



COLUMBIA RIVER INTER-TRIBAL FISH COMMISSION

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

RE: Comments on Draft SEPA Environmental Impact Statement for the Millennium Bulk Terminals - Longview Coal Terminal.

To Whom it May Concern:

Once again, the Pacific Northwest is confronted by a proposal for a large-scale energy project that will use the Columbia River Gorge and her lower river estuary as a transit point to serve energy markets in other parts of the globe. Once again, the greatest risks and burdens of development will be placed on those with the least amount to gain. In all ways this project, as well as similar projects in the region, is an affront to the tribal people who have worked tirelessly to restore their way of life and the river that sustains it. Billions of dollars have been invested throughout the Columbia River Basin for fish recovery. To add projects such as the Millennium Bulk Terminals – Longview, LLC coal distribution terminal (Millennium coal terminal) to the River Basin would be a major setback to these efforts.

The Columbia River Inter-Tribal Fish Commission (CRITFC) requests that Washington state and Cowlitz County use their respective authorities to deny the Millennium coal terminal. Individually the project will result in a significant increases in rail traffic through the Columbia River Gorge and deep draft vessel traffic through the fragile Columbia River estuary. Collectively with other fossil fuel transport projects, notably the Tesoro Savage crude-by-rail project proposed for the Port of Vancouver, the amount of coal train traffic would increase by 400%, oil trains by 180% and deep draft vessel traffic by 80%. The Columbia River Gorge and the Columbia River estuary are not the place for a fossil fuel corridor.

The treaty tribes of the Columbia River have been a part of this region since time immemorial. For the last two centuries, the tribal people have born the greatest burdens from development and resource extraction. The proposed Millennium coal terminal is the latest in a long line of developments where the tribes would unfairly carry the risks associated with energy projects at the cost of the environment, treaty reserved fishing rights, and the Columbia River.

There are hundreds of tribal fishing families' members who use in-lieu and treaty fishing access sites; treaty-protected usual and accustomed fishing places within the rail corridor are extensive. In negotiating and assenting to the Stevens and Palmer treaties, the Columbia River tribes reserved not

only the right to take fish at their usual and accustomed places, but also retained a property right in adjacent lands "to the extent and for the purpose mentioned" in the treaties. *U.S. v. Winans*, 198 U.S. 371, 381 (1905). *Winans* affirms the rights of tribal members to make such use of the land surrounding the usual and accustomed sites as is essential to the full exercise of their treaty fishing right. The *Winans* Court considered the treaty language as a whole, and found that this language, taken together with the social and factual setting of the treaty negotiations, supported the right of access. The contingency of the future ownership of the lands, therefore, was foreseen and provided for -- in other words, the Indians were given a right in the land -- the right of crossing it to the river -- the right to occupy it to the extent and for the purpose mentioned. No other conclusion would give effect to the treaty. *Winans* at 381.

The circumstances of the treaty negotiations and the specific language of the treaties illustrate the dependence of the Indian's way of life on the salmon harvest, and the emphasis they placed on protecting their existing fishing activities on the Columbia River. There are hundreds of gillnet sites in the Columbia River and many of these are accessed by both land and water. Almost all land access in the area requires crossing the railroad tracks. As discussed below, many of the crossings are dangerous.

Coal Dust

The Millennium coal terminal would increase the current weekly average of coal trains from 18 to 55, a nearly 400% increase in coal train traffic. This would result in significant air quality impacts and direct health concerns for tribal people living along the railroads. Coal dust is currently a nuisance and health concern for tribal fishers along the rail line. The nature of the famous Columbia Gorge winds makes dust a significant and predictable problem, even with the application of surfactants. Dr. Daniel Jaffe incredible coal dust study found that coal trains emit *twice* as much respirable particulate matter as other diesel-powered freight trains. In addition, 5.4% of those trains are considered "super dusters". (Jaffe, et al. 2015). This report quantifies anecdotal stories by tribal fishers of coal dust originating from these trains. Coal dust and particulates of various sizes can be found all over the rail line from McNary dam to Vancouver. At the railroad crossing at Horse Thief Butte, one has to merely dip one's hand into the sediments near the rail to see the amounts of coal residue.



Coal dust found at Columbia Hills State Park (Horse Thief Butte) railroad crossing.

Contrary to what the Draft Environmental Impact Statement (DEIS) seems present, coal dust is significant issue that will result in greater than “limited” impacts. To tribal people who live and work along the river, coal dust is an ongoing issue of concern, even with the current low level coal train traffic (14-19 trains each week). Rail companies have admitted in the past that as much as 600 pounds of coal dust is released from each rail car per trip. CRITFC demands that nothing short of total containment of coal and fugitive coal dust during transport, storage, and shipping should be acceptable to Washington state.

Railroad companies, including BNSF, have acknowledged that coal dust can also affect rail safety. Coal dust itself can be combustable and cause fires under certain conditions. It has also been shown to affect the ballast strength and stability of rails leading to train deraillments. Adding more coal dust to the Gorge rail system will add to the unsafe conditions for those living along the river.

Increased Risk of Train Strike

This massive increase in rail traffic will undoubtedly increase the number of people killed by train strike, especially tribal people trying to access treaty fishing sites. The more traffic, the greater the risk of accidents. Over the years, tribal fishers transiting to or from fishing sites have been killed or injured by trains. In addition, a CRITFC Enforcement Officer was also killed by a train while on duty. In many of the areas along the river, when the wind is blowing, one cannot hear a train coming until it is too late. The inability to hear the trains, coupled with difficult lines of site in many places leads to very dangerous areas that tribal fishers encounter on a regular basis. Increasing the numbers of trains through this area will magnify an existing, deadly risk to tribal fisheries as well as CRITFC’s enforcement officers and site maintenance staff.

On the Washington side of the Columbia River there are nine In-lieu and Treaty Fishing Access sites with at grade crossings, four more sites adjacent to the railroad tracks, and all other sites within the vicinity of the railroad. On the Oregon side of the Columbia River, there are 10 more in lieu and treaty fishing access sites. These sites provide vital access to the river for treaty fishers, they are key sites for commercial buyers and several of the sites are occupied year round by tribal members and their families. <http://www.critfc.org/for-tribal-fishers/in-lieutreaty-fishing-access-sites> The ability to cross the railroad to get on these sites or access the River is already encumbered by rail transportation through the corridor. Adding more trains could further reduce access to the sites affecting tribal members’ commercial enterprises.

Deep Draft Vessel Impacts to lower Columbia River estuary

The DEIS also minimizes the potential effects of the additional deep draft vessels that this project will require. In the Columbia River, the current annual average of vessel traffic is 1,500 (or 3,000 trips). The Millennium coal project will add 840 deep draft vessels (or 1,680) trips per year, a nearly 60% increase. These ships, primarily “panamax” sized, will be the largest currently in the river. This is not insignificant. More vessels in the river increases risk of grounding as deep draft vessels have to work to avoid collision in the limited navigation channel of the Columbia river. The Tesoro Savage project is proposed to add an additional 365 deep draft oil tankers (730 trips) per year. Cumulatively this would represent an 80% increase in deep draft vessels in the lower Columbia River, crossing a notoriously dangerous bar with highly volatile materials. Interestingly, Washington State is currently conducting a vessel safety study to determine the

effect of these projects on the safety of the lower Columbia River. It would be pragmatic for Ecology to delay approving the Millennium coal terminal until this study is complete.

The lower Columbia River estuary provides essential rearing habitat for many stocks of salmonids and other aquatic species. In the Biological Opinion for the Federal Columbia River Hydropower System, the estuary is given great weight for its value in recovering ESA-listed salmonids. There is general concern that high numbers of outmigrating salmonid smolts are lost between the dams and the ocean. Increasing vessel traffic in the estuary could result in moderate to major long-term changes to tidal wetland, shallow water, and tidal flats. It makes no sense to continue degrading estuarine habitat and contributing more mortality by adding more deep-draft vessels to the estuary.

Berthed Vessels Impact Air Quality and Water Quality

As deep draft vessel are berthed to be loaded with product, their deisel auxiliary engines “idle”, contributing particulates to the air and requiring cooling water to maintain cool engine temperatures. This thus becomes a major source of air quality concern as well as water quality, since the “warmed” cooling water is then discharged into the waterbody. The lower Columbia River is listed under the Clean Water Act section 303(d) as limited for temperature under both Oregon and Washington’s programs (and particularly in summer), therefore point sources, such as these ships, introducing further thermal loading should be prohibited.

In order to remove the impact to air and water quality, best practices now necessitate that deep draft vessels to use “shore power” and tap landside electricity for their power needs at berth. According to estimates, shore power can reduce pollution by 95%. At a minimum, Washington Ecology and Cowlitz County should require the exclusive use of shore power for berthed ships at this project.

Thermal Pollution from Coal Storage Operations

Section 4.5 of the Draft Environmental Impact Statement does not consider the impact of thermal pollution from coal storage operations to water quality. As noted at 4.5-9 the Columbia River faces water quality issues and the vicinity of the project area is currently a candidate for Category 5 restrictions for temperature by Washington State Department of Ecology. As such any waters exiting facility operations that are returned to the natural environment at a higher temperature than ambient water temperature should be modeled and fully considered as a negative impact. Coal storage operations proposed for the site will involve dust suppression of 75 acres of coal stockpiles which together with heated stormwater runoff will be contributing excess thermal pollution to the Columbia River.

Ballast Water Discharge by Deep Draft Vessels

Deep draft vessels must carry ballast water from their origination for safety and navigation. Any analysis must take into consideration the chemical, physical, and biological impacts of dumping millions of cubic meters of foreign water into the Columbia River, as well as the changes in salinity in cases of low river flow that can change hydrology.

In addition to the direct chemical impact of the seawater, there is the high potential for the release and possible colonization of invasive plants, animals and pathogens, including those harmful to human health. Untreated ballast water is responsible for the introductions of numerous invasive species on the Pacific coast, Zebra and Quagga mussels in the Great Lakes, and potential human health risks like typhus. To prevent the potential introduction of foreign plants, animals and pathogens, all ballast water releases must be filtered of all organisms, including pathogens.

The introduction of Quagga and Zebra mussels originated from ballast water releases in the Great Lakes in the late 1980's, and their effects on the invertebrate community has been devastating. Mussels have spread to most areas of the United States except for the Pacific Northwest. If they arrive in this habitat, it could cause billions of dollars in damage to water related industries and municipalities as well as potentially change entire ecosystems.

Ships are required to conduct open water ocean exchange or utilize an onboard ballast water treatment to ensure that foreign low salinity organisms are not transported into the Columbia. However, these treatment options are not always conducted successfully, or, in the case of rough water, the vessel may not be able to release its ballast in the ocean. To address these risks Millennium coal terminal should include a closed-loop water treatment system on the terminal site. The absence of such treatment capability makes the proposal unacceptable.

Wake Stranding by Deep Draft Vessels

Juvenile salmonids and eulachon, some of which are listed under the ESA, may be stranded on the Columbia River shorelines due to the wakes of passing vessels. The fish are then deposited on shore by the wave generated by the vessel wake. Stranding typically result in mortality unless another wave carries the fish back into the water. Generally, a set of interlinked factors act together to produce stranding during ship passage:

- River-surface elevation low tides are generally more likely to result in strandings than high tides;
- Beach slope low-gradient beaches are generally more likely stranding locations than higher gradient ones;
- Wake characteristics, ship wakes that result in both the greatest draw-down and run-up on the beach are generally most likely to result in strandings. Wake characteristics are influenced by a number of dynamics included vessel size and hull form (short and fat vessels have a great displacement effect and generate larger wakes than long and thin vessels).
- Vessel draught – the smaller the under-keel clearance, the larger the wakes, thus loaded vessels are more likely to result in strandings than unloaded vessels;
- Vessel speed – fast moving vessels generate larger wakes than slow vessels;
- Distance between the passing vessel and the beach, where strandings are generally more likely.

There has been at least one study that examined the stranding effects on salmonids by a variety of vessels. Ackerman (2002) found that 21 juvenile Chinook (and 174 other species) were stranded in the lower Columbia River by 35 tug/barges and 56 deep draft vessels. For the Ackerman study, three locations were surveyed on two occasions. Furthermore, it may be inappropriate to draw reader's attention to deep water vessels, while neglecting the effects of smaller vessels. Pearson

and Skalski (2011) report, “At both river and beach scales, no one factor produces stranding; rather interactions among several conditions produce a stranding event and give stranding its episodic nature.” Wake stranding also has the potential to result in make fish easier prey for avian predators.

NOAA’s estuary recovery module identifies 23 management actions to improve the survival of salmon and steelhead migrating through and rearing in the estuary and plume environments.¹ With regard to ship wakes, the recovery module developed for Endangered Species Act implementation calls for “reduc[ing] the effects of vessel wake stranding in the estuary.” In contrast, the proposed project would increase wake stranding in the estuary.

Vessel traffic safety evaluation and assessment for the Columbia River

The Washington Department of Ecology must complete an evaluation and assessment of vessel traffic management and vessel traffic safety within and near the mouth of the Columbia River. This includes an analysis of the amount of new oil being transferred onto vessels as a result of rail traffic. The assessment will help inform risk assessments that will be undertaken during the 2015-17 biennium. Ecology must consult with a number of organizations including tribes, the U.S. Coast Guard, Oregon pilots and public ports. The assessment must include, but is not limited to addressing: (a) the need for tug escorts for oil tankers, articulated tug barges, and other towed waterborne vessels or barges; (b) best achievable protection; and (c) required tug capabilities to ensure safe escort of vessels. Recommendations made to the Legislature must include vessel traffic management and vessel traffic safety measures, including recommendations for tug escort requirements for vessels transporting oil as bulk cargo. Any decisions on approving the Millennium Bulk Terminal should await the conclusion of this study (est. June, 2018) and its careful application to considering the effects of this and other proposals that would increase vessel traffic on the Columbia River.

Shoreline Erosion and Propeller Scour from Deep Draft Vessels

Prop wash from vessels as well as ship wakes breaking on shore could cause increased erosion along the shoreline and re-suspend the eroded material within the water column. Vessel wake and propeller scour could injure or otherwise impact substrate and invertebrates, as well as benthic-based fishes such as white and green sturgeon.

Terminal Operation Impacts: Noise

There is an important distinction between pressure waves and particle motion sound vibration and how they affect salmonids. Current criteria (and monitoring) for minimizing the effects of sound on fish rely solely on measurements of pressure. However, current scientific literature suggests that salmonids are very sensitive to particle motion sound vibration and less so to pressure waves. Consequently, a salmon may be much more sensitive to sounds generated in the water (e.g., piles being driven into substrate).

¹ http://www.westcoast.fisheries.noaa.gov/publications/recovery_planning/estuary-mod.pdf.

If the project only measures the effects of pile drivers on salmonids using pressure wave detection devices, a serious deleterious effect may not be detected. Particle motion sound and their effects on adult salmon are currently being studied by the U.S. Corps of Engineers at Lower Granite Dam. In association with the study at Lower Granite, a thorough literature review has been and should be considered in the DEIS (Hawkins).

Terminal Operation Impacts: Predators

The expansion of overwater habitat and trusses creates the potential for roosting habitat of Double Crested cormorants which is a key predator of juvenile salmonids will migrate by the terminal and thereby increase the potential for additional predation impacts. Additionally, an increase in overhead cover and shading by the expansion has the potential to create habitat for a number of predatory fish species and thereby increase predation on out-migrating juvenile salmonids.

Terminal Operation Impacts: Lighting

Similar to overhead cover, the additional lighting resources in the project area projected to be continuous creates permanent predation opportunities for both fish eating birds and piscivorous fishes that prey on juvenile salmonids. Juvenile salmonids migrate more actively at night and that combined with the attractive effect of lights has the potential to increase the predation impacts on listed salmonids.

Work Window for Terminal Construction

The work window of September 1 through December 31 is not consistent with full protection for spawning eulachon (smelt), juvenile sturgeon, and migrating adult salmonids. Eulachon may stage in the lower river weeks prior to spawning and therefore are vulnerable to impacts from the project outside of the work window. Fall runs of Chinook, Coho and Steelhead are fully underway by September 1 and the noise and construction impacts to these runs could be very significant and stressful to these fish, particularly in low flow years. In 2015, more than 1 million adult salmon and steelhead would have passed by the proposed project area between September 1 and November 30. The proposed work window is inconsistent with the work window used by the Corps of Engineers at its dams on the Columbia River. The work window is inconsistent with the policy of the Oregon Department of Fish and wildlife.²

Avoiding Pacific Lamprey During Terminal Construction

Adult abundance of Pacific lamprey in the Columbia River Basin has been dramatically reduced in the proposed project area to such low levels that Oregon has designated lamprey a sensitive species. (Pacific lamprey are currently a federal species of concern and are a “monitored” species in Washington). Adult and juvenile lamprey use the area around proposed terminal site as a migration corridor. They may also be present and use the area – or some areas nearby – as rearing habitat and could be negatively affected by pile-driving and turbidity related to the dock construction (Parametrix et al. 2010).

²http://www.dfw.state.or.us/lands/inwater/oregon_guidelines_for_timing_of_%20InWater_work2008.pdf.

The Vancouver USFWS Fisheries Assistance Office staff has employed a combination electrofishing/suction apparatus, developed to sample larval lamprey in the Great Lakes, in the Willamette, and the lower Columbia river. (Jolley et al. 2010; Jolley et al. 2011a; Jolley et al. 2011b). These researchers found a juvenile lamprey in bottom sediments while randomly surveying the Columbia River near Portland International Airport, about two miles upstream of the proposed dock construction site, showing that it is possible that juvenile lamprey may be rearing area. At a minimum, the applicant should survey the construction area for Pacific lamprey presence. Such survey would include:

- Conduct seasonal larval lamprey/ammocoete surveys within the entire project footprint before, during, and after project completion using a systematic sampling design such as that employed by Jolley et al. (2010), Jolley et al. (2011a) and Jolley et al. (2011b).
- Conduct multiple surveys throughout the year to assist in understanding temporal changes in ammocoete abundance and distribution. This could provide an indication when ammocoetes would be most affected by the proposed project (e.g., in the in-water work period) and help understand hydraulic changes on lamprey distributions within the area post construction.
- Assure that mitigation efforts are designed to provide a variety of habitats for lamprey (e.g., back water, depositional areas for ammocoetes and larval lamprey).
- Obtain other information from these surveys (e.g., lamprey distribution, toxicology loads, and genetics).

We understand that Ecology and Cowlitz County are statutorily required to close the public comment period after 45 days, but we reserve the right to supplement our comments as we investigate the Millennium coal terminal further. In addition, we support and incorporate by reference the comments of the Confederated Tribes and Bands of the Yakama Nation, Confederated Tribes of the Umatilla Indian Reservation (CTUIR), the Cowlitz Indian Tribe, and those of the Columbia Riverkeeper, *et al.*

Finally, it is important to remind the agencies that the proponent of the Millennium coal terminal, i.e., Millennium Bulk Terminals – Longview, LLC, has not demonstrated a history of being an honest member of the community. The proponent visited CRITFC and presented information on a project far smaller and very different from the current project. There is still a significant amount of distrust.

In conclusion, the Columbia River Inter-Tribal Fish Commission respectfully requests that Washington state and Cowlitz County use their respective authorities to DENY the Millennium coal terminal. Thank you for your consideration. If you have any concerns or questions, please feel to contact our staff person, Julie Carter, at 503-238-0667.

Sincerely,



Babtist Paul Lumley
Executive Director

ASSOCIATED REFERENCES

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