UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
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OFFICE OF THE REGIONAL ADMINISTRATOR

November 29, 2016

Colonel John Buck
Millennium Bulk Terminals NEPA EIS
c/o ICF International
710 Second Avenue, Suite 550,
Seattle, WA 98104

Dear Colonel Buck:

The U.S. Environmental Protection Agency has reviewed the U.S. Army Corps of Engineers' September 2016 Millennium Bulk Terminals - Longview Draft Environmental Impact Statement (Corps DEIS), (EPA Region 10 Project Number: 13-0034-COE). We conducted our review according to EPA's responsibilities under the National Environmental Policy Act (NEPA) and Section 309 of the Clean Air Act. Section 309 specifically directs the EPA to review and comment in writing on the environmental impacts associated with all major federal actions. Our review of the Corps DEIS considers the expected environmental impacts of the proposed action and whether the EIS meets the procedural and public disclosure purposes of NEPA. For the reasons described below, we are rating the Corps DEIS "3" - Inadequate.

Millennium Bulk Terminals - Longview, LLC (Applicant) is proposing to construct and operate an export terminal in Cowlitz County, Washington, along the Columbia River. The export terminal would receive coal from the Powder River Basin in Montana and Wyoming, and the Uinta Basin in Utah and Colorado via rail shipment. The proposed export terminal would receive, stockpile, blend, and load coal onto vessels for export to Asia. The terminal would have a maximum annual throughput capacity of up to 44 million tons of coal per year.

The Applicant is required to obtain a Department of the Army authorization, pursuant to Section 10 of the Rivers and Harbors Act of 1899 and Section 404 of the Clean Water Act, to construct the export terminal. The Corps' decision to issue, issue with conditions, or deny permits for activities associated with construction and operation of the proposed export terminal is a Federal Action requiring NEPA review. The Corps determined the proposed export terminal may have significant individual or cumulative impacts on the human environment and that an Environmental Impact Statement (EIS) was therefore required under NEPA. The Corps DEIS evaluates the effects of the proposed export terminal on the built, natural, and operational environments.

The EPA has been participating with the Corps as a Cooperating Agency on this EIS since 2014. As a Cooperating Agency, the EPA provided feedback on preliminary EIS documents. We appreciate the Corps' efforts to engage the EPA as a Cooperating Agency and note our ongoing goal to provide perspective and expertise that contributes to high-quality NEPA and permitting processes.

As explained in more detail below, and as the EPA has consistently stated throughout the Corps' NEPA process, the Corps DEIS is flawed because it fails to consider significant adverse impacts from the project, and thus fails to achieve the fundamental purpose of NEPA to take a "hard look" at the potential environmental impacts of the project. The EPA's 2013 scoping comments recommended that the Corps DEIS evaluate a broad range of potential environmental impacts because of the magnitude of this project and the significant interest from local populations and tribal communities. The EPA has continued to urge the Corps to take a broader look since that date.

Despite the repeated recommendations from the EPA and others with expertise on the subject, the Corps has adopted an inappropriately narrow scope for its review of this project, leading the Corps to omit from its analysis significant and reasonably foreseeable environmental impacts associated with this project. Because of this incomplete analysis, the Corps will be unable to render an informed permit decision. Informed decisions are a central purpose of NEPA. NEPA and the Council on Environmental Quality's *Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act* require that the Corps' EIS examine both direct effects in the immediate vicinity of the proposed terminal and indirect effects "which are caused by the action and are later in time or further removed in distance, but are still reasonably foreseeable." 40 CFR § 1508.8(b). The Corps DEIS, by confining the analysis to the immediate vicinity of the port area, fails to adequately analyze a variety of potentially significant indirect effects.

The explicit purpose of the project is to "construct and operate a terminal for the transfer of western U.S. coal from rail to ocean-going vessels for export to Asia."[1] That there will be additional trains carrying coal from the western U.S. to the proposed terminal on existing rail and that the coal will be transported to Asia for combustion are not remote possibilities or speculative outcomes of the project. Rather, impacts from these causally related activities are not just reasonably foreseeable, they are the definite result of the proposed project. Failing to consider the environmental impacts of these activities, and their impacts within the United States, omits from consideration essential information to inform the Corps' permitting decisions as well as to inform the very active public discussion.

Significant Impacts

The Corps in this case has recent and directly relevant information about many of the impacts of permitting the proposed terminal, based on the DEIS for this project prepared by the State of Washington. The State DEIS analyzed many of the issues that EPA has been recommending the Corps consider, and for a number of these issues concluded that the project impacts would be significant and adverse. Although the State's analysis is not complete, and does not consider certain impacts at the scale that the Corps should undertake, the State's analysis demonstrates that some of the impacts caused by the project, but not examined by the Corps, will be significant. The State DEIS is therefore instructive for evaluating the Corps' effects analysis.

The most significant impacts that the Corps should have considered are briefly summarized below; more details on these topics are contained in the enclosure.

[1] Corps DEIS, p. ES-3.

Air Quality

The Corps' and State's air quality modeling at and near the terminal show substantial predicted increases in pollution concentrations for some criteria air pollutants. While both the Corps and State EISs deserve further attention with regard to air pollution impacts at and near the terminal,[2] the fact that there would be substantial predicted air pollution increases at and near the terminal is reason to analyze for potential air pollution impacts outside of the terminal's immediate area. Given that the Corps DEIS does not evaluate air quality impacts outside of the terminal's immediate area, the public and decision makers have no means to determine whether there would be air pollution impacts along the full route. This is a substantial omission because increased PM2.5 from locomotives could create significant issues for communities that experience high PM2.5 concentrations during winter inversion events. The additional emissions from locomotives could cause or contribute to exceedances of the National Ambient Air Quality Standards (NAAQS), which are designed to protect public health, including sensitive populations such as asthmatics, children, and the elderly.

We strongly recommend that the Corps EIS include an air quality analysis along the full route with a focus on communities where there is potential for new violations of the NAAQS, that are in an existing maintenance area under the Clean Air Act, that have known diesel particular matter or air toxics problems, or that are home to sensitive, low income or minority populations. This is an issue where the Corps EIS cannot depend on the State DEIS, as the State's method for analyzing air impacts outside of the terminal's immediate area does not fully focus on the above factors.[3]

Vehicle Transportation

We are concerned that project-related train traffic at at-grade crossings has the potential to cause substantial vehicle delays, both near the terminal and along the full transport route. We are concerned about substantial vehicle delays because vehicles provide transportation to work, school, public services and for recreational and commercial purposes, and, because vehicle delays may affect emergency response and result in increased emissions from idling vehicles, potentially affecting air quality near crossings.

Within the Corps DEIS's scope of analysis, we are concerned that predicted, potentially substantial peak hour vehicle delays would occur at six of the eight intersections near the terminal.[4] We are also concerned that all six of these intersections are located in a low income and minority area. Given that these potential impacts would occur in an area home to low income and minority populations, we recommend that the Corps EIS analyze whether predicted - near terminal - potentially substantial peak hour vehicle delays would disproportionately impact these populations.

We are also concerned about vehicle delay impacts along the full route of coal transport from the point of extraction. We note that two of the State DEIS's study crossings with the largest increase in vehicle delay - Pine Road-SR 27 and Park Road in Spokane County[5] - are located in a low income area.[6] We

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[2] See "Air Quality – Prevention of Significant Deterioration Increment Consumption" in the enclosed, detailed comments

[3] See EPA's State DEIS Air Quality comments. Available online at: http://www.millenniumbulkeiswa.gov/Comments/MBTL-SEPA-DEIS-0003306.html.

[4] Corps DEIS, p. 6.3-21.

[5] State DEIS, Table 5.3-39.

[6] As identified using the EPA's tool EJScreen. Accessed online 11/29/16 at: https://www.epa.gov/ejscreen

recommend that the Corps DEIS include additional information on whether vehicle delays at these two crossings and any other at-grade crossings along the full route would be potentially significant. For any identified adverse impacts, we recommend consideration of whether they would be disproportionately adverse for low income and/or minority populations. Consider incorporating information from the State DEIS by reference and conducting Level of Service, vehicle queue, emergency services, and community access analyses for intersections with the potential for large increases in vehicle delay.

Rail Transportation

The State DEIS finds that the Proposed Action would contribute to predicted rail capacity exceedances - i.e., congested rail corridors - along several rail segments both inside and outside of Washington State. Within Cowlitz County, the State DEIS concludes that project-related coal trains would lead to rail capacity exceedances between, for example, Vancouver, Washington and the Longview Junction.[7] The State DEIS also discloses that project-related trains would contribute to predicted rail capacity exceedances at key potential chokepoints - between Pasco and Spokane, Washington and between Spokane, Washington and Sandpoint, Idaho.[8]

Rail capacity exceedances are a concern because they indicate potential impacts, such as delay, on all movement by rail, including passenger trains and the movement of commercial goods, with corresponding impacts on the regional economy. Rail capacity exceedances are also a concern because they indicate a need for improvements that have the potential to cause their own adverse impacts.

The Corps DEIS's narrow study area overlooks the State DEIS's identified rail capacity problems. To address this problem, we recommend that the Corps DEIS incorporate information from the State DEIS and add information on the potential adverse impacts of exceeding capacity in rail segments along the full route, including impacts on the transportation of passengers and commercial goods, and effects on regional economic activity.

We suggest that the Corps EIS also consider whether likely necessary improvements - for example, adding main track, sidings, expanding yards or grade separation projects - could adversely affect communities or the environment, and what mitigation could be proposed to address any such impacts.

As with all analysis of mitigation, it is useful to include consideration of the likelihood that proposed mitigation would be implemented, and, if implemented, how effective that the mitigation is likely to be.

Rail Safety

The State DEIS finds that increased rail traffic caused by the project will lead to a 22% increase in rail accident risk in Washington State. Such a large increase in accident risk is a serious matter for communities and sensitive resources along rail lines. We note that the potential consequences of catastrophic accidents heighten when the overall mix of train traffic reflects growth trends for oil and passenger trains. The analysis in the State DEIS demonstrates that this is a significant issue within

[7] State DEIS, p. 5.1-17.
[8] State DEIS, p. 5.1-20.

Washington; the Corps should look at this issue not only within Washington, but for the entire length of the rail lines that are known routes for increased train traffic caused by this project.

Greenhouse Gas Emissions

Greenhouse gas (GHG) emissions contribute to global climate change, which is causing real and predictable impacts in the United States. Climate change is a serious concern that falls squarely within the requirement of NEPA to consider environmental impacts. For projects that indirectly but foreseeably cause increased emissions of greenhouse gases, agencies must evaluate and quantify those emissions as part of a reasonable NEPA review, as has recently been confirmed by the CEQ Guidance.[9] CEQ's recent document offers guidance to federal agencies in carrying out the statutory obligations imposed by NEPA. NEPA's obligations exist independent of the Guidance, but Guidance provides useful consistency and clarity in implementing already existing statutory and regulatory obligations.

The State DEIS finds that the project's projected contribution to GHG emission impacts would be significant and adverse.[10] At full operation, the terminal would export 44 million tons of coal each year, which when combusted would produce approximately 90 million metric tons of CO_2e per year. The State DEIS's economic analysis estimates the amount of GHG attributable to the project, and modeled emissions in the State analysis range from 2.5 million metric tons CO_2e to 31 million metric tons CO_2e per year.[11] By confining its GHG analysis to the immediate project area and excluding coal transport from points of extraction, transport to Asia, and end-use combustion, the Corps' analysis misses the biggest impacts. We recommend that the Corps either adopt the State's analysis in the Corps' NEPA review, or conduct its own analysis.

Noise

The Corps DEIS concludes that this project would lead to severe noise impacts for 60 residences near the terminal,[12] but fails to look for serious noise impacts along the entire route. Noise impacts - here primarily from train horns - are a concern generally because sound is a fundamental component of daily life and very high noise levels interfere with a broad range of human activities, such as communication or sleep. The Corps DEIS also concludes that horn noise from project-related trains on the Reynolds Lead during operations would have a disproportionately high and adverse effect on minority and low income populations in the Highlands neighborhood of Longview, Washington.[13]

Given that the project would lead to significant noise impacts and disproportionately adverse noise impacts for low income and minority populations, we are concerned that the Corps DEIS provides no

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[9] *Final Guidance for Federal Departments and Agencies on Consideration of Greenhouse Gas Emissions and the Effects of Climate Change in National Environmental Policy Act Reviews*. Accessed online 11/28/16 at: https://www.whitehouse.gov/sites/whitehouse.gov/files/documents/nepa_final_ghg_guidance.pdf.

[10] State DEIS, GHG Factsheet, p. 4. Accessed online 11/28/16 at: http://www.millenniumbulkeiswa.gov/assets/15.-ghg-fact-sheet.pdf.

[11] 31 million metric tons of CO2e per year is equivalent to emissions from 9 coal fired power plants or about 7,500,000 passenger vehicles per year. EPA GHG Equivalency Calculator. Accessed online 11/28/16 at: https://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator.

[12] Corps DEIS, p. 6.5-25.

[13] Corps DEIS, Environmental Justice Factsheet.

information on the potential for noise impacts along the full route. To address our concern about potential noise impacts along the full route of coal transport we recommend the Corps EIS include site-specific analysis of potential noise impacts near at-grade crossings along the full route.

Also, according to the Corps DEIS, the Applicant proposes to "...fund additional electronics, barricades, and crossing gates to convert the crossings to 'quiet crossings."[14] To improve decision makers' and the public's understanding of the likelihood that the Applicant will implement the proposed minimization and mitigation measures for noise, we recommend that the Corps EIS include additional information on the degree to which the Department of Army permit makes these measures enforceable.

Appropriate Scope

In defining a scope of analysis that omits serious impacts caused by this project, the Corps DEIS does not fulfill the basic purposes of NEPA. In addition to the plain meaning of the CEQ and Corps regulations, we also have court decisions that provide guidance on the appropriate factors to consider regarding the scope of a NEPA effects analysis. In determining whether aspects outside of the direct jurisdiction of the approving agency are relevant, the key factors courts look at include whether there is a reasonably close causal relationship between the effects and a proposal, and whether the information would be useful to decision making. Department of Transportation v. Public Citizen, 541 U.S. 752, 766-68 (2004).

While the Corps' permitting authority is limited to its regulatory jurisdiction, including its public interest review, the obligations of NEPA extend beyond the limits of the Corps' direct jurisdiction and are intended to inform the Corps' exercise of that jurisdiction. The Corps' public interest review evaluates a proposed activity to determine whether issuance of a permit is in the public interest.[15] Expected benefits are balanced against reasonably foreseeable detriments, and all relevant public interest factors are weighed - including national and regional concerns. For public interest factors to be weighed, they first need to be identified and considered.

Here, the Corps concluded in its "Scope of Analysis" memo that "the environmental consequences of upland elements of the project may be considered products of the Corps permit action," and thus should be included in the NEPA review.[16] Although the Corps also concluded that increased rail traffic, shipping coal overseas, and the burning of exported coal was outside the Corps' control and responsibility, they appear to be inescapable "environmental consequences" of the project. Analyzing their effects would provide important, useful information to decision makers and a keenly interested public.[17]

Moreover, the reasonably close causal relationship between these activities and the proposed export facility is made clear not only by the causal relationships established in-depth throughout the State

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[14] Corps DEIS. p. 8-15.

[15] See 33 CFR § 320.4.

[16] "Scope of Analysis and Extent of Impact Evaluation for MBTL NEPA EIS" (2014), p. 5 (applying Corps regulations at 33 CFR Part 325, Appendix B).

[17] See, e.g., South Fork Band Council of Western Shoshone v. United States DOI, 588 F.3d 718 (9th Cir. 2009) (agency consideration of mine project should include indirect effects from ore transport and off-site processing).

DEIS, but also the Corps DEIS itself, which concludes, "[c]urrently, the existing West Coast terminals cannot serve the demand for coal overseas."[18] Without this terminal, the Corps DEIS is saying, this coal would not be traveling on the rail lines from western coal regions; the additional congestion, safety, and air quality impacts along the rail routes would not occur; and the coal would not be shipped overseas and combusted in Asia to add to the worsening problem of climate change. The Corps' permits and the project should thus be considered a legally relevant cause of those impacts. The obligation under NEPA to take a "hard look" is not satisfied when there are significant impacts for which no analysis at all has been conducted.[19]

Because the Corps' analysis of effects is much too limited, the Corps DEIS does not adequately assess the potentially significant environmental impacts of the proposal. Therefore, we are rating the Corps DEIS "3" - Inadequate. This rating indicates EPA's conclusion that the Corps DEIS does not meet the purposes of NEPA. The identified additional information that is necessary is of such a magnitude that it should have full public review at a draft stage. We recommend that the Corps address all of the comments and formally revise the DEIS and make it available for public comment again before proceeding to a Final EIS. One reasonable course may be to adopt the relevant analysis performed by the State in its EIS, and add to that analysis as needed to cover the full scope of the project's impacts.

Additional comments, including additional details on air quality and greenhouse gas emissions are enclosed.

We look forward to meeting with the Corps to discuss these comments, answer questions, and assist with next steps. I invite you to contact Christine Littleton, Manager of the Environmental Review and Sediment Management Unit at (206) 553-1601 or by electronic mail at littleton.christine@epa.gov.

Sincerely,

Michelle Pirzadeh

Dennis J. McLerran for
Regional Administrator

Enclosures:

U.S. Environmental Protection Agency Detailed Comments on the Millennium Bulk Terminals September 2016 Draft Environmental Impact Statement

U.S. Environmental Protection Agency Rating System for Draft Environmental Impact Statements

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[18] Corps DEIS, p. D-4

[19] EPA has expertise on environmental impacts and NEPA. A number of court decisions interpreting the scope of NEPA and the appropriate consideration of environmental impacts, including some that involve the Corps, acknowledge this expertise and note with interest when EPA has weighed in on project impacts – either in agreement or disagreement with the proposing agency – in reaching a decision. See, e.g., White Tanks v. Corps, 563 F.3d 1033, 1042 (9th Cir. 2009) ("[W]hen other federal agencies suggest to the Corps that the Corps has inappropriately failed fully to consider the effects of a project, this court is more likely to find that the Corps has acted in an arbitrary and capricious manner.").

U.S. ENVIRONMENTAL PROTECTION AGENCY DETAILED COMMENTS ON THE MILLENNIUM BULK TERMINALS SEPTEMBER 2016 DRAFT ENVIRONMENTAL IMPACT STATEMENT

Inconsistent Scopes of Analysis

The scope of impact analysis is inappropriately narrow, as explained elsewhere in this comment letter. In addition to an overly narrow scope, the Corps DEIS also makes the error of considering a broader scope of benefits than impacts. This large imbalance inappropriately skews the analysis in favor of the benefits, and inappropriately de-emphasizes potential adverse impacts. For example, in describing the proposal's economic and social benefits, a broad scope is articulated:

> The terminal would result in economic and fiscal benefits to the local area, Cowlitz County, and Washington. There would be benefits beyond the project area because the terminal would support ship networks operating on the Columbia River and rail networks in Washington State. As illustrated in Table 4.2-12, operation of the terminal would generate approximately 135 jobs. Based on data provided by the Applicant, these jobs would generate an additional 165 indirect and induced local and regional jobs with approximate wages of $9 million and total economic output of $21 million.[1]

In contrast, the Corps DEIS uses much narrower scopes of analysis for the proposal's potential adverse impacts. For potential environmental justice impacts, the Corps DEIS's study area includes, for example, "...the area within .5 miles of the Reynolds Lead and BNSF Spur rail corridor."[2] This study area falls far short of considering impacts in all of Cowlitz County or across Washington State. There are significant concerns described elsewhere in this comment letter about air, noise and vehicle delay impacts outside of the very narrow study area defined by the Corps. It is not appropriate to consider that the proposal supports "rail networks in Washington State" and then exclude analysis of potential adverse rail related impacts across the same area for which benefits are claimed. By broadly stating statewide benefits and then explicitly excluding potential adverse effects from the very same activity that is the source of those benefits, the DEIS inappropriately skews understanding of the project's overall impacts.

The approach the Corps has taken here is inconsistent with the Corps' NEPA Implementation Procedures for the Regulatory Program, which state, "[the] scope of analysis used for analyzing both impacts and alternatives should be the same scope of analysis used for analyzing the benefits of a proposal."[3]

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[1] Corps DEIS, p. 4.2-25.
[2] Corps DEIS, p. 4.2-2.
[3] Accessed online 10/31/16 at:
http://www.poa.usace.army.mil/Portals/34/docs/regulatory/33%20CFR%20Part%20325%20Appendix%20B%20.pdf.

Air Quality

Prevention of Significant Deterioration Increment Consumption

The Clean Air Act requires that both maximum allowable concentrations (National Ambient Air Quality Standards (NAAQS)) and maximum allowable air pollution increases (Prevention of Significant Deterioration (PSD) Increments) not be exceeded.[4] The NAAQS protect public health and welfare, including sensitive populations such as asthmatics, children, and the elderly. Prevention of Significant Deterioration Increments prevent the air quality in clean areas from deteriorating to the level set by the NAAQS. States are required to establish air quality programs, including permitting programs, to ensure that NAAQS are met and PSD increments are not exceeded.

While the DEIS does consider whether operational emissions would violate any NAAQS, it does not sufficiently disclose the project's potential contribution to an exceedance of maximum allowable air pollution increases - PSD increments. The Corps DEIS is not sufficient with regard to air pollution increases because it only reports model outputs. It does not provide any analysis to help decision makers and the public understand the potential significance of the modeled increases. For example, according to the Corps DEIS, the concentration increase for the 24-hour PM10 impact is 66 ug/m^3, "...or about 44% of the PM10 NAAQS."[5] While these are useful data, they do not sufficiently disclose the impact because there is no analysis to help decision makers and the public understand whether increasing PM10 pollution 44% of the PM10 NAAQS is potentially significant.

To disclose the impact in a way that decision makers and the public can understand, we recommend the Corps EIS note that the project's modeled 24-hour PM10 impact would exceed an allowable amount under the Clean Air Act's requirements for PSD. The allowable Class II 24-hour PSD increment for PM10 is 30 ug/m^3. This project's 24-hour modeled PM10 impact is 66 ug/m^3.[6] Exceeding the PSD increment represents a significant degradation of air quality that the State would have to remedy.[7]

Consideration of the allowable PSD increment is a useful and valid analytical approach for determining and disclosing the level of this and other projects' air impact - even if the project is not subject to a PSD permit where a demonstration of increment compliance is required. PSD increments are useful even when a PSD permit is not required because they help decision makers and the public understand the level of impact. If a project's air pollution exceeds the PSD increment, then the air impact of a project would be potentially significant and the State would likely need to impose additional emission controls to restore the increment.[8]

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[4] See 42 U.S.C Chapter 85 (I) Part C (i) Section 7473 (a). Accessed online 10/14/16 at: https://www.gpo.gov/fdsys/pkg/USCODE-2013-title42/html/USCODE-2013-title42-chap85-subchapI-partC-subparti-sec7473.htm.

[5] Corps DEIS, Table 6.6-8.

[6] Corps DEIS, Table 6.6-8.

[7] (3) *Required plan revision.* If the State or the Administrator determines that a plan is substantially inadequate to prevent significant deterioration or that an applicable increment is being violated, the plan shall be revised to correct the inadequacy or the violation. The plan shall be revised within 60 days of such a finding by a State or within 60 days following notification by the Administrator, or by such later date as prescribed by the Administrator after consultation with the State. 40 CFR 51.166(a)(3).

[8] *Id.*

We are also concerned that the project's modeled 24-hour modeled PM10 could be disproportionately high and adverse impact for an environmental justice population. The Corps DEIS's PM10 modeling, which shows an amount of increased air pollution exceeding an allowable amount under the Clean Air Act, includes all project area sources and study area sources, including "...vessels arriving and departing from the terminal, assist tugs, plus trains arriving and departing from the terminal, to approximately 5 miles out."[9] This air quality study area overlaps areas with minority and low income communities.[10]

The Corps DEIS fails to recognize that the project's 24-hour modeled PM10 impact represents a potentially significant adverse air quality impact. As a result, the Corps DEIS does not analyze potential disproportionately high and adverse air pollution impacts on environmental justice communities. To address our concern, we recommend that the EIS respond to our comments above on Prevention of Significant Deterioration Increment Consumption and then revise the environmental justice analysis to address potential adverse air quality impacts.

Train Emissions Outside of the Study Area

The Corps DEIS does not analyze potential air quality impacts beyond the study area ("vessels arriving and departing from the export terminal, assist tugs, plus trains arriving and departing from the terminal, to approximately 5 miles out").[11] The locomotive and/or vessel emissions from the Proposed Action could potentially result in meaningful pollution or health risk increases for people and communities outside of the terminal's immediate area. It is particularly important to consider whether the increased PM2.5 from locomotives could create significant issues for communities elsewhere along the rail route that experience high PM2.5 concentrations during winter inversion events. The additional emission loads from locomotives could cause or contribute to exceedances of the NAAQS.

To address our train emission concerns, we recommend that the EIS's air quality analysis include additional information on potential air pollution impacts to communities that: have potential for new violations of NAAQS; are in an existing maintenance area; have known diesel particulate matter or air toxics problems; or are home to low income and minority populations. Analysis of impacts along the entire rail line may identify similar concerns in other states.

General Conformity

The Corps DEIS's comparison of construction emissions to General Conformity thresholds for an ozone maintenance area is problematic and misleading for decision makers and the public. First, conformity does not apply because this area is not, nor has ever been, a nonattainment area or a maintenance area. Second, if conformity were required, all emissions from construction and operations would need to be included, not just the construction emissions. We note that including operations, which would be required if this was a non-attainment or maintenance area, would likely lead to exceeding the conformity threshold. To address this concern, we recommend deleting the comparison to ozone maintenance area General Conformity thresholds. The air quality analysis will be more appropriate and consistent if it focuses on the Clean Air Act's requirements not to exceed maximum allowable concentrations (NAAQS) or maximum allowable increases (PSD increments). Problematic use of conformity thresholds

[9] Corps DEIS, p. 6.6-14.
[10] Corps DEIS, Figure 4.2-4 Minority and Low Income Communities.
[11] Corps DEIS, p. 6.6-15.

reduces the clarity of the EIS's air quality information and is potentially misleading for decision makers and the public.

Criteria and Toxic Pollutant Emissions from the Electricity Sector

U.S. electricity sector emissions of sulfur dioxide, nitrogen oxide, and mercury may be affected by significant exports of U.S. coals. Sulfur dioxide pollution, for example, can harm the human respiratory system, and, trees and plants and can react with other compounds to reduce visibility. The State's coal market analysis demonstrates that the total amount and types of coal used in the U.S. may meaningfully change because of increased export. In particular, under certain conditions, U.S. consumption of low-sulfur Powder River Basin coal decreases while higher sulfur coal consumption increases. EPA's analyses of regulations that affect the electricity sector show that small changes in the emission of these pollutants may have important health and ecological impacts. If projected changes in the emissions of these pollutants is available from the coal market analysis conducted for the State DEIS, the Corps EIS should report this information. Also, because the extent of these changes may differ across regional electricity markets, emission changes at the regional level should be reported.

Greenhouse Gas Emissions

The State DEIS found that the project's projected contribution to greenhouse gas emissions impacts would be significant and adverse.[12] As part of its analysis, the State DEIS considered the reasonably foreseeable impacts on GHG emissions from this project, and noted that 44 million tons of coal would pass through the proposed terminal at full operation. This would sharply increase coal export from the U.S. (considering that the U.S. exported 74 million short tons of coal in 2015).[13] The analysis in the State DEIS concluded that combustion emissions from 44 million tons of coal would be approximately 90 million tons of CO_2e per year.

The State DEIS also included an economic analysis to estimate the amount of GHG emissions that would be attributable to this project and modeled four economic and policy scenarios. This kind of analysis is appropriate and important for large projects where the impact on GHG emissions is potentially very significant. The scenarios modeled in the SEPA DEIS produced estimates of GHG emissions attributable to this project as high as 31 million metric tons of CO_2e per year.[14] The State DEIS concludes that the more likely scenario would result in estimated annual emissions attributable to the project of 3.2 million metric tons of CO_2e in 2028.[15] Although these estimates vary considerably, they indicate overall that the GHG emissions impact of the project is equivalent to emissions of somewhere between 1 and 9 coal fired power plants every year.[16]

The Corps DEIS inappropriately limits its GHG emissions discussion to the immediate area of the terminal and thus fails to include large sources of GHG emissions causally related to the project. The

[12] State DEIS Greenhouse Gas Emissions Fact Sheet. Accessed online 11/9/16 at: http://www.millenniumbulkeiswa.gov/assets/15.-ghg-fact-sheet.pdf.
[13] Accessed online 11/8/2016 at: *https://www.eia.gov/forecasts/steo/report/coal.cfm.*
[14] State DEIS, Table 5.8-8.
[15] State DEIS, p. 5.8-19.
[16] EPA's GHG equivalencies calculator. Accessed online 11/23/16 at: https://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator.

Corps EIS should include the project's much larger estimated contributions to GHG emissions - coal transport from points of extraction, transport to Asia, and end-use combustion. The analysis of GHG emissions is one of the notable areas in which the Corps' overly narrow scope fails to identify for decision makers the reasonably foreseeable environmental impacts of this action.

The obligation to consider climate change as part of a NEPA analysis is based in the NEPA statute and CEQ regulations. This point has recently been underscored by the Council on Environmental Quality's Final Guidance on Greenhouse Gases and Climate Change, "Climate change is a fundamental environmental issue, and its effects fall squarely within NEPA's purview."[17]

By failing to account for the vast majority of the project's greenhouse gas emissions and thus contribution to climate change and its serious impacts in the United States, the DEIS fails to provide useful information to decision makers and the public. This very significant environmental impact of the project should be among the impacts considered in the public interest review of the Corps' permitting decision.

We recommend that the Corps formally revise the EIS to account for GHG emissions from coal transport from points of extraction to Asia, and end-use combustion. We specifically recommend that the Corps consider incorporating the State DEIS's GHG information by reference into the Corps EIS. The revised Corps EIS should be made available for public comment.

Climate Change Impacts on the Project

We also recommend that the Corps EIS consider how a changing climate could affect the Proposed Action, as recommended by CEQ.[18] For example, lower water levels from declines in summer rainfall could impede the passage of large ships to the terminal.

The State DEIS discusses examples of potential effects of climate change on the proposed action,[19] and the Corps could incorporate that information from the State DEIS.

Aquatic Resources

Indirect Aquatic Resource Impacts

Potential indirect impacts to aquatic resources on site and adjacent to the site, not addressed in the Corps DEIS include:

- changes to hydrology and water quality degradation from the increase of impervious surfaces and exposure to coal and coal dust and;
- subsurface alterations to hydrology from roadways, trenched utilities lines and non-fill activities resulting from the bulk terminal/industrial activities that would occupy the site;

[17] Accessed online 10/26/16 at: https://www.whitehouse.gov/administration/eop/ceq/initiatives/nepa/ghg-guidance.
[18] Accessed online 10/28/16 at: https://www.whitehouse.gov/sites/whitehouse.gov/files/documents/nepa_final_ghg_guidance.pdf
[19] SEPA DEIS, pages 5.8-30 through 5.8-32. Accessed online 10/28/16 at: http://www.millenniumbulkeiswa.gov/sepa-draft-eis.html.

- increased disturbance to adjacent wetlands from increased public access utilizing the area;
- introduction of invasive species from stormwater management activities and construction activities; and,
- increased road traffic accessing the site, as well as operational equipment used to maintain or operation a bulk terminal facility which will further increase pollutants associated with motorized vehicles.

We recommend that the Corps EIS and/or stormwater management plan address these potential indirect aquatic resource impacts. Review of the project's stormwater management plan will be critical to the assessment of indirect impacts from this proposed development on water quality. The potential use of stormwater detention systems adjacent to the remaining wetland areas can adversely affect their hydro period by altering natural base flow conditions.

Avoidance and Minimization

Additional information as to why only operational criteria were considered in alternative designs is needed. There was minimal discussion in Appendix E, pg. 7 about alternative designs for the layout of the facility. The conclusion was that "each of the four alternative design layouts would result in the same environmental impacts to wetlands (Grette Associates 2014), and would result in the same aquatic impacts because the dock and trestle areas would be the same. Alternative 1a was determined to result in the least impact on vegetated upland habitats compared to Alternatives 1b, 2, and 3 (Grette Associates 2014). In selecting Alternative 1a, the Applicant considered the potential environmental impacts of each layout, as well as throughput efficiencies of each layout and the potential future impact on areas used for the existing bulk product terminal."

However, the alternative designs criteria did not appear to give any consideration for potential avoidance or minimization of impacts to aquatic resources, including wetlands. Instead, the design criteria focused on operational features needed to maximize the throughput of 40 to 50 million metric tons of coal per year. None of the alterative designs appear to consider modifications to the basic layout of the stock pile areas or the rail loop that could potentially avoid unnecessary impacts to areas such as Wetland Y. Fragmentation of the remaining wetland (Wetland Y) with the development of the bulk terminal facility, will further diminish its functional value.

If the Corps determines that there are no other practicable alternatives to this proposal, the EPA recommends that the size of the proposal be reduced to the minimum area needed to meet the Applicant's objective of maintaining an economically viable project. This portion of the sub-basin has already been heavily impacted by industrial development, loss of riparian vegetation, and pollutant loadings from surface water and storm water outfalls. Additional impacts to the scarce and declining aquatic and riparian components within the Columbia River watershed should be avoided wherever possible.

Mitigation

The Corps DEIS identified the need for mitigation but did not specify what that mitigation is or how the Corps would assure it is implemented. The EPA suggests that the Corps work with the Applicant to

consider mitigation measures that would increase through restoration the extent of high to medium quality wetlands along the Columbia River. Purchasing all of the necessary wetland credits from the closest mitigation bank is likely to significantly reduce the credits that may be available to other permit applicants in the area that have fewer options for meeting their compensatory mitigation obligations. Therefore, a mitigation strategy should consider a variety of options for replacing unavoidable impacts to aquatic resources.

Tribal Resources

The Corps DEIS does not sufficiently consider tribal concerns about access to treaty-protected fishing sites. According to the Corps DEIS, "Several tribes have raised concerns about impacts to tribal members' ability to access Zone 6 for fishing because of the increased train traffic."[20] The State DEIS notes that the Proposed Action would lead to an approximate 17% increase in train traffic,[21] which could conflict with tribal fishers' access to the river at at-grade crossings.

The Corps DEIS dismisses tribal concerns based largely on the inappropriately narrow scope of analysis, finding that there should be "...no measurable impact on tribal fishing..." due to the fact that "...tribal fishing generally occurs outside of the study areas..."[22] In other words, the Corps concludes there should be no measurable impact because no analysis occurred, not because the impacts have been evaluated or the concern addressed. It is not appropriate to conclude that there is no impact when the Corps has relied on an overly narrow scope to define those impacts as "outside of study area." We recommend that the Corps provide information on impacts to tribal fishing in Zone 6. Absent such a review the tribes' legitimate concerns will remain unaddressed.

In addition, as indicated above, direct and adverse impacts of the project could include water quality impacts from contaminants that have the potential to affect aquatic habitat. These impacts could in turn affect the fish that tribal fishers harvest pursuant to treaties and other agreements. We look forward to working with the Corps to adequately address Tribes' water quality concerns.

Water Quality

The Corps DEIS overstates the extent of past sediment sampling to determine suitability for flow lane disposal. According to the Corps DEIS, "...sediments sampled from deepwater areas in the vicinity of the project area have consistently met suitability requirements for flow land disposal or beneficial use in the Columbia River...."[23] EPA is only aware of two sediment sampling events in this area. The first event was in 2011 and analyzed three samples: two composite samples (one surface and one subsurface) from a narrow area of shoaled material between NW Alloys existing Dock 1 and where Millennium's Dock 2 (On Site Alternative); and one surface sample taken adjacent to Dock 1 but outside of the dredging footprint for the Millennium project. The second sediment sampling occurred in 2015 and sampled the sediment surface at the exact same location between Dock 1 and 2 as was sampled during 2011. All sediments from both samplings were found to be suitable for flow lane disposal. Only one of these events sampled within the proposed dredge area for the On-Site Alternative. We recommend that

[20] Corps DEIS, 4.5-13.
[21] State DEIS, p. 3.5-14.
[22] Corps DEIS, p. 4.5-15.
[23] Corps DEIS, p. 5.-10.

the Corps EIS be edited to be more specific with regard to sediment sampling in the vicinity of the project. First, the Corps EIS should explicitly state the number of sampling events that have occurred. Second, the Corps EIS should identify the number of sampling events within the proposed dredge areas.

U.S. Environmental Protection Agency Rating System for
Draft Environmental Impact Statements
Definitions and Follow-Up Action*

Environmental Impact of the Action

LO – Lack of Objections
The U.S. Environmental Protection Agency (EPA) review has not identified any potential environmental impacts requiring substantive changes to the proposal. The review may have disclosed opportunities for application of mitigation measures that could be accomplished with no more than minor changes to the proposal.

EC – Environmental Concerns
EPA review has identified environmental impacts that should be avoided in order to fully protect the environment. Corrective measures may require changes to the preferred alternative or application of mitigation measures that can reduce these impacts.

EO – Environmental Objections
EPA review has identified significant environmental impacts that should be avoided in order to provide adequate protection for the environment. Corrective measures may require substantial changes to the preferred alternative or consideration of some other project alternative (including the no-action alternative or a new alternative). EPA intends to work with the lead agency to reduce these impacts.

EU – Environmentally Unsatisfactory
EPA review has identified adverse environmental impacts that are of sufficient magnitude that they are unsatisfactory from the standpoint of public health or welfare or environmental quality. EPA intends to work with the lead agency to reduce these impacts. If the potential unsatisfactory impacts are not corrected at the final EIS stage, this proposal will be recommended for referral to the Council on Environmental Quality (CEQ).

Adequacy of the Impact Statement

Category 1 – Adequate
EPA believes the draft EIS adequately sets forth the environmental impact(s) of the preferred alternative and those of the alternatives reasonably available to the project or action. No further analysis of data collection is necessary, but the reviewer may suggest the addition of clarifying language or information.

Category 2 – Insufficient Information
The draft EIS does not contain sufficient information for EPA to fully assess environmental impacts that should be avoided in order to fully protect the environment, or the EPA reviewer has identified new reasonably available alternatives that are within the spectrum of alternatives analyzed in the draft EIS, which could reduce the environmental impacts of the action. The identified additional information, data, analyses or discussion should be included in the final EIS.

Category 3 – Inadequate
EPA does not believe that the draft EIS adequately assesses potentially significant environmental impacts of the action, or the EPA reviewer has identified new, reasonably available alternatives that are outside of the spectrum of alternatives analyzed in the draft EIS, which should be analyzed in order to reduce the potentially significant environmental impacts. EPA believes that the identified additional information, data, analyses, or discussions are of such a magnitude that they should have full public review at a draft stage. EPA does not believe that the draft EIS is adequate for the purposes of the National Environmental Policy Act and or Section 309 review, and thus should be formally revised and made available for public comment in a supplemental or revised draft EIS. On the basis of the potential significant impacts involved, this proposal could be a candidate for referral to the CEQ.

* From EPA Manual 1640 Policy and Procedures for the Review of Federal Actions Impacting the Environment. February, 1987.