Facility and Custer Spur Rail Expansion Project, two CDs that contain two sets of Exhibits (Exhibits 1-173 and Exhibits LR-1 through LR-94), and the Indexes to those exhibits.

The enclosed Scoping Comments and Indexes have been filed via email and also through your online comment form, but since we are not able to provide the 267 exhibits electronically, we are resubmitting the enclosed original comment letter and all supporting documents for your convenience.

Please contact us if you need any additional information.

Sincerely,

Kristen L. Boyles

Kristen L. Boyles

Enclosures

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EARTHJUSTICE

ALASKA CALIFORNIA FLORIDA MID-PACIFIC NORTHEAST NORTHERN ROCKIES
NORTHWEST ROCKY MOUNTAIN WASHINGTON, DC INTERNATIONAL

January 21, 2013

Via Overnight Mail, Website Comment Form, and Email

GPT/BNSF Custer Spur EIS Co-Lead Agencies
c/o CH_2M Hill
1100 - 112th Avenue N.E., Suite 400
Bellevue, WA 98004
comments@eisgatewaypacific.gov

Re: Scoping Comments on Proposed Gateway Pacific Coal Terminal Facility and Custer Spur Rail Expansion Project

Greetings:

On September 21, 2012, the U.S. Army Corps of Engineers, the Washington State Department of Ecology, and Whatcom County Planning and Development Services announced their intent to prepare a Joint Environmental Impact Statement on the proposed Gateway Pacific Coal Terminal Facility and Custer Spur Rail Expansion Project. 77 Fed. Reg. 58531 (Sept. 21, 2012). The following scoping comments are submitted on behalf of Climate Solutions, Columbia Riverkeeper, RE Sources, National Wildlife Federation, Greenpeace, Sierra Club, Friends of the Columbia Gorge, Center for Biological Diversity, Washington Environmental Council, and Oregon Physicians for Social Responsibility to help the local, state, and federal agencies identify issues that must be addressed during the environmental review process. The commenters are all non-profit organizations dedicated to (1) protecting the environment and natural resources of Washington state and the Pacific Northwest region; (2) ensuring that all citizens of Washington and the Pacific Northwest have clean and healthy air, water, and communities; (3) seeking positive solutions to the challenge of global climate instability caused by combustion of fossil fuels; and (4) working across the region to stop the mining, transport, shipping, and burning of coal. These joint scoping comments supplement any individual comment letters submitted by each signatory group. We appreciate the opportunity to provide these comments and supporting materials.

We are deeply concerned about a decision that will authorize the construction of a new coal export terminal at Cherry Point and allow Gateway Pacific to export approximately 48 million metric tons of coal annually. Either alone or combined with other announced or pending proposals to build major coal export facilities in Washington and Oregon, the decision to authorize construction at Cherry Point will undercut Washington state's considerable efforts to combat climate instability and promote sustainable alternatives. Once burned in a coal-fired power plant or other industrial boiler, 48 million tons of coal will generate approximately 90.6 million tons of CO_2 annually. This one facility will cause Washington state to dramatically

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increase its carbon footprint, in plain contravention of the state's repeated commitment to reduce its total greenhouse gas emissions.

As the lead agencies are well aware, citizen attendance at the scoping meetings throughout the state was unprecedented. Thousands of people testified about their concerns about the harmful impacts from the project—concerns stemming from global climate change to regional aquatic impacts to local traffic congestion. Many focused on human health concerns, and many who attended these meetings came from outside Washington, as this project will impact people living in our entire region. Heightened concern came from many tribal governments, who have ties to the lands and water at issue since time immemorial, and whose sovereign status gives them a powerful voice opposing this project.

On a separate CD, we have included the letters and resolutions from federal, state, local, and tribal government officials calling for full environmental review of this and all proposed coal export terminals in Washington and Oregon. Collectively, these exhibits (LR-1 to LR-94) demonstrate widespread concern and controversy over the proposed coal export terminals. Additionally, many local and national newspapers have written editorials asking for full environmental review of these coal export projects. *See* http://www.powerpastcoal.org/news/.

In these scoping comments, we raise specific issues and impacts that we feel the agencies must consider. At the outset, however, we want to stress our concern about the geographic scope of the environmental review. While this project might be physically located in Whatcom County, Washington, the area of impact is much greater. On the terrestrial side, the rail impacts, including rail traffic and emissions, stem from mine mouth in the Powder River Basin through communities in Montana, Idaho, and Washington. In the Powder River Basin, impacts include increased mining, coal supply, and pricing. On the marine side, impacts from coal shipping, including ocean-going vessel traffic and emissions, risks of collisions, and impacts to near-shore environments, extend from the docks at Cherry Point through the San Juan Islands to the final destination in Asia. And from an atmospheric perspective, the agencies must evaluate the input of 90.6 million tons of CO_2 annually into our air, bringing increased air-borne mercury deposition in the Northwest and increased global greenhouse gas (GHG) emissions associated with combustion of coal. We also reiterate our call for an area-wide environmental impact statement to review the direct, indirect, and cumulative impacts of all proposed coal export terminals in the Pacific Northwest.

As President Obama urged in his second inaugural address on January 21, 2012,

> We, the people, still believe that our obligations as Americans are not just to ourselves, but to all posterity. We will respond to the threat of climate change, knowing that the failure to do so would betray our children and future generations. Some may still deny the overwhelming judgment of science, but none can avoid the devastating impacts of raging fires, and crippling drought, and

> more powerful storms. The path towards sustainable energy sources will be long and sometimes difficult. But America cannot resist this transition; we must lead it. We cannot cede to other nations the technology that will power new jobs and new industries—we must claim its promise. That is how we will maintain our economic vitality and our national treasure—our forests and waterways' our croplands and snowcapped peaks. That is how we will preserve our planet, commanded to our care by God. That's what will lend meaning to the creed our fathers once declared.

This project, individually and in combination with other proposed coal export facilities will cause vast and harmful impacts to the air, water, marine environment, fish and wildlife, economics, public health, culture, and communities across our region. Its added harm to global climate change and Washington state's leadership role in addressing causes of climate change directly contradicts the vision set out by President Obama. Full evaluation of all direct, indirect, and cumulative impacts of the Gateway Pacific Terminal is the first step toward reasoned decision-making that we believe will ultimately reject this project proposal.

I. BACKGROUND ON THE GATEWAY PACIFIC TERMINAL

Gateway Pacific Terminal is proposed by Pacific International Terminals, a subsidiary of SSA Marine, and is affiliated with Peabody Coal.[1] The proposed Gateway Pacific Terminal would be located in Whatcom County, Washington, in an area known as Cherry Point. The entire Cherry Point area is a sacred site to the Lummi Indian Nation. The terminal proposal would be developed on approximately 350 acres and would include a three-berth, deep-water wharf. The primary export commodity would be coal mined in the inland Powder River Basin of Montana and Wyoming. Proposed upland facilities would include open and covered storage, each serviced by rail. A system of conveyors would connect the coal storage areas to the trestle and wharf. The upland facilities would also contain rail unloading facilities, roadways, service buildings, storm water treatment facilities, and utility infrastructure. Gateway Pacific estimates that development of these facilities will impact approximately 145 acres of wetlands and numerous ditches.

Coal would be delivered to the Gateway Pacific Terminal by rail on the existing Burlington Northern Santa Fe (BNSF) Railway's Custer Spur line from the Bellingham subdivision main line. BNSF Railway proposes to upgrade the Custer Spur line with additional tracks and sidings, which will impact approximately 17 acres of wetlands, and involve modifications to two creek crossings and several ditches.

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[1] *See* Gateway Pacific Terminal, http://gatewaypacificterminal.com/; *Cherry Point Shipping Terminal Signs Its First Customer*, Cascadia Weekly, March 2, 2011, *available at* http://www.cascadiaweekly.com/entertainment/cherry_point_shipping_terminal_signs_its_first_customer_a_coal_exporter.

This is not the first proposal from Pacific International Terminals for an export facility at Cherry Point. In 1997, three conservation groups (Washington Environmental Council, League of Women Voters of Bellingham/Whatcom County, and North Cascades Audubon Society), the Washington Department of Ecology, and the Washington Department of Fish and Wildlife, appealed Whatcom County's issuance of the Shoreline Substantial Development Permit for an earlier iteration of the Gateway Pacific Terminal—one that notably did not include coal export. These appeals were ultimately resolved through a 1999 settlement agreement, which was primarily designed to address the impacts that the Gateway Pacific Terminal (as then proposed) would have on the aquatic environment in Puget Sound, including the Cherry Point herring stock and its spawning habitat in the area of the proposed project.[2] In the settlement, PIT made a series of commitments for further studies and mitigation measures, the vast majority of which have never been completed.[3]

II. THE THREAT OF CLIMATE CHANGE HAS SPURRED WASHINGTON'S COMMITMENT TO GREENHOUSE GAS REDUCTION.

In 2007, the United Nations' Intergovernmental Panel on Climate Change (IPCC) released its frequently cited report reflecting the new scientific consensus that unrestrained greenhouse gas emissions causes global warming. As summarized by the U.N. in a press release:

> The IPCC, which brings together the world's leading climate scientists and experts, concluded that major advances in climate modeling and the collection and analysis of data now give scientists "very high confidence"—at least a nine out of ten chance of being correct—in their understanding of how human activities are causing the world to warm. This level of confidence is much greater than the IPCC indicated in their last report in 2001. The report confirmed that it is "very likely" that greenhouse gas emissions have caused most of the global temperature rise observed since the mid-twentieth century. Ice cores, going back 10,000 years, show a dramatic rise in greenhouse gases from the onset of the industrial age. The co-chair of the IPCC working group stated, "There can be no question that the increase in these greenhouse gases are dominated by human activity."

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[2] At one time, the Cherry Point herring stock was the largest herring stock in Washington state; however, it has declined considerably over the last two decades. Pacific herring are highly sensitive to noise, light, and disturbance caused by human activities, and construction and operation of the Gateway Pacific Terminal will disrupt herring near-shore movement, schooling, and spawning, impacting the already diminished herring spawning and recruitment success.

[3] Exh. 161, Settlement Agreement (March 1996); Exh. 160, A Review of Environmental and Safety Impact Documents for the Proposed Gateway Pacific Terminal (Aug. 1997).

The United Nations went on to summarize the key findings of the report:

> The report describes an accelerating transition to a warmer world—an increase of three degrees Celsius is expected this century—marked by more extreme temperatures including heat waves, new wind patterns, worsening drought in some regions, heavier precipitation in others, melting glaciers and arctic ice, and rising global average sea levels.

Scientific analysis since then has demonstrated that the urgency to act on climate impacts is even greater than it was in 2007. The Copenhagen Climate Science Congress, attended by 2,000 scientists, concluded with this "Key Message 1:"

> Recent observations confirm that, given high rates of observed emissions, the worst-case IPCC scenario trajectories (or even worse) are being realized. For many key parameters, the climate system is already moving beyond the patterns of natural variability within which our society and economy have developed and thrived. These parameters include global mean surface temperatures, sea-level rise, ocean and ice sheet dynamics, ocean acidification, and extreme climatic events. There is a significant risk that many of the trends will accelerate, leading to an increasing risk of abrupt or irreversible climatic shifts.[4]

Numerous studies predict severe impact from climate change in Washington state, including dramatic reductions in snowpack, declining river flows, increased deaths from temperatures and air pollution, increased risk of wildfires, loss of salmon and shellfish habitat, lost hydropower generation, and flooding. In 2006, Washington commissioned a study "Impacts of Climate Change on Washington's Economy," which found that the cost of climate impacts would reach $3.8 billion annually by 2020.[5] The state Department of Ecology in 2009 summarized recent scientific studies specific to the Pacific Northwest as follows: "Each [of the studies] shows that without additional action to reduce carbon emissions, the severity and duration of the impacts due to climate change will be profound and will negatively affect nearly every part of Washington's economy."[6]

In February 2012, Washington Governor Christine Gregoire convened the Washington State Blue Ribbon Panel on Ocean Acidification to chart a course for addressing the causes and consequences of acidification. The Governor charged the Panel to:

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[4] International Scientific Congress Climate Change: Global Risks, Challenges, and Decisions (Mar. 12, 2009).

[5] *Available at* http://www.ecy.wa.gov/pubs/0701010.pdf.

[6] *Available at* http://www.ecy.wa.gov/pubs/0901006.pdf.

- Review and summarize the current state of scientific knowledge of ocean acidification,
- Identify the research and monitoring needed to increase scientific understanding and improve resource management,
- Develop recommendations to respond to ocean acidification and reduce its harmful causes and effects, and
- Identify opportunities to improve coordination and partnerships and to enhance public awareness and understanding of ocean acidification and how to address it.

The Panel released its report and recommendations in the document Washington State Blue Ribbon Panel on Ocean Acidification (2012): Ocean Acidification: From Knowledge to Action, Washington State's Strategic Response, H. Adelsman and L. Whitely Binder (eds). Washington Department of Ecology, Olympia, Washington.[7]

In November 2012, Governor Christine Gregoire issued an Executive Order[8] acknowledging the particular harm that ocean acidification, caused by increased emissions of greenhouse gases into the atmosphere, inflicts on Washington. "[I]t is critical to our economic and environmental future that effective and immediate actions be implemented in a well-coordinated way and that we work collaboratively with federal, tribal, state, and local governments, universities, the shellfish industry, businesses, the agricultural sector, and the conservation/environmental community to address this emerging threat. The Executive Order specifically directs "[t]he Office of the Governor and the cabinet agencies that report to the Governor to advocate for reductions in emissions of carbon dioxide at a global, national, and regional level."

This warming threatens major environmental impacts in Washington, the Pacific Northwest, and worldwide. According to the U.S. Global Change Research Program (GCRP), climate change could affect the Pacific Northwest, including western Washington, by causing "declining springtime snowpack lead[ing] to reduced summer streamflows, straining water supplies, [and] ... increased insect outbreaks, wildfires, and changing species composition in forests [that] will pose challenges for ecosystems and the forest products industry."[9] In the northwestern United States, "salmon and other coldwater species will experience additional

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[7] *Available at* https://fortress.wa.gov/ecy/publications/SummaryPages/1201015.html. The technical summary (Feely, R.A., T. Klinger, J.A. Newton, and M. Chadsey (2012): Scientific Summary of Ocean Acidification in Washington State Marine Waters. NOAA OAR Special Report) is *available at* https://fortress.wa.gov/ecy/publications/SummaryPages/1201016.html.

[8] *Available at* http://www.governor.wa.gov/execorders/eo_12-07.pdf.

[9] Exh. 165, U.S. Global Change Research Program, Global Climate Change Impacts in the United States, at 135-38 (Thomas R. Karl et al., eds., 2009), *available at* http://downloads.globalchange.gov/usimpacts/pdfs/climate-impacts-report.pdf.

stresses as a result of rising water temperatures and declining summer streamflows." *Id.* at 136. Global warming also could profoundly affect the health of western fisheries, by "hamper[ing] efforts to restore depleted salmon populations," *id.* at 137.

Concentrations of CO_2 in the atmosphere "are projected to continue increasing unless the major emitters take action to reduce emissions." Endangerment and Cause or Contribute Findings for Greenhouse Gases Under Section 202(a) of the Clean Air Act, 74 Fed. Reg. 66,496, 66,539 (Dec. 15, 2009). The U.S. Environmental Protection Agency recognized the cumulative nature of both the climate change problem and the strategies needed to combat it:

> [N]o single greenhouse gas source category dominates on the global scale, and many (if not all) individual greenhouse gas source categories could appear small in comparison to the total, when, in fact, they could be very important contributors in terms of both absolute emissions or in comparison to other source categories, globally or within the United States. If the United States and the rest of the world are to combat the risks associated with global climate change, contributors must do their part even if their contributions to the global problem, measured in terms of percentage, are smaller than typically encountered when tackling solely regional or local environmental issues.

Id. at 66,543 (emphasis added). Consistent with this finding, the Ninth Circuit has rejected the argument that individual actions represent too minor of a contribution to the global problem to merit consideration under NEPA: "The impact of greenhouse gas emissions on climate change is precisely the kind of cumulative impacts analysis that NEPA requires agencies to conduct. Any given rule setting a [vehicle fuel-efficiency] standard might have an 'individually minor' effect on the environment, but these rules are 'collectively significant actions taking place over a period of time.'" *Ctr for Biological Diversity v. Nat'l Highway Traffic Safety Admin.*, 538 F.3d 1172, 1217 (9th Cir. 2008) (internal citations omitted).

Both the United States and Washington have sought to meet the challenge of climate change with a variety of statutory and regulatory actions to reduce our reliance on fossil fuels and promote conservation and alternatives. At the federal level, EPA has responded with a formal finding that greenhouse gases endanger the public health and welfare, 74 Fed. Reg. 66496 (Dec. 15, 2009), the first step in comprehensively regulating greenhouse gases under the federal Clean Air Act. EPA has already issued some regulations relating to reducing emissions from both mobile and stationary sources, including the June 2010 "tailoring rule" governing federal Clean Air Act requirements for greenhouse gas emissions from stationary sources, 75 Fed. Reg. 31514 (June 3, 2010), passenger vehicle rules, *see, e.g.*, 2017 and Later Model Year Light-Duty Vehicle Greenhouse Gas Emissions and Corporate Average Full Economy Standards, 77 Fed. Reg. 62,624 (Oct. 15, 2012), and proposed rules for power plants, *see* Standards of Performance for Greenhouse Gas Emissions for New Stationary Sources, 77 Fed. Reg. 22,392 (April 13, 2012).

Washington adopted greenhouse gas reduction standards via legislation adopted in 2008. *See* RCW 70.235.070(1)(a). The statute establishes that by 2020, emissions shall be reduced to 1990 levels. By 2035, greenhouse gas emissions are to be 25 percent below 1990 levels and by 2050, they are to be 50 percent below 1990 levels. The state legislature has consistently reinforced its concern for greenhouse gas impacts on Washington's climate and economy, for example: a) by taking measures to triple the number of green jobs by 2020; b) adopting a clean car standard that will reduce greenhouse gas emissions from mobile sources; c) dramatically increasing efficiency requirements for buildings; d) helping communities reduce greenhouse gas emissions by saving energy; e) requiring all state agencies to inventory and reduce emissions; f) funding planning for climate change mitigation and adaptation; g) creating tax and other financial incentives to support low-carbon alternative energy sources; h) requiring new power plants to meet an "emissions performance standard" for greenhouse gases; and i) requiring new power plants mitigate 20 percent of life-time greenhouse gas emissions from the power plant. These legislative actions have been supplemented by a number of Executive Orders promoting reduction of greenhouse gas emissions and increasing the availability of energy alternatives.[10] In addition, the citizens of Washington passed I-937, mandating 15 percent of all electricity energy to come from renewable energy and energy efficient sources by 2020.

In short, both the United States and Washington have made firm and clear commitments to address the causes of climate change and have committed to promote alternatives to projects that generate greenhouse gas emissions and mitigate those that cannot be avoided. The proposal to construct a coal export terminal with massive direct and indirect greenhouse gas emissions needs to be evaluated in light of those statutory and regulatory commitments.

III. FEDERAL AND STATE LAW REQUIRES AGENCIES TO FULLY DISCLOSE AND CONSIDER ALL ENVIRONMENTAL IMPACTS FROM PROPOSED PROJECTS, INCLUDING CLIMATE IMPACTS FROM GHG EMISSIONS.

A. The National Environmental Policy Act

Section 102(2)(C) of the National Environmental Policy Act (NEPA) establishes an "action-forcing" mechanism to ensure "that environmental concerns will be integrated into the very process of agency decisionmaking." *Andrus v. Sierra Club*, 442 U.S. 347, 350 (1979). Pursuant to that statutory provision, "all agencies of the Federal Government shall ... include in every recommendation or report on ... major Federal actions significantly affecting the quality of the human environment, a detailed statement" known as an environmental impact statement (EIS) addressing "the environmental impact of the proposed action, any adverse environmental impacts which cannot be avoided ..., alternatives to the proposed action," and other environmental issues. 42 U.S.C. § 4332.

[10] The laws and executive orders are *available at* www.ecy.wa.gov/climatechange/laws.htm.

NEPA has two fundamental purposes: (1) to guarantee that agencies take a "hard look" at the consequences of their actions before the actions occur by ensuring that "the agency, in reaching its decision, will have available, and will carefully consider, detailed information concerning significant environmental impact," *Robertson v. Methow Valley Citizens Council,* 490 U.S. 332, 349 (1989); and (2) to ensure that "the relevant information will be made available to the larger audience that may also play a role in both the decisionmaking process and the implementation of that decision," *id.* at 349. NEPA "emphasize[s] the importance of coherent and comprehensive up-front environmental analysis to ensure informed decision making to the end that 'the agency will not act on incomplete information, only to regret its decision after it is too late to correct.'" *Blue Mountains Biodiversity Project v. Blackwood,* 161 F.3d 1208, 1216 (9th Cir. 1998).

Under NEPA, an EIS must consider direct effects, indirect effects, and cumulative effects. "Effects includes ecological (such as the effects on natural resources and on the components, structures, and functioning of affected ecosystems), aesthetic, historic, cultural, economic, social, or health, whether direct, indirect, or cumulative." 40 C.F.R. § 1508.8. The direct effects of an action are those effects "which are caused by the action and occur at the same time and place." 40 C.F.R. § 1508.8(a). The indirect effects of an action are those effects "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). For example, "[i]ndirect 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." *Id.* These types of growth-inducing impacts must be analyzed, even when they are characterized as "secondary." *City of Davis v. Coleman*, 521 F.2d 661, 676 (9th Cir. 1975) (requiring EIS to address growth-inducing impacts of freeway interchange planned in agricultural area on the edge of urban development). In fact, "[f]or many projects, these secondary or induced effects may be more significant than the project's primary effects... . While the analysis of secondary effects is often more difficult than defining the first-order physical effects, it is also indispensable." Fifth Annual Report of the Council on Environmental Quality, 410-11 (Dec. 1974).[11]

The Council for Environmental Quality (CEQ), which implements NEPA at the federal level, has also issued draft federal guidance on how to evaluate the effects of GHG under NEPA.[12] The Federal Guidance confirms that both direct and indirect greenhouse gas emissions should be evaluated in the context of "cumulative effects" in an EIS if significant. *Id.* at 5

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[11] *Available at* http://www.slideshare.net/whitehouse/august-1974-the-fifth-annual-report-of-the-council-on-environmental-quality.

[12] *Available at* http://ceq.hss.doe.gov/nepa/regs/Consideration_of_Effects_of_GHG_Draft_NEPA_Guidance_FINAL_02182010.pdf.

("Analysis of emissions sources should take account of all phases and elements of the proposed action over its expected life, subject to reasonable limits on feasibility and practicality."). Under the Federal Guidance, NEPA documents should put direct and indirect greenhouse gas emissions associated with a project in the context of the "aggregate effects of past, present, and reasonably foreseeable future actions" related to climate. *Id.* at 9-10. As the guidance confirms, the duty to evaluate all climate related impacts is not "new." Rather, climate is an important factor to be considered within NEPA's existing framework. *Id.* at 11.

B. Washington's State Environmental Policy Act

In adopting the State Environmental Policy Act (SEPA), the Washington legislature declared the protection of the environment to be a core state priority. RCW 43.21C.010. SEPA declares that "[t]he legislature recognizes that each person has a fundamental and inalienable right to a healthful environment and that each person has a responsibility to contribute to the preservation and enhancement of the environment." RCW 43.21C.020(3). This policy statement, which is stronger than a similar statement in the federal counterpart of NEPA, "indicates in the strongest possible terms the basic importance of environmental concerns to the people of the state." *Leschi v. Highway Comm'n,* 84 Wn.2d 271, 279-80 (1974).

At the heart of SEPA is a requirement to fully analyze the environmental impact of projects that have a significant impact on the environment. RCW 43.21C.031(1). An EIS is required for any action that has a significant effect on the quality of the environment. WAC 197-11-330. Significance means a "reasonable likelihood of more than a moderate adverse impact on environmental quality." WAC 197-11-794. The purpose of this analysis is not to generate paperwork. Rather, the EIS allows decision-makers to make judgments based on a fully informed appreciation for the environmental impacts of decisions, the available alternatives, and any mitigation that may be appropriate.

SEPA and its implementing regulations explicitly require consideration of direct and indirect climate impacts. *See* RCW 43.21C.030(f) (directing agencies to "recognize the world-wide and long-range character of environmental problem); WAC 197-11-444 (listing "climate" among elements of the environment that must be considered in SEPA review); *Rech v. San Juan County,* 2008 WL 5510438 (Wash. Shorelines Hearing Bd. June 12, 2008) at *12 n.8 ("We further note an emerging trend in the case law under the National Environmental Policy Act ("NEPA") and state NEPA analogues in which courts are increasingly requiring agencies to analyze climate change impacts during environmental assessments."). The Washington Supreme Court has ruled that the state should look to NEPA for guidance. "Since much of the language from SEPA is taken verbatim from NEPA (signed into law January 1, 1970), we look when necessary to the federal cases construing and applying provisions of NEPA for guidance." *Eastlake Comty. Council v. Roanoke Assocs., Inc.*, 82 Wn.2d 475, 488 n. 5 (Wash. 1973).

SEPA regulations also explicitly direct that environmental impacts outside the jurisdiction of the deciding agency should be considered. WAC 197-11-060(c). Crucially, agencies are required to assess both the direct impacts of the proposal as well as the indirect impacts. WAC 197-11-060(4)(d). For example, when considering a government action, a SEPA document must also consider the effects of private growth that may be encouraged by this government action. *Id.*; *Cheney v. City of Mountlake Terrace,* 87 Wn.2d 338, 344 (1976) (SEPA requires that decision makers consider more than the "narrow, limited environmental impact" of the current proposal...agency "cannot close its eyes to the ultimate probable environmental consequences" of its current action).

In recent years, state and federal agencies have made efforts to better define how climate analysis should be performed, and to provide tools to enable agencies to meaningfully assess and mitigate the greenhouse gas contribution of proposed projects. For example, in late 2008, Ecology and the State's Department of Community, Trade and Economic Development (CTED) issued a "comprehensive plan to address the challenges and opportunities of climate change." (2008 Climate Plan).[13] That plan recognized the increasing pressure on local governments to better identify climate impacts in their SEPA analyses, and noted that SEPA analysis provided an opportunity to evaluate climate impacts of government decisions and to identify changes to proposals to reduce or mitigate those impacts. *Id.* at 50.

Also in 2008, a governor-appointed working group provided a list of recommendations on how to ensure that climate change is considered in meeting SEPA's directives.[14] Notably, those recommendations identified the following categories of greenhouse gas emissions to be considered pursuant to SEPA: a) off-site mining of materials purchased for the project; b) transportation of raw materials to the project, and transport of the final product offsite; c) use of products sold by proponent to consumers or industry, including "emissions generated from combustion of fuels manufactured or distributed by the facility." *Id.* at App. D.

Ecology recently issued draft SEPA guidance for considering greenhouse gas emissions.[15] That Draft Guidance confirms that SEPA is a crucial tool in helping the state and political subdivisions "address the threats that greenhouse gas emissions and climate changes pose to our health, our economy, and our environment." *Id.* at 2. In fact, the Draft Guidance specifically observes that the failure to evaluate the climate impacts of a proposal "could result in a successful legal challenge regarding the adequacy of an agency's review." *Id.*

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[13] *Available at* http://www.ecy.wa.gov/pubs/0801025.pdf.

[14] *Available at* http://www.ecy.wa.gov/climatechange/2008CATdocs/IWG/sepa/103008_sepa_iwg_report.pdf.

[15] *Available at* http://www.ecy.wa.gov/climatechange/sepa.htm.

Accordingly, the Draft Guidance makes clear that SEPA requires climate to be considered in its environmental analysis. Specifically, agencies should consider "if and how" greenhouse gases will contribute to environmental impacts and "how those impacts could be mitigated." *Id.* at 7-8. The Draft Guidance notes that SEPA's substantive authority "may be used to deny a proposal if the proposal will result in significant environmental impacts identified in a final or supplemental EIS and reasonable mitigation measures are insufficient to mitigate the identified impacts." *Id.* at 10.

Ecology's Draft Guidance makes clear that climate impacts cannot be ignored simply because they are a step removed from the decision under review. It defines "Scope Three" emissions as those that are produced as a consequence of the activities in the proposal, albeit from sources not owned by the proponent or that are not part of the proposal itself. *Id.* at 12. While noting that "Scope Three" emissions may be harder to calculate, the Draft Guidance acknowledged that these emissions "can be critically important to consider when reviewing the overall long-term greenhouse gas emissions associated" with a proposal. *Id.*

The Draft Guidance proposes that the documents consider whether the proposal will "significantly contribute" to greenhouse gas concentrations, "either directly, indirectly, or cumulatively." While it does not propose a particular numerical threshold at which greenhouse gas emissions become "significant," it references the federal NEPA climate guidance, which proposes a significance threshold of 25,000 tons/year of CO_2 equivalent. Projects with emissions above this threshold should be considered in a full EIS if not mitigated. It should be noted that states like California have proposed far lower thresholds under their own state NEPA provisions, and that many national and regional conservation organizations have opposed the proposed CEQ threshold as too high.

Most recently, Ecology re-issued the Draft Guidance in the form of a "working paper."[16] That working paper provides a "table of tools" that can be used to calculate emissions from projects. That Table, in turn, lists various sources of emissions from projects, methods to calculate those emissions, and options to mitigate them. Included on that list is the "extraction, processing and transportation" of raw materials and feedstocks, and "emissions from the future combustion of fossil fuels," which is defined to include "emissions that will result from the combustion of fossil fuels transported, distributed or imported as a result of the project (*e.g.*, natural gas pipeline)." *Id.* at 2; *see also id.* at 3 (including emissions from "combustion of fuels distributed by a proposed facility" as an emission that should be quantified and mitigated in SEPA documents).

[16] *Available at* http://www.ecy.wa.gov/climatechange/sepa.htm.

C. The Agencies Are Legally Obligated to Evaluate Direct, Indirect, and Cumulative Climate Impacts.

While the Washington Courts have not yet had an opportunity to evaluate the obligation to consider indirect climate impacts under SEPA, such questions arise regularly under NEPA and parallel laws in other states. Washington courts regularly turn to federal NEPA interpretations for guidance on interpreting SEPA. *See, e.g., Gebbers v. Okanogan PUD No. 1,* 144 Wn. App. 371 (2008).

In a landmark 2008 case, the Ninth Circuit Court of Appeals—which has jurisdiction over Washington state—found that a federal agency violated NEPA when it failed to prepare a full EIS on proposed corporate average fuel economy (CAFÉ) standards for light trucks. *Center for Biological Diversity,* 538 F.3d 1172. There, the Ninth Circuit rejected the argument that individual actions represent too minor of a contribution to the global problem to merit consideration. Even more recently, the Ninth Circuit again emphasized that '"reasonably foreseeable future actions need to be considered [under NEPA] even if they are not specific proposals.'" *N. Plains Res. Council v. Surface Transp. Bd.,* 668 F.3d 1067, 1079 (9th Cir. 2011) (quoting EPA guidance document).

Several cases confirm that NEPA requires evaluation of climate-related impacts even where those impacts are only indirectly related to the project under review. For example, in *Mid-States Coalition for Progress v. Surface Transportation Board,* 345 F.3d 520 (8th Cir. 2003), the Eighth Circuit Court of Appeals invalidated an EIS for a rail construction project intended to supply coal from the Powder River basin to power plants because it failed to analyze the emissions of burning the coal that would be transported by the rail project. The Court found that the project was likely to affect the country's long-term demand for coal and hence the impacts of coal burning should have been considered in the EIS.

Similarly, in *Border Plant Working Group v. Department of Energy,* 260 F. Supp. 2d 997 (S.D. Cal. 2003), a federal district court invalidated a decision to approve transmission lines that would connect proposed power plants in Mexico to the U.S. power grid because indirect effects were not considered. The Court found that the decision violated NEPA because decision-makers failed to consider the impacts of the operation of the Mexican power plants—including impacts on air quality and climate—that were closely linked to the transmission lines. The Court found that the operation of the power plants were an "indirect effect" of the transmission line project because the two were causally linked. The Court specifically struck down the agency's decision that the project's impacts were too minimal to require preparation of an EIS. *Id.*

The impacts of exporting coal are not limited to the climate impacts of its use in overseas power plants. A valid SEPA analysis must also consider the climate and other air emissions of transporting these huge volumes of coal. Each trip of a fully loaded container ship to China, for example, uses around 500 tons of bunker fuel per trip, generating both significant CO_2 emissions

in its own right as well as a variety of toxic and harmful air emissions, including diesel particulates that are highly damaging to human health as well as black carbon, one of the most potent greenhouse pollutants in existence. These kinds of impacts are "indirect effects" of the decision to authorize the coal export facility and should be evaluated in an EIS, along with any appropriate mitigation.

The EIS must also include discussion of the impacts of mercury deposition that will be caused by the burning of this increased volume of coal. Coal burned in Asia is a major source of mercury contamination in the Columbia River basin.[17] Mercury is a highly toxic pollutant that bioaccumulates and poses severe health hazards, especially to pregnant mothers and small children. In particular, mercury contamination in salmon is a critical issue for Indian tribes in the Columbia basin.

There are also extraordinary environmental impacts from mining coal and transporting it by rail to Cherry Point. Mining, of course, causes a broad array of environmental harms through contamination of air, surface and groundwater, and publicly owned lands.[18] Transportation of coal over long distances also has significant environmental impacts, including the fossil fuel consumption of moving large volumes of material over long distances. Moreover, data shows that open coal trains lose huge volumes of coal dust during transportation. Such discharges would add to air quality problems along the rail route. According to BNSF studies, 500 to 2,000

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[17] *See* Jaffe, D. et al., "Atmospheric mercury from China," Atmos. Envt. Vol. 39, 3029-38 (2005). The U.S. EPA's 2009 Columbia River State of the River Report for Toxics explains: "Based on available data, atmospheric deposition appears to be the major pathway for mercury loading in the Columbia River Basin. Mercury air deposition includes both emissions from industrial facilities within and near the Basin and fallout from the pool of global mercury that has been transported from sources as far away as Asia and Europe. EPA estimates that the total mercury air deposition in the Columbia River Basin is 11,500 pounds per year. Approximately 84 percent of that load comes from global sources." Report at Sec. 5, p. 16 (*available at* http://yosemite.epa.gov/r10/ECOCOMM.NSF/Columbia/SORR-STATUS). Similarly, the Willamette River Total Maximum Daily Load (TMDL) is an in-depth study on what sources contribute mercury to the Willamette River. Under the Clean Water Act, the Willamette is considered "water quality impaired" for mercury, which is why Oregon prepared a TMDL. *See* Willamette River Mercury TMDL at 3-21 ("The load associated with erosion of native mercury-containing soils (47.8%) and the runoff of atmospherically-deposited mercury from local and global sources (47.7%) represent the two largest mercury inputs to the mainstem Willamette River system."). Oregon Dep't of Envtl. Quality, Willamette River Mercury TMDL, *available at* http://www.deq.state.or.us/WQ/TMDLs/docs/willamettebasin/willamette/chpt3mercury.pdf.

[18] *See* Exh. 128, A Hidden Cost of Coal, Northern Plains Resource Council; Exh. 137, Exporting Powder River Basin Coal: Risks and Costs, Western Organization of Resource Councils (Sept. 2011).

lbs of coal can be lost in the form of dust for each rail car, and coal trains are typically composed of at least 120 cars per train. In other studies, again according to BNSF, as much as three percent of the coal in each car (around 3,600 lbs per car) can be lost in the form of dust.[19] This is a huge volume of coal that will escape into the air and water. Moreover, as with the greenhouse gas impacts, this analysis must be viewed in the context of all existing and reasonably foreseeable similar impacts, including pending proposals to build other coal export terminals in Washington and Oregon.

IV. ALL ISSUES AND IMPACTS CAUSED BY CONSTRUCTION AND OPERATION OF THE GATEWAY PACIFIC TERMINAL MUST BE CONSIDERED IN THE ENVIRONMENTAL IMPACT STATEMENT.

Coal export at the proposed Gateway Pacific Terminal will affect people and places far beyond the immediate construction zone. Every community located along the rail line between the coal mines and Cherry Point will be harmed, and people outside Washington will be affected by the climate impacts of mining, transporting, and ultimately burning this coal. The EIS must, of course, analyze the impacts of coal export at and near the terminal, but it also must analyze the impacts of coal trains and coal use on a much broader scale. This includes the direct, indirect, and cumulative impacts of coal export on public health, public safety, economics, marine health, public investment, and climate change.

The Corps' scoping notice identifies a preliminary list of "potentially significant issues" to include "project specific and cumulative effects on navigation (*e.g.*, vessel traffic and navigational safety); marine aquatic habitats, including state designated aquatic reserves; marine aquatic species, including Endangered Species Act listed species and Washington species of concern; Tribal treaty rights; wetland and riparian habitat and wildlife; railroad and vehicle traffic; cultural, historic, and archeological resources; air and water quality; noise; recreation; land use; and aesthetics." While this list represents a starting point, it appears that the Corps plans to limit the geographic scope of its impacts and alternatives analysis. **To be clear, we believe the joint EIS must examine the full direct, indirect, and cumulative impacts of the proposed Gateway Pacific Terminal from the mining of the coal in the Powder River Basin, the transport of coal by rail through several states and hundreds of communities, the loading and shipping of coal via large ocean vessels, to the burning of the coal in Asia.**

Below we briefly describe the impacts in each category and reference specific documents, reports, and studies that the agencies should consider as they conduct their analysis.

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[19] Exh. 112, Hearing Transcript, July 29, 2010, *Arkansas Electric Cooperative Association – Petition for Declaratory Order*, Surface Transportation Board, Docket No. FD 35305, at 42:5-13.

A non-exhaustive collection of documents and reports are included in a CD of materials accompanying this scoping letter for inclusion in the administrative record (Exhibits 1-173).[20]

A. The Public Health Issues Raised by This Project Are Significant and Harmful.

The public health issues raised by a project of this size and extent include increased air pollution from coal dust (mercury, arsenic, lead, uranium), diesel pollution over different operational lifetime projections for the terminal, soil contamination by coal dust, and increased noise. The EIS should include a specific focus on children, the elderly, and other vulnerable members of the community. A group of health care professionals, Concerned Oregon Physicians, summarized many of the public health impacts in a letter to Oregon Governor Kitzhaber, Exhibits 151-58. These groups have also asked for a health impact assessment.[21]

1. The Gateway Pacific Terminal, alone or in combination with other proposed coal export facilities, will cause harmful air impacts.

Air quality impacts and pollution from nitrogen dioxide (NO_2), particulate matter, and coal dust must be analyzed. Expert reports on air quality impacts at a similar proposed project at the Port of Morrow on the Columbia River found that the proposed project "will cause very adverse air quality impacts in both Oregon and Washington."[22] NO_2 exposure can have a wide range of health impacts depending on the length of exposure and various other factors. Epidemiologic research establishes a plausible relationship between NO_2 exposures and adverse health effects ranging from the onset of respiratory symptoms to hospital admission.[23] Particulate matter (PM) refers to a broad class of diverse substances that exist as discrete particles of varying size.[24] Such particles are produced by a variety of anthropogenic and natural

[20] The exhibits include detailed comments submitted to the Oregon Department of State Lands (Exhs. 1, 108, 116) for the Port of Morrow proposed coal export terminal in Oregon. Many of the issues raised are similar and further support the call for an area-wide environmental review of all proposed coal export projects.

[21] Health Impact Assessment Information Sheet, *available at* http://coaltrainfacts.org/docs/Health_Impact_Assessment_factsheet_Final.pdf.

[22] Exh. 13, AMI Environmental, AERMOD Modeling of Air Quality Impacts of the Proposed Morrow Pacific Project—Final Report (Oct. 2012).

[23] Exh. 14, 76 Fed. Reg. 57105 at 57304; Environmental Protection Agency, Integrated Science Assessment for Oxides of Nitrogen—Health Criteria (EPA/600/R-08/07), 5-15.

[24] Exh. 15, Environmental Protection Agency, Integrated Science Assessment for Particulate Matter, 4-2. EPA/600/R-08/139F, December 2009, 76 Fed. Reg. 57105 at 57302; Exh. 147, Health Effects and Economic Impacts of Fine Particle Pollution in Washington, Washington Dep't of Ecology (Dec. 15, 2009).

sources, though most fine particles are produced by anthropogenic combustion and transformations of gas emissions, like NO_x, in the atmosphere. The composition of the particles can vary greatly and can remain in the atmosphere for weeks and disperse over thousands of miles. Depending on the size, these particles can be inhaled and penetrate the respiratory tract to cause significant adverse health effects. Coal dust contains many harmful components and causes health problems as people are exposed to fugitive coal dust from coal trains, coal storage piles, loading and unloading practices, emissions from dust control systems, and risk of explosion and fire from coal dust.[25]

Further, a valid NEPA analysis must consider air pollution impacts that specifically accompany transporting and burning coal overseas. Each trip of a fully loaded container ship to China, for example, uses around 500 tons of bunker fuel per trip, generating both significant CO_2 emissions in its own right as well as a variety of toxic and harmful air emissions, including diesel particulates that are highly damaging to human health as well as black carbon, one of the most potent greenhouse pollutants in existence.[26] The climate impact of the coal dust must also be analyzed in depth in the EIS, including the potential local and regional albedo and warming impacts.

Exporting coal may also increase the air-quality impacts associated with its combustion. When coal is burned domestically, we can be reasonably certain of the pollution-control regulations to which it will be subject. For example, the Clean Air Act requires new and significantly modified sources of air pollution to install the "best available control technology" for pollutants such as sulfur dioxide, nitrogen oxides, particulate matter, and other pollutants. *See* 42 U.S.C. § 7475(a)(4). Many of the largest and dirtiest coal-fired power plants are subject to new retrofit obligations to reduce their contribution to visibility impairment due to sulfur dioxide and nitrogen oxide emissions. *See id.* § 7491. In addition, recently adopted mercury and air toxics standards will regulate coal-plant emissions of mercury and harmful acid gases. *See* NESHAPs from Coal- and Oil-Fired Electric Utility Steam Generating Units, 77 Fed. Reg. 9304 (Feb. 16, 2012). There is no guarantee that such stringent regulations will be in place in the Asian countries where the exported coal will be sold and burned. As a result, the air pollution impacts of exporting Powder River Basin coal may be far greater than if the coal were to be burned domestically. Yet these impacts will not stay in Asia. Airborne transport of soot, sulfur compounds, mercury, ozone, and other byproducts of coal combustion can travel across the Pacific Ocean and affect the health of western states' ecosystems and residents. *See* Eric de

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[25] Exh. 100, Leyda Consulting, Inc., Ecological Impacts of Proposed Coal Shipping on the Columbia River Port of Morrow and Port Westward, Oregon October 2012; Exh. 138, The Fire Below: Spontaneous Combustion in Coal, U.S. Dep't of Energy (May 1993).

[26] Exh. 170, T.C. Bond *et al.*, *Bounding the role of black carbon in the climate system: A scientific assessment.* Journal of Geophysical Research: Atmospheres (on-line version Jan. 15, 2013).

Place, Northwest Coal Exports: Some common questions about economics, health, and pollution (Nov. 2011) at 7.[27] These kinds of impacts are "indirect effects" of the shipment of coal and should be evaluated in an EIS along with any appropriate mitigation.

2. The Gateway Pacific Terminal will harm water resources.

The EIS must consider effects to all surface and ground water resources within the project area. The EIS must consider all potential water quality impacts (*e.g.*, increased sediment loads, possible spills, coal dust impacts, mercury deposition, changes to alluvial groundwater quality, degradation of drinking well water) and water quantity impacts (*e.g.*, drawdown of aquifers, diversions or diminutions of surface flow, hydrologic changes affecting seeps and springs, drinking water impacts) of Gateway Pacific Terminal's construction and operation. The agencies should ensure that the EIS describes, in detail, the possible sources of all water needed for the railroad and associated mining activities, including water originating in any over-allocated water source.

The agency also must consider cumulative water resource impacts flowing from reasonably foreseeable coal mines in the Powder River Basin (*e.g.*, disruption of hydrologic systems, pollution impacts), as well as impacts to water resources that would be expected from burning the coal, whether domestically or overseas. In addition to water availability considerations, the EIS must examine the project's potential impacts to water quality. Contamination of river and drinking water supplies can occur with diesel emissions and diesel spills both during project construction and during the ongoing operation of the project, which relies on continuous activity of trains. In addition, the drinking water supplies can become contaminated from coal dust and coal spills. Coal will be delivered in open top rail cars to the site. Regular movement of uncovered rail cars and the loading and unloading of these cars cause the release of fugitive coal dust, which can further contaminate the water supplies. Construction and operation of the railroad may also result in water quality impacts in the way of increased sedimentation and other changes. The EIS must assess these impacts and detail how federal, state, and local water quality standards will be met, monitored, and maintained.

B. Public Safety Will Be Jeopardized by Construction and Operation of the Gateway Pacific Terminal.

The impacts to public safety run the gamut from increased train traffic and vehicle accidents, increased derailments and concomitant emergency response, travel time delays at specific intersections (including the economic impacts of those delays, and impacts to/delay of emergency services (fire, police, EMT).

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[27] *Available at* http//www.sightline.org/wp-content/uploads/downloads/2012/11/coal-FAQ-November-12.pdf.

Threats from frequent long trains at rail crossings all along the route from the Powder River Basin and near the project area will mean delayed emergency medical service response times; and increased accidents, traumatic injury and death. Each fully loaded train is over a mile long, and this proposal would significantly increase the daily number of trains along the rail route. These trains will bisect multiple communities along the route, leading to significant traffic delays and potential safety issues at grade-crossings. The delay of only a few minutes for an emergency response vehicle can mean the difference between life and death for citizens in these rural communities. In addition, increased rail traffic will lead to increased collisions between passenger vehicles, pedestrians, and trains; there are approximately 3,000 vehicle collisions with coal trains each year already, and 900 pedestrian accidents.[28]

Preliminary traffic impact studies have been done for several communities along the proposed rail transportation route, including:

- Exhibit 132, Coal Train Traffic Impact Study, Parametrix (Nov. 2012).
- Exhibit 139, Cherry Point Commodity Export Facility Rail Operations-City of Bellingham, Gibson Traffic Consultants (June 21, 2012).
- Exhibit 140, Cherry Point Coal Export Facility Rail Operations-Burlington, Gibson Traffic Consultants (Aug. 15, 2011).
- Exhibits 141, 142, Cherry Point Coal Export Facility Rail Operations-City of Edmonds, Gibson Traffic Consultants (May 22, 2012).
- Exhibit 143, Cherry Point Coal Export Facility Rail Operations-Marysville, Gibson Traffic Consultants (June 15, 2011).
- Exhibit 144, Cherry Point Coal Export Facility Rail Operations-Mount Vernon, Gibson Traffic Consultants (Sept. 1, 2011).
- Exhibit 145, Cherry Point Coal Export Facility Rail Operations-City of Seattle – Preliminary Report, Gibson Traffic Consultants (Feb. 13, 2012).
- Exhibit 146, Cherry Point Coal Export Facility Rail Operations-Stanwood, Gibson Traffic Consultants (Aug. 8, 2011).
- Exhibit 148, Heavy Traffic Ahead, Western Organization of Resource Councils (July 2012).

In addition to the threat of delay, the EIS must review the threats associated with coal train derailments. There were over 18 derailments of coal trains in the United States in the summer of 2012, including one at Mesa, Washington, near the Columbia River and others across the country that caused fatalities and major coal spills. There is a serious risk to human health from a huge increase in coal train traffic along the route to and from the Powder River Basin and near the project area.

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[28] Exh. 20, Daniel A. Lashof et al., Natural Resources Defense Council, Coal in a Changing Climate (Feb. 2007).

Coal dust has also been shown to be a cause of rail bed instability and derailments, which can pose a significant public safety hazard. As the Surface Transportation Board (STB), which found coal dust to be "a pernicious ballast foulant,"[29] acknowledged in its coal dust proceeding, the quantity of coal emitted by a train into the air, water and onto tracks is not insignificant.[30] An average of 500 pounds of coal dust per rail car is lost during each trip. BNSF Railway, Coal Dust Frequently Asked Questions (2011).[31] Each train is composed of 120 cars or more. *See* Hearing, July 29, 2010, Arkansas Electric Cooperative Association—Petition for Declaratory Order, Surface Transportation Board, Docket No. FD 35305 at 42:5-13. The risk of train derailments is heightened on lines with heavy coal-train traffic. "Coal dust, even in small amounts, poses a real threat to the integrity of the ballast section and track stability." *Id.* at 46:18-20.[32]

The EIS's analysis of coal dust should include a discussion of the efficacy of surfactants to control coal dust, potential impacts of the use of surfactants to control dust emissions, as well as consequences from not using surfactants. First, although use of surfactants in some contexts is common, their efficacy and safety for use on coal-carrying trains is unproven. Second, surfactants contain myriad undisclosed chemicals, many of whose biological and ecological effects have not yet been adequately studied. Surfactants could cause a number of potential harms, including: danger to human health during and after application; surface, groundwater and soil contamination; air pollution; changes in hydrologic characteristics of the soils; and impacts on native flora and fauna populations. *See* Environmental Protection Agency, Potential Environmental Impacts of Dust Suppressants: Avoiding another Times Beach § 3 (May 30-31, 2002). Third, while BNSF has a voluntary mandate encouraging the use of surfactants, STB proceedings evaluating that practice are ongoing. In the absence of binding regulation, many coal companies are electing not to apply any sort of topping agent.[33] As a result, the use of

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[29] Exh. 111, Surface Transportation Board Decision, *Arkansas Electric Cooperative Corporation – Petition for Declaratory Order*, Docket No. FD 35305 (Mar. 3, 2011) (*available at* http://www.stb.dot.gov/decisions/readingroom.nsf/WebDecisionID/40436?OpenDocument).

[30] The STB has conducted two proceedings related to coal dust, referenced at Docket numbers 35557 and 35305. The latter is ongoing. *See* http://www.stb.dot.gov/newsrels.nsf/219d1aee5889780b85256e59005edefe/72355569b86fcf0485257950006d6966?OpenDocument.

[31] Copy on file with Earthjustice.

[32] Exh. 112, Surface Transportation Board Hearing Transcript (STB Hearing Transcript), Re: *Arkansas Electric Cooperative Corporation – Petition for Declaratory Order*, Docket No. FD 35305 (July 29, 2010) (*available at* http://www.stb.dot.gov/TransAndStatements.nsf/8740c718e33d774e85256dd500572ae5/9e49ebf2fea431f1852578460066c5cb/$FILE/0729stb-exh.pdf).

[33] Exh. 12, *Some shippers not complying with BNSF coal dust tariff,* Platts Energy Week, November 3, 2011.

surfactants is not certain, and so the analysis of the impact of coal dust must consider scenarios both without and with any sort of surfactant use.

C. The Overall Economic Impacts of the Gateway Pacific Terminal Are Likely Negative.

The economic impacts of this project must also be reviewed. Issues here include the impact of dramatic increases in coal train traffic on real estate values and damage to property from coal dust, diesel emissions, vibration, and noise. There are also serious concerns relating to the impact of such a massive increase in coal rail traffic on other non-coal shippers of freight by rail, including ports and shippers of agricultural products. These same issues may dramatically affect passenger rail interests. These significant rail traffic increases are likely to create major impacts on communities affected by vehicle traffic problems related to delays at non-grade separated railway crossings, which will affect non-rail freight mobility, access to ports, retailers, tourist centers, and employers.[34] On the marine side, there are likely to be significant economic impacts on marine dependent industries such as commercial and tribal fisheries and shellfish growers, tourism, and other businesses.

Hundreds of community and business leaders have expressed their concerns about the economic impacts of the Gateway Pacific Terminal. Washington State Senator Ranker and a dozen other state senators wrote to Washington Department of Ecology Director Ted Sturdevant on November 3, 2011, stating that "[w]e must be fully aware of the potential economic tradeoffs associated with this increased level of transportation. Small and large businesses along rail lines in communities from Spokane, to central Washington to Bellingham could be negatively impacted by significantly increased numbers of rail runs transecting their community." Exh. LR-10 Port of Skagit Commissioners Ware, Kaufman, and Shuler wrote to former Governor Gregoire that "[e]ven the most cursory review of the Gateway proposal shows that the additional trains required to supply the new terminal with coal will further obstruct traffic, and have a negative impact on economic development in our community leading to a net loss of jobs." Exh. LR-57. Dow Constantine, King County Executive, noted in a letter to Ted Sturdevant, Director, Washington State Department of Ecology on January 31, 2012 that "key industries like aerospace and international trade rely on the rail corridor to move parts and finished products. Increased use of this corridor by long-haul coal trains could conflict with future rail-dependent economic development, like the plans for 737 MAX production.... Traffic delays will have direct economic impacts that also need to be considered in communities along the rail corridor." Exh. LR-20.

[34] For an unrelated proposed new arena in downtown Seattle, many interests, including Amtrak (Exh. 166) and the Port of Seattle (Exh. 167) have advocated for a broad scope of environmental analysis, including a specific focus on rail and port transportation impacts.

1. *The project, individually and in combination with other proposed coal export projects, will create massive increases in rail traffic for a single commodity, with major impacts on other rail users and affected communities.*

The increased rail traffic associated with shipping at least 48 million metric tons of coal per year at full build out to the Gateway Pacific Terminal (and 54 million tons of all freight) would represent a huge increase in freight rail usage and would likely present significant conflicts with other users of the rail line, including freight and passenger shippers. According to the Washington State Department of Transportation (WSDOT), inbound freight rail traffic totaled 58 million tons in 2010.[35] Based on WSDOT's figures, rail tonnage associated with just the Gateway Pacific Terminal at full build out would represent a 94% increase in the inbound rail tonnage on Washington rails. These impacts are even more significant if you take into account the cumulative impacts on a regional perspective. The authors of the *Heavy Traffic Ahead* study, Exh. 148, have estimated that combined rail traffic from the Powder River basin to the proposed northwest coal terminals (including projected growth in British Columbia, Canada) would equal as much as 157 million metric tons per year. This would result in a nearly 200% increase of inbound regional freight rail traffic for just this one commodity. It is critical that the EIS include a full analysis of the cumulative impacts from these proposals, including the capacity of the rail system to handle these increases without significant adverse impacts on other shippers, passenger rail users, and communities.

The most recent analysis of Washington's freight capacity, conducted in 2009 (Exh. 164, Washington State Department of Transportation Freight Rail Plan 2010-2030), indicated that a number of critical sections of track, including the Columbia Gorge and I-5 corridor mainlines and sections from Everett to the Canadian Border, were at or near capacity in 2008 and predicted further congestion by 2028. The Plan specifically identified a number of stretches along the I-5 corridor as, "chronic chokepoints, causing delays that ripple across the entire state and Pacific Northwest rail system." *Id.* at 3-23. A key bottleneck includes the section of line between Everett and the proposed terminal. The project documents indicate that rail traffic at full build out will equal 18 trains per day on this segment (9 full and 9 returning), with 16 trains required for coal. Other key chokepoints are identified in the Plan, the Washington State Transportation Commission's Statewide Rail Capacity and System Needs Study, December 2006 (Exh. 162), and the *Heavy Traffic Ahead* study (Exh. 148). Additional critical bottlenecks include the Central Puget Sound region, the Columbia Gorge, the Spokane-Sandpoint Corridor (known in railroad parlance as "the Funnel," due to the fact that most major east-west rail corridors converge there).

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[35] WSDOT, Washington State Rail Plan Public Workshop Presentation (Slide 21), November 2012, *available at* http://www.wsdot.wa.gov/NR/rdonlyres/9FDB1C42-B024-4554-A4E7-D2328BEB9C92/0/SRPWorkshop112912.pdf.

Unless mitigated with significant capacity additions, the addition of the massive increases of coal train traffic is likely to present significant adverse impacts on other users of the rail line, including grain and fruit shippers, intermodal users, ports, industries, aircraft manufacturers and passenger rail—all of who are critically dependent on timely and affordable access to the rail system. *Heavy Traffic Ahead*, Exh. 148. Existing state studies indicate that coal rail traffic is already having a significant negative impact on the ability of Washington shippers to access markets where coal traffic from the Powder River Basin is dominating the rail lines; experts working for the state have concluded that "the high volume of coal trains moving east out of the Powder River Basin has made it virtually impossible to route time-sensitive intermodal trains moving from PNW ports to central and southeast gateways such as Kansas City and Memphis through the near continuous flow of slow-moving coal trains. Adjusting to this, BNSF has shifted most intermodal traffic destined to locations south of Chicago to the Ports of Los Angeles and Long Beach."[36] These reports also confirm that the railroad prioritizes unit trains, such as coal trains, over other shippers. The EIS should fully analyze the impacts on northwest shippers if inbound and outbound freight traffic is diverted or eliminated due to the competition with coal trains. Further, the EIS should look at impacts related to diversion of this freight rail traffic to other modes, including trucks and barges.

The EIS must also analyze impacts, mitigation measures and potential funding relating to the use of passenger rail on these same lines. As Exhibit 173 discusses, the Amtrak Cascades Mid-Range Plan (2008), Washington and passenger rail advocates have significant plans for increases of passenger rail capacity, including adding additional high-speed passenger trains on the I-5 corridor. The EIS must analyze how existing and expanded passenger rail uses will be impacted if freight traffic increases.[37] The EIS should also consider existing and prospective public funding for rail capacity to purchase passenger rail service. The public has spent billions of dollars in rail improvements to ensure that passenger rail fits with existing capacity, and it is imperative that the EIS fully analyze the past and prospective investments to ensure that public funds are not spent for private purposes.

It will also be necessary to review the need for public investment spurred by this project. Rail infrastructure improvements are anticipated, although it is far from clear how those improvements will be funded. Rail lines and infrastructure will also need to be regularly

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[36] Communitywise Bellingham, Annotated Bibliography with Key Extracted Pages Studies Relevant to Rail Related Public Policy Concerns Community Impacts, Local Business Impacts, Lack of BNSF Cost Sharing, *available at* http://www.communitywisebellingham.org/wp-content/uploads/2012/05/CWB-WSDOT-Public-Policy-Concerns-Report.pdf.

[37] Passenger service that may be affected would include, among others, Sound Transit Sounder Commuter services as well as Amtrak intercity service and Empire Builder service between Seattle and Chicago. The Empire Builder service also utilizes "The Funnel" in Spokane, which is expected to see the greatest increase in freight rail traffic because of the coal shipments.

maintained, and there will be mitigation costs for structures such as overpasses, tunnels, and railroad crossings. The EIS must also address whether the public will be expected to bear any costs for infrastructure constructed for private benefits. Federal and State Governments commonly bear a significant share of the costs of freight rail capacity improvement projects.[38] The EIS should include all needed capacity improvements that will be required to address at least those areas where the planned coal train traffic will exceed the capacity of the existing system.

Bellingham provides a perfect example of this need. A report prepared for Communitywise Bellingham examines existing state records on capacity improvements that will be needed to address increased traffic on the mainline between the Skagit Valley and the project site. *See* Exh 172, *Potential Local Direct Effects of Increased Coal Train Traffic on BNSF Railway through Bellingham,* prepared by Transit Safety Management, January 17, 2012. As discussed in this report, BNSF and WSDOT have been planning to build a major siding in Bellingham that will result in significant impacts on parks, local businesses, and the affected community. This project, and other projects needed to address capacity bottlenecks to allow the level of freight associated with the Gateway Pacific Terminal, must be studied in the EIS.

2. *The project is likely to create very significant impacts relating to traffic in dozens of impacted communities.*

Numerous studies have confirmed that the massive increases in freight rail traffic for coal export will result in significant adverse impacts on other traffic and freight mobility within affected communities. *See* Exhs. 132, 139-46, 148. Each of these studies concludes that the level and type of coal train traffic associated with this project is likely to cause a number of affected intersections to reach unacceptable levels of service, including many intersections that are projected to reach level of service "D" or "F." These traffic impacts will cause direct economic losses to effected communities and businesses through interruptions of freight mobility, challenges for customers reaching businesses, and lost employee time. Air pollution impacts related to increased idling and congestion may also directly impact growth in affected communities.

Although these studies show the likelihood of significant adverse impacts in a number of communities, it is imperative that the EIS fully analyze these issues in these and all other communities that are likely to be similarly affected along the entire corridor from the Powder River Basin to the proposed Gateway Pacific Terminal site. These concerns relating to the economic and community impacts from increased traffic are at the heart of many of the dozens of resolutions and letters that have been received from cities, counties, local elected officials, businesses and community leaders along the proposed route.

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[38] *See* Sightline, January 2013, *Who Pays for Freight Rail Upgrades? available at* http://daily.sightline.org/2013/01/18/who-pays-for-freight-railway-upgrades/.

An example of the kind of specific issue that must be evaluated in detail is the potential conflict between the increased coal train traffic and the operation of the Washington State Marine Highway system at the Edmonds ferry terminal. The City of Edmonds, WSDOT, and other stakeholders have all pointed to significant adverse impacts associated with the operation of the ferry terminal due to the lack of grade separation. Because this ferry terminal is a critical link in Washington SR 104, it is very important to freight shippers and other businesses on the Olympic and Kitsap peninsulas. The EIS must look at the potential impacts on businesses and communities that rely on this link and potential mitigation measures.

The EIS must also look at necessary mitigation for these traffic and mobility concerns and the question of who will bear the costs of this mitigation. Under federal law, railroads are generally limited to paying no more than 5% of the costs of grade separated crossings, where at grade crossings are being eliminated. Typically, the railroad pays far less than that amount. Given that the costs of grade separated crossings to address these traffic issues are in the $10s and $100s of millions, the EIS must analyze any mitigation that is needed to reflect the huge increases in coal train traffic associated with this project to ensure that the public does not pay for private benefits.

3. *Other economic impacts and risks associated with the project will be significant.*

a. Property valuation

Recent studies have indicated that the massive increases in coal train traffic induced by the proposed terminal may directly result in significant reductions in property values, effecting owners, other taxpayers and effected communities.[39] The study conducted by the Eastman Company (property valuation experts and consultants) concludes that property valuation losses are likely to be significant for properties located within 500 feet of the mainline tracks in Whatcom, Skagit, Snohomish, King, and Pierce Counties, due to the impacts related to traffic, safety, vibration, noise, pollution, and stigma and perception issues. For single family residential properties north of Everett (where there are likely to be 18 new train trips daily at full build out), the report authors calculated these property losses in the range of 5-20%. Other estimates included multi-family properties (5-15%); commercial properties (5-10%); and industrial properties (5-8%). The Eastman report also concluded that there would be significant impacts that would be 3-5% less for properties south of Everett, based on their assumption that all return trains would go over Stevens Pass (an option which remains to be confirmed by the project

[39] Exh. 133, Increased Coal Train Traffic and Real Estate Values, The Eastman Company (Oct. 30, 2012); Exh. 134, The effect of freight railroad tracks and train activity on residential property values, Robert A. Simons R. & A. El Jaouhari (Summer 2004); Exh. 136, Examining the Spatial Distribution of Externalities: Freight Rail Traffic and Home Values in Los Angeles, Futch, M. (Nov. 11, 2011).

proponent). Using a database of assessed property values in the study area, the Eastman report concluded that even a 1% diminution in property value would result in a loss of approximately $265 million. Based on this analysis and supporting studies, there is clearly a potential for significant adverse impacts that should be fully evaluated in the EIS. The EIS should look at these issues along the entire corridor, using specific estimates of rail traffic associated with the project, as well as the cumulative impacts of other coal export facilities.

b. Impacts on economies dependent on the marine environment

There are likely to be significant adverse impacts and major risks posed to the Salish Sea and aquatic ecosystems from this project. In addition to the impacts on ecosystems, these issues must be evaluated for the impacts and risks that they pose for marine related businesses and economies, such as commercial, tribal and sports fisheries, shellfish growers, tourism, and other related businesses. These businesses cumulatively provide billions of dollars in positive economic impacts to the state and region.[40]

c. Economic uncertainty and market volatility surrounding coal export

Several studies and reports in the accompanying materials address the speculative and uncertain nature of coal export terminals as a foundation for economic prosperity. *See, e.g.,* Exh. 129, Coal Export: A History of Failure for Western Ports, VandenHeuvel, B. & E. de Place (Aug. 2011). Coal export terminals in Portland and Los Angeles were both shut down at significant taxpayer expense. One of the few terminals shipping thermal coal from the West Coast of the United States—located in Seward, Alaska—recently cutback operations and laid off workers citing adverse international market conditions.[41]

Moreover, the EIS should examine the market uncertainty and volatility surrounding coal. Domestic demand for coal has fallen substantially since 2008, as U.S. electricity generators have turned to cleaner burning natural gas, renewable energy, and increased energy efficiency.[42]

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[40] Exh. 7, National Wildlife Federation, *The True Cost of Coal: The Coal Industry's Threat to Fish and Communities in the Pacific Northwest* (2012) at 9 (recreational fishing accounts for $2.7 billion a year to the Washington and Oregon economies; commercial fishing in Washington contributed $3.9 billion to economy).

[41] *Lack of Demand Slows Coal Shipping,* The Seward Phoenix Log, November 29, 2012, *available at* http://www.thesewardphoenixlog.com/story/2012/11/29/local/lack-of-demand-slows-coal-shipping/895.html.

[42] US Energy Information Administration: *Annual Energy Review*, September 2012, Table 2.1f: Electric Power Sector Energy Consumption, 1949-2011, *available at* http://www.eia.gov/totalenergy/data/annual/showtext.cfm?t=ptb0201f; and December 20, 2012, Quarterly Coal

The reasons for this change undoubtedly include the increasing environmental control costs for burning coal, as well as a growing recognition among companies and financial analysts that mining and burning coal to produce electricity is no longer a viable strategy to produce an acceptable return on investment. The EIS should analyze the extent to which these trends are being followed in the proposed export markets, including the trends to replace coal with renewables, efficiency, and natural gas for energy generation and the impacts on the long term prospects for this project. Potential domestic electricity pricing impacts to U.S. consumers from exporting coal should also be examined.

The EIS should evaluate the purpose and need statement relating to coal export and consider alternatives. It should also evaluate the risk that the proposed terminal may join the other projects that have experienced economic failure, sometimes leaving significant clean up liabilities and unfulfilled expectations for local communities. The EIS should consider potential mitigation measures relating to these risks, including the need for the project proponents to post a bond or provide other security to ensure that communities and local governments are not left with the responsibility for site clean up and other costs in the event of project failure.

Given the substantial market uncertainty related to coal finances and coal export, it appears very likely that project economics may depend on direct subsidies and avoidance of taxes owed to federal and state governments. The authors of Exhibit 169, *The Great Giveaway,* concluded that anti-competitive leasing practices had allowed coal mining companies to avoid $29 billion in lease payments to the federal government over the past several decades. Coal companies were able to avoid competitive bids for leases due to a loophole excluding the Powder River Basin (the largest coal reserves in the United States) from provisions applying to areas designated as "coal producing regions." In statements, federal officials admitted that these practices reduced payments from coal companies, but justified it based on the desire to maintain low electricity rates in the United States. Obviously, these concerns do not apply to coal export.

Additionally, new concerns have been raised that federal, state, and tribal governments may be losing millions of dollars in royalties as coal companies base their calculations on low domestic prices, as opposed to much higher prices coal commands overseas. As the rules that govern Powder River Basin sales to Asia come under more rigorous review, projected profits from coal export may significantly decline. *See* Exh. 171, Letter from Senators Wyden and Murkowski to Interior Secretary Salazar re: Federal coal royalty management (Jan. 3, 2013). If these loopholes are fixed, U.S. exported coal prices may not be competitive with other thermal coal exports to the same customers from Australia, Indonesia, and other countries. Pouring private and public investments of money, time, and community good-will into coal export terminals will likely prove a losing decision.

Report (3d Quarter 2012), Table 32: U.S. Coal Consumption by End-Use Sector, 2006-2012, http://www.eia.gov/coal/production/quarterly/pdf/t32p01p1.pdf.

4. The EIS must review all economic impacts on a regional scale.

All of these economic impacts beg the question whether the overall economic impacts of the project are positive. As Exhibit 163 shows, *The Impact of the Development of the Gateway Pacific Terminal on the Whatcom County Economy,* the answer to this question is very likely no. This study, by one of the nation's leading economic consulting firms, evaluated the positive economic impacts from the project in Whatcom County, and then compared them to a wide range of negative economic tradeoffs and impacts. It concluded that the overall economic impact would very likely be negative, *even in the county with most of the positive economic benefits.* The EIS should look at the overall economic impacts of the project on a region-wide basis.

D. The Gateway Pacific Terminal Will Increase Harm to Wildlife, Marine, and Aquatic Health.

The EIS must include an analysis of impacts to biological, marine, and aquatic resources on both public and private lands and waters in the affected area, that is, in the area from the mining of the coal in the Powder River Basin, through the rail corridor to the Gateway Pacific coal export terminal, through the loading and shipping of the coal through the Salish Sea, to its final destination and burning in Asia. Such resources include marine and terrestrial mammals, game and non-game resident and migratory bird species, raptors, songbirds, amphibians, reptiles, fisheries, aquatic invertebrates, wetlands, and vegetative communities. The agencies must ensure that up-to-date information on all potentially impacted flora and fauna is made available, so that adequate impact analyses can be completed. Habitat degradation, fragmentation, and loss must all be assessed, along with any resulting impacts to wildlife and marine species.

1. Construction and operation of the Gateway Pacific Terminal will harm marine health.

Risks to marine health—including potential harm to the dwindling Cherry Point herring population, threatened salmon species, and endangered killer whales–stem from oil spills from bulk carriers, impacts during construction (seafloor disturbance, increased turbidity, noise, lighting), impacts during operation (coal dust, shading from pier and wharf, toxics from terminal's outfall pipes, night lighting, noise), chosen shipping routes and shipping traffic along those routes,[43] and climate change itself.[44]

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[43] Exh. 130, Assessment of Oil Spill Risk Due to Potential Increased Vessel Traffic at Cherry Point, Washington (Aug. 31, 2008).

[44] Exh. 135, Effects of local and global change on an inland sea: the Strait of Georgia, British Columbia, Canada, S.C. Johannessen, R.W. Macdonald, Clim Res 40:1-21, 2009.

Construction and existence of the dock and pier[45] will impact salmon, herring, and other marine life.[46] The design, construction, and existence of the wharf and trestle will have shading impacts, which in turn affects marine vegetation like eel grass and macro algae. Juvenile salmon, which use near shore environments for migration and rearing, will also be disrupted by the dock system. The use of the area by Pacific herring for near shore movement, schooling, and spawning, as well as spawning habitat for surf smelt and sand lance, will be harmed. Particularly during construction, sea floor sediments and water quality will be disturbed. During terminal operations, noise and artificial light will harm all the fish that use the near shore environment, and vessel berthing will disrupt and harm Pacific herring pre-spawning and migration behavior.

Increased wildlife mortality from railroad and mining related activity (including, but not limited to, increased human conflicts, habitat loss, and increased hunting pressure) must also be discussed. Impacts to wildlife migration corridors must be evaluated.

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[45] While some of these aquatic impacts were evaluated when the smaller Gateway Pacific Terminal proposal was submitted in 1997, reevaluation is necessary for several reasons including the increased capacity of the current proposal, changes to the proposed configuration of the dock and pier, the addition of coal as an export commodity in the current proposal, and the failure of the project proponent to implement mitigation measures and investigative work required in the 1999 Agreement. Washington Environmental Council, along with the other conservation groups that were parties to the 1999 settlement agreement, is submitting separate scoping comments regarding the failure of the project proponent to comply with requirements in the 1999 settlement agreement that resulted from the 1997 Gateway Pacific Terminal proposal.

[46] *See* Exh. 117, Minimizing Effects of Over-Water Docks on Federally Listed Fish Stocks in McNary Reservoir: A Literature Review for Criteria, prepared by the U.S. Geological Survey for the U.S. Army Corps of Engineers (2010) (prepared in support of criteria for siting new docks in the McNary Pool of the Columbia River, this report recommends, among other things: (1) pilings shall not exceed 5 inches in diameter, (2) each over-water structure shall utilize no more than 6 piles for the entire project, and (3) nothing shall be placed on the over-water structure that will reduce natural light penetration through the structure); Exh. 118, Overwater Structures and Non-structural Piling White Paper, prepared by Jones & Stokes Associates for the Washington Department of Fish and Wildlife (2006) (summarizes scientific literature documenting the direct, indirect, and cumulative impacts of overwater structures, including industrial docks, to ESA-listed salmonids and other aquatic life); Exh. 119, Over-water Structures: Freshwater Issues, prepared by Herrera Environmental Consultants for the Washington Departments of Fish and Wildlife, Ecology, and Transportation (2001) (comprehensive overview of scientific literature, current through late-2000, describing the impact of pilings and docks on aquatic life, including increased predation, decreased habitat quality, and degraded water quality).

2. *Increased shipping traffic caused by the Gateway Pacific Terminal will harm marine and aquatic health.*

The Washington Department of Natural Resources designated the Cherry Point Aquatic Reserve in 2000, specifically noting the area's importance to pacific herring, marine diversity, kelp and eelgrass beds, and migratory waterfowl habitat.[47] Increased vessel traffic associated with the coal export terminal brings with it an increased chance of oil and cargo (coal) spills, disruption of endangered southern resident orca behavior, and disruption of pacific herring (including interfering with spawning, smothering of eggs, and cumulative toxicity to eggs and juveniles[48]). The EIS must carefully assess all impacts to the aquatic reserve.

The increased shipping traffic brings with it an increased risk of collisions, groundings, spills, discharges, accidents during vessel fueling. The potential for introduction of invasive species, including through ballast water, must be assessed, as tens of thousands of cubic meters of ballast water per visit will be discharged by the shipping vessels.[49] Hull fouling presents a similar danger of invasive species introduction.

3. *Threatened and endangered species will be harmed by the Gateway Pacific Terminal.*

Effects on threatened, endangered, and candidate species must be analyzed in the EIS, including effects of the coal terminal and related projects on listed salmon species (including threatened Puget Sound chinook, threatened Puget Sound steelhead, and Puget Sound coho (a species of concern), endangered southern resident killer whales, and threatened marbled murrelets. For species protected under the Endangered Species Act, the agencies must consult with the U.S. Fish and Wildlife Service and the National Marine Fisheries Service (NMFS) under § 7 of the Endangered Species Act to determine whether the terminal, the proposed shipping activity and marine shipping routes, any of the proposed railroad routes, and the associated coal mining and combustion activities will adversely affect these species or their designated critical habitat.

Protection of near-shore estuary areas is vital for the survival and recovery of juvenile threatened Puget Sound chinook salmon. "En route to the ocean the juveniles may spend from a few days to several weeks in the estuary, depending on the species. The highly productive

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[47] *See generally* Exh. 131, Cherry Point Environmental Aquatic Reserve Management Plan (Nov. 2010).

[48] Exh. 168, Final Report of Pacific Herring (*Clupea pallasi*) Test Development and Validation, Washington Dep't of Ecology Publication No. 11-10-086 (Sept. 2012).

[49] Exh. 7, *The True Cost of Coal: The Coal Industry's Threat to Fish and Communities in the Pacific Northwest* at 10.

estuarine environment is an important feeding and acclimation area for juveniles preparing to enter marine waters." Endangered and Threatened Species: Final Listing Determinations for 16 ESUs of West Coast Salmon, 70 Fed. Reg. 37,160, 37,161 (June 28, 2005). NMFS has designated near-shore areas as critical habitat for Puget Sound chinook, noting "[t]his unique, fjord-like ecosystem contains a variety of habitats with physical or biological features essential to Chinook and chum salmon conservation, ranging from deep water habitats used by subadult and adults for migration and foraging to shallow nearshore areas important for juvenile rearing and for migration." Designation of Critical Habitat for 12 ESUs of West Coast Salmon and Steelhead in Washington, Oregon, and Idaho, 70 Fed. Reg. 52,630, 52,637 (Sept. 2, 2005). NMFS specifically cited docks, dredging, and bank armoring as activities that would harm salmon habitat:

> We have defined the [primary constituent elements] for nearshore marine areas as being free of obstruction with water quality and quantity conditions and forage, including aquatic invertebrates and fishes, supporting growth and maturation; and natural cover such as submerged and overhanging large wood, aquatic vegetation, large rocks and boulders, and side channels. This area is also the zone containing important marine vegetation and cover (*e.g.*, eelgrass meadows and kelp forests) and in which salmon forage species reside (*e.g.*, surf smelt and sand lance). Activities potentially affecting [primary constituent elements] in this zone include the construction of overwater structures (*e.g.*, docks and piers), dredging and bank armoring.

Id. at 52,638 (citations omitted). Because the Gateway Pacific Terminal will harm all these aspects central to salmon critical habitat, the EIS must thoroughly analyze these impacts.

For endangered Southern Resident killer whales, NMFS has stressed that "even small effects" on individual whales must be "scrutinize[d]" because the population of Southern Resident killer whales is so precarious:

> The Southern Resident killer whale DPS has fewer than 90 members and a variable productivity rate. In NMFS' opinion, <u>the loss of a single individual</u>, or <u>the decrease in reproductive capacity of a single individual</u>, is likely to reduce appreciably the likelihood of survival and recovery of the [population].[50]

[50] Biological Opinion, Effects of the Pacific Coast Salmon Plan on the Southern Resident Killer Whales (*Orcinus orca*) Distinct Population Segment (May 5, 2009) at 56 (emphasis added). *Available at* https://pcts.nmfs.noaa.gov/pcts-web/dispatcher/trackable/NWR-2009-2298?overrideUserGroup=PUBLIC&referer=%2fpcts-web%2fpublicAdvancedQuery.pcts%3fsearchAction%3dSESSION_SEARCH.

Increased vessel traffic to and from Cherry Point will harm killer whales. "In recent decades, commercial shipping traffic has become a major source of low frequency (5 to 500 Hz) human-generated sound in the world's oceans (National Research Council 2003). The Georgia Basin and Puget Sound are among the busiest waterways in the world, with several thousand trips made per month by various types of commercial vessels." Recovery Plan for Southern Resident Killer Whales (*Orcinus orca*). The proposed Gateway Pacific Terminal will add approximately 480 additional bulk carriers to this already crowded (and loud) area of the Salish Sea.

Climate change itself, exacerbated by burning the coal exported from the proposed Gateway Pacific Terminal, will dramatically affect marine mammals and fish, including endangered killer whales. As the NMFS stated in its Recovery Plan for Southern Resident Killer Whales (*Orcinus orca*) (Jan. 17, 2008)[51]:

> Extensive climate change caused by the continuing buildup of human-produced atmospheric carbon dioxide and other greenhouse gases is predicted to have major environmental impacts along the west coast of North America during the 21st century and beyond. Warming trends in water and air temperatures are ongoing and are projected to disrupt the region's annual cycles of rain and snow, alter prevailing patterns of winds and ocean currents, and result in higher sea levels (Glick 2005, Snover et al. 2005). These changes, together with increased acidification of ocean waters, will likely have profound effects on marine productivity and food webs, including populations of salmon and other fish used as prey by Southern Resident killer whales.

The EIS must review all impacts, from prey availability to vessel effects to increased noise to toxic contamination to climate change, to endangered Southern Resident killer whales.

E. <u>Exporting Coal From the Gateway Pacific Terminal Will Cause More Coal to Be Burned, Adding to Global Climate Change.</u>

As discussed above, the impacts on global climate change from the mining, transportation, and ultimate burning of coal must be analyzed and reviewed in the EIS. This includes greenhouse gas emissions from transportation by train and by boat, greenhouse gas emissions from burning, and the impacts of those emissions on ocean acidification, reduced snowpack, flooding, summer droughts, increased forest fires, and the quality of coastal and near-coast habitat. As detailed in Exhibit 8, The Greenhouse Gas Impact of Exporting Coal from the West Coast: An Economic Analysis, Dr. Thomas M. Power, "the proposed coal export facilities in the Northwest will result in more coal consumption in Asia and undermine China's progress towards more efficient power generation and usage. Decisions the Northwest makes now will

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[51] *Available at* http://www.nwr.noaa.gov/Marine-Mammals/Whales-Dolphins-Porpoise/Killer-Whales/ESA-Status/upload/SRKW-Recov-Plan.pdf.

impact Chinese energy habits for the next half-century; the lower coal prices afforded by Northwest coal exports encourage burning coal and discourage the investments in energy efficiency that China has already undertaken. Approving proposed coal export facilities would also undermine Washington's commitment to reducing its own share of greenhouse gas emissions."

Climate change is already bringing harmful changes to Washington. Ocean acidification, sea level rise, warming stream temperatures, decreases in snow pack, changes in precipitation patterns, and increases in extreme weather events will increase as harmful impacts to Washington state unless the rate of emission of greenhouse gases into the atmosphere is significantly slowed. *See* Climate Impacts Group, Washington Climate Change Impacts Assessment (2009).[52] Construction and operation of a coal export terminal (or several coal export terminals throughout the region) is a large step in the wrong direction. The EIS must analyze the direct, indirect, and cumulative climate change impacts of this project and all other proposed coal export terminals in this region.

V. THERE IS AN OVERARCHING NEED FOR AN AREA-WIDE ENVIRONMENTAL IMPACT STATEMENT.

We are deeply concerned that Gateway Pacific and each of the other regional projects will go through environmental review without an opportunity to consider the bigger picture of what it means for the region if all the proposed terminals are built and operated. For example, while the Corps and other agencies will be required to consider the impacts of rail traffic on human health, traffic, and other system users in the context of individual projects, we think there needs to be a more robust public conversation around the cumulative and collective impacts of all of these projects. Specifically, we believe that the cumulative impacts of the various coal terminals should be evaluated in a single comprehensive area-wide environmental impact statement under the National Environmental Policy Act. Such a process will allow explicit consideration of the collective impacts of multiple, distinct decisions. It will also streamline individual environmental review by allowing site-specific EISs to tier to the area-wide EIS rather than conduct a cumulative impacts analysis anew for each project. As the Environmental Protection Agency noted, "[a]ll of these projects—and others like them—would have several similar impacts. Consider, for example, the cumulative impacts to human health and the environment from increases in greenhouse gas emissions, rail traffic, mining activity on public lands, and the transport of ozone, particulate matter, and mercury from Asia to the United States." Exh. LR-1 (EPA Comment on Port of Morrow project (April 5, 2012) recommending a "thorough and broadly-scoped" cumulative impacts analysis of all proposed coal export facilities).

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[52] Executive summary and supporting papers *available at* http://cses.washington.edu/cig/res/ia/waccia.shtml.

NEPA expressly contemplates the preparation of an area-wide EIS for situations just like this one, where an agency is facing multiple independent permitting decisions that have overlapping, shared, or cumulative impacts. *See Native Ecosystems Council v. Dombeck,* 304 F.3d 886 (9th Cir. 2002) ("A single NEPA review document is required for distinct projects when ... the projects are 'connected,' 'cumulative,' or 'similar' actions ..."); 40 C.F.R. § 1508.25 (mandating single EIS for separate independent actions under some circumstances); 40 C.F.R. § 1502.4(a), (c) (requiring a single EIS where proposals are "related to each other closely"). Federal guidance and courts sometimes refer to these reviews as "programmatic," while in other cases, they are called "area-wide" or "overview" EISs. The label is not important—it is the content of such an assessment that matters.

Courts have agreed that a single EIS is required for multiple discreet actions under some circumstances, for example, when the projects have common timing, geography, and/or impacts. *See, e.g., Blue Mountains Biodiversity Project v. Blackwood,* 161 F.3d 1208, 1215 (9th Cir. 1998) (multiple timber sales must be evaluated in a single EIS where the sales were reasonably foreseeable, in a single general area, disclosed at the same time, and developed as part of a comprehensive strategy); *Earth Island Inst. v. U.S. Forest Serv.,* 351 F.3d 1291 (9th Cir. 2003) (confirming that "similar actions"—i.e., actions which have similarities, such as common timing or geography, that warrant comprehensive review—must be considered in a single EIS if it is the "best way" to consider their impacts). Such circumstances exist here. We have previously requested an area-wide environmental review,[53] as has the federal Environmental Protection Agency (Exh. LR-1) and Oregon's Governor Kitzhaber (Exh. LR-36).

VI. THE CUMULATIVE IMPACTS OF ALL PROPOSED COAL EXPORT TERMINALS MUST BE CONSIDERED AND ANALYZED.

If an overarching, area-wide EIS is not undertaken, then each EIS for each proposed project must include review of the impacts of all other proposed projects. The courts have found that even where several actions were not "connected" or "similar" enough to warrant consideration in a single environmental impact statement, their impacts must still be addressed as cumulative impacts. *Earth Island Inst. v. U.S. Forest Serv.,* 351 F.3d 1291, 1306 (9th Cir. 2003) ("Even if a single, comprehensive EIS is not required, the agency must still adequately analyze the cumulative effects of the projects within each individual EIS.").

Under NEPA, an EIS must analyze and address the cumulative impacts of a proposed project. 40 C.F.R. § 1508.25(c)(3). A cumulative impact is defined as:

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[53] *See* Exhs. 113 and 114 (Earthjustice letters to Corps requesting an area-wide environmental impact statement on cumulative impacts of new coal terminals in Washington and Oregon (April 12 and June 7, 2012).

> [T]he incremental impacts 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.

40 C.F.R. § 1508.7. In other words, cumulative impacts are the result of any past, present, or future actions that are reasonably certain to occur within the action area. Such effects "can result from individually minor but collectively significant actions taking place over a period of time." *Id.* In the coal context, the U.S. Supreme Court has held that, "when several proposals for coal-related actions that will have cumulative or synergistic environmental impacts upon a region are pending concurrently before an agency, their environmental consequences must be considered together. Only through comprehensive consideration of pending proposals can the agency evaluate different courses of action." *Kleppe v. Sierra Club*, 427 U.S. 390, 409-410 (U.S. 1976).

VII. THE EIS MUST ANALYZE A REASONABLE RANGE OF ALTERNATIVES, INCLUDING A MEANINGFUL NO-ACTION ALTERNATIVE.

The range of alternatives "is the heart of the environmental impact statement." 40 C.F.R. § 1502.14. It is well understood that "NEPA requires that an agency 'rigorously explore and objectively evaluate all reasonable alternatives.'" *Utahns for Better Transp. v. Dept. of Transp.*, 305 F.3d 1152,1168 (10th Cir. 2002) *quoting* 40 C.F.R. § 1502.14(a), *modified on rehearing Utahns for Better Transp. v. Dept. of Transp.*, 319 F.3d 1207 (2003). The alternatives discussed should provide different choices from which decisionmakers and the public can make an informed choice after considering the environmental effects of the alternatives. *See Westlands Water Dist. v. U.S. Dep't of Interior*, 376 F.3d 853 (9th Cir. 2004). The range of alternatives should also "include reasonable alternatives not within the jurisdiction of the lead agency," and "include appropriate mitigation measures not already included in the proposed action or alternatives." 40 CFR § 1502.14.

In addition to the need for thorough consideration of the impacts of constructing the Gateway Pacific Terminal, the EIS must consider the option of not constructing the export facility at all. Among the alternatives that must be considered in an EIS is the "no action" alternative. 40 C.F.R. § 1502.14(d). Indeed, "[i]nformed and meaningful consideration of alternatives—including the no action alternative—is ... an integral part of the statutory scheme." *Bob Marshall Alliance v. Hodel,* 852 F.2d 1223, 1228 (9th Cir.1988). The evaluation of the no action alternative cannot be a meaningless exercise. To satisfy NEPA, the EIS must consider this alternative without prejudgment of the outcome of its analysis. "[F]ull and meaningful consideration of the no-action alternative can be achieved only if all alternatives available ... are developed and studied on a clean slate." *Bob Marshall Alliance v. Lujan,* 804 F. Supp. 1292, 1297-98 (D. Mont. 1992). The need to develop project alternatives, including the no action alternative, on a clean slate is especially important given the history of this project, including its

first controversial permit in the 1990s and its failure to date to complete the required mitigation for that first, much smaller, non-coal export terminal.

VIII. TRIBAL GOVERNMENT SOVEREIGNTY MUST BE RESPECTED.

Most proposed coal terminals, including Gateway Pacific, will be sited within the "usual and accustomed" fishing areas of Pacific Northwest Indian tribes, which have a sovereign government-to-government relationship with the U.S. federal government. Gateway Pacific Terminal would be built within historic shell-fishing areas of the Lummi and Nooksack tribes—and on top of the spawning grounds of a critically important population of Puget Sound herring, which in turn sustains the local salmon population on which the tribes rely. Under federal court precedent, the tribes are "co-managers" of these resources along with the state. *See U.S. v. Washington,* 384 F. Supp. 312 (W.D. Wash. 1974). Lummi Indian Nation leaders have publically announced their opposition to the Gateway Pacific Terminal. *See* Lummi Nation leaders come out against Gateway Pacific coal terminal project, The Bellingham Herald (Sept. 21, 2012), *available at* http://www.bellinghamherald.com/2012/09/21/2700524/lummi-nation-leaders-come-out.html.

The Cherry Point terminal site is also considered a significant cultural site and an ancestral burial ground by the people of the Lummi tribe. Their claim to the site's historical significance extends back hundreds of years, as it was a village site where the Lummi have fished, gathered and lived for over 175 generations. Cherry Point (Xwe'chi'eXen) is listed on the Washington state heritage register of culturally significant places. Additionally, for thousands of years before European settlement, Lummi people fished at Cherry Point. The Lummi developed a unique reefnet technology to harvest salmon at the site while limiting bycatch, and the sites traditionally used for this purpose are protected by treaty and are considered both critical economic resources and historically significant areas. The Lummi people are also signatories to the Point Elliot Treaty of 1855, which guaranteed the Lummi and several other Coast Salish first nations access to traditional fishing and gathering sites. The threat posed by the coal terminal proposal to salmon habitat and fishery stocks has the potential to significantly impact the treaty and inherent rights of the Coast Salish tribes to their traditional way of life.

Other Northwest tribes have already expressed concern about proposed coal terminals. In a comment letter to the Corps regarding the Morrow project in Boardman, the Yakama Nation characterized coal export proposals in the Columbia as a "new front… in the war on the Yakama way of life," describing in detail the risks to salmon, the safety of tribal fishermen, human health, water quality, and cultural resources. Exh. 29. The Nez Perce have also commented on the Morrow project, requesting that the Corps perform an EIS and assess cumulative impacts, citing concerns about "Tribal treaty rights, ESA-listed fish and lamprey and their habitat, Tribal traditional use areas along the coal transportation corridor, tribal cultural resources, and Tribal member health arising from coal dust and diesel pollution." Exh. 30.

The Columbia River Inter-Tribal Fish Commission (CRITFC), which represents four Sovereign Tribal Nations (the Warm Springs, Confederated Tribes of Umatilla Indian Reservation, Yakama Nation, and Nez Perce) with treaty rights to salmon and other fish on the Columbia River, has also expressed opposition to the coal export proposals. In a comment letter on the Morrow Pacific Project, CRITFC stated that it has heard "significant concerns from our member tribes about the project's potential effects on tribal treaty fisheries." Exh. 31. CRITFC noted that "the proposed project area is currently used for fishing by tribal members exercising their treaty fishing rights" and the area "is also within lands designated as Traditional Cultural Property (TCP) and may contain significant cultural resources." The Affiliated Tribes of Northwest Indians have called for full environmental review and government-to-government consultation with Indian tribes throughout the region. Exh. 27. The Northern Cheyenne Indian Tribe has expressed concern over the years about the impacts the proposed railroad and related coal-mining activities would have on the health, wellbeing, culture, and sacred sites of the tribe. Nine members of the Northern Cheyenne Tribe recently traveled 1,300-miles roundtrip to a public comment session in Spokane, Washington to voice their opposition to the mine, railroad, and Gateway Pacific Terminal. The concerns of these Indian nations and tribal members must be taken into account, and we request that the Corps initiate formal consultation to speak directly to all the affected tribes.

IX. ENVIRONMENTAL JUSTICE CONCERNS

All federal agencies are encouraged to consider environmental justice in their NEPA analysis, evaluate disproportionate impacts, and identify alternative proposals that may mitigate these impacts. The fundamental policy of NEPA is to "encourage productive and enjoyable harmony between man and his environment." In considering how to evaluate progress in reaching these aspirational goals, the Council on Environmental Quality (CEQ) defined effects or impacts to include "ecological...aesthetic, historic, cultural, economic, social or health impacts, whether direct, indirect or cumulative."[54] Recognizing that these types of impacts might disproportionately affect different communities or groups of people, President Clinton issued Executive Order 12898 in 1994,[55] directing each federal agency to, among other things:

- "Make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations,"

[54] CEQ, Environmental Justice: Guidance Under the National Environmental Policy Act, December 10, 1997, *available at* http://ceq.hss.doe.gov/nepa/regs/ej/justice.pdf.

[55] "Federal actions to address environmental justice in minority populations and low-income populations," 59 Fed. Reg. 7629 (Executive Order 12898; February 11, 1994).

- "Identify differential patterns of consumption of natural resources among minority populations and low-income populations,"
- Evaluate differential consumption patterns by identifying "populations with differential patterns of subsistence consumption of fish and wildlife," and
- "Collect, maintain, and analyze information on the consumption patterns of populations who principally rely on fish and/or wildlife for subsistence."

CEQ's Guidance for Environmental Justice under NEPA[56] called for agencies to consider specific elements when considering environmental justice issues:

- Agencies should consider the composition of the affected area, to determine whether minority populations, low-income populations, or Indian tribes are present in the area affected by the proposed action, and if so whether there may be disproportionately high and adverse human health or environmental effects on minority populations, low-income populations, or Indian tribes.
- Agencies should consider the potential for multiple or cumulative exposure to human health or environmental hazards in the affected population and historical patterns of exposure to environmental hazards. Agencies should consider these multiple, or cumulative effects, even if certain effects are not within the control or subject to the discretion of the agency proposing the action.
- Agencies should recognize the interrelated cultural, social, occupational, historical, or economic factors that may amplify the natural and physical environmental effects of the proposed agency action. These factors should include the physical sensitivity of the community or population to particular impacts; the effect of any disruption on the community structure associated with the proposed action; and the nature and degree of impact on the physical and social structure of the community.
- Agencies should be aware of the diverse constituencies within any particular community. Agencies should seek tribal representation in the process in a manner that is consistent with the government-to-government relationship between the United States and tribal governments, the federal government's trust responsibility to federally-recognized tribes, and any treaty rights.

The EIS must examine the environmental justice impacts flowing from this project. Several low-income or minority communities stand to be disproportionately impacted by the coal export terminal, the rail transportation of coal from the Powder River Basin, and the mining of the coal. As discussed above, traditional tribal lands will be affected by the Gateway Pacific project. The Lummi Indian Nation has stated that the terminal will fall completely within, and unreasonably interfere with, an area of active tribal fishing and gathering. Furthermore, the

[56] CEQ, Environmental Justice: Guidance Under the National Environmental Policy Act, December 10, 1997, *available at* http://ceq.hss.doe.gov/nepa/regs/ej/justice.pdf.

Lummi Nation will be impacted by coal dust and air emissions from the construction and operation of the terminal. Tribes along the rail route and in the area of increased mining will be impacted by the proposed railroad and the increased mining associated with this project.

The EIS must include demographic information for all communities at the Port and along the rail lines that would ship coal to the port, as well as at the mine sites. Communities closest to the port site, along the rail line, and near the mines—many of which are low income or have high minority populations—will bear a disproportionate impact of the air and water pollution caused by coal transportation and export, as described above. Some of these communities and neighborhoods might include: South Seattle, Spokane, Spokane Valley, Millwood, Cheney, WA, and Lame Deer, Ashland, Birney, Muddy Cluster, Hardin, Crow Agency, Billings South Side neighborhood, and Busby, Montana, among others. These environmental justice issues further underscore the need to conduct a health impact assessment of the project, as called for by health professionals in Whatcom County.

* * *

Thank you for your consideration of these scoping comments and the supporting materials in the enclosed CDs. There is an extraordinary level of public interest in this process; the harmful impacts caused by the proposed coal export terminal will occur at the local, regional, and global scale; and the federal and state laws emphasize a thorough, up-front review of all the environmental effects of proposed actions. We reiterate our request for an area-wide environmental impact statement to fully address the direct, indirect, and cumulative impacts of all proposed coal export projects in the Pacific Northwest. For the Gateway Pacific Terminal in particular, we look forward to a Draft EIS that the full direct, indirect, and cumulative impacts of the proposed Gateway Pacific Terminal from the mining of the coal in the Powder River Basin, the transport of coal by rail through several states and hundreds of communities, the loading and shipping of coal via large ocean vessels, to the burning of the coal in Asia.

Sincerely,

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Executive Director
Oregon Physicians for Social Responsibility

SCOPING COMMENTS FROM CLIMATE SOLUTIONS *ET AL.*
ON PROPOSED GATEWAY PACIFIC COAL TERMINAL FACILITY AND
CUSTER SPUR RAIL EXPANSION PROJECT
(JANUARY 18, 2013)

INDEX OF LR EXHIBITS

Governmental agencies, elected officials, ports, tribal nations, professional groups, and community leaders have called for a rigorous, transparent, and comprehensive study of the coal port proposals; many have also declared their opposition to the idea of exporting coal. Concerns in this compilation of letters and resolutions include public health, economic vitality, quality of life, and the environment.

Exhibit No.	Title	Date
LR-1	Letter from Kate Kelly, Director of Office of Ecosystems, Tribal and Public Affairs, U.S. Environmental Protection Agency, Region 10	April 5, 2012
LR-2	Letter from U.S. Congressmen Adam Smith and Jim McDermott	May 9, 2012
LR-3	Letter from U.S. Senator Patty Murray	June 13, 2012
LR-4	Letter from U.S. Senator Jeff Merkley	July 18, 2012
LR-5	Letter from Ted Sturdevant, Director, Washington State Department of Ecology	May 7, 2012
LR-6	Letter from Kristin Swenddal, Aquatic Resources Division Manager, Washington State Department of Natural Resources	March 30, 2012
LR-7	Letter from Jerry Masters, Chair, Northwest Straits Commission	July 11, 2012
LR-8	Letter from Andy Billig, State Representative, State of Washington House of Representatives	March 15, 2012
LR-9	Letter from Richard Ford, State of Washington Transportation Commission	June 25, 2012
LR-10	Letter from Senator Kevin Ranker, et al., State of Washington State Legislature	November 3, 2011

LR-11	City of Bainbridge Island, Washington, Mayor and City Council Proclamation	October 12, 2011
LR-12	Bellingham, Washington, Mayor and City Council Resolution No. 2012-22	July 27, 2012
LR-13	Letter from Dan Pike, Mayor of City of Bellingham, Washington	June 14, 2011
LR-14	Letter from Edward J. Brunz, Mayor of City of Burlington, Washington	July 14, 2011
LR-15	Camas, Washington, Mayor and City Council Resolution No. 1235	March 6, 2012
LR-16	Letter from Clark Co., Washington, County Commissioners	June 21, 2012
LR-17	Letter from Don McDermott, Chairman, Dallesport-Murdock, Washington, Community Council	November 21, 2011
LR-18	Edmonds, Washington, Mayor and City Council Resolution No. 1263	November 22, 2011
LR-19	Letter from Joan Bloom, Edmonds City Council	June 15, 2012
LR-20	Letter from King County Executive Dow Constantine	January 31, 2012
LR-21	Letter from Kurt Anagnostou, Mayor of City of Longview, Washington	August 16, 2011
LR-22	City of Marysville, Washington, Mayor and City Council Resolution No. 2325	May 14, 2012
LR-23	Letter from City of Mount Vernon, Washington, Mayor and City Council	September 29, 2011
LR-24	Letter from City of Mukilteo, Washington, Mayor and City Council	April 16, 2012
LR-25	Letter from City of Olympia, Washington, Mayor and City Council	May 30, 2012
LR-26	Letter from Pierce Co., Washington, County Executive	July 23, 2012
LR-27	San Juan County, Washington, Democratic Party Resolution	June 2, 2012

LR-28	Letter from San Juan Co., Washington, County Council	June 26, 2012
LR-29	Letter from Skagit County, Washington, Board of Commissioners	July 28, 2011
LR-30	Spokane, Washington, City Council Resolution No. 2012-0052	Undated
LR-31	Stevenson, Washington, Mayor and City Council Resolution No. 2012-250	May 17, 2012
LR-32	Thurston Co., Washington, County Commissioners Resolution No. 14779	August 7, 2012
LR-33	Vancouver, Washington, Mayor and City Council Resolution No. M-3778	July 16, 2012
LR-34	Washougal, Washington, Mayor and City Council Resolution No. 1048	March 19, 2012
LR-35	Whatcom County, Washington, Democratic Party Resolution	June 2, 2012
LR-36	Letter from Oregon Governor John Kitzhaber, M.D.	April 25, 2012
LR-37	The Dalles, Oregon, Mayor Resolution No. 12-013	September 24, 2012
LR-38	Eugene, Oregon, City Council Resolution No. 5065	October 24, 2012
LR-39	Hood River, Oregon, Mayor and City Council Resolution No. 2012-15	April 23, 2012
LR-40	Letter from Mosier, Oregon, Mayor and City Council	Undated
LR-41	Milwaukie, Oregon, Mayor and City Council Resolution No. 55-2012	October 16, 2012
LR-42	Letter from Jeff Cogen, County Chair, Multnomah Co., Oregon	June 8, 2012
LR-43	Letter from Sam Adams, Mayor, Portland, Oregon	May 2, 2012
LR-44	Portland, Oregon, Resolution No. 36959	September 19, 2012
LR-45	Sandpoint, Idaho, Mayor and City Council Resolution No. 12-22	April 18, 2012

LR-46	Letter from Katherine Hague-Hausrath, City Commissioner, Helena, Montana	Undated
LR-47	Letter from Garon Smith, Chair, Missoula, Montana, City-County Air Pollution Control Board	May 17, 2012
LR-48	Letter from Walter A. Archer, Chair, Northern Plains Resource Council	March 22, 2012
LR-49	Letter from Mike Koopal, Executive Director, Whitefish Lake Institute	July 5, 2012
LR-50	Affiliated Tribes of Northwest Indians Resolution No. 12-53	Sept. 24-27, 2012
LR-51	Letter from Babtist Paul Lumley, Executive Director, Columbia River Inter-Tribal Fish Commission	May 7, 2012
LR-52	Letter from Eric Quaempts, Director, Confederated Tribes of the Umatilla Indian Reservation	March 28, 2012
LR-53	Letter from Brooklyn Baptiste, Chairman, the Nez Perce Tribe	May 3, 2012
LR-54	Letter from Violet Yeaton, Tribal Caucus Co-Chair, Region 10 Regional Tribal Operations Committee	May 15, 2012
LR-55	Letter from Harry Smiskin, Tribal Council Chairman, Confederated Tribes & Bands of theYakama Nation	May 3, 2012
LR-56	Letter from Linda Fergusson, President/CEO, the Burlington Chamber of Commerce	Undated
LR-57	Letter from Kevin Ware, et al., the Port of Skagit, Washington	September 13, 2011
LR-58	Port of Skamania County, Washington, Resolution No. 8-2012	May 22, 2012
LR-59	Letter from Gretchen Rupp, P.E., Chair, Gallatin County Board of Health	August 7, 2012
LR-60	King County Academy of Family Physicans Resolution	February 2012
LR-61	Position Statement from Concerned Oregon Physicians	Undated
LR-62	Letter from Amber Waldref, Chair, Spokane Regional Health District Board of Health	May 24, 2012

LR-63	Letter from religious leaders	Undated
LR-64	City of Seattle Resolution No. 31379	June 6, 2012
LR-65	Missoula, Montana, City Council Resolution No. 7701	May 21, 2012
LR-66	Bellingham City Council Resolution No. 19810	January 8, 2013
LR-67	Bellingham City Council Resolution No. 19809	January 14, 2013
LR-68	Letter from Larry Phillips, Councilmember, King County Council	May 24, 2012
LR-69	Letter from Skagit County Board of Commissioners	January 3, 2013
LR-70	Letter from U.S. Senator Maria Cantwell	July 3, 2012
LR-71	Letter from Representative Reuven Carlyle, et al., State of Washington House of Representatives	November 7, 2012
LR-72	Letter from Dennis Weber, Mayor of City of Longview	June 18, 2012
LR-73	Metro Council Resolution No. 12-436A	September 2012
LR-74	Letter from Amber Waldref and Jon Synder, Spokane City Council	March 14, 2012
LR-75	Letter from Sean Guard, Mayor, City of Washougal	July 17, 2012
LR-76	Letter from City of Mount Vernon Mayor and City Council	December 12, 2012
LR-77	Letter from Virgil Clarkson, Mayor, City of Lacey	June 28, 2012
LR-78	Letter from City of Helena Mayor and Commissioners	June 7, 2012
LR-79	Columbia Gorge Windsurfing Association Resolution No. 2012-01	April 19, 2012
LR-80	Letter from Lee Rafferty, Vancouver's Downtown Association	July 2, 2012
LR-81	Letter from Anne Montgomery, M.D., President, Washington Academy of Family Physicians	August 13, 2012
LR-82	Letter from Bruce G. Lisser, President, Skagit Regional Health	November 1, 2012

LR-83	Letter from Debra J. Clemens, Associate Superintendent, Cheney Public Schools	March 13, 2012
LR-84	Letter from Bob Apple, former Spokane City Councilmember	March 15, 2012
LR-85	Democratic Caucus of San Juan County Resolution	April 15, 2012
LR-86	Letter from Steve Revella, Chair, San Juan Marine Resources Committee	February 28, 2012
LR-87	Columbia County Democratic Central Committee Resolution	2012
LR-88	Washington State Democratic Party Resolution	May 20, 2012
LR-89	Western Washington University Resolution	November 2011
LR-90	University of Puget Sound Resolution	Undated
LR-91	Letter from Bishop Martin D. Wells, Evangelical Lutheran Church in America	March 12, 2012
LR-92	Letter from Paula Hammond, Secretary of Transportation, Washington State Department of Transportation	July 23, 2012
LR-93	City of Portland Resolution No. 36962	October 4, 2012
LR-94	Letter from Suzan Delbene, Member of Congress, Congress of the United States House of Representatives	January 16, 2013

SCOPING COMMENTS FROM CLIMATE SOLUTIONS *ET AL.*
ON PROPOSED GATEWAY PACIFIC COAL TERMINAL FACILITY AND
CUSTER SPUR RAIL EXPANSION PROJECT
(JANUARY 18, 2013)

INDEX OF EXHIBITS

Exhibit No.	Title	Date
1	Columbia Riverkeeper et al. comments to DSL regarding removal-fill permit application #APP0049123	October 31, 2012
2	Lockage Data from U.S. Army Corps of Engineers	Undated
3	Scott Learn, *New Dawn fuel barge ran aground in the Columbia River, response was confusion, report says,* The Oregonian	June 20, 2010
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5	New York Daily News, *Barge collision in Mississippi River causes oil spill*	February 18, 2012
6	Columbia Gorge Windsurfing Association Resolution No. 2012-01	April 19, 2012
7	National Wildlife Federation Report, *The True Cost of Coal: The Coal Industry's Threat to Fish and Communities in the Pacific Northwest*	2012
8	Dr. Thomas M. Power, *The Greenhouse Gas Impact of Exporting Coal from the West Coast – An Economic Analysis*	Undated
9	Mike Gorrell, *Arch Coal's port purchase could help Utah mines*, The Salt Lake Tribune	January 13, 2011
10	Utah Department of Natural Resources, Table 2.1: U.S. Recoverable Coal Reserves at Producing Mines by State, 1994-2010	2011-2012

11	Millennium Bulk Terminals – Longview LLC, Press Release Re *Millennium Bulk Terminals-Longview Submits Permits to Revitalize Brownfield Port Facility in Longview*	February 23, 2012
12	Sayeh Tavangar, *Some shippers not complying with BNSF coal dust tariff*, Platts Energy Week, WUSA 9	November 3, 2011
13	AMI Environmental, *AERMOD Modeling of Air Quality Impacts of the Proposed Morrow Pacific Project* – Final Report	October 2012
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15	U.S. Environmental Protection Agency, *Integrated Science Assessment for Particulate Matter* (EPA/600/R-08/139F)	December 2009
16	Power Past Coal video, *Paddle Past Coal! Columbia River Anti-Coal Paddle*	October 23, 2012
17	*In Re: Reasonableness of BNSF Railway Company Coal Dust Mitigation Tariff Provisions* (Finance Docket No. 35557). Opening Evidence and Argument of Western Coal Traffic League et al.	October 1, 2012
18	U.S. Environmental Protection Agency Region 10, comments on Permit Application NWP-2012-56	April 5, 2012
19	Oregon Governor John Kitzhaber's letter requesting that a federal agency prepare a comprehensive, programmatic EIS of the impacts of projects that would transport coal to the West Coast, including the effects of using that coal to produce energy	April 25, 2012
20	Daniel A. Lashof et al., Natural Resources Defense Council, *Coal in a Changing Climate*	February 2007
21	Washington State Department of Natural Resources comments on Permit Application NWP-2012-56	March 30, 2012
22	Washington State Department of Ecology comments on Permit Application NWP-2012-56	May 7, 2012

23	City of Portland, Oregon, Resolution to adopt a policy opposing coal trains traveling through the City of Portland until an area-wide EIS is completed	September 13, 2012
24	City of Hood River, Oregon, Resolution No. 2012-15	April 23, 2012
25	City of The Dalles, Oregon, Resolution No. 12-013	September 24, 2012
26	Kirk Johnson, *Tribes Add Potent Voice Against Plan for Northwest Coal Terminals*, New York Times	October 11, 2012
27	Affiliated Tribes of Northwest Indians Resolution No. 12-53	Sept. 24-27, 2012
28	Press Release: Northwest Tribes say no short-cuts for coal export proposals	September 27, 2012
29	Confederated Tribes and Bands of the Yakama Nation comments on Permit Application NWP-2012-56	May 3, 2012
30	Nez Perce Tribal Executive Committee comments on Permit Application NWP-2012-56	May 3, 2012
31	Columbia River Inter-Tribal Fish Commission comments on Permit Application NWP-2012-56	May 7, 2012
32	Region 10 Regional Tribal Operations Committee comments on Permit Application NWP-2012-56	May 15, 2012
33	Confederated Tribes of the Umatilla Indian Reservation comments on Permit Application NWP-2012-56	March 28, 2012
34	Sterlin Woodard PowerPoint, *AP-42 Continuous Drop Equation vs Stack Testing*, Southeastern Region IV Permitting Workshop	May 9-11, 2007
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61	S.L. Huntley, N.L. Bonnevie, and R.J. Wenning, *Polycyclic Aromatic Hydrocarbon and Petroleum Hydrocarbon Contamination in Sediment from the Newark Bay Estuary, New Jersey*, Arch. Environ. Contam. Toxicol.	1995
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