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Via Email to comments@millenniumbulkeiswa.gov

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MBTL Coal Export Terminal EIS
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Re: Scoping Comments on the Proposed Environmental Impact Statement for Millennium Bulk Terminals—Longview Shipping Facility Project

Dear Ms. Guy:

The Northwest Environmental Defense Center (NEDC) respectfully submits these comments to the United States Army Corps of Engineers (Corps), Cowlitz County Building and Planning Department (County), and Washington State Department of Ecology (Ecology) (collectively, co-lead agencies), regarding the “Notice of Intent to Prepare a Joint Environmental Impact Statement (EIS) for the Millennium Bulk Terminals—Longview Shipping Facility Project.” 77 Fed. Reg. 49484 (Aug. 14, 2013). NEDC appreciates the opportunity for early involvement at this stage of the process.

The National Environmental Policy Act (NEPA) requires federal agencies to prepare an Environmental Impact Statement (EIS) for “major Federal actions significantly affecting the quality of the human environment.” 42 U.S.C. § 4332(2)(C). The Washington State Environmental Policy Act (SEPA) applies to decisions by state and local agencies within Washington State. WAC 197-11. SEPA requires state officials to identify possible environmental impacts that may result from governmental decisions. Under both NEPA and SEPA, the co-lead agencies must determine the scope of their

environmental analysis based on the proposed action, alternatives, and impacts.¹ Although the Corps and Ecology will be preparing separate EIS's to assess the environmental impacts of the proposed coal export terminal, *see* 78 Fed. Reg. 54871 (Sept. 6, 2013) (Notice of Amendment to the Notice of Intent to Prepare an Environmental Impact Statement (EIS) for the Millennium Bulk Terminals—Longview Shipping Facility Project), NEDC's comments are written to apply to both the Corps' and Ecology's EIS's equally.

Millennium Bulk Terminals—Longview LLC's (MBTL) proposed coal export shipping terminal (coal export terminal) at the Port of Longview, Washington, is of significant interest to NEDC based on the imminent adverse environmental impacts that will result if the project is constructed. Given NEDC's mission to protect and conserve the natural resources of the Pacific Northwest, we are concerned about both the direct, localized adverse environmental impacts, and the indirect, far-reaching adverse environmental impacts that will result from the construction and operation of this coal export terminal. We are especially concerned about the impact of the coal export terminal when considered in the cumulative with other similar, reasonably foreseeable fossil fuel transport facilities proposed in the region. NEDC urges the co-lead agencies, and in particular the Corps, to recognize and evaluate the real impacts to resources beyond the location of the facility itself that will result from the construction and operation of this coal export terminal.

Discussion

This comment focuses on the likely impacts to air quality, water quality, land, and wildlife that should be considered in the EIS's. First and foremost, NEDC requests that the co-lead agencies prepare a programmatic EIS to better account for the cumulative impacts that will result from this coal export terminal when considered in combination with the other fossil fuel transport projects proposed in the region. Second, the co-lead agencies should clarify and request justification for MBTL's statement of purpose and need. Next, NEDC outlines some alternatives and mitigation options the co-lead agencies should evaluate in the EIS's. Finally, NEDC identifies sources of impacts and highlights certain impacts to air quality, water quality, and wildlife that will result if the coal export terminal is built.

Because of the lack of information that has been made publicly available, especially regarding any modeling or studies to identify air or water quality impacts, these scoping comments rely on information provided in the retracted Millennium Bulk Terminals Longview, LLC (MBTL) Coal Export Terminal Joint Aquatic Resources Permit Application Form, (JARPA) (withdrawn Jan. 28, 2013 but relied upon herein as the main public document providing a description of the coal export terminal), and the

¹ 40 C.F.R. § 1508.25 (defining "scope" as "the range of actions, alternatives, and impacts to be considered" in an EIS); WAC 197-11-060(1) (stating that environmental review is considered the "scope" for an EIS and "consists of the range of proposed activities, alternatives, and impacts to be analyzed in an environmental document").

abbreviated project description from the main project website, www.millenniumbulkeiswa.gov, as the basis for identifying the impacts likely to result from the coal export terminal.

I. The co-lead agencies should consider the impact of this coal export terminal, in combination with those of other fossil fuel transport projects in the region, either in a programmatic EIS or by including those projects as cumulative or similar actions.

A programmatic environmental analysis is prudent given NEPA's goals "to use all practicable means . . . to improve and coordinate Federal plans, functions, programs, and resources to the end that the Nation may," *inter alia*, "fulfill the responsibilities of each generation as trustee of the environment" and "assure for all Americans safe, healthful, productive, esthetically and culturally pleasing surroundings." 42 U.S.C. § 4331(b). Currently, there are at least thirteen fossil fuel transport facilities seeking to be approved or operating in the Pacific Northwest, three of which are coal export terminals. The three coal export terminals include this facility proposed for Cowlitz County, the Gateway Pacific Terminal in Whatcom County, and Ambre Energy's proposal for the Port of Morrow in Morrow County, Oregon. At least ten crude oil-by-rail construction or expansion projects are in the works in Washington cities: (1) BP and (2) Phillips 66 in Ferndale; (3) Tesoro and (4) Shell in Anacortes; (5) Phillips 66 and (6) US Oil in Tacoma; (7) US Development, (8) Westway Marine and (9) Imperium in Grays Harbor; and (10) Tesoro in Vancouver.

The Council on Environmental Quality's (CEQ) regulations under NEPA state that for environmental statements regarding broad actions, "agencies may find it useful to evaluate" such proposals geographically, "including actions occurring in the same general location," or generically, "including actions which have relevant similarities, such as common timing, impacts, alternatives methods of implementation, media, or subject matter." 40 C.F.R. § 1502.4(c)(1)-(3). An individual analysis of each fossil fuel transport facility ignores the inescapable result that, in the cumulative, these projects will have significant, adverse impacts on the Pacific Northwest. A programmatic EIS, in contrast, would allow the permitting agencies to improve the consideration of these projects by providing an appropriate platform for considering the cumulative impacts of the fossil fuel transport facilities that have been proposed in the Pacific Northwest within a similar time frame.

Given the numerous coal export terminals under consideration for the Pacific Northwest, and the significant regional, national and international impacts that will result from these terminals, a programmatic EIS is the best vehicle to analyze these impacts and address potential alternatives in compliance with NEPA. *See Kleppe v. Sierra Club*, 427 U.S. 390, 409 (1976) (noting that NEPA "may require a comprehensive impact statement . . . where several proposed actions are pending at the same time" because such actions "will have cumulative or synergistic environmental impact upon a region."). *See also City of Tenakee Springs v. Block*, 778 F.2d 1402, 1407 (9th Cir. 1985) (holding that where there are large scale plans for regional development, NEPA requires both a

programmatic and site-specific EIS). A programmatic EIS would be appropriate in this instance where there are multiple plans that effectively constitute regional development.

At the very least, the co-lead agencies should consider the other fossil fuel transport projects proposed for the region as cumulative actions or similar actions. CEQ's regulations explain that to determine the scope of an EIS, agencies must consider not only the project proposal itself, but also connected, cumulative, and similar actions. 40 C.F.R. § 1508.25(a). The numerous proposals for fossil fuel transport facilities in the Pacific Northwest constitute cumulative and/or similar actions that should be considered in the co-lead agencies' EIS's. *See LaFlamme v. Federal Energy Regulatory Commission*, 852 F.2d 389, 401-02 (9th Cir.1988) (holding that where several foreseeable similar projects in a geographical region have a cumulative impact, they should be evaluated in a single EIS). The increased volume of rail and marine vessel traffic associated with these projects is a connected action that should likewise be considered in the EIS's.

The Corps must consider cumulative actions, "which when viewed with other proposed actions have cumulatively significant impacts and should therefore be discussed in the same impact statement." 40 C.F.R. § 1508.25(a)(2). As noted above, there are three permit applications pending for coal export facilities in Washington and Oregon, and numerous fossil fuel transport facilities proposed for the Pacific Northwest. NEDC agrees with the comments from Ecology and the Environmental Protection Agency (EPA) on the coal terminal proposed at the Port of Morrow. There, EPA and Ecology stated that due to the multiple pending proposals for coal export facilities in the Pacific Northwest, and especially the multiple proposals seeking authorization from the Corps, the cumulative environmental impacts of these facilities should be analyzed together. *See* May 7, 2012, Washington State Department of Ecology's Comments on Coyote Island Terminals, LLC (attached hereto as Exhibit 1); April 5, 2012, EPA Comments on Coal Transloading Facility at Port of Morrow (attached hereto as Exhibit 2). Consistent with its own regulations, 33 C.F.R. Part 325, App. B, 7.b(3) (stating that "[t]he district engineer should, whenever practicable, incorporate by reference and rely upon the reviews of other Federal and State agencies"), the Corps should include the other fossil fuel transport facilities in its EIS as cumulative actions.

The other proposed fossil fuel transport facilities should also be considered as "similar actions," and the effects and alternatives reviewed as such. CEQ's regulations define "similar actions" as those "which when viewed with other reasonably foreseeable or proposed agency actions, have similarities that provide a basis for evaluating the environmental consequences together, such as common timing or geography." 40 C.F.R. § 1508.25(a)(3). The regulations state that agencies should analyze similar actions in the same EIS when doing so is "the best way to assess adequately the combined impacts of similar actions or reasonable alternatives to such actions." *Id.* Here, the numerous fossil fuel transport facilities described above have both common timing and common geography.

A majority of these projects are also reasonably foreseeable, as they are farther

along in the permitting process than MBTL's coal export terminal, and many have completed leases with the relevant ports. Importantly, "projects need not be finalized before they are reasonably foreseeable." See *Northern Plains Resource Council, Inc. v. Surface Transp. Bd.*, 668 F.3d 1067 (9th Cir. 2011) (requiring the agency to include in its EIS for a new rail line an analysis of the impacts of coal bed methane projects "that could overlap construction of the railroad line"). It is reasonably foreseeable that construction of each of the pending coal export facilities described above will overlap with this proposal because many of the projects are actively seeking or have received permits.

Assuming, however, the Corps does not produce a programmatic EIS or even consider impacts beyond the site of construction (as it has indicated²), the Corps must nonetheless consider the impacts of these other fossil fuel transport projects in its cumulative impacts analysis. The Corps' own regulations require as much. See 33 C.F.R. Part 325, App. B, 7.b(3) (noting that "[i]n any case, once the scope of analysis has been defined, the NEPA analysis for that action should include direct, indirect and cumulative impacts").

Finally, the co-lead agencies must consider the increase in rail and marine vessel traffic and mining activities, and associated impacts (described below), as connected actions in each EIS. Connected actions are those that are closely related and should be discussed in the same EIS. 40 C.F.R. § 1508.25(a)(1). CEQ's regulations explain that connected actions: (1) automatically trigger other actions that may require an EIS; (2) cannot or will not proceed unless other actions are taken previously or simultaneously; or (3) are interdependent parts of a larger action and depend on the larger action for their justification. *Id.* MBTL cannot achieve its stated purpose and need of making use of existing rail infrastructure and "an efficient, direct shipping route to Asia" without the amount of rail and marine traffic increasing to provide the anticipated "44 million metric tonnes of coal annually to meet international and domestic demand." See Aug. 5, 2013 Letter from MBTL to Ms. Elaine Placido, Cowlitz County. MBTL also cannot meet the stated "international and domestic demand" for coal without the mining activities that are occurring in the Power River Basin. *Id.* Because MBTL cannot realize its stated goals without the increased rail traffic, increased marine vessel traffic, or continued coal mining, these actions constitute connected actions that should be considered in the EIS's.

The coal export terminal would add daily train traffic via the Longview Switching Company's Reynolds Lead spur line from the main rail line that runs along the Columbia River from Eastern Washington. This increased rail traffic will necessarily require updates to the rail line infrastructure. The purpose of the terminal is to unload coal from the train cars and transfer it to marine vessels, and MBTL has estimated that it would load two marine vessels per day, seven days per week. See JARPA at 10. Since the

² See 78 Fed. Reg. 54871, 54872 (Sept. 6, 2013) (revising the strategy of preparing a single joint EIS to two separate EIS's under NEPA and SEPA and stating that "the Corps' scope of analysis will include the entire MBTL project area and any offsite area that might be used for compensatory mitigation," meaning only "the approximately 190-acre shipping terminal project site, the area to be dredged, the dredged material disposal site(s), and any other area in or adjacent to the Columbia River that would be affected by, and integral to, the proposed project").

terminal cannot achieve its stated purpose without this increased volume of rail and marine vessel traffic, the co-lead agencies must include an analysis of these activities and associated impacts in the EIS's as connected actions.

II. The co-lead agencies should clarify and provide justification for the statement of purpose and need.

The statement of purpose and need is central to a proper EIS because it will provide the guideposts for the analysis of actions, alternatives, and effects. 40 C.F.R. § 1502.13. MBTL has stated that the purpose of the coal export terminal is to “(1) make use of existing rail infrastructure (freight corridors) and an efficient, direct shipping route to Asia; and (2) reuse and redevelop an existing industrial terminal into an American Pacific Coast export terminal in Cowlitz County capable of shipping up to 44 million metric tonnes of coal annually to meet international and domestic demand.” See Aug. 5, 2013 Letter from MBTL to Ms. Elaine Placido, Cowlitz County. Consistent with its own regulations, the Corps should re-state this statement in terms of a public interest perspective. See 33 C.F.R. Part 325, App.B, 9.b(4) (noting that while an “applicant should be encouraged to provide a statement of . . . purpose and need from his perspective, . . . the Corps also should consider and express that activity’s underlying purpose and need from a public interest perspective”). Since MBTL’s stated purpose and need reflect an industry-specific perspective, the Corps should modify the statement in its draft EIS to include a public interest component.

The co-lead agencies should also require additional information supporting or justifying the stated need. At this point, it is impossible to determine whether “international and domestic demand,” as is vaguely stated by MBTL, requires a coal export terminal at this specific location capable of transporting 44 million tons of coal annually. Even the coal industry admits that coal markets are traditionally volatile. See Dave Gambrel, *Building a Coal Terminal on the West Coast* (Dec. 2010) (discussing a previously failed coal export terminal at the Port of Portland) (attached hereto as Exhibit 3). In fact, coal use is steadily declining as alternative forms of energy and stricter environmental regulations become more prominent. Further, coal consumption in China is expected to peak by 2020 or sooner. In light of the questionable economic future of coal exports, the co-lead agencies should closely scrutinize MBTL’s claimed need for the coal export terminal.

Further, the Corps has reported that modernization and increased capacity of major ports in the United States is primarily needed in the Southeast, not along the Pacific Coast. See United States Army Corps of Engineers, *Port and Inland Waterways Modernization: Preparing for Post-Panamax Vessels* (2012) (attached hereto as Exhibit 4). In addition, the Corps’ report indicates that three separate ports with the capacity for this type of shipping already exist in the Pacific Northwest Region. These include Seattle and Tacoma, both of which are located in the Puget Sound, along with Prince Rupert in Canada. The co-lead agencies should consider the capacity at these ports when determining the actual need for the proposed coal export terminal and viable alternatives to meet that need.

Because the statement of purpose and need will provide the basis for identifying and evaluating a range of reasonable alternatives under NEPA and, subsequently, the range of alternatives the Corps evaluates when deciding whether to issue a dredge and fill permit,³ this information is critical at an early stage.

III. The co-lead agencies must consider a range of reasonable alternatives and mitigation options in each EIS.

The purpose of an EIS is, inter alia, to “inform decisionmakers and the public of the reasonable alternatives which would avoid or minimize adverse impacts or enhance the quality of the human environment.” 40 C.F.R. § 1502.1. CEQ’s regulations require the Corps to consider a no action alternative. 40 C.F.R. § 1508.25(b)(1). No action would mean, in this instance, the alternative of not constructing the coal export terminal at the Port of Longview, not dredging the Columbia for access, and not disposing of that dredged material upland. In addition, the Corps must consider other reasonable courses of action and mitigation measures that are not in the proposed action.⁴

NEDC expects the co-lead agencies will rigorously explore and objectively evaluate all reasonable alternatives, including consideration of alternatives that are not within the scope of the lead agency. 40 C.F.R. § 1502.14. Other reasonable actions that meet the applicant’s stated purpose and need include improvements at ports in Washington that could provide similar shipping capacity but would not require the destruction of wetlands or increase marine vessel traffic along the Columbia River. We expect that the co-lead agencies will address and objectively evaluate these alternatives in the EIS’s.

Importantly, the co-lead agencies should consider port locations that do not involve the filling of wetlands. The Clean Water Act’s Guidelines state that where a proposal includes a discharge to a special aquatic site that does not require access or proximity to or siting within the specific aquatic site to achieve its basic purpose, practicable alternatives that do not involve special aquatic sites are presumed to be available. 40 C.F.R. § 230.10(a)(3) (explaining that the permit applicant must “clearly

³ An appropriately crafted purpose and need statement is essential to ensuring the proper scope of review is conducted by the Corps when issuing the dredge and fill permit under the Clean Water Act. *See* 33 U.S.C. § 1344(b)(1); 40 C.F.R. § 230.10(a) (prohibiting the “discharge of dredged or fill material . . . if there is a practicable alternative to the proposed discharge which would have less adverse impact on the aquatic ecosystem, so long as the alternative does not have other significant adverse environmental consequences.”).

⁴ The alternatives provided in the EIS may be used to complete the Corps’ evaluation of alternatives as required under section 404(b)(1) of the Clean Water Act (“Guidelines”). 40 C.F.R. § 230.10(a)(4). If the Corps intends to rely on the analysis in the EIS to meet its obligation to comply with the Guidelines, however, the alternatives analysis will need to contain more specific information than would otherwise be necessary under NEPA. *Id.* (noting that the “NEPA documents may address a broader range of alternatives than required to be considered” under the Guidelines “or may not have considered the alternatives in sufficient detail to respond to the requirements of the[] Guidelines.”).

demonstrate” that practicable alternatives that do not involve the special aquatic site are not available). There is a presumption that all practicable alternatives to the proposed discharge that do not involve a discharge into a special aquatic site will have a less adverse impact on the aquatic ecosystem. *Id.* Even if the coal export terminal by definition needs to be located on waterfront property to facilitate transferring coal from rail to marine vessels, it is not clear that the site should be one that requires the filling of wetlands.

MBTL’s proposal anticipates discharges to a special aquatic site. Special aquatic sites include wetlands. 40 C.F.R. § 230.4(q-1); *id.* § 230.41. The proposed facility site encompasses as much as 30 acres of wetlands. *See* JARPA at 4, 11. Pursuant to its own regulatory guidelines that establish a mitigation sequence focused on avoidance, the Corps should first consider alternatives with a lesser impact on wetlands. Only after considering such alternatives should the Corps then require mitigation from MBTL for unavoidable impacts that cannot be further minimized. Thus, at the forefront of its mitigation discussion, the Corps should analyze the opportunity to avoid wetland loss under a reasonable alternative.

IV. The coal export terminal will have numerous effects on air quality, water quality, lands, and wildlife that must be considered in each EIS.

NEPA requires an EIS to include an analysis of the “adverse environmental effects” and “the environmental impact of the proposed action” for actions “significantly affecting the quality of the human environment.” 42 U.S.C. § 102(C)(ii). *See also* 40 C.F.R. § 1502.1 (explaining that one of the purposes of an EIS is to “provide a full and fair discussion of significant environmental impacts”). These effects may be direct, indirect, or cumulative.

Direct effects are those caused by the action, and occur at the same time and place. 40 C.F.R. § 1508.8(a). Indirect effects are those caused by the action that are later in time but are still reasonably foreseeable. *Id.* § 1508.8(b). These include growth induced effects, i.e. increased economic demand, and other effects related to induced changes in land use, population density, and related effects on air and water and other natural systems. *Id.* Cumulative impacts result from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions. *Id.* § 1508.7 (noting that “[c]umulative impacts can result from individually minor but collectively significant actions taking place over a period of time”). Pursuant to CEQ’s regulations, the Corps should consider cumulative effects occurring for a period of time after construction has been completed and operation of the facility has commenced because such effects are reasonably foreseeable.

Similarly, SEPA requires consideration of the environmental impacts in an environmental review. WAC 197-11-060(4)(a). SEPA defines environmental impacts as “effects upon the elements of the environment,” including the natural and built environment. WAC 197-11-444. For example, Ecology must take into account impacts to the earth, such as geology and the soils; impacts to the air, including air quality, odor,

and climate; impacts to water, such as water quality, floods, and public water supply; and impacts to energy and natural resources, such as the amount required or rate of use. *Id.* Elements of the built environment include environmental health, such as noise, or releases to the environment affecting public health such as toxic or hazardous materials. *Id.* Just as under NEPA, the impacts to these elements must be taken into account regardless of whether they are direct, indirect, or cumulative. WAC 197-11-060(4).

It is clear that MBTL's coal export terminal will have numerous direct, indirect, and cumulative impacts, including impacts to local economies, communities, human health, and the environment. The following sections detail impacts to air quality, water quality, lands, and wildlife that are likely to result from the construction and operation of the coal export terminal and should therefore be included in the co-lead agencies' respective EIS's.

A. The co-lead agencies should consider numerous sources of impacts, in addition and/or incident to the construction and operation of the coal export terminal.

Construction and operation of the coal export terminal will have real, adverse impacts on the air, land and water quality. In addition, activities such as the transportation of coal by rail or marine vessel will also have real, adverse impacts on the environment that must be considered in the co-lead agencies' respective EIS's.

Increased rail traffic

The increase in train traffic that will result if the coal export terminal is approved will have multiple repercussions for the region's resources. The high volume of coal being transported to the proposed terminal will require 16 daily coal trains, each a mile in length. This increase in traffic will undoubtedly have numerous direct consequences for the environment, local human populations, and existing infrastructure. For example, increased rail traffic to and from the site, and throughout Washington, is likely to cause traffic delays. *See* Dan Seedah & Robert Harrison, *Measuring the Impact of Intermodal Rail Movements in State Transportation Planning*, The University of Austin, Texas (attached hereto as Exhibit 5). That same increased rail traffic is likely to decrease property values for homes near the freight rail lines.

Additional trains mean an increase in the likelihood of derailment. A potential derailment could result in either coal being directly added to the aquatic ecosystem or indirectly as a result of surface runoff. A 2005 New York Times article, reporting the findings of a BNSF study, determined that coal dust can increase the likelihood of train derailments because when coal dust builds up in track beds, it prevents water from draining properly "which in turn can push steel rails out of gauge and cause derailments." *See* Josh Vorhees, *Railroads, Utilities Clash Over Dust From Coal Trains*, New York Times (2010) (attached hereto as Exhibit 6).

Any coal train derailments that occur on sections of track near the Columbia

River could have severe environmental repercussions. In 2006, a coal train derailed near Trout Creek, Montana causing several loaded train cars to sink into the Clark Fork River. *See Vince Devlin, Rail Cars Could Be Submerged in Clark Fork, The Missoulian (2006)* (attached hereto as Exhibit 7). It is entirely possible for this scenario to occur as a result of MBTL's project. The increased risk of derailments coupled with the potentially extreme consequences like those of the Clark Fork accident, constitute a real and probable threat to the waters of the Columbia River that must be considered. Plus, increased rail traffic will result in increased interactions between trains and local wildlife. This type of impact is discussed more thoroughly below.

Increased marine vessel traffic

With the transferring of coal from rail to ship comes an increased risk of spilling coal. Large coal tankers are just as prone to disasters as any other form of transportation. The difference is the environmental costs of responding to these accidents. The potential for such accidents and the costs associated with them – economic, social, and environmental – must be a consideration.

Although the risk may be small, a coal spill would pose a catastrophic threat to water quality and the ecosystems that depend on those waters. Plus, there are numerous examples proving that such accidents are entirely possible. Recently, about 30 tons of coal ended up in the water at the Westshore Terminal near Vancouver, B.C. *See Ashley Ahearn, What Coal-Train Dust Means For Human Health, Oregon Public Broadcasting (March 11, 2013)* (attached hereto as Exhibit 8). The cost of response and potential safeguards to avoid a catastrophe must be considered. This is especially true given the close proximity of the proposed coal storage areas to the Columbia River. Unlike an oil spill, where booms and skimmers can often be used to contain and mitigate adverse effects, a coal spill would send this toxic substance to the bottom of the Columbia. The co-lead agencies should address the increased risk of coal spills due to increased marine vessel traffic.

Increased marine vessel traffic also means an increased risk of oil spills. These marine vessels can discharge waste and have spills during fueling. The co-lead agencies should consider in the aggregate the small releases of pollutants over an expanded period of time. Exacerbating the problem, Washington's oil response spill program is facing budget cuts. *See Ashley Ahearn & Bonnie Steward, NW Readiness for Oil Spills Drops as Risks Increase (Nov. 28, 2011)* (attached hereto as Exhibit 9). The two leading causes of oil spills from vessels are equipment failure and human error. Because neither cause can be completely eliminated, mitigation measures will be limited in their ability to reduce the risk of spills.

Finally, greater vessel traffic increases the risk of introducing invasive species through ballast water carried from foreign ports that is discharged into the Columbia River. Like the risk of oil spills, although the chance of occurrence might be slim, the result would be devastating. The United Nations has identified the introduction of invasive species into new environments through ballast water as one of the four greatest

threats to the world's oceans. Hence the co-lead agencies should address the impact of increased vessel traffic and the increased risk of introducing invasive species to the region.

Coal dust

The co-lead agencies should consider the effects of coal dust from trains and bulk carrier ships moving coal across the region. With an increase in train traffic comes an increase in fugitive dust. BNSF estimates that 500 pounds of coal dust escapes each uncovered car en route. *See* Cassandra Profita, *How Much Coal Dust Will there Really Be?* (July 30, 2012) (providing information recorded from BNSF's website) (attached hereto as Exhibit 10). This dust will inevitably end up in the Columbia River as these trains travel through the Columbia River Gorge. It is likely that wind will carry much of this coal dust and deposit it directly onto the surface of the river. Dust that settles on land near the tracks may also end up washing into the river through storm water runoff.

Mining

The co-lead agencies should consider mining activities as a cumulative action, or in the least, consider the impacts of mining as cumulative impacts. Coal mines in the Powder River Basin are degrading local aquifers and drinking water supplies. *See* Western Organization of Resource Councils, *Exporting Powder River Basin Coal: Risks and Costs* (Sept. 2011) (attached hereto as Exhibit 11). When the incremental adverse impact to water quality is considered in the cumulative with the adverse impacts to water quality from mining operations in Montana and Wyoming, the coal export terminal will have significant adverse impacts on the environment. Over time, these actions will, in the cumulative, result in an irretrievable commitment of our natural resources. The co-lead agencies should consider in the EIS's the ongoing threats to the environment posed by the coal export terminal.

B. MBTL's proposed coal export terminal will have numerous direct, indirect, and cumulative impacts on the environment.

Impacts to air quality & human health from coal dust

Fugitive coal dust emissions will have detrimental impacts on local air quality. Not only will coal dust impair regional visibility (see below), coal dust will have detrimental health effects for local populations. Coal dust will significantly increase the local content of PM 2.5 and PM 10 emissions. Such emissions impact human health and contain hazardous air pollutants (HAPs). Given the coal dust lost during rail transport (see above), it is unlikely that the current techniques of reducing these coal dust releases (e.g., loading the coal in certain positions, spraying the coal with liquids) will be sufficiently effective to reduce the release of substantial amounts of coal dust. The co-lead agencies' EIS's should consider the significant effects that fugitive coal dust emissions will have on local air quality and the detrimental effects it will have on the health of local populations.

The EIS's should also consider fugitive releases of coal dust from the uncovered storage of the coal at the site. The EIS's should include modeling of fugitive coal dust emissions (both from trains and from on-site storage) based on regional weather patterns.

Coal dust can also cause significant deterioration of rail ballast and tracks. *See BNSF, BNSF Railway Statement on STB Coal Dust Decision* (2013) (attached hereto as Exhibit 12). This creates significant safety concerns, especially in light of the substantial amount of rail traffic associated with not only MBTL's proposed coal export terminal, but also other large coal and oil terminals proposed for the region (see above). The current techniques of load shape and liquid sprays are unlikely to significantly reduce the chance for deterioration of tracks and ballast. Further, if significant amounts of coal dust are released from the numerous trains arriving at this and other coal export terminals, the tracks these trains run along are likely to deteriorate quickly. With the likelihood of crude oil trains sharing these lines, there is a potential for extreme danger if derailment were to occur. The EIS's should consider how MBTL will address the deterioration of tracks caused by coal dust, especially in light of the substantial increase in rail traffic generally, and the increase in rail traffic containing volatile substances that can lead to disaster.

Impacts to air quality from increased rail & marine vessel traffic

Carcinogenic diesel emissions from the increase in marine vessel and towboat traffic will have a direct adverse effect on air quality. The coal export terminal will have the capacity to berth two cargo vessels at any given time. *See JARPA* at 10. These cargo ships have the capacity to create significant diesel emissions, both in transit and while docked. *See EPA, Designation of North American Emission Control Area to Reduce Emissions from Ships*, EPA-420-F-10-015 (March 2010) (attached hereto as Exhibit 13). The EIS's should examine the reasonably foreseeable air emissions from the operation and maintenance of the vessels along with any necessary support vessels such as tugs, pilots, and other escort vessels. These emissions should be accounted for within the North American Emissions Control Area (i.e. roughly to a distance of 200 nautical miles from the Pacific Coast), as ship emissions facilitated by the coal export terminal are most likely to impact overland air quality management districts within this vicinity. The analysis should include an investigation of the types of fuel being used, as well as the efficiency of the technology used to operate the vessels.

The co-lead agencies should incorporate reasonable mitigation measures such as cold-ironing, the use of effective scrubbing technology on ships, and the use of cleaner fuels by incoming cargo ships in the EIS. These mitigation measures should be compared against the baseline of ambient air quality that would be expected to occur but for these mitigation measures.

Hazardous air pollutants

The co-lead agencies should evaluate the direct effects of hazardous air pollutants

(HAPs) in the EIS's. Specifically, the EIS should address the HAPs likely to be emitted from diesel emissions from trains, trucks, and vessels. The EIS should also address that HAPs can and will vary depending on the type of bulk commodity being exported. A list of potential export commodities that contain hazardous materials should be included in the EIS and the impact of fugitive emissions of each type of commodity identified should be evaluated. For example, coal contains mercury, a listed HAP.

Resulting impacts to human health

Nitrogen oxide (NO_x) and nitrous oxide (N₂O) emissions from increased maritime traffic will have significant ozone-related effects. Commercial maritime shipping significantly contributes to NO_x emissions. See EPA, *Ocean Vessels and Large Ships* (2013) (attached hereto as Exhibit 14). NO_x emissions cause the formation of ground-level ozone, which reduces visibility and presents very serious human health risks. Also, N₂O is the leading cause of depletion of stratospheric ozone. See Ravishankara, et al., *Nitrous Oxide (N₂O): The Dominant Ozone-Depleting Substance Emitted in the 21st Century*, 326 *Science* 123, 123–125 (2009) (attached hereto as Exhibit 15). The co-lead agencies should address the effects of NO_x emissions from shipping and construction activities on ground level ozone and stratospheric ozone. Moreover, the EIS's should model NO_x emissions and ground level ozone concentrations for the area.

Likewise, the EIS's should examine the direct adverse effects of increased carcinogenic diesel emissions due to increased locomotive traffic. The EIS's should examine the reasonably foreseeable air emissions from the operation and maintenance of the railways. These emissions are a serious concern for people living close to train tracks, which increases a person's exposure to diesel particulate matter to a level comparable to exposures in industrial settings. Thus, the EIS's should consider the detrimental health effects that people living near the tracks will experience as a result of increased diesel particulate matter in the air.

A major concern is the exposure of vulnerable populations to these emissions. Exposure to diesel exhaust from train traffic has been connected to asthma and cardiovascular problems. Children's lungs are the most vulnerable, and if they are exposed to air pollution they can suffer from decreased lung function for the rest of their lives. Factors such as wind, rain, and hot, dry weather could all influence how much coal might escape from the trains along their journey. Diesel pollution can irritate those who are susceptible to respiratory illness. Many of the pollutants found in diesel emissions will worsen the effects of respiratory illnesses, such as asthma. The co-lead agencies' EIS's should carefully consider any and all health effects faced by local populations as a result of diesel emissions from locomotive engines.

Impacts to visibility

Fugitive emissions from the proposed site and locomotive traffic will have a direct adverse impact on visibility in the region, and in particular on the Columbia River Gorge. Haze-forming pollutants, including nitrogen oxides, sulfur dioxide, and

particulate matter, pose a serious risk to the visual experience of these majestic natural areas that have come to define the Pacific Northwest.

The EIS's should analyze the potential fugitive emissions from the proposed uncovered coal storage site and the subsequent impact on visibility. It is highly likely that coal dust will escape from the site, especially during high winds. This places a number of the region's national parks, forests, and monuments at risk. Mount St. Helens, Mount Rainier National Park, Olympic National Park, and Mount Hood National Forest (a Class I area) are just a few of the areas that stand to be impacted. The EPA has set forth stringent requirements for Class I areas, in striving to prevent any future visibility impairment, and to improve to natural conditions by 2064. *See* 40 C.F.R. § 41.308(d)(1). The proposed site could prevent or slow progress towards such federal requirements. These areas are also top tourist destinations in the Northwest. The EIS's should include impacts on tourism, the economy, and the enjoyment of these natural areas that characterize the region.

The EIS's should also consider the impact of increased train traffic through the Gorge. As a federally designated National Scenic Area, the Gorge is subject to stringent air quality standards comparable to Class I areas. In the 2011 Columbia River Gorge Air Study and Strategy, Oregon's Department of Environmental Quality stated that "[t]he goal for visibility in the Gorge is *continued improvement* using the same approach used in the federal Regional Haze Program." *See* Oregon Department of Environmental Quality, *Columbia River Gorge Air Study and Strategy* (2011), 6 (emphasis added) (attached hereto as Exhibit 16). Impacts on this area are therefore particularly important and must be carefully considered in the EIS's scope.

Current efforts to improve visibility in the Gorge may be counteracted by the loss of coal dust from open-top train cars and diesel emissions from the trains. The co-lead agencies should require MBTL to model visibility impacts on the Gorge and the cumulative impacts on visibility impairment from the coal export terminal, when considered in combination with other coal facilities in the region. The EIS's should also consider potential new tracks and additional trains that will be needed to accommodate all of these proposals.

Air modeling

The co-lead agencies should evaluate ozone in an air quality impact analysis. Cargo ships are extraordinarily high emitters of NO_x (and other criteria pollutants), a listed ozone precursor. *See* Exhibit 14. Indeed, these ships could represent the largest NO_x emitters along the Washington coast. For example, the county of Santa Barbara, California, notes that more than half of its ambient NO_x originates from vessels. *See* Santa Barbara County Air Pollution Control District, *The Need to Reduce Marine Shipping Emissions: A Santa Barbara County Case Study*, Paper # 70055 (attached hereto as Exhibit 17). Shipping emissions are the direct result of the coal export terminal, given that transport of coal by marine vessel is part and parcel of the MBTL's stated purpose and need. In addition to ozone formation occurring due to shipping emissions,

other criteria pollutant emissions from ships associated with the coal export terminal should be analyzed in the Air Quality Impacts Analysis, including non- NO_x ozone precursors.

Global greenhouse gas emissions

Carbon dioxide (CO₂) and N₂O emissions from increased maritime traffic and the burning of coal will have significant ozone-related effects and greenhouse gas effects. The burning of coal significantly contributes to NO_x emissions. The co-lead agencies' EIS's should investigate the effects of NO_x emissions from the burning of the exported coal on stratospheric ozone. The burning of the coal that will be transported will also produce large amounts of CO₂ emissions. *See* Paul Jun, et al., *CO₂, CH₄, and N₂O Emissions From Transportation-Water-Borne Navigation*, in *Good Practice Guidance and Uncertainty Management in National Greenhouse Gas Inventories (2000)* 71-92 (Intergovernmental Panel on Climate Change) (attached hereto as Exhibit 18). In combination with the depletion of wetlands (see below), a natural carbon sink, this will result in a considerable contribution to the greenhouse gases present in our atmosphere.

Though smaller amounts of N₂O will be emitted from these activities, N₂O is 300 times more potent as a greenhouse gas than CO₂. The co-lead agencies' EIS's should carefully consider the greenhouse gas impact of MBTL's proposed coal export terminal and research effective control technologies available for use by the cargo ships and support vessels. The co-lead agencies should also consider the global CO₂ impact of burning the 40 million tons of coal proposed to be exported.

Adverse impacts to water quality, generally

As increased amounts of coal travel by train along the Columbia River, coal dust, engine soot, and other pollutants will undoubtedly enter the water both directly and indirectly as it is picked up and transported with stormwater runoff. As a whole, these pollutants are highly toxic to the environment, and can have significant adverse effects on aquatic resources.

Recent studies have demonstrated the many adverse effects coal trains have on aquatic environments. For example, in 2007, the Corps analyzed the likely environmental impacts of TransAlta Centralia's proposal to build several railroad sidings to serve as turnouts for coal trains in an Environmental Assessment (EA). *See, e.g.*, Dept. of the Army, Permit Evaluation and Decision Document for TransAlta Centralia Mining (June 2007) (2007 EA) (attached hereto as Exhibit 19). The Corps' 2007 EA noted that potential sources of contaminants from rail cars transporting 4.9 million tons of coal through the project area would include "materials leached and flushed from coal cars" that contain pollutants such as "aluminum, arsenic, beryllium, cadmium, chromium, copper, iron, nickel, lead, mercury, selenium, compounds of sulfur, zinc, polyaromatic hydrocarbons, and other organic compounds and acids." *Id.* at 15-18. The Corps further reported that there are "potentially serious water quality impacts" associated with waters that have been contaminated with coal. *Id.*

The environmental consequences from coal dust entering the aquatic environment are numerous. First, the presence of coal particles floating on top of the water can have several adverse effects. These particles block sunlight needed by aquatic plants and the aquatic organisms that depend on them as a food source. This problem affects virtually all species due to the interconnected nature of ecosystems. Coal particles can also sink to the bottom of the waterway, reducing oxygen for many fauna such as clams, mussels, barnacles, and crab larvae. *See David Kershner, How Coal Affects Water Quality: State of the Science, Sightline Daily (2013) (attached hereto as Exhibit 20).* The EIS for this project must consider the effect of coal dust on water quality and aquatic ecosystems, both when the dust is floating on the water and when it is submerged.

Second, the presence of coal dust in water can result in increased acidity, salinity, trace metals, hydrocarbons, chemical oxygen demand, and macronutrients. These factors significantly affect water quality and can cause serious harm to all manner of marine life. *See W. F. Donahue, et. al, Impacts of coal-fired power plants on trace metals and polycyclic aromatic hydrocarbons (PAHs) in lake sediments in central Alberta, Canada, Journal of Paleolimnology (2006) (attached hereto as Exhibit 21).* These impacts have the potential to be extremely widespread. One study from the University of British Columbia established that tidal currents can disperse coal particles over 2 miles from the coal loading facility and, under more extreme conditions, could travel as many as 56 miles from the terminal. *See R. Johnson & R.M. Bustin, Coal Dust Dispersal Around a Marine Coal Terminal (1977-1999), International Journal of Coal Geology (2006) (attached hereto as Exhibit 22).* The report also identified a layer of coal dust over the top of the water as far as 200 meters from the terminal, even when no coal was being loaded.

The EIS for the Millenium Bulk Terminal should examine the effect of coal dust on marine environments throughout the Pacific Northwest and beyond. Such an analysis is critical to forming an understanding of both the short-term and long-term effects of coal dust likely to result from this coal export terminal.

Impacts to water quality from in-water construction

The Corps should examine water-related impacts from construction activities at the Millenium Bulk Terminal. The construction of an export facility of this size, located along the Columbia River, is likely to adversely affect water quality. The Columbia's relationship to other important waters likely means these impacts will be felt far beyond the specific project area.

In-water construction at the site is likely to have dramatic effects on water quality. In-water work, primarily involving pile driving, will be necessary to construct the approach trestle and entire dock structure. *See JARPA at 9.* The pile-driving process can result in the re-suspension of large amounts of sediment and coarse-grained material in the water column. The construction process at the site will also involve significant amounts of dredging, which will result in the re-suspension of sediments and any

contaminants contained therein. The co-lead agencies should look closely at how these in-water construction processes will impact water quality and aquatic ecosystems in the immediate area.

In addition to increased sedimentation, the planned pile driving at the site has the potential to release toxic chemicals and other contaminants into the water column. Given that the proposed construction will be taking place in a historically industrial area, it is likely there are many such pollutants present in the river substrate. The pile-driving process will disturb sediments in the river bottom containing contaminants, and re-suspend them in the water column. This can in turn make the contaminants biologically available to fish and other organisms, and can then work their way up the food chain to larger species, including humans.

Impacts to water quality from construction above-water and on land

Above-water construction and land construction at the coal export terminal is likely to have significant impacts on water quality as well. Above water, concrete will be cast in place for dock structures and terminal construction using barge-based construction equipment. *See* JARPA at 9. This barge-based equipment, along with subsequent machinery used on the water to finish these structures, can release (often unpredictably) material such as fuel, lubricant, and hydraulic fluids. When working above the water, this material could easily end up in the river. Other construction material such as concrete and slurry could end up in the water as well, with detrimental effects to water quality and aquatic species.

Construction activities, both above water and on land, could also result in increased pollution from storm water runoff. Pollutants from automobiles and construction equipment such as arsenic, copper, zinc, lead, and mercury can have detrimental effects on aquatic organisms, including fish and animals, as well as humans who eat them. Control of storm water runoff from the site should be carefully considered to ensure these pollutants do not end up in surrounding waters.

In sum, the co-lead agencies should closely examine the water-related environmental impacts from construction of the coal export terminal. Increased turbidity, re-suspension of contaminants, and discharge of pollutants from construction activity and stormwater runoff are very real concerns. The clarity and chemical and physical characteristics of the Columbia River stand to be dramatically affected as a result of the construction work. Given the persistence of many of the toxic chemicals mentioned in this section, and the functional connectivity of the Columbia River, these effects will likely be felt far beyond the immediate project site.

Permanent loss of wetlands

The Millennium Bulk terminal is likely to cause permanent and irreversible harm to thousands of acres of wetlands across the Pacific Northwest. Such damage is particularly important to note because more than half of the wetlands in the lower 48

states have already been lost, and the remaining wetlands continue to disappear at a rate of more than 60,000 acres every year. *See Defenders of Wildlife, Threats (2013)* (attached hereto as Exhibit 23). The Corps has recognized that shipping coal by train is likely to cause significant damage to wetlands located along or near the rail lines, mining sites, and export terminals.

For example, in its 2007 EA, the Corps acknowledged that TransAlta's small-scale project was likely to destroy three acres of wetlands and contaminate other wetlands along four miles of rail track. *See 2007 EA, pages 1-2.* MBTL's proposed coal export terminal, in contrast, anticipates the transport of up to 44 million tons of coal every year past more than 1,500 acres of wetlands – all within just 100 meters of the tracks – in Washington, Montana, Idaho, and Wyoming.

Coal transportation by rail is likely to have additional detrimental effects on wetlands and other water features, including: creating black grit that blocks the sun and clogs fish gills; increasing the acidity of wetland systems; and increasing the concentration of polycyclic aromatic hydrocarbons (PAH), which in turn adversely affects plants, shellfish, fish, otters, and other aquatic species. *See Scott Eustis, How Coal Exports Scum up our Wetlands, Restoration Network (2013)* (attached hereto as Exhibit 24). Each of these potential effects should be examined in the EIS's.

Coal, and the chemicals that may leach from it, may enter wetlands directly or as an indirect addition through runoff. First, there is a strong likelihood that coal dust will infiltrate wetlands directly by being blown off of passing trains (see Coast Dust section, above). In addition, runoff can wash toxic chemicals from the coal into the wetlands, a problem exacerbated by high levels of rain in the region, and especially in Western Washington. The co-lead agencies should closely examine the effects on wetlands from both of these direct and indirect additions.

At bottom, the co-lead agencies must consider damage to wetlands existing both at the project site and along the coal train routes. These important ecosystems are rapidly vanishing from the United States. Protecting the country's remaining wetlands is essential to the protection of the numerous species and municipalities that rely on the ecosystem services these lands provide. Loss of these services is often irreversible.

Impacts to wildlife

The co-lead agencies should thoroughly analyze the environmental impacts to all species that the coal export terminal would affect, including those impacts resulting from increased railroad traffic in various states and marine vessel traffic along the Columbia River and off of Washington's coast. For example, increased rail traffic may adversely impact the vitality of local populations of deer and elk. Many studies are available on the amount of yearly automobile crashes involving deer. Trains also pose the threat of colliding with deer and affecting population numbers. These types of unfortunate interactions can be avoided by using wildlife crossings such as tunnels and underpasses that allow animals to pass safely around railroad tracks.

Species that are listed under the Endangered Species Act (ESA) and present in the region of the proposed facility are described below to highlight the existence of specially protected species in the region of the proposed coal export terminal. The co-lead agencies should contact the U.S. Department of Fish and Wildlife (FWS) and the National Marine Fisheries Services (NMFS) to determine all listed species that may exist in the area. At least five listed species reside in Cowlitz County. See U.S. Fish and Wildlife Service and Washington Fish and Wildlife Office, *Listed and Proposed Endangered and Threatened Species in Cowlitz County* (April 2013) (attached hereto as Exhibit 25). The four species are: (1) the bull trout (*Salvelinus confluentes*); (2) the Columbian white-tailed deer (*Odocoileus virginianus leucurus*); (3) the gray wolf (*Canis Lupus*); (4) the marbled murrelet (*Brachyramphus marmoratus*); and (5) the Northern spotted owl (*Strix occidentalis caurina*). Critical habitat has been designated in Cowlitz County for the bull trout and the marbled murrelet.

Because construction and operation of the coal export terminal will increase marine vessel traffic along the Columbia River, through the Columbia Estuary, and along the coast, the co-lead agencies should consider impacts to marine species. Increased sedimentation from in-water work (see above) can be detrimental to many forms of aquatic life, including listed salmon and steelhead populations. The increased turbidity can reduce light penetration in the water, lowering the rate of photosynthesis and the overall productivity of an aquatic area. Further, this turbidity can reduce the feeding ability of sight-dependent fishes, and is aesthetically displeasing. The noise and vibrations of such construction may also prove detrimental to the native aquatic species and, therefore, deserve consideration in the EIS process. The loading of boats could affect various species that use the Columbia River as habitat. Increased boat traffic may also deter wildlife from using the river. The co-lead agencies should analyze the increased risk of coal spills into the Columbia River, resulting water quality impacts, and the consequent impact on wildlife. Minor changes in water quality can have drastic effects on local fish populations.

The impact to species present in wetlands must be considered as well. Many of these species may be listed as threatened or endangered under the ESA. Wetlands provide a home to over a third of the country's threatened and endangered species and almost half of all listed species use wetlands over the course of their lives. Given the current rates of wetland destruction nationwide (see above), the co-lead agencies should consider the likely impacts of this coal export terminal on the remaining wetland habitat that is so crucial for many listed species.

The harm to aquatic organisms from the coal export terminal and related infrastructure may also affect the availability of fish for humans who rely on fishing in the Pacific Northwest for sustenance, employment, recreation, or cultural heritage. The fishing industry, a \$3.8 billion annual industry in Washington that employs 60,250 people, could suffer dramatically as a result of diminished fish populations. See *The Salish Sea: In Danger*, Power Past Coal (2013) (attached hereto as Exhibit 26).

Impacts to land

The co-lead agencies must pay attention to not only the potential impacts on species' welfare and reproductive abilities, but also species' habitat. Ecosystem degradation is intertwined with impacts to air and water quality. For example, increased coal dust, stormwater discharges into the Columbia River, the increased risk of coal and/or oil spills, and increased noise and rail traffic are all impacts or sources of impacts described above that will have real impacts on the land.

The co-lead agencies' EIS's should address potential impacts to parks and conservation areas located not only in the area of the coal export terminal but also in the areas along the rail lines and along the proposed marine shipping routes. Increased coal train traffic along the rail line could result in the spreading of coal dust onto adjacent lands through fugitive emissions and spills. The EIS's should identify mitigation efforts and the potential impacts of this coal on parks and conservation areas in the area of the rail line and the proposed terminal site. NEDC urges the co-lead agencies to perform a survey to determine the various sensitive environmental lands could be harmed as a result of the project.

Conclusion

NEDC urges the co-lead agencies, and in particular the Corps, to prepare an environmental analysis that focuses not only on the impacts of MBTL's proposed coal export terminal, but also the impacts of this project when added to existing and potential future fossil fuel transport projects in the Pacific Northwest. Indeed, "NEPA aims to establish procedural mechanisms that compel agencies, such as the Corps, to take seriously the potential environmental consequences of a proposed action." *Ocean Advocates v. U.S. Army Corps of Engineers*, 402 F.3d 864 (9th Cir. 2004). Failure to consider the cumulative impacts of authorizing the numerous fossil fuel transport projects in the Pacific Northwest would be turning a blind eye to the very real environmental impacts that stand to follow. These consequences must be fully understood before the co-lead agencies can make a rational decision.

Sincerely,

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