Nondalton Tribal Council Comments – Pebble Project Preliminary Draft EIS Section 4.14 - Soils

Agency	Comment Number	Section, Paragraph, and Page #	Relevant Text/Subject	Comment	Response
Nondalton Tribal Council	1	Section 4.14.2.1	Mine Site. Dust Control	According to the environmental impact statement (EIS), "The bulk TSF would have tailings beaches, which would be susceptible to wind erosion and fugitive dust emissions throughout operations. The bulk TSF would eventually be reclaimed through contouring of surfaces and application of growth media for revegetation and surface stabilization, eliminating the beaches as a dust source following closure activities." The EIS should identify and describe best management practices (BMPs) to control bulk tailing storage facility (TSF) fugitive dust during operations and continuing through the active and passive TSF closure phase until the described reclamation can be completed. Mines frequently employ BMPs to address fugitive dust during these periods. BMPs can include the use of water sprays, waste rock covers, chemical controls, and other means to effectively reduce dust from TSFs. These BMPs need to be recognized as necessary during mine reclamation and closure and when a mine temporarily ceases operations, and BMPs should be included as part of a contingency in financial assurance provisions.	Chapter 5, Mitigation, describes the applicant's proposed mitigation that is incorporated into the project and industry-standard BMPs such as watering and using dust suppressants to control fugitive dust. Chapter 5 states that a Fugitive Dust Control Plan would be developed for the project and BMPs would be implemented for the fugitive dust management. Text has been added to inform the reader of where mitigation methods are described. Reclamation and bonding is the regulatory authority of the State of Alaska. The DEIS Chapter 2 describes the requirements for financial assurance.
Nondalton Tribal Council	2	Section 4.14.2.1	Mine Site. Erosion	Water management structures (e.g., berms, channels, collection ditches) would be designed to accommodate a 100-year, 24-hour rainfall event. Sediment control ponds would be designed to treat a 10-year, 24-hour rain event and safely accommodate a 200-year, 24-hour rainfall event. To address climate change as well as ensure that BMPs are conservatively applied, we recommend that a 200-year return interval be used for sizing of all water	Section 4.14, Soils, subheading of Erosion, does not describe water management structures. This comment may have been intended for Section 4.16, Surface Water Hydrology. A response is provided below. Comment noted. Table 4.16-1, has been revised in the DEIS to include design criteria for the operations water management structures. The revised table incorporates design precipitation events provided in PLP 2018-RFI 028a, Knight Piésold 2018f (response to PLP 2018-RFI 019a), and PLP 2018d (project description).

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				management structures. This is a common regulatory practice in Canada including in British Columbia and the Yukon, and it is recommended by most engineering firms to their clients as a cost-effective means to ensure against the risk of damage to stormwater systems. For any permanent and post-operation structures, we recommend using a design return interval of 500 years to similarly ensure against the risk over the long term of damage to these critical structures. The need for monitoring and maintenance of these structures, as well as the financial assurance to do so in perpetuity should also be recognized in this section. According to the EIS, "Although reclaimed infrastructure would be designed to withstand anomalous storm events (e.g., 100-year, 24-hour rain event), monitoring would be necessary immediately after any occurrence." As noted in our previous comments, a 100-year storm event is not "anomalous" but represents instead the minimum design standard. In our experience a 100-year storm event could be expected to be exceeded every 20 years or more frequently based on the currently recognized inadequacies of NOAA data to predict future storm events.	Discussions regarding long-term climate change as relates to the project are in the DEIS: Section 3.16, and Section 4.16, Surface Water Hydrology and Appendix K3.16. Climate change analysis framework for the document is given in Section 3.1, Introduction to Affected Environment. A summary of where climate change is discussed in the document by resource topic is given in Section 4.1, Introduction to Environmental Consequences. Impact analysis assumes BMPs are applied as appropriate. Monitoring and maintenance requirements for water management structures after operations would be addressed prior to commencing construction within the State-approved Reclamation and Closure Plan prepared in accordance with State of Alaska regulatory requirements. The estimated financial assurance amount will be developed in support of State permitting and the Reclamation Plan Approval and Closure Cost Estimate and bonding. Chapter 2, Alternatives (in the DEIS) also addresses Financial Assurance. The quoted statement is from PDEIS Section 4.14 under subheading "Erosion." Comment noted and the word "anomalous" has been removed in edits.
Nondalton Tribal Council	3	Section 4.14.5	Key Issues/Impacts Summary. Mine Site	Table 4.14-6 indicates "Erosion" duration pre-activity levels within 100 years, Potential: Inherent. Does this infer that the EIS is predicting that the site erosion characteristics will return to pre-activity levels within 100 years? Is this with or	The comment pertains to the summary of key issues for soil resources under "Mine Site" component. "Potential: Inherent" means the potential for impact is certain (if project is permitted) – a fundamental result of the project.

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				without continued maintenance? Explain "Potential: Inherent."	
Nondalton Tribal Council	4	Section 4.14.6	Cumulative Effects (Soil)	According to the EIS, "Project buildout would result in additional soil disturbance acreages not included under Alternative 1: • Increased pit footprint • Increased TSF and waste rock storage capacity • Additional processing infrastructure. • Construction of a new port site with diesel fuel and concentrate pipeline(s) extending to the mine site The additional acreage of disturbance to wetlands at the mine site would in the combined Koktuli and Upper Talarik Creek watersheds. The buildout would correspond to an increase in magnitude and local extent of disturbance impacts" (underline added). The buildout and its impacts should be described in detail similar to the way other information was provided in this section for the proposed action and alternatives. Describing the impacts as "increased" does not provide a substantive or meaningful analysis of the impacts.	Section 4.14, Soils of the DEIS text has been revised and expanded and provides an estimated increase in project footprint (in acres) based on the Pebble mine expanded development scenario used for determining cumulative impacts.