

November 18, 2013

Delivered via e-mail

comments@millenniumbulkeiswa.gov

Proposed Millennium Bulk Terminals-Longview EIS
c/o ICF International
710 Second Avenue, Suite 550
Seattle, WA 98104

Danette L. Guy, Biologist/Project Manager
U.S. Army Corps of Engineers, Seattle District
Regulatory Branch
Southwest Field Office
2108 Grand Boulevard
Vancouver, WA 98661

Dr. Elaine Placido, Director
Cowlitz County Department of Building and Planning
207 4th Avenue North
Kelso, WA 98626

Diane Butorac, Regional Planner
Department of Ecology, Southwest Regional Office
P.O. Box 47775
Olympia, WA 98504-7775

**RE: Comments on Scope of EIS for Proposed Millennium Bulk Terminals Longview
LLC Coal Export Terminal: Docket number 2013-19738**

Dear Lead Agency Representatives:

Thank you for this opportunity to provide scoping comments for preparation of a draft Environmental Impact Statement (EIS) for the proposed Millennium Bulk Terminals, Longview LLC coal export facility (MBTL). Please accept the following comments from the San Juans Alliance. We are a group of organizations in the San Juan Islands who are concerned about preserving and protecting one of the most beautiful places on Earth from the potential deleterious consequences of shipping and burning coal in Asia.

The San Juan Islands' environment, health, and economy are threatened by increases in coal shipments — more than 44 million tons per year — from the proposed MBTL. We face “direct, indirect and induced” damage to the health of our environment due to the terminal's increased shipping traffic, with its accompanying underwater noise, air and water pollution, increased risk of a fuel/cargo spill and potential impacts to federally listed threatened and endangered fish, wildlife and marine mammals under the US Endangered Species Act.

I. MBTL THREATENS THE ECONOMY OF THE SAN JUANS

People come to the San Juan Islands from all over the world to enjoy the natural environment and to see birds and marine life. The San Juan Islands economy is inextricably connected to the beauty of our environment and the health of our ecosystems. Many islanders depend upon a healthy and sustainable salmon fishery and Orca population. Tourism is the primary economy in San Juan County and our resident Orca whales are the prime driver of that economy.

San Juan County's current economic bread and butter are visitors, retirees, and part-time residents who have vacation homes in the islands. With a boost from the recent designations of “#1 Island in the U.S.” by Trip Advisor¹, “#2 in the New York Times' Best Places to Visit,” “#3 on Lonely Planet's ‘Top 10 Destinations for 2013’”, and National Monument status, the San Juan Islands are now a major tourist destination. San Juan County's visitors and part-time residents provide significant state and local tax revenues. ² In 2012, more than 700,000 people visited our islands and spent nearly \$158 million.³ In the same year, 1,850 jobs here were directly related to the travel industry.⁴ During August 2012, the peak travel month, the total number of non-agricultural jobs — direct (due to tourism), indirect and induced — in San Juan County was 6,450.⁵

Please address the following impacts in the draft EIS for the MBTL:

1. What are adverse impacts, including the adverse impacts from the increased risk of oil and/or coal spills, to salmon, an essential food for the Orca, in the Columbia

¹ <http://www.youtube.com/watch?v=8ApKOSYothA>

² San Juan County collected \$884,314 and the Town of Friday Harbor collected \$298,830 in lodging taxes in 2012. Treasurer, Town of Friday Harbor; San Juan County Treasurer's Office.

³ San Juan Islands Visitors Bureau, <http://www.visitsanjuans.com>

⁴ Dean Runyan Associates “Washington State Travel Impacts and Visitor Volume, 2002-2012.”

⁵ Washington State Employment Security Department, Labor Area Summaries, <https://fortress.wa.gov/esd/employmentdata/reports-publications/regional-reports/labor-area-summaries>.

River?

2. What would be the adverse impacts to forage fish, an essential food for salmon and in turn Orca, from increased coal or oil spills in the Columbia River?
3. What is the economic threat from the loss of Orca to the economy of the San Juans?
4. What would be the loss of property values and what would be the loss of tourism, real estate sales, from depleted fish and wildlife populations such as Orca in the event of a major oil spill in the Columbia River?
5. What would be the loss of property values and what would be the loss of tourism, real estate sales, from depleted fish and wildlife populations such as Orca in the event of a major oil spill from vessels and barges transiting through the San Juans on their way to deliver propulsion fuel to ships in Longview?
6. In analyzing each and all of the above impacts, what would a “worst case scenario” look like in the presence of *each* of the plausible, compounding factors or events, including but not limited to human errors, storms, earthquakes, tsunamis, and other planned/proposed projects that may contribute to increased cumulative impacts and chance of accidents? What would a “worst case scenario” look like for *all* the above plausible, compounding factors combined? What would be the estimated damages in dollars, overall and for San Juan County in particular, if such a “worst case” event were to happen? Will the MTBL project have sufficient insurance coverage to insure against the “worst case” damages and economic losses?

II. UPPER COLUMBIA RIVER AND SNAKE RIVER CHINOOK SALMON ARE ESSENTIAL FOR THE SURVIVAL OF SAN JUAN COUNTY’S ORCA WHALES

The Southern Resident Killer Whales (SRKW), also known as the orca whale, is San Juan County’s icon. As noted above, our tourism-driven economy is dependent on these charismatic marine mammals. The birth rate of the SRKWs is strongly correlated with the abundance of Chinook salmon. New information shows that abundant runs of Columbia and Snake River Chinook salmon are important to the long-term survival of the SRKW.⁶

Since the Southern Resident Killer Whale (SRKW) was listed as Endangered under the

⁶ http://www.nwfsc.noaa.gov/research/divisions/cb/ecosystem/marinemammal/satellite_tagging/blog.cfm

Endangered Species Act in 2005, the National Oceanic and Atmospheric Administration (NOAA) has funded studies of SRKWs to better understand how they can be protected. A key part of this effort is defining Critical Habitats that are essential for their traveling, foraging, resting, and reproduction. It is well established that SRKWs spend much of the summer near the San Juan and Canadian Gulf Islands, but winter sightings had been rare until a satellite-tracking device was attached to a young male SRKW in K pod. This NOAA-funded project has tracked the winter travels of the K pod of Southern Resident Killer Whales along the outer coast from the Strait of San Juan de Fuca to Northern California. K pod spent the most time between late December 2012 and early April 2013 around the mouth of the Columbia River. Because Chinook salmon is the preferred food of the SRKW, they were likely feasting on upper Columbia and Snake River Chinook salmon that were transiting these waters at the time.

Juvenile Chinook salmon use the lower Columbia River for migration and sustenance. Adult salmon must migrate along the Columbia River past the site of the proposed MBTL. Impacts associated with the proposed terminal, including fuel spills from vessels visiting the terminal, are potential threats to maintaining Chinook salmon runs adequate to sustain the Southern Resident Killer Whale population. Therefore we request that the scope of the EIS for the proposed MBTL include a study of impacts to this key salmon population that is federally listed as Threatened under the Endangered Species Act. Chinook salmon are also subject to further conservation considerations under the Fish and Wildlife Coordination Act, 16 U.S.C. 661-667e and the Magnus-Stevens Fishery Conservation and Management Act-Essential Fish Habitat, Pub. L. 94-265 and by international conservation efforts under the Treaty. As species listed under the Endangered Species Act, their defined critical habitat must be protected under law.

Please address the following impacts in the draft EIS for the MBTL:

1. What would be the impacts to Chinook salmon, and especially to juvenile Chinook salmon, caused by the construction of eight rail lines, two new docks, two ship-loaders, four coal stockpile pads, and associated facilities, conveyors, and equipment?
2. Because earlier industries have contaminated the river sediments surrounding the site of the proposed Millennium Bulk Terminals-Longview, what would be the impacts to Chinook salmon, and especially to juvenile Chinook salmon, of dredging the close to 400,000 cubic yards of contaminated river sediments necessary for the Millennium Bulk Terminals-Longview project?
3. What would be the cumulative impacts to Chinook salmon, and especially to

juvenile Chinook salmon, of dredging contaminated river sediments near the Millennium Bulk Terminals-Longview site every few years to maintain access for Panamax-sized vessels?

4. What would be the impacts to Chinook salmon, and especially to juvenile Chinook salmon, of driving 647 new steel piles into contaminated river sediments?
5. What would be the impacts to Chinook salmon, and especially to juvenile Chinook salmon, of the shading caused by 647 new steel piles and two new docks?
6. What would be the impacts to Chinook salmon, and especially to juvenile Chinook salmon, of the noise and lighting during construction of the eight rail lines, two new docks, two ship-loaders, four coal stockpile pads, and associated facilities, conveyors, and equipment?
7. What would be the impacts to Chinook salmon, and especially to juvenile Chinook salmon, of the noise and lighting during the round-the-clock operation of the proposed eight rail lines, two new docks, two ship-loaders, four coal stockpile pads, and associated facilities, conveyors, and equipment?
8. What would be the impacts to Chinook salmon, and especially to juvenile Chinook salmon, of cumulative smaller fuel spills from the vessel traffic associated with the Millennium Bulk Terminals-Longview?
9. What would be the impacts to Chinook salmon, and especially to juvenile Chinook salmon, of cumulative moderately-sized fuel spills from the vessel traffic associated with the Millennium Bulk Terminals-Longview?
10. What would be the adverse impacts to Chinook salmon from a single catastrophic fuel spill? Please take into account the possibility of all plausible, compounding factors, including earthquakes from the Cascadia subduction zone and resulting tsunamis. According to studies by Oregon State University⁷ and scientists at the Geological Survey of Canada (a Canadian government agency)⁸ there is a 10-15% chance of a mega-quake (magnitude 8 or greater) within the next 50 years.
11. What would be the adverse impacts to migrating Chinook salmon smolts from oil spills of all sizes and in particular from heavy (also referred to as persistent) oils?
12. What would be the cumulative adverse impacts to Chinook salmon from the

⁷ <http://oregonstate.edu/ua/ncs/node/13426>

⁸ <http://earthquake.usgs.gov/hazards/about/workshops/PacNWworkshoptalks/AdamsCascCondProbUSGS06.pdf>

increased risks of an oil spill especially given the treacherous conditions that can exist at the Columbia River bar that is known as the “Graveyard of the Pacific.”

13. What would be the impacts to Chinook salmon, and especially to juvenile Chinook salmon, from improper flushing of vessel bilge spaces to remove oil, oil vapors, and other chemicals that may be lethal or sub-lethal to juvenile salmon?
14. What would be the impacts to Chinook salmon, and especially to juvenile Chinook salmon, if the oil separator for the bilge water is bypassed or is not functional?
15. What would be the impacts to Chinook salmon, and especially to juvenile Chinook salmon, from pollution-bearing stormwater from the proposed Millennium Bulk Terminals-Longview facilities into the Columbia River?
16. What would be the impacts to Chinook salmon, and especially to juvenile Chinook salmon, from stormwater runoff from the uncovered coal stockpiled at the facility?
17. What would be the impacts to Chinook salmon, and especially to juvenile Chinook salmon, from runoff of the dust-control water that is applied to the piles of coal?
18. What would be the impacts to Chinook salmon, and especially to juvenile Chinook salmon, if the dust control water and the stormwater runoff are not reliably treated to an exceptionally high level before entering the Columbia River?
19. What would be the impacts to Chinook salmon, and especially to juvenile Chinook salmon, caused by the removal of Columbia River water to control fugitive dust?
20. What would be the impacts to Chinook salmon, and especially to juvenile Chinook salmon, from fugitive coal dust released during vessel loading of coal that uses only partially covered conveyors?
21. What would be the impacts to Chinook salmon, and especially to juvenile Chinook salmon, from fugitive coal dust released into the Columbia River from the piles of coal and during conveyor loading of coal during periods of strong winds?
22. What would be the impacts to Chinook salmon, and especially to juvenile Chinook salmon, from fugitive coal dust released from uncovered boxcars of coal travelling along the windy Columbia River Gorge?
23. What would be the impacts to Chinook salmon, and especially to juvenile Chinook salmon, from coal train derailments along the Columbia River caused by rail bed

instability promoted by fugitive coal dust?

24. What would be the impacts to Chinook salmon, and especially to juvenile Chinook salmon, if the dust suppressants like MinTopper S+0150, which has not been properly tested for ecological effects, is used to suppress fugitive coal dust at the proposed terminal and used on coal-filled boxcars that will travel along the windy Columbia River Gorge? What amount of MinTopper S+0150, or other dust suppressants, would be lost to the environment during different weather conditions? What would be the amount of MinTopper S+0150, or other suppressants, lost into the environment annually? What are the effects of MinTopper S+0150 or other suppressants and their multiple degradation products on juvenile salmon? Do MinTopper S+0150 and other suppressants partially degrade into endocrine disruptors of salmon reproduction or development in certain ecological compartments such as anoxic river sediments?
25. What would be the impacts to Chinook salmon, and especially to juvenile Chinook salmon, from the acids formed by diesel pollutants generated by the trains and ships visiting the proposed Millennium Bulk Terminals –Longview?
26. What would be the impacts to Chinook salmon, and especially to juvenile Chinook salmon, from nitrogen pollutants emitted by the diesel engines of the trains and ships visiting the proposed Millennium Bulk Terminals –Longview?
27. What would be the impacts to Chinook salmon, and especially to juvenile Chinook salmon, of cumulatively increasing mercury levels in their tissues caused by the return of coal pollutants to the Pacific Northwest on the prevailing winds from Asia?
28. What would be the impacts to the federally listed Endangered Southern Resident Killer Whales from consuming Chinook salmon with increasing levels of mercury in their tissues?
29. What would be the impacts to Chinook salmon from decreased stream flows and rising water temperatures in their spawning areas caused by the acceleration of climate changes caused by the burning of coal exported from the MBTL to Asia?
30. What would be the impacts to the federally listed Endangered Southern Resident Killer Whales from declining runs of Upper Columbia River and Snake River Chinook salmon?

Please consider the following mitigations:

1. Cease operations during the migration of Chinook salmon smolts.
2. Cease operations when juvenile Chinook salmon are present.
3. Cease operations when adult Chinook salmon are migrating.

Please Review the Cumulative adverse impacts to Chinook salmon

The draft EIS for Millennium Bulk Terminals –Longview should also study the cumulative adverse impacts to Chinook salmon of the proposed Morrow Pacific Coyote Island Project, the proposed Port Westward Transloading Coal Barge Dock, the proposed Vancouver Energy Distribution Terminal, the proposed Global Partners facility at Clatskanie, and the proposed Paramount Terminal at Portland.

III. CUMULATIVE IMPACTS OF VESSEL TRAFFIC

The total number of cargo and tanker vessels calling at Columbia River terminals in 2012 was about 1428⁹. Considering the two proposed coal export terminals, Millennium Bulk Terminal and Port Westward Coyote Island Terminal, coupled with Ambre’s Pacific Trans loading Barge Dock, the number of vessels navigating the Columbia River could increase by as much as 50%. The number and size of ships visiting the existing and proposed terminals and the amounts of hazardous cargo or fuel within those ships elevates the risk of shipping accidents and fuel spills in the Columbia River, the Columbia River Bar, or surrounding ocean waters.

Although the annual number of oil tanker spills fell about three-fold world-wide between 1992 and 2011, the number of fuel spills for allisions, collisions, and groundings of tankers and bulk cargo carriers in restricted and inland waters did not decrease during this period. These data indicate that improvements in the shipping industry, the efforts of the International Maritime Organization, and national governments have not decreased the number of accidents in inland and restricted waters. As an inland waterway, the Columbia River’s significant spill risk could be even greater than the world-wide average.

In contrast to the reduction in tanker fuel spills (likely due to double-hulls and other structural improvements in tanker design); world-wide bunker fuel spills did not decrease between 1992 and 2011.¹⁰

⁹ Washington State Department of Ecology, Spill Prevention, Preparedness and Response Programme. (2013). *Vessel Entries and Transits for Washington Waters: VEAT 2012*. (Washington State Department of Ecology).

¹⁰ Figures 9 & 13 in: Trends in Oil Spills from Tankers and ITOPF Non-tanker Attended Incidents Susannah Musk,

Bunker fuel is the generic term for fuel used by ship engines. It is heavier and more polluting than other fuels. The bunker fuel capacity of most large bulk carriers can be as much as 1.2 million gallons. These are single hull vessels with double bottoms that experience a historically higher mechanical failure and accident rates than other vessels. Combine these characteristics with the fact that most are operated by foreign crews, and misunderstandings or miscommunications, navigational errors (despite the presence of a US Pilot) will additionally contribute to the risk level.

Bulk carriers travel without tug escorts, and require a large amount of room to maneuver. In an emergency, they require up to 1¼ miles to stop with power, and up to 7 miles without. In addition, these ships have large areas above the water that act as a sail. At low speed, this “sail area” makes them difficult to maneuver. An un-powered ship is even more subject to wind and currents, and will be essentially out-of-control without power or tug assistance. The absence of tug assistance, inadequate ship maintenance and crew training along with severe weather all increase the risk of a fuel spill.

In an emergency, tug assistance can be undependable because it is based on the vessel of opportunity concept. This means that any tug that happens to be in the area may be called upon to provide assistance to a stricken vessel. However, a randomly available tug may not have the power, the proper equipment, or crew training necessary to render effective assistance to a large vessel in distress.

The bar at the entrance to the Columbia River is a physical challenge to any mariner and seagoing vessel. The following is from “Running the Bar” in the February, 2009 Smithsonian Magazine:

‘Each of the 16 bar pilots has the authority to close the bar when conditions are too dangerous.’ Still, “When we shut down the bar for two days, trains are backed up all the way into the Midwest. And just like a traffic jam on the freeway, once you clear the wreck, it takes a long time for it to smooth out again.”

The impediment of the Columbia Bar has the potential to cause substantial delays in shipping schedules, particularly during stormy conditions. Shutting down “the bar” for several days in bad weather could result in coal trains accumulating all along the rail transport corridor, all the way back to the mines.

Because of the increased vessel traffic from all proposed facilities, the Millennium Bulk Terminal EIS should include vessel traffic and risk evaluation studies. These assessments

should consider not only the increased vessel size and numbers, but also the requirement for an expansion in the number of trained ship pilots to ensure safe navigation of the Columbia River from the bar to the proposed terminals and to sea again.

Please address the following questions within the EIS being developed for MBTL:

1. What would be the adverse impacts to Columbia and Snake River Chinook salmon (which are an essential food source for Southern Resident Orca Whales) from the increased risk of oil and/or coal spills associated with the Millennium Terminal and the other proposed terminal on the river?
2. What would the economic losses to commercial and recreational fisheries be as a result of intermittent, and point source medium, and large oil spills in the Columbia River system impacting salmon, other finfish, and shellfish populations?
3. Are there adequate oil spill response resources and capability (trained personnel, equipment, response plans, and vessels) available and resident in the lower Columbia River to respond to, contain, and clean up oil spills? If not, please determine what would be required, what would be the cost, and who would pay to upgrade response resources necessary to adequately address oil spills on the river?
4. What would be the economic and social impacts from a storm related or terminal equipment malfunction delay (possibly for days) in the scheduled shipping of coal from the proposed terminals, on the rail transportation system, and communities along the rail shipment corridor? Please study the impacts on local businesses, medical response time, traffic, and the efficient movement of goods by trucks created by any foreseeable delays in transportation of fossil fuels to export terminals
5. In addition to trains, would not ships be backed up? Would ships remain offshore or would some need to anchor in the river? Both choices increase navigational hazards in dangerous waters.
6. What would be the loss of property values, tourism revenue, real estate sales and related tax revenue from a major oil spill in the Columbia River or associated waters?
7. For each of the impacts above, please conduct “worst-case” scenario analyses considering each and all combinations of possible, compounding factors such as storms, floods, earthquakes and human errors.

IV. IMPACTS OF OCEAN ACIDIFICATION

Since the beginning of the industrial age ever-increasing amounts of carbon dioxide have been released into the atmosphere, not only warming the planet but increasing oceanic CO₂ content by 30% during the same period. For many years scientists have been measuring and reporting that oceanic CO₂ absorption is causing seawater to be more acidic. The chemistry of our oceans is changing. This change is already impacting coral reefs and could now threaten the entire marine food chain.

An article in the Journal *Nature Geoscience* 5, 845-846 (2012), reported that Pteropods, which are small snail-like sea creatures important to many fish including salmon, are experiencing thinning and dissolution of their shells resulting in increasing morbidity and mortality. This is occurring at current pH levels, levels which were not expected to be reached until 2038. Any organism dependent on calcium carbonate for a shell or body parts is now at risk from acidification. Fish eggs, embryonic fish, and a host of larval organisms at the very base of the marine food web are likewise threatened.

In past epochs, mass extinctions occurred when oceans became similarly acidic. However, because the chemical changes occurred over many centuries, the ancestors of today's sea creatures were able to adapt to that slowly changing environment. The rapidity and immensity of chemical changes now occurring may not allow marine organisms to evolve species preserving strategies.

Ninety seven percent of climate scientists agree that the burning of fossil fuels by industry, transportation, and energy production are responsible for the climate and chemical changes occurring in the atmosphere and oceans. If oceanic biodiversity is important for the species we rely upon as a food source, it would seem illogical to continue to promote the use of fuels associated with physical and economic damages linked to atmospheric and oceanic changes.

Executive Order 12-07, Washington's Response to Ocean Acidification, includes implementation of the recommendations of Governor Gregoire's Blue Ribbon Panel on Ocean Acidification; the number one recommendation is to reduce emissions of carbon dioxide. The proposed Millennium Bulk Coal Export Terminal presents a direct contradiction to that Executive Order.

Therefore, the Millennium Bulk Terminal EIS should include the potential biological, environmental, social, and economic consequences to the Pacific Northwest from burning the 44 million tons of coal to be shipped from this facility. The carbon dioxide and other green house gasses (GHG) contributions from burning coal shipped from the other two

proposed Northwest coal export terminals need to be included. Only when all contributions are accounted for can the cumulative effects of regional coal shipments to Asia be adequately evaluated. The global accumulation of GHG's impacting Washington State's economy, and in particular our coastal marine species which depend upon healthy ecosystems, must be included in any appraisal of the consequences of burning native US coal anywhere in the world.

Please address the following impacts in the draft EIS for the MBTL:

1. What would be the economic cost to the shellfish industry in Washington State because of ocean acidification due to increased oceanic CO₂ from the burning of the 44 million tons of coal proposed to be shipped from the MBTL and the additional millions of tons from the other proposed coal export terminals in the Pacific Northwest?
2. What would be the economic losses to the sea food and fishing industry, in terms of jobs and capital infrastructure, as a result of the decrease or loss of important species of marine food animals due to ocean acidification from GHG's and CO₂ contributed by burning coal and from the Millennium Terminal and the two other proposed northwest terminals?
3. What would be the economic costs to coastal communities of sea level rise due to climate change driven by the additional CO₂, and other GHG's produced from the burning of coal shipped from the Millennium Terminal and the other two terminals proposed in the Pacific Northwest?
4. What would be the economic costs of increased violence and size of storms due to the CO₂ added to atmospheric and oceanic systems from Millennium coal burned in Asia and the other proposed Northwest coal terminals?
5. What economic losses would The Columbia River system sustain because of a decline, or loss, of tourist, commercial, and recreational fishing revenue due to decrease in salmon fisheries because of ocean acidification affecting the marine food web attributable to CO₂ contributions from Millennium Terminal and the other proposed terminals?
6. What would be the cultural and socioeconomic losses to Native American Tribes of the region from a further decline in salmon populations due to ocean

acidification by the additional CO2 contributions from the Millennium Terminal and the two other terminals proposed for the Pacific Northwest?

7. What would be the economic costs to San Juan County from the adverse impacts of ocean acidification on Chinook salmon? Since Chinook salmon are the main food source of the Endangered Southern Resident Killer (Orca) Whales, what would a decline in both their Salish Sea and Columbia River food supply mean for their survival?

V. IMPACTS OF CLIMATE CHANGE AND SEA LEVEL RISE

The MBTL at full capacity will ship 44 million metric tons of coal per year.¹¹ It is expected that all of this traded coal will go directly to Asia. In doing so, both the transport and use of the coal itself, presents considerable risks that should be examined by the MBTL Environmental Impact Statement. The burning of coal releases carbon dioxide that contributes to global climate change.

The adverse effects of climate change are those which result in changes to the physical environment or biota and which have significant deleterious effects on the composition, resilience, or productivity of natural and managed ecosystems or on the operation of socio-economic systems or on human health and welfare.¹²

The potential impacts of this change upon island communities such as the San Juan Islands are astronomical. The San Juans are comprised of over 450 islands, rocks, and pinnacles.¹³ Twenty of these islands are inhabited by residents. Many of the remaining islands serve as summer recreation areas, research sites, or nesting or breeding haul out sites for marine mammals and seabirds. They could all be adversely impacted by sea level rise.

Washington State is believed to be particularly vulnerable to a warming climate particularly because of its snow-fed water supplies that provide drinking water, irrigation for agriculture and which are also responsible for nearly three-fourths of the state's electrical power. In addition to the San Juan Islands, nearly 40 other communities,

¹¹ 2010 Washington State, Joint Aquatic Resources Permit Application: Millennium Bulk Terminals Longview. 2012, February 2nd. Available from, < http://www.ecy.wa.gov/geographic/millennium/20120222_JARPAapplication.pdf> Section 6d.

¹² FCCC. Article 1. Definitions.

¹³ <http://www.blm.gov/or/resources/recreation/sanjuans/>

including some of the state's largest population areas, exist along 2,300 miles of Washington's shoreline, which is threatened by rising sea levels and ocean acidification.

It has been estimated that if no action is taken, potential costs to Washington state from climate change impacts are projected to reach nearly \$10 billion per year by 2020 from increased health costs, storm damage, coastal destruction, rising energy costs, increased wildfires, drought, and other impacts.¹⁴

Due to the severity of this threat, Pacific coast leaders in the United States have recognized this threat to their regional environment and economy and on October 28, 2013, leaders of California, Oregon, Washington and British Columbia signed the Pacific Coast Action Plan¹⁵ on Climate and Energy to begin to address these threats.

Climate impacts to island communities are well documented. Small islands are at the forefront of the extreme risks posed by climatic change. The threat of, 'possible adverse effects of sea level rise on islands'¹⁶ was recognized in the United Nations Framework Convention on Climate Change (FCCC). It was added that such 'small island countries' are 'particularly vulnerable to the adverse effects of climate change'.¹⁷ The 'deep concern' for small island (states) was reiterated at the 7th COP in 2001.¹⁸ This concern, which is continually reiterated by groups such as the South Pacific Forum,¹⁹ is due to their specific situation, which according to the 1994 United Nations Global Conference for the Sustainable Development of Small Island Developing States stated,

While small islands developing states are among those that contribute least to global climate change and sea level rise, they are among those that would suffer most from the adverse effects of such phenomena and could in some cases become uninhabitable.²⁰

¹⁴ Department of Ecology, State of Washington (2012). *Preparing for a Changing Climate Washington State's Integrated Climate Response Strategy*. (DOE, Olympia, Publication No. 12-01-004) 2-6.

¹⁵ <http://www.pacificcoastcollaborative.org/Documents/Pacific%20Coast%20Climate%20Action%20Plan.pdf>

¹⁶ The United Nations Framework Convention on Climate Change Preamble Paragraph 12.

¹⁷ The United Nations Framework Convention on Climate Change Preamble Paragraph 19

¹⁸ The Marrakesh Ministerial Declaration. COP 7 (Marrakesh). FCCC/CP/2001/13/Add.1. 21 January 2002. Part II. Action Taken. Decision 1/CP. 7.3.

¹⁹ Example: "Global warming and sea level rise were among the most serious threats to the Pacific region and the survival of some island states." South Pacific Forum Communique. Paragraph 29. Available from www.forumsec.org.fj/docs/fc93.htm

²⁰ Report of the Global Conference on the Sustainable Development of Small Island Developing States.

Based on the tonnage of coal proposed to be exported and subsequently burned, we would request that the MBTL EIS include an analysis on the impacts of climate change on the San Juans.

Please address the following impacts in the draft EIS for the MBTL:

1. What would be the impacts of the acceleration of climate change to San Juan County's replacing public infrastructure (roads, water, sewer, and electric utilities)?
2. What would be the costs from associated increased storm winds, ocean surges, and precipitation on the San Juans from climate change?
3. What are the impact of sea level rise on marine mammal haul out sites and nesting and/or foraging sites for seabirds?
4. What would be the costs associated with more intense storms coinciding with the highest tides on our public roads and infrastructure?
5. The burning of coal releases mercury. Based on the tonnage of coal proposed to be exported and subsequently burned? What amount of mercury will be released and what amount of that mercury will increase the mercury content of San Juan County seafood and the people and wildlife that feed upon that seafood?
6. Prevailing winds send mercury that is burned in Asia back towards the U. S. Pacific Northwest. What would be the impacts of the increased mercury pollution?
7. How would the increased mercury pollution impact fish consumption rates? What would be the costs associated with the increased mercury pollution?
8. What would be the impacts on the health and reproduction of the Southern Resident Killer Whale from increased mercury pollution?

We look forward to the draft EIS that addresses all of our comments with in-depth analysis and with reasonable alternatives identified, including the no build option. Should the project be permitted, all feasible mitigation measures should be required to be implemented. Thank you for this opportunity to comment on the scope of the EIS for the proposed Millennium Bulk Terminals in Longview, Washington.

We offered these comments to secure standing for the members of the San Juans Alliance in the EIS process.

Sincerely,

Shaun Hubbard
Founding Member
San Juan Islanders for Safe Shipping

Michael Riordan, Ph.D.
Founding Member
Orcas NO COALition

Barbara Keller
Founding Member
Lopez NO COALition

Stephanie Buffum, MPA/MURP
Executive Director
Friends of the San Juans