

Nondalton Tribal Council Comments – Pebble Project Preliminary Draft EIS Section 3.18 - Water and Sediment Quality

Agency	Comment Number	Section, Paragraph, and Page #	Relevant Text/Subject	Comment	Response
Nondalton Tribal Council	1	Section 3.18	General	Throughout this section, whenever a percentage of the data for an analyte is described as exceeding the most stringent Alaska Department of Environmental Quality (ADEQ) criterion, please indicate the nature of the criterion as well as whether other less stringent criteria are exceeded. This will help the reader determine whether the criterion being exceeded is relevant to the resources present. For example, a drinking water criterion in a river that is not used for drinking water is less relevant than a criterion meant to protect fish or individuals eating fish.	Baseline water and sediment quality data is compared to the most stringent applicable regulatory criteria as a conservative assessment of current conditions. Use of the most stringent water quality criteria means that if the most stringent water quality criteria are not exceeded, less stringent water quality criteria would likewise not be exceeded. Additional text has been added to Section K3.18.1 to outline the intent of this comparison. Table K3.18-1 indicates the basis for water quality criteria used.
Nondalton Tribal Council	2	Section 3.18	Seeps	Comparison of seep samples to surface water criteria may not be fully relevant, since seeps are more indicative of groundwater conditions, and seep water will be quickly diluted in surface water bodies. Seep water quality may however be an indicator of the differential impacts of natural mineralized deposits on various rivers and lakes.	It is noted that seep water characteristics may be indicative of source groundwater conditions. At the location seep water was sampled in baseline studies, it is considered to be surface water.

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Nondalton Tribal Council	3	Section 3.18.1, 3.18.1.1	Mine Site Area, Geochemistry. Geochemical Characterization	<p>This subsection seems to go back and forth between current conditions and testing designed to predict conditions once the proposed mine is operating and mineral deposits are exposed and processed. The latter is not representative of current conditions and would seem to belong more appropriately in Chapter 4.</p> <p>To what extent could the lack of characterization of concentrate hinder evaluation of potential impacts on water quality, sediment quality, and soil quality (in areas where concentrate may be loaded or unloaded)? Since this is likely the material with the most concentrated metals, this is an important data gap to fill prior to releasing a Public Review Draft EIS.</p>	Comment is noted. Section 3.18 focuses on the baseline geochemical characteristics including potential for acid generation or metals leaching under current conditions. Impact analysis of the project on baseline conditions (including potential impacts related to concentrate handling) is addressed in Chapter 4.
Nondalton Tribal Council	4	Section 3.18.1.2	Surface Water Quality. Ph	<p>In this and other sections where water quality parameters fall outside ADEC water quality criteria in natural, undeveloped environments please provide some insight or explanation as to why this would be. This would help the reader understand any unusual natural conditions that might either mitigate or exacerbate impacts from the proposed project.</p>	Section 3.18 describes baseline conditions of as characterized by environmental baseline studies. Many variables can contribute to local conditions of baseline water and substrate/sediment chemistry, such as geologic conditions (e.g., petrology of the mineralization). Exceedances of ADEC water quality criteria in natural environments are not unusual and are commonly related to mineralization of rock within source watersheds.

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Nondalton Tribal Council		Section 3.18.1.2	Surface Water Quality. Temperature	Please refer to the following sentence in the third paragraph of this subsection: <i>“Mean annual temperature trends in the region indicate that air temperatures have increased approximately 3°C over the past 50 to 60 years related to large-scale climate oscillation (Knight Piésold 2012, 2018a), trends that are predicted to continue into the next century (SNAP 2018).”</i> Is USACE seriously contending that climate change plays no part in this current or future predicted trend? To the extent that air and water warming may cumulatively exacerbate chemical or other impacts to water, fish, or other resources, the latest climate science should be incorporated and used in the EIS.	The reference to documented historic temperature increases in Section 3.18 is not intended to imply or discount any specific causal factors, but simply to present information that describes the current baseline conditions. Text has been revised. Climate change is considered in the EIS analysis, and is discussed in Section 3.16, Surface Water Hydrology (Chapter 3, Affected Environment), Section 4.16, Surface Water Hydrology (Chapter 4, Environmental Consequences), and Technical Appendix K3.16 of the DEIS. Framework for climate change discussion is provided in Section 3.1, Introduction to Affected Environment.
Nondalton Tribal Council	5	Section 3.18.2.2	Groundwater Quality. Mine Access and South Access Roads. North Road.	It is unclear from these discussions whether there are groundwater data for these areas, or if this discussion is based on conjecture based on the lithology of the area. As with so many aspects of this PDEIS, only the proposed mine site appears to have been sampled or studied in any detail.	Groundwater quality along the transportation corridor was characterized based on trend analysis, available data from drinking water wells, and interpretation of a range of available information including geologic conditions.
Nondalton Tribal Council	6	Section 3.18.2.3	Substrate/Sediment Quality. Chemical Quality	Discussion of stream and pond sediment quality in this section is quite vague (e.g., “no known existing contamination.”) Please describe the data in more detail and compare it to ADEC sediment quality standards, as is done in other sections.	Text has been revised in the DEIS to provide source of information for statement.

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Nondalton Tribal Council	7	Section 3.18.3, 3.18.3.1	Marine Ports. Surface Water Quality	Each of the proposed alternatives should be presented and evaluated equally in the EIS. Putting information on Alternative 2 and Alternative 3 in an appendix makes it seem that these alternatives are not being seriously considered.	Section 3.18 addresses all alternatives being considered. Appendix K3.18 provides additional technical content to supplement discussion in the primary chapter.