

NTC Comments – Pebble Project Preliminary Draft EIS, Section 3.1 and Appendix K3.1

Agency	Comment No.	Section, Paragraph, and Page #	Cooperating Agency Comment (and Purpose of Comment)	Proposed Resolution (Additions or Deletion of Text)	Response
NTC	1	3.1	<p>1A - This section includes subsections 3.1.1 through 3.1.4.5 and refers to Section 3.2 through Section 3.26. Most of the other sections are not currently available; therefore, Chapter 3 is incomplete.</p> <p>1B - Chapter 3 must include a complete list of resources that will consider and for which potential impact will be identified and evaluated. Based on the information provided for Chapter 3, the list of resources is incomplete.</p> <p>1C - Creating separate categories for “areas of analysis” and “project area,” and defining these areas differently is ill advised and inappropriate. The area of analysis should include the entire watershed in which a project component or components are planned to be located. The project area and the area of analysis should include the watersheds in which mining, construction, waste rock storage, tailings disposal and storage, mine infrastructure, mine reclamation, and post-closure monitoring and maintenance are expected to occur, since entire watersheds will be affected during and long after the proposed project’s life.</p> <p>1D - It is misleading to say this is a 20-year project when the buildout and expansion will occur over 78 years. And multiple other mining projects would use the Pebble infrastructure. Based on the projects that intend to use the Pebble infrastructure, the proposed project will effectively be there forever.</p>	<p>Added table. Revised definitions of EIS terms. Revised text where indicated.</p>	<p>1A – Comment acknowledged. USACE sent all sections and figures of the preliminary Draft EIS (DEIS) to cooperating agencies, as they were completed. This comment was received prior to all sections being sent.</p> <p>1B – A table has been added that identified what resources the USACE identified in the Memorandum for Record (USACE 2017, Memorandum for Record, Subject: Determination to conduct an environmental impact statement level of analysis for Department of the Army Permit Application POA-2017-271, lead agency determination, and scope of analysis). The table also identifies where in the EIS the resource is discussed.</p> <p>1C – Use of the terms EIS analysis area and project area has been clarified in the document. Definitions of EIS analysis area and project area have been revised. Providing this framework for description of the affected environment and analysis of impacts (environmental consequences) is appropriate; scope of analysis of an agency’s NEPA analysis is determined by the federal action in question, per CEQ guidance for NEPA. The components mentioned in the comment are included in the EIS analysis area.</p>

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					1D – Comment acknowledged. Analysis of direct, indirect, and cumulative effects follows CEQ guidance for NEPA. Project phases are defined in Chapter 2, Alternatives, and summarized again in Chapter 4, Section 4.1, Introduction to Affected Environment. The EIS analysis for direct and indirect impacts includes the four project phases. The EIS analysis for cumulative effects includes a 78-year timeframe in the Pebble Expansion Scenario, which is described in Section 4.1, Introduction to Affected Environment, and discussed per resource in the Cumulative Effects subsections of resource sections of Chapter 4.
NTC	2	3.1.1	<p>2A - As described in this subsection, it is unclear how the different alternatives are addressed in Sections 3 and 4 and whether it is possible to distinguish among them. Sections 3 and 4 appear to be handled somewhat differently in this respect, with Section 3 addressing the entire applicant's proposed project area (and sometimes larger related areas), while Section 4 distinguishes among the alternatives in terms of impacts.</p> <p>2B - Currently, Section 3 appears to only describe the existing state of the environment, and then what would be affected by the applicant's proposed alternative. Section 3 should also identify which geographic areas would and would not be incorporated into the other action alternatives and be clear throughout whether and where there are</p>	Explanation provided.	2A - A table has been added that identified what resources the USACE identified in the Memorandum for Record (USACE 2017, Memorandum for Record, Subject: Determination to conduct an environmental impact statement level of analysis for Department of the Army Permit Application POA-2017-271, lead agency determination, and scope of analysis). The table also identifies where in the EIS the resource is discussed. The EIS analysis area is defined in each Chapter 3 and Chapter 4 section. Chapter 3 describes the affected environment for the four alternatives, while

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			differences.		Chapter 4 discusses the impacts to those resources (per NEPA). 2B – Chapter 3 has been revised to include a description of all three action alternatives.
NTC	3	3.1.2	<p>3A - According to the definition provided in this subsection “Project area” is constrained to “the exact proposed project footprint.” It’s not clear why such a narrow and restrictive definition is needed for this EIS. For the purposes of the EIS, the Project Area should include not only the areas directly impacted by mining and construction, but those surrounding geographic and resources areas are potentially impacted by the proposed project. The project area should include the watersheds in which mining, construction, waste rock storage, tailings disposal and storage, mine infrastructure, and mine reclamation are expected to occur, since the entire watershed will be affected during and long after the proposed project’s life. The project area must include not just the areas of actual ground disturbance but all adjacent and connected areas.</p> <p>3B - Additionally, the “EIS analysis area” is likewise separately defined as “the entire area of resource analysis, which is specific to each of the resource sections and may differ by resource.” This indicates the area and resources potentially impacted by the proposed project will be separated into different areas for analysis. This is inappropriate for a project that would impact multiple resources in multiple areas simultaneously. The project area and EIS analysis area should be the same area for the purpose of identifying and evaluating potential impacts, and this area should include the watersheds in which mining, construction,</p>	Revised EIS terms.	<p>3A – Use of the terms EIS analysis area and project area has been clarified in the document. Definitions of EIS analysis area and project area have been revised. The EIS analysis area is inclusive of the components that the commenter mentions, and appropriate in accordance with CEQ guidance for NEPA.</p> <p>3B – Comment acknowledged. Use of the terms EIS analysis area and project area has been clarified in the document. See above responses regarding EIS analysis area and project area as defined in this EIS per CEQ guidance for NEPA.</p> <p>3C – Comment acknowledged. Each section of Chapter 3 and Chapter 4 describes the area of analysis appropriate to that resource. See also above responses regarding EIS analysis area per CEQ guidance for NEPA.</p> <p>3D – Comment acknowledged. Figures have been revised. Chapter 2, Alternatives, provides a series of figures that depict the project footprint for all three action alternatives. Chapter 4 sections provide figures for the action</p>

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			<p>waste rock storage, tailings disposal and storage, mine infrastructure, mine reclamation, and post-closure monitoring and maintenance are expected to occur, since entire watersheds will be affected during and long after the life of the proposed project.</p> <p>3C - The EIS Analysis Area must include all areas of the four major projects (mine, roads, gas pipeline/utilities, port/ferry terminals) and their components in the Bristol Bay and Cook Inlet Watersheds as well as those areas bordering these watersheds including nearby national parks and refuges (particularly Katmai bears and McNeil River bears) that will be impacted by impaired migratory routes, reduced populations of fish and wildlife, etc. The EIS Analysis Area must be expanded to include aquatic and terrestrial migratory corridors for all aquatic and terrestrial species in fresh, estuarine and marine waters.</p> <p>3D - The exact project footprint should be shown for all action alternatives, preferably side-by-side for each component. By providing maps and schematics that show the footprints of project components, a separate definition and delineation of project areas should not be necessary.</p> <p>3E - As the proposed project would be expected to have direct and indirect effects on resources far beyond the “exact proposed project footprint”, the focus of both the affected environment and the environmental consequences evaluations should be the EIS analysis area, and not the project area.</p> <p>3F - Without figures and maps it is not possible for the Cooperating Agencies to do an in-depth and specific review of this section.</p> <p>3G - Suffice it to say, aside from the mine itself</p>		<p>alternatives as applicable to the impacts to that resource. A summary impacts subsection is provided at the end of each Chapter 4 section to compare the main differences in alternatives between the three action alternatives.</p> <p>3E – Use of the terms EIS analysis area and project area has been clarified in the document. Chapter 3 (Affected Environment) and Chapter 4 (Environmental Consequences) focus description and analysis on the EIS analysis area.</p> <p>3F – Comment acknowledged. Figure 3.1-1 in Section 3.1, Introduction to Affected Environment, was provided with a placeholder memo on January 11, 2019. All other preliminary DEIS figures were provided along with associated sections.</p> <p>3G – Comment acknowledged.</p>

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			having a massive footprint across at least two watersheds, the infrastructure required to support the mine will have a large destructive footprint across large mostly pristine and wild geographic areas including close to 70 miles of roads and additional spur roads with 97 river and stream crossings, 11 bridges, and 88 culverts. The roads will cross through and over several watersheds and large fish-bearing rivers, streams, tributaries and through a mosaic of wetlands, lakes, ponds, bogs, marshes, riparian and upland areas. An 18-mile ice breaking ferry route will require ferry terminals and a port with associated offices, storage facilities, power plants and extensive road causeways built over and into the marine environment. A 187-mile gas pipeline with associated fiber optics going overland and under Cook Inlet and Iliamna Lake. The proposed project would require extraction of major quantities of water from rivers, streams, lakes, and ponds.		
NTC	4	3.1.3	4 - As noted in this section, although resources are described in Chapter 3 and analyzed in Chapter 4 in discrete sections, these subjects are dynamic and interrelated. A change in one resource can have cascading or synergistic impacts to other resources. For this reason, providing the Cooperating Agencies individual sections in a piecemeal fashion does not allow for meaningful review.	Explanation provided.	4 – Comment acknowledged. USACE sent all sections and figures of the preliminary Draft EIS (DEIS) to cooperating agencies, as they were completed. This comment was received prior to all sections being sent.
NTC	5	3.1.3.1	5A - It is not clear why the traditional ecological knowledge (TEK) topics considered for inclusion are limited to the “project area”, and not the larger and more relevant EIS analysis area. TEK related to any area or resource directly or indirectly affected by the proposed	Revisions made where indicated.	5A – This section is an introductory section and does not include a complete literature review for the subject (much like climate change) but rather a framework for inclusion of discussion in the EIS. Project area information was reviewed for

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			<p>project should be solicited.</p> <p>5B - In this subsection USACE needs to define TEK so that everyone is using the same standard for evaluating the incorporation of TEK into the EIS process. Furthermore, any such definition of TEK can only be appropriately developed through either direct government-to-government consultation between the USACE and the region's federally recognized Tribes or through the Section 106 process that will occur outside of government-to-government consultation.</p> <p>5C - USACE's TEK sources for the EIS process need to be expanded beyond sources related to the proposed Pebble Project. Two examples include Doug Deur, Karen Evanoff, and Jamie Hebert's 2018 report <i>"Respect the Land – It's Like Part of Us" – A Traditional Use Study of Inland Dena'ina Ties to the Chulitna River and Sixmile Lake Basins, Lake Clark National Park and Preserve</i> and Yoko Kugo's 2014 MA thesis <i>Subsistence Practices of Iliamna Lake Villages: An Investigation of Dynamics of Traditional and Local Ecological Knowledge</i>. USACE should also incorporate TEK into the aesthetics, noise, and viewshed analyses.</p> <p>5D - Furthermore, USACE needs to include an olfactory analysis into this EIS process because this mine will have a smell. Smell is one of the best triggers for memories and emotions. Changing the smell of culturally important places will affect these places for those who value them. Remembrance is a crucial part of passing on TEK and the importance of cultural places. Disruption to this knowledge transfer is an effect the USACE needs to analyze as part of this EIS process.</p>		<p>considering on inclusion in the EIS, but description of the affected environment (Chapter 3, Affected Environment) and analysis of impacts to resources (Chapter 4, Environmental Consequences) is provided for the EIS analysis area.</p> <p>5B – TEK is defined in Section 3.1 in this introductory paragraph to the subsection: "In recent decades, Alaska Natives have been promoting their complex bodies of knowledge and understanding to be recognized by state and federal agencies regarding climate change, flooding and erosion, surface/groundwater hydrology, landscapes, fish and wildlife life histories and migratory patterns, and seasonal distributions/use of subsistence resources. This traditional ecological knowledge (TEK) is just as important as modern means of transportation and hunting technology in supporting safe and efficient subsistence harvest activities."</p> <p>5C – The process of incorporating TEK into the EIS was the first step in describing and analyzing these topics and information. The framework is provided in Section 3.1, Introduction to Affected Environment, and description and analysis using various sources is provided in Chapter 3 and Chapter 4 sections. The two references provided were reviewed for</p>

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					<p>relevance to the EIS. The Yoko Kugo reference is a reference to the EIS in Section 3.9, Cultural Resources. The other reference (Deur, Evanoff, and Hebert) informed the authors but was outside of the EIS analysis area and is not directly referenced in the EIS.</p> <p>5D – Olfactory concerns are discussed in Section 4.11, Aesthetics.</p>
NTC	6	3.1.3.2	<p>6C - In the first category of climate change effects, greenhouse gas emissions, while an important consideration, are not the only way in which the project could impact the climate. The project area is currently undeveloped and therefore provides climate amenities such as sequestration of CO2 by vegetation. To the extent that development of infrastructure and mining activities would remove trees and other vegetation over large areas, this loss of a CO2 sink should be added to CO2 emissions in calculating the potential contributions of this project to climate change.</p> <p>6B - Climate change is a natural response to emissions, carbon pollution, and other causal effects to the earth's atmosphere. In addition to greenhouse gas emissions, the effect of other pollutants on the atmosphere should be identified and evaluated in the EIS. For example, emissions from burning fossil fuels to generate electricity used by the proposed project should be quantified and evaluated in the EIS.</p> <p>6C - References to the project area in this section should be expanded to include the</p>	Explanation provided.	<p>6A – Comment acknowledged; however, there are no current CEQ guidance on climate change analysis in an EIS to require this. The topic of carbon sequestration is out of the scope of this EIS analysis.</p> <p>6B – Comment acknowledged. Project contribution to climate change as measured by GHG emissions (from all sources) per CEQ guidance is provided in Section 4.20, Air Quality. Burning fossil fuels produces GHG emissions, which are quantified.</p> <p>6C – No changes made to this text in Section 3.1, Introduction to Affected Environment, as the statement follows CEQ 2014 guidance on climate change analysis in NEPA. However, climate change trends are discussed in Chapter 3 for the entire EIS analysis area.</p>

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			entire EIS analysis area and any other areas in which the proposed project would potentially impact natural, cultural, or human resources.		
NTC	7	Table of Contents	7 - The Table of Contents at the end of this document indicates an incomplete chapter with respect to the content proposed. In addition to the sections and subsections provided, Affected Environment should include geology, soils, plants, animals, aquatic resources, atmosphere, indigenous people, local communities, and other natural and human resources that currently exist and that are potentially affected by the proposed project.	Table added; revisions to be made where indicated.	7 – A complete TOC will be included in the DEIS. A table has been added that identified what resources the USACE identified in the Memorandum for Record (USACE 2017, Memorandum for Record, Subject: Determination to conduct an environmental impact statement level of analysis for Department of the Army Permit Application POA-2017-271, lead agency determination, and scope of analysis). The table also identifies where in the EIS the resource is discussed.
NTC	8	K3.1 Introduction to Affected Environment – Traditional Ecological Knowledge	1A - As noted in our comments on section 3.1.1 Introduction to the Affected Environment, USACE is relying on a limited list of TEK sources. While this appendix section is a start, it is far from thorough. The list of TEK sources needs to be expanded beyond sources related to Pebble Project documents and agency actions. The “Subsistence Activities” sub-section details some culturally important areas (e.g., Frying Pan Lake, Talarik Creek watershed, mountain behind Nondalton) that are not listed in the next sub-section “Culturally Important Areas.” USACE will need to develop and implement a method for cross-referencing TEK data that describes multiple themes listed in this section. The USACE will also need to define “Culturally Important Areas.” Any such definition can only be appropriately developed through either direct government-to-government consultation between the USACE and the	Explanation provided.	1A –Areas of traditional cultural significance are culturally sensitive to potential impacts and are considered a standard area of input for TEK. AECOM evaluated both the EPA Watershed Study and the Stephen R Braund Pebble EBD interviews to identify and incorporate this information. 1B - USACE continues to collect relevant TEK during G2G meetings. Any information collected has been and will continue to be added to this section. Information in this appendix is used and referenced throughout the document in relevant resources. 1C – Comment acknowledged;

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			<p>region's federally recognized Tribes or through the Section 106 process that will occur outside of government-to-government consultation.</p> <p>1B - This is a very basic start to obtain traditional ecological knowledge. Far more work needs to be done in this area. All TEK information needs to be referenced and threaded through the entire EIS to inform the assessment. Full coordination and collaboration needs to grow and continue to occur throughout this entire process. The USACE should sit and listen, rather than directing the conversation or deciding what is important to include and what is not important enough to include.</p> <p>1C - Without figures and maps it is not possible to do an in-depth and specific review of this section.</p>		<p>however, there were no figures or maps developed or provided as part of this appendix.</p>