CONFEDERATED TRIBES OF
COOS, LOWER UMPQUA & SIUSLAW INDIANS
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Director Vicki Walker
Department of State Lands
775 Summer St. NE, Suite 100
Salem, OR 97301-1279

SUBMITTED VIA EMAIL (jordancove@dsl.state.or.us)

RE: The Confederated Tribes of Coos, Lower Umpqua and Siuslaw Indians' Comments on Jordan Cove Energy Project's Removal-Fill Permit Application, DSL APP0060697

Dear Director Walker:

The Confederated Tribes of Coos, Lower Umpqua, and Siuslaw Indians ("Tribe") respectfully submits these joint comments on the Jordan Cove Energy Project ("JCEP") Removal-Fill Permit Application, DSL APP0060697.

1. THE TRIBE'S HISTORY AND CONNECTION TO COOS BAY .

The Ancestral Territory of the Confederated Tribes of the Coos, Lower Umpqua, and Siuslaw Indians extends from the mouth of Tenmile Creek (Lane County) in the north, south to Fivemile Point between the mouths of Whiskey Run Creek and Cut Creek (Coos County), thence east to the crest of the Coast Range following generally watershed boundaries, encompassing approximately 1.6 million acres. As such, the proposed work is within the Ancestral Territory of the Confederated Tribes of the Coos, Lower Umpqua, and Siuslaw Indians. Our ancestors were the stewards and caretakers of all these lands and waters since time immemorial.

The Coos were one of several tribes indigenous to the Pacific Coast of Oregon at the time of Euro-American exploration. The Coos spoke two dialects, Miluk and Hanis. Miluk speaking Coos territory extended from the Coquille River on the south to South Slough near the mouth of Coos Bay on the north. Hanis-speakers lived from Rocky Point and South Slough near the entrance of Coos Bay north and up Coos River and to the Tenmile Lake. Their territory embraced the estuary of Coos Bay and its tributary rivers east to the crest of the Coast Range Mountains. The Coos Tribe thus traces to both Miluk who resided at the harbor entrance and cliffs to the south as well as the Hanis of the main estuary and north to Tenmile Outlet and Tenmile Lake.

During settlement, interviews were conducted with Indians residing at the mouth of the Columbia River during the winter of 1805-05, William Clark and Meriwether Lewis enumerated, as best they could, the tribes of the coasts of Oregon and Washington. Their "Fort Clatsop Miscellany" identified the "Kil-la-wats" [Lower Umpqua] and, residing on the sea coast to the sough, the "Cook-koo-oose Nations." Their note for this later tribe reads: "I saw Several prisoners from this nation with the Clatsops and Kilamox, they are much fairer than the common Indians of this quarter, and do not flatten their heads." At that time, the explorers estimated a population of 1,500 Coos Indians.

By 1811, when agents of the North West Company descended the Columbia to the Pacific Ocean, our ancestors were already falling before the threats of the Old World; smallpox, measles, and various unnamed fevers ravaged the tribal population. Moreover, our culture was being destroyed by extensive contact with Europeans and their inventions.
The first recorded contact with the Coos tribe occurred in 1826 when a Hudson's Bay Company brigade led by Alexander Roderick McLeod arrived on the north shore of Coos Bay. On November 11, 1826, McLeod wrote: "Fine weather, about midday encamped on the bank of an inlet [North Slough] connected with the main river, river Cahourz, in this neighborhood the hopes of getting a few beaver suggest the propriety of making a stay." While McLeod's party found few furs, they did note several villages and that the Indians were engaged in fishing.

The second group of Euro-Americans to document contact with our ancestors, Jedediah Smith's fur trapping party, reached Coos Bay in 1828. Harrison Rogers, a diarist, wrote: "The river at its mouth is about 1 mi[le] wide, the ind[ians] very numerous they call themselves *Kakoosh*. They commenced trading shell and scale fish, raspberrys, strawberrys and two other kinds of berries that I am unacquainted with, also some fur skins." Smith's party crossed the South Slough and proceeded north along the beach. They found several villages with plank houses and Indians eager to trade foodstuffs and furs.

Euro-American settlement began around Coos Bay in 1853 with the arrival of investors in the Coos Bay Commercial Company from the Rogue Valley via the Umpqua and south along the shore to the harbor. Members of this joint stock company founded Empire City at a Coos village on the east side of the lower estuary. With the opening of coal mines, the discovery of gold in the black sands near the mouth of the Coquille River, and the prospect of logging and lumbering, the process of displacement of the native peoples commenced immediately. (Beckham Report.) By the mide-1850s growing numbers of European-American settlers had arrived in the region. At the same time, the Oregon tribal population had been decimated and only a small fraction survived. Despite the human misery they had to endure, our ancestors continued in their roles as stewards of the land until the mid-1850s.

We will never know the true scale of mortality or crime committed against our ancestors, but it is clear that our Tribe was physically and spiritually exhausted by the late summer of 1855. That is when our people were rounded up, imprisoned, and removed from our lands under force of arms under color of a dishonored and unratified treaty – a treaty of peace and land cession that our ancestors signed in good faith which the Senate failed to ratify and the United States Government refused to honor. Our ancestors endured starvation, disease, isolation, exposure to terrible weather, and the cruelty of a succession of sub-agents from the United States. In spite of the removals in 1856 and 1860, a presence remained on the North Spit and Slough. The Jordan's, Barrett's and Talbot's are imbedded in the family trees of our tribal families.

The most central example to our history in this area is the Jordan's. In the 1860s James T. Jordan, his Coos wife, Jane, and their children settled in Jordan Cove. Their residency in the cove was sufficiently enduring to fix their surname on three features: Jordan Cove, Jordan Point, and Jordan Lake. There, Jane and her children were able to harvest the same traditional foods as our shared ancestors: blueberries, huckleberries, clams, Dungeness crabs, and oysters. They no doubt also fished for salmon and speared flounders in the Jordan Cove tide pools. To the Tribe, Jordan Cove is a place, which is significant to our heritage.

When the Coos were forcibly removed from our homeland, much was left behind. And when some returned Ethnographic informants in the early twentieth century identified numerous named Coos villages. In fact, in their field notes, Melville Jacobs recorded seventy-one sites in the 1930s, while John Peabody Harrington noted thirty-four. In the pre-World War II years, tribal members worked near the estuary picking cranberries or logging while still maintaining traditional ways of life.

Nearly twenty years after removal those that had been held at the reservation who did not die of starvation, illness or exposure had to make hard choices. Most heart broken and homesick, returned to be with the land. Tribal families bought lands or acquired them through the allotment process. Our tribes continued to fight for a treaty and compensation but their cries fell upon deaf ears. In 1954, Oregon terminated many of the tribes, including Coos, Lower Umpqua and Siuslaw. We were told by the government we did not have this identity anymore. Again, we fought but now for the right to claim our heritage.

In 1984, after more than 125 years of struggle and sacrifice, Congress extended federal recognition to the Confederated Tribes of Coos, Lower Umpqua and Siuslaw Indians. Since restoration, our people have worked tirelessly to maintain our relationship with our lands, resources, and distinct Tribal cultures. We have resumed our cultural roles of stewards and caretakers of the lands and resources that were once managed by our ancestors, including Coos Bay and Jordan Cove, *Q'alya ta Kukwis shichdii me,* and the lands and waters that will be impacted by the Project.

We acknowledge that parts of our ancestral homeland have already been impacted by development, including Jordan Cove area itself, without any fanfare or outcry from the Tribe. However, this was not by choice. Historically, the Tribe did not have any opportunity to be included in those conversations and decisions, often due to the fact that we were a terminated tribe trying to gain federal recognition. We did not obtain federal recognition until 1984; long after many of our culturally sensitive areas had been lost to us. For example, when Coos Bay was dredged in, the Tribe was not recognized as a formal government, nor was there adequate cultural resources protections that would allow our voices to be heard. What we have left is precious to us. We are hopeful you will hear our concerns now.

The Tribe embraces our traditional lessons and lifeways to protect, inform, and enhance the lives of our people, the health of our environment, and the sustainability of our community. We do this by striving to ensure the economic, environmental, cultural, and social needs of the Tribe are secured and sustained through implementation of holistic natural resource management strategies. We have also built a modern system of government and administration, with thriving commercial operations, which employ hundreds of members and non-members in living-wage jobs across Coos, Curry, Douglas, Lane, Lincoln Counties (our five-county service area) in southwestern Oregon.

2. SIGNIFICANT CULTURAL RESOURCES AND ARCHAEOLOGICAL SITES REST WITHIN JORDAN COVE AND THE PROJECT AREA.

The Coos people have continuously used the estuary since time immemorial to the present as demonstrated by archaeological sites, named places in Hanis and Miluk dialects of the Coosan Language, and the presence of prehistoric and historic burials of peoples at former villages and subsistence sites of our people. The Coos Bay estuary is central feature of Coos culture. The bay includes hundreds of sites of nearby fish weirs and traps, former villages, and loci of events in the oral literature of the Coos people. We have used the estuarine and shore lands in the area all our lifetimes to fish, gather shellfish, harvest berries, medicines, and plants for consumption or cultural purposes. The main stem was used as a primary transportation route for the Coos and is still used for fishing and canoeing by Tribal members today as well as for resource gathering and/or ceremonial purposes. The use of these resources is imperative to the culture and way of life for that is unique to the Coos people.

While much has been lost since the days of colonial exploration and Euro-settlement, there are deep anchors to our past that have survived through the centuries. As discussed above, the testimony of Coos elders in the 1930s and field notes from multiple individuals confirms that our Tribal ancestors had significant connections to the bay, including named villages, abundant traditional food sources, historic fish weirs, and numerous burial sites. And while records capture village area edging nearly all the shorelines of the bay the estuary was not static until the jetties were built so it is likely that occupation shifted as water pathways, sand deposits and significant events such as the earthquake and tsunami of the 1700s changed. Thus, evidence of occupation has been recently documented in locations completely unexpected to us. And while historic records capture village areas edging nearly all the Bay's shorelines, the estuary was less static up until the jetties were installed. It is likely that occupation shifted as water pathways, sand deposits, and significant events, such as the earthquake and tsunami of the 1700's changed. Thus, evidence of occupation has been recently documented in some unexpected locations.

Based on our oral history and traditional teachings we expect that many more cultural resources and archaeological sites lay undiscovered. Specifically, the Tribe's oral history informs us that this area was once home to Coos villages. We know that villages had adjacent burial areas, processing areas, gathering areas, and story locations. Therefore, adverse impacts are anticipated with dredging and filling in the bay and adjacent uplands. The pipeline installation is anticipated to adversely impact hunting, fishing and gathering sites, villages, burial sites, as well as spiritual areas.

Our own research conducted to understand the unique features to our identity completed as part of an application to the National Register of Historic Places to nominate Coos Bay as a Traditional Cultural Property ("TCP") of the Coos has helped grasp the breadth of the resources in Coos Bay. We recognize that this depth of work has not been completed in other areas of the project but that it is very likely that additional research would yield similar information.

Our TCP, *Q'alya ta Kukwis shichdii me* (Jordan Cove and the Bay of the Coos People) Traditional Cultural Property Historic District, considers not only our past connections to the Bay but our ongoing practices here. Examples provided by Tribal members include but are not limited to: duck hunting, fishing, crabbing, clamming, berry picking and basket material gathering are still highly prevalent amongst Tribal members today.

The Project's drilling, grading, dredging, vibro-compaction and/or other seismic work *will* disturb resources and places important to our culture, and unfortunately, more resting places. It is not a question of "if" there will be human remains found during the project work, but rather a question of "when." Most critically, impacts to the remains of our ancestors must be avoided to the greatest extent possible and appropriately mitigated otherwise. Tribal burials are sacred places to Tribal members and are reminders of who we are and where we come from.

3. THE TRIBE'S CULTURAL RESOURCES PROTECTION AGREEMENT WITH THE APPLICANT.

The Tribe has made substantial efforts to resolve issues of concern directly with JCEP. To that end, the parties have negotiated a Cultural Resources Protection Agreement ("CRPA"). A copy of the CRPA is attached.

The Tribe requests that the CRPA and its requirements be incorporated as a condition of approval of any permit to address any cultural resource impacts of the Project. By its incorporation into permit conditions, the CRPA is intended to serve as the primary framework to address potential impacts to cultural resources for the Project. The CRPA allows the Tribe an opportunity to review and comment on components of the Project that may impact cultural resources prior to a permit application and prior to any "project activities," which includes pre-construction ground disturbances. The CRPA also provides for direct tribal monitoring of ground project activities that may impact cultural resources.

4. COMMENTS.

Under Oregon law (ORS 196.795-990), the Department of State Lands ("DSL") can only grant the requested permit if it determines that (1) the project is consistent with the protection, conservation, and best uses of the water resources of the state; (2) the project is the practicable alternative with the least adverse impacts on the water resources; and (3) the project does not unreasonably interfere with the preservation of waters for navigation, fishing, or public recreation. DSL is also required to review the public need for the project, the economic costs to the public, public health and safety, compatibility with existing land uses, and proposed mitigation for impacts to waterways.

This proposed project raises concerns that must be addressed prior to the issuance of a permit, including information necessary to demonstrate compliance with the criteria for permit approval (ORS 196.825(3)a-j), among other permit approving policy and legislation (e.g. ORS 196.880):

- Whether the applicant has demonstrated public or economic need or benefits;
- Whether the application contains a sufficient analysis of the economic cost to the public if this project is not accomplished;
- Whether there are available project alternatives;
- Whether there are listed available alternative sites;
- Whether the application conforms to sound policies of conservation;
- Whether the project would interfere with public health and safety;
- Whether the project would conform to existing public uses of water, and in fact, monopolizes water use; and
- Whether the application sets forth all practicable mitigation to reduce adverse effects.

a. Public Need for the Project

DSL is required under ORS 196.825(3)(a) to consider the "public need" for the proposed removal fill.

The Federal Energy Regulatory Commission ("FERC") denied the Project once in March 2016, and again in December 2016, saying that proponents have failed to show a public need for this project. It is unclear whether Pembina has signed any long-term contracts with Asian LNG distributors, or any other distributors along the Pacific Rim, which was the main reason for the FERC's denial three years ago.

DSL must find evidence that there is a predominate public need for the project and evidence of demand for it. This need must be outweighed by the loss to Oregon's waters.

b. DSL must comply with Cultural Resource Requirements.

Archaeological and ethno-historical data confirm that the village and related cultural resources in the surrounding bay were integral to settlement and subsistence activities in the aboriginal and early historic periods. The estuary was vital to our ancestors' survival. Today, villages, sacred sites, cultural resources, and other historical sites important to the Tribes are scattered across this entire region and can be found on both public lands as well as private property. Vulnerable cultural resources and archaeological sites, including burials, within the estuary lie directly in the Project's path

Both Oregon State and Coos County archaeological resources protection laws will apply to activities authorized by this permit. State and local archaeological resources protection laws protect "archaeological sites." Oregon state law prohibits the excavation, destruction or alteration of any archaeological site or collection of archaeological objects located on public or private land, unless a state permit and written permission from the landowner are obtained. Destruction or damage to any human burial site, human remains or American Indian sacred or special objects also is prohibited. State policy considers archaeological sites and their contents to be irreplaceable, finite and non-renewable resources that are part of Oregon's heritage.

Laws that apply to this proposal include:

- Law protecting Native American graves (ORS 97.740 *et seq*.).
- Law regarding archaeological objects and site protections (ORS 358.905 *et seq*.), permit requirements for site alteration (ORS 390.325 *et seq*.), and permit requirements for state public and private land (OAR 736-051-0080 to 0090).
- Coos Bay Estuary Management Plan # 18.

When considering impacts to cultural resources, DSL must evaluate how these laws operate to identify and protect archaeological resources within the Bay.

The Tribe has submitted an application to the National Register of Historic Places to nominate a large portion of Coos Bay as a Traditional Cultural Property. A redacted copy of our application can be found at https://www.oregon.gov/oprd/HCD/NATREG/docs/Jordon%20Cove%20-%20TCP/2018-12-19_Kukwis_CTCLUSI_REDACTION.pdf. This application is still under review; however, the Project should contemplate this nomination or a determination of eligibility

in the impacts analysis. Additionally, further consultation and research should be completed to identify features that may be impacted that are unique to tribal identity.

For example, a cursory analysis of the State Historic Preservation Officer and Tribal Historic Preservation Officer data, for the Project area around Coos Bay only, there are known archaeological sites within the project's footprint.

All told, there are eighty-five known archaeological sites within or at a distance of five miles from Jordan Cove. The Tribe expects that additional villages, burials, and other archaeological sites will be found in the Project's immediate area. DSL must consider this plethora of known archeological data, as well as the likely discovery of additional sites, particularly burials.

The Tribe has identified a number of actions associated with the Project that could impact cultural resources that need to be considered by DSL in this process.

For example, Horizontal Directional Drilling is proposed to enter and exit the Bay at or near villages and adjacent laydown areas are located in areas with known or anticipated resources. Dredging itself could harm resources such as rock features or submerged archaeological sites. Fish, crabs, shellfish, plants for medicine, regalia or basketry are considered cultural resources of the Tribe important to the continuity of our culture in Coos Bay. There is already mounting evidence that resources like eelgrass and fish will be adversely impacted and while mitigation is proposed there must be assurances that these resources are retained locally as they are critical to the identity of the people of Coos Bay. Another example is the proposed vibro compaction or seismic improvements required by the project could cause a high level of disturbance to cultural resources both horizontally and vertically without bringing material up. This could result in damage to cultural resources present within the Project Area or those areas that are directly adjacent.

Dredging and construction of the boat slip for the terminal along with proposed construction of the East Bay Rd bridge at Kentuck Slough will result in changes to the current water flow of the Bay and slough. This disruption will alter the natural sedimentation process resulting in erosion to adjacent cultural resource sites (archaeological and gathering areas).

Many basketry and regalia plants reside in wetlands and within the submerged lands of the Bay. These resources are cultural resources to the Tribe. The mitigation to these resources needs to consider the Tribes current or future use of these materials and retention of these plants in Coos Bay. Additionally, rain, king tides, sea level rise, and anticipated tsunami require that contaminated fill be placed in appropriate locations so that resuspension cannot occur at any point. Decommissioning of the Project in the future needs to also account for this as potential restoration of deposition lands in the future will be complicated and involve additional costs and likely resuspension of contaminants in the water.

c. Harm to State Waters.

DSL can only permit the Project if it is consistent with the protection, conservation, or best use of Oregon's waters. *See* ORS 196.825(1)(a). The proposal will affect the waterways and wetlands on the North Spit, in Coos Bay, at dredge disposal sites, and at the Kentuck Slough golf course mitigation site. As indicated in the prior section, we have concerns with fill locations, contamination and habitat degradation and water quality for marine life in the

estuary because of the impacts to resources important to our culture and considered cultural resources by the Tribe.

In addition, the Pipeline would affect waterways and wetlands in Coos, Douglas, Jackson and Klamath. Construction of the 229-mile pipeline would impact wetlands and waterways at a minimum of 485 individual locations and would affect a total of nearly 6 miles of wetlands. At each place where the pipeline crosses stream and rivers, the construction will degrade fish habitat. Water quality impacts will adversely affect anadromous fish such as salmon, steelhead and lamprey, which are important resources to the Tribe Removing streamside vegetation and damming, dredging, or diverting waterways will likely increase pollution by increasing stream temperature, turbidity, and impairing healthy aquatic habitat for fish. These and other water quality impacts will diminish the quality of habitat for fish.

As set forth below, there are a number of impacts to state waters associated with this project.

First, storm water impacts associated with the Project could be significant. The Project claims that impacts and disturbances from this construction will be "minimal" but does not provide justification. The Project application should include storm water treatment facility to treat rain water contaminated from the use of heavy equipment. Storm water is scientifically known to pollute waterways as pavement surface area and vehicle traffic increase. This is a massive construction being undertaken in the Bay. At a meeting between the State and the Tribe it was stated that this would be the largest infrastructure project in state history. And beyond the Bay, this activity will affect hundreds of waterways.

Second, the scope of the dredging associated with this project are large and ongoing and impact state waters and associated resources.

The proposed Navigation Reliability Improvement ("NRI") work will entail the excavation, mobilization, and transport of approximately half a million cubic yards sediment, soft siltstone and sandstone, and over 75,000 cubic yards of sand. Material dredged from the four areas is to be transferred via a 24" diameter pipeline to a proposed disposal site in the vicinity of the Highway 101 Bridge in North Bend. As the transport pipe will be laid at the bottom of the Federal navigation channel connecting each of the dredge areas to the sediment disposal sites it will directly impact, acres of subtidal estuarine habitat and water quality
Dredging of this scale will increase turbidity in the bay and thus harm habitat for Tribal resources such as crabs, salmon, herring, sturgeon, lamprey, and shellfish, like native oysters and clams and likely some sensitive plants or seaweeds. With increased turbidity and fine silt suspension caused by the dredging, not only will the adult and juvenile fish be exposed to contaminants from the silts, but spawning sites may be clogged with silt and the eggs suffocate.

The project will also cause the permanent loss of critical habitat at the bottom of the Bay, which may include archeological features and bull kelp habitat, this kelp is harvested by the Tribe and membership. The Project will also cause increased temperatures from discharges of cooling water, injury to fish and other aquatic life from construction of the marine slip, and permanent loss of critical plants which must be properly mitigated.

Moreover, the proposed project includes ongoing channel dredging. First every three years for the first ten years, then every five years afterwards, during the window of October through February. This frequency would not allow for any permanent restoration as dredging will

continuously disturb vegetation and habitat, silt resuspensions, turbidity, and contaminant exposure and may indirectly increase erosion to some archaeological sites. The ability of species to adapt to the unstable and degraded habitat is very low given that species are already experiencing stress from ongoing population decline, infections, previous habitat loss, and climate change, to name a few. Wetland and habitat restoration for this area has already received millions of dollars in federal aid, and a permit approval for this proposed work would counteract this restoration and increase applications for additional funding for restoration.

Third, the activities could cause significant, detrimental, and permanent wildlife and habitat impact and impact the livelihood and health of the community, including the Tribe. As discussed with the Environmental Justice Task Force last year, the Tribe is disproportionally impacted by the proposed activities as it negatively impacts resources that are important to maintaining our health and distinct culture.

The application says that fill discharge will likely not be a limiting factor for ESA listed Coho or other resident fish, migratory or rearing fish; however, this contradicts known migration patterns for these fish. Specifically, Coho salmon travel from the ocean to the estuary and towards their native streams from October through November to spawn, and Chinook salmon, travel November through January. Lamprey spawning is even more elusive but likely overlaps with other species. Contaminant exposure will likely kill spawning fish, whether through dredging or storm water runoff from heavy machinery or construction material, or increased likelihood of fuel and oil spills.

Legacy contaminants that become suspended, such as Polychlorinated Biphenyls ("PCBs") also have the capability of bioaccumulation in tissues, thus affecting the food chain and ecosystem.

Although the applicant has identified listed endangered species in the area, there are a variety of vegetation and wildlife that need to be protected, especially as they all contribute to the estuary ecosystem. In addition to aquatic species and marine mammals, eagles, osprey, cormorants, herons, egrets, and ducks are also valued wildlife, just to name a few. There is also an endangered plant habitat at the terminal site as well as throughout lower Coos Bay, according to National Oceanic and Atmospheric Administration's Environmental Sensitivity Index, used by the US Coast Guard in responding to oil and chemical spills in critical habitat. The Tribe wishes to encourage that private and government agencies avoid adding listed endangered species. It should be noted that Pacific lamprey may be uniquely sensitive to habitat disturbance as during their juvenile stage they live in the same area for years, for which one dewatering will wipe out multiple generations.

Fourth, the dredging will cause resuspension of contaminants known to bioaccumulate. According to the *Sediment Evaluation Framework*[1], cited numerous times in the Project application, the dredging process facilitates resuspension of sediment particles, including those contaminated by persistent and carcinogenic pollutants that become dispersed through the water and air. Both aquatic and terrestrial vegetation and wildlife are exposed through either direct contact or dietary uptake which leads to contaminant bioaccumulation. This includes PCBs, other halogenated hydrocarbons, and microplastics, to name a few categories. This affects the ecosystem as a whole, and ultimately human health. Traditional and first foods of the Tribe are eaten when available and exposure may be higher for Tribal member who eat more contaminated

[1] Northwest Regional Sediment Evaluation Team (RSET). 2018. Sediment Evaluation Framework for the Pacific Northwest. *Prepared by* the RSET Agencies, May 2018, 183 pp plus appendices.

fish and shellfish. This will have a negative impact on traditional practices and lifeways important to Tribal identity. We have already seen resources become underused in Coos Bay because of contamination. Additionally, these dredge spoils are to be transported to the remaining wetlands around the Coos Bay estuary which results in an additional exposure for the ecosystems and potentially tribal members. Thus, the applicant's proposed mitigation is in fact much more destructive to habitat restoration, community health, and economic sustenance.

PCBs are synthetic organic chemicals deposited during leaks and spills from intensive industrial use. Although their use was banned in 1979, they are persistent in the environment and do not easily break down. They bind to harbor sediments, but during dredging will release back into the water (heavier compounds) and into the air (lighter compounds). PCBs are taken up into the ecosystem, where they are known to bioaccumulate in fatty tissues as well as in plants. PCBs can cause a range of symptoms and illnesses, ranging from minor irritation neurological, immune, and reproductive effects, to cancer. Birds and other predator species are disproportionally impacted from legacy pollutants through consumption of contaminated fish or wildlife. State and federal limits for safe consumption of PCBs is not effective if the environment and ecosystem contain significant amounts and consumption is unavoidable.

If this project proceeds, all contaminated spoils be completely removed from the area. They pose too much of a threat given sea level rise, tsunami or earthquake potential, wildlife exposure, and/or runoff. Additionally, future decommissioning and restoration will not favor having contaminated soils present.

Lastly, the Tribe has identified several potential impacts to wetlands and wetland vegetation that needs to be addressed in this process. Oregon's law demonstrates a state commitment to preserve and improve wetland habitat and wildlife that must be considered when evaluating this proposal. ORS 196.415, .420, .545, .668, .672, .805, .845[2].

The Tribe has identified specific impacts to wetlands that must be addressed:

First, dredge materials are proposed to be placed at the Kentuck mitigation site that is being converted to wetland/marsh, but if those dredged materials contain contaminated soils from the project area or channel, then there is the potential for these chemicals to leech out into the bay.

Second, since Kentuck is naturally returning to wetland on its own it is unclear how there is approval for this area as a wetland mitigation site for loss of wetland within the project area at the terminal.

Third, wetlands F and G have not been thoroughly evaluated to determine if it provides critical habitat for ESA-listed threatened and endangered species.

Fourth, damaging natural resources of cultural significance such as eel grass and wetlands with culturally significant plants and mitigating them further up the bay may result in cumulative impacts to the micro-environments with in the bay, many of which are critical habitat for threatened and endangered species and is not appropriate given the play a critical role in cultural practice and lifeways.

[2] Oregon Legislature, Chapter 196 – Columbia River Gorge; Ocean Resource Planning; Wetlands; Removal and Fill. 2017 ORS Vol. 5 Chapter 196.

d. Impacts to Public Safety

DSL must consider for the terminal and pipeline interferes with public health and safety. *See* ORS 196.825(3)(e). This includes the potential for catastrophic disaster associated with a terrorist attack on the Terminal or Pipeline. DSL's analysis should include, a minimum, a siting and carrier analysis,[3] risk and consequence assessment of potential LNG spills over water,[4] and National Protection Association standards applying to LNG.[5] Local and international regulatory requirements from such organizations as the International Maritime Organization, U.S. Coast Guard should all be assessed for their roles in mitigating risks of LNG.

DSL must also account for the risk of a natural gas pipeline. As recent natural gas pipeline incidents demonstrate, even with modern safety standards and inspections, deadly explosions continue to occur.[6] According to the Pipeline and Hazardous Material Safety Administration, there were 4,898 reported incidents related to gas pipelines between 1998 and 2017.[7] That means that over a nineteen-year period there was, on average, a gas incident almost daily. These incidents resulted in 296 deaths, 1,187 injuries, and more than $3 *trillion* in clean-up costs.[8] Rather than mere risks, this data illustrates that natural gas accidents are nearly inevitable and often result in deadly and very expensive catastrophes. This of course only accounts for pipeline incidents reported in the U.S. and does not account for incidents occurring in other countries.[9]

Moreover, the scope of work is not limited to dredging the channel- this project encompasses a vast array of terrestrial ground disturbance and construction. This includes, but is not limited to, paved roads, permanent bridges, a helipad, operational facilities with parking lots, wash bays, fuel storage tanks, erosion prevention structures, storm water outfalls and culverts, filtration facilities, dewatering complexes, and numerous temporary ditches, sediment fences, silt traps, and slope stabilization structures. Heavy earth moving equipment is required to create these structures. The applicant proposes that the waterways be used for all large equipment and vessel repairs, maintenance, and transportation of new and damaged equipment. All of these activities cumulatively and substantially increase the risk of collisions, incidents, and subsequently environmentally contaminating spills. Between 2014 and 2018, Oregon Department of

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[3] Consequence Assessment methods for Incidents Involving Releases from Liquefied Natural Gas Carriers. (May 13, 2004) ABSG Consulting Inc. for the Federal Energy Regulatory Commission. https://www.ferc.gov/industries/gas/indus-act/lng/cons-model/cons-model.pdf

[4] Guidance on Risk Analysis and Safety Implications of a Large Liquefied Natural Gas (LNG) Spill Over Water, Sandia National Laboratories (Dec. 2004), https://prod.sandia.gov/techlib-noauth/access-control.cgi/2004/046258.pdf.

[5] NFPA 59A: Standard for the Production, Storage, and Handling of Liquefied Natural Gas (LNG), 2009 Edition. National Fire Protection Association. (Next edition 2012).

[6] *Nat Gas Pipeline Explosion Reported In Oklahoma*, Value Walk. (Aug. 20, 2013). https://www.valuewalk.com/2013/08/nat-gas-pipeline-explosion-reported-in-oklahoma/; *Natural Gas Pipeline Explosion Levels Homes in Kentucky Town*, Think Progress. (Feb. 13, 2014). https://thinkprogress.org/natural-gas-pipeline-explosion-levels-homes-in-kentucky-town-56b7d89aa40a/; *Northwestern Minnesota gas pipeline explosion: 'It was just hell on earth'*, Twin Cities Pioneer Press. (May 25, 2014). https://www.twincities.com/2014/05/25/northwestern-minnesota-gas-pipeline-explosion-it-was-just-hell-on-earth/;

[7] Pipeline and Hazardous Material Safety Administration. *Pipeline Incident 20 Year Trends*. http://www.phmsa.dot.gov/pipeline/library/data-stats/pipelineincidenttrends (last accessed Aug. 15, 2018). This figure and the subsequent figures on casualties and costs were calculated by displaying data for "All Reported Incidents" and then adding up the numbers from "Gas Distribution," "Liquified Natural Gas," "Gas Gathering," and "Gas Transmission."

[8] *Id*.

[9] *TransCanada pipeline explosion; Keystone XL company's natural-gas pipeline explodes, burns in Manitoba, Canada*, News Review. (Feb. 6, 2014). http://www.newsreview.com/chico/transcanada-pipeline-explosion/content?oid=12685546; *TransCanada natural gas pipeline explodes near Winnipeg*, Al Jazeera. (Jan. 25, 2014). http://america.aljazeera.com/articles/2014/1/25/transcanada-naturalgaspipelineexpodesnearwinnipeg.html.

Environmental Quality has compiled over 150 *reported* cases of oil and chemical spills. Spills that occur on land under 42 gallons in quantity are not legally required to be reported, and many of the spills are reported by observers who are not the responsible parties. The scale of the proposed construction activity and heavy equipment use will exponentially increase the spills occurrence, especially concerning unreported quantities.

Dredging Coos Bay will also allow water to move more quickly in the event of a tsunami, increasing risks to public safety for local communities. Crossing the rivers and streams that are the drinking water source for 12 public drinking water systems.

e. Preservation for Waters for Navigation, Fishing, or Public Recreation

Modifying the navigation channel at Coos Bay that would interfere with the ability of the public to access these areas for fishing and recreation and increase ship traffic in the navigation channel that could interfere with fishing by tribal members.

Today, fish and shellfish are prominently used by tribal members, much in the way of our ancestors. Portions of the Bay are where clams and crabs are harvested. The varieties identified include razor clams, gapers and cockles, and butter clams. Clam digging includes outings by families who harvest "for the freezer", and others whose families visit the area regularly.

Tribal members, past and present, also harvest Dungeness and Red Rock crabs in the Bay. Traditionally, our ancestors used a wooden rake to pull the crabs from the pools created at low tide. Today, tribal members continue to set crab pots and harvest by hand during low tides.

At least, sixty-six fish species are resident in Coos Bay. Salmon is an especially important resource to the Tribe. According to tribal lore, salmon people are "beloved," and must be respected. Others, including but not limited to flounder, lingcod, sturgeon, steelhead and lamprey, have been and continue to be important tribal foods. These fish species and traditional foods may be impacted by the dredging and related work to deepen and widen the navigation channel from the Pacific Ocean through Coos Bay. This cumulative impact must be considered for DSL permit review. Moreover, increased vessel traffic (including LNG tankers) would require exclusion zones. This will directly interfere with fishing. DSL must take a hard look at how marine traffic would change the face of commerce, tribal fishing, and other uses of the Bay.

As aforementioned, vulnerable fish populations or marine species will almost certainly be impacted, if not decimated, due to the dredging activity – directly altering fish habitat and increasing turbidity. This is impact other species dependent on these species. Further, dredging will potentially mobilize toxics impacting fish health.

Further, in addition to dredging activities, the construction and operation of the Project will result in the introduction of invasive species, which will negatively impact local fish and wildlife. Ocean-going vessels can transport non-native species on the surface of the ship or may release invasive species when they discharge ballast water. The introduction of exotic species put additional stressors on native, threatened and endangered species, which will invariably upset the delicate aquatic ecosystem and the resources the Tribe has relied on for thousands of years.

f. Consistency with Local Ordinances

Again, DSL must ensure that the proposal is consistent with the requirements of Coos County's Coos Bay Estuary Management Plan ("CBEMP").[10] Policy #18 of the CBEMP provides in relevant part that a development proposal involving a cultural, archeological, or historical site shall include a site plan application showing all areas proposed for excavation, clearing, and construction, and submit that site plan to the Tribes for a 30-day review period. The county must then conduct a review of the site plan and approve or deny based in part on whether the Tribes and the applicant have agreed on "appropriate measures" to protect cultural, archeological or historical resources.

DSL must ensure that these requirements and other applicable standards are met.

g. Alternatives Analysis.

As the application makes crystal clear, the overriding purpose of the project is to export natural gas. DSL must consider alternatives that have less impact to water resources. Without limiting this consideration, these alternatives should include, at a minimum, consideration of the following:

(1) Whether the Project can proceed without impacting any tribal cultural resources or other tribal resources;
(2) Whether transport from other locations would better serve the public interest by mitigating economic or environmental impacts or by limiting the cumulative impacts;
(3) Whether alternative dredging configuration will minimize the potential for geologic hazards, harm to tribal, private, and public property and safety risks to communities near the pipeline; and
(4) Whether to reject any dredging proposal all together as contrary to the public interest.

Other alternatives to the Project are, no doubt, also available, but DSL must at a minimum consider the possibilities listed above, as they are reasonable and bear directly on the public interest findings before it. In addition, energy conservation and efficiency are preferable and practicable alternatives. Offshore LNG terminals are also practicable alternatives.

h. DSL must Consider whether the Proposal in Consistent with Sound Policies of Conservation by Considering Impacts of Climate Change.

In analyzing whether the proposal is consistent with sound policies of conservation, DSL must consider the climate change impacts of the Project. Perhaps the most permanent and critical detrimental effect that this Project will cause is its contribution to anthropogenic climate change. Thus, DSL must analyze greenhouse gas emissions of the Project and attendant impacts on climate change.

This includes greenhouse gas emissions from construction activities; producing natural gas and the resulting methane leakage in gas fields; fugitive emissions from piping and compressing natural gas; emissions from electricity generation necessary to operate the terminal; pollution from shipping gas overseas in tankers powered by bunker fuel; and emissions from re-gasifying

[10] Available at https://www.oregon.gov/LCD/OCMP/docs/Public_Notice/Coos_CBEMP_EPs.pdf.

LNG once it reaches its target market. In order to accurately evaluate climate impacts, all of these emissions should be factored in.

Natural gas extraction is leaky, and natural gas is mostly methane, a highly potent greenhouse gas with one hundred times the climate change potential of carbon dioxide over a 20-year period). Cooling natural gas to about −162°C (−260°F) and shipping it overseas for use in distant countries is costly and energy-intensive. Natural gas is mostly methane, a super-potent greenhouse gas, which traps 86 times as much heat as carbon dioxide over a 20-year period. In turn, even small leaks in the natural gas production and delivery system can have a large climate impact — enough to gut the entire benefit of switching from coal-fired power to gas.

According to a 2014 Department of Energy ("DOE") report[11], the climate change impacts of LNG export to Asia are comparable to coal. On May 29, 2014, the DOE released a preliminary environmental report for public comment analyzing the lifecycle greenhouse gas emissions resulting from LNG exports.[12] The results show that U.S. LNG would likely be nearly as bad as coal when exported to Europe and comparable to coal when exported to Asia when the climate impacts of methane leakage are measured over a 20-year timeframe.

LNG derived from conventional gas wells has a 30 percent larger carbon footprint than domestic natural gas. On a global scale, LNG will have a greater impact to climate change than current natural gas sources used in the Pacific Northwest. DSL must analyze these and all other contributions by the Project to climate change.

We appreciate your consideration of these comments. If you have any questions about these comments, please feel free to contact me at 541-435-7151 or Stacy Scott, our Tribal Historic Preservation Officer, at (541) 888-7513.

Sincerely,

/s/

Margaret Corvi
Culture and Natural Resource Director
The Confederated Tribes of Coos,
Lower Umpqua, and Siuslaw Indians

cc: FERC Docket
Governor's Office

[11] U.S. Department of Energy: National Energy Technology Laboratory. *Life Cycle Greenhouse Gas Perspective on Exporting Liquefied Natural Gas from the United States*, DOE/NETL-2014/1649, Office of Fossil Energy (May 29, 2014). https://www.energy.gov/sites/prod/files/2014/05/f16/Life%20Cycle%20GHG%20Perspective%20Report.pdf.
[12] U.S. Department of Energy, *DOE LNG Exports Announcements*. May 29, 2014. https://www.energy.gov/fe/doe-lng-exports-announcements-may-29-2014.