

NPS Comments – Pebble Project Preliminary Draft EIS, Section 4.5 - Recreation

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|---------------|--------------------|---------------------------------------|--|--|---|
| NPS | 1 | 4.5 Introduction | Adverse effects to recreation opportunities and experiences for recreationists participating in hunting, fishing, wildlife viewing, and boating activities | Please add camping, backpacking, hiking for this and the next bullet. | Text added. |
| NPS | 2 | 4.5.2 | Action Alternative 1 – Applicant's Proposed Alternative | There have been over 200 known aircraft accidents in and around the park and preserve documented in park's draft Aviation Safety Plan. The impact to aviation safety of park visitors should be addressed. Both Alternatives 1 and 2 would lead to significantly increased aircraft travel through Lake Clark Pass and in uncontrolled air space over the Park and Preserve. Aviation safety that may impact the safety of park visitors using Lake Clark's 34 CUA permitted Air Taxi operators that transport park visitors throughout the park from increased overflights of the Park and Preserve due to transport of employees and freight. Small aircraft are the primary access method for recreational visitors to Lake Clark National Park, including the western side of the Park and Preserve that would share the aviation corridor with employee and freight transporters. These aircraft primarily fly through Lake Clark Pass. It is unclear from this what the level of increased air traffic over the park and through Lake Clark is expected to be with a significant industrial operation expecting to operate via a fly in fly out employee model and what the safety impacts to the park's recreational visitors would be. | Information added to Section 4.12, Transportation and Navigation. |
| NPS | 3 | 4.5.2.1 | Recreational use at the mine site is | With the proposed alternative, this area | See Section 3.5 for recreation use |

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| | | | likely minimal, consisting of some sport hunting, sport fishing, and occasional snowmachine use. Flights taking recreationists to various destinations in the region and the state may also pass over the mine site. | would no longer be available for recreational use. This section should be reframed as such. Is there documentation of the current state of recreation activity in the area to justify the use of the term “minimal”? | at project components as to why use may be low. Text added to beginning of this impact section on lands removed from recreation use. |
| NPS | 4 | 4.5.2.1 | project-related noise and activities at the mine site would result in minimal displacement of sport hunting and fishing use | Please provide evidence of modeled noise impacts similar to what was provided for viewshed to substantiate this statement. The NPS finds the use of sleep disturbance in this context an appropriate measure of impact to recreationists given it expresses one of the functional effects of noise on the population in question. However, parks must additionally use the natural ambient level (“the environment of sound that exists in the absence of human-caused noise”) as the baseline from which to measure impacts. Nowhere is this more appropriate than in the context of long-duration noise suddenly being added to the setting of a remote Alaskan park. To better understand impacts to Lake Clark, please include the radius at which noise from construction and operations will drop below the natural ambient level. | Added information on the extent of noise that may affect sleeping recreationists. Added reference to noise section as well. |
| NPS | 5 | 4.5.2.1 | would likely result in minimal displacement | Is there documentation of the current state of recreation activity in the area to justify the use of the term “minimal”? | There is very little documentation of recreation at the mine site. Much of the use is that area would be subsistence or transportation. |
| NPS | 6 | 4.5.2.1 | The mine site would be approximately 15 miles from the border of Lake Clark National Park and Preserve, the nearest regional | There is limited mention of other recreation activities on state land in the area. For example –fishing and non-motorized boating on the Chulitna River. | The recreation activities within likely impact area are discussed. Fishing and boating the Chulitna River miles would not be |

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| | | | recreation destination and known recreational use area to the mine site. Project-related noise and activities would not be likely to affect recreational settings or activities in the preserve. | | impacted. |
| NPS | 7 | 4.5.2.1 | Activities at the mine site would be visible | The analysis should provide a model or visualization indicating from where the mine site and related infrastructure will be visible, not limited to 15 miles. | Viewshed models are presented in Appendix K4.11. A reference to those figures was added. |
| NPS | 8 | 4.5.2.1 | Activities at the mine site would be visible | NPS Management Policies §4.10 requires that "The [National Park] Service will preserve, to the greatest extent possible, the natural lightscapes of parks, which are natural resources and values that exist in the absence of human-caused light." Proactive lighting design can minimize the environmental impacts of skyglow and preserve the ability of recreationists to experience the night sky at a regional scale - in excess of 100 miles. To better understand impacts to Lake Clark and/or Katmai we request additional information about the proposed design of facility lighting at the Mine Site, the North Ferry Terminal, Eagle Bay Ferry Terminal, Diamond Point Port, and Amakdedori Port. For our own facilities, the National Park Service implements minimal impact lighting techniques, which include important considerations about where, when, and how much light to utilize for a specific task: https://www.nps.gov/subjects/nightskies/practices.htm | Text was added to Section 3.11, and 4.11, Aesthetics in response to this concern that address the night sky viewing. |
| NPS | 9 | 4.5.2.1 | The presence of the mine, a large | Megan Richotte Comment: Potential | Added text from the vegetation, |

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| | | | industrial use in an otherwise generally primitive area, may adversely affect the recreational experience for visitors flying over the mine site by causing a change in the recreational setting. | impacts on visitor experiences outlined in the 2010 Long Range Interpretive Plan for Lake Clark National Park and Preserve from fugitive dust in the portion of Lake Clark National Preserve that is down wind of the mine site should be addressed. Specifically, potential impacts on collecting and consuming clean drinking water, berry picking for personal consumption, and fishing for lake trout, pike, rainbow trout, and other species within the preserve recognizing that these species migrate within the watershed. Many of the primary berry picking destinations within the park and preserve are in the western half of the park/preserve and the lower half of Lake Clark. Drinking water is collected and consumed by recreational visitors throughout the park and preserve. And recreational fishing is a primary visitor activity. | subsistence, and fish sections to the text about Lake Clark. Due to the distance between the park and the mine site and transportation corridor, there would not be impacts from dust to Lake Clark National Park and Preserve. |
| NPS | 10 | 4.5.2.1 | The recreational experience for visitors on these flights would be adversely affected during project construction, operations, and closure | To better understand the impact of each alternative, please describe how aviation support of the mine is expected to change during the construction, operations, and closure phases of the project. Aviation in the vicinity of mine infrastructure is expected to contribute to cumulative noise impacts in the southern portions of Lake Clark National Preserve. Increased noise from helicopter and fixed wing operations for the mine site and transportation corridor originating from Port Alsworth for employee transport, aviation transported freight, and aircraft operation for the mine. These are not addressed in Alternative 1 | Port Alsworth airport is not anticipated to be used for the project. Some text regarding an increase in the use of the Iliamna and Kohanok airports has been added into the transportation corridor section. More information can be found in Section 4.12. |

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| | | | | or 2. During exploration the park experienced significant increases in helicopter overflights originating from Port Alsworth. This should be specifically addressed as a known noise impact between Port Alsworth and the mine and transportation corridor along the lower half of Lake Clark, Tazimina Lakes, the Chulitna Bay and River and the lands adjacent. | |
| NPS | 11 | 4.5.2.1 | Recreation by construction and operations staff would be expected to occur outside of the mine site, because site rules would prohibit hunting, fishing, or gathering on site to minimize impacts on local subsistence | This section lacks discussion about the impact of construction and operations staff on the recreational opportunities/experience for local residents and visitors and natural resources, including on quality of experience. | Text added regarding impacts to local residents and local recreation opportunities and experiences. |
| NPS | 12 | 4.5.2.2 | Transportation Corridor | <p>Impacts from employee and freight transport via aircraft between Anchorage and the mine site and transportation corridor should be addressed here. Transportation by aircraft will have significant affects on overall air traffic in the region. The region is comprised of primarily uncontrolled airspace where increases in air traffic can result in additional safety concerns.</p> <p>Sounds and visual impacts to ground-based recreational experiences identified in the Lake Clark National Park's Long Range Interpretive Plan, General Management Plan, and General Management Plan Amendment from increased overflights of the Park and Preserve, Tlikakila National Wild River,</p> | <p>See Section 4.12, Transportation and Navigation, for air traffic impacts.</p> <p>Text added regarding the noise impact distances and relation to Lake Clark. Text included regarding visual impacts to Lake Clark.</p> |

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| | | | | and Kijik National Historic Landmark should be included. The primary aviation corridor travels directly over the Park and Preserve and through Lake Clark Pass. | |
| NPS | 13 | 4.5.2.2 | which is the main recreation activity at Iliamna Lake | Please cite source. | Added citation for the Bristol Bay Area Plan (ADNR 2013a). |
| NPS | 14 | 4.5.2.2 | Impacts on sport hunting and fishing opportunities and experiences would be similar to those described above for the mine site. | Would this area be removed use and thus not available. This should be explicitly stated. | Paragraph added to beginning of section on removal of lands for recreation. |
| NPS | 15 | 4.5.2.2 | Project -related noise and activities would not affect recreational settings or activities in Lake Clark National Park and Preserve. | Please see comment on lightscapes in 4.5.2.1. | Added text on lights from ferry, added text on visibility of road and traffic. |
| NPS | 16 | 4.5.2.2 | Project -related noise and activities would not affect recreational settings or activities in Lake Clark National Park and Preserve. | As discussed above, modelling results and/or a visualization of impacted area for sound and visual disturbance should be included in this section. | Viewshed models are presented in Appendix K4.11. More information was added regarding noise impact areas and visual impact areas with references to both of those sections. |
| NPS | 17 | 4.5.2.2 | visibility from this distance would be weak. | Recommend a different term – e.g., limited. and then provide information on areas impacted. Why is viewshed analysis limited to 15 mile? Visibility can be far greater than 15 miles in this area. | Wording changed and text edited. |
| NPS | 18 | 4.5.2.2 | minimal use of the northern borders of these two recreation areas | Please provide information to support a conclusion of “minimal use” | There is very little documentation of recreation. Much of the use is that area would be subsistence or transportation. Additional rationale was included. |
| NPS | 19 | 4.5.2.2 | impacts to recreation experiences would be limited | This section lacks evidence or does not discuss impacts to those recreationists | The paragraph above describes the impacts to recreationists from |

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| | | | | that do use this area. | the change in setting. |
| NPS | 20 | 4.5.2.2 | During the winter, there is heavy snowmachine use of the lake. | What impacts would an ice-breaking ferry have on the rest of the lake? It seems likely that this operation would keep more than the travel route unfrozen. Travel across the lake between Kokhanok and Iliamna/Newhalen by snow machine would be unavailable with the ice-breaking ferry option. | Added a reference to the Transportation section for snowmachine impacts. |
| NPS | 21 | 4.5.3.2 | Similar to the mine site, project-related noise and activities along the Alternative 2 transportation corridor would not likely affect recreational settings or activities in Lake Clark National Park and Preserve | Again, this analysis should include a modeling of sound impact analysis similar to the viewshed analysis. | Added text from the noise section and more information from the visual section with references. |
| NPS | 22 | 4.5.3.2 | As noted in Section 4.11 , Aesthetics, the transportation corridor would not be visible from this park unit except at high elevations on the southern border | Figure_K4_11_12_Alt2_TransportationCorridor_Viewshed – does not show the NPS boundary – please add. | Figure has been revised. |