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Submitted electronically and via email
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Re: Comment on Draft Environmental Impact Statement for the Proposed Pebble Project

We submit this comment letter in response to the recent Draft Environmental Impact Statement (“DEIS”) for the Pebble Limited Partnership’s proposal to develop the Pebble copper-gold-molybdenum-porphyry deposit as an open pit mine. We write in firm opposition to the DEIS. Development of the Pebble Mine site will have significant adverse environmental impacts that the DEIS fails to consider. Critically, the scope of the DEIS is wholly inadequate, as it fails to account for the build-out of the mine to its full, contemplated scale.

The Pebble deposit is located in the Alaskan backcountry about 200 miles southwest of the state capitol, Anchorage. The deposit is one of the largest undeveloped copper deposits in the world; the owners of the Pebble Limited Partnership estimate that it contains 57 billion pounds of copper, 71 million ounces of gold, and 3.4 billion pounds of molybdenum.¹ The deposit also sits in the headwaters of Bristol Bay, the largest sockeye salmon fishery in the world and home to 25 federally recognized tribal governments. Its development would lead to significant harm to nearby spawning grounds, local communities, and the Alaskan economy.

The DEIS does not reflect the full extent of these risks and foreseeable harms. This comment letter focuses on three fatal shortcomings: First, the project’s scope is too narrowly defined. The DEIS describes a mining project that is artificially limited in size, improperly segmenting environmental review so as to exclude discussion of future phases of the project that are all but inevitable. Second, the DEIS fails to account for the cumulative impact of the project together with all reasonably foreseeable future actions, as required by the National Environmental Policy Act (“NEPA”), including the foreseeable future impacts of mining at the site. Third, the DEIS fails to take a hard look at critical information about the project, including information about the way that climate change will affect the project’s impacts over time. For these reasons, the Army Corps must go back to the drawing board and revise the DEIS to properly account for the full project scope and the full range of reasonably foreseeable environmental impacts.

¹ NORTHERN DYNASTY MINERALS LIMITED, *Pebble Project, Project Overview* (2019), <https://www.northerndynastyminerals.com/pebble-project/project-overview/>.

I. Background

A. The Pebble Mine Project

The Pebble Limited Partnership acquired the rights to the Pebble Deposit in 2001.² The partnership has often represented the mine as unprecedented in scale and impact. For example, the partnership has stated that “[t]he Pebble Project is among the most significant mineral deposits ever discovered. It has the potential to supply as much as one-quarter of the United States' copper needs over more than a century of production.”³

The Pebble Mine would be operated as an open pit mine, with tailings and waste rock stored in a pit lake, in which water is allowed to accumulate after cessation of operations. Water above a certain elevation in the pit lake would be pumped, treated, and discharged into the environment. Therefore, the mine site would require indefinite remediation activities. Tailings would be left at the site. Both the tailings storage site and the open pit lake could create long-term hazards to the local environment, and any groundwater or surface water contamination could harm the spawning beds of salmon that migrate through Bristol Bay, home to a \$1.5 billion fishery. As planned, the mining activity will permanently block several miles of salmon habitat in multiple tributaries.⁴ Additionally, operations will continually extract water from local sources, reducing the water available in streams and lakes. Mine activities could also affect other regional animal populations, such as a unique population of freshwater seals in Lake Iliamna. The installation of a hundreds-miles-long transportation corridor—including roads, ferries, and pipelines—in a remote part of Alaska will affect water supplies and wildlife populations along its length.

Although the current proposed mine has a smaller footprint than previous plans submitted by the Pebble Limited Partnership, there is evidence that the current footprint has been artificially and unreasonably shrunk to a fraction of its true size, which has the effect of segmenting this DEIS and piecemealing consideration of the mine's true environmental impact. Although Pebble Mine is currently described as a 20-year project, the partnership has previously represented the mine as a much larger endeavor, in terms of geographical footprint, amount of ore to be removed, and time scale. For example, the current description of the mine says the operation will remove 1.2 billion tons of ore, but this amount is substantially smaller than other preliminary proposals published by Northern Dynasty Minerals and represents approximately 10% of the entire estimated Pebble deposit.⁵ One previous description of the mine envisioned it lasting 45 years and removing at least 3.8 billion tons of ore,⁶ and the company has claimed that the mine has the

² NORTHERN DYNASTY MINERALS, LTD, *The Pebble Deposit: Overview* (Feb. 5, 2012), available at <https://web.archive.org/web/20120206041433/http://www.northerndynastyminerals.com/ndm/Pebble.asp>.

³ Letter from Richard E. Schwartz (Crowell & Moring, LLC) to Arthur A. Elkins, EPA Inspector General, January 9, 2014.

⁴ Dylan Brown, *Did Pebble 'de-risk' Alaska's most controversial mine?* E & E NEWS GREENWIRE (Apr. 9, 2019), <https://www.eenews.net/stories/1060144971/print>.

⁵ Ghaffari, H., R. S. Morrison, M. A., de Ruijeter, A. Živković, T. Hantelmann, D. Ramsey, and S. Cowie. 2011. PRELIMINARY ASSESSMENT OF THE PEBBLE PROJECT, SOUTHWEST ALASKA. Document 1056140100- REP-R0001-00 (Feb. 15, 2011). Prepared for NDML by Wardrop Engineering (a Tetra Tech Company), Vancouver, BC.

⁶ See Northern Dynasty Minerals Press Release, Northern Dynasty Receives Positive Preliminary Assessment Technical Report for Globally Significant Pebble Copper-Gold-Molybdenum Project in

potential to last at least 78 years and that the deposit “presents a great deal of flexibility in near-term and long-term development options.”⁷ Pebble’s CEO, Tom Collier, has also been quoted as saying, “It would be unlikely that in the future someone wouldn’t want to take some portion if not all of the rest of the ore out of the ground.”⁸ Northern Dynasty Minerals itself warns that its current shrunken proposal for the mine may change.⁹ And, even if the Pebble Limited Partnership itself does not expand operations, some successor in interest could.

Close examination of the project’s economics supports the idea that the Pebble Mine project will likely grow beyond the current proposal reflected in the DEIS. If it is limited to a 20-year time frame and removes only 1.2 billion tons of ore, the Pebble Mine is not likely to be economically feasible. One analysis, written by an environmental scientist who had worked for large mining companies for over two decades, found that the 20-year mine plan was “almost certainly not economically feasible.”¹⁰ That analysis, based on economic assumptions modified from a 2011 economic assessment of the mine, found that the current mining plan will “make roughly 15 billion dollars less profit from the sale of concentrate than the smallest 2011 mine scenario and is likely to have a strongly negative net present value.”¹¹

Other evidence supports concerns about the economic viability of the mine at its currently proposed scale. For example, a 2017 evaluation of the project by an investment group described Northern Dynasty Minerals as “worthless” and stated that, although there would be legal and regulatory costs to pursuing Pebble, the primary issue was economic viability: “the upfront capital costs necessary to build and operate the mine are so onerous that the mine isn’t commercially viable.”¹² That analysis noted that several large mining concerns had abandoned positions in the mine.

Despite widespread concerns that the newly shrunken mine proposal is intended simply to get the camel’s nose under the tent, Pebble Limited Partnership has declined to produce an economic analysis showing that the shrunken scale is viable. The owners of the Pebble mining rights

Southwest Alaska (Feb. 23, 2011), <https://www.northerndynastyminerals.com/news/news-releases/2011/northern-dynasty-receives-positive-preliminary-assessment-technical-report-for-globally-significant-pebble-copper-gold-molybdenum/>.

⁷ Ghaffari, H., R. S. Morrison, M. A., de Ruijeter, A. Živković, T. Hantelmann, D. Ramsey, and S. Cowie. 2011. PRELIMINARY ASSESSMENT OF THE PEBBLE PROJECT, SOUTHWEST ALASKA. Document 1056140100- REP-R0001-00 (Feb. 15, 2011). Prepared for NDML by Wardrop Engineering (a Tetra Tech Company), Vancouver, BC.

⁸ Dylan Brown, *Did Pebble 'de-risk' Alaska's most controversial mine?* E & E NEWS GREENWIRE (Apr. 9, 2019), <https://www.eenews.net/stories/1060144971/print>.

⁹ NORTHERN DYNASTY MINERALS LIMITED, *Pebble Project, Project Overview* at n. 1 (2019), <https://www.northerndynastyminerals.com/pebble-project/project-overview/>.

¹⁰ Letter from Richard Borden on Pebble Mine Project Economics at 1 (Mar. 28, 2019). <https://www.nrdc.org/sites/default/files/mccoy-pebble-mine-economics-letter-20190328.pdf>.

¹¹ *Id.*

¹² KERRISDALE CAPITAL, *Northern Dynasty Minerals Ltd. (NAK) Cu at Zero* at 1 (2017), <https://www.kerrisdalecap.com/wp-content/uploads/2017/02/Northern-Dynasty-Minerals-NAK.pdf> [Kerrisdale does have an interest in Pebble Mine stock losing money because it has short positions in the mine].

promised an economic feasibility study in 2018¹³ but have not produced one, and Alaska's former governor, Bill Walker, requested that the Army Corps of Engineers ("ACE") suspend the NEPA approval process until a feasibility study was conducted and published.¹⁴ When the contractor for the ACE asked Northern Dynasty Minerals for financial information, including cost estimates, the company refused, referring ACE to the 2011 economic assessment that is the only publicly available material on economic feasibility.¹⁵ At other times, Northern Dynasty has referred to the same 2011 report as "considered by Northern Dynasty to be out of date such that it can no longer be relied upon."¹⁶

Both because of the direct statements of the mine developers, and because of the need to operate a larger mine to reach economic feasibility, it is reasonably foreseeable that the life of the mine could extend beyond 20 years and that the amount of material mined could exceed 1.2 billion tons. If mining activity does increase in these ways, the environmental impacts are likely to be greater than those considered by the DEIS.¹⁷

If constructed, the mine's environmental and economic impacts will be significant. Bristol Bay's salmon fisheries are important for commercial fishing, for recreational fishing by tourists, and for subsistence by Alaska residents. The natural resources supported by a healthy Bristol Bay are the cornerstone of Alaska's economy and culture.

¹³ Elwood Bremer, *Pebble owners working to refine economics of smaller plan*, ALASKA JOURNAL OF COMMERCE (Apr. 11, 2018), <http://www.alaskajournal.com/2018-04-11/pebble-owners-working-refine-economics-smaller-plan>.

¹⁴ Gov. Bill Walker, Letter to Shane McCoy, Program Manager, U.S. Army Corps of Engineers, Alaska District (June 29, 2018), available at <https://pebblewatch.com/wp-content/uploads/2018/07/2018-06-29-McCoy-USACOE-PLP-FINAL.pdf>.

¹⁵ Stephen Lee, *Pebble Mine's Canadian Owner Rebuffs U.S. Financial Queries*, BLOOMBERG ENVIRONMENT (Oct. 3 2018), <https://news.bloombergenvironment.com/environment-and-energy/pebble-mines-canadian-owner-rebuffs-us-financial-queries>; AECOM, RFI 070: Cost information for Alternatives Screening (Sept. 2018.) In response to the request for cost information, Northern Dynasty Minerals responded that: "PLP/NDM has invested US\$851 million in the Pebble Project to date. An updated estimate to complete the project cannot be provided at this time due to National Instrument 43-101 reporting requirements, however the capital costs associated with the Initial Development Case in the 2011 NDM PEA (approximately US \$5.5 billion) can be considered representative." Available as RFI 070 at: <https://pebbleprojecteis.com/documents/library>.

¹⁶ Stephen Lee, *Pebble Mine's Canadian Owner Rebuffs U.S. Financial Queries*, BLOOMBERG ENVIRONMENT (Oct. 3 2018), <https://news.bloombergenvironment.com/environment-and-energy/pebble-mines-canadian-owner-rebuffs-us-financial-queries>.

¹⁷ See, e.g. Proposed Determination of the U.S. Environmental Protection Agency Region 10, Pursuant to Section 404(c) of the Clean Water Act, Pebble Deposit Area, Southwest Alaska, available at https://www.epa.gov/sites/production/files/2014-07/documents/pebble_pd_071714_final.pdf.

B. The Draft Environmental Impact Statement

The DEIS for the Pebble Project analyzes only the 20-year version of the mining project, projecting extraction of just 1.2 billion tons of ore. Except for the No-action Alternative, all the alternatives included in the DEIS assume this 20-year time frame for the project.¹⁸

This limited scope circumscribes the DEIS's environmental impact analysis in many important ways. Generally, for example, the DEIS does not foresee impacts to water quality outside of the "mine site area."¹⁹ It also considers problems such as tailings dam failures, but only on a limited basis, and concludes that the potential for dam failure would be small over the 20-year term. However, the potential for a tailings dam failure would increase significantly if either mining activity increased or if the project continued for a much longer period. Although the DEIS states that the "probabilities of failure are very low" and cites a failure rate of 1 in 2,000 per year (or 1 in 100 over 20 years), one analysis by an environmental consulting firm concludes that chance would be as high as 20% over the lifetime of a larger project,²⁰ and estimates that a tailings dam failure at the site could send tailings at least 50 miles downstream.

This limited scope comes despite the fact that the DEIS itself notes that a project expansion is "reasonably foreseeable,"²¹ and that an expansion could add 98 years of operations and an additional 58% of mineral deposits. Such a project would require longer term installation and maintenance of infrastructure, including roads, pipelines, power plants, and ferries. Yet the DEIS repeatedly assumes that the infrastructure will be removed at the end of the 20-year period, and therefore does not include the impacts of such infrastructure beyond the 20-year mark. Nor does the DEIS evaluate other impacts of these reasonably foreseeable expansion activities, except in the most cursory ways.

¹⁸ Alternatives all include a 14-year active mine, which includes a ferry across the Knik Arm of the Cook Inlet, along with construction of a natural gas pipeline (over 140 total miles) across the Arm and several miles of land. That pipeline will then be constructed under another large lake (Lake Illiamna), and then overland again to the mine site, where there will be a power plant. Alternative 1: Road construction from the mine site to Lake Illiamna and from Lake Illiamna to a ferry terminal on the Knik Arm, construction of two ferry terminals and ferry operations across Lake Illiamna with ferry traffic across the lake. Alternative 2 includes a different road corridor but would still incorporate a ferry across Lake Illiamna. One variant of Alternative 2 considers a summer-only ferry, which would be less disruptive to the lake but would require more storage onsite during the summer. Alternative two also contemplates a different tailings storage facility design. Under Alternative 3 there would be road construction from the mine site along a route north of Lake Illiamna to a ferry terminal on the Knik Arm, to circumvent the lake ferry. All alternatives except the no-action alternative include construction of ferry terminals for transport of ore across the Cook Inlet. Pebble Project DEIS, Executive Summary 5-21 (2019).

¹⁹ *Id.* at 43.

²⁰ Cameron Wobus et al., MODELING THE IMPACTS OF A TAILINGS DAM FAILURE AT THE PEBBLE MINE, (sponsored by Lynker and the Nature Conservancy, Feb. 28, 2019), *available at* https://www.eenews.net/assets/2019/04/02/document_gw_01.pdf; *see also* Dylan Brown, *Did Pebble 'de-risk' Alaska's most controversial mine?* E & E NEWS GREENWIRE (Apr. 9, 2019), <https://www.eenews.net/stories/1060144971/print>. ("Under the expanded mine scenario, Pebble would also add two more impoundments, one bulk and the other pyritic. Multiplied by tailings dams, the risk over 100 years is 20%").

²¹ Pebble Project DEIS, p. 4.1-8 table 4.1.1, p. 4.1-23,24 table 4.1.2 (2019).

II. The DEIS is Legally Insufficient and Must Be Rejected

The Pebble Mine DEIS is insufficient and unlawful for three reasons: (1) the project scope is improperly segmented so as to exclude discussion of future phases of the project; (2) the DEIS fails to account for the cumulative impact of this project together with all reasonably foreseeable future projects, as required; and (3) the DEIS fails to take a hard look at critical information about project impacts.

A. The project scope is improperly segmented because it excludes discussion of future phases of the project that are intertwined with this opening phase

As discussed above, the DEIS examines only a 20-year scope of the proposed mining project. This limitation in project scope is both unrealistic and unlawful, as it serves to piecemeal and underestimate the project's true environmental impacts. Where future phases of a project are so intertwined with the initial phase that the phases have no independent utility, an agency must analyze those phases together in the same EIS.

The DEIS improperly segments environmental review of the Pebble Mine Project. The project lacks independent utility, or "utility such that the agency might reasonably consider constructing only the segment in question."²² A project does not possess independent utility when it is economically and practically infeasible to only construct that project with no future additions or expansions,²³ when the initial phase would be irrational or unwise if carried out without further expansion,²⁴ or where it has no independent reason to exist.²⁵ As described in Section I(A) above, the Pebble Mine's DEIS describes a project which, on its own, is not economically feasible. The heavy up-front costs of the Pebble Mine's 20-year mining plan make it simply irrational without an intent to prolong and expand the project.²⁶ Accordingly, the DEIS must be revised to analyze future additions or expansions of the proposed project.

B. The DEIS fails to account for the cumulative impact of this project together with all reasonably foreseeable future actions, as required

Even assuming that the DEIS's 20-year project scope is lawful, which it is not, the DEIS fails for the independent reason that it does not consider and disclose the cumulative impacts of this project together with all reasonably foreseeable future projects, including, most prominently, the

²² *Thomas v. Peterson*, 753 F.2d 754 (9th Cir. 1985).

²³ *Id.* at 759-60.

²⁴ *Trout Unlimited v. Morton*, 509 F.2d 1276 (9th Cir. 1974).

²⁵ *Save Barton Creek Ass'n v. Federal Highway Admin.*, 950 F.2d 1129 (5th Cir. 1992).

²⁶ *See Blue Ocean Preservation Soc. v. Watkins*, 754 Supp. 1450 (D. Haw. 1991) (holding EIS improperly segmented verification phase of geothermal project because the intensive construction required by the verification phase would be irrational and economically infeasible absent an imminent intent to harvest a geothermal resource).

likely mine expansion.²⁷ Under NEPA, agencies “must give a realistic evaluation of the total impacts and cannot isolate a proposed project, viewing it in a vacuum.”²⁸ In so doing, the “incremental impact of the action . . . must be considered when added to other past, present, and reasonably foreseeable future actions.”²⁹ The regulations governing cumulative impacts require that “cumulative” actions be considered in a single EIS.³⁰

In preparing an EA or EIS, an “agency need not foresee the unforeseeable, but . . . [r]easonable forecasting and speculation is . . . implicit in NEPA.”³¹ Although some future impacts are too remote or speculative to be reasonably foreseeable, if there is a weight of evidence in favor of foreseeability, agencies must consider those impacts in the NEPA process.³² Moreover, agencies “have an affirmative duty to locate, describe, and consider other projects that could have cumulative impacts when combined with the project under consideration” even if the evidence for those projects comes from an outside agency or private party.³³

The existence or potential of other mining operations in a project area is relevant to cumulative impacts analysis.³⁴ Indeed, other proposed projects are among the reasonably foreseeable activities NEPA analysis must address.³⁵ But a project need not be proposed for it to be necessary to include in the analysis; even actions merely being contemplated must be analyzed, so long as they are reasonably foreseeable.³⁶ In particular, the Ninth Circuit has held that an agency may not ignore the cumulative impacts that would flow from reasonably foreseeable extensions in time of proposed projects, even where those projects are proposed with limited initial timeframes.³⁷

²⁷ 40 C.F.R. § 1508.7. “Cumulative impact is the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.”

²⁸ *Grand Canyon Trust v. FAA*, 290 F.3d 339, 342 (D.C. Cir. 2002).

²⁹ *Id.*

³⁰ *Churchill Cty. v. Norton*, 276 F.3d 1060, 1076 (9th Cir. 2001).

³¹ *Delaware Riverkeeper Network v. F.E.R.C.*, 753 F.3d 1304, 1310 (D.C. Cir. 2014) (quoting *Scientists’ Inst. for Pub. Info., Inc. v. Atomic Energy Comm’n*, 481 F.2d 1079, 1092 (D.C. Cir. 1973)).

³² *Muckleshoot Indian Tribe v. United States Forest Serv.*, 177 F.3d 800, 810-12 (9th Cir. 1999).

³³ *Kettle Range Conservation Grp. v. U.S. Forest Serv.*, 148 F. Supp. 2d 1107, 1129 (E.D. Wash. 2001)

³⁴ See e.g. *Great Basin Mine Watch v. Hankins*, 456 F.3d 955, 971 (9th Cir. 2006).

³⁵ *Te-Moak Tribe of W. Shoshone of Nevada v. U.S. Dep’t of Interior*, 608 F.3d 592, 603 (9th Cir. 2010). “BLM’s analysis of cumulative impacts in the cumulative effects area did not adequately address the reasonably foreseeable mining activities” of other proposed mining projects.

³⁶ *Native Ecosystems Council v. Dombeck*, 304 F.3d 886, 892-93, 896-97 (9th Cir. 2002) (holding cumulative impacts analysis to be inadequate when the Forest Service had “contemplated waiving the road density standard for Gallatin II timber sale projects” without yet committing to them).

³⁷ *N. Plains Res. Council, Inc. v. Surface Transp. Bd.*, 668 F.3d 1067, 1077-79 (9th Cir. 2011) (holding that the Surface Transportation Board erred in finding that there would be no cumulative impacts from development of coal bed methane projects that were projected to be developed in the same area as the railroad project under consideration, where the agency had argued that the railroad project would be completed before the coal beds were developed. The Court held that the agency could not ignore that it was reasonably foreseeable that the railroad project could run much longer and could therefore overlap with the coal bed methane projects.).

Here, the DEIS fails because it does not analyze the impact of mine operations beyond 20 years. As discussed above, the expansion of the mine beyond 20 years is not only reasonably foreseeable, but likely. The Pebble Mine’s investors contemplate a project that runs beyond that timeframe and it is likely that the mine would need to be larger and run for longer to reach profitability. Northern Dynasty Minerals has continually sought investors with promises of an expanded mine. The EPA considered larger, extended mines reasonably foreseeable enough to consider them extensively in its 2014 Proposed Designation, discussed further below. Finally, even if the project as run by Northern Dynasty Minerals were to conclude after 20 years, it is reasonably foreseeable that a successor in interest could continue to develop the site, because many of the infrastructural costs of developing a new remote mine site will have already been borne. The environmental impacts of that expansion must therefore be analyzed and disclosed as reasonably foreseeable cumulative impacts.

It is not enough, as the DEIS does, to state that such an expansion would require new permitting and additional environmental analysis down the line. The existence of all of the infrastructure from the 20-year project would likely ease future permitting for an expansion. Further, NEPA demands that cumulative impacts be assessed at the earliest possible stage, not later in time. And simply mentioning cumulative impacts is not sufficient unless the environmental analysis “adequately discuss[es] the subject.”³⁸ An EIS must contain a useful analysis of cumulative future impacts, sufficiently detailed to allow a decisionmaker to decide whether to alter a program.³⁹ The DEIS fails to meet that bar.

C. The DEIS fails to take a hard look at critical information about the project’s impacts

Even within the 20-year timeframe that the DEIS restricts itself to, the document fails to take a hard look at critical data about the project and its impacts. Courts requires agencies conducting NEPA actions to take a “hard look” at environmental impacts.⁴⁰ In other words, they must “carefully consider detailed information concerning significant environmental impacts.”⁴¹ To be proper, consideration of impacts requires ““some quantified or detailed information”” and “[g]eneral statements about possible effects and some risk do not constitute a hard look absent a justification regarding why more definitive information could not be provided.”⁴² For example, in *Indigenous Env’tl. Network v. United States Dep’t of State*, a District Court case, the court

³⁸ *Klamath-Siskiyou Wildlands Ctr. v. Bureau of Land Mgmt.*, 387 F.3d 989, 994 (9th Cir. 2004).

³⁹ *Nat. Res. Def. Council v. U.S. Forest Serv.*, 421 F.3d 797, 814 (9th Cir. 2005) (citing *City of Carmel-By-The-Sea v. U.S. Dep’t of Transp.*, 123 F.3d 1142, 1160 (9th Cir. 1997)(finding an EIS inadequate when it only considered impact on resources in individual sections and collectively in one section which only referred generally to impacts, including from a potential freeway through the area)).

⁴⁰ NEPA “procedures implement that statute’s sweeping policy goals by ensuring that agencies will take a ‘hard look’ at environmental consequences.” *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 333, (1989).

⁴¹ *Id.* at 349 (1989).

⁴² *Ocean Advocates v. U.S. Army Corps of Engineers*, 361 F.3d 1108, 1128 (9th Cir. 2004) (quoting *Neighbors of Cuddy Mountain v. United States Forest Serv.*, 137 F.3d 1372, 1379–80 (9th Cir.1998)).

found that the Department of State ignored its duty to take a “hard look” when it failed to analyze the cumulative climate impacts of a project.⁴³ Additionally, in *National Wildlife Federation v. National Marine Fisheries Service*, a District Court found that a federal agency had erred in assuming that recent climate conditions would remain the same and failed to incorporate longer-term climate change, did not presume any worsening in baseline conditions and ignored climate change when it calculated the longer-term benefits of its actions.⁴⁴

We particularly address two areas in which the Pebble Mine DEIS fails to take a hard look. First, it ignores significant climate data and wrongly assumes that future conditions will be consistent with past conditions. Second, it fails to consider underlying data on environmental impacts from EPA’s 2014 Proposed Determination to prohibit discharge at the site.

C.1. The DEIS ignores significant climate data

Even under the minimal 20-year time frame that the DEIS assesses, there will be significant climatic trends, in terms of both average temperature and climate variability, affecting the Pebble Mine region. Over a 20-year time frame, the assumptions in the DEIS do not hold up in the face of increasing subarctic warming and increased climate variability. This is even more true over longer mine lifespans. Thus, DEIS should both more thoroughly consider climatic trends within the 20 years and on a longer time frame.

The current DEIS largely ignores much of climate science and assumes that future climate-related conditions, including streamflow, will be much like past conditions. It does so by basing many of its plans, including for water management, on historical data without integrating data from other sources that do consider climate,⁴⁵ such as the National Climate Assessment Reports.⁴⁶ Those sources indicate that higher variability, higher temperatures, and increased precipitation are very likely in the region.⁴⁷ For example, the Fourth National Climate Assessment notes that Bristol Bay is warming at twice the rate that the continental U.S. has been and notes that long-term temperature trends include “considerable variability.”⁴⁸ The DEIS fails to acknowledge this despite the fact that these climate trends will stress many of the same resources to be impacted by mining operations, and will therefore exacerbate the likely impact of the mine.

⁴³ *Indigenous Envtl. Network v. United States Dep't of State*, 347 F. Supp. 3d 561, 578 (D. Mont. 2018).

⁴⁴ *Nat'l Wildlife Fed'n v. Nat'l Marine Fisheries Serv.*, 184 F. Supp. 3d 861, 918 (D. Or. 2016).

⁴⁵ See Pebble Project DEIS (2019) at 4.17-3.

⁴⁶ U.S. GLOBAL CHANGE RESEARCH PROGRAM, FOURTH NATIONAL CLIMATE ASSESSMENT (Chapter 26, Alaska) <https://nca2018.globalchange.gov/chapter/26/>.

⁴⁷ *Id.*

⁴⁸ *Id.*

C.2. The DEIS fails to consider important data underlying EPA’s 2014 proposed determination to prohibit this site for Clean Water Act discharges

In 2014, the EPA proposed to find that mining activity at the Pebble site would have an unacceptably adverse effect on water supplies and on fisheries, and therefore proposed to withdraw the site entirely from eligibility for necessary Clean Water Act permits.⁴⁹ Though that proposed decision was never finalized, the DEIS must consider and analyze the underlying data supporting EPA’s initial proposed determination. By failing to do so, the DEIS falls short of legal requirements to take a hard look at this issue.

Under section 404(c) of the Clean Water Act, EPA may “prohibit, restrict, or deny” specification of a site as a disposal area for the discharge of dredged or fill material, which it may do whenever it determines “that the discharge of such materials into such area will have an unacceptable adverse effect on municipal water supplies, shellfish beds and fishery areas (including spawning and breeding areas), wildlife, or recreational areas.”⁵⁰

The 2014 Proposed Determination considered three scenarios for the Pebble Mine site. The smallest, lowest impact scenario included a 20-year time span and only 0.25 billion tons of mined material, far less than the material proposed to be mined in the DEIS.⁵¹ Even at that small scale, EPA’s data led it to the conclusion that the mine components—including the mine pit, tailings, and waste rock—along with support facilities such as “a major transportation corridor, pipelines, a power generating station, wastewater treatment plants, housing and support services for workers, administrative offices, and other infrastructure” would result in irreversible losses and significant impairment of fish habitat.⁵² These impacts were so great, in EPA’s view, as to justify withdrawing the area from Section 404 permitting entirely.

The DEIS does not consider or incorporate the findings of the 2014 Proposed Determination, even though there does not appear to be any new credible science to show that what was considered to be an unacceptable adverse effect has since become acceptable. For example, Section 4.4 of the Proposed Determination addresses the probability and consequences of different types of accidents and failures associated with the mine.⁵³ The DEIS merely concludes

⁴⁹ The Proposed Determination found that mining activity would have an unacceptable adverse effect on water supplies and on fisheries. Proposed Determination of the U.S. Environmental Protection Agency Region 10, Pursuant to Section 404(c) of the Clean Water Act, Pebble Deposit Area, Southwest Alaska, available at https://www.epa.gov/sites/production/files/2014-07/documents/pebble_pd_071714_final.pdf.

⁵⁰ Clean Water Act Section 404(c).

⁵¹ The other scenarios included a mine that produced approximately 2.0 billion tons of ore over 25 years and one that produced approximately 6.5 billion tons of ore over 78 years. Proposed Determination of the U.S. Environmental Protection Agency Region 10, Pursuant to Section 404(c) of the Clean Water Act, Pebble Deposit Area, Southwest Alaska, Executive Summary at 2-3, available at https://www.epa.gov/sites/production/files/2014-07/documents/pebble_pd_071714_final.pdf.

⁵² *Id.*

⁵³ Proposed Determination of the U.S. Environmental Protection Agency Region 10, Pursuant to Section 404(c) of the Clean Water Act, Pebble Deposit Area, Southwest Alaska, 4-62 to 4-69, available at https://www.epa.gov/sites/production/files/2014-07/documents/pebble_pd_071714_final.pdf.

that a failure is low risk and does not discuss the possible consequences that led EPA to its proposed determination.

A thorough, adequate DEIS would take a hard look at data relevant to both the long-term climatic future of the site and at previous assessments that had provided more robust data on the potential environmental impacts of mining activity. Any DEIS that fails to do so must be rejected.

III. Conclusion

The DEIS is not thorough enough in considering environmental impacts of a potential Pebble Mine. The document fails to sufficiently consider cumulative impacts, does not address segmentation of the mine project, and shows no evidence that ACE took a hard look at environmental impacts due to climate change and from mining operations. The DEIS is markedly less thorough than the EPA's 2014 Proposed Determination in considering impacts and is legally insufficient. The DEIS must be reconsidered.

Sincerely,



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