

ECOLOGICAL SOLUTIONS, INC.

T 206-285-3015 | F 206-283-0323 | C 206-841-3801



4013 32nd Avenue West
Seattle, WA 98199

November 29, 2016

U.S. Army Corps of Engineers
Seattle District, Regulatory Branch and
Washington State Department of Ecology
SEA Program

Re: Comments on the Millenium Bulk Terminals (MBT) Draft Environmental Impact Statement (DEIS) (Millennium Bulk Terminals Longview, LLC; NWS-2010-1225)

To Whom it May Concern,

I appreciate the opportunity to comment on the MBT DEIS. I am certified as an ecologist by the Ecological Society of America. Since 1991, I have been an environmental consultant in Seattle and authored numerous sections or chapters of the environment including water quality, aquatic resources, wetlands, and flooding) of both NEPA and SEPA environmental impact statements on a number of proposed projects on behalf of public sector clients, such as the Washington State Department of Transportation, Port of Seattle, Washington State Department of Ecology (Ecology), and various municipalities. With over 30 years of experience, my NEPA/SEPA project experience has included the Port of Seattle's controversial Third Runway project, various state highway projects proposed by WSDOT, and Ecology's early examinations of herbicides and pesticides in aquatic environments. My education includes a B.S. degree in Biology and M.S. in Environmental Studies with an emphasis in aquatic ecology. My consulting career has focused on documenting, evaluating, and mitigating impacts to natural resources, particularly wetlands, fisheries and other aquatic biota, and water quality. In addition to my consulting experience, I have worked since July of 2013 as a Senior Environmental Analyst for Seattle City Light producing NEPA/SEPA documents and permit applications needed to permit capital improvement projects at the Skagit and Boundary Hydroelectric Projects. I have over 20 years of experience managing complex development projects and am an expert in environmental compliance at federal, state, and local government levels. For more than 20 years I have managed preparation of numerous environmental studies and permit applications needed to obtain approvals and permits under NEPA, SEPA, National Historic Preservation Act (NHPA), the Clean Water Act, CERCLA, Magnuson-Stevens Fishery Conservation and Management Act, Washington Hydraulic Code, Washington Shoreline Management Act, Washington Growth Management Act, and critical areas ordinances to build proposed projects.

Regardless of which action alternative is considered, the DEIS is fundamentally flawed relative to the stated Purpose and Need; analysis of impacts to various elements of the environment (particularly federally listed threatened and endangered fish and marine mammals); and the

ability to adequately mitigate these to an insignificant level. Even if the proposed project could pass the U.S. Army Corps of Engineers (Corps) public interest test needed to obtain a Clean Water Act Section 404 permit, project specific and cumulative impacts from this and other reasonably foreseeable projects to multiple anadromous fish species present in the Columbia River and marine mammals in the Pacific Ocean listed as threatened or endangered appear to be unable to comply with the Endangered Species Act (ESA). Additionally, associated adverse impacts to ESA-listed fish species, which are culturally important to treaty tribes and whose populations would likely be adversely impacted at a cumulative impact level even with proposed mitigation, would result in treaty violations and cannot pass meet Section 106 provisions of the NHPA. So, the Corps must deny the Section 404 permit. The following sections provide more detailed assessment of fundamental flaws in the DEIS.

PURPOSE AND NEED

The stated purpose and need is to meet Asian market demand for low-sulfur coal is not based on the most current information or is inaccurate. Section 2.2 indicates the demand for coal has increased in recent years. Section 2.2.1 claims that Japan, South Korea, and Taiwan are the primary markets. However the U.S. Energy Information Administration (2011) indicates that China, South Korea, and Taiwan have historically been the world's primary coal importers. Section 2.2.1.1 of the document indicates that demand is expected to increase by 87% compared to current 2013 levels citing U.S. EIA 2013b. No timeframe for this growth is given in the document and it is not supported by more current coal demand forecasts (U.S. EIA 2014 and C2ES 2016) or stated commitments and the rapid transition to cleaner energy forms by the People's Republic of China to reduce greenhouse gas emissions from coal use and peak greenhouse gas emissions by 2030.

Furthermore the document inaccurately depicts the cost-competitiveness of the proposed export terminal subbituminous, low sulfur coal compared to equivalent available subbituminous coal supply from Indonesia. The document correctly identifies that "Indonesia has abundant coal reserves and is geographically proximate to coal-importing countries in Asia" in Section 2.2.3. However, the document fails to clearly indicate how subbituminous coal from the Powder River Basin can be cost competitive per short ton given this fact. Both Indonesia and Australia are located closer to identified Asian markets and have substantial reserves and control more market share and clearly are more cost-competitive as a result. The document suggests that Powder River Basin coal has more desirable characteristics, such as lower sulfur and ash content and higher energy content, but the information provided is not convincing and does not appear accurate. The document suggests that Powder River Basin coal has a sulfur content of approximately 0.4% compared to 0.6% for Indonesian subbituminous coal. This difference appears to be insignificant. Similarly, ash content between Indonesian coal does not appear to be significantly different than Powder River Basin Coal, 8% versus 7%, nor does energy content of as indicated in Table 2-1 and 2-2.

More current data from the U.S. EIA (2016) clearly indicates that there is a much greater supply on the world market than there is demand, which has affected costs. U.S. EIA data clearly reflects this showing that total U.S. coal production declined reflecting in part due to the declines in cost per exported coal on a short ton basis to Asian countries. As a consequence, U.S. exports declined sharply from 2015 to 2016, including production from the Powder River and Uinta Regions. The total quantity of exported coal to targeted Asian markets (Japan, China, and South Korea) has declined over the last year between 18% and 53% and is likely to continue to decline in the future given China's rapid conversion to cleaner, renewable energies, which is in part being driven by poor air quality and adverse health impacts on Chinese citizens. The alleged low sulfur and ash content of Powder River Basin coal is not sufficiently different from Indonesian subbituminous coal to offset air quality and human health impacts from coal combustion. Finally, just like has occurred in the U.S. since 2008 cheaper, higher energy natural gas resources are expected to become increasingly important proportionally to total energy production, which will reduce the demand for higher cost, dirtier, and less efficient coal energy in Asia.

GREENHOUSE GAS EMISSIONS

The analysis of greenhouse gas emissions from the construction and operation of the proposed export terminal is fundamentally flawed. Greenhouse gas emissions that contribute to global warming and attendant impacts, such as ocean acidification and extreme weather events that result in billions of dollars in damage annually in the U.S. are not accurately quantified and cannot be mitigated. The document correctly makes reference to the regulatory frameworks by referencing the U.S. Climate Action Plan (2013) and the U.S. Intended Determined contributions submittal to the UNFCCC in Table 6.8-2. However, it fails to provide a complete accounting of emissions and impacts for excavation, transportation, and combustion of coal produced in the Powder River Basin and Uinta regions. As these documents are national in scope, the emission accounting needs to be at that level. The methods in Section 6.8.4 of the document are too abbreviated to enable the reader to assess how the more limited emission scenario for construction and operation included in the document are calculated and whether these are accurate. The Scope of the Analysis indicates that the global warming potentials in the IPCC Fourth Assessment Report were used to calculate GHGs as CO₂e. The methods used should be consistent with the IPCC's Fifth Assessment Report, which is the most current document. Impacts should likewise be made based upon the most current information in the Fifth Assessment Report. In essence, any increase in emissions is a business as usual approach and would contribute to continuing escalation of the concentration of GHGs in the atmosphere and attendant impacts from global warming and climate change. As the Corps will require compensatory mitigation for any unavoidable impacts to wetlands, suggesting that removal of wetlands will partially reduce emissions of GHGs is inappropriate, particularly in light of best available science which shows that compensatory wetlands can be a relatively large net source of GHGs until a switchover point is reached, which can be hundreds or thousands of years in the future for freshwater wetlands (Neubauer and Megonigal 2015).



The comments herein are my own and I have received no compensation for preparing them. It is unfortunate that potential profits of corporate coal are being put before doing what is right relative to global warming and protecting biological diversity and the future of humanity both here and abroad.

Sincerely,

SCOTT LUCHESSA
Certified Ecologist
Owner Ecological Solutions, Inc.

REFERENCES

Center for Climate and Energy Solutions. 2016. Coal facts. Accessed online November 29, 2016 at <http://www.c2es.org/energy/source/coal>.

Neubauer, S.C. and J.P. Meconigal. 2015. Moving beyond global warming potentials to quantify the climatic role of ecosystems. *Ecosystems* 18:1000-1013.

U.S. Energy Information Administration. 2014. Subbituminous coal exports from Indonesia, Australia, and the U.S. from 2010-2014. *International Energy Statistics*. Accessed online at <https://www.eia.gov/> on November 28, 2016.

U.S. Energy Information Agency. 2016. Quarterly Coal Report April – June 2016. Published September 2016. Accessed online at <https://www.eia.gov/> on November 27, 2016.

