STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY
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September 26, 2017

Millennium Bulk Terminals-Longview, LLC
ATTN: Ms. Kristin Gaines
4029 Industrial Way
Longview, WA 98632

RE: Section 401 Water Quality Certification Denial (Order No. 15417) for Corps Public Notice No. **2010-1225** Millennium Bulk Terminals-Longview, LLC Coal Export Terminal – Columbia River at River Mile 63, near Longview, Cowlitz County, Washington

Dear Ms. Gaines:

The Washington State Department of Ecology (Ecology) has reached a decision on the Millennium Bulk Terminals-Longview request for a Section 401 Water Quality Certification for the proposed coal export terminal near Longview. After careful evaluation of the application and the final State Environmental Policy Act environmental impact statement, Ecology is denying the Section 401 Water Quality Certification with prejudice.

The attached Order describes the specific considerations and determinations made by Ecology in support of this decision to deny the Certification with prejudice. Your right to appeal this decision is described in the enclosed denial Order.

Sincerely,

Maia D. Bellon
Director

Enclosure

By certified mail [91 7199 9991 7034 8935 6995]

cc: Muffy Walker, U.S. Army Corps of Engineers
Danette Guy, U.S. Army Corps of Engineers
Glenn Grette, Grette Associates, LLC

IN THE MATTER OF DENYING SECTION 401 WATER QUALITY CERTIFICATION TO Millennium Bulk Terminals-Longview, LLC in accordance with 33 U.S.C. §1341 (FWPCA § 401), RCW 90.48.260, RCW 43.21C.060, WAC 197-11-660, WAC 173-802-110, and Chapter 173-201A WAC	)))))))))	**ORDER # 15417** **Corps Reference #NWS-2010-1225** Millennium Bulk Terminals-Longview, LLC Coal Export Terminal – Columbia River at River Mile 63, near Longview, Cowlitz County, Washington

TO: Millennium Bulk Terminals-Longview, LLC
Attention: Ms. Kristin Gaines
4029 Industrial Way
Longview, Washington 98632

On February 23, 2012, Millennium Bulk Terminals-Longview, LLC (Millennium) submitted a Joint Aquatic Resources Permit Application (JARPA) to the Department of Ecology (Ecology) requesting a Section 401 Water Quality Certification to construct a coal export terminal in Longview, Washington. Then on January 28, 2013, Millennium sent a letter to the U.S. Army Corps of Engineers (Corps) and Ecology in which Millennium withdrew the request for the Section 401 Certification. Millennium stated that it would submit a new request when the Environmental Impact Statement (EIS) process concluded. In addition, on February 6, 2013, Millennium submitted an Ecology Water Quality Certification Processing Request form stating that it wished to withdraw its request and would resubmit near the end of the EIS process.

On July 18, 2016, Millennium submitted a new JARPA and request for Section 401 Water Quality Certification. A notice regarding this request was distributed as part of a Corps joint public notice on September 30, 2016. On June 22, 2017, Ecology received a withdrawal/reapply form from Millennium, which triggered another public notice that was issued on June 27, 2017.

Millennium proposes to construct and operate a coal export terminal (Project) in and adjacent to the Columbia River (at approximately river mile 63) that would transfer up to a nominal 44 million metric tons per year (MMTPY) of coal from trains to ocean-going vessels. The completed coal export terminal would cover approximately 190 acres of the approximately 540-acre property. The Project would consist of two docks, ship loading systems, stockpiles and equipment, rail car unloading facilities, an operating rail track, rail storage tracks to park up to eight trains, associated facilities, conveyors, and necessary dredging. The Project would be constructed in two stages over several years.

- Stage 1 of the Project would consist of facilities to unload coal from trains, stockpile the coal on site, and load coal into ocean-going vessels at one of the two new docks. During Stage 1, Millennium would construct two docks (Dock 2 and 3), one ship loader and related conveyors on Dock 2, berthing facilities on Dock 3, a stockpile area including two stockpile pads, railcar unloading facilities, one operating rail track, up to eight rail storage tracks for train parking, Project site

ground improvements, and associated facilities and infrastructure. Once Stage 1 is completed, the Project would be capable of a throughput capacity of a nominal 25 MMTPY.

- During Stage 2, MBTL would construct an additional ship loader on Dock 3, two additional stockpile pads, conveyors, and equipment necessary to increase throughput by approximately 19 MMTPY, to a total nominal throughput of 44 MMTPY.

The main elements of Stage 1 development would include:

- Rail bed.
- Rail loop with arrival and departure tracks to include one operating track (turn around track) and eight rail storage tracks.
- One tandem rotary unloader (capable of unloading two rail cars) for operations, and one tandem rapid discharge unloader to be used during startup and maintenance.
- Two coal stockpile pads, Pads A and B.
- Two rail-mounted luffing/slewing stackers and associated facilities for Pads A and B.
- Two rail-mounted bucket-wheel reclaimers and associated facilities for Pads A and B.
- Two shipping docks (Dock 2 and Dock 3), with one ship loader and associated facilities on Dock 2.
- Conveyors, transfer stations, and surge bin from the stockpile pads to the ship loading facilities.
- In-bound and out-bound coal sampling stations.
- Support structures, electrical transformers, switchgear and equipment buildings, and process control systems.
- Upland facilities, including roadways, service buildings, water management facilities, utility infrastructure, and other ancillary facilities.

The main elements of Stage 2 development would include:

- Associated conveyors and transfer stations to the stockpile Pads C and D from the rail receiving station.
- Two additional coal stockpile pads, Pads C and D.
- Two additional rail-mounted luffing/slewing stackers and associated facilities.
- Two additional rail-mounted bucket-wheel reclaimers and associated facilities.
- One additional ship loader and associated facilities on Dock 3.
- Conveyors, transfer stations, and surge bins from stockpile Pads C and D to the ship loading facilities.

The Project proposes impacting over 32 acres of wetlands (24 acres of which will be new impacts) and almost 6 acres of ditches. To offset these impacts Millennium has proposed to

construct a wetland mitigation site that encompasses approximately 100 acres. The Project will also have 4.83 acres of new overwater coverage, and includes constructing an off-channel slough mitigation site to address those impacts.

I. AUTHORITIES

In exercising its authority under 33 U.S.C. § 1341, RCW 43.21C.060, and RCW 90.48.260, Ecology has examined this application pursuant to the following:

1. Conformance with applicable water quality-based, technology-based, and toxic or pre-treatment effluent limitations as provided under 33 U.S.C. §§ 1311, 1312, 1313, 1316, and 1317 (FWPCA §§ 301, 302, 303, 306, and 307).

2. Conformance with the state water quality standards contained in Chapter 173-201A WAC and authorized by 33 U.S.C. § 1313 and by Chapter 90.48 RCW, and with other applicable state laws.

3. Conformance with the provision of using all known, available, and reasonable methods to prevent and control pollution of state waters as required by RCW 90.48.010.

4. Conformance with applicable State Environmental Policy Act (SEPA) policies under RCW 43.21C.060 and WAC 173-802-110.

Pursuant to the foregoing authorities and in accordance with 33 U.S.C. § 1341, RCW 90.48.260, RCW 43.21C.060, Chapter 173-200 WAC, Chapter 173-201A WAC, WAC 197-11-660, WAC 173-802-110, and Chapter 173-201A WAC, as more fully explained below, Ecology is denying the Millennium Bulk Terminals-Longview request for Section 401 Water Quality Certification with prejudice.

II. STATE ENVIRONMENTAL POLICY ACT (SEPA)

The Final Environmental Impact Statement (FEIS) issued by Cowlitz County and Ecology on April 28, 2017, identified nine areas of unavoidable and significant adverse impacts that would result from the construction and operations of the Project. As analyzed in the FEIS, the detrimental environmental consequences related to these impacts cannot be reasonably mitigated. Further, the adverse impacts to the built and natural environments conflict with Ecology's SEPA policies found in WAC 173-802-110. These policies state:

> (1)(a) The overriding policy of the department of ecology is to avoid or mitigate adverse environmental impacts which may result from the department's decisions.
>
> (b) The department of ecology shall use all practicable means, consistent with other essential considerations of state policy, to improve and coordinate plans, functions, programs, and resources to the end that the state and its citizens may:

(i) Fulfill the responsibilities of each generation as trustee of the environment for succeeding generations;

(ii) Assure for all people of Washington safe, healthful, productive, and aesthetically and culturally pleasing surroundings;

(iii) Attain the widest range of beneficial uses of the environment without degradation, risk to health or safety, or other undesirable and unintended consequences;

(iv) Preserve important historic, cultural, and natural aspects of our national heritage;

(v) Maintain, wherever possible, an environment which supports diversity and variety of individual choice;

(vi) Achieve a balance between population and resource use which will permit high standards of living and a wide sharing of life's amenities; and

(vii) Enhance the quality of renewable resources and approach the maximum attainable recycling of depletable resources.

(c) The department recognizes that each person has a fundamental and inalienable right to a healthful environment and that each person has a responsibility to contribute to the preservation and enhancement of the environment.

(d) The department shall ensure that presently unquantified environmental amenities and values will be given appropriate consideration in decision making along with economic and technical considerations.

A. Significant Unavoidable Adverse Impacts

1. Air Quality. The FEIS found a significant increase in cancer risk for areas along rail lines and around the Project site in Cowlitz County where diesel emissions primarily from trains would increase. The study found that residents in some areas in Cowlitz County, including those living in portions of the Highlands neighborhood, would experience an increase in cancer risk rate up to 30 cancers per million. These levels of increased risk exceed the approvability criteria in WAC 173-460-090 for new sources that emit toxic air pollutants. Although WAC 173-460 only applies to stationary sources, the health risks from mobile sources in this case, primarily locomotives, would be considered significant using the same approvability criteria. Thus, the FEIS concluded the emission of diesel particulate primarily from train locomotives would be a significant unavoidable adverse impact. As the FEIS explained, this impact could be mitigated, but not eliminated, by use of cleaner burning Tier 4 locomotives. However, use of such locomotives is outside the control of Millennium and may not

occur for decades because use of older locomotives is currently allowed under federal law. Other mitigation measures identified in the FEIS related to air quality, such as use of best management practices and compliance with permits, would not reduce diesel emissions from Project related locomotives.

The increased cancer risk associated with the Project is a significant adverse unmitigated impact that is inconsistent with the following substantive SEPA policies in WAC 173-82-110:

- Fulfill the responsibilities of each generation as trustee of the environment for succeeding generations.
- Assure for all people of Washington safe, healthful, productive, and aesthetically and culturally pleasing surroundings.
- Attain the widest range of beneficial uses of the environment without degradation, risk to health or safety, or other undesirable and unintended consequences.

2. Vehicle Transportation. The FEIS found that there would be significant unavoidable adverse impacts to vehicle traffic from the proposed action when the Project reaches full operation in 2028 due to vehicle delays caused by increased train traffic that would block rail crossings in Cowlitz County. With current track infrastructure on the Reynolds Lead and BNSF Railway (BNSF) spur, Project-related trains in 2028 would increase the total gate downtime by over 130 minutes during an average day at the six crossings listed below. Project-related trains would cause these crossings to operate at Level of Service E or F[1] if one Project-related train traveled during peak traffic hours through the following crossings:

- Project area access opposite 38th Avenue
- Weyerhaeuser access opposite Washington Way
- Industrial Way
- Oregon Way
- California Way
- 3rd Avenue

[1] "Level of Service" is a report card rating based on the delay experienced by vehicles at an intersection or railroad crossing. Level of Service A, B, and C indicate conditions where traffic moves without substantial delays. Level of Service D and E represent progressively worse operating conditions. Level of Service F represents conditions where average vehicle delay has become excessive and demand has exceeded capacity.

Millennium and BNSF may make track improvements to the Reynolds Lead and BNSF spur that would allow trains to travel faster through these intersections and thereby reduce gate downtimes. However, even with these planned track improvements to the Reynolds Lead and BNSF Spur, the Project at full build out in 2028 would still adversely impact and add delays at four crossings, and cause the following crossings to operate at Level of Service E or F if two proposed Project-related trains traveled through them during peak traffic hours:

- Project area access opposite 38th Ave
- Weyerhaeuser access opposite Washington Way
- 3rd Avenue
- Dike Road

On the BNSF main line in Cowlitz County, the increased Project-related trains at full build out in 2028 could adversely impact vehicle transportation at two crossings during peak traffic hours. The following crossings would operate Level of Service E if two Project-related trains travel during the peak hours:

- Mill Street
- South River Road

Delay of emergency vehicles at rail crossing would also increase because of additional Project-related trains.

As described in the FEIS, Millennium has agreed or may be required to implement several mitigation measures to address these impacts. These measures include funding crossing gates at the intersection of Industrial Way, holding safety review meetings, and notifying agencies about increases in operations on the Reynolds Lead. However, these measures will not reduce or eliminate the vehicle delays identified in the FEIS. Vehicle delays could be reduced by further improvements to rail and road infrastructure, however, it is currently unknown when or if such improvements would occur. Therefore, when the Millennium Project is at full operation in 2028, unavoidable and significant adverse impacts would occur on vehicle transportation at certain crossings in Cowlitz County including delays of emergency vehicles. This impact is inconsistent with the following substantive SEPA policies:

- Assure for all people of Washington safe, healthful, productive, and aesthetically and culturally pleasing surroundings.
- Attain the widest range of beneficial uses of the environment without degradation, risk to health or safety, or other undesirable and unintended consequences.
- Maintain, wherever possible, an environment which supports diversity and variety of individual choice.

- Achieve a balance between population and resource use which will permit high standards of living and a wide sharing of life's amenities.

3. Noise and Vibration. The FEIS found that there would be significant unavoidable adverse impacts to residences near four public at-grade crossings along the Reynolds Lead and BNSF spur from train-related noise. Train-related noise levels would increase from train operations and locomotive horn sounding intended for public safety.

Residences near the at-grade crossings at 3rd Avenue, California Way, Oregon Way, and Industrial Way would experience increased daily noise levels that would exceed applicable noise criteria per Federal Transportation Administration/Federal Rail Administration guidance.

Approximately 229 residences would be exposed to moderate noise impacts, and approximately 60 residences would be exposed to severe noise impacts. Although these impacts would be reduced near the Industrial Way and Oregon Way crossings if a grade-separated intersection is constructed there as currently proposed, the proposal has not yet received permits and its completion date is unknown.

As described in the FEIS, Millennium has agreed or may be required to implement several mitigation measures to address these train-related noise impacts. These measures include funding two "quiet crossings" at Oregon Way and Industrial Way grade crossings by installing crossing gates, barricades, and additional electronics. This proposed "quiet crossing" is not the same as a Quiet Zone, which requires the approval of the Federal Railroad Administration. The reduction of noise pollution from the proposed "quiet crossing" is unknown because Millennium trains may still be required to sound their horns at the intersections. Other measures include requiring Millennium to work with the City of Longview, Cowlitz County, Longview Switching Company, the affected community, and other applicable parties to apply for and implement a Quiet Zone that would include the 3rd Avenue and California Avenue crossings. However, as a Quiet Zone requires the approval of the Federal Railroad Administration, it is beyond the control of Millennium and it is unknown if it will ever be implemented. Consequently, Quiet Zones are not considered an applicable mitigation measure.

The FEIS states that, if the Quiet Zone is not implemented, Millennium would fund a sound-reduction study to identify ways to mitigate the moderate and severe impacts from train noise. However, it is unknown who would fund, implement, and maintain recommendations to mitigate moderate and severe noise impacts identified in the sound noise reduction study. The study itself does not mitigate the impacts. The Project's significant adverse impacts from noise are inconsistent with the following substantive SEPA policies:

- Fulfill the responsibilities of each generation as trustee of the environment for succeeding generations.

- Assure for all people of Washington safe, healthful, productive, and aesthetically and culturally pleasing surroundings.
- Maintain, wherever possible, an environment which supports diversity and variety of individual choice.
- Attain the widest range of beneficial uses of the environment without degradation, risk to health or safety, or other undesirable and unintended consequences.

4. **Social and Community Resources.** The FEIS found that social and community resources would be significantly and adversely impacted by increased noise, vehicle delays, and air pollution. Impacts from the construction and operation of the Project would impact minority and low-income populations by causing disproportionately high and adverse effects. Impacts from noise, vehicle delay, and diesel particulate matter inhalation risk would affect the Highlands neighborhood, a minority and low-income neighborhood adjacent to the Reynolds Lead in Longview, Washington.

a. Adverse Health Impact from Increased Cancer Risk Rate: Project-related trains and other operations would increase diesel particulate pollution along the Reynolds Lead, BNSF Spur, and BNSF mainline in Cowlitz County at levels that would result in increased cancer risk rates. The modeled cancer risk rate in the FEIS found a majority of the Highlands neighborhood would experience an increased cancer risk rate, varying from 3% to 10%. Use of Tier 4 locomotives, which produce less diesel pollution, by BNSF would reduce but not eliminate diesel particulate matter emissions and the associated potential cancer risk in the Highlands neighborhood. However, requiring Tier 4 locomotives is outside the control of Millennium and may not occur for decades. Therefore, the Project's disproportionately high adverse effects related to increased cancer risk rates from diesel particulate matter inhalation on minority and low-income populations would be unavoidable.

b. Adverse Noise Impact: The Project would add 16 trains per day on the Reynolds Lead and increase average daily noise levels, which would exceed applicable criteria for noise impacts and cause moderate to severe impact to 289 residences in the Highlands neighborhood. Approval, funding, and construction of Quiet Zones for four highway and rail intersections would reduce noise levels. However, there is no sponsor(s) identified to apply for, fund, and maintain Quiet Zones that would reduce noise levels at the four rail crossings. Quiet Zones are outside the control of Millennium and require approval from the Federal Railroad Administration. Therefore, Project-related trains would cause significant adverse unavoidable impacts to portions of the Highlands neighborhood and cause a disproportionately high adverse effect on minority and low-income populations.

c. Adverse Vehicle Traffic Impact: Project-related trains would increase vehicle delays at highway and rail intersections within the Highlands

neighborhood. With the current track infrastructure on the Reynolds Lead, a Millennium-related train traveling during the peak traffic hours would result in a vehicle-delay impact at four public at-grade crossings in or near the Highlands neighborhood by 2028. This would constitute a disproportionately high adverse effect on minority and low-income populations. If planned improvements to the Reynolds Lead are made, the adverse impacts related to vehicle delay could be reduced but not eliminated. However, rail improvements have not received permits and their completion is unknown. Therefore, Millennium's disproportionately high adverse effects to vehicle traffic on minority and low-income populations would be unavoidable.

5. Rail Transportation. The FEIS found that the Project would cause significant adverse effects on rail transportation that cannot be mitigated. At full build out of the Project, 16 trains a day (8 loaded and 8 empty) would be added to existing rail traffic. Three segments on the BNSF main line routes in Washington (Idaho/Washington State Line–Spokane, Spokane–Pasco, and Pasco–Vancouver) are projected to exceed capacity with the current projected baseline rail traffic in 2028. Adding the 16 additional Millennium-related trains would contribute to these three segments exceeding capacity by 2028, based on the analysis in the FEIS and assuming existing infrastructure. As described in the FEIS, Millennium would mitigate some of the impacts by notifying BNSF and Union Pacific (UP) about upcoming increases in operations at the Millennium site. This proposed mitigation measure is informational and does not commit BNSF or UP to take action to increase capacity.

BNSF and UP could make necessary investments or operating changes to accommodate the rail traffic growth, but it is unknown when these actions would be taken or permitted. Improving rail infrastructure is outside the control of Millennium and cannot be guaranteed. Under current conditions Millennium-related trains would contribute to these capacity exceedances at three rail segments on the main line and could result in an unavoidable and significant adverse impact on rail transportation, including delays and congestion.

This impact is inconsistent with the following substantive SEPA policies:

- Fulfill the responsibilities of each generation as trustee of the environment for succeeding generations.
- Assure for all people of Washington safe, healthful, productive, and aesthetically and culturally pleasing surroundings.
- Attain the widest range of beneficial uses of the environment without degradation, risk to health or safety, or other undesirable and unintended consequences.

6. Rail Safety. The FEIS found that Millennium-related trains would increase the train accident rate by 22 percent along the rail routes in Cowlitz County and Washington. As described in the FEIS, Millennium would notify BNSF and UP about upcoming increases in operations at the Millennium site. However, this notification measure does not commit BNSF or UP to take action or make changes that would reduce accident rates.

To reduce some of the impacts to rail safety, the Longview Switching Yard, BNSF, and UP could improve rail safety through investments or operational changes, but it is unknown when or whether those actions would be taken or permitted. Improving rail infrastructure to increase rail safety is outside the control of Millennium and cannot be guaranteed. Therefore, the 22 percent increase to the rail accident rate over baseline conditions attributable to Millennium would result in unavoidable and significant adverse impacts on rail safety.

This impact is inconsistent with the following substantive SEPA policies:

- Fulfill the responsibilities of each generation as trustee of the environment for succeeding generations.
- Assure for all people of Washington safe, healthful, productive, and aesthetically and culturally pleasing surroundings.
- Attain the widest range of beneficial uses of the environment without degradation, risk to health or safety, or other undesirable and unintended consequences.

7. Vessel Transportation. The FEIS found that the Project would have significant adverse effects on vessel transportation that cannot be mitigated. Millennium would add 1,680 ship transits to the current 4,440 ship transits on the Columbia River per year, for a total of 6,120 at full build out. Thus, the Project would be responsible for over one quarter of the traffic in the Columbia River.

Based on marine accident transportation modeling, the FEIS found the increased vessel traffic would increase the frequency of incidents such as collisions, groundings, and fires by approximately 2.8 incidents per year. While the chance that an incident would result in serious damage or spill is low, if a spill were to happen, the impacts to the environment and people would be significant and unavoidable.

An increase in vessels calling at the proposed new docks increases the risk of vessel-related emergencies, such as fire or vessel allision. An increase in vessels calling at the new docks also increases risk of spills from refueling ships at berth, although Millennium has stated there would be no refueling at the new docks. The FEIS proposes a mitigation measure that if refueling at the docks were to start, the company would notify Cowlitz County and Ecology. Another mitigation measure in the FEIS involves Millennium's attending at least one Lower Columbia Harbor Safety Committee meeting per year.

Although these proposed mitigation measures would support communication and awareness, they would not reduce environmental harm or the impact of an incident.

If a Millennium-related vessel incident such as a collision or allision were to occur, impacts could be adverse and significant, depending on the nature and location of the incident, the weather conditions at the time, and whether any oil were discharged. Although the likelihood of a serious Millennium-related vessel incident is low, the consequences would be severe and there are no mitigation measures that can completely eliminate the possibility of an incident or the resulting impacts. *See* WAC 197-11-794(2) (an impact may be significant if its chance of occurrence is not great but the resulting environmental impact would be severe if it occurred).

This adverse impact is inconsistent with the following Ecology SEPA policies:

- Fulfill the responsibilities of each generation as trustee of the environment for succeeding generations.
- Assure for all people of Washington safe, healthful, productive, and aesthetically and culturally pleasing surroundings.
- Attain the widest range of beneficial uses of the environment without degradation, risk to health or safety, or other undesirable and unintended consequences.

8. Cultural Resources. The FEIS found that construction of the coal export terminal would demolish the Reynolds Metals Reduction Plant Historic District, which would be an unavoidable and significant adverse environmental impact. Construction of the Project would demolish 30 of the 39 identified resources that contribute to the historical significance of the Historic District. The anticipated adverse impacts on these resources would diminish the integrity of design, setting, materials, workmanship, feeling, and association that make the Historic District eligible for listing in the National Register of Historic Places.

A Memorandum of Agreement is currently being negotiated among the Corps, Cowlitz County, the Washington Department of Archaeologic and Historic Preservation, the City of Longview, the Bonneville Power Administration, the National Park Service, potentially affected Native American tribes, and Millennium in a separate federal process. The Memorandum may resolve this impact in compliance with Section 106 of the National Historic Preservation Act of 1966. However, there is no indication when or if this Memorandum will be signed by all parties. Without the Memorandum, the impacts to the Reynolds Metal Reduction Plant Historic District are considered adverse, significant, and unavoidable.

Demolition of historic properties without mitigation is inconsistent with the following Ecology SEPA policies:

- Fulfill the responsibilities of each generation as trustee of the environment for succeeding generations.
- Preserve important historic, cultural, and natural aspects of our national heritage.

9. Tribal Resources. The FEIS found that construction and operation of the Millennium coal export terminal could result in unavoidable indirect impacts on tribal resources. Tribal resources refer to tribal fishing and gathering practices and treaty rights. These resources may include plants or fish used for commercial, subsistence, and ceremonial purposes.

Construction activities such as building new docks, river bottom dredging, and pile driving would cause physical and behavioral responses in fish that could result in injury, and would affect aquatic habitat. Fish stranding associated with wakes from the additional 1,680 vessel trips per year would also cause injury. Eulachon would potentially be impacted by the initial and maintenance sediment dredging.

Fugitive coal dust particles generated by the Millennium operations and additional trains would enter the aquatic environment through movement of coal into and around the Project area and during rail transport. Fugitive coal dust and potential spills would increase suspended solids in the Columbia River.

These impacts could reduce the number of fish surviving to adulthood and returning to Zone 6 of the Columbia River, and could affect the number of fish available for harvest by Native American Tribes.

The increase in 16 additional Millennium-related trains per day travelling through areas adjacent to and within the usual and accustomed fishing areas of Native American Tribes would restrict access to 20 tribal fishing sites set aside by the U.S. Congress above Bonneville Dam in the Columbia River. There are additional access sites that are not mapped that would also be impacted.

To reduce impacts to tribal resources from construction, Millennium could be required to minimize underwater noise during pile driving, conduct advance underwater surveys for eulachon prior to in-water work, and conduct fish monitoring prior and during dredging.

These mitigation steps are inadequate because although noise impacts from construction would be reduced, they would not be eliminated, and fish behavior could be altered and affect the number of fish available for harvest by Native American Tribes.

Improving rail infrastructure for access to tribal fishing sites along the Columbia River above Bonneville Dam is outside the control of Millennium. The additional Project-related trains travelling through areas adjacent to and within the usual and accustomed fishing areas of Native American Tribes could restrict access to tribal fishing areas in the

Columbia River. Because other factors besides rail operations affect fishing opportunities, such as number of fishers, fish distribution, and the timing and duration of fish migration periods, the extent to which Project-related rail operations would affect tribal fishing is difficult to quantify. However, SEPA policies state that "presently unquantified environmental amenities and values will be given appropriate consideration in decision making along with economic and technical considerations." Consistent with this policy, Ecology concludes that Millennium at full operations would result in unavoidable significant adverse impacts to tribal resources.

Impacts to tribal resources are inconsistent with the following Ecology SEPA policies:

- Fulfill the responsibilities of each generation as trustee of the environment for succeeding generations.
- Preserve important historic, cultural, and natural aspects of our national heritage.
- The department shall ensure that presently unquantified environmental amenities and values will be given appropriate consideration in decision making along with economic and technical considerations.

III. SECTION 401 WATER QUALITY CERTIFICATION

Pursuant to Section 401 of the Clean Water Act, in order for Ecology to issue a water quality certification it must have reasonable assurance that the Project as proposed will meet applicable water quality standards and other appropriate requirements of state law. Consequently, an applicant must submit adequate information regarding a project for agency review before Ecology can determine compliance with the state water quality standards and other applicable regulations. Millennium's current application and supplemental documents fails to demonstrate reasonable assurance in the following areas:

A. Wetlands Impacts and Mitigation

The Project would impact (fill) 32.31 acres of wetlands, 8.1 acres of which occurred prior to Millennium's tenancy of the site, and 0.11 of which would be impacted at the mitigation site. The impacts include 28.32 acres of Category III wetlands and 3.99 acres of Category IV wetlands. For the reasons stated below, Millennium failed to demonstrate that the impacts and mitigation associated with the wetlands within the Project area will comply with Washington State water quality standards. Thus, Millennium failed to demonstrate reasonable assurance that the Project will meet water quality standards.

1. **Mitigation Plan.** The draft wetland mitigation plan is inadequate and does not demonstrate that the proposed mitigation will offset the Project's wetland impacts. Millennium submitted a conceptual mitigation plan to Ecology on June 8, 2017 (*Millennium Coal Export Terminal, Longview, Washington Coal Export Terminal including Docks 2 and 3 and Associated Trestle Conceptual Mitigation Plan—Wetlands and Aquatic Habitat*, dated May 25, 2017). In response to Ecology's questions,

Millennium submitted additional information on September 20, 2017. However, the submitted information continues to be deficient because it lacks an adequate credit/debit analysis, a boundary verification, and adequate hydrologic information regarding the mitigation site.

2. **Wetland Boundaries at the Impact Site.** Millennium has not demonstrated that the boundaries of the wetlands to be impacted have been verified by the Corps. There is no jurisdictional determination (JD) from the Corps stating whether the wetlands are waters of the United States or whether the Corps agrees with the boundaries as shown in the delineation report (Millennium Coal Export Terminal, Longview, Washington, Coal Export Terminal Wetland and Stormwater Ditch Delineation Report – Parcel 619530400, dated September 1, 2014). Millennium's application therefore does not adequately quantify the extent of the wetland impacts and does not adequately demonstrate that the proposed mitigation will offset those impacts.

3. **Credit-Debit Analysis.** This analysis is needed to determine whether proposed mitigation would adequately offset the Project's wetland impacts. It is especially important for a project of this scale, and where the impacted wetlands were rated using what is now an outdated version of the wetland rating system. The credit-debit analysis Millennium submitted to Ecology on September 20, 2017, did not include scoring forms for any of the wetlands to be impacted. Without these forms, Ecology cannot evaluate the credit-debit analysis. Millennium has not provided a complete analysis to Ecology, thereby failing to demonstrate that the proposed mitigation would be adequate.

4. **Hydrologic and Soil Investigations.** The conceptual mitigation plan states that: "The nature of this surface water will be further investigated as part of planned hydrologic investigations to support final Site design." The plan further states that "hydrologic data are being collected." The plan also states that: "Additional, site-specific soil investigations are planned at the Mitigation Site to inform final mitigation design." Millennium has not provided the results of these hydrologic and soil analyses to Ecology. In its September 20, 2017, responses to Ecology's questions about the proposed mitigation site, Millennium stated that it is still in the process of collecting hydrologic and soil data and that it will submit a technical report once compilation of the data has been completed. Because Millennium has not submitted detailed information supported by data about the hydrologic and soil conditions at the proposed mitigation site, Millennium has not demonstrated that the site is suitable and can provide adequate mitigation.

B. Stormwater and Wastewater

Sufficiently detailed information and analyses necessary to understand, evaluate, and condition wastewater and stormwater discharges are needed to assure compliance with Washington State water quality. Without complete information such as that noted below, Ecology does not have reasonable assurance that the Project will meet water quality standards.

1. Wastewater Characterization. Wastewater characterization information is necessary for Ecology to evaluate the impact of discharges from the Project on the receiving water (surface water, ground water, and sediments) and to determine the need for effluent limits, monitoring requirements, and other special conditions to ensure that the Project will meet state water quality standards. This information is typically required in an application for a National Pollutant Discharge Elimination System (NPDES) permit (WAC 173-220-040 and 40 C.F.R. § 122.21).

In response to Ecology's requests, Millennium submitted additional information on September 20, 2017. However, the submittals still do not provide detailed information to adequately characterize process wastewater and stormwater that will be generated at the site, including:

- Sources of wastewater (points of generation).
- Estimated wastewater volumes.
- Estimated pollutant concentrations.

2. All Known, Available and Reasonable Methods of Prevention, Control and Treatment (AKART) and Engineering Reports. AKART is required by three state statutes dealing with water pollution and water resources (Chapter 90.48 RCW, Chapter 90.52 RCW, and Chapter 90.54 RCW) and the state NPDES regulations that implement these laws (WAC 173-220). These laws and regulations state that in order to ensure the purity of all waters of the state and regardless of the quality of the waters of the state, discharges must be treated with all known, available, and reasonable methods of prevention, control, and treatment.

Chapter 173-240 WAC requires submittal of engineering reports and plans for new and modified industrial wastewater conveyance, discharge, and treatment facilities. Industrial wastewater includes contaminated stormwater. Ecology uses the information in the engineering report to determine whether AKART is being met and to ensure that effluent from the Project will meet applicable effluent limitations to protect aquatic life.

Millennium's submittals, including the submittal of September 20, 2017, did not provide sufficient information to determine whether AKART will be met for both process wastewater and stormwater generated from the Project. The following is a list of information deficiencies:

- The current AKART analysis does not address the wastewater generated during construction and operation of the Project (i.e., the current AKART analysis addresses only existing Millennium operations).
- Specific best management practices (BMPs) for stormwater management on site, at and near rail lines, and for rail car unloading were not provided.
- Engineering reports were not submitted for the following:

- Stormwater collection and treatment facilities (including dock and trestle).
- The new wastewater treatment system.
- Any proposed modifications to the existing wastewater treatment system.
- Changes to hydraulic loading through the existing wastewater treatment system and through the conveyance and outfall structures.

3. **Mixing Zone.** Ecology may authorize a mixing zone to meet water quality criteria once it has been determined that AKART has been met (WAC 173-201A-400). Water quality criteria must be met at the edge of a mixing zone boundary. Ecology uses the dilution factors determined for each mixing zone in analyzing the potential for violation of water quality standards and to derive effluent limitations as necessary.

Millennium's submittals did not provide updated mixing zone information, which Ecology would need in order to determine potential to violate water quality standards. Missing information includes a new mixing zone analysis to evaluate changes in dilution factors due to changes in the final effluent at Outfall 002A and updated receiving water information.

4. **Construction.** Contaminated stormwater and ground water will be generated during construction of the Project. Ecology needs sufficient information to evaluate the impact of construction activities and the discharges from these activities on waters of the state. This is information that is necessary for reasonable assurance and to demonstrate AKART as discussed above.

Millennium's submittals provided very little information concerning the unique construction of the Project. Missing information includes the following:

- How compaction of soils will potentially impact groundwater and surface water.
- Specific construction BMPs.
- Construction stormwater and groundwater characterization information, including estimated volumes and pollutant concentrations.
- Whether construction wastewater will be adequately treated.

5. **Antidegradation.** The Clean Water Act requires that state water quality standards protect existing uses by establishing the maximum levels of pollutants allowed in state waters. The antidegradation process helps prevent unnecessary lowering of water quality. Washington State's antidegradation policy follows the federal regulation guidance and has three tiers of protection. Tier II (WAC 173-201A-320) is used to ensure that waters of a higher quality than water quality criteria are not degraded unless such lowering of water quality is necessary and in the overriding public interest. A Tier

II analysis must be conducted for new or expanded actions when the resulting action has the potential to cause a measurable change in the physical, chemical, or biological quality of a water body.

Millennium's submittals did not include a detailed Tier II analysis for process wastewater and stormwater to determine whether the Project has the potential to cause measurable degradation at the edge of the chronic mixing zone.

Ecology notified Millennium during various meetings, conference calls, and site visits during 2017 (June 8, June 19, June 28, August 16, August 29, and September 8, 2017) that detailed information regarding the stormwater and process wastewater would need to be submitted to Ecology in order to provide reasonable assurance that the discharges from the Project would meet state water quality standards.

C. Water Rights

The Millennium proposal includes operational descriptions for ongoing reuse of stormwater for industrial dust control. If stormwater is collected and reused for a beneficial use, a water right permit would be required in accordance with Chapter 90.03 RCW.

The Millennium property formerly supported the Reynolds aluminum smelter. During the operations as an aluminum smelter, Reynolds had three water right claims and six water right certificates with a combined total annual quantity (Qa) of 31,367 acre-feet per year at a withdrawal rate of 23,150 gallons per minute (Qi). The Reynolds smelter closed in 2000.

These claims and certificates are now owned by Northwest Alloys, who purchased the property from Reynolds in the early 2000s. No information has been provided to Ecology that documents continued beneficial use of water since about the early 2000s.

In December 2016, Ecology met with Millennium and requested records and other relevant information to document what the current and recent water uses have been on the Millennium property. To date, Millennium has not provided this information. If these water rights have been partially or fully relinquished, Millennium would need to apply for and obtain the necessary water rights to legally put water to beneficial use at the Project site for its proposed operations.

As of September 26, 2017, no information has been provided by Millennium to Ecology in order to quantify the extent and validity (or continued beneficial use) of the existing water rights that are appurtenant to the property, and no water right application(s) have been received by Ecology requesting any new use of water or change in beneficial use(s) of water.

Without a water right, Ecology does not have reasonable assurance that Millennium will be able to legally carry out its proposal.

D. Toxics Cleanup

The proposed location for the Project is the former Reynolds Metals aluminum smelter site. This is a Model Toxics Control Act cleanup site. The principal contaminants are fluoride, polycyclic aromatic hydrocarbons (PAHs), cyanide, and total petroleum hydrocarbons (TPHs). Millennium and Northwest Alloys (a subsidiary of Alcoa) are potentially liable persons (PLPs) for the site. Alcoa owns the property. Millennium leases the property from Alcoa. The PLPs have been working to define the extent of the contamination at the site and evaluate the potential cleanup alternatives. Public notice of a draft cleanup action plan outlining the proposed cleanup was issued in March 2016. Ecology has been working with the PLPs to provide additional sampling along the Columbia River to address comments received on the draft cleanup action plan. To date, the cleanup action plan and consent decree have not been finalized.

Portions of the Project's infrastructure are located on contaminated soil and a historic landfill at the site. The majority of the site contains contaminated ground water. Proposed construction and operation of the Project would likely alter the migration of contaminated ground water at the site. The ballast that will be used during construction could force ground water to the surface with potential for discharge to the Columbia River.

Millennium's submittals do not provide sufficient information to evaluate the impact of the potential discharge of contaminated stormwater and ground water during the construction and operation of the Project. As a result, Millennium failed to demonstrate reasonable assurance that the Project will meet water quality standards.

YOUR RIGHT TO APPEAL

You have a right to appeal this Denial Order to the Pollution Control Hearings Board (PCHB) within 30 days of the date of receipt of this Denial Order. The appeal process is governed by Chapter 43.21B RCW and Chapter 371-08 WAC. "Date of receipt" is defined in RCW 43.21B.001(2).

To appeal you must do all of the following within 30 days of the date of receipt of this Order:

- File your appeal and a copy of this Denial Order with the PCHB (see addresses below). Filing means actual receipt by the PCHB during regular business hours.
- Serve a copy of your appeal and this Denial Order on Ecology in paper form—by mail or in person. (See addresses below.) E-mail is not accepted.

You must also comply with other applicable requirements in Chapter 43.21B RCW and Chapter 371-08 WAC.

ADDRESS AND LOCATION INFORMATION

Street Addresses	Mailing Addresses
Department of Ecology Attn: Appeals Processing Desk 300 Desmond Drive SE Lacey, WA 98503	**Department of Ecology** Attn: Appeals Processing Desk PO Box 47608 Olympia, WA 98504-7608
Pollution Control Hearings Board 1111 Israel RD SW, Suite 301 Tumwater, WA 98501	**Pollution Control Hearings Board** PO Box 40903 Olympia, WA 98504-0903

Maia D Bellon, Director
Department of Ecology

Date 9/26/17