

Nondalton Tribal Council Comments – Pebble Project Preliminary Draft EIS Section 4.25 – Threatened and Endangered Species

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Nondalton Tribal Council	1	Section 4.25	General	The Threatened and Endangered Species (TES) section of this environmental impact statement (EIS) provides an incomplete and narrow discussion for a project of this size that spans several watersheds and will have impacts to multiple aquatic and terrestrial species on which TES and State of Alaska Special Status Species in Bristol Bay and Cook Inlet rely for survival.	Comment noted. The DEIS evaluates the direct, indirect, and cumulative impacts to TES.
Nondalton Tribal Council	2	Section 4.25	General	Constructing and operating a mine of this size with its associated infrastructure, combined with altering, filling, dredging, disposing of wastewater, and discharging into streams, tributaries, wetlands, and ponds in watersheds for over 25 years, and most likely longer, will adversely impact, irrevocably damage, and will most likely eradicate distinct anadromous and resident fish populations found in the smaller tributaries. These smaller and unique stocks are important to the overall health of fisheries because these stocks provide genetic diversity that improves resiliency throughout the watershed. The proposed project would cover and otherwise adversely impact large areas of the upper watersheds, resulting in severe fragmentation of habitat that is vitally important to salmon and other anadromous and resident fish. The EIS must evaluate direct, indirect, and cumulative impacts to all aquatic species. The EIS must also evaluate direct, indirect, and cumulative impacts to the prey resources that fish rely on during all life history phases. A robust evaluation of this type needs to be based on statistically sound scientific baseline data and existing conditions information as well as the Traditional Ecological Knowledge and Wisdom (TEKW)	Comment noted. The DEIS evaluates the direct, indirect, and cumulative impacts to TES. Impacts to aquatic resources are detailed in Section 4.24, Fish Values. Traditional ecological knowledge is incorporated in Section 3.9/K3.9/4.9, Subsistence. See also Appendix K3.1 for a summary of TEK discussion in the document.

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				of Alaska Native communities.	
Nondalton Tribal Council	3	Section 4.25	General	Related to TES are the prey resources that TES species rely on. The EIS must include a robust habitat assessment to assess existing conditions, including conditions related to climate change and sea level rise. Extensive aquatic habitat modeling tools exist to conduct watershed assessments. These methods must be used to evaluate the direct, indirect, and cumulative impacts of the proposed project. The EIS must use up-to-date methods to adequately evaluate aquatic and terrestrial resources. These methods must be used to further evaluate the direct, indirect, and cumulative impacts of the proposed project to aquatic resources and fish and fish productivity in the watersheds. Of particular concern is how wildlife species will be impacted as a result of project-induced changes to fish numbers (especially salmon) and fish habitat.	Impacts on TES from current climate change trends are included in the DEIS. All Impacts to aquatic resources are detailed in Section 4.24, Fish Values, as well as Sections 4.16, Surface Water Hydrology, and 4.17, Groundwater Hydrology. No population-level impacts to salmonid species are anticipated.
Nondalton Tribal Council	4	Section 4.25	General	At a minimum, the EIS must include and present all the waters documented in the Alaska Department of Fish and Game (ADF&G) Anadromous Waters Catalog (AWC); however, it should be recognized that the AWC under represents waters that support anadromous fish by 20 to 40 percent. Information must be provided discussing when, where, and how additional locations will be chosen to conduct additional fish surveys in the areas to provide more robust data on areas not in the AWC. To further evaluate direct, indirect, and cumulative impacts to habitat, fish, and fish productivity, the EIS must provide information on whether instream flow reservations or other water rights exist in these watersheds. Impacts to	All fish-related impacts are discussed in Section 4.24, Fish Values. Impacts to waters are discussed in several sections including 4.16, Surface Water Hydrology, 4.17, Groundwater Hydrology, and 4.18, Water and Sediment Quality.

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				the entire watershed of Bristol Bay as well as Cook Inlet and outside waters that provide critical and migratory habitat for aquatic and terrestrial species must be assessed in the EIS.	
Nondalton Tribal Council	5	Section 4.25	General	<p>Bristol Bay and Cook Inlet support world-class salmonid species that will be irrevocably impacted by the proposed project including: Chinook salmon, coho salmon, chum salmon, pink salmon, sockeye salmon, and steelhead trout (Chambers et al., 2012; USEPA, 2014). Other important fish species that are used by people in the region include: rainbow trout, arctic char, Dolly Varden, grayling, and whitefish. Important non-salmonid species, like pike and suckers, are also used by local people. These fisheries are an integral part of the aquatic food web and provide an abundant biomass and prey resource for several aquatic and terrestrial species in the freshwater and marine areas of Bristol Bay and Cook Inlet watersheds as well as in the other waters including the Pacific Ocean. The EIS must quantify and evaluate the impacts related to the loss of this large prey resource that sustains aquatic and terrestrial species within the project area and across all areas of their adult migratory routes.</p> <p>References: Chambers, Dave, Robert Moran, and Lance Trasky (Chambers et al.). 2012. Bristol Bay's Wild Salmon Ecosystems and the Pebble Mine, Key Considerations for a Large-Scale Mine Proposal. In partnership with Wild Salmon Center and Trout Unlimited, Stone Grossard, and The Tiffany & Co. Foundation.</p>	All fish-related impacts are discussed in Section 4.24, Fish Values. Thank you for providing these references, they were reviewing and incorporated where applicable in the DEIS.

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				<p>Edited by Mark Trenholm. January.</p> <p>U.S. Environmental Protection Agency (USEPA). 2014. An Assessment of Potential Mining Impacts on Salmon Ecosystems of Bristol Bay, Alaska. Final Report. EPA 910-R-14-001A-C, ES. January.</p>	
Nondalton Tribal Council	6	Section 4.25	General	<p>Under Alaska State law, the Commissioners of the ADF&G and the Department of Natural Resources must take measures to preserve the natural habitat of fish and wildlife species that are recognized as threatened with extinction (ADF&G, 2018). State of Alaska Special Status Species in Bristol Bay and Cook Inlet include the following species listed as endangered by ADF&G: blue whale, humpback whale and right whale (ADF&G, 2018). The Alaska Special Status Species also includes Fish Stocks of Concern.</p> <p>References: Alaska Department of Fish and Game (AD&FG). 2018. "State of Alaska Special Status Species: Fish Stocks of Concern". Accessed on May 16, 2018. Available at: http://www.adfg.alaska.gov/index.cfm?adfg=specialstatus.akfishstocks</p>	<p>All impacts not directly related to TES are addressed in other sections. Blue and right whales are not considered to occur in the EIS analysis area. Only the federally-listed stock of humpback whales and other listed species that may occur in the EIS analysis area are discussed in Section 4.25, TES.</p>
Nondalton Tribal Council	7	Section 4.25	General	<p>Along with the discussion of critical habitat, it is unclear why Essential Fish Habitat (EFH) for freshwater, estuarine, and marine species, which are important prey resources for several of the listed species, is not discussed in this section. The Magnuson-Stevens Fishery Conservation and Management Act of 1996, as amended in 2007, mandates the identification of EFH for federally managed species and the</p>	<p>The EFH has been included in the DEIS as Appendix I and includes several maps.</p>

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				<p>consideration of recommendations to conserve and enhance the habitat necessary for these species to carry out their life cycles. According to National Oceanic Atmospheric Administration (NOAA) Fisheries, EFH includes those waters and substrates necessary to fish for spawning, breeding, feeding or growing to maturity. "Waters" include aquatic areas and their associated physical, chemical, and biological properties. "Substrate" includes sediment underlying the waters. "Necessary" means the habitat required to support a sustainable fishery and the contributions of "managed species" to a healthy ecosystem. "Spawning, breeding, feeding, or growing to maturity" includes all habitat types utilized by a species throughout its lifecycle (NOAA Fisheries, 2018).</p> <p>National Oceanic Atmospheric Administration Fisheries (NOAA Fisheries). 2018. "NOAA Fisheries Essential Fish Habitat". Accessed on November 27, 2018. Available at: https://www.fisheries.noaa.gov/national/habitat-conservation/essential-fish-habitat</p>	
Nondalton Tribal Council	8	Section 4.25	General	<p>According to NOAA Fisheries, a consultation with NOAA Fisheries is required whenever a federal agency, including the military, works in an area that will affect EFH. A consultation is also triggered when a federal agency, or its designee, determines that an action to be authorized, funded, or undertaken by the agency may adversely affect EFH. According to NOAA Fisheries, an "adverse effect" is any impact that reduces the quality and/or quantity of EFH. Adverse effects may include direct or indirect physical, chemical, or biological alterations of the waters or</p>	<p>The EFH has been included in the DEIS as Appendix I and includes several maps.</p>

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				<p>substrate and loss of, or injury to, benthic organisms, prey species and their habitat, and other ecosystem components, if such modifications reduce the quality and/or quantity of EFH. Adverse effects to EFH may result from actions occurring within or outside of EFH and may include site- specific or habitat-wide impacts, including individual, cumulative, or synergistic consequences of actions. Through the consultation process, the agency and NOAA determine how best to conduct coastal development while supporting fish habitat and minimizing or avoiding environmental damage. (NOAA Fisheries, 2018).</p> <p>The EIS must include an EFH assessment and consultation for both the Bristol Bay Watershed and Cook Inlet for freshwater salmonid habitat and estuarine and marine habitat for salmonids, groundfish, forage fish, and other resident and migratory fish species as well as scallops and crabs. Habitat Areas of Particular Concern, which are subsets of EFH, must also be identified.</p>	
Nondalton Tribal Council	9	Section 4.25	General	<p>Although bald eagle is no longer listed under the Endangered Species Act, and Alaska's populations are healthy, continued stewardship and conservation of nesting and foraging habitat around salmon spawning streams and estuarine and marine waters near their nest sites are necessary to protect them from potential harm caused by human disturbances and human development. Because of this, a discussion of the Migratory Bird Treaty Act and the Bald and Golden Eagle Protection Act should be included in the TES section.</p>	<p>Since bald eagles are not federally listed, they are not considered a TES. They are discussed in Sections 3.23 and 4.23, Wildlife Values. The MBTA is also discussed in those sections. Only current TES are included in Section 4.25.</p>

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Nondalton Tribal Council	10	Section 4.25	Beluga Whales	For beluga whale, the TES section includes the following statement which seems to trivialize the impacts from the proposed project: Moore et al. (2000) concluded that beluga whales appear to have become habituated to offshore oil and gas activities in central Cook Inlet. Yet beluga whale is still listed under the ESA. At some point there may be a threshold of no return for them to recover, particularly if their prey is heavily impacted.	Comment noted. The continual decline of the Cook Inlet Beluga Whale stock is not fully understood, however potential impacts to their prey species are discussed for several hypothetical spill scenarios in Section 4.27, Spill Risk.
Nondalton Tribal Council	11	Section 4.25	Beluga Whales	For beluga whale, the TES section includes the following statement: There are no records of lethal vessel strikes involving Cook Inlet beluga whales; therefore, impacts to the Cook Inlet beluga whale as a result of injury or mortality from vessel collisions would not be expected. The extent and duration for which injury or mortality would occur is therefore not included in this analysis. Because there will be an increase in shipping/vessel traffic injury and mortality of vessel strikes must not be written off. This potential impact must be recognized and evaluated in the EIS.	This text in the DEIS has been updated to be less speculative and address the potential.
Nondalton Tribal Council	12	Section 4.25	Fish Stocks	State of Alaska Special Status Species including Fish Stocks of Concern should be discussed.	This does not apply to TES. All impacts to fish resources are discussed in Section 4.24, Fish Values.
Nondalton Tribal Council	13	Section 4.25	State and Federal Parks and refugees	State and federal parks and refuges should be discussed, since these areas provide habitat for listed and Special Status Species.	These are generally outside of the EIS analysis area and not discussed in detail. They are mentioned in the DEIS where applicable.
Nondalton Tribal Council	14	Section 4.25	EFH	EFH should be discussed and included on the maps.	The EFH has been included in the DEIS as Appendix I and includes several maps.
Nondalton Tribal Council	15	Section 4.25	Aquatic and Terrestrial Species	Because of the extensive amount of information that is needed to assess the impacts of this project, Biological Assessments, geared solely towards	Documentation required for NEPA permitting is included in the DEIS. Specialist reports are referenced where applicable.

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				permitting are not adequate. Specialist reports for aquatic and terrestrial species and their habitats must be included in the EIS.	
Nondalton Tribal Council	16	Section 4.25	Salmon	Salmon is a prey resource for Steller sea lion and should be included in the discussion for Steller sea lion. If permitted, the proposed project would result in reduced production of several salmon runs. As a result, there will be less salmon available for Steller sea lion.	Comment noted. According to Section 4.24, Fish Values, there would be no population-level impacts on salmonid species. Impacts to prey species for Steller sea lion from several hypothetical spill scenarios may impact prey species and are discussed in Section 4.27, Spill Risk.
Nondalton Tribal Council	17	Section 4.25	Foraging	Not just loss of foraging habitat, but also loss of the prey resources must be quantified and evaluated. Reduced prey production due to habitat loss could be an issue for all prey resources. These impacts must be recognized and analyzed in the EIS.	Comment noted. According to Section 4.24, Fish Values, there would be no population-level impacts on salmonid species. Impacts to prey species for TES from several hypothetical spill scenarios may impact prey species and are discussed in Section 4.27, Spill Risk.
Nondalton Tribal Council	18	Section 4.25	Steller Sea Lion	The TES states the analyses is based on a “few” Steller sea lion surveys. Most of the surveys of Steller sea lion and other listed species appear to be based on incidental sightings observed during beluga whale aerial surveys. The beluga surveys are conducted in a very short span of time – June and August. Specific surveys of all listed species should be conducted throughout all seasons.	Comment noted. Various surveys have been conducted for decades in lower Cook Inlet for a variety of species which have recorded information on locations of Steller sea lions. Significant haul-outs of Steller sea lion were not identified in Kamishak Bay when critical habitat was designated. Therefore, existing information on locations of Steller sea lions is considered adequate to make an informed decision between the various alternatives.
Nondalton Tribal Council	19	Section 4.25	PCEs	Primary constituent elements (PCEs) are only discussed for northern sea otters. Available PCEs should be presented and discussed for all listed species.	PCEs are discussed for species that have critical habitat designations which overlap with the EIS analysis area. This is the case only for northern sea otter and Cook Inlet beluga whale.
Nondalton Tribal Council	20	Section 4.25	Steller's Eider	The discussion for the presence of Steller's eider in the mine site is inadequate and appears to contradict itself. Information on the location and timing of the surveys should be included. Based on the small amount of information provided, Steller's eider should be assumed to be in the area if they are known to fly through, and potential impacts should be assessed. In the TES discussion	The text is correct. No Steller's eiders have been documented flying through the mine site and hence the species is considered absent. They may fly over portions of the transportation and natural gas pipeline corridors; however no information on specific flight paths could be located. One study of GPS transmitted Steller's eiders from Kodiak Island did not show birds using or flying through the EIS analysis area. The precise flight routes for Steller's

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				for Steller's eider, the migration section includes the following statements: <i>Steller's eiders may occasionally fly through the mine site and terrestrial portions of the transportation corridor and natural gas pipeline corridor while moving between Cook Inlet, the Alaska Peninsula, and the western coast of Alaska. No Steller's eiders were documented during any biological surveys in the mine site, therefore the species is considered absent from the mine site. However, Steller's eiders' bird strikes on towers and power lines at Togiak, Naknek, and King Salmon (including inland sites) indicate that there may be some overland pathway that includes Iliamna Lake.</i>	eider from the north slope to lower Cook Inlet is unknown, however tower and power line strikes have yielded some anecdotal evidence that Steller's eiders may fly overland around the southern portion of Iliamna Lake. It is not known if these are birds from the Alaska breeding population or the Russia breeding population.
Nondalton Tribal Council	21	Section 4.25	Figure 4.25-1	EFH should be included on the figure.	The current DEIS Section 4.25 does not include any figures; they are included in Section 3.25, TES. The EFH is included in Appendix I along with figures.
Nondalton Tribal Council	22	Section 4.25	Figure 4.25-1	Areas supporting State of Alaska Special Status Species including Fish Stocks of Concern should be shown on figure.	The current DEIS Section 4.25 does not include any figures; they are included in Section 3.25, TES. All fish-related impacts on shown on figures in Section 4.24, Fish Values.
Nondalton Tribal Council	23	Section 4.25	Figure 4.25-1	State and federal parks and refuges should be shown on figure, since these areas provide habitat for listed and Special Status Species.	The current DEIS Section 4.25 does not include any figures; they are included in Section 3.25, TES.
Nondalton Tribal Council	24	Section 4.25	Figure 4.25-1	The footprint of port/ferry terminals should be shown on the figure to show the relation of these facilities to critical habitat and EFH.	The current DEIS Section 4.25 does not include any figures; they are included in Section 3.25, TES. The EFH is included in Appendix I along with figures.
Nondalton Tribal Council	25	Section 4.25	Figure 4.25-1	AWC should be included on the figure.	The current DEIS Section 4.25 does not include any figures; they are included in Section 3.25, TES. All fish-related impacts on shown on figures in Section 4.24, Fish Values.
Nondalton Tribal	26	Section 4.25	Figure 4.25-2	Flyways for Steller's eider should be shown on the figure.	The current DEIS Section 4.25 does not include any figures; they are included in Section 3.25, TES.

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Council					No flyways for Steller's eiders have been mapped or delineated (little is known about their migration within lower Cook Inlet) and hence cannot be included on a figure.