COLUMBIA LAW SCHOOL
SABIN CENTER FOR CLIMATE CHANGE LAW

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Millennium Bulk Terminals NEPA EIS
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Re: NEPA Review for proposed Millennium Bulk Terminals—Longview coal export terminal

Dear Colonel Buck:

The Sabin Center for Climate Change Law submits these comments on the draft environmental impact statement ("DEIS") for the proposed Millennium Bulk Terminals—Longview coal export terminal. Our comments focus on the scope of greenhouse gas ("GHG") emissions and climate change impacts that should be considered by the U.S. Army Corps of Engineers ("Corps") in its environmental review of this project.

The proposed action involves the construction of a coal export terminal with the capacity to transport 44 million metric tons of coal per year. This is precisely the sort of project that calls for a thorough analysis of GHG emissions and thoughtful consideration of whether the construction of such infrastructure is consistent with the need to reduce global GHG emissions by phasing out the use of fossil fuels, both domestically and internationally, in order to avoid catastrophic climate change. In addition, the proposed terminal is vulnerable to the impacts of climate change – such as flooding and reduced river flows – and the Corps should consider the implications of these impacts for the environmental consequences of the project. These recommendations are consistent with the U.S. Council on Environmental Quality ("CEQ") guidance on considering climate change in NEPA reviews.[1]

[1] CEQ, *Final Guidance for Federal Departments and Agencies on the Consideration of Greenhouse Gas Emissions and the Effects of Climate Change in National Environmental Policy Act Reviews* (Aug. 1, 2016).

Specifically, we recommend that the Corps consider the following issues in its final EIS ("FEIS") for the proposed action:

(1) The Corps should account for upstream emissions from the production and rail transport of coal that will be exported via the Millennium Bulk Terminal, as well as downstream emissions from the shipping and end-use of the coal.

(2) The Corps should disclose the cost of both direct and indirect GHG emissions, both because this is a useful metric for decision-makers and because the Corps has monetized the economic benefits of the proposal (and it would be arbitrary and capricious and misleading to decision-makers to monetize benefits without also monetizing costs).

(3) The Corps should consider whether the construction of this terminal is consistent with policies, plans, and programs aimed at reducing both domestic and international GHG emissions.

(4) The Corps should consider how the local impacts of climate change in Washington State and Cowlitz County may affect the construction and operation of the project, and in particular, whether these impacts may increase the risk of environmental harm caused by the project or necessitate future repairs or reconstruction of the project (which would entail additional environmental impacts).

Each recommendation is discussed in detail below.

1. Accounting for Upstream and Downstream GHG Emissions

The DEIS only evaluates GHG emissions from construction, operation and transport activities that occur on-site or within the general vicinity of the project. The GHG inventory includes emissions from rail transport on 7.1 miles of offsite rail lines, and vessel transport from the project site to the mouth of the Columbia River (approximately 60 miles). It does not include several key sources of indirect emissions, specifically: (1) emissions from the combustion of coal that is transported through the facility, (2) emissions from the production of coal that is transported through the facility, (3) emissions from the rail transport of the coal from mining sites to the export facility, and (4) emissions from the vessel transport of the coal to end-use locations.

We recommend that the Corps account for these upstream and downstream emissions in the FEIS for this proposal. This approach would be consistent with the requirements of the National Environmental Policy Act ("NEPA"), as they have been interpreted by the Council on Environmental Quality ("CEQ") and federal courts.

NEPA requires agencies to evaluate both direct and indirect environmental effects from projects. Indirect effects are "caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable."[2] Such effects include "growth inducing effects related to

[2] 40 C.F.R. § 1508.8(b)

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."[3]

In 2016 CEQ issued final guidance explaining how this requirement should apply to GHG emissions. The guidance states that agencies should account for the GHG impacts of connected actions, which include "[a]ctivities that have a reasonably close causal relationship to the Federal action, such as those that may occur as a predicate for agency action or as a consequence of the agency."[4] To illustrate the scope of analysis for connected actions, the guidance notes that "NEPA reviews for proposed resource extraction and development projects typically include the reasonably foreseeable effects of various phases in the process, such as clearing land for the project, building access roads, extraction, transport, refining, processing, using the resource, disassembly, disposal, and reclamation."[5] The guidance also notes that the indirect effects of a federal lease sale of coal for energy production would include emissions from the combustion of the coal.[6] In addition, the guidance directs agencies to a study of lifecycle greenhouse gas emissions from coal and natural gas as an example of the type of resource that should be used to evaluate indirect emissions.[7] CEQ's interpretation of NEPA is entitled to substantial deference,[8] and is consistent with the case law on indirect effects and GHG emissions.[9]

The CEQ guidance does not contain explicit directives for fossil fuel transportation projects, but there are two appellate court decisions holding that coal transportation projects should account for upstream and downstream emissions. In *Mid States Coalition for Progress v. Surface Transportation Board,* the 8th Circuit Court of Appeals held that the Surface Transportation Board ("STB") must account for the air quality and GHG effects from induced coal consumption that would occur as a result of the construction of a coal rail line.[10] Several years later, in *Northern Plains Council v. Surface Transportation Board,* the 9th Circuit Court of Appeals held that STB is also required to evaluate emissions and other environmental impacts from coal mines

[3] *Id.*
[4] CEQ (2016) at 13.
[5] *Id.* at 14.
[6] *Id.* at 16, FN 42.
[7] *Id.* at 16, FN 43.
[8] Robertson v. Methow Valley Citizens Council (1989) 490 U.S. 332, 355 (1989); Andrus v. Sierra Club, 442 U.S. 347, 358 (1979).
[9] Since 2014, there have been five district court decisions regarding the scope of downstream emissions that must be evaluated in NEPA reviews for proposals involving the extraction of coal. In four of these cases, the courts determined that the responsible agencies failed to take the requisite "hard look" at downstream emissions from the combustion of the coal. In the fifth case, the court held that the agency's analysis of downstream emissions was adequate, in part because the agency had already disclosed emissions from coal combustion. High Country Conservation Advocates v. United States Forest Serv., 52 F. Supp. 3d 1174 (D. Colo. 2014) (USFS must consider downstream emissions from coal combustion); Dine Citizens Against Ruining Our Env't v. United States Office of Surface Mining Reclamation & Enf't, 82 F. Supp. 3d 1201 (D. Colo. 2015) (OSM must consider downstream emissions from coal combustion); WildEarth Guardians v. United States Office of Surface Mining, Reclamation & Enf't, 104 F. Supp. 3d 1208, 1230 (D. Colo. 2015) (OSM must consider downstream emissions from coal combustion); WildEarth Guardians v. U.S. Office of Surface Mining, Reclamation & Enf't, No. CV 14-103-BLG-SPW, 2015 WL 6442724 (D. Mont. Oct. 23, 2015) report and recommendation adopted in part, rejected in part sub nom. Guardians v. U.S. Office of Surface Mining, Reclamation & Enf't, No. CV 14-103-BLG-SPW, 2016 WL 259285 (D. Mont. Jan. 21, 2016) (OSM failed to take hard look at environmental impacts when issuing FONSI, including downstream GHG emissions); WildEarth Guardians v. OSM, No. 12-CV-85-ABJ (D. Wyoming 2015) (OSM's analysis was adequate because OSM quantified emissions from coal combustion).
[10] Mid States Coal. for Progress v. Surface Transp. Bd., 345 F.3d 520, 549 (8th Cir. 2003).

in the environmental review of rail lines constructed to service those coal mines.[11] A coal export terminal serves the same function as a coal rail line: it transports coal from production sites to markets. Thus, the holdings in these cases are directly applicable to the proposed action.[12]

Demonstrating that such analysis is feasible, many federal agencies have begun to account for upstream and downstream emissions in their NEPA reviews. For example, the United States Forest Service ("USFS") conducted a life cycle assessment for an oil and gas leasing decision in 2013, which quantified emissions from transport, refining, and end-use.[13] In 2015, USFS prepared a revised DPEIS for the Colorado Roadless Rule coal mining exemptions that included a much more detailed analysis of GHG emissions from mining, transportation (both within the U.S. and to overseas markets) and combustion.[14] The Bureau of Land Management ("BLM") also recently published an EIS in which it acknowledged that "the burning of the coal is an indirect impact that is a reasonable progression of the mining activity"[15] and quantified emissions from combustion.[16]

The fact that the Washington State DEIS for this same action does consider upstream and downstream emissions[17] provides further evidence that these emissions are reasonably foreseeable consequences that should be accounted for in the Corps' environmental review. The Washington State Department of Ecology's indirect emissions analysis included: (i) emissions from the domestic and international transport of the coal and (ii) a market analysis to evaluate the impact of the coal on coal consumption and natural gas consumption. The department concluded that the overall increase in these indirect emissions could be as high as 31 million tons of CO_2e on an annual basis and 442 million tons of CO_2e for the period 2021-2038.[18] This figure dwarfs the Corps' overall GHG emissions estimate (63,167 tons CO_2e annually and 926,866 tons CO_2e from 2018-2038).

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[11] N. Plains Res. Council, Inc. v. Surface Transp. Bd., 668 F.3d 1067, 1080 (9th Cir. 2011).

[12] There are several D.C. Circuit decisions holding that the Federal Energy Regulatory Commission ("FERC") is not required to evaluate upstream and downstream emissions when conducting NEPA reviews for the construction of liquefied natural gas ("LNG") export terminals, because the Department of Energy ("DOE") has the sole authority to authorize LNG exports. Sierra Club v. Fed. Energy Regulatory Comm'n, 827 F.3d 59 (D.C. Cir. 2016); Sierra Club and Galveston Baykeeper v. Fed. Energy Regulatory Comm'n, 827 F.3d 36 (D.C. Cir. 2016); EarthReports Inc. v. Fed. Energy Regulatory Comm'n, 828 F.3d 949 (D.C. Cir. 2016). The factual circumstances underpinning those cases can thus be distinguished from the circumstances underpinning the Corps' NEPA review of the Millennium Bulk terminal, since there is no other federal agency with intervening authority to authorize or prohibit the export of coal from this terminal.

[13] U.S. FOREST SERV., RECORD OF DECISION AND FINAL ENVIRONMENTAL IMPACT STATEMENT, OIL AND GAS LEASING ANALYSIS, FISHLAKE NATIONAL FOREST 169 (Aug. 2013) (Table 3.12-7: GHG emissions from transportation, offsite refining and end-use are 299,627 MT CO_2e; total direct and indirect emissions are 365,336 MT CO_2e). *See also id.,* Appendix E/SIR-2 (more detailed calculations of direct and indirect emissions).

[14] U.S. FOREST SERV., RULEMAKING FOR COLORADO ROADLESS AREAS, SUPPLEMENTAL DRAFT ENVIRONMENTAL IMPACT STATEMENT (Nov. 2015) at 33.

[15] BUREAU OF LAND MGMT., FINAL SUPPLEMENTAL ENVIRONMENTAL IMPACT STATEMENT FOR THE LEASING AND UNDERGROUND MINING OF THE GREENS HOLLOW FEDERAL COAL LEASE TRACT, UTU-84102, 287 (Feb. 2015).

[16] *Id.* at 286.

[17] WASHINGTON STATE DEPARTMENT OF ECOLOGY AND COWLITZ COUNTY, DRAFT ENVIRONMENTAL IMPACT STATEMENT FOR THE MILLENNIUM BULK TERMINALS—LONGVIEW (2016) at 5.8-14.

[18] *Id.* These figures are a based on an "upper bound" scenario in which global coal consumption remains high and domestic coal exports are attractive to international markets. This is not a worst case scenario, but rather a continuation of business-as-usual in terms of international coal consumption.

Omitting these indirect emissions from the FEIS would provide federal decision-makers with an incomplete and inaccurate picture of the total GHG footprint of that project. We thus recommend that the Corps either incorporate the State analysis into its FEIS or conduct its own analysis of upstream and downstream GHG emissions. The Corps does not necessarily need to conduct a net impact analysis for emissions from coal combustion – it could simply use an emissions factor to quantify combustion emissions for all coal that is transported through the terminal. This would avoid some of the uncertainties associated with attempting to estimate the impact of coal exports on coal markets, and would still provide valuable information to the decision-makers.

2. Disclosing the Costs of GHG Emissions

In addition to quantifying direct and indirect emissions, the Corps should consider assigning a monetary value to those emissions based on the federal Social Cost of Carbon ("SCC") and federal estimates for the social cost of methane and nitrous oxide. This would provide a useful metric for decision-makers, who may better understand the actual impacts of GHG emissions when those impacts are presented as costs rather than tons of CO_2e.

This recommendation is consistent with federal case law holding that GHG costs should be monetized when other costs and benefits are monetized. In *Center for Biological Diversity v. NHTSA*, the 9th Circuit Court of Appeals held that it was arbitrary and capricious for an agency to ignore the impacts of GHG emissions in a regulatory impact analysis, even when there is uncertainty about those impacts: "[W]hile the record shows there is a range of values, the value of carbon emissions reduction is certainly not zero."[19] More recently, in *High Country Conservation Advocates v. USFS*, a district court in Colorado required the use of the federal SCC in a cost-benefit analysis underpinning the approval of federal coal leases.[20] Since the Corps has assigned a monetary value to the economic benefits of the proposed action,[21] it should also assign a monetary value to the costs of direct and indirect GHG emissions.

3. Evaluating Whether the Proposed Action is Consistent with Polices, Plans, and Programs Aimed at Domestic GHG Reductions

The regulations implementing NEPA require federal agencies to consider whether a proposed action is consistent with the objectives of federal, regional, state and local land use plans, policies and controls.[22] Based on this requirement, CEQ's final guidance on NEPA and climate change instructs agencies to provide a frame of reference for decision-makers by disclosing the extent to which a project's GHG emissions are consistent with the goals of Federal, state, and local climate change policies.[23]

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[19] Ctr. for Biological Diversity v. Nat'l Highway Traffic Safety Admin., 538 F.3d 1172, 1200 (9th Cir. 2008).

[20] High Country Conservation Advocates v. United States Forest Serv., 52 F. Supp. 3d 1174, 1190-91 (D. Colo. 2014).

[21] U.S. ARMY CORPS OF ENGINEERS, DRAFT ENVIRONMENTAL IMPACT STATEMENT, MILLENNIUM BULK TERMINALS – LONGVIEW (2016), Section 4.2, Social and Community Resources.

[22] 40 C.F.R. § 1502.16(c). *See also* 40 C.F.R. § 1506.2(d) (where there is an inconsistency with state or local plans or laws, the statement "should describe the extent to which the agency would reconcile its proposed action with the plan or law").

[23] CEQ (2016) at 28-29. We recognize that federal GHG reduction policies may change under the next administration, but at the time of this writing, it is unclear how or whether these policies will change.

Consistent with this guidance, the Corps has used federal and state GHG reduction targets to provide a frame of reference of understanding the magnitude of the GHG emissions that were quantified in the DEIS.[24] We would encourage the Corps to conduct the same analysis once it has compiled a more complete GHG inventory that accounts for upstream and downstream emissions. We also recommend that the Corps incorporate one additional metric into its analysis: specifically, the commitment the U.S. and other nations have made to limit global warming to "well below" a 2 °C increase above pre-industrial temperatures, and seek to limit it to 1.5 °C.[25] When evaluating whether the proposed export terminal is consistent with this goal, the Corps can refer to literature describing the "carbon budget" and the amount of fossil fuels that must be left in the ground to meet the target.[26]

4. Considering Whether Climate Change May Affect the Environmental Consequences of the Proposed Action

The Corps' DEIS acknowledges that sea level rise is occurring, but omits mention of other climate change impacts that could materially affect the project's construction and operation. Specifically, large variations in precipitation and snow melt—leading to both extremely low water levels, changing patterns of sedimentation, and floods—and wildfires are all more likely as a result of climate change.[27] As the Washington State EIS explains, each of these impacts could bear directly on the project:[28]

- **Low water levels.** The project's viability turns on the Columbia River's water level remaining above a particular threshold with sufficient consistency. That level fluctuates not only with tides and sea level, but also with precipitation and snow melt. Climate change promises to make these latter factors less predictable, and in turn threatens to push water levels below the minimum threshold with greater frequency.

- **Flooding.** The Corps' own 2014 report, *Mount St. Helens Long-Term Sediment Management Plan Update*, acknowledges (without exploring in any detail) that more extreme precipitation events and faster-accumulating sediment in the Columbia River are possible effects of the changing climate in the Pacific Northeast.[29] Rail lines indispensable to the project would be susceptible to the effects of such flooding. Flooding could cause the release of coal and coal dust into the ambient environment: this risk should be considered in the EIS.

- **Wildfires.** Hotter temperatures, longer summers, and earlier snowmelt all combine to heighten the risk of wildfire in the region surrounding the project area. As the

[24] CORPS DEIS (2016), Section 6.8.
[25] *Paris Agreement, Article 2*, FCC/CP/2015/L.9 (Dec. 12, 2015).
[26] According to a recent scientific study, 80% of global coal reserves, 50% of gas reserves, and about 30% of oil reserves must remain unused to meet a 2 °C target. Christophe McGlade & Paul Ekins, *The Geographical Distribution of Fossil Fuels Unused When Limiting Global Warming to 2 ℃*, 517 NATURE 187 (2015).
[27] *See* P. Mote et al., Ch. 21: Northwest, in Climate Change Impacts in the United States: The Third National Climate Assessment. U.S. Global Change Research Program, 487-513 (2014).
[28] Cowlitz County & Washington State Dep't of Environmental Protection, Millennium Bulk Terminals Longview Draft Environmental Impact Assessment 5.8-30 through -32 (Apr. 2016), http://bit.ly/2gqXy70.
[29] U.S. Army Corps of Engineers (Portland District), Mount St. Helens Long-Term Sediment Management Plan Update (Aug. 2014), http://bit.ly/2g2LbsS.

> Washington State DEIS notes, wildfire frequency has grown, and is expected to grow substantially more in the coming decades, and to bring with it potential service disruptions to rail lines and to operations in the project area itself.[30]

Any of these impacts could result in the need to repair or reconstruct the terminal and associated infrastructure, and the construction activities associated with repairs would generate additional environmental impacts. Because an EIS must consider future circumstances as well as current ones, the Corps errs in omitting these risk factors from its DEIS.

5. Conclusion

Now more than ever, it is critically important for federal agencies to consider whether proposals pertaining to the expansion of fossil fuel production and transportation infrastructure are consistent with our GHG reduction goals. To accomplish this, federal agencies must have a complete picture of the GHG emissions that will be generated if these proposals are approved, as well as the corresponding costs of those emissions. In light of current emissions trajectories, it is also important for federal agencies to consider how climate change may affect proposed infrastructure projects and whether these effects may have implications for the environmental consequences of the project. We therefore submit these recommendations aimed at improving the analysis of GHG emissions and climate change impacts in the FEIS for the Millennium Export Terminal – Longview project.

Thank you for considering these recommendations. If you have any questions, please do not hesitate to contact us.

Sincerely,

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[30] WASHINGTON STATE DEIS (2016) at 5.8-32.