Pebble Limited Partnership
Request for Appeal of Permit Denial
United States Army Corps of Engineers Permit Application No. POA-2017-00271

January 19, 2021

TABLE OF CONTENTS

EXECUTIVE SUMMARY 1

STATEMENT OF FACTS 2

The Development of Compensatory Mitigation for the Pebble Project 5

The District Summarily Rejects the CMP and Issues a Negative Public Interest Finding 12

REASONS FOR APPEAL 12

I. The Significant Degradation Finding is Contrary to Law and Unsupported by the Record 12

- **A. "More Than Trivial" Is Not an Appropriate Standard for Assessing Significant Degradation** 13
- **B. The Finding of Significant Degradation is Inconsistent with the Record** 14
- **C. The District Overstated the Significance of the Impacts by Unduly Narrowing the Watershed Scale at the Mine Site** 20
- **D. The Significant Degradation Finding Was Improperly Used to Drive Unprecedented Compensatory Mitigation Requirements** 23
- **E. The Finding of Significant Degradation is Contrary to USACE Guidance** 26

II. The District's Rejection of the CMP is Contrary to USACE Regulations and Guidance 28

- **A. The CMP was Improperly Rejected Without Providing PLP an Opportunity to Correct the Alleged Deficiencies** 28
- **B. The Alleged CMP "Deficiencies" are Baseless** 28
  - **1. Port Site Mitigation** 28
  - **2. Preservation Waiver** 29
  - **3. Level of Detail and "Missing" Documentation** 30
  - **4. Performance Standards** 32
  - **5. Monitoring** 33
  - **6. Site Protection Instrument** 33
- **C. Many Alleged Gaps are Implementation and Documentation Steps Generally Submitted Post-Permit** 34

ED_005447B_00000011-00002 Bristol Bay/Pebble Mine Permitting Process FOIAs_Interim Release 1

III. The Public Interest Decision is Contrary to Law and Unsupported by the Record 35

A. The PIR Arbitrarily Finds the Demonstrated Benefits of the Project to be Outweighed by Speculative Economic Harms 36

1. The Local and Regional Socioeconomic Benefits are Significant and Long-Term 36

2. The District Understates the Economic Benefits to the State 41

3. The District Fails to Fully Consider the Economic Benefits of, and Public Need for, the Extracted Minerals 42

B. The PIR Relies on Speculative Harms to Fisheries that Lack Any Support in the Record 43

1. The Record Demonstrates that a Catastrophic TSF Failure is Not Reasonably Foreseeable 45

2. The Record Does Not Support any Adverse Impact from the Portfolio Effect 46

3. The Finding of Conflict Between the Mine and the Fisheries is Unsupported 49

IV. The ROD Overstates Adverse Effects by Failing to Fully Consider all Mitigation 50

A. Compensatory Mitigation 50

B. Cultural and Historic Resources 50

C. Water Quality 51

D. Endangered Species 52

V. The ROD Fails to Adequately Consider the State's Interests as the Landowner, and its Designation of the Land for Mineral Development 53

VI. Conclusion 55

ED_005447B_00000011-00003 Bristol Bay/Pebble Mine Permitting Process FOIAs_Interim Release 1

EXECUTIVE SUMMARY

The Pebble Limited Partnership (PLP) worked closely with the Alaska District on all aspects of the Pebble Project during the multi-year permitting process, responding to hundreds of requests for information, holding weekly calls, and participating in numerous meetings. PLP bent over backwards to meet the District's requests, including redesigning aspects of the Project to reduce impacts, developing costly and extensive data, agreeing to a new preferred alternative that was significantly different than what PLP had proposed, and developing detailed plans and mitigation measures in response to District requests.

PLP proactively engaged on compensatory mitigation throughout the three-year process, revising its proposed approach several times in response to changing District direction. In June 2020, the District for the first time informed PLP that in-kind, in-watershed mitigation would be required. The District's stated basis for requiring in-kind, in-watershed mitigation was a finding of significant degradation in the Koktuli River watershed. However, the significant degradation finding is based on speculative impacts that lack any substantiation in the record. The finding fails to meet the regulatory requirement that significant degradation determinations be "based upon appropriate factual determinations, evaluations, and tests."[1]

Even though PLP disagreed with the significant degradation finding and its use to require in-kind, in-watershed mitigation, PLP continued to cooperate with the District on developing compensatory mitigation. PLP spent significant time and resources to meet the District's unprecedented, last-minute demand for in-kind, in-watershed mitigation. PLP ultimately submitted a revised Compensatory Mitigation Plan (CMP) that included more extensive mitigation than any previously required for a major development project in Alaska.

Despite the robust, unprecedented scale of the plan, the District summarily rejected the CMP within days as "incomplete" without giving PLP an opportunity to address the alleged gaps. Although the Record of Decision (ROD) presents the CMP deficiencies as "fatal," none of these issues were raised in the District's "fatal flaw" review of the CMP just over one month prior. Moreover, none of the alleged deficiencies are fairly characterized as "fatal" – PLP could easily have addressed the issues if given a chance. Indeed, the record demonstrates that PLP has been more than willing to work with the District to address compensatory mitigation. Despite this, the District did not give PLP any opportunity to address the issues raised, nor did it explain why no such opportunity was provided.

The fact that the District summarily rejected the 129-page CMP as incomplete within days of its submittal suggests that the District had already made up its mind to deny the permit, and therefore deemed it futile to spend further time reviewing the CMP or to allow PLP any time to address the alleged gaps. But by rejecting the CMP, the District stacked the deck against the permit because it factored no compensatory mitigation into the decision. Given that PLP had demonstrated its willingness to develop compensatory mitigation, whether in-kind or out-of-kind, the District's assumption that no compensatory mitigation would be undertaken is unsupportable. A negative decision should have only issued if the District found that even with

[1] 40 C.F.R. § 230.10(c).

required compensatory mitigation, the overall adverse impacts outweighed the benefits of the Project.

The District also stacked the deck with its public interest review (PIR), which gave undue weight to speculative harms not supported by the record while giving little weight to the Project's undisputed benefits to local communities, the region, and the State. For example, the record demonstrates the significant, long-term socioeconomic benefits of the Project to local communities, including jobs, infrastructure, health, education and decreased cost of living. Nonetheless, the ROD outrageously asserts that there are adverse economic effects that would *outweigh* the benefits at the local and regional level.[2] The District relies on pure conjecture to support this finding, including speculation that local communities would be *worse* off once the mine closes.

The ROD also points to speculative harms to fish to support its adverse PIR finding, including impacts from a catastrophic tailings storage facility (TSF) failure that the FEIS found not to be reasonably foreseeable. The District's reliance on impacts from a TSF failure that the District itself admits has a "very low probability of occurrence" violates the regulatory requirement that the PIR be "based on an evaluation of the *probable* impacts" of the Project.[3] The decision is therefore contrary to USACE regulations, as well as the record.

Finally, the District suggests that the renewable fishery must be given higher priority than the nonrenewable resources available in the Pebble deposit. However, this is a false dichotomy that is not supported by the record – the FEIS demonstrates that the Project can be developed with no measurable impacts on the fishery. The ROD concludes that we should simply wait for "a future project, incorporating improved technologies that can protect irreplaceable fishery resources."[4] The fact that mining technology is constantly improving actually supports the public interest in the current project. The Pebble Project is designed based on the most recent technological advances and would therefore be safer than any existing mine. The mere point that there will continue to be technological advances in the future cannot mean that no mine should be built now. Moreover, the 404 regulations provide that the public interest determination should "reflect the national concern for both protection *and utilization* of important resources."[5] The Pebble deposit is land owned by the State of Alaska, and was designated by the State for mineral development. By asserting that the mineral resources can always be extracted later, the District's PIR decision fails to properly reflect the current public interest in the utilization of the resources available at the Pebble deposit.

STATEMENT OF FACTS

In December 2017, PLP filed a permit application pursuant to Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act of 1899 to the US Army Corps of Engineers (USACE) Alaska District (District) (POA-2017 271) for the purpose of developing a copper-

[2] U.S. Army Corps of Engineers, *Record of Decision for Application Submitted by Pebble Limited Partnership (Dep't of the Army Permit # POA-2017-00271)* at ROD_000160 (Nov. 20, 2020) ("ROD").
[3] 33 C.F.R. § 320.4(a)(1) (emphasis added).
[4] ROD_000165.
[5] 33 C.F.R. § 320.4(a)(1) (emphasis added).

ED_005447B_00000011-00005 Bristol Bay/Pebble Mine Permitting Process FOIAs_Interim Release 1

gold-molybdenum porphyry deposit (Pebble deposit).[6] PLP's proposed mine location is in southwest Alaska, approximately 200 miles southwest of Anchorage and 60 miles west of Cook Inlet.[7] The Project is comprised of four primary elements: the mine site at the Pebble deposit location, a port site in Iliamna Bay in Cook Inlet, a road and pipeline corridor connecting the mine site and the port, and a natural gas pipeline and fiber optic cable connecting to existing infrastructure on the Kenai Peninsula.

As early as 2013, well before PLP submitted its permit application, PLP began discussions with the District on potential compensatory mitigation for the Project.[8] PLP never tried to avoid or argue against the need for compensatory mitigation, but it knew that compensatory mitigation was challenging in Alaska, particularly in more remote areas like the Pebble deposit location. Thus, PLP proactively and repeatedly sought guidance from the District on how compensatory mitigation might be addressed given the location of the proposed Pebble Project. Despite this, the District provided very limited direction on compensatory mitigation throughout the permitting process, requiring PLP to try to read the tea leaves on what would be acceptable.[9] The lack of clear direction from the District ultimately led to the submission of multiple CMP versions over the three-year permit review period, each of which required significant resources to develop.[10] Below is a brief explanation of the inherent difficulty of compensatory mitigation in Alaska, as well as a summary of PLP's extensive efforts to develop a CMP for the Project.

The USACE and EPA Have Long Recognized that Compensatory Mitigation Must Be Applied Flexibly in Alaska

The issue of limited compensatory mitigation options in Alaska is not unique to Pebble: the USACE and EPA have recognized for decades that compensatory mitigation must be implemented flexibly in Alaska, given the vast wetlands in the state, the fact that opportunities to restore wetlands are scarce, and the lack of mitigation banks and in-lieu fee options for projects in rural Alaska.

In 1993, EPA and USACE convened a panel of stakeholders to identify solutions for implementing compensatory mitigation in Alaska. The initiative resulted in a report that emphasized providing regulatory flexibility in Alaska: "There are areas of the State where

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[6] Pebble Limited Partnership, *Pebble Project Department of the Army Application for Permit POA-2017-271* (Dec. 2017) ("Permit Application").

[7] *See* U.S. Army Corps of Engineers, *Pebble Project Final Environmental Impact Statement* (July 2020) ("FEIS") at Figure ES-1, FEIS_003387.

[8] In 2013, PLP wrote to the District regarding the potential use of functional assessment for Pebble. In response, the District sent a letter in 2014 that rejected previous functional assessment methodologies and noted there was no functional assessment methodology approved for Alaska. This pre-application correspondence was omitted from the District's initial Administrative Record (AR). PLP will provide the District copies to be included in the AR.

[9] The District provided two sample CMPs during the permitting process, the Donlin Gold CMP and one from a Florida mine. *See* Exhibit 1, Declaration of James Fueg ¶ 17 (Jan. 20, 2021) ("Fueg Decl."). Given that much of the limited direction from the District was verbal, either over the phone or at in-person meetings, and those communications do not seem to be recorded in the AR, PLP has prepared a declaration to document those communications. Because the verbal communications between PLP and the District were a critical part of the permitting process, they should be included in the AR.

[10] *See* Fueg Dec. ¶ 2.

ED_005447B_00000011-00006 Bristol Bay/Pebble Mine Permitting Process FOIAs_Interim Release 1

because of a high proportion of wetlands in a watershed or region, opportunities for compensatory mitigation may not be available."[11]

This policy of flexibility was further solidified with the 2018 "Memorandum of Agreement Between the US Environmental Protection Agency (EPA) and the Department of the Army Concerning Mitigation Sequence for Wetlands in Alaska under Section 404 of the Clean Water Act" ("2018 Alaska MOA").[12] The MOA provides guidance regarding flexibilities that exist in the mitigation requirements for 404 permits, and how those flexibilities should be applied in Alaska:

> Given the unique climatological and physiographic circumstances found in Alaska, it is appropriate to apply the inherent flexibility provided by the guidelines to proposed projects in Alaska. Applying this flexibility in a reasoned, commonsense approach will lead to effective decision-making and sound environmental protection in Alaska.[13]

The MOA recognized six guiding principles specific to Alaska:

- Avoiding wetlands may not be practicable where there is a high proportion of land in a watershed or region which is jurisdictional wetlands;
- Restoring, enhancing, or establishing wetlands for compensatory mitigation may not be practicable due to limited availability of sites and/or technical or logistical limitations;
- Compensatory mitigation options over a larger watershed scale may be appropriate given that compensation options are frequently limited at a smaller watershed scale;
- Where a large proportion of land is under public ownership, compensatory mitigation opportunities may be available on public land;
- Out-of-kind compensatory mitigation may be appropriate when it better serves the aquatic resource needs of the watershed; and
- Applying a less rigorous permit review for small projects with minor environmental impacts is consistent with the Section 404 program regulations.[14]

The Alaska District also issued a Thought Process Document in September 2018 that further explains the District's approach to compensatory mitigation.[15] The Thought Process Document provides that "it may be appropriate to identify compensatory mitigation options over a larger

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[11] U.S. EPA et al., *Alaska Wetlands Initiative Summary* Report at 46 (May 13, 1994), https://archive.epa.gov/water/archive/web/pdf/alaska.pdf.
[12] *See* https://www.epa.gov/sites/production/files/2018-06/documents/epa_army_moa_alaska_mitigation_cwa_404_06-15-2018_0.pdf. The 2018 Alaska MOA replaced the 1992 and 1994 Guidance. *Id.*
[13] 2018 Alaska MOA at 3.
[14] 2018 Alaska MOA at 2-3.
[15] *See* U.S. Army Corps of Engineers, *Alaska District Compensatory Mitigation Thought Process* (Sept. 18, 2018) ("*Alaska Mitigation Thought Process*"), https://www.poa.usace.army.mil/Portals/34/docs/regulatory/2018MitigationThoughtProcess.pdf.

ED_005447B_00000011-00007 Bristol Bay/Pebble Mine Permitting Process FOIAs_Interim Release 1

watershed scale given that compensation options are frequently limited at a smaller watershed scale" in Alaska.

The Development of Compensatory Mitigation for the Pebble Project

PLP followed both the CWA regulations and Alaska-specific guidance in developing a CMP for the Pebble Project. PLP avoided and minimized impacts to jurisdictional waters, including wetlands, to the greatest extent practicable. For the remaining permanent unavoidable impacts, PLP worked with an experienced mitigation consultant to develop a CMP based on the hierarchy set out in the regulations.

The 404 regulations establish three types of compensatory mitigation mechanisms: (1) mitigation banks, (2) in-lieu fee (ILF) programs, and (3) permittee-responsible mitigation plans. The Pebble Project is not located in the service area of an approved bank or ILF with appropriate credits available. In the absence of mitigation banks or an ILF program, 33 C.F.R. § 332.3(b)(4) provides that "permittee-responsible mitigation" (PRM) is the only option. The regulations identify four types of PRM that may be performed:

- restoration (re-establishment or rehabilitation),
- establishment (creation),
- enhancement, and
- preservation of wetlands and other waters.

Preservation is generally less preferred, and is particularly complicated in the watersheds around the Pebble Project because most of the land is State-owned. Both PLP and the District recognized that preservation options in the watershed were extremely limited due to the lack of disturbance and the land status. Therefore, for the bulk of the permitting process, PLP focused primarily on out-of-kind, non-preservation options, and the District raised no objections to that approach.

After several communications with the District regarding how to approach compensatory mitigation for the Project,[16] PLP submitted a draft CMP framework on November 21, 2018 (CMP 1).[17] CMP 1 noted that opportunities for restoration, enhancement, establishment, and preservation were limited in the area. Wetlands restoration opportunities in the area are unavailable as development is limited, and existing developments are in use. Enhancement opportunities are similarly unavailable because the limited development has caused negligible degradation to wetlands and other aquatic habitats. Establishment of wetlands is not desirable as wetlands are already abundant in the area. Lastly, preservation opportunities are limited due to the land status of the area.

Because on-site and in-kind compensatory mitigation were not practical, CMP 1 focused on opportunities that benefit water quality and enhance or restore fish habitat through off-site, out-of-kind mitigation. CMP 1 noted that the potential out-of-kind mitigation opportunities within

[16] On August 15, 2018, PLP submitted questions to the District about the approach to be used for the CMP. On August 30, 2018, PLP and the District met to discuss the CMP for the Project. *See* Fueg Decl. ¶ 4.
[17] AR 5750_000210.

ED_005447B_00000011-00008 Bristol Bay/Pebble Mine Permitting Process FOIAs_Interim Release 1

the directly affected watersheds and surrounding areas included water quality improvement projects, invasive species eradication, and similar activities.[18] It also noted opportunities for fish habitat restoration in neighboring watersheds (Upper and Lower Kenai Peninsula, Lower Susitna River, Matanuska) through culvert rehabilitation and other fish passage improvements that have the potential to benefit the greater Cook Inlet watershed area.[19] Finally, CMP 1 noted that off-site wetlands mitigation would necessitate the evaluation of mitigation opportunities beyond the Hydrologic Unit Code (HUC) 10 watersheds directly impacted by the Project.[20]

The District provided very limited comments on CMP 1 in December 2018. The comments did not take issue with PLP's proposed approach of focusing on out-of-kind water quality and fish restoration projects in the larger watershed, but noted that in-kind mitigation at an off-site location should still be considered.[21] The comments did not require a functional assessment, but recommended stating how, in the absence of a functional assessment, PLP would justify that the proposed compensatory mitigation would provide sufficient offset for the lost aquatic functions.

PLP submitted a revised CMP (CMP 2) on January 11, 2019 that addressed the District's comments.[22] This draft CMP was included with the Draft EIS issued on February 20, 2019.[23]

PLP continued to refine the mitigation proposal in 2019, and submitted a third version of the CMP on July 25, 2019 (CMP 3).[24] PLP identified off-site, out-of-kind habitat restoration opportunities that would rehabilitate 35 miles of anadromous streams through the replacement of undersized or damaged culverts identified by the Alaska Department of Fish and Game (ADFG) as limiting or inhibiting fish passage. PLP noted that past District guidance (Alaska District Regulatory Guidance Letter RGL ID No. 09-01) required impacts to anadromous streams to be mitigated at a ratio of 2:1. PLP proposed rehabilitating salmon habitat at twice that – a 4:1 ratio – to account for mitigation risk, potential temporal losses, or out-of-site context.[25]

The District provided "high level" comments on CMP 3 in September 2019, noting that "credits can only be given if the culvert upgrades are not a result of non-compliance of an authorization" and that "if the culvert was authorized, it is the responsibly of the permittee to comply with the maintenance of the feature."[26] Given the age of the culverts, it would be nearly impossible to unravel their regulatory history and determine whether there is a "permittee" that could be deemed responsible for their maintenance. Thus, the District's comment brought into question the viability of using fish passage rehabilitation for the CMP.

Based on that input, PLP went back to the drawing board once again and spent significant time and resources developing additional mitigation options. On January 7, 2020, PLP submitted draft

[18] AR 5750_000210.
[19] AR 5750_000210.
[20] AR 5750_000210.
[21] AR 5750_000210.
[22] DEIS_000810.
[23] DEIS_000810.
[24] AR 9500_000615.
[25] AR 9500_000615.
[26] AR 10000_003724.

ED_005447B_00000011-00009 Bristol Bay/Pebble Mine Permitting Process FOIAs_Interim Release 1

plans for components of the CMP, including marine debris removal and culvert repairs.[27] Hearing no objection to those components, PLP sent a revised draft CMP (CMP 4) to the District for review on January 13, 2020 that included water treatment facility improvements in three communities close to the mine, marine debris removal, and culvert repairs.[28] The draft CMP was subsequently expanded to include additional analysis and appendices, and was then submitted in response to an RFI on January 27, 2020 (CMP 5).[29]

Since no on-site compensatory mitigation opportunities are available due to the Pebble site's remoteness and the lack of disturbance in the watersheds, CMP 5 continued to focus on off-site opportunities that benefit anadromous streams and water quality in the larger watersheds associated with the Project. CMP 5 identified three compensatory mitigation opportunities that were available and practicable for the Project in the larger affected watersheds:

- **Community wastewater improvement projects in Kokhanok, Newhalen, and Nondalton:** off-site, out-of-kind water quality restoration opportunities that would enhance water quality in the Bristol Bay region by improving wastewater collection and treatment systems in drainages with identified needs. Discharges from properly designed systems could improve the quality of water in poorly functioning drainages downstream of the discharges, improving regional water quality. A significant amount of work went into planning these projects, including geotechnical investigations and engineering design work. The District had specifically pointed to water quality improvement projects as a potential CMP component.[30]

- **Removing Pacific salmon fish passage barriers:** removing Pacific salmon fish passage barriers associated with undersized or damaged culverts in the Cook Inlet and Bristol Bay areas. A large amount of Pacific salmon habitat can be restored through a single fish passage improvement. The proposed plan would compensate the Project's riverine wetlands losses by rehabilitating up to 8.5 miles of streams containing Pacific Salmon habitat through replacement of undersized or damaged culverts.

- **Removing marine debris from Kamishak Bay**: removing marine debris accumulated on beaches in Kamishak Bay in Cook Inlet. Marine debris pose hazards to wildlife through entanglement and ingestion and can damage habitat. The proposal would result in the rehabilitation of 7.4 miles of coastal marine wetlands and marine habitat in Kamishak Bay.[31]

PLP's proposed combination of wastewater facility improvement projects, restoration of fish habitat, and cleanup of coastal habitats constituted a robust and practical mitigation approach that fully met Section 404's requirements. CMP 5's off-site and out-of-kind compensatory mitigation

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[27] AR 12250_000120; AR 12250_000142.
[28] AR 12500_000059.
[29] AR 12500_000377.
[30] *See* Fueg Decl. ¶ 8.
[31] AR 12500_000377.

ED_005447B_00000011-00010 Bristol Bay/Pebble Mine Permitting Process FOIAs_Interim Release 1

proposal was also consistent with mitigation proposed and approved for other major development projects in Alaska, including:

- Oil Search Alaska's CMP for oil exploration and development activity in the North Slope includes a project to improve village wastewater treatment facilities in the native village of Nuiqsut, as well as reestablishing natural hydrologic drainage patterns and fish passage to a small beaded stream and its riparian wetlands.[32]
- Alaska LNG's CMP includes wastewater treatment improvement projects.[33]
- Donlin Gold's CMP includes permittee-responsible mitigation (PRM) preservation outside of the impact watershed and far from the project site because of the lack of sufficient available mitigation bank and ILF program credits.[34]
- For the Greater Mooses Tooth Two Development Project, Alpine Satellite Development, USACE determined that mitigation in the form of avoidance and minimization measures are sufficient and compensatory mitigation is not required for the project. Nonetheless, the applicant requested USACE include, as a special condition to the permit, a project to help restore stream flow at culverts located south of the City of Nuiqsut.[35]

The District Reverses Course and Uses a Finding of Significant Degradation to Impose In-Kind, In-Watershed Mitigation Requirements

In mid-2020, the District began to raise new issues regarding the compensatory mitigation required for the Project, and ultimately sent PLP in an entirely new direction that rendered all prior work without value. While PLP was frustrated with the 180-degree turn on the CMP, PLP immediately began working on identifying preservation options in the broader area.

In June 2020, the District stated it had found the Pebble Project as proposed would lead to "significant degradation" of the Koktuli watershed based on the direct and indirect impacts, which in turn required new compensatory mitigation requirements for the Project.[36] The District explained that it had defined "significant" for purposes of its "significant degradation" determination as "more than trivial," and that its finding of significant degradation was based on a "preponderance" of significant impact findings for the (b)(1) factors.[37] The District stated the Project would impact 29% of wetlands in the watershed, but also stated that percentages or quantitative thresholds were not determinative.[38] The District recognized that its "significant

[32] U.S. Army Corps of Engineers, *Public Notice of Application for Permit POA-2015-00025* (2020), https://www.poa.usace.army.mil/LinkClick.aspx?fileticket=i8sZWq05U4Y%3d&portalid=34.
[33] Alaska LNG, *Wetlands Compensatory Mitigation Plan* (Nov. 8, 2019), https://www.poa.usace.army.mil/Portals/34/docs/regulatory/publicnotices/2019/Attachment%206%20-%20Wetlands%20Compensatory%20Mitigation%20Plan.pdf?ver=2019-12-26-182619-223.
[34] U.S. Army Corps of Engineers et al., *Donlin Gold Project Joint Record of Decision and Permit Evaluation* (Aug. 13, 2018) ("Donlin ROD"), https://www.donlingold.com/wp-content/uploads/2018/08/Donlin-Gold-Corps-BLM-Joint-Record-of-Decision.pdf.
[35] U.S. Army Corps of Engineers et al., *Proposed Greater Mooses Tooth Two Development Project Joint Record of Decision and Permit Evaluation* (Oct. 2018) ("Mooses Tooth #2 ROD"), https://eplanning.blm.gov/projects/nepa/65817/160123/195768/Record_of_Decision_with_cover_page.pdf.
[36] *See* Fueg Decl. ¶ 9.
[37] *See* Fueg Decl. ¶ 9.
[38] *See* Fueg Decl. ¶ 9.

degradation" determination was unprecedented and acknowledged that it was not aware of any other similar findings for large projects in Alaska.[39]

The District went on to state that it had identified the required mitigation needed to avoid significant degradation, that wetlands creation, restoration, and enhancement were not practicable, and that preservation at a "large ratio" in the Koktuli drainage was the path forward.[40] The District directed PLP to look at mitigation banks and ILFs for transportation infrastructure and port impacts. In addition, the District stated that the CMP should include:

- Some form of development restriction to protect the surface from industrial/commercial development, which could be conditioned around successful receipt of State permits, and

- Equivalent data to support a finding that the preservation adequately compensates for the unavoidable project impacts to waters of the U.S.[41]

In an August 20, 2020 letter, the District informed PLP that "…in-kind compensatory mitigation within the Koktuli River watershed will be required to compensate for all direct and indirect impacts caused by discharges into aquatic resources at the mine site."[42] The letter otherwise provides no guidance as to what exactly would be required, such as a mitigation ratio, and instead simply references the regulations. The letter does not state a waiver must be requested to use preservation, even though it is clear that the only type of in-kind mitigation available in the Koktuli would be preservation.

PLP poured considerable resources into meeting the District's new in-kind, in-watershed mitigation requirement. PLP worked with HDR Alaska – the leading aquatic resources consulting firm in Alaska – whose experience includes dozens of CWA-compliant compensatory mitigation plans for oil and gas, mining and other resource and infrastructure development projects in the state.[43] More than 20 wetland professionals and support staff were mobilized into a fly-in field camp in the Koktuli watershed to map wetlands and waterbodies throughout the 112,445-acre Koktuli watershed conservation area to generate the technical data required to submit a CMP that met the District's new demands.[44] More than 1,000 person-days of field work were spent gathering baseline data and other technical information regarding the area to be preserved.[45]

PLP also continued to confer with the District to confirm that the proposed mitigation area would meet the District's new requirements for in-watershed and in-kind mitigation. The District was therefore aware of the significant efforts and expenditures being made to advance the Koktuli Conservation Area plan and raised no concerns with the approach.[46]

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[39] *See* Fueg Decl. ¶ 9.
[40] *See* Fueg Decl. ¶ 9.
[41] *See* Fueg Decl. ¶ 9.
[42] AR 17250_000809.
[43] *See* Fueg Decl. ¶ 10.
[44] *See* Fueg Decl. ¶ 10.
[45] See Fueg Decl. ¶ 10.
[46] See Fueg Decl. ¶ 12.

ED_005447B_00000011-00012 Bristol Bay/Pebble Mine Permitting Process FOIAs_Interim Release 1

In a September 8, 2020 meeting, the District told PLP that the mitigation for the port and transportation route could be rolled into the Koktuli Conservation Area plan.[47] Thus, while the CMP had originally included port-specific mitigation in the form of credits, PLP dropped that component based on District guidance. PLP asked for a specific mitigation ratio requirement so that it could ensure the adequacy of the preservation proposed, and the District indicated that at least a 6.5:1 ratio would be required. However, no explanation or rationalization for that mitigation ratio was provided.

PLP submitted a preliminary draft CMP (Preliminary CMP 6) to the District on September 29, 2020 for what the District described as a "fatal flaw" review.[48] The District did not raise concerns about the sufficiency of the mitigation, including for impacts at the port site, in its verbal comments on that document. The only "fatal flaw" the District identified on Preliminary CMP 6 was that the proposed approach to secure surface tenure through a lease with the State of Alaska was not sufficient for site protection. The District also noted that additional detail should be included on monitoring, maintenance, and costs/financial assurance.[49]

PLP's November 2020 CMP (CMP 6) was compiled based on the input from the District, as well as the 2008 Compensatory Mitigation Rule, 33 C.F.R. 332, and Alaska-specific compensatory mitigation guidance. To compensate for the permanent and unavoidable impacts to aquatic resources associated with the mine site, transportation corridor, and port site, PLP proposed preservation of a 112,445-acre Koktuli Conservation Area in the Koktuli River watershed.[50] The preservation of the Koktuli Conservation Area would allow the long-term protection of a large and contiguous ecosystem that contains highly valuable aquatic and upland habitats, including 31,026 acres of aquatic resources within the national importance-designated Koktuli River watershed. Preservation of the Koktuli Conservation Area would also remove the threat to, and prevent the decline of, aquatic resources in the Koktuli River watershed from potential future actions, therefore ensuring the sustainability of fish and wildlife species that depend on these aquatic resources, while protecting the subsistence lifestyle of the residents of Bristol Bay and commercial and recreational sport fisheries. In response to the District's direction on Preliminary CMP 6, the mitigation work plan included implementation of Site Protection through a deed restriction, rather than a lease, and also included additional detail on monitoring, long-term management, and costs/financial assurance.[51]

CMP 6 explicitly covers the impacts of the port site, as well as the mine site and the transportation corridor. It describes the project as the mine site, port site, gas line and road.[52] It provides that the CMP is to compensate for "the mine site and transportation corridor," and that "[f]or the purposes of this document, the port, road corridor, and the natural gas pipeline are collectively referred to as transportation infrastructure." Direct and indirect acres of impacts from the port site are included within the transportation facility impact numbers. Finally, section

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[47] *See* Fueg Decl. ¶ 10.
[48] *See* Fueg Decl. ¶ 10.
[49] *See* Fueg Decl. ¶ 10.
[50] ROD_000193.
[51] ROD_000195-98.
[52] ROD_000247.

6 of the CMP describes how all project impacts, including transportation facility impacts, would be mitigated through preservation of the Koktuli Conservation Area.

CMP 6 includes all of the required elements under 33 C.F.R. 332:

- **Site Protection Instrument.** Provides that a Declaration of Covenants and Restrictions that establishes the conservation area would be recorded in the appropriate recording district prior to construction, and that covenants and restrictions would run with the land and prevent incompatible uses for 99 years.

- **Baseline Information.** Section 5 of CMP 6 describes the ecological characteristics of the Koktuli Conservation Area, including hydrology, wetlands and waterbodies, fish resources, Mulchatna caribou herd, and land management plans. CMP 6 also references the Pebble FEIS, which provides a detailed discussion regarding the ecological characteristics of the area.

- **Performance standards** for monitoring, enforcing, and documenting compliance of the requirements of the Site Protection Instrument.

- **Long-term Management and Monitoring.** The Koktuli Conservation Area would be monitored by PLP for 5 years following establishment of the Site Protection Instrument and for the duration of the Long-term Management Plan. Monitoring would evaluate compliance with the Site Protection Instrument through documentation of the new surface disturbances prohibited by the Site Protection Instrument.

- **Mitigation credits** were determined as a ratio of acres of wetlands and other waters impacted to acres of wetlands and other waters preserved in the Koktuli Conservation Area. The permanent placement of fill into wetlands and waters for Project infrastructure (mine site, transportation corridor and port site) would directly impact 2,179.4 acres of wetlands and other waterbodies and indirectly impact 1,470.3 acres of wetlands and other waterbodies. The Project would also directly impact 105.4 miles of streams and indirectly impact 79.6 miles of streams. PLP proposed to mitigate for these impacts through preservation of 27,886 acres of wetlands, 1,174 acres of other waters, and 814 miles (1,967 acres) of streams in the Koktuli Conservation Area. Overall mitigation ratio of about 8:1 for all impacts, including indirect.

- **Financial Assurance and Cost Data.** PLP agreed to provide a performance bond or establish an escrow account in the amount required to fund the future monitoring and long-term management costs, as well as contingency funding to address potential adaptive management requirements. Attachment B includes an estimate of these costs, which would be updated prior to provision

of the financial assurance. The total for the financial assurance was estimated at $3,190,000.[53]

CMP 6 also includes an explanation of why preservation of the Koktuli Conservation Area is appropriate for preservation under the criteria of 33 C.F.R. 332.3(h).

The District Summarily Rejects the CMP and Issues a Negative Public Interest Finding

The 129-page CMP 6 was submitted to the District on November 4, 2020. It took the District just five days to review the document and deem it "insufficient," as the memorandum documenting the District's review of the CMP was dated November 9.[54] PLP was not informed of the rejection of the CMP until it received the permit denial decision on November 25, 2020. Thus, PLP was never given an opportunity to address any of the alleged deficiencies listed by the District.[55]

The ROD also included the District's negative public interest finding and significant degradation finding, both of which assume no compensatory mitigation based on the rejection of the CMP. In addition, the ROD was issued before cooperating and consulting agencies had completed their project decisions with information and anticipated mitigation measures directly affecting issues relevant to District's decision. These decisions included the CWA 401 certification from the State of Alaska, the programmatic agreement under Section 106 of the National Historic Preservation Act, and the biological opinions from the US Fish and Wildlife Service (FWS) and National Marine Fisheries Service (NMFS).

REASONS FOR APPEAL

I. The Significant Degradation Finding is Contrary to Law and Unsupported by the Record

In June 2020, the District informed PLP that it had determined that the Pebble Project would have "more than a trivial" impact in the Koktuli watershed, which led to a finding of significant degradation for that watershed.[56] The District also found that the finding of significant degradation triggered more onerous mitigation than would otherwise be required, including requiring in-kind mitigation (preservation) at a higher mitigation ratio and within a more limited geographic scope.[57] However, a significant degradation finding runs counter to the record on this Project, the 404 regulations, and District precedent. Moreover, there is no basis or precedent for using a significant degradation finding to impose extreme compensatory mitigation requirements. Allowing such a decision to stand based on this record would create significant uncertainty for future projects in Alaska.

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[53] ROD_000216.
[54] ROD_000174.
[55] *See* Fueg Decl. ¶ 16.
[56] The ROD fails to explain the exact watershed(s) upon which the significant degradation finding is based. See the discussion on the watershed definition below at § I(C). For purposes of this RFA, we refer to the applicable watershed as the Koktuli watershed.
[57] ROD_000132.

ED_005447B_00000011-00015 Bristol Bay/Pebble Mine Permitting Process FOIAs_Interim Release 1

A. "More Than Trivial" Is Not an Appropriate Standard for Assessing Significant Degradation

The District found that the Pebble Project will cause "significant degradation" of waters of the US in the Koktuli watershed.[58] 40 C.F.R. Section 230.10(c) provides that findings of significant degradation are to be "based upon appropriate *factual determinations, evaluations, and tests*" after consideration of the factors listed in subparts C (physical and chemical characteristics such as substrate), D (biological characteristics such as fish and other wildlife), E (special aquatic sites such as wetlands) and F (human use characteristics such as recreation).[59] In other words, such a finding must be based on facts and data, not speculation.

In a June 2020 meeting, the District informed PLP that it had made a finding of significant degradation because the Pebble Project would have "more than a trivial" impact for a preponderance of the 404(b)(1) factors in the Koktuli watershed.[60] But "more than trivial" is not the correct threshold for the 404(b)(1) factors or the significant degradation determination.

While "significant" is not defined in the CWA or the 404 regulations, the District points to a 1980 preamble statement to support a "more than trivial" standard.[61] However, more recent USACE guidance and practice makes clear that USACE does not equate "significant" with "more than trivial."[62] USACE guidance instead provides that "significant" means "major": the Guidelines on Analysis of 404 Permit Applications provide that each 404(b)(1) factor should be evaluated on a continuum that includes no effect, negligible, minor, and "major (significant)" effect.[63] "More than trivial" is not one of the choices, but most closely equates to negligible or minor, while significant effects are "major" effects at the other end of the spectrum. Defining "significant" as major, rather than more than trivial, also fits with common usage: dictionaries define "significant" as "having or likely to have a major effect."[64]

USACE/EPA guidance on 404(b)(1) Alternatives Requirements provides "small discharges to construct individual driveways" an example of an activity that would constitute "trivial impacts."[65] This underscores that "trivial impacts" are extremely minor or negligible impacts. Thus, the phrase "more than trivial impacts" covers the entire continuum between trivial impacts like discharges from individual driveways and major adverse impacts that could constitute significant degradation. Put simply, the fact that a project's impacts are more than trivial does not mean they are significant.

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[58] ROD_000026.
[59] *Restrictions on Discharge*, 40 C.F.R. §230.10(c).
[60] *See* Fueg Decl. ¶ 9.
[61] ROD_000131.
[62] *See* U.S. Army Corps of Engineers, *Guidelines for [Preparation] of Analysis of Section 404 Permit Applications [Pursuant] to the Section 404(B)(1) Guidelines of the Clean Water Act*, https://www.sas.usace.army.mil/Portals/61/docs/regulatory/IP_SAS_404_b_1_Guidelines.pdf ("USACE Guidelines").
[63] USACE Guidelines, Part V.
[64] *See, e.g.*, *Significant*, American Heritage Dictionary of the English Language (5th ed. 2011).
[65] U.S. EPA et al., *Memorandum: Appropriate Level of Analysis Required for Evaluating Compliance with the CWA Section 404(b)(1) Guidelines Alternatives Requirements*, https://www.epa.gov/cwa-404/memorandum-appropriate-level-analysis-required-evaluating-compliance-cwa-section-404b1.

ED_005447B_00000011-00016 Bristol Bay/Pebble Mine Permitting Process FOIAs_Interim Release 1

Indeed, if "more than trivial" were the standard, almost every project that required an individual 404 permit would trigger a finding of significant degradation. Under Section 404(e), the USACE can issue general permits to authorize activities that have minimal adverse environmental effects.[66] In other words, once the USACE has decided an individual permit is needed, it has already determined that the impacts of the Project are more than trivial.

The context of the significant degradation standard also underscores that it cannot be based on "more than trivial" impacts. The 404(b)(1) guidelines provide that a permit will not issue if the discharge will cause significant degradation of jurisdictional waters. Neither the statute nor the 404(b)(1) guidelines contemplate that a discharge with "more than trivial" impacts would be ineligible for a permit. Instead, section 230.10(c) describes that a significant degradation finding must be based on "significantly adverse effects."[67] The fact that "significant degradation" can be a basis for permit denial means the phrase must be interpreted as requiring a level of impact that is so severe that the discharge cannot be permitted under Section 404. As discussed more fully below, that standard is nowhere near met here.

The District was clear in the June 2020 meeting with PLP that it had made the significant degradation finding based on the "more than trivial" standard.[68] Based on that low threshold, the District apparently found significance almost everywhere it looked – checking "all the boxes" as supporting a significant degradation finding in the Koktuli watershed.[69] However, the District's significant degradation finding is meaningless because it is based on "more than trivial" impacts, rather than impacts that are actually "significant." The District's interpretation of "significant" is arbitrary and unsupportable. The significant degradation finding must therefore be invalidated and remanded.

B. The Finding of Significant Degradation is Inconsistent with the Record

A finding of significant degradation is not supported by the record for the Pebble Project. In Section B2.3.1.1 of the ROD, the District checks all the boxes as supporting a significant degradation finding in the Koktuli watershed, and states that the "analysis is documented in the attached Factual Determination Matrix."[70] However, the Matrix provides very little analysis, and is mostly just a recitation of speculative impacts that "could" occur without any substantiation.[71] 40 C.F.R. Section 230.10(c) provides that findings of significant degradation are to be "based upon appropriate *factual determinations, evaluations, and tests*."[72] In other words, such a finding

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[66] *See* 33 U.S.C. § 1344(e).
[67] 40 C.F.R. § 230.10(c).
[68] *See* Fueg Decl. ¶ 9.
[69] ROD_000135. In the ROD, the District minimizes its references to the "more than trivial" standard, mentioning it only once. *See* ROD_000131. However, the District made clear in the June 2020 meeting that it had applied the more than trivial standard to make the significant degradation finding. *See* Fueg Decl. ¶ 9.
[70] ROD_000135.
[71] The only "analysis" in the Factual Determination Matrix appears to be provided in the "notes" column. But the notes included are generally terse, incomplete statements of potential "concerns" without record citations. *See* ROD_000310-513.
[72] 40 C.F.R. § 230.10(c) ("Findings of significant degradation related to the proposed discharge shall be based upon appropriate factual determinations, evaluations, and tests required by subparts B and G, after consideration of subparts C through F, with special emphasis on the persistence and permanence of the effects outlined in those subparts.").

ED_005447B_00000011-00017 Bristol Bay/Pebble Mine Permitting Process FOIAs_Interim Release 1

must be based on facts and data, not speculation. The ROD also fails to explain which factors weighed most heavily in the significant degradation finding, so the actual basis for the determination is unclear. However, the record does not support a finding of significant adverse effect for any of the factors listed as "significant" by the District, as the following examples make clear.

Fish (§ 230.31) and Recreational and Commercial Fisheries (§ 230.51). Two of the 404(b)(1) factors cited by the District as significant are impacts to fish and fisheries. The Factual Determination is short on analysis, but speculates that it is "probable that [the project] would lead to streams with lower productivity."[73] However, this is contrary to the FEIS, which does not find significant impacts to the population of fish or fish habitat in the Koktuli. The FEIS provides:

> Mine site development would permanently remove approximately 22 miles of fish habitat in the North Fork Koktuli and South Fork Koktuli drainages. *This loss of habitat is not expected to have a measurable impact on fish populations downstream of the mine site because these narrow, steep, higher-gradient streams have lower habitat values and low fish densities compared to downstream reaches.*[74]

The District also finds significant impacts to Recreational and Commercial fisheries (§ 230.51). However, the FEIS did not find significant impacts:

> The mine site would result in loss of fish habitat in the upper North and South Fork Koktuli rivers. This disturbance would not be expected to have measurable effects on the number of adult salmon returning to the Nushagak and Kvichak district (see Section 4.24, Fish Values). The mine site area is not connected to the Togiak, Ugashik, Naknek, and Egegik watersheds and is not expected to affect fish populations or harvests from these [Bristol Bay] watersheds. The mine site is not expected to affect Cook Inlet commercial fisheries.[75]

The ROD provides no new information that contradicts the FEIS's findings on fish or the fisheries. Instead, the Factual Determination Matrix provides cryptic notes regarding speculative "concerns":

> Spills of great concern; build out would amplify the issues; potential for chemical contamination/ releases of tailings as a secondary effect/cumulative effects; even without a spill, fugitive

[73] ROD_000373.
[74] FEIS_005034 (emphasis added).
[75] FEIS_004347-49.

> dust may affect use; marine and fresh secondary impacts with a spill or dust.[76]

It is difficult to decipher these notes, but they appear to focus on two primary issues: speculation on the potential impacts of a tailings spill/release and fugitive dust.[77] Neither factor was found to be a significant threat to fish in the record, however.

First, the only spill or release that could pose a risk to population levels of fish/habitat is a full catastrophic TSF failure. And the record demonstrates that the risk of a catastrophic TSF release is too insignificant to be reasonably considered under the CWA regulations.[78] The FEIS reviewed estimates of the probability of tailings dam failures, which range from one failure for every 714 dam-years to 250,000 dam-years.[79] The FEIS explains why the proposed Pebble design significantly reduces the risk of these types of failures.[80] As discussed in the FEIS, the tailings storage facilities that have been shown to be the most robust and resistant to failure are those that have periodic technical review by qualified engineers throughout the lifetime, including after closure.[81] The Alaska Dam Safety Program would require this periodic technical review throughout the life of the proposed facility.[82] Thus, the already low risk of dam failure would be further reduced by the safety measures that will be in place for the Project. After evaluating the design of each embankment, and assessing the likelihood of a wide range of potential failure modes, the probability of a full breach of the bulk or pyritic TSF tailings embankments was assessed to be extremely low, and therefore was too remote to be assessed in the FEIS.[83] The District's attempt to base its significant degradation determination on a TSF failure directly contradicts these conclusions without any justification.

Second, the Matrix mentions the potential impacts of fugitive dust on fish.[84] But the record does not reflect any material impacts to fish from fugitive dust. The FEIS finds that "Implementation of dust suppression, BMPs, and enforcement of slow speed limits at all stream crossings would minimize dust-related impacts to aquatic ecosystems during project operations and post-closure."[85] And "the concentration of metals in surface water as a result of dust deposition would not result in exceedances of the most stringent water quality criteria in baseline conditions or WTP outflow conditions."[86] Finally, Section 4.24 of the FEIS describes an analysis of impacts from dust deposition and finds that "bioaccumulation of heavy metals in the food chain would not be expected to occur from development of the mine site."[87]

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[76] ROD_000457.
[77] To the extent the finding of significance regarding fish impacts is due to the portfolio effect, that issue is addressed in § III(B)(2).
[78] *See* § III(B)(1) for further discussion of the record evidence on the TSF.
[79] FEIS_005341. One dam-year is the existence of one dam for one year.
[80] FEIS_005342-43.
[81] FEIS_005342.
[82] FEIS_005345.
[83] FEIS_005342-43.
[84] ROD_000365.
[85] FEIS_005072.
[86] FEIS_005060.
[87] FEIS_005060.

The ROD's speculation about potential impacts to fish from fugitive dust or a TSF failure are not borne out by the record. The District has failed to support its significant degradation finding with "factual determinations" regarding impacts to fish or the commercial/recreational fisheries.

Water-Related Recreation (§ 230.52). Another factor cited by the District as significant in the Factual Determination Matrix is water-related recreation impacts. The Matrix notes provide: "region is an international destination for sport fishing; Both NFK and SFK are managed for recreation."[88]

However, the FEIS found recreational use of project area watersheds to be limited and impacts from the mine site on recreation to be insignificant:

> Recreational use at the mine site is estimated to be low; use consists of some sport hunting, sport fishing, and occasional snow-machining.
>
> The acres directly impacted do not see much recreational use and the magnitude of impacts would be measured by the small number of users that would be displaced to other nearby state or federal lands where similar recreation opportunities and settings exist. . . .
>
> …the mine site and immediate surrounding area is not popular for sport hunting, fishing, and other recreation uses and potential users would be displaced to other state lands in the area with similar habitat.
>
> The mine site would be approximately 15 miles from the border of Lake Clark National Park…. Visibility from this distance would be low; therefore, the magnitude of impacts to recreation settings and experiences from increased development in a primitive setting would be low.[89]

In the Factual Determination Matrix, the District asserts that "fugitive dust may impact float use, fishing, and hunting especially in the UTC."[90] This speculation is directly contradicted by the FEIS:

> [the] magnitude of impacts from fugitive dust to recreational activities would be low because recreational activities are limited that close to the mine site. These effects would be certain if the mine is permitted and built, but implementation of dust suppression, on-site water treatment processes, and enforcement of slow speed limits at all stream crossings would minimize dust-

[88] ROD_000401.
[89] FEIS_0043221-23.
[90] ROD_000401.

ED_005447B_00000011-00020 Bristol Bay/Pebble Mine Permitting Process FOIAs_Interim Release 1

> related impacts to vegetation, water quality, and aquatic ecosystems.[91]

The Matrix also references visual/aesthetic impacts: "The project would change the area visually … Cumulative would add greater perceived and actual aesthetics impacts."[92] The distinction between "perceived" and "actual" visual impacts is unclear. Nor is it explained how visual impacts to recreational users can be significant if there are barely any recreational users due to the remoteness of the project area. As discussed above, the recreational uses near the mine site are extremely limited. The FEIS also found that mine site visual effects are limited to high elevation viewpoints, and therefore would not be significant.[93]

The District also points to recreation impacts at the Diamond Point Port in Iliamna Bay.[94] However, any such impacts are outside the Koktuli watershed and would not support a significant degradation finding in the Koktuli. Moreover, the FEIS does not identify significant recreation impacts at the Diamond Point Port, which is remote, off the road-system, and far-removed from any population centers. The FEIS provides:

> Geographic extent of effects would be *limited to a relatively small portion* of Cook Inlet. There are nearby alternate locations where such recreational activities could occur; therefore, *impacts would be low magnitude* but would be long term, lasting for the life of the project and would occur if the Diamond Point port is permitted and built.[95]

The record does not support a finding of significant adverse effect on recreation.

Suspended Particulates (§ 230.21). The Matrix lists suspended particulates as one of the factors where the impacts at the mine site were found to be significant, even after mitigation.[96] However, the FEIS indicates that such impacts to shallow groundwater at the mine site would be limited to the capture zone and thus would be treated prior to discharge:

> Concentrations of metals in shallow groundwater may also increase because of the disruption of wetlands and increased sedimentation, resulting in an increase in suspended particulates with adsorbed metals. If these effects on groundwater conditions were to occur, the effects would be in the groundwater capture

[91] FEIS_004323.
[92] ROD_000465.
[93] FEIS_004447 ("Visibility would generally be limited to high-elevation areas on Sharp Mountain and Groundhog Mountain, and the upper Stuyahok River Valley. The mine site could also be visible from higher elevations west of Lake Clark (but outside of Lake Clark National Park and Preserve)").
[94] ROD_000458.
[95] FEIS_004334.
[96] ROD_000366.

ED_005447B_00000011-00021 Bristol Bay/Pebble Mine Permitting Process FOIAs_Interim Release 1

> zone of the open pit, and all impacted water would be treated prior to discharge to the environment.[97]

The FEIS similarly found impacts to surface water quality to be insignificant, finding that with Alaska state permit conditions and mitigation "direct and indirect impacts of treated contact waters to off-site surface water are not expected to occur."[98] The FEIS also found that "dust deposition would not result in exceedances of the most stringent water quality criteria (see Table K3.18-1) when added to baseline conditions or WTP outflow conditions."[99]

None of the factors listed in the Factual Determination Matrix counter these clear conclusions from the FEIS. For example, the Matrix notes that "methylmercury occurs naturally in the project area, however whether or not sulfates discharged into receiving waters would enhance mercury methylation cannot be ruled out."[100] It is a big leap from saying an impact "cannot be ruled out" to finding it probable enough to consider under 404(b)(1), much less rating it significant. And there is no support for this speculative statement in the FEIS. In fact, the FEIS found "[a]t these low concentrations and anticipated geochemical interactions with various sorptive phases, project-related mercury loading is not expected to contribute significantly to the sulfate-induced net methylmercury production."[101]

The Factual Determination Matrix also lists dredging at the Port site as a significant impact.[102] However, any such impacts are outside the Koktuli watershed and would not support a significant degradation finding in the Koktuli. Moreover, there is no support in the FEIS for finding dredging impacts to be significant. The only effects would be from initial dredging at construction and periodic (every 5 years) maintenance dredging thereafter. These impacts are no different than those seen at ports throughout Alaska. Any effects on clarity or suspended particulates would be localized and short-lived. The FEIS provides the following:

> There would likely be a short-term (i.e., possibly days) increase in suspended sediment load in the dredging operations area during and after dredging activity….
>
> Dredged material would be placed into two bermed stockpiles in uplands north of the port facility (see Figure 2-80). Consolidation and runoff water would be channeled into a sediment pond and suspended sediments would be allowed to settle before discharge to Iliamna Bay.[103]

The FEIS also notes that the dredging at Diamond Point would be regulated by the USACE, so the District would be able to ensure future dredging impacts are minimized.[104]

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[97] FEIS_004754.
[98] FEIS_004740.
[99] FEIS_004747.
[100] ROD_000329.
[101] FEIS_002187.
[102] ROD_000357.
[103] FEIS_004674.
[104] FEIS_004682.

ED_005447B_00000011-00022 Bristol Bay/Pebble Mine Permitting Process FOIAs_Interim Release 1

The Factual Determination itself appears to acknowledge that the impacts from suspended particulates are not expected to be significant: "Suspended sediments and turbidity are expected to be short term in duration and limited in extent. Impact will not have the intensity to lower growth rates or disease tolerance."[105] The ROD cannot be reconciled with the FEIS. The District's decision is arbitrary because it fails to explain why the factor is listed as significant, or how suspended particulate impacts support a significant degradation finding.

In sum, the record does not support a finding of significant degradation in the Koktuli, or any other watershed. The Factual Determination Matrix shows that the District's approach was to find that if any impacts are theoretically possible and cannot be completely mitigated, they are significant, even if the FEIS found otherwise. The District seeks to ignore the findings of its own FEIS - a document that it developed with input from dozens of scientific experts. This approach fails to meet the regulatory requirement that findings of significant degradation must be "based upon appropriate *factual determinations, evaluations, and tests.*"[106] The District's finding of significant degradation must be reversed because it is based on speculation rather than record-based facts and data.

C. The District Overstated the Significance of the Impacts by Unduly Narrowing the Watershed Scale at the Mine Site

The significant degradation finding is also based on an arbitrary and unsupported decision to restrict the watershed scale to HUC 12 at the mine site. The ROD provides that the magnitude of the impacts at the mine site were determined based upon the HUC 12 scale.[107] Conversely, the magnitude of the impacts from the transportation corridor, port facilities, and natural gas pipeline were determined based upon the HUC 10 watersheds crossed by those components.[108] The FEIS evaluates impacts at the HUC 10 level for all project elements.[109] The ROD never explains why the District evaluated the mine site impacts at a HUC 12 level for the significant degradation determination instead of HUC 10.

This error is material because the District used the overly narrow HUC 12 watershed to drive up the "significance" of the impacts. In the Factual Determination Matrix, the District provides that "*when considered at the scale of the North Fork and South Fork Koktuli River and Upper Talarik Creek watersheds*, the impact is significant. The proposed project is going to directly convert 21% of the HUC12 to industrial use."[110] Thus, if a larger HUC were used, the significance of impacts would be less according to the District's own logic.

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[105] ROD_000489.
[106] 40 C.F.R. § 230.10(c).
[107] *See* ROD_00269 ("The proposed project is going to directly convert 21% of the HUC12 to industrial use."); *see also* ROD_000131.
[108] ROD_000131-32.
[109] *See, e.g.*, FEIS_004840 ("The relative abundance of a resource is evaluated as the percent of the total wetland and/or other water area, estimated from the National Wetland Inventory (NWI) at the hydrologic unit code (HUC) 10 watershed scale.").
[110] ROD_000269 (emphasis added).

ED_005447B_00000011-00023 Bristol Bay/Pebble Mine Permitting Process FOIAs_Interim Release 1

Although the ROD references the HUC 12 scale, it fails to explain the exact watershed(s) upon which the significant degradation finding is based. In some places, the ROD refers to the Koktuli River watershed, which extends all the way to the Mulchatna River and includes two HUC 10 watersheds (Headwaters Koktuli and Lower Koktuli).[111] In other places, the ROD refers to the North Fork and South Fork Koktuli River watersheds, but these are not officially designated USGS watersheds. In fact, each consists of two HUC 12 watersheds. For example, the North Fork Koktuli watershed is the combined area of the Groundhog Mountain HUC 12 and an unnamed HUC 12 (19030321104).[112] In a few places, the ROD also references the Upper Talarik Creek watershed, but that is a separate HUC 10 and the basis for its inclusion is unclear, as there is very little Project footprint in that watershed and compensatory mitigation was not required there.[113] On page B3-10, the ROD references significant degradation of the Bristol Bay Watershed.[114] However, this appears to be an outlier, as the District informed PLP that the significant degradation finding was based on the Koktuli watershed, and most ROD references related to that finding are regarding the Koktuli.

As noted, the Factual Determination finds that "The proposed project is going to directly convert 21% of the HUC12 [wetlands] to industrial use."[115] While the document does not identify which HUC 12 it is referencing with regard to the 21%, the only plausible watershed is the Groundhog Mountain HUC 12, where direct impacts would constitute about 19.8% of total wetlands.[116] Therefore, it appears the significant degradation finding is based on the Groundhog Mountain HUC 12 watershed.

However, as explained below, USACE guidance and District precedent is to evaluate watershed impacts at the HUC 10 level. The FEIS adheres to this approach, analyzing mine site impacts in the context of the two HUC 10 watersheds affected (Headwaters Koktuli River and Upper Talarik Creek).[117] In fact, the FEIS does not evaluate wetland impacts at the HUC 12 level at any point in the document. The FEIS analysis concludes that the mine site's directly impacted wetlands would constitute 6% of the total wetland area in the Headwaters Koktuli River HUC

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[111] *See, e.g.*, ROD_000119 ("Therefore, the District has determined that in-kind compensatory mitigation within the Koktuli River watershed would be required to compensate for all direct and indirect impacts caused by discharges into aquatic resources at the mine site.").

[112] *See* Ex. 2 (Map of HUC 12s around mine site). Exhibit 2 shows the mine site's location in relation to the area HUCs from the USGS Watershed Boundary Dataset (https://www.usgs.gov/core-science-systems/ngp/national-hydrography/watershed-boundary-dataset). Because the FEIS only assessed impacts at the HUC 10 level, the map in the FEIS includes only HUC 10s.

[113] *See, e.g.*, ROD_000131 ("The magnitude of the impacts at the mine site were determined based upon the scale of the North Fork and South Fork Koktuli River and Upper Talarik Creek watersheds."). However, the FEIS found the impacts in the UTC to be insignificant: "The [wetlands] analysis area for the [] mine site (11,937 acres) is predominantly in the Headwaters Koktuli River watershed, with a smaller portion in the UTC watershed." FEIS_003471.

[114] ROD_000148 ("However, the proposed project has been determined to cause significant degradation to the ARNI (the Bristol Bay Watershed) as documented in the 404(b)(1) Guidelines analysis. The direct, indirect and cumulative effects of the project would change the unique, generally unadulterated qualities of the Bristol Bay watershed.").

[115] ROD_000269.

[116] The ROD does not explain the basis for the 21% value, nor was PLP able to recreate it with available data. PLP collected field-verified wetlands data for over 99.9% of the Groundhog Mountain HUC 12 watershed, identifying 9,385 acres of wetlands/other waters. The project will directly, permanently impact 1,858 acres of wetlands/other waters in this HUC 12 watershed, or 19.8%. See FN 118 for discussion of best available wetlands data.

[117] FEIS_003474.

10.[118] Further, had USACE considered the additional detailed mapping for this watershed submitted with the CMP, the affected percentage would drop to 4.8% of the wetland area.[119]

The District has failed to explain why the HUC 12 level was utilized in the ROD, especially in this remote Alaskan context. The use of the larger watershed scale in less developed areas of Alaska is explicitly recognized as appropriate under the Alaska MOA:

> Watershed Scale. Certain environmental factors in Alaska suggest that larger watershed scales than are commonly used in the lower 48 states may be appropriate. These factors include, but are not limited to: (1*) large areas where wetlands remain relatively free from human alteration and opportunities for wetland restoration and enhancement are limited*; and (2) large wetland dominated areas where there is a lack of upland sites appropriate for establishing wetlands.[120]

It is undisputed that the Pebble Deposit is in a large area "where wetlands remain relatively free from human alteration and opportunities for wetland restoration and enhancement are limited."

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[118] FEIS_003474.

[119] PLP reviewed calculations in the FEIS that state PLP's direct, permanent impacts to wetlands/other waters within the Headwaters Koktuli (HK) HUC 10 watershed amount to 6% of that watershed. This value overstates the impact as a percentage of the entire watershed because it fails to use best available/high quality data. In summary, the FEIS and ROD rely on National Wetlands Inventory (NWI) mapping to establish the total wetlands/other waters acreage in the HK watershed. NWI data for the HK watershed is not a reliable data source for detailed analyses. It is a coarse dataset that relies, in part, on remote sensing data collected more than 40 years ago (1978). It is typically used only when no other data source is available. The FEIS determined that 2,158 acres of wetlands/other waters would be directly, permanently impacted in the HK watershed. This is reported in Table 4.22-3 and agrees with the underlying GIS data. PLP used the same value in its calculations. The FEIS applied this value against the total NWI reported acreage in the watershed (36,458) to arrive at 6%. PLP collected highly detailed wetlands mapping for the HK watershed. Prior to the FEIS, wetlands mapping covering 87% of the HK watershed was provided to the District and AECOM. With the final CMP, PLP submitted detailed wetlands data for nearly all of the remaining portion of the HK. In total, PLP has provided detailed mapping for 99.7% of the full watershed. (The remaining 0.3% results from discrepancies in the watershed boundaries used for analysis.) PLP data show 44,625 wetland/water acres in the HK (44,702 with NWI gaps). Thus, the prevalence of wetlands/waters is 23% higher than reported in the NWI. The correct percentage of the HK watershed impacted is therefore 4.8%.

This table shows the calculations for the HK watershed assuming 2,158 acres directly impacted:

	Total Area		**Mapped Wetlands**	**Impact Percentage**
Best Available Data	**Acres**	**%**	**Acres**	**%**
PLP (field-verified)	170,105	99.7%	44,625	4.8%
NWI	527	0.3%	77	0.0%
	170,632		**44,702**	**4.8%**

[120] 2018 Alaska MOA at 5 (emphasis added).

ED_005447B_00000011-00025 Bristol Bay/Pebble Mine Permitting Process FOIAs_Interim Release 1

The 2018 Alaska Mitigation Thought Process document (a guidance document that the District specifically provided to PLP[121]) also directs that HUC 10 or larger may be used for such remote locations:

> As a starting point, all project managers should review the 10 digit watershed for the purposes of cumulative impacts and the determination of compensatory mitigation. There are reasons for expanding or reducing the area of analysis from the 10 digit HUC. For example, in populous areas such as the Municipality of Anchorage, it may not be possible to determine project impacts caused by a particular discharge at the 10 digit HUC level due to other activities and/or development within that same sub-watershed. In that instance, a project manager should review the 12 digit HUC (*this should be an exception, not a standard*). In extreme cases, the project manager may determine that it is only possible to identify specific project direct, indirect, and cumulative impacts at the individual reach level due to multiple overlapping impacts within the watershed. *In instances where the project is located in a more rural area without interference from other impacts, the project manager may expand the analysis to the 8 digit HUC.*[122]

Thus, the use of HUC 12 is the exception in Alaska, and is only appropriate for urban, developed areas like Anchorage. As discussed below, HUC 10 is the usual scale used to assess impacts and the adequacy of compensatory mitigation for projects outside the Anchorage or North Slope areas.[123] For remote, undeveloped areas like the Pebble location, the District is instructed to use a larger HUC, such as HUC 8 or 10.[124] For Pebble, however, the District acted in direct contradiction to the USACE guidance and the precedent established by other large rural projects, imposing the narrow HUC 12 scale despite the remote context of the Pebble Deposit. The District's determination to rely on the HUC 12 scale for assessing impacts and imposing compensatory mitigation requirements is arbitrary and renders the permit decision invalid.

D. The Significant Degradation Finding Was Improperly Used to Drive Unprecedented Compensatory Mitigation Requirements

The District has admitted that to the best of its knowledge, there has never been a finding of significant degradation in Alaska, even for major projects.[125] The USACE's consistent approach is to consider all mitigation, including compensatory mitigation and state-imposed conditions

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[121] See Fueg Decl. ¶ 17.
[122] *Alaska Mitigation Thought Process* at 9 (emphasis added).
[123] *See, e.g.*, Donlin ROD at 6-12 ("All four restoration projects are located in the same 10-digit HUC watershed as the majority of the permanent aquatic resources impacts from the Project.").
[124] *Alaska Mitigation Thought Process* at 9.
[125] *See* Fueg Decl. ¶ 9.

ED_005447B_00000011-00026 Bristol Bay/Pebble Mine Permitting Process FOIAs_Interim Release 1

under 401,[126] before concluding whether "significant degradation" will occur in the final permit decision. The District's approach of issuing a preliminary significant degradation determination during the permit process, and then relying on that determination to both drive up the compensatory mitigation ratio required and restrict the watershed scope available for mitigation opportunities is completely unprecedented and runs counter to the compensatory mitigation policy established for Alaska.

The following are examples of how the District addressed the 404(b)(1) factors and significant degradation determination for other major projects in Alaska without imposing undue restrictions on compensatory mitigation:

- **Ambler Road (2020).**[127] Using the HUC 10 watershed scale, the District determined that mitigation in the forms of avoidance and minimization was sufficient, and compensatory mitigation was not required. The applicant nonetheless proposed two voluntary water quality or fish habitat improvement projects, which the District included as special conditions.[128]

- **Greater Mooses Tooth #1 (GMT-1) (2015).** The District's evaluation of the 404(b)(1) factors emphasized the special conditions and the applicant's mitigative measures to conclude that the discharge would be "in compliance" with each relevant guideline. The District found that after consideration of "all appropriate and practicable steps to minimize pollution or adverse effects to the affected ecosystem, and … appropriate and practicable discharge conditions" that the discharge would not "[c]ontribute to significant degradation of waters of the U.S."[129] The CMP plan included off-site preservation of 342 acres to mitigate for 72 acres of direct impacts, or roughly 5:1 mitigation (less if indirect impacts are accounted for).

- **Alaska Stand-Alone Pipeline (ASAP) (2019).**[130] The District's assessment of compliance with the 404(b)(1) factors for ASAP (Appendix I2) evaluates impacts using terms such as "moderate" or "low" or "minor", thus recognizing the continuum of impact levels below "significant." Even though some impacts were found to be "moderate," and thus above trivial, the District still found no significant degradation for the ASAP Project. For the CMP, AGDC identified Cape Halkett for PRM preservation, even though Cape falls outside the 12-, 10-, and 8-digit HUCs of ASAP impacts. The District nonetheless

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[126] As discussed below at § IV(C), in this case the District issued the ROD before the 401 process was complete. Therefore, the conditions that would have been imposed under the 401 process were not included in the District's decision, leading to overstated impacts to water quality.
[127] U.S. Army Corps of Engineers, *Ambler Road Joint Record of Decision* (July 2020) ("Ambler Road ROD"), https://eplanning.blm.gov/public_projects/57323/200091317/20022329/250028533/Ambler%20Road%20Record%20of%20Decision.pdf.
[128] *See* Ambler Road ROD App. G.
[129] U.S. Army Corps of Engineers, ConocoPhillips Alaska, Inc. POA-2013-461 Record of Decision at 5.9.5 (Jan. 16, 2015), https://www.poa.usace.army.mil/Portals/34/docs/regulatory/issuedpermits/POA2013461ColvilleRiverRecordofDecisionGMT.pdf.
[130] ASAP Joint ROD, (March 4, 2019), https://www.poa.usace.army.mil/Media/News-Releases/Article/1774938/corps-blm-issue-federal-approval-for-natural-gas-pipeline-in-alaska/.

ED_005447B_00000011-00027 Bristol Bay/Pebble Mine Permitting Process FOIAs_Interim Release 1

found that the preservation at Cape Halkett would "fall within the ubiquitous North Slope wetlands complex and is available for preservation, and meets the objectives of preserving western ACP wetlands functions that are under threat from development. This approach is consistent with USACE/EPA joint guidance (USACE/EPA 2018) regarding mitigation for impacts to wetland areas in Alaska."

- **Greater Moose's Tooth #2 (GMT-2) (Joint USACE/BLM ROD 2018).** The ROD for GMT-2 evaluates the "nature and degree" of the effects under each 404(b)(1) factor.[131] The District follows the approach in GMT-1 by describing the nature of impacts and then drawing a conclusion that based on consideration of special conditions and mitigation, there is "compliance" with the guideline. A HUC 10 size was utilized for watershed analysis.[132] The District determined that mitigation in the form of avoidance and minimization measures were sufficient and that no compensatory mitigation was required. Nonetheless, the applicant requested a special condition to require a project a stream restoration project using a 1:1 ratio.[133]

- **Donlin Gold (August 2018)**. In Donlin, EPA provided information that significant degradation could occur to the Kuskokwim River from barging and to Crooked Creek because of permanent modifications in the watershed.[134] The District concluded that while there would be impacts to the Kuskokwim River, with implementation of a rainbow smelt monitoring program, barge communication program, and the Donlin Advisory and Technical Review and Oversight Committee, there would be no significant degradation of the Kuskokwim River. Similarly, the District concluded that while there would be impacts to Crooked Creek, with stipulation of permit conditions established by the State of Alaska under 401, implementation of the Aquatic Resources Monitoring Plan, and the availability of actions to reduce unexpected flow loss, there would be no significant degradation of Crooked Creek. Based on these determinations, the District found "With Applicant design features and inclusion of special conditions, the proposed Project would comply with this factor of the Guidelines."[135]

  The District required compensatory mitigation for permanent loss of 2,877 acres of wetlands, 3 acres of fill below the ordinary high water mark of the Kuskokwim River, and 175,316 linear feet of streams.[136] Donlin's CMP includes purchasing 9.8 released credits from an In-Lieu fee provider; restoring 92.95 acres of wetlands, 8,982 linear feet of streams, and 16.8 acres of riparian buffer; and preserving a total of 3,425.75 acres of wetlands, 271,074 linear feet of streams and 2,243.9 acres of riparian buffer.[137] The preservation area was located approximately 250 miles from the mine site. The mitigation ratio utilized was roughly 2:1.

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[131] Mooses Tooth #2 ROD at D.2.1.2.
[132] Mooses Tooth #2 ROD at D5.
[133] Mooses Tooth #2 ROD at 6.0.
[134] *See* Donlin ROD.
[135] Donlin ROD at B2-13.
[136] Donlin ROD at 6.2.5.
[137] Donlin ROD at 6.2.6.

ED_005447B_00000011-00028 Bristol Bay/Pebble Mine Permitting Process FOIAs_Interim Release 1

- **Point Thomson (2012).**[138] For the Point Thomson project, the District found that impacts would range "from minor and temporary" to "major and long term," but that "none of the impacts identified would cause or contribute to significant degradation of WOUS."[139] The District also found that "with the inclusion of the mitigation measures identified by the applicant as part of the proposed project and additional mitigation measures, in the form of special conditions[], the proposed project would not cause or contribute to significant degradation of the waters of the U.S. … this conclusion also considers all actions to minimize adverse impacts, including those proposed by the applicant in the Environmental Mitigation Report and additional measures considered by the Corps."[140] The CMP required a total of 1,115.6 credits to be purchased from an ILF, based on a 3:1 ratio.[141]

The above examples demonstrate that the District's consistent approach is to evaluate the 404(b)(1) factors on a continuum from negligible to significant impacts, and that "more than trivial" impacts is not the standard used to determine whether "significant degradation" will occur. In addition, the District consistently allows out-of-watershed, out-of-kind mitigation where in-kind or in-watershed mitigation is not practicable. In fact, PLP could identify no examples where the applicant was limited to in-kind mitigation in a very narrowly defined watershed, or was required to use ratios as high as 6.5-10:1, as the District suggested would be necessary for Pebble. The USACE's consistent approach is also to consider all mitigation, including compensatory mitigation and state-imposed conditions under 401, before concluding whether "significant degradation" will occur. In this case, the District made an unprecedented significant degradation finding, used the finding to trigger in-kind mitigation requirements in a very narrow watershed, knowing that this resulted in the only option being preservation of state-owned lands. PLP scrambled to meet these unprecedented requirements, only to have the CMP summarily rejected on specious grounds without any opportunity to address the alleged deficiencies. Using a finding of significant degradation to impose unreasonably restrictive compensatory mitigation requirements is entirely inconsistent with District practice and policy. As discussed more fully below, it also flies in the face of the guidelines established by EPA and the USACE for compensatory mitigation in Alaska.

E. The Finding of Significant Degradation is Contrary to USACE Guidance

EPA, USACE and the State of Alaska have for decades stressed that 404 permitting requirements must be applied flexibly in Alaska in recognition of the abundant, and largely intact, aquatic resources of the state. For example, the 2018 MOA between EPA and the USACE, and the decades of Alaska-specific policies that preceded it, specifically recognize that mitigation requirements must be applied flexibly in Alaska given the abundance of wetlands:

> Given the unique climatological and physiographic circumstances found in Alaska, it is appropriate to apply the inherent flexibility

[138] U.S. Army Corps of Engineers, *Point Thomson Development Project Record of Decision* (Oct. 19, 2020) ("Point Thomson ROD") at 106-07, https://www.poa.usace.army.mil/Portals/34/docs/regulatory/PtThomsonRODOct2012.pdf.
[139] Point Thomson ROD at 79.
[140] Point Thomson ROD at 107.
[141] Point Thomson ROD at 131.

ED_005447B_00000011-00029 Bristol Bay/Pebble Mine Permitting Process FOIAs_Interim Release 1

> provided by the guidelines to proposed projects in Alaska. Applying this flexibility in a reasoned, commonsense approach will lead to effective decision-making and sound environmental protection in Alaska.[142]

The MOA recognizes guiding principles that are specific to Alaska, including:

- Compensatory mitigation options over a larger watershed scale may be appropriate given that compensation options are frequently limited at a smaller watershed scale;
- Out-of-kind compensatory mitigation may be appropriate when it better serves the aquatic resource needs of the watershed.[143]

Contrary to this guidance, the District refused to consider out-of-kind mitigation and reduced the watershed scale to HUC 12 at the mine site. The District's refusal to apply the flexibility allowed under the 2018 Alaska MOA and to impose a more stringent standard on the Pebble Project sets a dangerous precedent that effectively precludes development, even on state lands that were specifically designated for mineral development. This new, more stringent standard reverses years of work by the state, the USACE and EPA to ensure a reasonable path forward for future development projects in Alaska. Given the abundant, largely intact wetlands throughout Alaska, the challenges regarding 404 permitting in Alaska are in no way unique to the Pebble Project, or even the Bristol Bay Region. The District's attempt to hold the Pebble Project to a stricter standard on significant degradation and compensatory mitigation sets a precedent that could impact development throughout the state. The District asserts that "there are many valid mining claims in the area, and these lands would remain open to mineral entry and exploration."[144] But the District's decision in this case has established a new, more stringent standard that creates significant uncertainty as to whether any mineral development is permittable, particularly in this area.

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A finding of significant degradation for Pebble is unprecedented and indefensible. The District's "more than trivial" test has no basis in the regulations or USACE precedent. In addition, a finding of significant degradation in the Koktuli watershed is not supported by the record. Using a finding of significant degradation based on speculative impacts to impose burdensome compensatory mitigation sets a dangerous new precedent that could be used against future development throughout Alaska. The significant degradation finding must therefore be invalidated and remanded.

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[142] 2018 Alaska MOA at 3.
[143] 2018 Alaska MOA at 2-3.
[144] ROD_000016.

ED_005447B_00000011-00030 Bristol Bay/Pebble Mine Permitting Process FOIAs_Interim Release 1

II. The District's Rejection of the CMP is Contrary to USACE Regulations and Guidance

A. The CMP was Improperly Rejected Without Providing PLP an Opportunity to Correct the Alleged Deficiencies

As described above, PLP spent significant time and resources to meet the District's unprecedented, last-minute demand for in-kind, in-watershed mitigation. But within days after submitting its CMP, the District rejected it as "incomplete" without giving PLP an opportunity to address the alleged gaps. Although the ROD presents the CMP deficiencies as "fatal," none of these issues were so identified by the District in their "fatal flaw" review of the Preliminary CMP just over one month prior.[145] Moreover, many of the alleged deficiencies are technicalities or minor issues that could have easily been addressed, and some were based on prior direction by the District. For example, as discussed below, the District's position that PLP erred in failing to seek waiver for use of preservation is baseless, as the District effectively *directed* PLP to rely on preservation. Some of the alleged deficiencies were also in error, as PLP could have explained if given a chance. For example, the District rejected the CMP for failing to include mitigation at the Port. However, the CMP clearly included the port impacts, as discussed below.

PLP was given no opportunity to address the issues raised, even though the record demonstrates that PLP had been more than willing to work with the District to address compensatory mitigation.[146] This procedural failure alone requires the District's decision to be invalidated. The permit decision should be remanded with instructions to provide the applicant an opportunity to rebut the alleged deficiencies or to revise its mitigation proposal as appropriate, and instructing the District to factor the compensatory mitigation into a revised permit decision.

B. The Alleged CMP "Deficiencies" are Baseless

1. Port Site Mitigation

The District alleges that "[n]o compensatory mitigation was proposed by the applicant to offset impacts from the port site."[147] However, the proposed mitigation in the CMP clearly included the port impacts. On the very first page, the CMP states "[f]or the purposes of this document, *the port*, road corridor, and the natural gas pipeline are collectively referred to as transportation infrastructure."[148] Directly thereafter the CMP provides that the proposed mitigation is to compensate for "the mine site and transportation corridor." The CMP therefore included the port site as part of the transportation corridor, and impacts from the port site are included within the transportation facility impact numbers.[149] Section 6 of the CMP describes how all project impacts, including transportation facility impacts, would be mitigated through preservation of the Koktuli Conservation Area.[150]

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[145] *See* Fueg Decl. ¶ 14.
[146] Rather than responding to all of the District's comments on the CMP in the main body of this document, PLP has attached a matrix that includes all of the District's comments and PLP's brief responses. *See* Exhibit 3.
[147] ROD_000308.
[148] ROD_000187.
[149] ROD_000187.
[150] ROD_000207.

ED_005447B_00000011-00031 Bristol Bay/Pebble Mine Permitting Process FOIAs_Interim Release 1

Moreover, prior versions of the CMP had included port-specific mitigation in the form of credits, which were removed based on the District's direction that all project mitigation could be covered by the Koktuli Conservation Area plan. In a September 8, 2020, meeting, the District told PLP that the mitigation for the port and transportation route could be rolled into the Koktuli Conservation Area plan.[151] Thus, while the initial plan was to include port-specific mitigation credits, PLP dropped that component based on the District's direction. In addition, PLP submitted a Preliminary CMP to the District on September 29, 2020, for what the District described as a "fatal flaw" review.[152] The District did not raise concerns about mitigation for port site impacts during that review. Based on the District's direction, mitigation for the port was ultimately included with the preservation package in the revised CMP. But the record clearly demonstrates that PLP had proposed, and was willing to undertake, separate mitigation for the port site. If the District had simply informed PLP that it had changed its mind and that port-specific mitigation credits were still needed, PLP would have added that component back in to the CMP. Instead, the District pulled a "gotcha" – rejecting the CMP based on the lack of separate port-specific mitigation after telling PLP such separate mitigation was not required.

2. Preservation Waiver

The District asserts that a waiver by the District Engineer is required since preservation is the sole form of compensatory mitigation in the CMP.[153] However, a preservation-only CMP was required based on the District's direction in its August 20, 2020 letter, which stated that "in-kind compensatory mitigation within the Koktuli River Watershed will be required to compensate for all direct and indirect impacts caused by discharges into aquatic resources at the mine site."[154] Since it was well understood that opportunities for wetland restoration, creation or enhancement would not be reasonable due to existing conditions within the Koktuli watershed, the only option left open by the District's August 20 letter was a preservation CMP. The August 20 letter thus documented that the District had already decided that preservation was the appropriate mitigation.

The District fails to explain why PLP would need to specifically request a waiver after having been informed that preservation was required for compensatory mitigation. Moreover, the issue of a specific waiver request was not raised in the District's "fatal flaw" review of the Preliminary CMP. In other words, PLP informed the District of the plan to rely solely on preservation, and the District did not object or suggest a specific waiver request was needed.

In addition, the regulations do not require that an applicant specifically *request* a waiver for a preservation-only CMP, instead providing:

> Where preservation is used to provide compensatory mitigation, *to the extent appropriate and practicable* the preservation shall be

[151] *See* Fueg Decl. ¶ 13.
[152] *See* CMP 6.
[153] *See* ROD_000308. It is unclear whether this alleged deficiency would have been cured by the inclusion of the port-specific mitigation credits discussed above. As noted however, PLP had demonstrated its willingness to include port -specific credits if needed, so summarily rejecting the CMP on that basis was arbitrary.
[154] AR 17250_000809.

ED_005447B_00000011-00032 Bristol Bay/Pebble Mine Permitting Process FOIAs_Interim Release 1

> done in conjunction with aquatic resource restoration, establishment, and/or enhancement activities. This requirement *may be waived by the district engineer where preservation has been identified as a high priority using a watershed approach described in paragraph (c) of this section*, but compensation ratios shall be higher.[155]

The regulations thus provide that the District can issue a waiver, without a specific request from the applicant, where preservation has been identified as a high priority using a watershed approach. That is exactly what occurred here – the District directed PLP to use preservation based on a watershed approach.

Moreover, the CMP contains more than sufficient information to demonstrate the appropriateness of preservation. 33 C.F.R. Section 332.3(h)(1) provides the criteria for when preservation may be used, and each is specifically addressed on pages 3 and 4 of the CMP.[156]

To the extent a waiver request was necessary, the CMP therefore provides the basis for the request. The ROD does not explain why the CMP's discussion of those factors is not sufficient to substantiate a waiver. Finally, if PLP had somehow failed to invoke the magic words necessary to obtain a waiver, the District should have so informed PLP with an opportunity to address that "gap" rather than summarily rejecting the CMP on that basis.

3. Level of Detail and "Missing" Documentation

The District vaguely asserts the CMP's "level of detail . . . is not commensurate with the scale and scope of the impacts."[157] However, the detail required in a preservation-only CMP is significantly less than one based on restoration or enhancement. For example, out-of-kind restoration like waste water treatment plant modifications may require significant detail to explain the existing status and conditions, the technical rehabilitation and improvement work proposed, and how the work will result in improved water quality. Preservation is a simpler mechanism that requires less explanation – the conservation area is being preserved from future disturbance to protect existing aquatic resources. While the scale of PLP's proposed preservation project is large, the fundamental details of the preservation-only plan are no different than for a smaller site – that is, what is the ecological value of the site, how is it threatened, and how the site will be protected and monitored. Furthermore, PLP's CMP does not skimp on facts or detail – the 129-page CMP contains significant information and technical details, including all of the elements required under the regulations.

The appendices to the CMP offer even greater detail. For example, the CMP includes a Koktuli Conservation Area Wetlands and Waterbodies Delineation Report, which describes and delineates aquatic resource boundaries within the entire 112,445-acre conservation area.[158] This comprehensive mapping was completed following the same protocols and level of mapping

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[155] 33 C.F.R. 332.3(h)(2) (emphasis added).
[156] ROD_000189-90.
[157] ROD_000308.
[158] ROD_000235.

ED_005447B_00000011-00033 Bristol Bay/Pebble Mine Permitting Process FOIAs_Interim Release 1

detail as performed for Pebble Project impact sites. PLP also proposed to develop additional information by performing a boundary and baseline survey prior to construction, as outlined in Section 10 of the CMP.[159] There are sound reasons the survey would follow later in time - it would take several years for PLP to complete the state permitting process before construction could begin. It therefore would be more appropriate to complete the survey work closer to construction, when the site protection instrument would be implemented. If the full survey work were conducted now, years before a site protection enforcement mechanism was in place, baseline conditions could change prior to establishing the preservation area. For example, someone could build a trespass cabin or runway. Moreover, the baseline survey information would not change the terms of compliance for site protection, and therefore is not required for approval of the CMP.

It is standard practice within the District to allow such work to follow the permit decision, as long as it is completed prior to construction. For example, for the Donlin project, the approved CMP provided that the applicant would develop a fish monitoring plan that would include monitoring "initiated before the start of construction to continue to provide baseline data, as needed."[160] Similarly here, PLP's plan to complete the baseline survey work after the permit decision, but prior to construction, did not render the CMP incomplete. Moreover, the sufficiency of the baseline data was not questioned in the District's "fatal flaw" review of the Preliminary CMP.

The District also faults the CMP for failing to submit certain land use plans, even though the plans are public, readily-available documents that the District regularly references. For example, the District asserted that the failure to provide "the management plan the State uses for this property" rendered the CMP insufficient.[161] However, the CMP is clear that the State land within the proposed Koktuli Conservation Area (KCA) is managed by the Alaska Division of Mining, Land, and Water as either mining, wildlife/habitat protection, or undesignated.[162] And the District is well aware that the management of State land in the Bristol Bay region is directed by the publicly available Bristol Bay Area Plan.[163] In fact, the District cites this document in the PIR analysis: "The State of Alaska's Bristol Bay Area Plan identifies portions of the mine area as designated for mineral development."[164]

The District also asserts the Nushagak River Watershed Traditional Use Area Conservation Plan (NRWTUA) referenced in the CMP "is not compliant with the watershed approach and therefore cannot be relied upon as the sole document."[165] This issue was not raised by the District in their "fatal flaw" review of the Preliminary CMP, and the basis for the terse comment is unclear. The NRWTUA is a publicly available document prepared by the Nature Conservancy under guidance

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[159] ROD_000211.
[160] Donlin Gold, *Compensatory Mitigation Plan* at 65 (July 2018), https://www.arlis.org/docs/vol1/E/Donlin/1066697613/1066697613-Att-B5.pdf.
[161] *See* ROD Attachment, *Pebble Project Compensatory Mitigation Plan Review and Determination of Compliance* at 9 (cmt.) ("CMP Comments") (Nov. 9, 2020).
[162] ROD_000195.
[163] *See* Alaska Dep't of Natural Resources, *Bristol Bay Area Plan for State* Lands (Sept. 2013), http://dnr.alaska.gov/mlw/planning/areaplans/bristol/2013/pdf/bbap_amend2013_complete.pdf.
[164] ROD_000549.
[165] CMP Comments at 5 (cmt.).

ED_005447B_00000011-00034 Bristol Bay/Pebble Mine Permitting Process FOIAs_Interim Release 1

from the Nushagak-Mulchatna Watershed Council and the Bristol Bay Native Association, and was funded by the U.S. Fish and Wildlife Service.[166] The plan inventories habitat, terrestrial mammals, birds, fish, and subsistence resources, as well as recreational and commercial fisheries. The plan targets key conservation areas within the watershed, describes potential threats, and recommends strategies to protect the key conservation areas. The NRWTUA clearly identifies the importance of preserving portions of the headwater rivers of the Nushagak Drainage and salmon habitat throughout the drainage, exactly as proposed with the Koktuli Conservation Area. Moreover, the NRWTUA was far from the "sole document" used to support the CMP.

4. Performance Standards

The District faults the CMP for failure to include ecological performance standards, such as a functional assessment.[167] However, in the over three-year permitting process, the District never suggested a functional assessment was necessary, much less how it would be accomplished. In 2013, years before an application was even filed, PLP inquired about potential functional assessment methodologies that could be applied to Pebble.[168] The District responded in 2014, noting that there was no methodology approved for Alaska.[169] The District had already approved the acres method of assessment for impacts at the mine site, and this method was simply carried over for the CMP. For consistency with the FEIS impacts analysis, and based on the unimpacted nature of the proposed preservation area, the metric of acres is used in the CMP as an ecological performance standard. The CMP also includes acres of regionally important wetlands protected under the CMP for consistency with the FEIS.[170] No concerns with this approach were raised by the District prior to the ROD, including in their "fatal flaw" review of the Preliminary CMP. Therefore, the District knew all along that acres would be used as a metric instead of a functional assessment and never raised any concerns until the ROD.

Using acres as a performance standard is consistent with 33 C.F.R. Section 332.5, which provides "[t]he approved mitigation plan must contain performance standards that will be used to assess whether the project is achieving its objectives … so that the project can be objectively evaluated to determine if it is … attaining any other applicable metrics (e.g. acres.)."[171] The Preamble to the 2008 Rule states that "[p]erformance standards will vary by aquatic resource type and geographic region" and "must be developed on a project-by-project basis."[172] Because no functional assessment methodology had been approved, PLP was forced to rely on other means for valuation. Based on the unprecedented scale of the KCA preservation project, and the unimpacted nature of the preserved wetlands, acres are an appropriate metric for ecological performance. Moreover, as described above, the use of undisturbed aquatic resource acres as an

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[166] *See* Nushagak-Mulchatna Watershed Council, *Nushagak River Watershed Traditional Use Area Conservation Plan* (2007), https://www.nature.org/content/dam/tnc/nature/en/documents/nushagak-river-watershed-traditional-use-area-conservation-plan.pdf.
[167] ROD_000308.
[168] *See* n.8, *supra*.
[169] *See* n.8, *supra*.
[170] ROD_000201.
[171] 33 C.F.R. § 332.5.
[172] 73 Fed. Reg. 19594, 19643 (April 10, 2008).

ED_005447B_00000011-00035 Bristol Bay/Pebble Mine Permitting Process FOIAs_Interim Release 1

ecological performance standard is consistent with the District's evaluation of aquatic resource impacts at the Project site.

The District has found that a functional assessment is not necessary, and that acres are an appropriate substitute, in other Alaska project decisions. For example, the recently-issued Ambler Road ROD provides: "The implementing regulations do not require that a functional assessment be used to evaluate a permit application nor to determine compensatory mitigation…When no functional assessment is available …, other measures such as acres, may need to be used."[173]

The District's allegation that the CMP's performance standards are "not compliant" is therefore baseless.

5. Monitoring

The District found the plan to monitor every five years to be inadequate.[174] But the five-year schedule is based on the lack of expected change in the remote KCA area, balanced with safety considerations and an attempt to minimize noise disturbance from helicopter-supported site visits. The CMP makes clear that very little change in aquatic resource conditions is expected during the monitoring period, or during subsequent long-term management.[175] Given that little change is expected, monitoring every five years is appropriate and would minimize impacts to the KCA by reducing flyovers.[176] Nonetheless, if USACE had provided comments on this issue prior to rejecting the CMP, PLP could have adjusted the proposed schedule of monitoring activities as necessary.

6. Site Protection Instrument

In a cryptic comment, the District suggests that "permanent protection" with rights held by third parties through a conservation easement must be pursued if practicable. However, the approach proposed by PLP is consistent with USACE regulations and the USACE Site Protection Instrument Handbook.

First, a deed restriction is specifically listed in the Site Protection Instrument Handbook as a suitable instrument for protection and has been used on other Alaska projects.[177] For example, a deed restriction was deemed adequate for the preservation projects approved for the Donlin project – a CMP that the District provided to PLP as a model.[178]

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[173] Ambler Road ROD at F-23.
[174] ROD_000308.
[175] ROD_000214.
[176] ROD_000212.
[177] U.S. Army Corps of Engineers, *Compensatory Mitigation Site Protection Instrument Handbook for the Corps Regulatory* Program at 6-7 (July 2016), https://www.epa.gov/sites/production/files/2017-01/documents/site_protection_instrument_handbook_august_2016.pdf. Deed restrictions are also listed in the Alaska Thought Process Document as appropriate preservation instruments. *Alaska Thought Process Document* at16.
[178] *See* Donlin ROD at 6-9 ("The applicant proposes to protect this area long term through deed restriction.").

ED_005447B_00000011-00036 Bristol Bay/Pebble Mine Permitting Process FOIAs_Interim Release 1

Moreover, the CMP regulations contemplate that preservation of governmental land can be treated differently than private land.[179] There are good reasons for this. Governmental agencies often have the resources to actively manage and police lands under a CMP as well or better than third parties enforcing rights under a conservation easement. Governmental agencies may also be restricted in their ability to assign or delegate management authority to third parties. This flexibility with respect to compensatory mitigation on governmental lands is recognized in the regulation governing the site protection instrument.[180] Because the Koktuli Conservation Area would be on state land, the District is incorrect in singling out the absence of a third party conservation holder as a reason for deeming the CMP "non compliant."[181]

Second, the District suggests that a deed restriction for 99 years is non-compliant because it is not "permanent." The statement is misplaced. The regulations require that the site protection instrument provide "long term" protection.[182] And more fundamentally, the relevant regulations contemplate different approaches for governmental lands than private lands. On governmental lands, CMPs can be effectuated through a wide variety of restriction, including land management plans which by their very nature are not "permanent." The regulations appropriately recognize that the goal of "long term protection" can be achieved through a range of options on governmental lands, recognizing the different tools available to federal, state, and local governments.[183] The Site Protection Instrument Handbook makes clear that deed restrictions are one of these options. At the time of the final decision, PLP had engaged in preliminary discussions with the State of Alaska. PLP had identified a presumptive path, subject to State review and approval, to obtain an interest in the affected lands and impose the restrictions contained in the CMP through a deed restriction achieving "long term" site protection (for at least 99 years).

Last, as discussed in further detail below, the District is seeking details on the site protection instrument that are not required at this point in time. It is arbitrary for the District to insist that it review every aspect of a site instrument *at this stage* knowing that a process must occur with the State of Alaska for those rights to be established under State statutes and regulations. PLP had defined a presumptive path to establish the Koktuli Conservation Area subject to a State process and future decisions by the Alaska Department of Natural Resources. PLP was pursuing that path when the Corps up-ended the process through denial of the permit.[184]

C. Many Alleged Gaps are Implementation and Documentation Steps Generally Submitted Post-Permit

Many of the "gaps" identified by the District in the CMP are actually implementation and documentation steps that are generally developed post-permit. For example, the District faults

[179] *See* 33 C.F.R. § 332.7(a).
[180] *See* 33 C.F.R. § 332.7(a).
[181] *See* 33 C.F.R. § 332.7(a).
[182] *See* 33 C.F.R. § 332.7(a).
[183] *See* 33 C.F.R. § 332.7(a).
[184] The PLP CMP states on page 10 that the site protection instrument will "reference the CMP, provide notice that the covenants and restrictions run with the land, and declare the right of enforceability of its terms by the USACE." ROD_000196. Thus, contrary to the District's comments, the CMP provided for USACE enforcement rights, as well as that the restrictions would run with the land.

ED_005447B_00000011-00037 Bristol Bay/Pebble Mine Permitting Process FOIAs_Interim Release 1

the CMP for failing to provide a site protection instrument and supporting real estate information like title insurance, performance standards, support for the cost estimate, and financial assurance.[185] A description of all of these elements is included in the CMP, including the site protection instrument (deed restriction), Maintenance Plan, Long-Term Management Plan, and Financial Assurance.[186] The CMP properly describes the necessary elements and provides that some components will be submitted for approval closer to construction. The regulations provide that CMPs should include "a description" of the site protection instrument, maintenance plan, long-term management plan, and financial assurances.[187] The regulations do not require that these elements be finalized and approved at the time of the CMP or permit issuance, but instead "in advance of, or concurrent with, the activity causing the authorized impacts."[188] That is exactly the approach taken here.

The District's rejection of the CMP on this basis is also contrary to practice. In the Donlin Gold ROD, for example, the District approved a CMP that included a preservation component and specifically allowed the site protection instrument and other information to be developed and submitted post-permit.[189] Instead of rejecting the Donlin CMP as "non-compliant," the Donlin ROD includes special conditions that require the submission "prior to initiation of construction" of draft performance standards, a site protection instrument and supporting real estate information like title insurance, detailed cost estimates, draft financial assurance, and a long-term management plan.[190] The District has failed to explain why the lack of these components did not preclude approval of the CMP in past cases like Donlin, yet were fatal when it came to Pebble. In fact, the District provided the Donlin CMP to PLP as a model, so PLP reasonably believed a similar approach was appropriate for PLP's preservation CMP.[191]

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In sum, the District's decision rejecting the CMP is contrary to the regulations and USACE guidance, and improperly imposes a more stringent standard on the Pebble Project than applied to other development projects in Alaska. The decision must therefore be invalidated and remanded, with instructions to properly apply USACE guidance on compensatory mitigation in Alaska to the Project, including regarding flexibility on out-of-kind mitigation and applicable HUC size.

III. The Public Interest Decision is Contrary to Law and Unsupported by the Record

The 404 regulations provide that the public interest review (PIR) should be a "general balancing process" based on "probable impacts" that results in a decision that "reflect[s] the national concern for both protection and utilization of important resources."[192] One specific factor does not by itself force a decision, but rather the decision entails a "careful weighing of all those

[185] ROD_000308.
[186] ROD_000195.
[187] 33 C.F.R. § 332.4(c).
[188] 33 C.F.R. § 332.7(a)(5).
[189] Donlin ROD at 6-16.
[190] Donlin ROD at 6-16.
[191] *See* Fueg Dec. ¶ 17.
[192] 33 C.F.R. § 320.4(a)(1).

ED_005447B_00000011-00038 Bristol Bay/Pebble Mine Permitting Process FOIAs_Interim Release 1

factors which become relevant in each particular case."[193] In sum, the PIR decision must be based on record facts, not conjecture, and must give appropriate weight to all relevant factors, both ecological and economic. The public interest review is based on the administrative record compiled in the course of the permitting process, particularly the EIS.[194]

Instead of a "careful weighing" of the PIR factors, the District in this case relies on speculative and unsupported "harms" to outweigh the significant, documented benefits of the Project.[195]

A. The PIR Arbitrarily Finds the Demonstrated Benefits of the Project to be Outweighed by Speculative Economic Harms

The District claims the economic benefits of the Project are speculative and primarily limited to the applicant, when the record demonstrates significant, long-term economic benefits to local communities, the region, the state, and the nation. The overall ROD conclusion that there are economic detriments sufficient to "off-set" the beneficial economic impacts locally, state-wide and nationally is completely unsupported. The vague and speculative economic "detriments" referenced in the ROD cannot reasonably be deemed to outweigh the significant long-term economic benefits of the Project. The Pebble FEIS finds that the overall economic benefits of the Project will be substantial, including increased income, employment, and educational attainment. The FEIS also finds significant local and state revenue, including "mining license taxes, corporate income taxes, property taxes, sales taxes, borough severance taxes, and production royalty payments."[196] The District's assertion that the socioeconomic benefits of the Project "would be localized and of brief duration"[197] is directly contradicted by the FEIS's finding that "the project would provide *long-term* beneficial impacts to the economy from employment and income *in the region and state*."[198]

1. The Local and Regional Socioeconomic Benefits are Significant and Long-Term

The local economic benefits of the Pebble Project are clear and much-needed. The FEIS found the "increase in job opportunities, year-round or seasonal employment, steady income, and lower cost of living … would have beneficial impacts on the EIS analysis area, especially for [local]

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[193] 33 C.F.R. § 320.4(a)(1).

[194] *Hoosier Envtl. Council, Inc. v. U.S. Army Corps of Engineers*, 105 F. Supp. 2d 953, 1009–10 (S.D. Ind. 2000). For example, the Point Thompson ROD noted that the Final EIS was "the primary source of information" for the public interest assessment of that project. Point Thomson ROD at 108.

[195]The District lists soils as one of the specific factors on which the adverse public interest finding is based. *See* ROD_000165. However, there are only four sentences on the "soils" factor in the discussion of the PIR factors, so the basis for the adverse finding on this factor is unclear. ROD_000140. While the District states that the proposed Project would have adverse effects on soils at the local level, it does not explain the context/scale of impact or what local impacts are being referenced. However, based on the record, any adverse effects to soils would be negligible. The FEIS provides there would be no adverse change to soil chemistry and that soil erosion would be mitigated. *See* FEIS_004526 ("No adverse change to surface soil chemistry;" erosion magnitude and potential low). Therefore, the PIR's reference to soils as one of the factors supporting the adverse PIR finding is unsupported and contrary to the record.

[196] FEIS_004279.

[197] ROD_000531.

[198] FEIS_004279.

communities."[199] The significant revenue benefits to the local communities are undisputed: The Project would generate $27 million annually in severances taxes for the Lake Peninsula Borough (LPB) during operations, and annual property tax revenue to the Kenai Peninsula Borough based on assessed value of project-related real property.[200] In addition, the FEIS documents the Project's positive, long-term socioeconomic impacts in the region:

- Communities near the mine site and ferry/port terminals would likely see a beneficial impact of **higher employment rates**.[201]

- The project is likely to **reduce transportation costs** (thereby reducing the cost of living) to communities near the transportation corridor, should arrangements be made to allow controlled public use of the mine and port access roads and spur roads.[202]

- The natural gas pipeline would also provide opportunities for adjacent communities to **lower their winter heating costs**, a positive impact.[203]

- employment through the project would have **beneficial economic effects on minority and low-income communities** lasting for the life of the project.[204]

- **indirect employment opportunities** would increase from the services that would be needed to support construction and operations activities (e.g., air services, goods, and supplies).[205]

- Local employment opportunities could **offset current trends of outmigration** in some communities and provide service fee revenue to maintain or even **improve community infrastructure**.[206]

- an increased revenue stream to the LPB, along with stabilization of population levels attributable to employment opportunities, could result in **improvements to community health care facilities** throughout the borough.[207]

- The income earned by residents close to the mine working for PLP was **greater than the income earned for commercial fishing**, indicating that even the limited employment during the exploratory phase had large impacts on the communities.[208]

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[199] FEIS_003436.
[200] FEIS_003429-30.
[201] FEIS_003429.
[202] FEIS_003430.
[203] FEIS_003435.
[204] FEIS_003435.
[205] FEIS_004274.
[206] FEIS_004275-76.
[207] FEIS_004277.
[208] FEIS_004279.

- wages earned would likely be higher than the median household incomes of the potentially affected communities (see Section 3.3, Needs and Welfare of the People—Socioeconomics), which would be an **improvement to the welfare of the community members**.[209]

- an increase in tax revenue to the LPB and the education programs supported by PLP could **benefit schools** and the student population. In addition, local employment opportunities associated with the project could reduce population decline in some communities, which could allow schools at risk of closing to remain open.…[210] It may also allow the school district to offer expanded services such as the expansion of vocational education.[211]

In sum, the record demonstrates the significant, long-term socioeconomic benefits of the Project to local communities, including jobs, infrastructure, health, education and decreased cost of living. Nonetheless, the ROD outrageously asserts that there are adverse economic effects that would *outweigh* the benefits at the local and regional level.[212] The District relies on pure conjecture to support this finding. For example, the District provides:

- *If* high-harvesting members of the community find project-related employment and have less time for subsistence activities, the rest of the community and households in other communities *could* end up receiving less wild food through sharing and trading relationships. Increased employment of adults in the communities *could* impede the amount of time spent teaching young people to hunt, fish, gather, process, and preserve subsistence resources which would impact the amount and quality of traditional knowledge passed on to younger generations, *potentially* resulting in a long-term or permanent adverse effect to communities.[213]

- At mine closure both time commitments for and cash income from project employment would decline, depending on employment opportunities associated with closure and monitoring activities, and some residents *may* move away as job opportunities cease.[214]

- Some decreases of cost of living *may* increase to pre-project levels [post closure].[215]

- It is *possible* that the project could produce additional strain on the health and safety services of the potentially affected communities *if violent crimes increase* due to increased psychosocial and family stress due to the project.[216]

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[209] FEIS_004279.
[210] FEIS_004279. The ROD omits any discussion of the Project's benefits to local education.
[211] FEIS_003430.
[212] ROD_000160.
[213] ROD_000158 (emphasis added).
[214] ROD_000158 (emphasis added).
[215] ROD_000159 (emphasis added).

- The new economic opportunities in the area *could* negatively impact community cohesion for a community that is currently reliant on subsistence and community sharing lifestyles.[217]

This speculative parade of horribles has no support in the record. And even if any of these "detriments" were reasonably foreseeable, the District fails to explain why they are not offset by the jobs, revenue and other demonstrated benefits of the Project.

Despite the documented and significant economic benefits to local communities, the District speculates that local communities would be *worse* off once the mine closes. The ROD alleges several "detriments" at mine closure, including reduced employment and the cessation of tax revenues.[218] The District's apparent logic is that such economic benefits are actually detriments because they will not last forever. For example, the District asserts locals who had gotten used to the steady income supporting their maintenance and operating costs of rural life would have to adjust their lifestyles.[219] The implication being that locals would be better off never having the jobs and associated benefits in the first place so that they do not have to "adjust" when the jobs go away. This conjecture has no support in the record. It also unfairly assumes local communities are unable to save, invest, and otherwise plan for such economic change. The FEIS, by contrast, recognizes that local communities could use the Project revenue to make long-term improvements, including to community infrastructure and community health care facilities.[220]

In addition, many of the post-closure "detriments" listed in the ROD are actually baseline conditions that local communities are currently facing, including a high cost of living and out-migration of community members. The District asserts that post-closure, "some residents may move to find new employment" and "some decreases of cost of living may increase *to pre-project levels*."[221] However, even if these impacts occur, the District does not explain why these are "detriments" caused by the Project as opposed to a return to baseline conditions. If the 20+ years of mine-related employment gives the local community greater economic stability,[222] reduces out-migration, and lowers the cost of living for two decades – isn't that still an economic benefit even if the conditions return to baseline after closure? Moreover, the assumption that all socioeconomic benefits would return to pre-project levels (or worse) is nowhere supported in the record.

For example, the ROD downplays the long-term infrastructure benefits of the Project based on worst case scenarios. In Section B3.1.1.14 (Needs and Welfare), the ROD questions the long-term benefits from the natural gas pipeline by asserting it might not continue after operations cease.[223] However, Section B3.1.1.24 (Energy) correctly states that PLP would engage with the state and local governments about options to continue operation of the pipeline after closure.[224]

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[216] ROD_000158 (emphasis added).
[217] ROD_000158 (emphasis added).
[218] ROD_000158.
[219] ROD_000158.
[220] FEIS_004275-76.
[221] ROD_000159 (emphasis added).
[222] Some mine employment will continue after operations cease, for closure and post-closure activities.
[223] ROD_000149.
[224] ROD_000157-58.

Moreover, the Project's road and port also provide significant local benefits that could extend beyond the life of the mine. The assumption that the benefits of such project infrastructure will disappear at closure is incorrect.

The District speculates about negative impacts on subsistence, suggesting that Project employment could reduce time spent on subsistence activities.[225] The ROD's assumption of a dichotomy between Project employment and subsistence is unsupported. Local people who are employed by the Project would not have to move away from the area, and would continue to be able to participate in the community, including subsistence-related activities. Moreover, PLP committed to the use of rotational shifts, which would enable local Project workers to participate in subsistence activities.[226] This is borne out by the experience at other Alaska projects, where rotational shifts give greater flexibility to local employees. The District's claim that Project employment would negatively impact subsistence is directly contradicted by the FEIS, which demonstrated that high paying jobs improve subsistence success:

> The effect of income on subsistence success (i.e., subsistence production) is evident among households with unique demographic structures. The magnitude of the effect of income is such that in many communities, 30 percent of households produce 70 percent of the subsistence harvest. These "super households" are distinguished because they include multiple working-age males, tend to have high incomes, and often are involved in commercial fishing. These three factors support high-producing households to be able to combine subsistence activities with paid employment and to arrange considerable labor in flexible ways that maximize harvests of subsistence foods, which are then shared with other households in the community and region.[227]

The FEIS also found that impacts on subsistence could be reduced with planned periods of leave options during subsistence harvest periods.[228] In addition, the FEIS found no impact to fish and game resources available for subsistence harvests. Most importantly, local community members can make their own decisions as to how to best meet subsistence and other community needs, including whether to pursue mine employment in the first place. The idea that it is a detriment to have a project that offers employment because such jobs could change the local way of life is an insult to the adaptability of the local communities.

The significant local socioeconomic benefits of the Pebble Project are thus demonstrated in the record, including jobs, economic activity, tax revenues, energy and transportation infrastructure, lower cost of living, and education. The District's assertion that these demonstrated benefits are outweighed or off-set by speculative adverse socioeconomic effects is baseless.

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[225] ROD_000158.
[226] FEIS_003172 ("A shift schedule would be established to enable local employees to maximize opportunities to remain active in subsistence harvest activities.").
[227] FEIS_004403.
[228] FEIS_004301.

2. The District Understates the Economic Benefits to the State

The ROD similarly attempts to downplay the Project's economic benefits to the State. While the District admits that the benefits to the state outweigh the detriments, it still alleges that the state benefits are not sufficient to offset the local economic "detriments" discussed above.[229] The District's assertion that the economic benefits of the Project are "off-setting" is arbitrary and unsupportable, as the record demonstrates clear, significant, long-term economic benefits to local communities, the region, and the state. The FEIS found that "the project would provide *long-term* beneficial impacts to the economy from employment and income *in the region and state*."[230]

The ROD makes only passing reference to the state's tax revenue from the Project. With Alaska facing a massive deficit and extensive public discussions about the need to diversify the state's revenue stream, this a major omission. The FEIS clearly documents the tax and other economic benefits of the Project:

- "[A]n estimated $64 million annually in state corporate taxes during the operations phase. It was estimated that the operations phase could also generate $41 million annually from State mining license taxes. . . . The project could generate $20 million annually (in 2011 dollars) in state royalty payments during the operations phase."[231]

- "Overall, the project would provide long-term beneficial impacts to the economy from employment and income in the region and state."[232]

- The project would generate $25 million annually in state taxes through construction, and $84 million annually in state taxes and royalty payments during the operations phase.[233]

The State designated the lands where Pebble is located for the purpose of mining and economic development.[234] The ROD briefly notes that the state could benefit from fees and taxes but makes no mention about the potential economic opportunities from using the land for mining.[235]

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[229] ROD_000160.
[230] FEIS_004279.
[231] FEIS_004280.
[232] FEIS_004279.
[233] FEIS_004280.
[234] FEIS_003601 ("The Bristol Bay Area Plan divides the Bristol Bay area into 20 regions with management units. The mine site would be in Region 6. The transportation corridor would be in regions 6, 8, and 10 under Alternative 1a; regions 6, 9, and 10 under Alternative 1; and regions 6, 8, and 9 under Alternative 2 and Alternative 3. At the mine site, Region 6 is designated for mineral development, among other uses; and managed to ensure that impacts to the anadromous and high-value resident fish streams are avoided, reduced, or mitigated as appropriate in the permitting processes."); FEIS_004252 ("The project would generally be consistent with the plan's goals for the use of subsurface resources, which call for making metallic and non-metallic minerals available to contribute to the mineral inventory and independence of the US generally and Alaska specifically, while protecting the integrity of the environment and affected cultures.").
[235] Section B3.1.1.19 (Land Use), makes no mention about the potential for economic opportunity from using the land for mining. ROD_000153-54.

As the FEIS provides "the public also has an interest in improving the economy of the state, in the creation of jobs in the state, and in the extraction of natural resources for the benefit of the state. This is demonstrated by scoping comments, which indicated a desire to bring economic opportunity and jobs to the region, as well as by policy language in the Alaska State Constitution and Alaska Statutes encouraging development of the state's mineral resources consistent with the public interest."[236] The ROD's finding that the overall economic benefits of the Project are not sufficient to outweigh the speculative economic harms identified is arbitrary and unsupportable.

3. The District Fails to Fully Consider the Economic Benefits of, and Public Need for, the Extracted Minerals

The resources to be developed by the Project are critically important to the nation. The Project could supply a significant portion of the country's requirements for copper, which is central to a low carbon future, as well as important minerals such as rhenium and molybdenum. In Section B3.1.1.26 (Mineral Needs), there is no mention of what the minerals are used for in our society.[237] However, the FEIS demonstrates the need for these minerals:

> Rhenium is a critical mineral listed in EO 13817 that is present at the Pebble deposit …
>
> Mineral needs are assessed in terms of precious metals resource extraction in an international market and global context (USACE 2017). From the broad, macroeconomic scale, the stated project need is reflected in the demand for copper, gold, and molybdenum. The proposed project would result in a 20-year beneficial effect on the public's mineral needs for copper, gold, and molybdenum in this context. …
>
> Copper is used in a variety of products and industries, including electrical and electronic products, industrial equipment, building construction, automobiles, and appliances. … The worldwide copper usage has tripled over the last 50 years and growth in the worldwide demand for copper is projected to continue …
>
> Gold is used for the production of jewelry, electronics, and electrical components, official coins, and other uses (USGS 2005). …Worldwide consumption of gold grew by almost 8 percent per year between 1980 and 1999, and by an average of 2.8 percent per year between 1992 and 2002 (USGS 2005).
>
> The most common use of molybdenum is the production of alloy steels and superalloys, enhancing hardness, strength, and resistance to corrosion. Examples of uses of these alloys include in food

[236] FEIS_002994.
[237] ROD_000160.

> handling equipment, in automobile parts, in construction equipment, and in heavy construction (USGS 2010).[238]

Copper plays an important role in renewable energy, including the manufacture of wind turbines and solar panels, and has antimicrobial properties. Both of these factors have increased recent demand for copper, including for hospitals that are utilizing copper in surfaces in order to reduce microbial transmission.[239]

In Section B3.2.2, the District attempts to downplay the public need for the Project by stating that "[a]lternative locations exist to produce these minerals within the U.S. at this time."[240] There is no support provided for this statement, in the ROD or the record, including where these alternative sites are located, what resources are available at those sites, and the permitting status and timing of their potential extraction. Moreover, the fact that there are other potential sources elsewhere in the nation does not mean there is no need for the resources at Pebble. The PIR regulations do not provide that a permit can only be issued if this project is the *only* means of obtaining copper and other minerals in the entire US. Instead, the regulations provide that in cases involving private applicants, it will generally be assumed that the proposal is needed in the marketplace.[241] Moreover, the ROD's statement regarding other available sites in the US is contrary to the FEIS, which found that the "overall project purpose is to develop and operate a copper, gold, and molybdenum mine *in Alaska* to meet current and future demand."[242] The discussion of "practicability of using reasonable alternative locations and/or methods" should be based on the alternatives analysis performed on the record, not some newly-developed, unspecified alternatives outside Alaska.

Section B3.2.2's reference to the potential export of the mineral resources seems to imply that export plans diminish the public interest in the Project. However, all of the economic benefits discussed above, local, regional and national, would adhere whether or not the resources are ultimately exported. In addition, there can be no dispute that the national economy benefits from such exports. As noted above, the FEIS provides that "[m]ineral needs are assessed in terms of precious metals resource extraction in an international market and *global context*."[243] In todays' global economy, raw materials may be exported to be processed overseas, then return to the US as finished or intermediate products, including for the production of solar panels or wind turbines. The fact that some of the mineral resources will be exported does not decrease the public interest in the Project and the extracted resources.

B. The PIR Relies on Speculative Harms to Fisheries that Lack Any Support in the Record

The FEIS found there would be no impact to returning salmon and that salmon harvests would not be compromised as a result of the mine:

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[238] FEIS_002994.
[239] ROD_001060.
[240] ROD_000164.
[241] 33 C.F.R. § 320.4(q).
[242] FEIS_002995 (emphasis added).
[243] FEIS_004245 (emphasis added).

> There would be no measurable change in the number of returning salmon . . . Under normal operations, the Alternatives would not be expected to have a measurable effect on fish numbers and result in long-term changes to the health of the commercial fisheries in Bristol Bay.[244]
>
> The mine site is not expected to affect Cook Inlet commercial fisheries.[245]
>
> [The LEDPA] would not be expected to have measurable effects on the number of adult salmon, and therefore would have no impact to commercial fisheries.[246]

The District does not take on these conclusions directly in the ROD, but attempts to suggest a risk to fish nonetheless still exists. For example, the District emphasizes the detrimental impacts of habitat loss within the 13.1 square mile mine footprint.[247] However, the FEIS documents that the habitat in and around the Project is of limited use and productivity.[248] The FEIS found:

> considering the physical characteristics and current fish use of habitat to be removed, the consequently low densities of juvenile Chinook and coho observed in the affected tributaries, and the few numbers of spawning coho observed (see Section 3.24, Fish Values), impacts to anadromous and resident fish populations from these direct habitat losses would not be measurable, and would be expected to fall within the range of natural variability.[249]

The ROD also points to speculative harms to fish to support its adverse PIR finding, including impacts from a catastrophic TSF failure that the FEIS found not to be reasonably foreseeable, and portfolio effect impacts the District previously found insignificant.[250] Finally, the District suggests that the renewable fishery must be given higher priority than the nonrenewable resources available at the Pebble deposit.[251] As discussed below, this is a false dichotomy that is

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[244] FEIS_003469.
[245] FEIS_004347.
[246] FEIS_004347.
[247] ROD_000165.
[248] The ROD includes a paragraph about EPA's 2014 Bristol Bay Watershed Assessment (the BBWA), but fails to mention that the BBWA was based on hypothetical mine "scenarios" rather than an actual permit application. EPA, the principal author of the BBWA, has disavowed the relevance of the document now that an application has been filed and an EIS developed based on that application. In its July 30, 2019, decision withdrawing the Proposed Determination under 404(c), EPA notes that the USACE's DEIS "includes significant project-specific information that was not accounted for in the 2014 Proposed Determination," and that the project proposed in the permit application is substantially different than the hypothetical scenarios considered in the BBWA. *See* EPA, Press Release, *EPA Withdraws Outdated, Preemptive Proposed Determination to Restrict Use of the Pebble Deposit Area as a Disposal Site* (July 30, 2019), https://www.epa.gov/newsreleases/epa-withdraws-outdated-preemptive-proposed-determination-restrict-use-pebble-deposit.
[249] FEIS_005079.
[250] ROD_000514.
[251] ROD_00165.

not supported by the record – the FEIS demonstrates that the Project can be developed without significant impacts to the fishery.

1. The Record Demonstrates that a Catastrophic TSF Failure is Not Reasonably Foreseeable

The District's primary basis for its adverse PIR finding appears to be the potential impacts of a catastrophic TSF failure. The ROD raises the specter of a catastrophic TSF failure throughout the PIR to question the FEIS findings and support an adverse public interest finding. For example, to counter the well-documented facts regarding the economic benefits of the Project, the District suggests that a catastrophic failure could cause economic harm based on fishery impacts – "the [FEIS] analysis did not consider catastrophic failure, which *could have* economic impacts on commercial and recreational fisheries *if it occurred*."[252] Similarly, to contradict the FEIS's findings of no population-level impacts to fish, the District asserts that "there are risks that were not part of the analysis due to the very low probability of occurrence. For example, the analysis did not consider catastrophic failure …"[253]

However, the 404 regulations require the permit decision to be "based on an evaluation of the *probable* impacts, including cumulative impacts, of the proposed activity and its intended use on the public interest."[254] The public interest review involves an analysis of the "*reasonably foreseeable*" impacts the proposed work would have on the public interest factors.[255] The record in this case demonstrates that the risk of a catastrophic TSF release is not reasonably foreseeable, and therefore any impacts from such an event are not "probable impacts" to be included in the PIR analysis.

In the FEIS, the District reviewed estimates of the probability of tailings dam failures, which range from one failure for every 714 dam-years to 250,000 dam-years.[256] The FEIS found that the proposed Pebble design significantly reduces the risk of these types of failures: "The Applicant's bulk TSF design is different than that of most other historic and current TSFs. The proposed design is especially distinct when compared to most historic mines that have experience large failures."[257] As discussed in the FEIS, the tailings storage facilities that have been shown to be the most robust and resistant to failure are those that have periodic technical review by qualified engineers throughout the lifetime, including after closure.[258] The Alaska Dam Safety Program would require this periodic technical review throughout the life of the proposed facility.[259] Thus, the already low risk of dam failure would be further reduced by the safety measures that will be in place for the Project. After evaluating the design of each embankment, and assessing the likelihood of a wide range of potential failure modes, the probability of a full breach of the bulk or pyritic TSF tailings embankments was assessed to be

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[252] ROD_000159-60.
[253] ROD_000159.
[254] 33 C.F.R. § 320.4(a)(1).
[255] 33 C.F.R. § 320.4(a)(1).
[256] FEIS_005341.
[257] FEIS_002304 ("The Applicant has proposed a design for the bulk TSF that would minimize surface water storage above the tailings and promote unsaturated, or dryer, conditions in the bulk tailings through drainage provisions.").
[258] FEIS_005342.
[259] FEIS_005342.

extremely low, and therefore was not reasonably foreseeable. The FEIS found: "the probability of a full dam breach to be very low for the bulk TSF (i.e., would require a lengthy causal chain of unlikely events)."[260] The District's attempt to base its adverse public interest determination on a TSF failure directly contradicts these conclusions in the FEIS.

The PIR attempts to disclaim the importance of the FEIS conclusions on the TSF by claiming that FEIS findings are based on "optimal" or "ideal" conditions.[261] However, this is incorrect. The FEIS findings are not based on the best possible scenario or ideal conditions, but reasonably foreseeable operations and events. If the FEIS were based on "optimal" conditions, it would not have included any analysis of natural disasters like earthquakes or accidents likes spills and releases. In fact, the FEIS addresses all of the above, including the potential for human error. But the FEIS properly included such events only if they were reasonably foreseeable. The District's attempt to base the PIR determination on impacts that are not reasonably foreseeable, including the risk of a catastrophic TSF failure, is contrary to the CWA regulations' direction to consider only "probable" impacts.

In Section B3.1.1.27 (Safety), the ROD states the Pebble TSF design would be similar to that at Mt. Polley in British Columbia, which experienced a failure in 2014.[262] However, this comparison ignores key differences between the two designs that are well-documented in the record. For example, PLP's TSF is a flow-through design and excess fluid would be pumped from the TSF to the Main Water Management Pond.[263] The ROD states that a cause of the Mt. Polley failure was "incorrect assessment of the substrate,"[264] but fails to acknowledge that PLP's design would be based on extensive geotech data, including regarding the substrate. The FEIS found that the Pebble TSF would differ from the Mount Polley Dam in three main ways: 1) the bulk TSF embankment would be founded on bedrock without risk of overlying a weak soil layer; 2) tailings discharge into the bulk TSF would be with thickened tailings, not slurried tailings, thereby reducing the water volume in the bulk TSF; and 3) the supernatant pond on the bulk TSF surface would be kept small by pumping to the main WMP.[265] Moreover, the District never took issue with the design of the Pebble TSF, and in fact chose the alternative with the centerline design as the LEDPA.[266]

The ROD's speculative statements about the risk of a catastrophic TSF failure have no support in the record, and do not constitute "probable impacts" that can be factored into the PIR analysis.

2. The Record Does Not Support any Adverse Impact from the Portfolio Effect

The District admits that impacts to the Bristol Bay fishery are not anticipated to occur, but then goes on to speculate as to potential harms anyway. For example, the ROD says: "The project modeling has shown that the proposed project would not impact fish values down to the Bristol

[260] FEIS_003482.
[261] ROD_000552.
[262] ROD_000161-62.
[263] FEIS_005331.
[264] ROD_000161-62.
[265] FEIS_002312.
[266] There was an alternative for a downstream dam in the FEIS, but it was not selected as LEDPA.

Bay fishery but *may have* a local portfolio effect."[267] However, this speculation regarding a potential local portfolio effect is not supported by the record. The FEIS found that there would be no discernable impact to the portfolio effect from the Project:

> Impacts to Bristol Bay salmon are not expected to be measurable and given the vast breadth and diversity of habitat (and salmon populations) in the Bristol Bay watershed, *impacts on the Portfolio Effect are certain but not likely to be noticeable in context of the Bristol Bay watershed*.[268]
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> ***
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> The Portfolio Effect is an observation that the Bristol Bay salmon run is produced from an abundance of diverse aquatic habitat; this diversity allows for a harvestable surplus even when some systems experience low abundance. . . . The term "Portfolio Effect" is taken from the concept of investment portfolios, where adding to the diversity of investments is thought to reduce risk (or the likelihood of occurrence of losses to the overall investment portfolio, even if some individual investments do not do well). Any loss of salmon production would have an effect on the Bristol Bay "portfolio," similar to the way that financial losses by individual investments would have an effect on an investor's portfolio. In this EIS, the effect to the Bristol Bay portfolio is considered by evaluating the amount of habitat and salmon production that would be lost. *No long-term measurable changes in the number of returning salmon are expected, nor is genetic diversity expected to change; therefore, the impact to the Portfolio Effect would not be discernable*.[269]

Similarly, in response to DEIS comments on this issue, the District stated:

> Given the breadth and diversity of habitat (and salmon populations) in the Bristol Bay watershed, the expected impacts of localized mine and transportation corridor development on the Portfolio Effect are not likely to be discernible; rather, the Portfolio Effect may help to minimize expected impacts of the mine development on Bristol Bay's salmon fishery. Section 4.24, Fish Values, of the FEIS has been revised to more fully analyze the potential portfolio effect.[270]

In the ROD, the District appears to question these FEIS conclusions on the portfolio effect by noting that "there are risks that were not part of the analysis due to the very low probability of

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[267] ROD_000159 (emphasis added).
[268] FEIS_005080 (emphasis added).
[269] FEIS_005080 n.1 (emphasis added).
[270] FEIS_000518.

ED_005447B_00000011-00050 Bristol Bay/Pebble Mine Permitting Process FOIAs_Interim Release 1

occurrence. For example, the analysis did not consider catastrophic [TSF] failure …"[271] However, as discussed above, a catastrophic TSF failure was properly excluded from the FEIS analysis because the likelihood of such an event was found to be too remote. The 404 regulations require the permit decision to be "based on an evaluation of the *probable* impacts, including cumulative impacts, of the proposed activity and its intended use on the public interest."[272] Since the record in this case demonstrates that the risk of a catastrophic TSF release is too insignificant to be reasonably considered under the CWA, any impacts from such an event are not "probable impacts" to be included in the PIR analysis.

The District also attached an EPA document on the portfolio effect to the ROD, but nowhere discusses the relevance of the EPA document to the ROD's or FEIS's conclusions.[273] In any event, the EPA document does nothing to contradict the conclusions in the FEIS, including the instream flow analysis in FEIS Appendix K.24.[274] The bottom-line conclusion of the EPA document appears to be that "maintaining habitat diversity across the landscape is key to the sustainability and productivity of salmon populations."[275] However, the FEIS demonstrates that fish habitat in the upper North Fork Koktuli reaches is proportionally small, and that the mine would not directly impact returning salmon numbers nor their ability to spawn/rear. The FEIS found that overall impacts would not be measurable and would fall within the range of natural variability.[276] The FEIS acknowledges some flow-related impacts to habitat quantity, but many of those impacts are actually positive changes to habitat acreage. In mainstem reaches "81 to 90 percent of expected changes in suitable spawning habitat would be positive, or within 2 percent of pre-mine conditions, with more predicted increases in habitat than decreases, for both anadromous and resident fish species in an average water year scenario."[277] EPA's portfolio effect document does not question or undermine these conclusions.

The EPA portfolio document was apparently submitted to the District around the time of EPA's May 28, 2020 letter informing the District that EPA would not be pursuing the 404(q) elevation process.[278] In that letter, EPA states that the permit record should reflect that the sockeye salmon in the Koktuli River is a genetically distinct population, citing a paper from the Alaska Department of Fish and Game (ADFG). However, the state took exception to this characterization, responding that EPA's conclusion is not accurately based on the ADFG report, but instead is "an EPA interpretation."[279] ADFG clarifies that the Koktuli River population "represents one of four closely-related Nushagak River populations with a river-type life history in the baseline."[280] Thus, this population contributes to the overall diversity of the Bristol Bay

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[271] ROD_000159-60.
[272] 33 C.F.R. § 320.4(a)(1).
[273] *See* ROD_000626-41 (EPA, *Bristol Bay Sockeye Salmon Portfolio*).
[274] *See* FEIS_005034-103.
[275] ROD_000639.
[276] FEIS_005079.
[277] FEIS_005047.
[278] EPA, Letter to District (May 28, 2020) (ending 404(q) consultations by declining to submit 3(b) letter), https://www.epa.gov/sites/production/files/2020-05/documents/bristol-bay-404q-supplemental-comments-5-28-2020.pdf.
[279] ROD_000643.
[280] ROD_000644.

portfolio, as the District acknowledges in the FEIS. But neither ADFG nor the District identified a risk from the Project to the fishery based on the portfolio effect.

3. The Finding of Conflict Between the Mine and the Fisheries is Unsupported

Section B3.2.3 of the ROD sets up a false dichotomy between renewable fisheries and nonrenewable mineral resources, but the record demonstrates that minerals can be developed without impacting the fisheries. The FEIS recognizes this:

> Other salmon fisheries in Alaska exist in conjunction with non-renewable resource extraction industries. For example, the Cook Inlet salmon fisheries exist in an active oil and gas basin and have developed headwaters of Anchorage and the Matanuska-Susitna areas. The Copper River salmon fishery occurs in a watershed with the remains of the historic Kennecott Copper Mine and the Trans Alaska Pipeline System in the headwaters of portions of the fishery.[281]

As discussed above, the District's assumption that the Bristol Bay fishery would be harmed by the Project is contrary to the record. The ROD tries to call the FEIS conclusions into doubt by raising vague and unsubstantiated concerns about "human error." For example, Section B3.2.3 provides that, "[i]n the event of human error…, the commercial and /or subsistence resources would be irrevocably harmed."[282] It is unclear what type of "human error" this statement is referring to, and the FEIS did not find any level of "human error" that could cause "irrevocable harm" to the fishery. If the reference is to spills, the FEIS fully assesses this risk, and found no measurable impact on the fishery.[283] If the reference is to a catastrophic TSF failure, the District's own work could not find a mechanism to cause a reasonably foreseeable catastrophic event, as discussed above. The reliance on some speculative, undefined "human error" or catastrophic event to support a negative PIR finding is not supported by the record and contrary to the regulatory requirement to weigh only "probable" impacts.

The ROD concludes that we should simply wait for "a future project, incorporating improved technologies that can protect irreplaceable fishery resources…"[284] As noted, the assumption that the fishery would be impacted by the current project is not supported by the FEIS or the record as a whole. Moreover, the fact that mining technology is constantly improving actually supports the public interest in the current project. The Pebble Project is designed based on the most recent technological advances and would therefore be safer than any existing mine. The fact that there will continue to be technological advances in the future cannot mean that no mine should be built now. If that were the standard, no project could ever be built. Moreover, the 404 regulations provide that the public interest determination should "reflect the national concern for both protection *and utilization* of important resources."[285] By asserting that the mineral resources can

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[281] FEIS_003468.
[282] ROD_000165.
[283] *See* FEIS_005240-412.
[284] ROD_000165.
[285] 33 C.F.R. § 320.4(a)(1) (emphasis added).

always be extracted later, the District's PIR decision fails to properly reflect the current public interest in the utilization of the resources available at the Pebble deposit.

The Division Engineer should invalidate and remand the District's PIR decision and instruct the District to properly ensure that the permit decision properly weighs the benefits and detriments of all the relevant public interest factors based only on the "probable" impacts of the Project.

IV. The ROD Overstates Adverse Effects by Failing to Fully Consider all Mitigation

The ROD overstates the potential impacts of the Project by omitting key mitigation that should be included in the final permit decision. First, because the CMP was summarily rejected, no compensatory mitigation was factored into the significant degradation or PIR analysis. Second, because the ROD was issued before the cooperating and consulting agencies and parties had completed their review processes, the mitigation that would have been imposed under the ESA, National Historic Preservation Act (NHPA), and CWA Section 401 decisions was also never considered by the District and factored into its decision-making.

A. Compensatory Mitigation

PLP demonstrated that it was willing to undertake extensive compensatory mitigation, even when pushed into pursuing very challenging and costly preservation of state lands. However, the District summarily rejected PLP's last CMP submission, and therefore found that no compensatory mitigation would be implemented. By summarily rejecting PLP's CMP, the District stacked the deck on the PIR and significant degradation analyses, as no compensatory mitigation was factored into the analyses, not even the out-of-kind mitigation PLP had been proposing for years. If PLP had refused to undertake the compensatory mitigation necessary, that would have been a basis for denying the permit, or for issuing the permit subject to conditions that compensatory mitigation be implemented. But since PLP stood ready and willing to work with the District on the CMP, the District's decision to assume no compensatory mitigation would be implemented renders the decision arbitrary and capricious.

What appears to have occurred is the District decided to deny the permit based on a PIR finding, and therefore did not see the need to give PLP an opportunity to address the alleged deficiencies with the CMP. But if that is the case, the District should have assumed that the CMP would be finalized, and taken the mitigation into account in assessing the adverse impacts of the Project under the PIR and significant degradation findings. In other words, a negative decision should have only issued if the District found that even with required compensatory mitigation, the overall adverse impacts outweighed the benefits of the Project.

B. Cultural and Historic Resources

Since the ROD was issued before the NHPA Section 106 process was complete, the District's decision does not include consideration of the mitigation that would have been imposed under the programmatic agreement (PA) being developed under that process. Section 106 requires that

ED_005447B_00000011-00053 Bristol Bay/Pebble Mine Permitting Process FOIAs_Interim Release 1

any adverse effects to listed resources be avoided or resolved.[286] In this case, however, the Section 106 process was cut off before such determinations could be made.

The District nonetheless speculates on impacts to cultural resources in the ROD, including that the Project "would adversely affect cultural resources and access to cultural areas" and that "Federally Recognized Tribes have expressed that all of the Bristol Bay landscape, including the landscape in the vicinity of the mine site, is culturally important."[287] The District presents this as settled fact, but no cultural landscapes have yet been recognized as protected under Section 106. The issue of a proposed cultural landscape was raised for the first time during the Section 106 process by the Nondalton tribe, but such a landscape has not been officially recognized or designated by SHPO, ACHP, or even all of the local tribes. In 2019, the Nondalton tribe submitted a letter and report on its proposed "Qiyhi Qelahi Cultural Landscape", which was a large area that would cover the Groundhog Mountain Area, Frying Pan Lake, and the mine site.[288] As recognized in that letter, however, the proposed cultural landscape has not been listed on the National Register of Historic Places. At a Section 106 meeting in January 2020, the Nondalton tribe's counsel, NARF, acknowledged that the boundaries of the proposed cultural landscape had not yet been defined, as would be needed for a Determination of Eligibility.[289] Neither the Corps nor the SHPO has made a Determination of Eligibility under Section 106 for the proposed cultural landscape. The FEIS found no known National Register–eligible cultural landscapes, but properly noted that "[f]urther identification efforts under Section 106 may also involve the analysis of cultural landscapes."[290]

Even if the area around Groundhog Mountain and Frying Pan Lake was eventually recognized as a traditional cultural landscape, this would not preclude development in the area. There is no record evidence that the Project would significantly impact the cultural use of Groundhog Mountain or Frying Pan Lake, including subsistence use. With regard to subsistence, the FEIS finds "impacts to fish and wildlife would not be expected to impact harvest levels. Resources would continue to be available because no population-level decrease in resources would be anticipated."[291] And if impacts to a protected cultural landscape were identified, measures to avoid or minimize such impacts would have been developed under the Section 106 process. Since the ROD was issued before the Section 106 process was complete, the consideration of these issues was cut off before such determinations could be made. The District's conclusion in the ROD is thus based on layers of speculation – that such a cultural landscape would be recognized, that its use would be impacted by the Project, and that any such impacts could not be avoided or mitigated under the PA. This is far from a "probable impact" that is properly considered in the PIR.

C. Water Quality

Similarly, the District's findings on water quality fail to include the State's input under Section 401. The PIR notes, "Evaluation of the request for certification under Section 401 of the Clean

[286] *See* 54 U.S.C. § 36101.
[287] ROD_000153-54.
[288] AR 12500_000652.
[289] AR 12500_000668-69.
[290] FEIS_003427.
[291] FEIS_003433.

ED_005447B_00000011-00054 Bristol Bay/Pebble Mine Permitting Process FOIAs_Interim Release 1

Water Act has not been completed by the State of Alaska as of the time of this decision."[292] The State's 401 certification would include conditions that would have further reduced any adverse impacts to water resources. However, because the ROD was issued before the 401 process was complete, the state water quality certification conditions were not factored into the District's decision.

The District lists water quality as one of the specific factors on which the adverse public interest finding is based,[293] and found an adverse effect on water quality at the local level.[294] The FEIS, however, did not find a significant adverse effect to water quality at the local level, or at any other level. The FEIS provides that the "potential impact on surface water quality from mine site dust deposition was analyzed by modeling… results indicate that exceedance of the most stringent water quality discharge criteria would not be expected."[295] The FEIS also found that, with APDES permit protections, "direct and indirect impacts of treated contact waters to off-site surface water are not expected to occur."[296]

The conditions imposed by the State under 401 would further mitigate any water quality impacts. In Donlin, the District factored in the permit conditions established by the State of Alaska in assessing the compliance of the Project with 404.[297] Based in part on the 401 conditions, the District found that, "[w]ith Applicant design features and inclusion of special conditions, the proposed Project would comply with this factor of the Guidelines."[298] In this case, the District has failed to explain why water quality impacts support an adverse public interest or significant degradation finding, since the FEIS found no such impact, and the 401 certification would even further ensure water quality was protected.

D. Endangered Species

Other key mitigation and findings from consulting and cooperating agencies were also omitted. The ROD's findings on endangered species impacts does not include the biological opinions (BOs) from NMFS and FWS,[299] and therefore fails to include final input from these expert agencies. First, the Draft BO from FWS does not support a finding of significant impact for endangered species. The BO provides that the Project is "not likely to result in the destruction or adverse modification of critical habitat of … northern sea otter" and "not likely to jeopardize the continued existence of" northern sea otters or Alaska-breeding Steller's eiders.[300]

Second, the final BOs would have contained mitigation measures to minimize potential impacts on threatened and endangered species. Because the ROD was issued without the benefit of the

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[292] ROD_000527.
[293] ROD_000165.
[294] ROD_000147.
[295] FEIS_003384.
[296] FEIS_003452.
[297] Donlin ROD at 6-19-6-21.
[298] Donlin ROD at B2-22.
[299] The Draft USFWS BO was issued on November 17, 2020, but is not referenced in the ROD. This Draft USFWS BO was also omitted from the District's initial Administrative Record. PLP requests that the District include the Draft USFWS BO in the AR provided to the Division. The NMFS BO was still pending when the ROD was issued.
[300] Draft USFWS BO at 45-48 (*see* n. 299, *supra*).

BOs, the Services' mitigation was not fully factored into the District's decision. In the Factual Determination Matrix, the District acknowledges that impacts to threatened and endangered species would be mitigated by the Services:

> *Given the low likelihood of these impacts since mitigation measures from consultations with USFWS and NMFS would be implemented*, incompatible activities would have a reduced impact on threatened and endangered species. Construction impacts would be minor and short-term, while vessel operations would be minor, but long-term.[301]

Yet despite this acknowledgement, the Matrix still inexplicably finds potential impacts to threatened and endangered species to be significant. In addition, Section B3.1.1.6 finds an adverse effect on endangered species,[302] without any mention that such impacts would have been addressed through the Services' BOs. The assumption that there would be significant adverse impacts on endangered species is unsupportable because the BO-imposed mitigation was not factored into the analysis.

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In sum, the ROD improperly omits key mitigation that would have offset or avoided many of the adverse impacts relied on to support the adverse permit decision. The Division Engineer should invalidate and remand the ROD, and instruct the District to ensure that all mitigation, including compensatory and mitigation imposed by state and federal agencies, is properly factored into the permit decision before making the significant degradation and public interest findings.

V. The ROD Fails to Adequately Consider the State's Interests as the Landowner, and its Designation of the Land for Mineral Development

In Section B3.2.2, the District asserts there are "unresolved conflicts as to resources use including unresolved conflicts identified through the State of Alaska."[303] This statement is incorrect and misrepresents the record and the State's position.

The State obtained title to the area that includes the Pebble deposit in a 3-way exchange, known as the Cook Inlet Exchange, that allowed for establishment of Lake Clark Park. Upon achieving statehood, Alaska selected lands from the federal government that the State was entitled to use for mineral development; the State gained title to those lands, and "[m]ineral deposits in such lands shall be subject to lease by the State as the State legislature may direct."[304] Under the Cook Inlet Exchange in 1976, lands selected by the State had the same status as if originally selected under the Alaska Statehood Act.[305] The bargain ensured that each party would receive valuable land in exchange for what it gave up; as the agreement noted, it "involved a great deal of give

[301] ROD_000361 (emphasis added).
[302] ROD_000144-46.
[303] ROD_000164.
[304] Alaska Statehood Act § 6(i), Pub. L. No. 85-508, 72 Stat. 339 (1958).
[305] Cook Inlet Exchange Legislation, 43 U.S.C. § 1611.

ED_005447B_00000011-00056 Bristol Bay/Pebble Mine Permitting Process FOIAs_Interim Release 1

and take by the parties involved."[306] Specifically, the State agreed to relinquish previous land selections and not to select lands from the Lake Clark area.[307] The State specifically selected the land for its potential for economic opportunity from mining development, and thereafter designated the lands where Pebble is located for mining.[308]

The regulations state: "If a district engineer makes a decision on a permit application which is contrary to state or local decisions (33 C.F.R. § 320.4(j)(2) & (4)), the district engineer will include in the decision document the significant national issues and explain how they are overriding in importance."[309] They further provide that "the primary responsibility for determining zoning and land use matters rests with the state, local and tribal governments."[310] The preamble to the final rule further explains this regulatory provision:

> [T]he district engineer will normally consider the decisions of state, local, and tribal governments on land use matters to be conclusive as to this factor in the public interest review. … The intent of this paragraph is to recognize that the primary responsibility for addressing this factor (i.e., local zoning and/or land use matters) rests with state, local and tribal governments. When a state, local and tribal government gives its zoning or other land use approval for a particular project, this will be considered conclusive for this factor.[311]

The Pebble deposit is located on state-owned land, and the State has specifically designated the land for mineral development. The District's findings on land use are directly counter to the State's designation of this land. The ROD fails to document or support an "overriding national issue" that justifies overruling the State's mineral use designation. The ROD does not explain why the State's designation of the land for mineral development was not conclusive as to land use, nor how the State's interest in economic development of the land was weighed in the decision.

Moreover, the District's decision in this case sets such a stringent standard for 404 permitting that it effectively denies any future mineral development in this area and establishes a precedent that will make it very difficult to develop minerals anywhere in the State of Alaska. The District's refusal to apply the flexibility allowed under the 2018 Alaska MOA and decision to

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[306] Federal-State Land Use Planning Commission for Alaska, *Cook Inlet Report* at 9 (Mar. 6, 1976).
[307] *Id.*
[308] FEIS_003601 ("The Bristol Bay Area Plan divides the Bristol Bay area into 20 regions with management units. The mine site would be in Region 6. The transportation corridor would be in regions 6, 8, and 10 under Alternative 1a; regions 6, 9, and 10 under Alternative 1; and regions 6, 8, and 9 under Alternative 2 and Alternative 3. At the mine site, Region 6 is designated for mineral development, among other uses; and managed to ensure that impacts to the anadromous and high-value resident fish streams are avoided, reduced, or mitigated as appropriate in the permitting processes."); FEIS_004252-53 ("The project would generally be consistent with the plan's goals for the use of subsurface resources, which call for making metallic and non-metallic minerals available to contribute to the mineral inventory and independence of the US generally and Alaska specifically, while protecting the integrity of the environment and affected cultures.").
[309] 33 C.F.R. § 325.2(a)(6).
[310] 33 C.F.R. § 320.4(j)(2).
[311] 49 Fed. Reg. 39476 (October 5, 1984).

instead impose a more stringent standard regarding significant degradation, compensatory mitigation and the public interest effectively precludes future development in this area, even on state lands that were specifically designated for mineral development. This new, more stringent standard reverses years of work by the State, the USACE and EPA to ensure a reasonable path forward for future development projects in Alaska. The District asserts that "there are many valid mining claims in the area, and these lands would remain open to mineral entry and exploration."[312] But the District's decision in this case creates significant uncertainty as to whether any mineral development is permittable, particularly in this area.

By precluding any development within a large swath of State land, the District's decision violates the statutory compromise established in the Alaska Statehood Act and the Alaska National Interest Lands Conservation Act. Congress adopted both statutes to balance Alaska's economic interests in its land with environmental conservation efforts. Specifically, Alaska's Statehood Act provided for the State's right to select lands for the purpose of furthering the development. Congress explicitly recognized and understood this intent and that the agreement would "open for development lands that should be in private ownership" and would continue to "conserve[] for public use lands that should have that status."[313]

The Corps cannot use its authority under Section 404 to undermine Congress's explicit intent to protect Alaska's interests in its State lands. All conveyances to the State under the Alaska Statehood Act and Cook Inlet Exchange were subject to the condition that the State reserved its rights to all the underlying mineral resources within those lands.[314] And the grant to the State of all mineral lands through these bargains are rendered meaningless if the State cannot develop them. As the FEIS provides, "[T]he public also has an interest in improving the economy of the state, in the creation of jobs in the state, and in the extraction of natural resources for the benefit of the state. This is demonstrated by scoping comments, which indicated a desire to bring economic opportunity and jobs to the region, as well as by policy language in the Alaska State Constitution and Alaska Statutes encouraging development of the state's mineral resources consistent with the public interest."[315] The ROD fails to grapple with, and give due consideration to, these factors, including the State's interests in the development of the lands it intentionally acquired and designated for mineral development. The ROD therefore should be remanded with instructions to ensure that the permit decision properly weighs the benefits and detriments of all relevant factors, including the interests of state and tribal landowners.

VI. Conclusion

The District's significant degradation finding, decision on compensatory mitigation, and PIR determination are "not supported by substantial evidence in the administrative record."[316] In fact, many of the District's key conclusions in the ROD are directly contradicted by the record. The decisions are also contrary to law and USACE regulations and guidance. For example, the ROD's speculation on impacts from a TSF failure that the FEIS characterizes as remote and that

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[312] ROD_000016.
[313] H.R. Rep. No. 94-729 (1975).
[314] Alaska Statehood Act § 6(i); Pub. L. No. 94-204 § 12(d)(1).
[315] FEIS_002994.
[316] *See* 33 C.F.R. § 331.9(b).

ED_005447B_00000011-00058 Bristol Bay/Pebble Mine Permitting Process FOIAs_Interim Release 1

the District itself admits has a "very low probability of occurrence" violates the regulatory requirement that the decision be "based on an evaluation of the *probable* impacts" of the Project.

The Division Engineer should disapprove the entirety of the District's decision pursuant to 33 C.F.R. Section 331.9(b) and instruct the District to: 1) properly apply USACE guidance on compensatory mitigation in Alaska to the Project, including regarding flexibility on out-of-kind mitigation and applicable HUC size; 2) ensure the significant degradation and PIR decisions are supported by the permitting record, including the FEIS, and consistent with USACE regulations and guidance; 3) ensure that all mitigation, including compensatory and mitigation imposed by state and federal agencies, is properly factored into the permit decision before any findings on significant degradation or public interest are made; 4) ensure that the permit decision properly weighs the benefits and detriments of all the relevant public interest factors, including the interests of state and tribal landowners, based on the "probable" impacts of the Project.

Even if the Division Engineer finds in favor of the appellant on only some of the reasons for appeal stated herein, the remedy must be a reversal of the entire decision. The significant degradation finding, decision on compensatory mitigation, and PIR determination are all interrelated, so that the invalidation of one requires reconsideration of all. For example, the invalidation of the significant degradation finding would call into question the validity of the determination that in-kind, in-watershed compensatory mitigation was required. Similarly, any change to the factors considered under the significant degradation finding would also call into question the factors considered under the PIR and vice versa. And any change in the decision on compensatory mitigation would have to be factored into both the PIR and significant degradation findings.

Exhibits:
Exhibit 1, Declaration of James Fueg.
Exhibit 2, Map of USGS HUC 10s and 12s around mine site.
Exhibit 3, Matrix of District Comments on CMP and PLP Responses.

ED_005447B_00000011-00059 Bristol Bay/Pebble Mine Permitting Process FOIAs_Interim Release 1

Exhibit 1

Pebble Limited Partnership
Request for Appeal of Permit Denial
United States Army Corps of Engineers Permit Application No. POA-2017-00271
January 19, 2021

Pebble Limited Partnership
Request for Appeal of Permit Denial
United States Army Corps of Engineers Permit Application No. POA-2017-00271
January 19, 2021

Exhibit 1

DECLARATION OF JAMES FUEG

I, James Fueg, Vice President - Permitting, Pebble Limited Partnership (PLP), do hereby state as follows:

1. I have been employed by PLP since November 1, 2017. My current title is Vice President – Permitting. In this position, I manage all permitting processes for PLP, including with the US Army Corps of Engineers (USACE), other federal agencies, and the State of Alaska. I have a Master of Science in Geophysics from the Colorado School of Mines and have lived and worked in Alaska since 1996. My career has focused on mineral exploration and mining project development and permitting. Prior to joining PLP, I spent 13 years working on the Donlin Gold Project, holding positions that included both Permitting Manager and Technical Services Manager. I am a Past President of the Alaska Miners Association.

2. Compensatory mitigation is challenging in Alaska, particularly in more remote areas like the Pebble deposit location. PLP therefore proactively sought guidance from the USACE Alaska District (District) on how compensatory mitigation might be addressed given the location of the proposed Pebble Project. The District provided very limited direction on compensatory mitigation throughout the permitting process, and much of it was verbal – in telephone conferences or in-person meetings. The lack of clear direction from the District ultimately led to the submission of multiple versions of the Compensatory Mitigation Plan

ED_005447B_00000011-00061 Bristol Bay/Pebble Mine Permitting Process FOIAs_Interim Release 1

(CMP) over the permit review period, each of which required significant resources to develop. Throughout the permitting process, the District never suggested a functional assessment was necessary for compensatory mitigation, much less how it would be accomplished.

3. Using preservation for compensatory mitigation is complicated in the watersheds around the Pebble Project because most of the land is State-owned and due to the lack of existing disturbance. Therefore, for the bulk of the permitting process, PLP focused primarily on out-of-kind, non-preservation options, and the District raised no objections to that approach.

4. PLP had several communications with the District regarding how to approach compensatory mitigation for the Project prior to submitting the first CMP on November 21, 2018 (CMP 1). On August 15, 2018, PLP submitted questions to the District about the approach to be used for the CMP. On August 30, 2018, PLP and the District met to discuss the CMP for the Project.

5. The District provided limited written comments on CMP 1 on December 17, 2018. PLP submitted a revised CMP (CMP 2) on January 11, 2019 that addressed the District's limited comments.

6. PLP continued to refine the mitigation proposal in 2019, and submitted a third version of the CMP on July 25, 2019 (CMP 3). The District provided "high level" written comments on CMP 3 on September 3, 2019, noting that credits can only be given if the culvert upgrades are not a result of non-compliance of an authorization. Given the age of the culverts, it would be challenging to unravel their regulatory history and determine whether there is a "permittee" that could be deemed responsible for their maintenance.

ED_005447B_00000011-00062 Bristol Bay/Pebble Mine Permitting Process FOIAs_Interim Release 1

7. Based on that input, PLP spent significant time and resources developing additional mitigation options. On January 7, 2020, PLP submitted draft plans for components of the CMP, including marine debris removal and culvert repairs.

8. Hearing no objection to those components, PLP sent a revised draft CMP (CMP 4) to the District for review on January 13, 2020 that included water treatment facility improvements in three communities close to the mine, marine debris removal, and culvert repairs. The draft CMP was subsequently expanded to include additional analysis and appendices, and was then submitted in response to an RFI on January 27, 2020 (CMP 5). The District had specifically pointed to water quality improvement projects as a potential CMP component.

9. In meetings on June 25 and 30, 2020, the District stated that the Pebble Project as proposed would lead to "significant degradation" of the Koktuli watershed based on direct and indirect impacts, which in turn required new compensatory mitigation requirements for the Project. The District explained that it had defined "significant" for purposes of its "significant degradation" determination as simply "more than trivial," and that its finding of significant degradation was based on a "preponderance" of significant impact findings for the (b)(1) factors. The District stated the Project would impact 29% of the hydrologic unit code (HUC), but also stated that percentages or quantitative thresholds were not determinative. The District recognized that its "significant degradation" determination was unprecedented and acknowledged that it was not aware of any other similar findings for large projects in Alaska. The District went on to state that they had identified the required mitigation needed to avoid significant degradation, and that preservation at a "large ratio" in the Koktuli drainage was the path forward. The District agreed with PLP that wetlands creation,

ED_005447B_00000011-00063 Bristol Bay/Pebble Mine Permitting Process FOIAs_Interim Release 1

restoration, and enhancement were not practicable at the required scale within the Koktuli watershed. The District directed PLP to look at mitigation banks and in-lieu fee programs (ILFs) for transportation infrastructure and port impacts. In addition, the District stated that the CMP should include: some form of development restriction to protect the surface from industrial/commercial development, which could be conditioned around successful receipt of State permits; and equivalent data to support a finding that the preservation adequately compensates for the unavoidable project impacts to waters of the U.S.

10. PLP poured considerable resources into meeting the District's new in-kind, in-watershed mitigation requirement. PLP worked with HDR Alaska – the leading aquatic resources consulting firm in Alaska – whose experience spans the preparation of dozens of Clean Water Act-compliant compensatory mitigation plans for oil and gas, mining and other resource and infrastructure development projects in the state. More than 20 wetland professionals and support staff were mobilized into a fly-in field camp in the Koktuli watershed to map wetlands and waterbodies throughout the 112,445-acre Koktuli watershed conservation area to generate the technical data required to submit a CMP that met the District's new demands. More than 1,000 person-days of field work were spent gathering baseline data and other technical information regarding the area to be preserved.

11. PLP also engaged in discussions with the State of Alaska regarding the proposed preservation plan, including mechanisms for imposing the restrictions contained in the CMP to achieve site protection for at least 99 years.

12. PLP continued to confer with the District to confirm that the proposed mitigation area would meet the District's new requirements for in-watershed and in-kind mitigation.

ED_005447B_00000011-00064 Bristol Bay/Pebble Mine Permitting Process FOIAs_Interim Release 1

The District was therefore aware of the significant efforts and expenditures being made to advance the Koktuli Conservation Area plan and raised no concerns with the approach.

13. In a September 8, 2020 meeting, the District told PLP that the mitigation for the port and transportation route could be rolled into the Koktuli Conservation Area plan. Thus, while the CMP had originally included port-specific mitigation in the form of credits, PLP dropped that component based on District guidance. PLP asked the District for a specific mitigation ratio requirement so that PLP could ensure the adequacy of the preservation proposed, and the District indicated that at least a 6.5:1 ratio would be required. No explanation for that mitigation ratio was provided.

14. Per the District's direction, PLP submitted two hardcopies of a Preliminary Draft Compensatory Mitigation Plan (Preliminary CMP 6) to the District via courier on September 29, 2020 for what the District described as a "fatal flaw" review. The District did not provide written comments on Preliminary CMP 6, but provided verbal comments in a telephone call on October 13, 2020. In that telephone call, the District did not raise concerns about the sufficiency of the mitigation plan, including for impacts at the port site, in its verbal comments on that document. The only "fatal flaw" the District identified with the Preliminary CMP 6 was that the proposed use of a lease with the State of Alaska was not sufficient for site protection. The District also commented that additional detail should be included on monitoring, maintenance, and costs/financial assurance. The District did not raise any concerns about mitigation for port site impacts during that review.

15. PLP's November 2020 CMP (CMP 6) was compiled based on the input from the District, including implementation of site protection through a deed restriction, rather than a lease, and additional detail on monitoring, long-term management, and costs/financial

ED_005447B_00000011-00065 Bristol Bay/Pebble Mine Permitting Process FOIAs_Interim Release 1

assurance. The CMP applied an overall mitigation ratio of about 8:1 for all impacts, including indirect impacts. This ratio is based on dividing the sum of all wetlands and other waters acreage in the proposed preservation area by the sum of all acreage of directly and indirectly impacted wetlands and other waters for the Project.

16. CMP 6 was submitted to the District on November 4, 2020. Although the District memorandum documenting its review of the CMP was dated November 9, 2020, PLP was not informed of the rejection of the CMP until it received the permit denial decision on November 25, 2020. PLP was never given an opportunity to address any of the alleged CMP deficiencies listed by the District.

17. The District provided two sample CMPs during the permitting process, the Donlin Gold CMP by email on September 10, 2018, and a link to a 2017 CMP for a Florida phosphate fertilizer mine by email on April 15, 2020 (http://cdm16021.contentdm.oclc.org/utils/getfile/collection/p16021coll7/id/6190). The District also provided PLP a copy of the 2018 Alaska Mitigation Thought Process document.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on January 19, 2021.

By: _____ _____
James Fueg
Vice President – Permitting
Pebble Limited Partnership

ED_005447B_00000011-00066 Bristol Bay/Pebble Mine Permitting Process FOIAs_Interim Release 1

Exhibit 2

Pebble Limited Partnership
Request for Appeal of Permit Denial
United States Army Corps of Engineers Permit Application No. POA-2017-00271
January 19, 2021

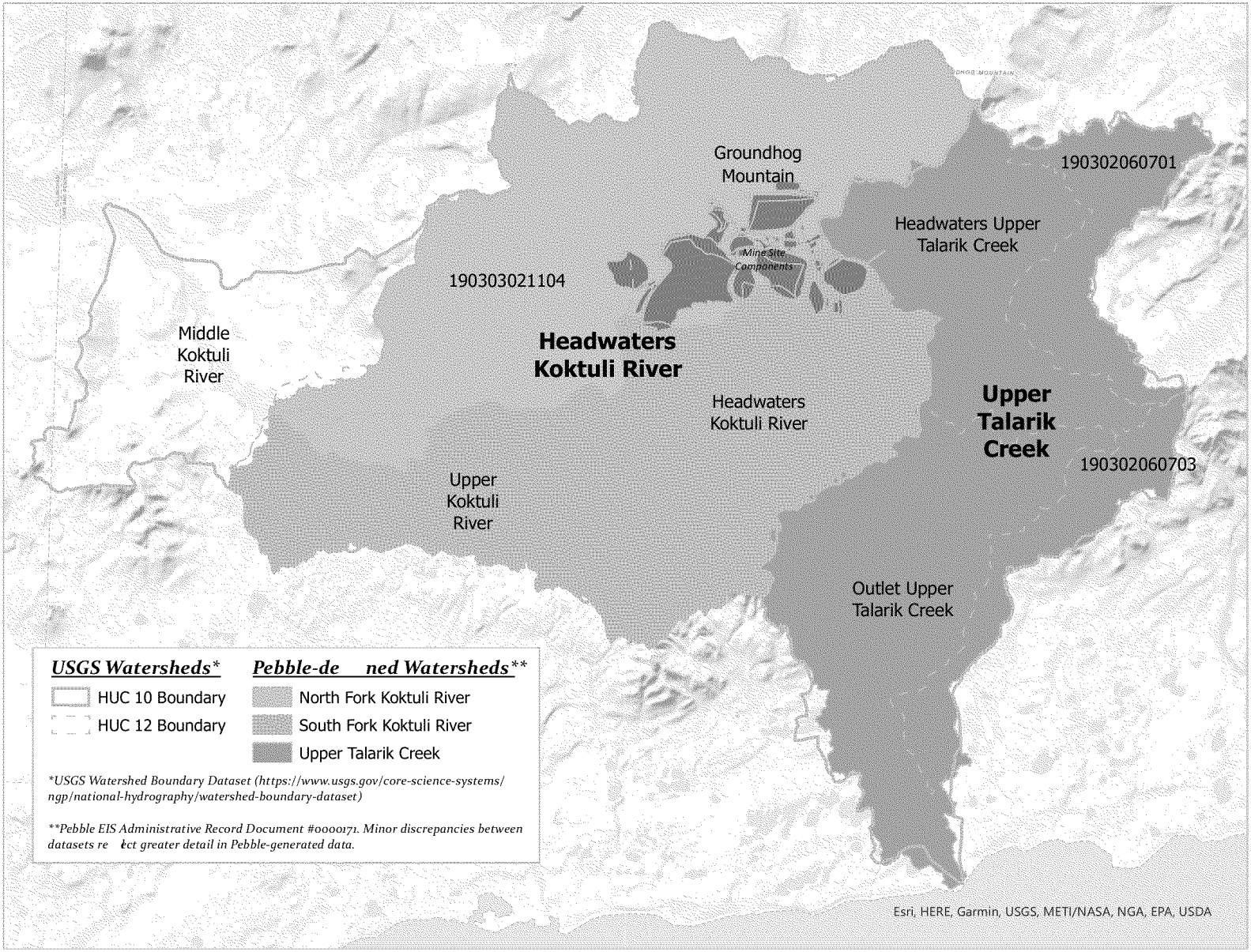
Groundhog Mountain
190302060701
Headwaters Upper Talarik Creek
Mine Site Components
190303021104
Middle Koktuli River
Headwaters Koktuli River
Headwaters Koktuli River
Upper Talarik Creek
190302060703
Upper Koktuli River
Outlet Upper Talarik Creek
USGS Watersheds*
HUC 10 Boundary
HUC 12 Boundary
Pebble-de ned Watersheds**
North Fork Koktuli River
South Fork Koktuli River
Upper Talarik Creek
*USGS Watershed Boundary Dataset (https://www.usgs.gov/core-science-systems/ngp/national-hydrography/watershed-boundary-dataset)
**Pebble EIS Administrative Record Document #0000171. Minor discrepancies between datasets re ect greater detail in Pebble-generated data.
Esri, HERE, Garmin, USGS, METI/NASA, NGA, EPA, USDA

Exhibit 3

Pebble Limited Partnership
Request for Appeal of Permit Denial
United States Army Corps of Engineers Permit Application No. POA-2017-00271
January 19, 2021

Pebble Project - Compensatory Mitigation Plan
USACE Review Comments and PLP Responses

Comment #	Section #	Page # *(PDF #)*	Line #	Comment	Response
1.	Cover page	[1]	2	No offsets for impacts to the port site. Not compliant for sufficiency.	PLP's approach to mitigation for the port site has not changed from the Preliminary Draft Compensatory Mitigation Plan (Preliminary CMP) submitted to USACE on September 29, 2020 and discussed with USACE on October 13, 2020. USACE did not raise concerns about the sufficiency of mitigation for impacts at the port site in verbal comments on that document. The proposal to include mitigation for impacts at the port site as part of the Koktuli Conservation Area (KCA) was also discussed in a September 18, 2020 meeting between PLP and USACE. No concerns were raised about PLP's proposal at that time. USACE's comment that no mitigation was proposed for the port site is incorrect. On page 1, the CMP states "[f]or the purposes of this document, the port, road corridor, and the natural gas pipeline are collectively referred to as transportation infrastructure." ROD_000187. Direct and indirect acres of impacts from the port site are included within the *Transportation* facility impact numbers. As described in Section 6, all project impacts, including transportation facility impacts, would be mitigated through preservation of the KCA. As described on page 5 of the CMP, "mitigation banks and in-lieu-fee providers do not have service areas that include the watersheds where Project impacts would occur, leaving permittee-responsible mitigation as the only available compensatory mitigation option for project impacts. PLP has evaluated the opportunity to restore, create, or enhance wetlands within the affected Project watersheds, but these opportunities are not available given the largely undisturbed nature of the area and the limited, isolated, and small scale of available opportunities, which are predominately out of kind." ROD_000191. As such, mitigation for impacts at the port site as part of the KCA is appropriate and ecologically preferable. The extremely high ratio of impacts to preserved wetlands and waters of the U.S. is unprecedented for other USACE authorizations in Alaska to date, exceeding 13:1 for direct impacts or approximately 8:1 if both direct and indirect impacts are considered and mitigated for at equal weight. These ratios demonstrate that the mitigation proposed is sufficient to mitigate for the impacts identified.

Comment #	Section #	Page # [PDF #]	Line #	Comment	Response
2.	1	1	1	332.4(c)(1) states in pertinent part: "the level of detail of the mitigation plan should be commensurate with the scale and scope of the impacts." This plan lacks sufficient detail for a project of this scale and scope.	This issue was not raised by USACE in their comments on the Preliminary CMP submitted to USACE on September 29, 2020 and discussed with USACE on October 13, 2020. This CMP is a preservation-only CMP. The detail required in a preservation-only CMP is significantly less than in a CMP that requires restoration or enhancement as there are no proposed designs, vegetation planting plans, etc., necessary. While the scope and scale of the compensatory mitigation project are large, the fundamental details of the preservation-only plan are no different than for a smaller site. Furthermore, the CMP contains a field-verified baseline wetland and waterbody mapping data covering the entire 112,445-acre KCA. This mapping was completed following the same protocols and level of mapping detail as was performed for project impact sites. The level of detail in this CMP is consistent with and in many cases exceeds that in other preservation-only CMPs recently approved by USACE. Comparable CMPs, both in terms to scale and scope of impact, include the Chuitna Permittee Responsible Mitigation Plan approved as part of the Donlin Gold Project (Applicant's Compensatory Mitigation Plan Appendix E, approved August 2018) and the Alaska LNG Wetlands Compensatory Mitigation Plan (dated June 2, 2020). It is also noteworthy that USACE approved the Ambler Road Project in July 2020, which included permanent placement of fill in 1,431.0 acres of wetlands, 0.5 acre of open water, and 250,435 linear feet of stream channel and indirect impacts to 17,187 acres of wetlands due to dust deposition with **no** compensatory mitigation required ("the Corps has determined that mitigation in the form of avoidance and minimization is sufficient and compensatory mitigation for impacts of the proposed project is not appropriate." Joint Record of Decision, page F-38). A finding that PLP's CMP is insufficient is inconsistent with these recent and relevant decisions.

Comment #	Section #	Page # [PDF #]	Line #	Comment	Response
3.	2	3	8	332.3(h)(2) not addressed. A waiver by the District Engineer is required since preservation is the sole form of compensatory mitigation.	This issue was not raised by USACE in their comments on the Preliminary CMP submitted to USACE on September 29, 2020 and discussed with USACE on October 13, 2020. All criteria under 33 CFR § 332.3(h) are addressed on pages 3 and 4 of the CMP. ROD_000189. Only the District Engineer may determine if preservation is appropriate and practicable. Section 332.3(h)(2) does not specify a request for waiver is required, but only that the District Engineer may waive the requirement where preservation has been identified as a high priority using a watershed approach. PLP's submittal of a preservation-only CMP within the Koktuli River watershed meets the requirements of a written request for the District Engineer to consider the appropriateness of a waiver. A preservation-only CMP is justified based on the USACE's direction provided by letter on August 20, 2020, which stated that "in-kind compensatory mitigation within the Koktuli River Watershed will be required to compensate for all direct and indirect impacts caused by discharges into aquatic resources at the mine site." AR 17250_000809.Due to existing baseline conditions within the Koktuli River Watershed, as documented in PLP's *Koktuli Conservation Area Wetland and Waterbody Delineation Report*, opportunities for wetland restoration are not available and restoration creation or enhancement would not be reasonable or desirable from an ecological standpoint. As noted in the response to comment #5 (below) the Nushagak River Watershed Traditional Use Area Conservation Plan prioritizes the proposed mitigation area watershed for conservation.
4.	3	5	1	Is adjacent mining something that could compromise the viability of the site? Inadequate discussion regarding surrounding future land uses.	This issue was not raised by USACE in their comments on the Preliminary CMP submitted to USACE on September 29, 2020 and discussed with USACE on October 13, 2020. Adjacent mining is unlikely to compromise the viability of the site. The inclusion of the entirety of multiple HUC 12 watersheds, the use of watershed boundaries as the boundaries for the KCA, and the large size of the area

Comment #	Section #	Page # [PDF #]	Line #	Comment	Response
					protected would minimize the impact of adjacent mining on the viability of the site.
5.	3.1	5	23	This was not submitted. I did look it up and it is not compliant with the watershed approach and therefore cannot be relied upon as the sole document.	This issue was not raised by USACE in their comments on the Preliminary CMP submitted to USACE on September 29, 2020 and discussed with USACE on October 13, 2020. The NRWTUA is a publicly available document located here: https://www.nature.org/content/dam/tnc/nature/en/documents/nushagak-river-watershed-traditional-use-area-conservation-plan.pdf The NRWTUA clearly identifies the importance of preserving portions of the headwater rivers of the Nushagak Drainage and salmon habitat throughout the drainage, exactly as proposed with the KCA.
6.	3.3.4	8	14	So not all of the threat was removed from MCO [Mineral Closing Order] 393? Are they asking for credit for the thread of the channel? Is this taken into consideration as far as their numbers go? Cannot determine compliance for sufficiency of compensatory mitigation.	This issue was not raised by USACE in their comments on the Preliminary CMP submitted to USACE on September 29, 2020 and discussed with USACE on October 13, 2020. As discussed on page 8 of the CMP, "the narrow protection of MCO 393 would not adequately protect the natural processes of the river, the floodplain, the riparian corridor, or the upland buffer that support the existing diversity of aquatic resources in the watershed." ROD_000194. Furthermore, the MCO only protects against mineral entry and development but does not limit other forms of development that might impact aquatic resources within the KCA. The NRWTUA identifies other probable threats to the watershed in addition to mining including commercial development, community development, recreational subdivisions, recreational activities, and roads. Furthermore, the NRWTUA states that "some threats like commercial and recreational development are already having a noticeable impact suggesting that serious harm could occur if action is not taken in the near future."

Comment #	Section #	Page # [PDF #]	Line #	Comment	Response
					The KCA would include areas covered by MCO 393 and surrounding areas. PLP is proposing to preserve all areas within the 112,445-acre KCA, including those areas protected from mineral development under MCO 393. All aquatic resources within the KCA are preserved and are used within the mitigation ratio described in Section 6.2 Mitigation Credits of the CMP.
7.	3.3.6	9	17	Do they hold all active claims? This is unclear. Cannot determine threat properly without this information. Not in compliance with 332.3(h).	This issue was not raised by USACE in their comments on the Preliminary CMP submitted to USACE on September 29, 2020 and discussed with USACE on October 13, 2020. The only active mining claims are held by PLP. The active mining claims held by PLP are discussed and shown on Figure 3-2. Other active mining claims are not discussed because they are nonexistent.
8.	3.3.6	9	18	Can these be reopened? Insufficient information; therefore, cannot determine compliance.	This issue was not raised by USACE in their comments on the Preliminary CMP submitted to USACE on September 29, 2020 and discussed with USACE on October 13, 2020. The paragraph referenced describes lapsed mining claims and identifies future development of additional mines as a reasonably foreseeable future action. These additional mines would occur on the lapsed mining claims not owned by PLP. The lapsed mining claims can be reopened.
9.	3.3.6	9	23	What uses? Need the management plan the State uses for this property. Insufficient information; therefore, cannot determine compliance.	This issue was not raised by USACE in their comments on the Preliminary CMP submitted to USACE on September 29, 2020 and discussed with USACE on October 13, 2020. The State land within the KCA is managed by the Division of Mining, Land, and Water as either mining or undesignated. Management of State land in the Bristol Bay region is directed by the Bristol Bay Area Plan (ADNR 2013). This document is publicly available at http://dnr.alaska.gov/mlw/planning/areaplans/bristol/2013/pdf/bbap_amend2013_complete.pdf

Comment #	Section #	Page # [PDF #]	Line #	Comment	Response
10.	4	9	33	Why is a conservation easement not practicable? 332.7(a)(1) states in pertinent part: "To provide sufficient site protection, a conservation easement or restrictive covenant should, where practicable, establish in an appropriate third party (e.g., governmental or non-profit resource management agency) the right to enforce site protections and provide the third party the resources necessary to monitor and enforce these site protections." Why is it not practicable to do a conservation easement and have a holder who can enforce? Moreover, there are no third party enforcement rights granted to the Corps. The Corps should be given enforcement rights. The deed restriction does not appear to be written to "run with the land" at least as far as the draft language goes. I cannot determine though since the instrument was not submitted. Insufficient information; therefore, cannot determine compliance. Not included (Insufficient information; therefore, cannot determine compliance): a. Express statement that the purpose of the instrument is to protect a compensatory mitigation site under Federal and (where applicable) State law; b. Express reference to the DA permit and/or mitigation banking or ILF program instrument. c. Survey/Legal Description (Survey shows any easements that will remain in place)	PLP updated the site protection instrument based on comments from USACE on the Preliminary CMP. However, the practicability of a conservation easement was not raised by USACE in its comments. A site protection instrument does not have to be in final form until the start of on-site activities impacting jurisdictional lands. 33 CFR § 332.7(a)(5). The site protection language in the CMP was provided as draft language to be negotiated and approved by USACE prior to recording with the Alaska Department of Natural Resources Recorder's Office. The CMP states on page 10 that the site protection instrument will "reference the CMP, provide notice that the covenants and restrictions run with the land, and declare the right of enforceability of its terms by the USACE." ROD_000195-96. This is consistent with other permittee-responsible mitigation plans and Banking Instruments approved by the Alaska District which include preservation as the predominant means for mitigating adverse impacts to other wetlands. For example, the Chuitna Permittee Responsible Mitigation Plan (Appendix E of the Donlin Gold Project CMP) approved by USACE states: "Donlin Gold agrees to establish the Protection Instruments (recording the deed restrictions) in advance of Project construction" but does not provide the final site protection language in the CMP.

Comment #	Section #	Page # [PDF #]	Line #	Comment	Response
				d. Identification of other property rights/interests; e. Baseline- Description of conservation resources on the site, including listed species, habitat, and available information concerning the contribution they provide in terms of functions and services; f. Prohibited and Acceptable Uses (Notice of Conservation Restrictions in other Permit Applications); g. Third-party right of enforcement; h. State that any amendment of the instrument must be pre-approved by the Corps and that approval must be reflected in an amendment recorded in the chain of title; and i. Provision regarding what happens in a "taking" by the Government (eminent domain). Although the State owns this now (as I understand it), it may sell or otherwise transfer the property in which this may be an issue. While we shouldn't have subordination issues, I cannot tell since no information was provided regarding title insurance, leases, contracts, timber rights, litigation, rights-of-ways (roads access), easements, mining claims, lien holders, native allotments, etc. Insufficient information; therefore, cannot determine compliance.	
11.	4	9	37	Preamble, Page 19646 states in pertinent part: "The goal of the rule is to ensure permanent protection of all compensatory mitigation project sites. Specifically the rule states that the aquatic habitats, riparian areas, buffers, and uplands that comprise the overall compensatory mitigation project must be provided long-term protection	This text is similar to that contained in the Preliminary CMP submitted to USACE on September 29, 2020. However, this issue was not raised by USACE in their comments on the Preliminary CMP.

Comment #	Section #	Page # [PDF #]	Line #	Comment	Response
				through real estate instruments or other available mechanisms. However, we recognize that the terms of real estate or legal instruments used to protect compensatory mitigation project sites will differ, because of the variability in real estate laws among states and local jurisdictions." What specific real estate law prohibits "permanent protection"? "Permanent" is used elsewhere in the document. Insufficient information; therefore, cannot determine compliance.	The use of Alaska State land for private purposes is outlined in Alaska Statute (AS) 38.04. The Site Protection Instrument will remain in effect at 99 years. The State would continue to hold title to the KCA and cannot make "permanent" decisions regarding its lands. This approach is recognized in the site protection regulation. 33 CFR § 332.7(a)(1).
12.	4.1	10	14	Baseline information is required as it allows USACE to determine compliance for threat, site protection, and sufficiency. Insufficient information; therefore, cannot determine compliance.	This issue was not raised by USACE in their comments on the Preliminary CMP submitted to USACE on September 29, 2020 and discussed with USACE on October 13, 2020. PLP provided USACE the *Pebble Project – Koktuli Conservation Area Wetlands and Waterbodies Delineation Report.* This report describes and delineates aquatic resource boundaries within the 112,445-acre KCA. The acreage of aquatic resources provides the basis for credits of the CMP. The 13,392-page report, including 19 appendices, documented wetland mapping conducted at the same level of detail as was completed for project impacts. The mapping of baseline conditions was supported by field data collected at 1,923 wetland determination plots and an additional 2,500 representative photo points and 689 stream crossing photo points. ROD_000199. PLP proposes to acquire additional information by performing a boundary and baseline survey prior to commencement of mine construction. This additional information is not available to PLP at this time, and will be included in the Baseline Documentation and Monitoring Report as outlined on page 27 of the CMP.

Comment #	Section #	Page # [PDF #]	Line #	Comment	Response
					The baseline information provided in the survey would not change the terms of compliance for threat or site protection.
13.	4.1	11	5	So do we have existing roads, etc.? If so we need to include them in monitoring and maintenance, if not, why are these reserved rights here? Insufficient information; therefore, cannot determine compliance.	This issue was not raised by USACE in their comments on the Preliminary CMP submitted to USACE on September 29, 2020 and discussed with USACE on October 13, 2020. There are no known roads within the KCA. This site protection language in the CMP was provided as draft language to be negotiated and approved by USACE prior to recording with the Alaska Department of Natural Resources Recorder's Office.
14.	4.1	11	33	Why PLP? Is PLP restricting the land? I thought it was owned by the State and thus they would be the entity restricting the property. I thought PLP did not have the necessary interest in the land. This needs to be clarified. Since I do not have the associated real estate documents, I cannot determine compliance. The full instrument with supporting documentation is required. Insufficient information; therefore, cannot determine compliance.	This issue was not raised by USACE in their comments on the Preliminary CMP submitted to USACE on September 29, 2020 and discussed with USACE on October 13, 2020. PLP is included because the use of permittee-responsible mitigation is defined as aquatic resource restoration, establishment, enhancement, and/or preservation activity undertaken by the permittee to provide compensatory mitigation for which the permittee retains full responsibility (33 CFR § 332.2). Any changes to the Declaration of Conservation Covenant and Restriction would need to include PLP, as it would alter the terms of the CMP. The site protection language in the CMP was provided as draft language to be negotiated and approved by USACE in coordination with PLP obtaining the requisite approvals from the Alaska Department of Natural Resources. Finalization of site protection language would occur following approval of the CMP but before on-site activities begin. The site protection instrument need not be in final form until the start of Project construction.

Comment #	Section #	Page # [PDF #]	Line #	Comment	Response
15.	4.1	12	2	Not in compliance with 332.7(a)(3): "The real estate instrument, management plan, or other long-term protection mechanism must contain a provision requiring 60-day advance notification to the district engineer before any action is taken to void or modify the instrument, management plan, or long-term protection mechanism, including transfer of title to, or establishment of any other legal claims over, the compensatory mitigation site."	PLP includes a provision requiring 60 days' notice to void or modify the Site Protection Instrument in the draft site protection language. This appears to meet the requirements under 33 CFR § 332.7(a)(3). USACE does not provide sufficient explanation as to why the provided provision is not compliant with 33 CFR § 332.7(a)(3).
16.	5	12	6	Seems like there are existing roads, culverts, and other alterations. A baseline report must document these alterations. We typically require monitoring of existing structures to ensure widening, extensions, etc. do not occur and encroach upon the preserved area. Moreover, this affects the above sections as stated in earlier comments. Insufficient information; therefore, cannot determine compliance.	This issue was not raised by USACE in their comments on the Preliminary CMP submitted to USACE on September 29, 2020 and discussed with USACE on October 13, 2020. There are no known existing roads, culverts, and other alterations. PLP proposes confirming these conditions by performing low-level helicopter transects and collecting high-resolution aerial imagery prior to establishment of the Site Protection Instrument. A boundary survey will also be performed to locate the exact boundaries of the KCA.
17.	Table 6.4	24	(1)	Typo?	The table notes span pages 23 and 24 thus the headers were incorrectly repeated on page 24.
18.	6.2	24	28	Inconsistent with 99 year long-term protection. This appears to conflict with other information in the document. Unsure which is correct. Conflicting information; therefore, cannot determine compliance.	This issue was not raised by USACE in their comments on the Preliminary CMP submitted to USACE on September 29, 2020 and discussed with USACE on October 13, 2020. An alternative to the use of 99-year long as a surrogate for permanent in the sentence would be to state: "The preservation of aquatic resources and associated habitats for the duration of the Site Protection Instrument in the Koktuli River watershed will support the long-term sustainability aquatic resources of national importance and the Pacific salmon and caribou that those aquatic resources support."

ED_005447B_00000011-00079 Bristol Bay/Pebble Mine Permitting Process FOIAs_Interim Release 1

Comment #	Section #	Page # [PDF #]	Line #	Comment	Response
19.	7	24	37	Unsure as to the intent of this documentation. Is this to document compliance or initial baseline? This should be in the monitoring section. Are we requiring signs or other work? Insufficient information; therefore, cannot determine compliance.	This issue was not raised by USACE in their comments on the Preliminary CMP submitted to USACE on September 29, 2020 and discussed with USACE on October 13, 2020. The sentence would be more accurately written as "PLP will conduct a site visit 1 year prior to the establishment of the Site Protection Instrument to document baseline conditions." However, the process is further and more clearly described in Section 10 of the CMP, as well as in Table 10-1. ROD_000211-14.
20.	8	25	1	Maintenance plan is still required; therefore, not in compliance. Essentially the plan should be to maintain the property in accordance with baseline conditions. A maintenance plan established maintenance activities prior to the long-term management phase.	This issue was not raised by USACE in their comments on the Preliminary CMP submitted to USACE on September 29, 2020 and discussed with USACE on October 13, 2020. No restoration, rehabilitation, or enhancement activities are proposed as part of this CMP. A maintenance plan is not necessary to ensure that the preserved area remains intact and functioning at current capacity. Any activities required to maintain the property in accordance with baseline conditions will occur as part of the Adaptive Management Plan. This is consistent with other permittee-responsible mitigation plans and Banking Instruments approved by the Alaska District which include preservation as the predominant means for mitigating adverse impacts to other wetlands. For example, the Chuitna Permittee Responsible Mitigation Plan (Appendix E of the Donlin Gold Project CMP) approved by USACE states: "Donlin Gold is not providing a maintenance plan in this Plan. No maintenance will be necessary, because the Protection Instrument will provide for long-term preservation." Similarly, the Alaska LNG CMP states: "If preservation is used as mitigation and due to their remote nature, maintenance is not expected for the Cape Halkett or Utqiagvik preservation parcel on the ACP. Any maintenance will be part of adaptive management, if necessary" (p. 34). It is inconsistent to determine that the PLP CMP is

Comment #	Section #	Page # [PDF #]	Line #	Comment	Response
					insufficient when other plans with similar language have recently been approved by USACE. Other approved preservation plans take a similar approach to the PLP CMP: • Harmony Ranch Mitigation Bank: "A maintenance plan is not needed for establishing the Bank. The Corps may require the Sponsor to submit a maintenance plan after results of the first-year's monitoring event are submitted to the IRT. Future enhancement projects that involve construction activity will need a maintenance plan." https://ribits.usace.army.mil/ords/f?p=107:278:::NO:RP,278:P278_BANK_ID:1895 • Great Land Trust- Mud Lake Mitigation Plan: "This is a preservation only mitigation project. There is no construction involved. The project sponsor will monitor according to the monitoring requirements for compliance with the conservation easement. The property owner will maintain the property pursuant to the conservation easement." https://ribits.usace.army.mil/ords/f?p=107:378:::NO::P378_PROGRAM_ID:2401 • Redmond Development James Toman Mary Redmond Reserve Mitigation Bank: "Maintenance activities of the Redmond Mitigation Site during Bank operations are the same as described in the Long-Term Management Plan (Appendix A). Annual maintenance activities will be implemented by the Sponsor and documentation provided to the Corps until closure of the Mitigation Site." https://ribits.usace.army.mil/ords/f?p=107:278:::NO:RP,278:P278_BANK_ID:3307
21.	9	25	8	Performance is maintenance of the baseline. Monitoring and documentation are actions taken to ensure the performance standards are met. They themselves are not performance standards. No ecological performance standards were submitted and therefore not in compliance. Submitted performance standards are	This issue was not raised by USACE in their comments on the Preliminary CMP submitted to USACE on September 29, 2020 and discussed with USACE on October 13, 2020. A functional assessment was not required for impacts at the site of the proposed mine. Existing aquatic resources were determined to be

Comment #	Section #	Page # [PDF #]	Line #	Comment	Response
				administrative in nature, such as the act of monitoring, the act of enforcement, and the act of documentation of the deed restriction requirements. Also, enforcement is mentioned here, but not in the site protection section.	unimpacted and a metric of acres was used to assess impacts. USACE also considered impacts to regionally important wetlands in the Environmental Impact Statement. For consistency with the impact site, the metric of acres is used in the CMP as an ecological performance standard based on the unimpacted nature of the proposed preservation area. A conditional assessment of the proposed aquatic resources would determine that the natural functions of the aquatic resources preserved are largely undisturbed by human influence. As stated in 33 CFR § 332.5, "[t]he approved mitigation plan must contain performance standards that will be used to assess whether the project is achieving its objectives of the compensatory mitigation project, so that the project can be objectively evaluated to determine if it is developing into the desired resource type, providing the expected functions, and attaining any other applicable metrics (e.g. acres.)." The Preamble to the 2008 Final Rule states that "[p]erformance standards will vary by aquatic resource type and geographic region" (73 Fed. Reg. 19, 594, 19, 643 (April 10, 2008)). It also states that "[t]his rule cannot provide specific ecological performance standards for use in compensatory mitigation projects. Instead, it must focus on the general principles for ecological performance standards. Performance standards must be developed on a project-by-project basis, to address the objectives of the compensatory mitigation project" (page 19644). The Preamble goes on to state that "[a]rea-based performance standards tied to functions can also be used, to determine the functional capacity of a compensatory mitigation project. However, area or linear measures alone would not constitute ecological performance standards. Functional or conditional assessments should be used where appropriate and practicable

Comment #	Section #	Page # [PDF #]	Line #	Comment	Response
					to better describe how compensatory mitigation projects offset losses of aquatic resource function" (*id.* at 19644). Based on the unprecedented scale of the preservation project, the inclusion of entire HUC 12 watersheds, and the unimpacted nature of the preserved wetlands, acres are acceptable for use as a metric for ecological performance standard. The CMP also includes acres of regionally important wetlands protected under the CMP for consistency with the Environmental Impact Statement. The use of undisturbed aquatic resource acres as an ecological performance standard is consistent with USACE's evaluation of aquatic resource impacts at the project site.
22.	9	25	17	Are existing disturbances documented? Existing disturbances require documentation as noted above. Insufficient information; therefore, cannot determine compliance.	This issue was not raised by USACE in their comments on the Preliminary CMP submitted to USACE on September 29, 2020 and discussed with USACE on October 13, 2020. No existing disturbances are documented within the proposed preservation area. This will be confirmed by the Baseline Documentation Report submitted to USACE prior to recording of the Site Protection Instrument.
23.	9	25	18	Baseline must be established prior to the site protection mechanism, as noted above. Insufficient information; therefore, cannot determine compliance.	Baseline conditions of aquatic resources in the KCA has been clearly established as documented in the Pebble Project – Koktuli Conservation Area Wetlands and Waterbodies Delineation Report attached to the CMP. The absence of surface disturbances will be confirmed in the Baseline Documentation Report prior to recording the Site Protection Instrument as described in Section 10 and Table 10-1. ROD_000211-14.
24.	9	25	22	Baseline information should include natural variability. This should also be part of the ecological performance standards. This statement provides unclarity for compliance purposes.	This issue was not raised by USACE in their comments on the Preliminary CMP submitted to USACE on September 29, 2020 and discussed with USACE on October 13, 2020.

Comment #	Section #	Page # [PDF #]	Line #	Comment	Response
					The ecological performance standards are addressed in response to comment 21 above. While natural variability is expected to occur, the overall acreage of aquatic resources is expected to remain consistent. As described in Section 3.3.1 of the CMP (page 6), "the highly sinuous main channels of the North and South forks are prone to regular lateral migration within the floodplain." Furthermore, "the Koktuli River's dynamic riverine movement, as evidenced by its many oxbow lakes, side channels, and braided reaches, creates a diversity of aquatic, riparian, and upland habitats" (Section 3.3.2, page 7). The natural variability of this system justifies preservation of the entire intact ecosystem that will continue to respond dynamically to natural variability in a resilient and adaptable manner presently and in the long-term. ROD_000192-93.
25.	10	25	26	This information seems to conflict with the above. Conflicting information; therefore, cannot determine compliance.	Comment does not provide specific details on which information seems to conflict. An outline of the proposed activities is included in Table 10-1 for clarity. ROD_000212.
26.	10	25	27	Survey should be done in conjunction with real estate documents to ensure all encumbrances, easements, etc. are noted/documented. Baseline information is also not completed until disturbances are mapped and described. Insufficient information; therefore, cannot determine compliance.	The baseline survey will include all information needed for inclusion into the Site Protection Instrument and will include descriptions of all encumbrances, easements, etc. As shown in Table 10-1, it will be completed prior to finalization of the real estate documents. There are no known disturbances within the KCA. The Baseline Documentation Report will confirm this. The Baseline Documentation Report will not impact the findings in the *Pebble Project – Koktuli Conservation Area Wetland and Waterbodies Delineation Report,* which provides the basis for the CMP. ROD_000212.
27.	10	25	29	The holder of a conservation easement can enforce the provisions of a conservation easement, but there is no holder of a deed restriction. Also, if a third-party is to be used, they need to identified and approved by the Corps. See comment on site protection above.	In accordance with the 2008 Mitigation Rule, PLP retains full responsibility to ensure that the elements of the CMP are fulfilled. PLP will be responsible for enforcement of the Site Protection Instrument.
28.	10	25	32	One monitoring event for 5 years is not sufficient to demonstrate that the compensatory mitigation project has met and maintained performance standards. Every other year is appropriate for	This issue was not raised by USACE in their comments on the Preliminary CMP submitted to USACE on September 29, 2020 and discussed with USACE on October 13, 2020.

Comment #	Section #	Page # [PDF #]	Line #	Comment	Response
				this type of project and preservation action. Conducting this the last year would not provide this trend and does not allow for time to correct issues should they occur.	If USACE had provided comments on this issue on the Preliminary CMP (which is typical of the normal iterative CMP development process), PLP could have made changes to the proposed schedule of monitoring activities. Note that very little, if any, change in aquatic resource condition is expected during the monitoring period or during subsequent long-term management. The five-year schedule for monitoring and long-term management is based on the lack of expected change within this unaltered condition of the preservation area, balanced with safety considerations and the potential for creation of additional noise disturbance from helicopter-supported site visits.
29.	Table 10.1	26	1	See above comments as it relates to the boundary survey. Insufficient information; therefore, cannot determine compliance.	The boundary survey will include all information needed for inclusion in the Site Protection Instrument and will include descriptions of all encumbrances, easements, etc. There are no known disturbances within the KCA. The Baseline Documentation Report will confirm this. The Baseline Documentation Report will supplement while not conflicting with the findings in the *Pebble Project – Koktuli Conservation Area Wetland and Waterbodies Delineation Report,* which provides the basis for the CMP. Based on past Alaska District projects, GIS-level analysis of publicly available property data is typically suitable until the final drafts of the legal instruments are in review by the parties. A boundary survey is not required for a mitigation area before approval of the CMP and issuance of a permit by the Alaska District.
30.	Table 10.1	26	5	See above comments as it relates to baseline documentation. Insufficient information; therefore, cannot determine compliance.	The boundary survey will include all information needed for inclusion in the Site Protection Instrument and will include descriptions of all encumbrances, easements, etc. There are no known disturbances within the KCA. The Baseline Documentation Report will confirm this. The Baseline Documentation Report will supplement while not conflicting with the findings within the *Pebble Project – Koktuli Conservation Area Wetland and Waterbodies Delineation Report,* which provides the basis for the CMP.
31.	Table 10.1	26	6	See above comments as it relates to site protection. Insufficient information; therefore, cannot determine compliance.	The site protection language in the CMP (*see* Section 4.1 Draft Site Protection Language and references on page 26 to "once finalized") was provided as draft language to be negotiated and approved by USACE following approval of the CMP but before on-site activities begin. The site

Comment #	Section #	Page # [PDF #]	Line #	Comment	Response
					protection instrument need not be in final form until the start of Project construction.
32.	10	26	5	See above comments as it relates to site protection. Insufficient information; therefore, cannot determine compliance.	The site protection language in the CMP (*see* Section 4.1 Draft Site Protection Language and references on page 26 to "once finalized") was provided as draft language to be negotiated and approved by USACE following approval of the CMP but before on-site activities begin. The site protection instrument need not be in final form until the start of Project construction.
33.	10	27	8	Following RGL 08-03 would help ensure compliance. Requirements and ecological performance standards need to be in this section. Also, a Conclusions Section needs to be added to the end. 332.6(a)(1) states in pertinent part: "The mitigation plan must address the monitoring requirements for the compensatory mitigation project, including the parameters to be monitored, the length of the monitoring period, the party responsible for conducting the monitoring, the frequency for submitting monitoring reports to the district engineer, and the party responsible for submitting those monitoring reports to the district engineer." 1) No parameters to be monitored; 2) Not expressly stated; therefore unclear; 3) Not specifically identified, but the default is PLP (unclear); 4) Frequency is noted, but not adequate; 5) Implies 3rd party is responsible, but the text is unclear. Insufficient information; therefore, cannot determine compliance.	This issue was not raised by USACE in their comments on the Preliminary CMP submitted to USACE on September 29, 2020 and discussed with USACE on October 13, 2020. As stated in the response to comment 21, the proposed acreage-based performance standards qualify as ecological performance standards due to the large size of the preservation area and the unaltered nature of the preservation area. 1) The parameters to be monitored include any encroachment or impact on the existing aquatic resources within the KCA. 2) The methods (i.e., collection of aerial photography, analyses of aerial photography, and low-level site reconnaissance using a helicopter) are described in Section 10 of the CMP. 3) In accordance with the 2008 Mitigation Rule, PLP retains full responsibility to ensure that the elements of the CMP are fulfilled. 4) PLP would be willing to follow the recommendation of USACE and increase frequency to every other year. This would result in the addition of one additional monitoring event within the 5-year monitoring schedule. 5) In accordance with the 2008 Mitigation Rule, PLP retains full responsibility to ensure that the elements of the CMP are fulfilled.

Comment #	Section #	Page # [PDF #]	Line #	Comment	Response
34.	10	27	25	Force majeure must be documented in the site protection section. Force Majeure exclusions need to be clearly stated as well as resolution options. Insufficient force majeure information; therefore, cannot determine compliance.	This issue was not raised by USACE in their comments on the Preliminary CMP submitted to USACE on September 29, 2020 and discussed with USACE on October 13, 2020. PLP includes force majeure exclusions in Section 11 Long-term Management Plan on page 29 of the CMP, which would be referenced in the Site Protection Instrument. All alterations to the site not due to force majeure are subject to long-term maintenance and adaptive management activities. ROD_000215.
35.	10	27	28	See above comments as it relates to baseline documentation. Insufficient information; therefore, cannot determine compliance.	See above comment responses.
36.	10	28	1	Unclear regarding enforcement of the site protection instrument. See above comments as it relates to site protection. Insufficient information; therefore, cannot determine compliance.	A third party will identify any compliance issues with the Site Protection Instrument and PLP will enforce the terms of the Site Protection Instrument. PLP retains full responsibility to ensure that the elements of the CMP are fulfilled, in accordance with the 2008 Mitigation Rule.
37.	10	28	23	Why is it not practicable to have a third-party?	During a portion of the duration of the Site Protection Instrument, PLP will have access to considerable personnel and equipment close to the preservation site. In accordance with the 2008 Mitigation Rule, PLP retains full responsibility to ensure that the elements of the CMP are fulfilled. As clearly described in Sections 10 and 11, a third-party entity contracted by PLP will be responsible for monitoring and reporting requirements.
38.	10	28	25	Is PLP the long-term manager? Insufficient information; therefore, cannot determine compliance.	As a preservation site, the third party's primary role is anticipated to be confirmation and documentation of the condition and protective measures regarding the KCA. As is typical in these situations, if an issue is identified, the third party shall notify PLP and the USACE. During long-term management, PLP will have varying amounts of personnel and equipment near the preservation area. When the mine is in operation, PLP will perform duties that may otherwise be contracted to a third-party or other restoration/ reclamation contractor. PLP retains full responsibility to ensure that the

Comment #	Section #	Page # [PDF #]	Line #	Comment	Response
					elements of the CMP are fulfilled regardless of the entity performing the activities. The third party will serve in an oversight and reporting capacity.
39.	11	29	11	See notes on Attachment B below. Also, 332.4(c)(11) states: "*Long-term management plan.* A description of how the compensatory mitigation project will be managed after performance standards have been achieved to ensure the long-term sustainability of the resource, including long-term financing mechanisms and the party responsible for long-term management." Insufficient information; therefore, cannot determine compliance.	The long-term funding mechanism proposed is a performance bond or escrow account in the amount of $1,525,000 as noted on page 29, 2nd paragraph. No third party was identified, as the market is highly variable and the timeframe for obtaining the mechanism is uncertain. However, the funding mechanism would be established prior to construction of the project as is consistent with other similar mitigation plans recently approved by USACE. Examples include: • Donlin Gold Chuitna PRM Plan: Donlin Gold agrees to establish the Protection Instruments (recording the deed restrictions) in advance of Project construction; therefore, no Financial Instrument is included the Plan. Proof of recordation will be filed with USACE. • Tanana River Lower Chena Flats Greenbelt Site Mitigation Plan: A financial security instrument will be provided to the Corps as required to guarantee that the Bank will be established, monitored and maintained and meet the performance standards in accordance with this mitigation bank instrument. • Harmony Ranch Mitigation Bank: Financial Assurances are not needed for Bank establishment because the wetlands in this parcel are intact; and management for preservation will be assumed to maintained wetland function. Because the Bank property is in high functioning ecological condition project risk is considered to be low. Thus, annual maintenance and contingency costs are estimated to be minimal, and the Sponsor intends to pay for these out of pocket. However, a Bank Contingency Fund will be established to cover Bank operation, maintenance, and monitoring contingencies. https://ribits.usace.army.mil/ords/f?p=107:278:::NO:RP,278:P278_BANK_ID:1895.
40.	11	29	13	See Attachment B below for specific comments regarding cost estimate.	On page 29, the CMP states that "a financing mechanism such as a performance bond or escrow account will be established by PLP to cover the costs." ROD_000215. If USACE believes that a performance bond is

Comment #	Section #	Page # [PDF #]	Line #	Comment	Response
				Mechanism not submitted and thus not compliant with the rule. Moreover, a performance bond is not an acceptable mechanism for long-term management. Insufficient information; therefore, cannot determine compliance.	unacceptable, PLP will use an escrow account or interest-bearing non-wasting fund, which are also widely used methods. This issue is easily resolved. If USACE would have provided comments on the Preliminary CMP, PLP could have made changes acceptable to both parties.
41.	11	29	16	This must be addressed in the ecological performance measures and carried over into the long-term management plan.	PLP includes force majeure exclusions within Section 11 Long-term Management Plan of the CMP, which would be referenced within the Site Protection Instrument. Alterations to the site not due to force majeure are subject to long-term maintenance and adaptive management activities. ROD_000215.
42.	11	29	27	What are the State's requirements if any including reserved management responsibilities? Insufficient information; therefore, cannot determine compliance.	Reserved management responsibilities and other specific State requirements would be finalized as part of the Site Protection Instrument during discussions with the State. Such reserved responsibilities, if any, would be an enforceable component of the Site Protection Instrument. If USACE would have provided comments on the Preliminary CMP, PLP could have made changes acceptable to both parties.
43.	12	30	9	First mention of hardened roads. Many of these items are not covered in long-term management or the cost estimates. How are these specifically addressed in the site protection instrument? Insufficient information; therefore, cannot determine compliance.	The activities cited are examples of prohibited activities. These activities are not covered in the Long-term Management Plan because they are not currently happening and are not currently impacting the KCA. If these activities do occur, adaptive management will take place in order to restore the area. A conservative estimate of $333,000 was used as an approximate cost to rectify any one of these situations. It was also estimated that a prohibited activity requiring enforcement and rectification would occur once every 20 years. The first prohibition listed in the draft site protection language (page 10 of the CMP) is "(a) There shall be no filling, flooding, excavating, mining, or drilling; no removal of natural materials; no dumping of materials; and no alteration of the topography in any manner except as provided in the Reserved Rights below." ROD_000196.

Comment #	Section #	Page # [PDF #]	Line #	Comment	Response
44.	12	30	25	No mechanism submitted. Assumptions are not documented as far as the fill removal, drainage structures, hardened roads, trails, walkways, etc. Who is the responsible party? PLP states they are financial responsible, but it is unclear who is responsible for the actual work itself. Are they transferring that to the third party? If so how? More information is needed as far as the third party and PLP legal arrangement. It is unclear if they are a contractor or long-term manager. Is PLP the long-term manager? Insufficient information; therefore, cannot determine compliance.	The CMP states that the $1,665,000 will be included in the long-term management fund, which would have a funding mechanism of a performance bond or escrow account. If a performance bond is not acceptable to USACE, an escrow account will be used. USACE is unclear when it states that assumptions are not documented. PLP provides the following assumptions for an adaptive management activity. As described in Attachment B of the CMP, each adaptive management activity would include the following: • 100 hours of office labor to develop a Corrective Action Plan • $140,000 of helicopter support • $50,000 of equipment and supplies • 600 hours of field labor • $75,000 of monitoring for the restoration activity • 100 hours of office labor for reporting and monitoring PLP retains the ultimate authority to monitor the KCA condition, any activities, and help ensure that all compliance activities occur. As stated in Section 11, a third party will be contracted to conduct site monitoring and reporting, PLP will provide enforcement and corrective actions. PLP is the long-term manager. ROD_000215-15. During a portion of the duration of the long-term management period, PLP will have access to considerable personnel and equipment close to the preservation site. Information regarding what actions are to be taken, the party responsible for the action, and monitoring and reporting of the restoration will be included in the Corrective Action Plan. The Corrective Action Plan will be approved by USACE prior to implementation as described in Section 12 of the CMP. ROD_000216. The process of adaptive management is to deal with the uncertainty of the long-term management process. Maintaining flexibility is the key to adaptive management.
45.	13	30	32	332.3(n) not addressed. No financial assurance submitted. Financial assurances needed for	According to 33 CFR § 332.3(n), "[t]he district engineer shall require sufficient financial assurances to ensure a high level of confidence that the

Comment #	Section #	Page # [PDF #]	Line #	Comment	Response
				period of time and activities that occur prior to long-term management. Insufficient information; therefore, cannot determine compliance.	compensatory mitigation project will be successfully completed, in accordance with applicable laws and standards." The primary risk for a preservation-only permittee-responsible mitigation plan is that the Site Protection Instrument would not be established. Since the CMP requires establishment of the Site Protection Instrument prior to project construction, there is an extremely high likelihood of compensatory mitigation project success. Section 13 – Financial Assurances (33 CFR 332.4(c) (13)) (page 30) clearly provides for a financial assurance in the amount of $3,190,000. PLP acknowledges that the District Engineer determines the necessity of financial assurances as well as the amount. PLP believes that the $3,190,000 escrow account established for long-term management and adaptive management will provide adequate financial assurance to ensure that the compensatory mitigation project is successful. ROD_000216.
46.	Attachment B	[129]	2	Suggest using a tool such as TNC's stewardship calculator to not only identify costs, but also capitalization rate, etc. Could not determine sufficiency due to the following: 1. No capitalization rate 2. No contingency rate 3. No legal defense costs/insurance 4. No culvert costs and other costs mentioned above 5. No maintenance costs for any repairs made to existing roads, replaced culverts, etc. 6. Are there any annual fees to be paid to the State? Not only annual, but any fees that could come up in the future? 7. No inflationary adjustments Insufficient information; therefore, cannot determine compliance.	PLP's strategy in providing long-term management and adaptive costs was to overestimate the amount of the costs to provide for contingency and uncertainty. An alternative strategy could have been to provide a high level of detail that would likely be inaccurate. 1-3. These are the type of details that would have been provided closer to the time of recording the site protection instrument, consistent with District precedent. 4. There are no culverts within the KCA, and therefore there are no associated culvert costs. 5. There are no existing roads or replaced culverts within the KCA, and therefore there are no associated costs. 6. There are no annual fees to be paid to the State. 7. All costs are provided in today's dollars. Money will be put into an interest-bearing escrow account.

Comment #	Section #	Page # *[PDF #]*	Line #	Comment	Response
47.	Attachment B	[129]	23	This list of actions is unclear. Is this correcting the problems they find along with their lodging? Insufficient information; therefore, cannot determine compliance.	This list is an example of equipment, supplies, or expenses that may be necessary for the corrective action. It includes lodging. PLP could have provided a breakdown of costs at USACE's request.