Alaska District

DEPARTMENT OF THE ARMY

RECORD OF DECISION
&
PERMIT EVALUATION

APPLICANT: Coeur Alaska, Inc.
APPLICATION NO: POA-1990-00592-M9
WATERWAY: Berner's Bay/Lynn Canal

This document constitutes the United States (U.S.) Department of the Army (DA), Corps of Engineers' (Corps) Record of Decision (ROD) under the National Environmental Policy Act (NEPA); the compliance determination with the U.S. Environmental Protection Agency's (EPA) Section 404(b)(1) Guidelines (40 CFR 230; Guidelines), and the public interest review, for the Kensington Mine Plan of Operations Amendment 1 (POA 1) project, under the authority delegated to the District Commander by 33 CFR 325.8, pursuant to Section 404 of the Clean Water Act.

BACKGROUND

The Kensington Mine area is located on National Forest System (NFS) and non-NFS lands in Southeast Alaska on the peninsula formed between Lynn Canal and Berner's Bay. The Kensington Mine is located approximately 45 miles north-northwest of Juneau, Alaska. The only access to the Mine is by floatplane, helicopter, or boat. The Mine is not currently accessible by a surface transportation system.

Development at the Kensington Mine has been subject to NEPA review since 1992, and the US Forest Service (USFS) issued a Final Environmental Impact Statement (FEIS) that year. The 1992 FEIS was supplemented in 1997 (the 1997 Kensington Gold Project Final Supplemental EIS (FSEIS)) and again in 2004 (the 2004 FSEIS). The USFS was the lead agency in development of the current SEIS, and the Corps was a cooperating agency. The USFS published the availability of the Draft SEIS (evaluating proposed changes to the mine's 2005 approved Plan of Operations) on October 30, 2020, and the Final SEIS was published July 9, 2021. It incorporates by reference all of the previous EIS and SEIS documents.

On May 5, 1998, DA permit 2-900592 was issued to Coeur Alaska, Inc. to place fill material into 261 acres of waters of the United States, including wetlands (WOTUS) to construct, among several other project components, a Filtered Tailings (Dry Stack) Storage Facility (FTF), which was never constructed. DA permit POA-1990-592-M was issued on June 17, 2005, to Coeur Alaska, Inc. for the discharge of fill material into 61.7 acres of WOTUS for the current Kensington Mine development, including subaqueous disposal of mine tailings into an alpine lake. This permit was subsequently modified, granting extensions of time to complete the authorized work and operate the Tailings Treatment Facility (TTF) that was constructed in lieu of the

FTF.[1] In October 2020 a complete permit application was received for the currently proposed Kensington Mine POA 1. USACE issued a public notice (PN) for the proposed project on November 9, 2020, after issuance of the Draft SEIS.

AUTHORITY

This ROD is based on the information contained in the 2021 FSEIS developed for the Kensington Mine POA 1, including the USFS's ROD. I have independently reviewed and evaluated the information in the FSEIS, including all supplemental data subsequently provided, in accordance with 40 CFR 1506.3 and 40 CFR Part 230.21, and have found them to be sufficient and accurate assessments, and therefore appropriate for the purposes of the public interest review and alternatives analysis required by 33 CFR 320.4(b)(4) and 40 CFR 230.10. The Corps hereby adopts the FSEIS for the Kensington Mine POA 1, (available at https://www.fs.usda.gov/project/?project=55533) and incorporates the following documents, as referenced, in this ROD.

USFS 1992 Kensington Gold Project Final EIS and ROD (Consideration and selection of project Alternative F, Water Treatment – Option 1 that consisted of underground mining, ore processing using cyanide vat leaching, tailings impoundment in Sherman Creek, marine discharges of process wastewater and various support facilities including liquefied petroleum gas for power generation.)
USFS 1997 Kensington Gold Project FSEIS and ROD (Consideration and selection of Alternative D that included off-site shipment of concentrate rather than on-site cyanide leaching, elimination of the slurry disposal dam in Sherman Creek in favor of a dry tailings disposal facility and use of diesel fuel rather than liquefied petroleum gas for power generation.)
USACE 1998 Kensington Gold Project ROD (USACE compliance determination with the EPA Section 404(b)(1) Guidelines (40 CFR 230; Guidelines), and the public interest review of the proposed 1997 Kensington Gold Project dry tailings disposal facility.)
USFS 2004 Kensington Gold Project FSEIS and ROD (Consideration and selection of the existing Kensington Mine facilities, including the TSF located at Lower Slate Lake.)
USACE 2006 Kensington Gold Project ROD (USACE compliance determination with the EPA Section 404(b)(1) Guidelines (40 CFR 230; Guidelines), and the public interest review of the existing Kensington Mine facilities, including the TSF located at Lower Slate Lake.)
USFS 2021 FSEIS POA 1 Record of Decision (USFS ROD) (Consideration and selection of the proposed Kensington Mine POA 1).

1.0 SUMMARY OF DECISION

I have decided, considering the overall public interest, to issue a permit pursuant to Section 404 of the Clean Water Act (CWA) (33 U.S.C. 1344) for the applicant's

[1] The 60 percent of the tailings not placed back underground as paste backfill are delivered to the TTF via a buried tailings pipeline located adjacent to Pipeline Road. The tailings are held in the TTF by the Stage 3 Dam. Tailings are deposited using a single discharge point that is moved around to maintain uniform deposition. A FTF is method of tailings treatment and storage. Filtered tailings are created by mechanically removing moisture from slurry tailings to produce a filter cake that is typically in the range of 80 percent solids by mass. Filtered tailings are stacked in lifts and compacted, and then a final cover consisting of till soil is placed over the tailings at reclamation.

Preferred Alternative (POA 1) as described in Section 2.3 of the USFS FSEIS. This alternative incorporates all practicable avoidance and minimization measures. This permit would authorize the discharge of fill material into 32.8 acres of jurisdictional WOTUS for the expansion of the Kensington Mine Tailings Treatment Facility (TTF), Waste Rock Storage (WRS), and Fish Habitat Enhancement.

Principal impacts resulting from work in, and the placement of fill in WOTUS (Johnson Creek, Fat Rat Creek, South Creek, Upper Slate Lake, Tailing Treatment Facility (formerly Lower Slate Lake)) would be the long-term filling of 1.7 acres of non-wetland waters and 31.1 acres of wetlands. Tailings and tailings water at the Mine site are held in place by a dam constructed in three stages in 2010, 2012, and 2018. Stage 4 proposes to raise the tailings dam by 36 feet. The Stage 4 tailings would be discharged across the top of the 51.2-acre tailings footprint authorized by Stage 3. The tailings footprint under Stage 4 would therefore be expanded by approximately 6.7 acres, which would result in an approximate total of 66.9-acre WOTUS containing the TTF. A 40-foot-high Back Dam would be constructed to separate the tailings and water in the TTF from the water in Upper Slate Lake. At closure, the water level in the TTF at the Stage 4 spillway elevation would permanently submerge the Back Dam combing the TTF and Upper Slate Lake to create one large lake with a surface area of approximately 120 acres. This work would result in impacts to aquatic function, including the loss and/or alteration of natural drainage patterns, water quality, and fish and wildlife habitat.

The authorization will include special conditions to avoid and minimize potential adverse impacts and to compensate for unavoidable adverse impacts to the aquatic ecosystem, and to ensure that the project would not be contrary to the public interest and is in compliance with the Clean Water Act 404(b)(1) Guidelines. This authorization also requires compensatory mitigation for the long-term temporary impacts to WOTUS, as described in Section 5.0, and Special Conditions 16, 17 and 18.

All work would be performed in accordance with the enclosed plan (sheets 1-16), dated October 12, 2020.

2.0 PROPOSED PROJECT

2.1 Project Description: The proposed project would involve the discharge of fill material into WOTUS to construct the following proposed POA 1 project components: 1. Stage 4 Dam raise and Tailings Treatment Facility (TTF) Expansion, 2. Kensington waste rock stockpile (WRS) Expansion, 3. Pit #4 Expansion, 4. Comet WRS Expansion, 5. Comet Portal Topsoil Stockpile, 6. Pipeline Road WRS, and 7. Fish Habitat Enhancement.

POA 1 Impacts to Waters of the U.S. (acres)

Timeframe	Aquatic Resource Condition	Proposed Action (POA 1)
Operations Conditions	Wetlands Filled	31.1
	Waterbodies Filled	1.7
	Total WOTUS Filled	**32.8**
Post-Reclamation Conditions	Wetlands Permanently Converted to Uplands[1]	25.2
	Wetlands Previously Converted to Uplands Reclaimed to Waterbodies	5.9
	Wetlands Converted to Waterbodies	9.5
	Waterbodies Permanently Converted to Uplands[1]	1.6
	Waterbodies Previously Converted to Uplands Reclaimed to Waterbodies	0.2
	Waterbodies (Streams) Converted to Waterbodies	0.3
	Upper Slate Lake (No Change)[2]	10.8
	Uplands Converted to Waterbodies	26.4
	Total Acreage of WOTUS Post-Reclamation[3]	**53.1**
Net Loss of WOTUS[4]		**0.3**

[1] Subset of wetland and waterbodies converted under operations. Does not represent new impacts that occur during operations that would continue post-reclamation.

[2] Under POA 1, Upper Slate Lake would be connected to Lower Slate Lake during reclamation. However, it would remain a waterbody.

[3] Calculated as the sum of Wetlands Previously Converted to Uplands Reclaimed to Waterbodies, Wetlands Converted to Waterbodies, Waterbodies Previously Converted to Uplands Reclaimed to Waterbodies, Streams Converted to Waterbodies, Upper Slate Lake, and Uplands Converted to Waterbodies.

[4] Calculated as the Total WOTUS Filled or Disturbed - (Wetlands Previously Converted to Uplands Reclaimed to Waterbodies + Previously Converted to Uplands reclaimed to Waterbodies + Uplands Converted to Waterbodies).

Volume (cubic yards) of estimated fill by type proposed under POA 1.

	Volume (cubic yards)			
Fill Type	**Waters**	**Wetlands**	**Upland**	**Total**
Structural Rock Fill	3,000	4,000	358,000	365,000
Common Fill	781	20,059	12,075	33,015
Concrete	--	--	2,500	2,500
Tailings	5,113,000	3,000	1,374,000	6,490,000
Growth Media	--	15,000	225,000	240,000
Waste Rock	74,265	562,200	3,049,500	3,685,965
Totals	**5,191,046**	**604,259**	**5,021,175**	**10,816,480**

Project Location

The project site is located within Section 5, 10, 14, 15, 22, 23, 26, and 27, T. 35 S., R. 62 E., Copper River Meridian; USGS Quad Map Juneau D-4; Latitude 58.832934º N., Longitude 135.042555º W.; at the Kensington Mine; approximately 45 miles north-northwest of Juneau, Alaska. See Figure 1.

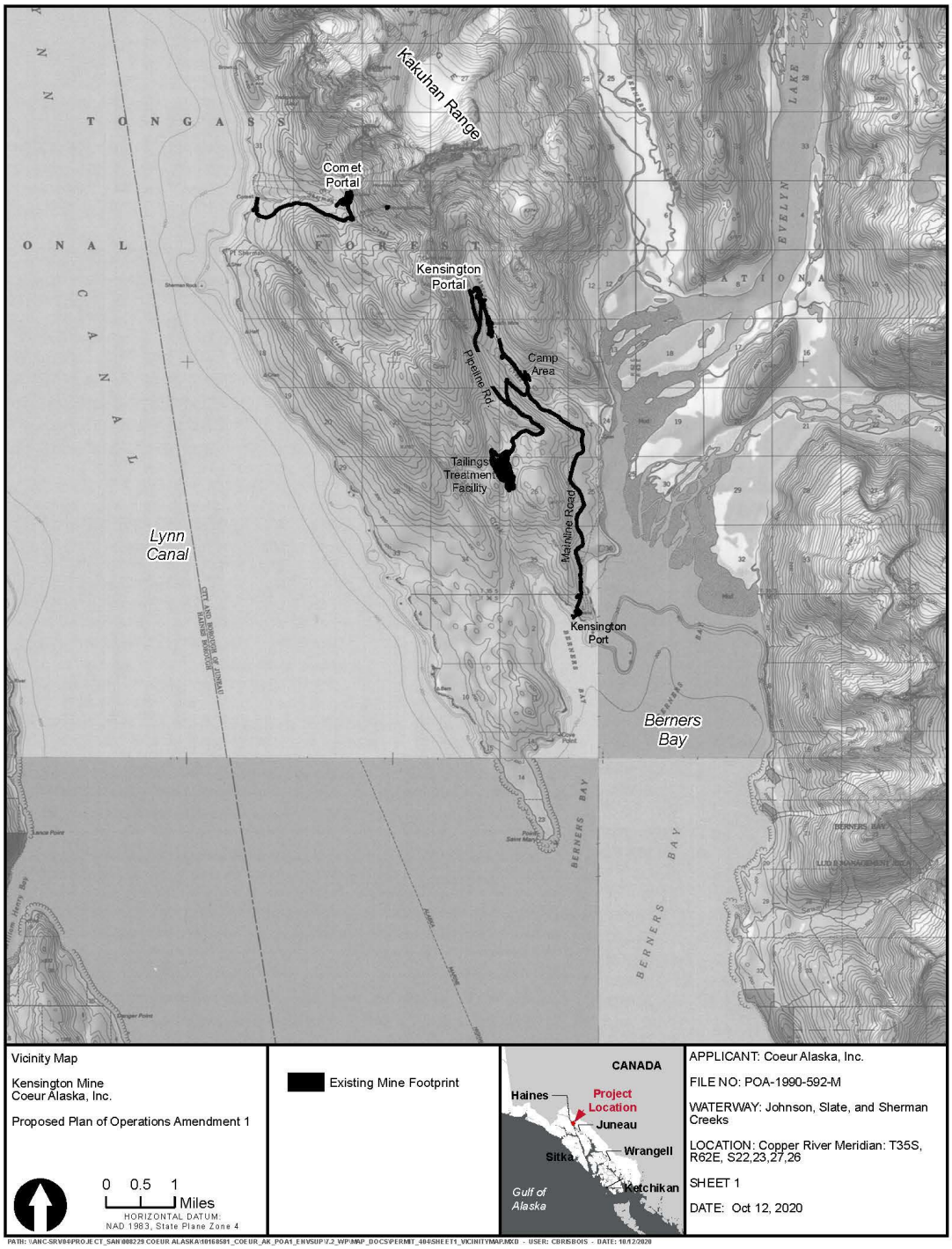

Figure 1

2.2 Project Design Revisions: Coeur Alaska has revised the proposed Kensington WRS Expansion in POA 1 to avoid placing fill material into Johnson Creek identified by the Alaska Department of Fish and Game and outlined in the PN comment letter from Alaska Department of Natural Resources. These refinements were incorporated into the FSEIS. The modified design will result in a reduction of the overall footprint of the Kensington WRS Expansion and a reduction of 0.07-acre of long-term impacts to WOTUS, resulting in a total 32.8 acres of WOTUS filled.

2.3 Project Purpose:

Applicant's Purpose and Need: The applicant's stated purpose is to implement Plan of Operations Amendment 1 (POA 1) in order to expand the tailings and waste rock storage capacity to facilitate uninterrupted economic production of ore resources past the year 2023, while continuing to protect the environment, ensure safe operations, and comply with regulatory requirements. Federal approval of this stated purpose and need was evaluated by USFS and the cooperating agencies under NEPA in the FSEIS. USFS selected the applicant's proposed action as its preferred alternative in the FSEIS.

Basic Project Purpose: The Corps has determined that the basic project purpose [40 CFR 230.10(a)(3)] is to continue extracting and processing gold, and this is not a water dependent activity. The project is partially sited in a special aquatic site, jurisdictional wetlands; therefore, under the Section 404(b)(1) Guidelines, practicable alternatives not involving special aquatic sites are presumed to be available and are presumed to have less adverse impacts on the aquatic ecosystem unless clearly demonstrated otherwise. Alternatives are discussed below in Section 3.0.

Overall Project Purpose: The overall project purpose is used in the determination of practicable alternatives since the Guidelines define practicable to mean: "available and capable of being done after taking into consideration cost, existing technology, and logistics in light of the *overall project purpose*" [40 CFR 230.10(a)(2)]. Under the Guidelines, the Corps can only issue a permit for the least environmentally damaging practicable alternative (LEDPA). While the definition of overall project purpose is the Corps' responsibility, it must take into consideration the applicant's stated need for the project and the type of project being proposed (July 1, 2009, Updated Standard Operating Procedures for the U.S. Army Corps of Engineers Regulatory Program, pg 15). The overall project purpose should be specific enough to define the applicant's needs, but not so restrictive as to constrain the range of alternatives that must be considered under the 404(b)(1) Guidelines.

The Corps has determined that the overall project purpose is to continue operating the Kensington Mine at an economic, continued, and uninterrupted production rate, to extend the life of the mine.

Where the activity associated with the placement of fill material in a special aquatic site does not require access or proximity to or locating within the special aquatic site in order to fulfill its basic purpose (i.e., the activity is not water dependent) the Guidelines pose two rebuttable presumptions: 1) practicable alternatives not involving special aquatic sites are presumed to be available, and 2) practicable alternatives not involving discharges to special aquatic sites are presumed to have less adverse impact on the aquatic ecosystem. It is the applicant's responsibility to clearly and convincingly rebut the presumptions for non-water dependent projects [CFR 230.10(a)(3)].

Failure to rebut the presumptions or to otherwise demonstrate compliance with the Guidelines would require permit denial, regardless of a lead federal agency's selection of a preferred alternative through the NEPA process. Stated another way, if the permit application for the preferred alternative is denied by the Corps, activities that require a

Corps permit for that alternative shall not be conducted. This underscores the critical distinctions between 'purpose and need' (for NEPA) and 'overall project purpose' (for the Guidelines); and between 'preferred alternative' (for NEPA) and 'least environmentally damaging practicable alternative' (LEDPA; for the Guidelines). NEPA imposes procedural, not substantive requirements. The Guidelines, however, impose a substantive regulatory requirement that prohibits the discharge of dredged and/or fill material where there is a practicable alternative that would have less adverse impact on the aquatic environment.

2.4 Scope of Analysis:

The Corps' scope of analysis involves determining the Federal action area by evaluating those direct and indirect project impacts which are subject to control under the Corps' authorities. The extent of cumulative Federal control and responsibility is sufficient to make this project a Federal action. Due to the DA control and responsibility associated with the project, the scope of analysis for the proposed action will include the evaluation of direct, indirect/secondary, and cumulative impacts; project benefits and detriments resulting from the proposed work within WOTUS and outside WOTUS.

The Corps' scope of analysis is further defined by its jurisdiction under Section 404 of the Clean Water Act (33 U.S.C. 1344) and Section 10 of the Rivers and Harbor Act (33 U.S.C. 403). The substantive evaluation requirements of the Clean Water Act are outlined in guidelines developed by the Administrator of the Environmental Protection Agency (EPA) in conjunction with the Secretary of the Army and published in 40 CFR Part 230. The fundamental precept of the Guidelines, which are binding regulations, is that discharges of dredged or fill material into waters of the United States, including wetlands, should not occur unless it can be demonstrated that such discharges, either individually or cumulatively, will not result in unacceptable adverse effects on the aquatic ecosystem. The Guidelines state that only the LEDPA can be permitted. Additional evaluation requirements are contained in 33 CFR Part 320.4(a) and NEPA. The proposed project components subject to jurisdiction under Section 404 of the Clean Water Act are the discharge of fill to construct the Stage 4 Dam raise and Tailings Treatment Facility (TTF) Expansion, Kensington waste rock stockpile (WRS) Expansion, Pit #4 Expansion, Comet WRS Expansion, Comet Portal Topsoil Stockpile, Pipeline Road WRS, and Fish Habitat Enhancement.

3.0 ALTERNATIVES

3.1 Alternatives Considered and Eliminated from Detailed Study During the EIS Process: (33 CFR Part 325 Appendix B, 40 DFR 230.5(c) and 40 CFR 1501.5(c)). An evaluation of alternatives is required under NEPA for all jurisdictional activities. NEPA required discussion of a reasonable range of alternatives, including the no action alternative, and the effects of those alternatives, and to identify an environmentally preferred alternative. An evaluation of alternatives is required under the Section 404(b)(1) Guidelines for projects that include the discharge of dredged or fill material into waters of the United States. Under the Section 404 (b)(1) Guidelines, practicability of alternatives is taken into consideration and no alternative may be permitted if there is a less environmentally damaging practicable alternative.

For the purposes of NEPA, in the DSEIS and FSEIS a screening process was established and each of the alternatives were evaluated. The screening criteria are located in Section 2.4.1 of the FSEIS. The following were not carried forward:

No TTF Lake at Closure Alternative was determined to not meet the requirement to be practicable and technically feasible using today's technology due to the soft nature of submerged tailings. In areas where the deposited tailings are thick, large settlements would occur very slowly over time following cover placement. This would create low spots that would pond water unless additional cover fill were placed to compensate, a process that could require several iterations to complete. While technical solutions exist that could be used to accelerate tailings consolidation and draining to facilitate cover material placement, such as geotextile, geogrid, wick drains, electro osmosis, vacuum drains, etc., either singly or in combination, these additional measures tend to be very expensive and would not meet the economic need. Based on the comparison presented in the FSEIS **Table 2.5-1**, the means and methods of tailings management to be employed at Red Mountain are not technically feasible at Kensington Mine. Red Mountain and other proposed "dry closure" facilities also generally rely on external water storage and treatment facilities in order to accommodate water removed from the tailings facility, both during operations and at closure, which would increase disturbance. Additionally, the TTF Closure with Reduced Water Alternative (one of the alternatives carried forward for evaluation) presented in the FSEIS Section 2.4.3 provides many of the same potential benefits as this alternative, e.g., more resilient structure, reduced downstream consequences, and reduced area of disturbance; therefore, the No TTF Lake at Closure Alternative does not provide an environmental benefit over other alternatives considered in detail.

Alternative Tailings Disposal storage sites would not reduce impacts to the aquatic environment to address significant issues raised by the public during the scoping period for the Draft SEIS, while also meeting the purpose and need. [2]

Increase Mine Backfill to Decrease Surface Disposal of Tailings Alternative was not studied in detail because it would not meet the purpose and need to increase WRS capacity and allow for safe mining operations. Additionally, placing more tailings underground is not practicable and technically feasible using today's technology, because tailings cannot be compacted to the same density as they were underground in the form of sold rock.

Alternative Tailings Disposal Methods are not technically feasible and would not reduce impacts on the aquatic environment over the TTF Closure with Reduced Water Alternative, which was studied in detail and considered in Section 2.4.3 in the FSEIS.

Mill Processing Rate Partially Based on Volume of Tailings Backfilled the Prior Month Alternative was not considered further because it does not meet the purpose and

[2] The USFS identified the following significant issue from comments received during scoping efforts upon publication of the Notice of Intent to develop the SEIS: Expansion of tailings and waste rock areas, increased production of tailings, construction, and the consequences of dam failure due to increased water and tailings behind the dam may adversely affect aquatic resources; specifically, water quality, fish habitat, streams, and other WOTUS from Sherman, Slate, and Johnson creeks to Slate Creek Cove and Berner's Bay.

need to increase the tailings storage capacity and provide for continued uninterrupted economic ore production.

Alternative Sites for the FTF would not reduce impacts to the aquatic environment over the other proposed action alternatives while meeting the purpose and need.

Combined Modified TTF with Reduced Water at Closure and FTF Alternative was not considered in detail because it is not technically or economically feasible, for the following reasons:[3]

1. Forming an exposed beach slope behind the Stage 3 embankment conflicts with the location and elevation of the Stage 3 spillway adjacent to the embankment. To prevent a release of tailings through the spillway, the spillway would need to be redesigned and constructed or the tailings beach must be limited so it would not reach the spillway entrance. Redesign would require the spillway to be across the hillside at the embankment west abutment (likely exposing graphitic phyllite materials) or traverse over the established tailings beach slope (potential settlement and erosion concerns). The elevation of the Stage 3 spillway does not allow for routing around the west side of the knob as in the Proposed Action without significant excavations in what is likely to be graphitic phyllite. This would result in much greater disturbance.

2. There would not be sufficient time to develop a tailings beach as subaerial deposition requires tailings to be deposited outside of the water pool. Depositing tailings above the water level would require removing all of the TTF operational pool before or at the same time that the new tailings would be deposited. Increased water treatment rates would be needed to reduce the pond size. An adequate beach would take another 2 to 3 years to develop. Lack of a developed tailings beach in Stage 3 would greatly increase the technical difficulties described in Section 2.5.1.1 of the FSEIS for the No TTF Lake at Closure method due to the soft nature of the subaqueous tailings.

3. The Stage 3 TTF would need to be maintained and remain operational to provide stormwater management and tailings deposition during adverse weather, winter operations, or maintenance when it is difficult or impossible to place dewatered tailings in the Filtered Tailings Facility. It would not be possible to design and operate a Filtered Tailings Facility that would not rely on the Stage 3 TTF to manage and treat water.

4. A new construction process would be needed to develop the beach, which is not possible under the current mine production plan for Stage 3 because there would not be sufficient time to implement these operational changes and develop the necessary tailings beach without substantial interruption of ongoing mine operations, estimated to be 2 to 3 years. Also, to be practicable, the Section 404(b)(1) Guidelines specify that an alternative must be capable of achieving the overall purpose of the proposed activity. For these reasons this alternative would not achieve the overall purpose.

Bridge 2 WRS Alternative does not provide enough storage to reduce the impacts on the aquatic environment from the Proposed Action, therefore it was not considered in detail.

Sherman Creek WRS and **Increase the Expansion of Existing WRS to Eliminate the Pipeline Road WRS** Alternatives would meet the purpose and need; however, they do not reduce impacts over other alternatives considered (alternative WRS locations and the Proposed Action).

[3] EPA's recommended alternative in its December 9, 2020, PN comment letter.

The Corps concurs in eliminating all of these Alternatives from further analysis. See Chapter 2.5 of the FSEIS for discussion.

3.2 Practicable Alternatives Determination

Tailings Storage Facility Alternatives

3.2.1 No Action Alternative: This alternative is described in detail in the FSEIS (Section 2.2). The no action alternative would result in denial of the DA permit. No new impacts to WOTUS would occur. Work would continue under the existing permit modification that authorizes the discharge of fill material into 61.7 acres of WOTUS for the development of the Kensington Mine, including disposal of mine tailings until November 30, 2025. No additional tailings management or waste rock storage would be developed. Coeur Alaska would continue to operate until the existing storage capacity (4.5 million tons of tailings) has been filled, which is estimated to occur in 2025 based on current production rates. Once the existing storage is consumed, the mine would discontinue operations and reclamation would begin.

3.2.2 Kensington Mine POA 1 - Applicant's Proposed Action (Stage 4 Dam Raise and TTF Expansion)**:** The proposed action is described in detail in the FSEIS (Section 2.3). Also, see the USFS ROD for discussion of the proposed action. The proposed POA 1 would involve the following components:

- Increase the tailings storage (4 million tons) by raising the tailings dam (Stage 4) at the existing TTF and constructing a Back Dam between the TTF and Upper Slate Lake to maintain separation between the TTF and Upper Slate Lake.

- Relocation of the seepage collection sumps, access road, power line, pipelines, and stormwater diversion channels at the TTF.

- Expansion of the existing Kensington, Pit #4, and Comet WRS facilities and construction of a new WRS (Pipeline Road) facility to accommodate up to 5 million tons of waste rock.

- The water treatment plants at the TTF would be relocated.

- The construction of two deltas within Upper Slate Lake, rerouting Fat Rat Creek into South Creek, and replacing culverts for fish passage. Delta construction would require the construction of temporary roads for access.

- Increase the mill throughput rate from 2,000 to 3,000 tons per day.

The proposed Kensington Mine POA 1 would update the 2005 Plan of Operations for continued mining beyond the originally anticipated period. Implementation of POA 1 would extend the life of the mine for at least 10 years.

POA 1 would fill 32.8 acres Total of WOTUS.

3.2.3 FTF with No Stage 4 Dam Alternative: This alternative is described in detail in the FSEIS (Section 2.4.2). Also, see the USFS ROD for discussion of the Filtered Tailings Facility with No Stage 4 Dam Alternative. Filtering the tailings would remove 80 percent of the water in a new filter plant. Water would be treated, then reused in the milling process. The filtered tailings would be trucked to the permanent FTF, stacked in lifts, and eventually covered with till soil at reclamation (a dry stack tailings system). The FTF would be located immediately northwest of the existing tailings facility and southwest of Upper Slate Lake. This alternative would require that the tailing to be trucked to the facility and would require construction of 0.7 miles of new road suitable for haul trucks, potentially double wide with appropriate geotechnical foundation to support haul trucks.

The existing Stage 3 TTF would be closed as currently permitted, with 28 feet of water cover.

The FTF alternative would fill 25.9 acres WOTUS and could store 4 million tons of filtered tailings.

The FTF Alternative includes the same WRS as the Proposed Action. Reclamation and closure, mitigation and conservation measures, and financial assurance (except specific value) would be the same as described in the Proposed Action. No fish enhancement, as described under the Proposed Action, would occur under this alternative. In addition, the current Upper Slate Lake bypass pipe would remain in place.

As stated above, a dry stack (filtered tailings) alternative was fully analyzed and selected in the 1997 FEIS and permitted by the Corps in 1998, but never completed. In 2004, Coeur Alaska submitted a proposed amendment to the approved 1997 Plan of Operations that included a number of changes, including:

- Changing the location of the processing facilities from National Forest System lands in the Sherman Creek drainage to private lands in the Johnson Creek drainage near the historic Jualin Mine workings.

- Tailings disposal in the TTF in Lower Slate Lake, as opposed to the dry stack filtered tailings facility.

- An access tunnel from the mill to the Kensington claims and a daily commute of workers via shuttle boat rather than on-site housing with helicopter access.

- A portion of the ore body containing a higher average gold concentration being mined than that proposed under previous plans.

The dry stack tailings FTF alternative was fully analyzed as the No Action alternative in the 2004 FSEIS.

In the 2006 ROD, the District Engineer selected Alternative D, a TTF located at Lower Slate Lake, rather than the no action alternative (the dry stack FTF near Comet Beach), and provided the following rationale for the decision:

> Alternative D is the least environmentally damaging practicable alternative because the impacts to the aquatic ecosystem are less harmful than the impacts of the [other Alternatives and their variants], which include permanent wetland losses, and it incorporates a water treatment system to ensure water quality is met.

This rationale remains true today under the current POA 1 proposal that selecting the FTF (proposed to be located on the Lynn Canal side) would present logistical complications and would result in additional adverse effect to aquatic resources rather than minimizing them.

Additionally, based information provided by the applicant, this alternative represents new unproven technology for the mine. Due to the high level of precipitation that occurs at the mine, the technological feasibility, and the potential need for intermediate storage space, it is questionable whether the alternative will allow for the year-round operations needed to facilitate uninterrupted economic production of ore. During operations of any Filtered Tailings Facility, the movement of trucks and other heavy equipment on top of the filtered tailings exposed to precipitation will create a higher worker safety risk due to stability issues. The large amount of precipitation could potentially re-liquefy the tailings, causing not only stability issues, but also material control issues.

3.2.4 TTF Closure with Reduced Water Alternative: This alternative is described in detail in the FSEIS (Section 2.4.3). Also, see the USFS ROD for discussion of the TTF Closure with Reduced Water Alternative. This alternative would result in a smaller Lower Slate Lake at mine closure.

A Stage 4 Dam would be constructed like that described in the Proposed Action. However, under this alternative the dam would be raised 17 feet above the existing dam rather than the 36 feet as planned under the Proposed Action. The Back Dam between Lower and Upper Slate Lake would be constructed as designed in the Proposed Action.

Prior to mine closure, tailings would be placed near the dam face in Lower Slate Lake, potentially using a spigot system, to construct a tailings-sand beach that would move the lake north away from the dam. During reclamation, the tailings beach would be covered with non-acid generating crushed mine waste rock and organic growth media. The submerged slope of the capped beach may need to be armored to reduce potential for wave action to erode the cover system. The beach would extend from the Stage 4 Dam north approximately 400 feet. At closure, approximately 70 surface acres of open water would be retained with a maximum of 9 feet of water over tailings.

Under the TTF Closure with Reduced Water Alternative, the fish enhancement component would not occur, and the existing Upper Slate Lake bypass pipe would need to remain in place to continue to divert water from Upper Slate Lake around the TTF dam to East Fork Slate Creek. However, the alternative includes the same WRS as the Proposed Action.

The TTF Closure with Reduced Water Alternative would impact 23.5 acres of WOTUS.

WRS Alternatives

3.2.5 Snowberm Road WRS Alternative: This alternative is described in detail in the FSEIS (Section 2.4.4 and 2.7.2). Also, see the USFS ROD for discussion of the Snowberm Road WRS Alternative.

The Snowberm Road WRS Alternative would cover an approximately 5 acre site and would be located uphill of the Pipeline Road and downhill of Snowberm Road, directly south of the Jualin area infrastructure within the Johnson Creek drainage basin. Two acres would be on the Tongass National Forest, and rest on privately owned inholdings on the Forest. The Snowberm Road WRS Alternative would have a storage capacity of 93,500 tons (0.1 million tons). Since the Snowberm Road WRS and the Johnson Creek WRS Alternatives are so close to each other, the two sites would likely be used in a combined fashion to meet the WRS purpose and need.

The Snowberm Road WRS Alternative would be an entirely new storage facility that would fill a total of 0.5 acres of WOTUS.

3.2.6 Johnson Creek WRS Alternative: This alternative is described in detail in the FSEIS (Sections 2.4.4 and 2.7.2). Also, see the USFS ROD for discussion of the Johnson Creek WRS Alternative.

The Johnson Creek WRS Alternative would be located between the Pipeline Road and Johnson Creek, just south of Snowslide Gulch. The Johnson Creek WRS would be contain within an approximately 47 acres with 46 acres located on the Tongass National Forest and have a storage capacity of approximately 3.3 million tons. This alternative would require construction of an approximately 0.7 mile new access road to connect the mill site and the Johnson Creek WRS area for continuous mining operations to occur. The existing road is too steep for trucks hauling waste rock during the winter for year-round use.

The Johnson Creek WRS would be an entirely new storage facility that would fill a total of 6.5 acres of WOTUS.

3.2.7 Comet WRS Expansion Alternative: This alternative is described in detail in the FSEIS (Section 2.3.2). Also, see the USFS ROD for discussion of the Johnson Comet WRS Expansion WRS Alternative.

The proposed Comet WRS expansion would extend the existing WRS area to the west and provide an additional capacity of approximately 1 million tons. The Comet WRS expansion is located on the Tongass National Forest. The overall size of the expansion is limited by the existing Comet Water Treatment Plant (WTP) and Upper Sherman Creek drainage. Expanding the Comet WRS would require relocating a portion of the Comet Beach access road (approximately 0.3 acre of disturbance), and clearing, grubbing, and topsoil removal. Topsoil salvaged would be stockpiled south of Ophir Creek at the new Comet Growth Media Stockpile. At mine closure, the WRS would be approximately 140 feet high. A 5- foot-deep stormwater diversion channel would be constructed uphill from

the WRS to redirect precipitation away from the stockpile. The Comet WRS expansion would include a new fine and coarse sediment pond. From the ponds, the stormwater would be pumped to the Comet WTP before being discharged.

The Comet WRS Expansion Alternative would fill a total of 7.21 acres of WOTUS.

3.2.8 Kensington WRS Expansion Alternative: This alternative is described in detail in the FSEIS (Section 2.3.2). Also, see the USFS ROD for discussion of the Kensington WRS Expansion WRS Alternative.

The proposed Kensington WRS expansion is located east of the Kensington Portal and process mill. The WRS expansion would take place entirely on the Tongass National Forest. The proposed expansion would accommodate approximately 73,000 tons of additional waste rock. The WRS footprint would be a minimum of 62 feet from Johnson Creek, and the active placement of waste rock in WRS would be done with Best Management Practices (BMPs) in place to eliminate or reduce potential impacts to the creek. A silt fence would be installed east (downhill) of the WRS area and include a 2-foot-deep channel to intercept and redirect surface runoff that would infiltrate the WRS material. The originally planned size of this WRS expansion was reduced to minimize wetland impacts and risk to Johnson Creek

The Kensington WRS expansion would fill a total of 0.16 acres of WOTUS.

3.2.9 Pit #4 WRS Expansion Alternative: This alternative is described in detail in the FSEIS (Section 2.3.2). Also, see the USFS ROD for discussion of the Pit #4 WRS Expansion Alternative.

The Pit #4 WRS expansion would take place on previously impacted land on the Tongass National Forest and a privately owned inholding on the Forest. The Pit #4 WRS site is currently being used for support of mining operations and infrastructure, such as a concrete reinforced fill plant, surface maintenance shop, mechanic shop, water tank, and containers within the proposed WRS expansion footprint that would be decommissioned and removed if implemented. The existing lined sedimentation pond at the site would be decommissioned, and new sedimentation ponds would be constructed as part of the Pit #4 WRS expansion. Four additional fine and coarse sediment ponds and stormwater outfalls would be constructed prior to placement of waste rock to collect and treat surface runoff water that makes contact with waste rock placed in the WRS.

The Pit #4 WRS expansion would fill a total of 5.36 acres of WOTUS.

3.2.10 Pipeline Road WRS Alternative: This alternative is described in detail in the FSEIS (Section 2.3.2). Also, see the USFS ROD for discussion of the Pipeline Road WRS Alternative.

The Pipeline Road WRS would be an entirely new storage facility and would be located between the Tailings Pipeline Access Road and the existing mine camp. The existing mine infrastructure, such as the tailings distribution and reclaim water pipelines embedded in the roadway would not have to be decommissioned and relocated to implement the alternative. In addition to waste rock, organic over burden excavated from

the construction of the facility would be saved and stockpiled at the north end of the proposed WRS. The saved organic over burden would be used as growth media at reclamation upon completion of mining operations. New infrastructure at the site would include a stormwater diversion channel constructed on the west and north side of the facility and silt fence on the north, east, and south side of the site. Additionally, fine and coarse sediment settling ponds would be constructed to capture surface runoff and precipitation that infiltrates the waste rock stockpile. A toe berm would be constructed to stabilize the WRS side slopes to prevent adverse impacts to the existing facilities in the Jualin area.

The Pipeline Road WRS Alternative would fill a total of 4.45 acres of WOTUS.

3.3 Determination of the Least Environmentally Damaging Practicable Alternative and Consideration of the Environmentally Preferred Alternative: The Mine area is dominated by steep slopes and deeply incised valleys. Freshwater wetlands, including forested and open muskegs, sedge-grass meadows, emergent bogs and marshes, and aquatic beds, are scattered throughout the Mine area. Approximately 28 percent of the Mine area has been mapped as wetlands or waterbodies. Due to the topography of the Mine area, suitable locations to build on intersect with WOTUS contained within the mine area, and all alternatives carried forward for detailed analysis in the FSEIS would involve filling WOTUS. Therefore, there are no practicable alternatives available to Coeur Alaska that do not involve WOTUS. POA 1 has been designed to limit, to the extent practicable, new impacts to WOTUS. Where feasible, POA 1 expands upon the existing footprint of the Mine. Three of the four proposed WRS sites under POA 1 would be expansions of existing WRS sites, which reduces the need for additional roads, reduces fragmentation of wildlife habitat, and eliminates the discharge of fill in fish habitat. Coeur Alaska has avoided and minimized impacts to WOTUS to the maximum practicable extent. Under the 404(b)(1) Guidelines, practicability of alternatives is taken into consideration and no alternative may be permitted if there is a less environmentally damaging practicable alternative. The applicant's proposed project, POA 1 would result in a net loss of 0.3 acre of WOTUS post-reclamation. Coeur Alaska has incorporated six fish habitat improvement projects into the design of POA 1 that were recommended by the Alaska Department of Fish and Game (ADF&G) and are described in FSEIS Section 2.3.3. The fish habitat improvement projects would provide additional Dolly Varden spawning habitat through creation of two deltas, improved fish passage at three existing culverts, and the reroute of Fat Rat Creek to South Creek to create a wider and deeper channel at the new stream mouth. Additional detail can be found in the TTF Environmental Monitoring Plan, Appendix D of Revised Plan of Operations Amendment 1 (POA 1) For The Kensington Gold Mine 2018.

POA 1 would result in the second-lowest amount of direct long-term impacts to WOTUS prior to reclamation activities (9.21 acres) but would have the highest number of uplands converted to WOTUS post-reclamation (26.4 acres). POA 1 would have the highest amount of short-term direct impacts to WOTUS (6.08 acres), however most of these impacts would result from discharge of fill material and mechanized land clearing to construct the fish habitat improvement projects (4.9 acres); all short-term direct impacts would be converted back to WOTUS post-reclamation. All converted uplands, short-term direct impacts, and wetlands or other WOTUS that would not be filled but only converted to Slate Lake under POA 1 would be considered high-value WOTUS since Slate Lake will provide beneficial Dolly Varden char habitat and spawning areas. All uplands and short-

term impacts converted to Lower Slate Lake under the TTF Closure with Reduced Water Alternative would be considered low value due to lack of fish support since this alternative would result in only nine feet of water cover over the tailings at closure.

POA 1 would result in the largest net gain of WOTUS, with a net gain of 15 acres of WOTUS more than the next closest TSF alternative (TTF Closure with Reduced Water Alternative). The FTF with No Stage 4 Dam Alternative would result in a net loss of WOTUS from lack of raising the water level of LSL above the Stage 3 water level at closure. The fish habitat improvement projects proposed under POA 1 would not be possible under any other TSF alternative.

The combination of WRSs included in POA 1 would result in fewer overall impacts to acres of WOTUS than other practicable WRS combinations, fewer impacts to acreage of high value WOTUS than the combination with the next fewest impacts, and fewer impacts to the overall amount of linear feet of streams than other combinations that meet the necessary 5 Metric Tons of additional waste rock storage. Additionally, three of the four POA 1 proposed WRS sites will be expansions of existing WRS sites, which would reduce the need for additional roads, reduce fragmentation of wildlife habitat, and reduce the amount of additional edge area created through construction of new WRS areas.

Since the combination of WRSs included in POA 1 (Kensington WRS Expansion, Pit #4 WRS Expansion, Comet WRS Expansion, and Pipeline Road WRS) represents the Clean Water Act LEDPA over all other combinations of WRS alternatives, that combination of WRSs has been included in the calculations of impacts to WOTUS and the overall net loss for each action alternative. The POA 1 alternative (Stage 4 Dam Raise and TTF Expansion) and WRS combination (Kensington WRS Expansion, Pit #4 WRS Expansion, Comet WRS Expansion, and Pipeline Road WRS) proposed under POA 1 would result in the least amount of net loss of WOTUS compared to any other alternative brought forward for detailed analysis in the FSEIS and combination of WRSs that would be required to meet the overall project purpose. POA 1 would result in only a 0.3-acre net loss of WOTUS, more than 15 acres less net loss of WOTUS than the action alternative with the next least amount of net loss (TTF Closure with Reduced Water Alternative). POA 1 would result in construction of six fish habitat improvement projects recommended by the ADF&G. These fish habitat improvement projects would not be constructed under any other action alternative.

For the reasons described above, the Corps has identified POA 1(Stage 4 Dam Raise and TTF Expansion, along with the WRS combination proposed) , as the alternative(s) that results in the least amount of net WOTUS loss and that would provide the most overall environmental benefit compared to other practicable alternatives; therefore, POA 1 represents the Clean Water Act LEDPA and the Environmentally Preferred Alternative under NEPA.

4.0 PUBLIC INVOLVEMENT

The Notice of Availability for the DSEIS was published on October 22, 2020, for written comments on the proposed action for 45 days, and the FSEIS was published in the Federal Register on July 9, 2021 with a 45-day comment period. The Corps public notice was issued for a 30-day comment period on November 9, 2020.

4.1 Federal Agencies:

4.1.1 Environmental Protection Agency (EPA): EPA submitted comments on the Public Notice in a letter dated December 9, 2020. The applicant responded to EPA's comments in two separate documents: 1. Letter from Coeur Alaska dated March 11, 2021; and 2. Transmittal dated February 5, 2021, from applicant's agent HDR, Inc. with a Memorandum from NewFields dated February 5, 2021.

EPA1: The EPA commented that it "believes other potentially practicable alternatives have not been evaluated in sufficient detail to respond to the Guidelines requirements related to determining the LEDPA. EPA has concerns that the Proposed Action could significantly increase the risk and consequences of a catastrophic failure or breach of the TTF (Stage 4) dam resulting in the release of tailings/water slurry into Slate Creek, Slate Cove and Berner's Bay, a sensitive marine resource and habitat. Furthermore, the Proposed Action TTF reclamation and closure would result in hydrologically connecting Lower Slate Lake (a tailings storage facility) with Upper Slate Lake (a freshwater lake) to create one large Slate Lake at closure. This comingling of water would allow any potential pollutants that leach from the tailings placed in Lower Slate Lake to extend into the area of Upper Slate Lake, reducing the lakes overall water quality and potential for supporting flora and fauna alike.

Other action alternatives evaluated and considered in detail in the DSEIS may result in less environmental damages than the proposed action. These alternatives include the development of a Filtered Tailings Facility (FTF), a TTF closure with reduced water, and two optional storage facilities for waste rock. These Action Alternatives provide differing methods on how tailings would be handled through closure and beyond, which results in lower impacts to aquatic resources both directly and indirectly."

The EPA recommended that an alternative be evaluated as the LEDPA that combines aspects of the FTF alternative and TTF closure with reduced water alternative.

Applicant Response: In a letter dated March 11, 2021, Coeur Alaska provided responses to EPA's PN comments. Coeur Alaska stated that "[a]s described in Coeur Alaska's February 5, 2021, Technical Memorandum transmitted to USACE and the USFS, Coeur Alaska has analyzed the EPA's recommended alternative. Coeur Alaska does not believe that the EPA's suggested alternative meets the definition of a "reasonable alternative" under NEPA because it is not technically feasible. Because this alternative is not technically feasible, it would not be practicable under the Section 404(b)(1) Guidelines. The February 5, 2021, Technical Memorandum provides additional detail regarding the technical aspects that render the EPA's suggested alternative not reasonable and impracticable. It also provides details regarding the practicability of specific components suggested by the EPA.

The TSF proposed under POA 1 will result in a net gain of WOTUS more than nine times greater than the next-closest TSF alternative. The fish habitat improvement projects proposed under POA 1 and recommended by the ADF&G will not occur under other TSF alternatives. All converted uplands, short-term direct impacts converted to WOTUS, and WOTUS that will not be filled but only converted to Slake Lake under POA 1 will be

considered high-value WOTUS; therefore, Coeur Alaska has identified POA 1 Stage 4 Dam Raise and TTF Expansion as the LEDPA over the other practicable TSF alternatives.

The combination of WRSs included in POA 1 will result in fewer overall impacts to acres of WOTUS than other practicable WRS combinations, fewer impacts to acreage of high value WOTUS than the combination with the next fewest impacts, and fewer impacts to the overall amount of linear feet of streams than other combinations that meet the necessary 5 Mt of additional waste rock storage. Additionally, three of the four POA 1 proposed WRS sites will be expansions of existing WRS sites, which will reduce the need for additional roads, reduce fragmentation of wildlife habitat, and reduce the amount of additional edge area created through construction of new WRS areas. For these reasons, Coeur Alaska has identified the combination of the four WRSs proposed under POA 1 (Kensington WRS Expansion, Pit #4 WRS Expansion, Comet WRS Expansion, and Pipeline Road WRS) as the LEDPA over other practicable combinations of WRSs that will meet the overall project purpose of providing 5 Mt of additional waste rock storage."

Corps Response: Due to engineering/technology factors, logistical factors, and environmental risk factors, no practicable alternative to the proposed action is available, and the Corps has determined it is the LEDPA. See Sections 3.1, 3.2, and 3.3 of this ROD. See Section 3.4 of the FSEIS.

EPA2: The EPA commented that "[t]o help ensure compliance with the Guidelines, we have identified the following additional issues and measures that are recommended to be included as special permit conditions to ensure aquatic resource impacts associated with the proposed discharge are minimized.

The Guidelines specify that no discharge of dredged or fill material shall be permitted if it causes or contributes, after consideration of disposal site dilution and dispersion, to violations of any applicable water quality standard or violates any applicable toxic effluent standard or prohibition under section 307 of the Act. Although monitoring and water treatment measures are currently being implemented to meet state water quality standards and are proposed to continue with the mine expansion proposal, upon review of the 2019 APDES Annual Report for the Kensington Mine, EPA has identified water quality concerns associated with existing mine operations that were not identified or addressed in the DSEIS. Implementation of the Proposed Alternative or other alternatives could increase these issues related to water quality, which could impact aquatic resources such as resident and anadromous fish in downstream waters.

The 2019 APDES Annual Report indicates that there have been changes from baseline concentrations and surface water quality standard exceedances for nitrate, sulphate, and TDS at Ophir Creek monitoring station SH103, which is downgradient of the Comet WRS facility. The DSEIS does not identify these existing water quality impacts or describe whether the conditions could worsen with expansion of the Comet WRS facility under the WSR alternatives.

EPA recommendation: To help demonstrate compliance with the Guidelines and state water quality standards, EPA is recommending that the Final SEIS and Corps Guidelines

analysis: (1) Disclose impacts to Ophir Creek that vary from baseline conditions; (2) Identify the source of these pollutants (Comet WRS facility); (3) Describe whether the impacts are due to runoff or seepage (or both) and the extent to which the Comet WTP sludges disposed in the WRS facility contribute to increased pollutants; (4) If the source is from the Comet WRS facility seepage, then describe whether this seepage also impacts groundwater quality; (5) Identify whether these impacts are expected to continue or worsen in groundwater, Ophir Creek, and Sherman Creek due to the proposed Comet WRS expansion associated with the Proposed Action and Action Alternatives; (6) Identify mitigation measures to remedy the sulfate, nitrate, and TDS water quality standard exceedances and avoid and minimize future water quality impacts associated with the Comet WRS facility expansion; and (7) Identify groundwater monitoring and other effective seepage control and runoff management in order to capture and treat contaminated water before it enters surface and groundwater.

The 2019 APDES Annual Report identified that nitrate concentrations have been increasing at Sherman Creek monitoring station SH113 downstream of Outfall 001. Although nitrate concentrations are below the nitrate water quality standard, it is greater than baseline conditions and the trend seems to be increasing. The DSEIS does not identify this impact or describe whether concentrations are expected to continue to increase with implementation of the Proposed Action or alternatives.

EPA recommendation: To help demonstrate compliance with the Guidelines and state water quality standards, EPA is recommending that the Final SEIS and Corps Guidelines analysis: (1) disclose changes in Sherman Creek that vary from baseline conditions; (2) describe the source of these impacts (presumably Outfall 001 or Comet WRS seepage); (3) discuss whether it is expected that nitrate concentrations are expected to continue or increase with implementation of the Proposed Action and alternatives; and (4) if trends are predicted to increase above water quality standards, then identify mitigation that would be applicable to prevent water quality standard exceedances.

The 2019 APDES Annual Report also identified that nitrate, ammonia, sulfate, and TDS concentrations have increased from baseline conditions at East Fork Slate Creek monitoring stations SMP-5, SLB, and SLC, all of which are downstream of the TTF. Trends appear to be increasing over time, particularly at SMP-5 which is directly below the TTF. The DSEIS does not identify this impact or describe whether concentrations are expected to continue to increase with implementation of the proposed action or alternatives.

EPA recommendation: To help demonstrate compliance with the Guidelines and state water quality standards, EPA is recommending that the Final SEIS and Corps Guidelines analysis: (1) disclose impacts to East Fork Slate Creek that vary from baseline conditions including ammonia, sulfate, and TDS; (2) describe the source of these contaminants and whether it is due to the Outfall 002 discharge and/or uncaptured TTF seepage; (3) if seepage is a source, then describe the extent to which groundwater has been affected; (4) discuss whether concentration trends for these contaminants are expected to continue or change with implementation of the Proposed Action and alternatives; and (5) if trends are predicted to increase above water quality standards, then identify mitigation that will be applied to prevent water quality standard exceedances.

The DSEIS (3-25) indicates that the TTF pond generally meets all Alaska WQS for metals and other constituents except for elevated levels of dissolved manganese. The average dissolved manganese concentration from 2013 through 2019 is 161 micrograms per liter (µg/L) which exceeds the WQS of 100 µg/L for the human consumption of fish.

EPA recommendation: EPA recommends the Corps identify mitigation measures and/or best management practices that can be implemented to ensure the water quality standards for dissolved manganese are achieved and incorporate them into the permit as special conditions.

The DEIS (Tables 3.3-1 and 3.3-2) identifies APDES permit exceedances between 2011 to 2016 and states that exceedances of effluent limitations have not been reported since 2018 (Section 3.3.3.1). However, based on review of the 2019 APDES Annual Report, there appear to have been exceedances of the average monthly permit limits for cadmium, copper, iron, and mercury in Outfall 001 in 2019. We note that the APDES Annual Report compares monitoring data only to maximum daily limits, even though the APDES permit also establishes average monthly limits.

EPA recommendation: To help demonstrate compliance with the Guidelines and state water quality standards, EPA recommends that the Final SEIS update the list of APDES permit limit exceedances to include more recent information from 2016 to the present since this is reflective of most recent operations and impacts. We recommend that the Forest Service consult with ADEC to update the list.

The information above demonstrates the potential for water quality impacts associated with mine operation and those impacts could increase with mine expansion.

EPA Recommendation: EPA recommends that the source of these water quality impacts be investigated and mitigation measures be implemented as soon as possible to address these water quality issues and that future mine expansion ensures that effective controls are in place to prevent violation of state water quality standards and applicable toxic effluent standards."

Applicant Response: "Coeur Alaska observes that the EPA's comments relate to the authority described in Sections 401 and 402 of the Clean Water Act, which are programs administered by the Alaska Department of Environmental Conservation (ADEC) and are not specific to Section 404 of the Clean Water Act regarding the placement of dredged and/or fill material into WOTUS. Coeur Alaska understands that USACE's analysis under the Section 404(b)(1) Guidelines is specific to impacts that would result from the placement of dredged or fill material. Furthermore, as documented in 33 CFR 323.2(d)(2)(i): The term discharge of dredged material does not include the following: (i) Discharges of pollutants into waters of the United States resulting from the onshore subsequent processing of dredged material that is extracted for any commercial use (other than fill). These discharges are subject to section 402 of the Clean Water Act even though the extraction and deposit of such material may require a permit from the Corps or applicable State section 404 program.

Finally, 33 CFR 320.4(d) reiterates that the Clean Water Act assigns responsibility for control of non-point sources of pollution to the states. Certification of compliance with

applicable effluent limitations and water quality standards required under provisions of section 401 of the Clean Water Act will be considered conclusive with respect to water quality considerations unless the Regional Administrator, Environmental Protection Agency (EPA), advises of other water quality aspects to be taken into consideration.

Based on these regulations, Coeur Alaska encourages a focused analysis limited to only those water quality comments specific to the discharge of fill material and not to discharges otherwise regulated under Section 401 or 402.

Coeur Alaska recommends that USACE recognize that comments related to water quality in the TTF are not applicable to the evaluation under the Section 404(b)(1) Guidelines based on past precedent. As documented in the 2005 ROD: The Alaska Department of Environmental Conservation (ADEC) described the impoundment structure as a "treatment work'' under State law (see AS 46.03.900(33)), and stated that the State of Alaska water quality standards will not have to be met within that area. 18 AAC 70.010(c). See attached Section 401 Water Quality Certification, issued by the Alaska Department of Environmental Conservation, dated May 6, 2005. The USEPA has suggested a regulatory scenario in which the entire Lower Slate Lake would be the disposal site and water quality standards would not have to be met within the disposal site.

Coeur Alaska understands that ADEC will maintain the same approach in evaluation of POA 1. As such, comments pertaining to water quality conditions in the TTF are not relevant to analysis under the Section 404(b)(1) Guidelines.

Coeur Alaska recommends that the EPA's comments related to APDES exceedances fall under the regulatory authority of the State of Alaska under Section 402 of the Clean Water Act and are not applicable to USACE's evaluation for compliance with the Section 404(b)(1) Guidelines. The monitoring stations on Sherman Creek and East Fork Slate Creek are located downstream of Outfall 001 and Outfall 002, respectively; discharges from Outfall 1 and Outfall 2 are authorized and regulated under APDES permit AK0050571. The monitoring station on Ophir Creek is located downstream of the Comet WRS; discharge of storm water is authorized by the Multi-Sector General Permit for Storm Water Discharges Associated with Industrial Activities authorization AKR06AA50.

Coeur Alaska notes that the issues raised by the EPA do not represent significant degradation of WOTUS. As detailed in Coeur Alaska's comment letter to the USFS on the DSEIS (dated January 4, 2021), most of the referenced alleged exceedance events were administrative and related to documentation, maintenance, and frequency of reporting, and none of these alleged exceedances resulted in environmental harm or degradation. In addition, the number of events appears inflated. For example, for a single alleged permit exceedance of a monthly average limit, an exceedance for each day of the applicable month was counted and factored into the total. In each situation, corrective actions were taken, and subsequent measurements were well within limits. Coeur Alaska has suggested revisions to the DSEIS to accurately describe the functional effects of these alleged exceedances and place them in the context of environmental contaminations from other industries and sources."

Corps Response: The Corps agrees with Coeur Alaska's response. Additionally, the ADEC on June 3, 2021, issued an individual water quality certification for the proposed POA 1. See Section 3.3 of the FSEIS.

EPA3: The EPA stated that "the deposition of fugitive dust associated with heavy equipment and trucks travelling on gravel roads and pads, WRS facilities, and other sources at the mine site may smother aquatic vegetation, wetlands, and RMAs resulting in impairment of their functions and values. We have concerns that fugitive dust may be deposited to the ground surface and indirectly degrade or impair important wetland and RMA functions, such as water quality, and fish and wildlife habitat. Fugitive dust may represent a significant indirect impact during the seasonally dry, cold, winter months with low precipitation.

EPA Recommendation: To help demonstrate compliance with the Guidelines, EPA recommends (1) evaluating indirect sources of wetland and RMA impacts, such as fugitive dust deposition from heavy equipment/trucks travelling on gravel roads and pads; WRS facilities; the FTF; the tailings beach; changes in surface and groundwater hydrology (e.g., flooding, diversions, and/or dewatering), water-body crossings, fragmentation, etc.; (2) Quantify the indirect impacts to WOTUS so that the full magnitude and extent of impacts are evaluated and disclosed; and (3) adopt appropriate best management practices as special conditions to the permit to ensure only unavoidable impacts are authorized."

Applicant Response: "Coeur Alaska disagrees with the EPA's contention that fugitive dust may represent a significant indirect impact to the aquatic environment. First, the studies cited by the EPA are not relevant to the temperate rainforest environment where the Kensington Mine (Mine) is located. The Alaska Stand Alone Pipeline Project (and the dust studies along the Dalton Highway on which the Alaska Stand Alone Pipeline Project dust analysis is based) is generally located within the North Slope, Interior, and Southcentral Alaska ecoregions, all of which receive significantly less precipitation than Southeast Alaska, where the Mine is located. Rainfall in the Mine region often exceeds 100 inches per year, as precipitation occurs during at least half of the year. From 2011 to 2017, Jualin had annual precipitation rates between 99 and 126 inches per year. The wettest month at the Mine over this period was September, with an average of 15.6 inches of precipitation. During summer, the polar jet stream is usually located farther north and, as a result, average precipitation is often low. Precipitation at the Mine in March averages 3.7 inches. During winter, the polar jet stream influences weather by creating stronger winds across the Gulf of Alaska and bringing more precipitation, often as snow in higher elevations.

This climatic environment and roadway use that occurs at the Mine are substantially different from those described for the Alaska Stand Alone Pipeline Project. Dust generation from existing gravel roads has not been noted as an issue at the Mine, as materials used to construct roads are clean without a lot of fines, dust settles out due to frequent rain events, and dense vegetation limits the spatial extent over which dust can spread. Furthermore, Coeur Alaska limits speed limits along project roads to 25 miles per hour and, during summer months of operation, Coeur Alaska implements dust control measures such as applying water to gravel infrastructure through the use of water trucks to suppress fugitive dust.

Based on the climatic conditions and implementation of dust control measures, it is unlikely that measurable effects from fugitive dust associated with newly constructed roads would extend beyond 20 feet of the outer limits of fill placement. All WOTUS within 20 feet of newly constructed roads also fall within the mechanized land-clearing disturbance area and have thus already been included as part of the acreage of direct long-term impacts of the Proposed Action. For these reasons, dust generation from new road construction proposed under POA 1 is likely to be negligible and has already been included in the quantified impacts; thus, it does not represent a significant indirect impact to aquatic resources.

Similarly, indirect impacts to WOTUS from fugitive dust are not anticipated to occur at the WRS sites or from materials deposited at the TTF. While some dust would be generated when truckloads of waste rock are deposited, the amount of dust is not anticipated to have measurable effects on the surrounding vegetation due to the large diameter of the rock deposited (typically cobble to boulder). Coeur Alaska has not observed visual effects from dust on vegetation at existing WRSs within the Mine area.

As for tailings, the particle size of tailings produced by the mill is generally comparable to that of beach sand. Tailings deposited in the TTF are discharged subaqueously and are not subject to being distributed by wind. Tailings storage in the FTF Alternative, which would result in exposed tailings, would be unlikely to generate fugitive dust that would result in measurable effects to surrounding vegetation due to the larger particle size of the tailings when compared to dust, as well as their high moisture content."

Corps Response: The Corps agrees with Coeur Alaska's response. See Appendix A – Response to Comments on the FSEIS.

EPA4: EPA commented that "the PN documents state that the final surface of the WRS will be covered with one foot of growth media obtained from nearby growth media stockpiles and that seeding using approved seed mix of the reclaimed surface will be completed through hydroseeding or hand seeding.

The DSEIS indicates that there were 25 different observations of the invasive plant *Phalaris arundinacea* L (reed canarygrass) documented in the Pipeline road WRS, Pit #4 WRS, and the TTF. Due to the highly invasive nature, EPA recommends that the reed canarygrass in these areas be removed as soon as possible, outside of the SEIS, permitting, and construction schedules to prevent future spread of the invasive species. We also recommended proactive measures be implemented to monitor all areas within the Kensington Mine footprint to document presence and implement eradication measures to ensure that reed canary grass does not become established.

EPA Recommendation: In addition to native seed mixes, EPA recommends that live native plants including trees and shrubs be planted at wetland reclamation/restoration sites.

EPA Recommendation: EPA recommends that a special permit condition be required that ensures construction activities implement best management practices that include

monitoring for invasive species and treatments (non-chemical to the extent possible) to prevent the establishment and spread of reed canarygrass or any other invasive species."

Applicant Response: "Reclamation of disturbed areas resulting from activities outlined in POA 1 will be completed in accordance with the Reclamation and Closure Plan, which was updated in 2018 and is included as Appendix E of POA 1. Goals of reclamation include stabilization and protection of surficial soil materials from wind and water erosion and establishment of long-term, self-sustaining vegetation communities by reseeding with native plants and promoting natural recolonization and succession (POA 1, Section 7.1). As stated in the Reclamation and Closure Plan, the focus of the revegetation effort will be on establishing grasses, shrubs, and forbs in disturbed areas in order to stabilize the reclaimed landforms and to provide successful plant communities that would lead to the natural recolonization of the muskeg/spruce vegetation community. The focus of initial revegetation is on establishing grasses for growth media stabilization that allow succession of more diverse plant communities, including forbs, alder, and muskeg/spruce; seed mixes have been selected to meet this immediate goal. However, based on experience, successful establishment of vegetation—in particular, shrubs such as alder—may be achieved without application of seed, mulch, and/or fertilizer. Note that Coeur Alaska has initiated a revegetation monitoring study to evaluate methods for successful reclamation and in 2018 submitted the monitoring report with findings of the study and revegetation recommendations to the USFS for review. The study is currently ongoing and will continue to inform revegetation efforts.

In addition to revegetation, sediment control systems installed during construction of the Mine facilities will also be maintained during operation and will be inspected regularly and maintained according to the schedule defined in the Stormwater Pollution Prevention Plan (Appendix C of POA 1). Coeur Alaska believes these measures are sufficient to effectively minimize erosion and reclaim disturbed areas to vegetated habitats without the need to prescribe live plantings of trees and shrubs.

As documented in Coeur Alaska's Reclamation and Closure Plan (Appendix E of POA 1), Coeur Alaska is committed to the control of invasive weeds at the site. To prevent the establishment of weedy species, disturbed areas will be and have been seeded as quickly as practical following the completion of reclamation activities. All seed used in the project area will be State-certified weed-free. Quick establishment of perennial (permanent) plant communities is an effective method to prevent the spread of invasive weeds. Recently reclaimed and seeded areas will be monitored to ensure that invasive weed infestations are not present. In the event of an invasive weed infestation, an appropriate combination of chemical and mechanical techniques will be used to resolve the problem. Invasive weed control techniques include, but are not limited to, the following: herbicide application, mowing, tilling, and reseeding. Use of herbicide would require USFS approval and would be completed by a Licensed Herbicide Applicator. The treatment technique will be designed based on the characteristics of the invasive species. Monitoring will be used to determine the effectiveness of the treatments, and follow-up treatments will be used if necessary until invasive weeds are controlled. As acknowledged in the DSEIS, an Invasive Plant Management Plan would also be developed prior to implementation of POA 1."

Corps Response: Regarding EPA's comments concerning revegetation and invasive plant management, the Corps has determined that the proposed POA 1 plan is sufficient, and the EPA's recommended Special Condition would not be incorporated into the DA permit, if issued. See Section 3.6 of the FSEIS.

EPA5: The EPA stated that it "recommends that compensatory mitigation be required to replace lost aquatic resource functions and that the mitigation plan meet the requirements of the Final Mitigation Rule, and that the Corps evaluate cumulative impacts to WOTUS and that temporal losses be accounted for in calculations for compensatory mitigation."

Corps Response: The applicant has avoided and minimized to the maximum extent practicable. For the long-term loss of wetland functions that would accrue by extending the life of the mine under POA 1, compensatory mitigation is required, because the proposed project would result in the long-term filling of 1.7 acres of non-wetland waters and 31.1 acres of wetlands. Additionally, there would be at least a 10-year temporal loss of aquatic functions before restoration occurs. Therefore, the DA permit, if issued, would require compensatory mitigation for the temporal loss. See Section 5.0.

4.1.2 STATE AGENCIES:

Alaska Department of Natural Resources Office of Project Management and Permitting (ADNR): ADNR submitted comments on the Public Notice in a letter dated December 9, 2020. Coeur Alaska responded to ADNR's comments in a letter dated March 11, 2021.

ADNR1: "Coeur Alaska's commitment to implement Best Management Practices (BMPs) and mitigation measures during the life of the operation, for the protection of freshwater aquatic resources, includes the installation of silt fencing. There are other methods besides silt fencing that may be more appropriate in certain situations. Please replace "install silt fence" with "appropriate BMPs"."

Corps Response: The Alaska Department of Environmental Conservation issued a Section 401, Clean Water Act water quality certification on June 3, 2021. The water quality certification contains a turbidity, erosion and sediment control condition that allows the use of effective BMPs, which does not prescribe what controls are to be used.

ADNR2: "Expansion of the Kensington WRS would fill resident fish habitat in a Johnson Creek channel braid near the upper extent of fish use, and the Comet WRS would encroach upon the upper extent of fish use in the Sherman Creek watershed (see enclosure). Project boundaries for the Pipeline Road WRS and expansion of the Pit #4 WRS suggest development activities would occur immediately adjacent to Johnson Creek, which also provides resident fish habitat for Dolly Varden char. Should these WRSs be approved as proposed in POA 1, field surveying will be required to verify stream courses, and Habitat Section will work with Coeur to develop mitigation strategies for activities blocking fish passage, such as channel relocation."

Applicant Response: "Coeur Alaska has modified the Kensington WRS included in POA 1 to avoid placement of fill material below the ordinary high water mark of Johnson Creek noted by ADNR and ADF&G and to minimize overall impact on WOTUS at the

Kensington WRS. Previously, the expansion of the Kensington WRS was anticipated to have a footprint of 0.16 acre within WOTUS, including overlapping a channel of Johnson Creek (R3UBH). The modification to the Kensington WRS expansion footprint will entirely avoid impacts to streams and will reduce placement of fill or disturbance from mechanized land clearing in wetlands to 0.09 acre. Coeur Alaska determined that further avoidance of WOTUS was impracticable due to constraints at the site caused by the surrounding terrain and topography and the need to enhance operation efficiency by providing storage space near the Kensington portal."

Corps Response: Since Coeur Alaska has redesigned the Kensington WRS to avoid the discharge of fill material into Johnson Creek, the ADNR concern would be satisfactorily addressed as no fish habitat would be impacted. See section 2.2. of this ROD.

4.1.3 OTHER COMMENTS:

Alaska Electric Light & Power Co. (AEL&P): AEL&P submitted comments on the Public Notice in a letter dated December 9, 2020.

AEL&P1: "The proposed action will use existing infrastructure to expand the current tailings treatment facility and waste rock storage sites (adding one more waste rock site) and will have the least environmental impact of any of the alternatives considered. Operation of the Kensington Mine provides a significant economic benefit to Juneau and Southeast Alaska. That economic benefit is multi-faceted: the mine is the second-largest property taxpayer and the second-largest private employer in the City and Borough of Juneau (CBJ); the jobs provide high-paying wages; the mine hires local workers whenever possible; many of the local employees are also homeowners (property taxpayers); the mining operations provide revenue to local businesses and generate sales tax revenue for the CBJ; and the Kensington Mine is a strong proponent of community giving. The economic benefits of the mine are even more critical during the economic downturn faced by Juneau and Southeast Alaska during the unfortunate convergence of the State's fiscal shortfalls, the disastrous fisheries in 2020, the general hit to the local economy related to COVID, and the extreme reduction in revenues to local businesses due to the lack of tourism this year. The construction program associated with POA 1, with planned direct employment of about 65 workers earning close to $14 million in total over two years, couldn't come at a more opportune time for Juneau. The Other Action Alternatives are less environmentally responsible and do not provide the same economic benefits as POA 1."

Corps Response: The Corps agrees. See also Section 3.9 of the FSEIS.

Berner's Bay Consortium (BBC): BBC submitted comments on the Public Notice in a letter dated December 9, 2020.

BBC1: "POA 1 maximizes use of existing infrastructure and minimizes new disturbance footprints while meeting the purpose and need to extend the Life of Mine for a minimum of 10 years. The Stage 4 dam raise will disturb areas immediately adjacent to the existing Stage 3 dam, avoiding placement of new facilities, like a filtered tailings facility, in otherwise undisturbed areas. Waste rock storage at the Kensington, Comet, and Pit #4

WRS will expand disturbance in areas of existing disturbance, minimizing new disturbance to the extent practicable."

Corps Response: The Corps agrees that under the proposed POA 1 the applicant to extent practicable would avoid and minimize impacts to the aquatic environment. See Section 3.1, 3.2, and 3.3 of this ROD. See Section 3.4 of the FSEIS.

BBC2: "With the ongoing COVID-19 pandemic it is clearly not in the public interest to delay a permit decision or deny Coeur's application. This project will keep essential revenue and jobs in Southeast Alaska during a time when the region is struggling with the significant negative economic impacts resulting from COVID-19. Approval of POA l is the most effective way to avoid adding to the current economic issues in Juneau and Southeast Alaska."

Corps Response: The DA permit, if issued, would allow Coeur Alaska to implement POA 1, which would extend mining operations for a minimum of 10 years. However, under the existing DA permit, Coeur Alaska can continue mining until November 30, 2025. The Corps agrees that the Kensington Mine plays an important role in the economics of Southeast Alaska by purchasing goods and services and providing payroll and tax revenue. See also Section 3.9 of the FSEIS.

BBC3: "Executive Order 12898, Federal Actions to Address Environmental Justice (EJ) in Minority Populations and Low-Income Populations, requires each federal agency to make the achievement of environmental justice part of its mission by identifying and addressing disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority and low-income populations.

Native Alaskan members of BBC are employed, directly and indirectly, at the Kensington Mine and these job opportunities provide our shareholders a living wage in a region with extraordinarily high living expenses. In addition to job opportunities, BBC's member organizations benefit from their business relationships with Coeur."

Selection of the "No Action Alternative" will inflict upon minority populations that the BBC represent substantial negative economic affects.

Corps Response: The Corps agrees that Native Alaskans benefit from opportunities provided by the Kensington Mine, and the No Action Alternative would not benefit Native Alaskans. See Section 1.0 and 8.14 of this ROD. Additionally, see Section 3.9 of the FSEIS.

BBC4: "POA 1 will not have significant impacts on populations of subsistence resources."

Corps Response: The Corps agrees. See Section 3.5 and 3.7 of the FSEIS.

Alaska Miners Association (AMA): The AMA submitted comments on the Public Notice in a letter dated December 9, 2020.

AMA1: "The Stage 4 Dam adopts ADNR's Hazard Class I design criteria, meeting and exceeding criteria for its Hazard Class II designation as defined by ADNR. As such, the Stage 4 Dam should be determined to comply with USACE's permit review regulations and does not require independent review by USACE."

Corps Response: The design of the existing Stage 3 TTF dam and proposed Stage 4 TTF dam were developed according to the requirements of ADNR Dam Safety Program and meets the requirements of the National Dam Safety Program. The Corps has determined that the FSEIS (see Section 3.2) adequately demonstrates that the proposed Stage 4 structure complies with established State dam safety criteria and that the structure has been designed by qualified persons. Therefore, the Corps will not independently require review by similarly qualified persons.

AMA2: "The Proposed Action clearly and reasonably demonstrates Coeur Alaska's Life of Mine Extension will not have significant adverse effects on the human environment. The lack of significant adverse effects lends itself to USACE concluding POA 1 is not contrary to the public interest and compliant with the Section 404(b)(1) guidelines. These conclusions are also supported by Coeur Alaska's successful and environmentally responsible operational history at the mine, Juneau and Southeast Alaska's need to continue receiving the substantial positive economic impacts Coeur Alaska brings to the region, and the mitigation measures, those that will be on-going as well as the new fish habitat enhancements and long term inundation of graphitic phyllite at the TTF. For all these reasons, we urge the USACE to support the USFS with promptly finalize the SEIS and issuing your ROD in favor of POA 1."

Corps Response: Regarding the comment concerning the proposed POA 1 would not be contrary to the public interest and would comply with the 404(b)(1) Guidelines, the Corps agrees; see Section 1.0 and Section 6.0 of this ROD. Regarding the comment concerning mitigation, the Corps agrees that POA 1 would provide some environmental benefit particularly to the enhancement of Dolly Varden Char habitat and sequestration of graphitic phyllite; see Section 5.0 of this ROD and Section 2 and 3.8 of the FSEIS. Regarding the comment concerning economics, the Corps agrees that the Kensington Mine provides important economic benefit to the regional economy; see Section 3.9 of the FSEIS.

AMA3: "POA 1's development has a lower risk profile to personnel compared to the new construction that would be needed for the FTF Alternative. Also, during operations of any FTF, the movement of trucks and other heavy equipment on top of the filtered tailings in the winter months would create a higher worker safety risk. With the TTF Closure with Reduced Water Alternative, closure activities would have a higher worker safety risk regarding the ability to safely operate heavy equipment on deposited tailings while working during this stage of the alternatives."

Applicant's Response: "As discussed in Coeur Alaska's letter to USFS on the DSEIS, the FTF Alternative represents new technology for the Mine. Coeur Alaska believes the comments USACE received regarding worker safety are related to the high moisture content that would be present in the tailings at the FTF due the climatic conditions at the site. Mine workers would be required to operate heavy equipment on these tailings during

reclamation activities. The TTF Closure with Reduced Water Alternative could present similar safety issues. However, differences in tailings deposition under the TTF Closure with Reduced Water Alternative may help mitigate these concerns."

Corps Response: If the project were authorized, the permittee would be expected to operate within all appropriate safety constraints. See Section 2.4 of the FSEIS.

AMA4: "Coeur Alaska has shown a decade worth of dedication to protecting water quality and POA 1 will be no different as they work with the USFS and the Alaska Department of Environmental Conservation. Coeur Alaska demonstrates this by using the highest level of technology in terms of advanced water treatment and waste management at the mine and we are certain that same approach will carry forward with POA 1. Their current plan to use existing infrastructure to expand the current tailings treatment facility and waste rock storage sites and only adding one more waste rock site will have the least impact on the environment and also allow them to reduce risks associated with shifting to different tailings storage alternatives like the Filter Tailings Facility Alternative. USACE should find this public interest review factor to be positive and not contrary to the public interest."

Corps Response: The ADEC has issued an individual water quality certification for the proposed POA 1. See Section 3.3 of the FSEIS.

AMA5: "As described in Coeur Alaska's DA permit application, POA 1will result in just a 0.8-acre net decrease in WOTUS when factoring in conversion of upland habitats at closure. Furthermore, at closure, flow between Upper Slate Lake and East Fork Creek would pass through the restored TTF/Lower Slate Lake, allowing reestablishment of fish habitat and Dolly Varden populations in Lower Slate Lake. Finally, POA 1 includes fish habitat enhancements to minimize impacts and support resident fish populations the Slate Creek watershed. Additionally, regarding compensatory mitigation, based on why Coeur Alaska believes compensatory mitigation isn't appropriate *and* the DSEIS's assessment of wetland impacts, we believe the long-term beneficial impacts of POA 1 are strong and compensatory mitigation should not be required by USACE."

Corps Response: Regarding comments concerning mitigation, the Corps agrees that POA 1 would provide some environmental benefit particularly to the enhancement of Dolly Varden Char habitat, however, the Corps has determined for the long-term loss of WOTUS compensatory mitigation is necessary; see Section 1.0 and 5.0 of this ROD.

First Things First Alaska Foundation (FTFAF): The FTFAF submitted comments on the Public Notice in a letter dated December 9, 2020.

FTFAF1: "Kensington Mine provides over 350 year-round, high paying jobs making Coeur one of the most significant employers in Juneau. Suppose the USACE selects the No Action Alternative (permit denial). In that case, many workers and their families are likely to leave the Juneau area to find comparable employment, devastating the Juneau economy. We encourage the USACE to approve the Proposed Action (POA 1) and help keep stable and high paying jobs in Juneau, increasing regional economic viability."

Corps Response: Regarding the comment concerning economics, the Corps agrees that the Kensington Mine provides important economic benefits to the economy of the region; see also Section 3.9 of the FSEIS. Regarding the comment concerning the "No Action Alternative", see Section 3.2 of this ROD. Regarding the comment concerning the Corps decision on Coeur Alaska's permit application, See Section 1.0 and 9.0 of this ROD.

FTFAF2: "During the USFS's scoping effort for POA 1, several significant issues were identified. However, after taking the affected environment and environmental consequences into account, we note and support that the DSEIS finds that POA 1 will result in no significant impacts (direct or indirect)."

Corps Response: Regarding the comment concerning impacts to the environment within FSEIS study area, including the DA permit area, the Corps agrees with the FTFAF. Additionally, see Section 5.0 and 6.0 of this ROD, and see Section 3 of the FSEIS.

FTFAF2: "The Tongass National Forest's 2016 Forest Plan describes the provision of "environmentally sound mineral exploration, development, and reclamation in areas open to mineral entry and in areas with valid existing rights that are otherwise closed to mineral entry" as one of the Forest-wide Multiple-use Goals and Objectives. POA 1 will support this goal by extending Kensington Life of Mine by supporting gold ore's continued production from Coeur's mining claims. Ore production would have benefits for the local, regional, and national economies. For USACE's Public Interest determination purposes, USACE should find Coeur's application for POA 1 to be positive towards the public's need for minerals."

Corps Response: Regarding the FTFAF comment concerning the Tongass National Forest 2016 Forest Plan and the proposed POA 1 compatibility with the Forest Plan, implementation of the Tongass Forest Plan is not within the purview of the Corps, however see Section 1.4 of the FSEIS. With regard to Coeur Alaska's proposed project purpose, see Section 2.3 of this ROD. Regarding the FTFAF comment concerning economic benefits of the proposed POA 1, the Corps agrees that the Kensington Mine provides important economic benefits to the economy of the region; see also Section 3.9 of the FSEIS. Regarding the FTFAF comment concerning the Corps public interest determination, see Section 7.1 of this ROD.

Goldbelt Incorporated (GBI): GBI submitted comments on the Public Notice in a letter dated December 9, 2020.

GBI1: "We believe POA 1 is not contrary to the public interest and urge USACE to reach the same conclusion."

Corps Response: Regarding the GBI comment concerning the Corps public interest determination, the Corps agrees; see Section 7.1 of this ROD.

GBI2: "It is one of Goldbelt's priorities to encourage economic development and job creation in Juneau, Alaska. Goldbelt believes that the Proposed Action (POA 1) in the DSEIS is an essential part of the Juneau and State economy. POA 1 will preserve 359 direct jobs and 321 indirect jobs in Juneau. An additional 180 indirect jobs will be retained elsewhere in Alaska. Many of these jobs will be filled by residents of Southeast

Alaska. If USA CE selects the No Action Alternative from the DSEIS, which is permit denial, the mine will close and workers will have trouble finding a comparable job. Mining is the highest paid industry in Juneau with average monthly wages being more than double the Juneau average.

One example of Coeur's supporting and enhancing community cohesion is their commitment activities and groups such as Gold Rush Days in Juneau, the Southeast Alaska State Fair in Haines, United Way of Southeast Alaska Day of Caring, and support of the Juneau Arts and Culture Center. Coeur's involvement in these and other events is multifaceted involving financial contributions, staff time, and employee volunteer hours. They are a vital contributor to these and other events that help our communities flourish. There would be several detrimental effects resulting from USACE's denial of Coeur's permit application."

Corps Response: Regarding socioeconomics concerns, the Corps agrees that the Kensington Mine provides important economic benefits to the economy of the region; see also Section 3.9 of the FSEIS. Regarding the comment concerning the "No Action Alternative", see Section 3.2 of this ROD. Regarding the comment concerning the Corps decision on Coeur Alaska's permit application, See Section 1.0 and 9.0 of this ROD.

GBI3: "There is a key environmental benefit POA 1 has over the No Action Alternative, Filtered Tailings Facility and the Reduced Water Closure Alternatives when it comes to long-term, reliable mitigation (avoidance) of impacts to fish from the accidental release of acid rock drainage. At closure, the Proposed Action will cover the graphitic phyllite (GP) with water and prevent the GP from oxidizing and by extension, prohibit the formation of acid rock drainage. The Proposed Action's approach to GP management is the most effective way to protect fish and fish habitat.

As a corporation comprised of Alaska Natives and as the operator of the ferry transporting miners and other supporting staff, Goldbelt is in a unique position to lend our perspective on the seriousness Coeur Alaska applies to ensuring their operations coexist with area's threatened and endangered species. The mariners, which do include shareholders, that make up Goldbelt's ferry crews, work every spring with Coeur Alaska's marine mammal observers to spot marine mammals and take the necessary steps to avoid a "take" of threatened and endangered species. This is a highly successful effort."

Corps Response: The Corps agrees that under the proposed POA 1 the applicant to extent practicable would avoid and minimize impacts to the aquatic environment (See Section 3.1, 3.2, and 3.3 of this ROD. See Section 3.4 of the FSEIS). Additionally, regarding the comment concerning graphitic phyllite, the Corps agrees that sequestering graphitic phyllite under POA 1 would provide and environmental benefit see also Section 2 and 3.8 of the FSEIS. Regarding the comment concerning endangered species, the Corps agrees that employing marine mammal observers to avoid marine vessel collisions with endangered species is an environmental benefit see also Section 3.7 of the FSEIS.

GBI4: "The climatic conditions of a temperate rainforest do substantially limit viewing opportunities in that low hanging clouds, fog, rain, and/or snow frequently hamper visibility of the landscape. The same is true for low light conditions, which is present when most cruise ships pass through Lynn Canal. Furthermore, the analysis should

acknowledge for the frequency of the traveling public. For many months of the year, there are no cruise ship passengers and the current level of ferry traffic is lower than has been in the past. By not acknowledging these factors, the DSEIS overstates the impacts of POA 1, specifically the facilities on the Comet side of the mine and the Pipeline Road WRS."

Corps Response: The Corps does not agree that the impacts to aesthetics by the proposed POA 1 are exaggerated in the FSEIS (see Section 3.11).

GBI5: "POA 1 will have no direct or indirect significant impacts on the human environment."

Corps Response: The Corps agrees (see Section 5.0 and 6.0 of this ROD, and see Section 3 of the FSEIS).

GBI6: "Goldbelt agrees with the USFS that Kensington Mine's Plan of Operations Amendment 1 does not negatively impact minority or low-income populations. The USFS's conclusion in this matter is based more on the population in the Juneau area not meeting the definitions of a "minority population" and "low-income population." This analysis notwithstanding, in USACE's review, the agency should still acknowledge the positive economic and social aspects Coeur has had and continues to have on the minority and low-income populations. Case in point are the relationships that exist between Coeur and Goldbelt. Goldbelt shareholders are employed, directly and indirectly, at the Kensington Mine and these job opportunities provide our shareholders a living wage in a region with extraordinarily high living expenses. In addition to job opportunities, Goldbelt's shareholders benefit from Goldbelt's business relationship with Coeur. Goldbelt provides security and transportation services to Coeur. Revenue from these operations are shared through dividends paid to Goldbelt's shareholders."

Corps Response: The Corps has determined that evaluation of economic benefits to Goldbelt shareholders from the proposed POA 1 is not within the scope of its regulatory authority. However, the Corps concurs with the USFS analysis regarding economics (see Section 3.9 of the FSEIS).

Hyak Mining Company (HMC): In a letter dated December 9, 2020, HMC submitted comments on the Public Notice.

HMC1: "The plan proposed by Coeur in POA 1 is to us, a very good one, that will provide for continuing mining at Kensington and the economic benefits it provides. It minimizes its disturbance footprint and enhances fish habitat in a larger, more productive Slate lakes and adjacent fish habitat when reclaimed. The present TTF has operated as designed and without water quality problems for the last ten years. We can be confident that it will operate so in the future. The proposed POA 1 Stage 4 dam Tailing Treatment Facility (TTF) is subject to and will meet the stability criteria outlined by the Alaska Department of Natural Resources (ADNR) Dam Safety Program and the requirements of the National Dam Safety Program for it to be constructed."

Corps Response: Regarding HMC's comment concerning economics, the Corps agrees that the Kensington Mine provides important economic benefits to the economy of the

region see also Section 3.9 of the FSEIS. Regarding HMC's comment that the proposed POA 1 would have minimal impact on the aquatic environment and enhance fish habitat after reclamation upon mine closure, the Corps agrees (see Section 2, 3, 5, and 6 of this ROD, and see Section 3.5 of the FSEIS). Regarding HMC's comment on water quality, an individual water quality certification has been issued for POA 1 (see Section 3.3 of the FSEIS). Regarding HMC's comment concerning the stability of the proposed POA 1 Stage 4 dam, the Corps agrees; see also Section 3.2 of the FSEIS.

HMC2: "The TTF Closure with Reduced Water would at mine closure would greatly reduce aquatic habitat compared to POA 1, and the resulting aquatic habitat would be small, shallow, and unlikely to function as a healthy lake. It will also not provide Dolly Varden spawning habitat. Additionally, POA 1's fish habitat improvements are not included in this option as the water levels will not be high enough to support these enhancement activities. From a work safety standpoint, this alternative would require heavy equipment operators to travel over wetted tailings that could result in a unstable surface in order to conduct reclamation activities. Finally, the existing graphitic phyllite near the dam will not be covered in water and create a long-term risk requiring active management. Additionally, this alternative will need a nearby borrow site to produce growth media and the nearby areas contain GP which will create a new situation where GP will need to be managed.

I am skeptical of the Filtered Tailings Facility being able to perform as well as the present Tailings Treatment Facility. The prevailing winds from the South, when rising over Lions Head mountain experience adiabatic cooling of the moisture laden air and a dramatic increase in rainfall in the area. The high rainfall that portion of Berner's Bay can experience could potentially reliquefy the tails into a muck that will be very difficult and expensive to control. The FTF will likely also expose a known source of graphitic phyllite material, which produces acid rock drainage, increasing environmental risks and requiring additional measures to properly contain and store the GP material. The FTF cannot compare to the expanded TTF proposal operationally, environmentally and in improved fish habitat."

Corps Response: Regarding HMC's comments concerning that the TTF Closure with Reduced Water and the Filtered Tailings Facility Alternatives would result in a net reduction in aquatic habitat, would increase safety hazards, and would increase graphitic phyllite hazard potential contrary to the impacts of POA 1, the Corps agrees (see Section 3.0 of this ROD, and see Section 2.3, 2.4, 3.5 and 3.12.3 of the FSEIS).

HMC3: "Pipeline road WRS and the Pit 4 WRS contain the bulk of the proposed acreage used and tonnage of the waste rock storage. These two sites are almost all on private land owned or controlled by Hyak and under lease to Coeur. Hyak has no objection to Coeur's Waste Rock proposals presented in POA 1 and views that rock as a potential resource that may have value in and of itself in the future.

This alternative would require a long-haul distance which would create more emissions, decrease operational efficiency, and increase operational hazards as a result of increased traffic and haul distance. This WRS would require construction of an additional access road. Both this access road and a portion of the WRS would be located within an active avalanche area that represents significant safety concerns and may result in restricted

access for large portions of the winter and spring. As compared to the other proposed WRSs, the Johnson Creek WRS would not be an expansion to an existing WRS but would be a fully separate and new footprint located almost entirely on National Forest Service land."

Corps Response: Regarding HMC's comments concerning WRS Alternatives, the Corps agrees; see also Section 3.2.6, 3.2.9, and 3.2.10 of this ROD, and Section 2.4.4 of the FSEIS).

HMC4: "The jobs and economic activity brought about by developing and mining Kensington has become a very important element to the local and regional economy. Continuing mining will provide nearly three hundred sixty direct and five hundred indirect jobs within Alaska for an additional 10 years, contributing an estimated $57.9 million in wages to the state economy. The Kensington is the second largest property taxpayer to the City and Borough of Juneau and the local economic activity Kensington spawns makes a significant contribution in sales tax revenue of the CBJ. Losing this tax base and revenue will put that burden to the other taxpayers and citizens of Juneau. For purposes of providing desperately needed short and medium term economic stability due to the uncertainty created by the COVID-19 pandemic's severe business impacts and resulting loss of revenues, City and Borough of Juneau and the entire Southeast community USACE's approval of POA 1 is direly needed to continue the tax and other economic benefits Kensington provides."

Corps Response: Regarding HMC's comments concerning the beneficial economic impact the Kensington Mine has locally on the City and Borough of Juneau and regionally to Southeast Alaska, the Corps agrees (see Section 3.9 of the FSEIS).

HMC5: "Coeur is an active participant in the Juneau and Southeast Alaska community and has built relationships with non-profits and community groups that support minority and/or low-income residents and developmental activities for the area's youth. Coeur Alaska has made a positive difference for Juneau and Southeast Alaska residents and strives to improve their social situation, economic standing, and overall wellness. Coeur's charitable donation program supports areas where there are pressing community needs. Approving POA 1 will allow Coeur to remain a valuable member of our community.

Hyak as a royalty holder on Jualin, receives revenue from the production of minerals from Kensington. That revenue is further distributed to sub lessors to Hyak, Stockholders, the local, State and Federal Government. What is left is typically spent prospecting Southeast Alaska looking to find another mine. This revenue is a positive for all that share in it and the further distribution of that income as it cycles through the local, State and U.S economy."

Corps Response: Regarding HMC's comments concerning community cohesion and economics, the Corps agrees that the Kensington Mine provides important economic benefits to the economy of the region; see also Section 3.9 of the FSEIS.

HMC6: "POA 1 will maximize use of existing infrastructure and concentrate new disturbances in locations that have been previously disturbed by mine operations. This will have the overall effect of minimizing project impacts."

Corps Response: Regarding HMC's comment concerning the applicant's efforts to minimize impacts, the Corps agrees (see Section 3.2 and 5.1 of this ROD, and Section 2.4 and 3.4 of the FSEIS).

Resource Development Council (RDC): The RDC in a letter dated December 9, 2020, submitted comments on the PN.

RDC1: "The proposed POA 1 Stage 4 Dam raise at the Tailings Treatment Facility (TTF) is classified as a Hazard Class II dam under the Alaska Department of Natural Resources (DNR) Dam Safety Program's hazard potential classification system. The Stage 4 Dam design complies with, and exceeds, the state dam safety criteria by using the more stringent criteria required for Hazard Class I dams. Per USACE's regulations (33 CFR 320.4(k)) which state that non-Federal applicants may be required to demonstrate that impoundment structures "comply with established state dam safety criteria…" we believe the Stage 4 Dam will therefore also comply with USACE permit review regulations and an independent review by USACE will not be necessary."

Corps Response: The design of the existing Stage 3 TTF dam and proposed Stage 4 TTF dam were developed according to the requirements of ADNR Dam Safety Program and meets the requirements of the National Dam Safety Program. The Corps has determined that the FSEIS (see Section 3.2) adequately demonstrates that the proposed Stage 4 structure complies with established State dam safety criteria and that the structure has been designed by qualified persons. Therefore, the Corps will not independently require review by similarly qualified persons.

RDC2: "USACE should focus its review on those impacts that may occur from the placement of fill material into waters of the U.S. The extent of cumulative federal control and responsibility over the project does not warrant expansion of the USACE's scope of analysis to encompass non-regulated activities. Overall, USACE should refrain from 'federalizing' the project and expanding its NEPA scope of analysis outside of the activities subject to its authority."

Corps Response: The proposed POA 1 would occur on privately owned land and National Forest System (NFS) lands (Tongass National Forest) managed by the USFS. Most of the proposed project would be located on NFS lands, as such the USFS is the lead Federal agency for completion of the SEIS. The responsibility of the lead agency is to ensure the SEIS complies with NEPA. The Corps as a cooperating agency to the SEIS agrees with the scope of the NEPA analysis that was established by the lead agency for the SEIS. The Corps intends to rely on this SEIS for compliance with NEPA and the information necessary for 404(b)(1) Guidelines analysis and Public Interest Review. The Corps' analysis for the decision on the permit application submitted by Coeur Alaska for POA 1 will be limited to its statutory authorities. See Section 2.4, 5.0 and 6.0 of this ROD.

RDC3: "The TTF Closure with Reduced Water Alternative does not include POA 1's fish habitat improvements and would greatly reduce the amount of aquatic habitat after closure. Following mine closure, the resulting waterbody would be small, shallow, and is unlikely to function as a healthy lake. It would not provide Dolly Varden spawning

habitat. The existing graphitic phyllite (GP), which can lead to acid drainage, near the dam may not be sufficiently contained and additional GP may be exposed to obtain additional growth media at the nearby borrow site. During closure and reclamation there are also major concerns regarding the ability to safely operate heavy machinery on deposited tailings. Due to the lack of environmental benefits, risks surrounding managing a current source of GP as well as a new source of GP, and for safety reasons, this alternative should not be selected."

Corps Response: Regarding RDC's comments concerning that the TTF Closure with Reduced Water and the Filtered Tailings Facility Alternatives would result in a net reduction in aquatic habitat, would increase safety hazards, and would increase graphitic phyllite hazard potential contrary to the impacts of POA 1, the Corps agrees (see Section 3.0 of this ROD, and see Section 2.3, 2.4, 3.5 and 3.12.3 of the FSEIS).

RDC4: "The Johnson Creek WRS is the only proposed WRS option that would not expand on an existing WRS, but instead would be a new stand-alone WRS located almost entirely on National Forest Service land, requiring construction of an additional access road. Use of this proposed WRS site would present new and serious safety concerns related to increased traffic and haul distance required to access the site. The fact that the access road and a portion of the Johnson Creek WRS would be located within an active avalanche area raises additional safety concerns and may result in restricted access to the WRS during the winter and spring."

Corps Response: Regarding RDC's comments concerning the Johnson Creek WRS Alternative, the Corps agrees; see also Section 3.2.6, 3.2.9, and 3.2.10 of this ROD, and Section 2.4.4 of the FSEIS).

RDC5: "Most wetland impacts that could result from POA 1 would be to low or moderate functioning wetlands. As described in Coeur's Department of the Army permit application, POA 1 would require long term placement of fill in just 27.2 acres of WOTUS and 26.4 acres of upland habitat would be converted to WOTUS at the TTF at closure. Thus, the project overall will have just a 0.8-acre net decrease in WOTUS. Based on this data, we support a conclusion that POA 1 would not result in significant impacts to aquatic resources or aquatic resource functions within the affected watersheds."

Corps Response: Regarding the RDC's comments on wetland impacts, the Corps agrees see also Section 2.0, 5.0 and 6.0 of this ROD, and see Section 3.4 of the FSEIS.

RDC6: "For over ten years Coeur has shown that they can operate the Kensington Mine in an environmentally responsible way. Their current plan to use existing infrastructure to expand the current tailings treatment facility and waste rock storage sites and only adding one more waste rock site will have the least impact on the environment. With these features come numerous best practices to protect the environmental qualities of the area, not the least of which is water quality. Coeur has incorporated the highest level of technology in terms of advanced water treatment and waste management and will continue to protect water quality."

Corps Response: An individual State water quality certification has been issued for the proposed POA 1. Additionally, see Section 3.3 of the FSEIS.

RDC7: "Use of private land for private purposes can benefit both the private landowner and the public. Coeur's application to USACE for a permit to construct, operate, and close POA 1 is an exemplary example of such a project. Issuance of this permit will allow for a reasonable balance of the rights afforded a private property owner to realize economic opportunities while the mineral production and environmental protections Coeur has incorporated into POA 1's design features, that exceed the standards of environmental responsibility, fittingly considers the needs of the public. As for POA 1's use of public lands, the same is true. Coeur's proposal is consistent with Tongass National Forest's 2016 Forest Plan (Plan) which has as a stated goal to support mineral development."

Corps Response: The DA permit, if issued, would not provide the permittee interest in property, and the Corps would expect that the permittee would obtain the requisite authorization to construct the proposed project. The USFS manages the Tongass National Forest and implements the Forest Plan, which are not within the Corps' purview. Regarding RDC's comment concerning the needs of the public, the Corps agrees see also Section 7.1 of this ROD.

RDC8: "POA 1 represents the least environmentally damaging practicable alternative when effects to aquatic resources during both operations and following reclamation are considered."

Corps Response: Regarding RDC's comment concerning the LEDPA, the Corps agrees see also Section 3.3 and 6.0 of this ROD.

RDC9: "The Kensington Mine is the second largest employer and property taxpayer in Juneau, spending over $55 million in wages in 2019. The mine also paid $2.3 million in local sales and property taxes in 2019, while making community donations of over $143,000. It is clearly an economic engine for Southeast Alaska with a strong commitment to protect the environment."

Corps Response: Regarding RDC's comment concerning economics, the Corps agrees that the Kensington Mine provides important economic benefits to the economy of the region see also Section 3.9 of the FSEIS.

Southeast Conference (SEC): The SEC in a letter dated December 9, 2020, submitted comments on the PN.

SEC1: "Anticipated tax revenues and jobs from POA 1 will provide substantial stability and beneficial impacts to the overall Juneau economy, demonstrating that the project is not contrary to the public interest.

Existing operations at the Kensington Mine support through Coeur's support for community groups and activities, such as the Gold Rush Days in Juneau, the Southeast Alaska State Fair in Haines, United Way of Southeast Alaska Day of Caring, and support of the Juneau Arts and Culture Center. In addition, Kensington Mine operations supports

both direct and indirect employment, which in turn directly supports K-12 school enrollment for about 130 students in Alaska and indirectly supports enrollment of approximately 80 more students. These students are primarily enrolled in Juneau but the Kensington Mine also supports school enrollment in Haines and elsewhere in Southeast Alaska. School enrollment is often a key aspect of community cohesion, particularly in smaller Southeast Alaska towns.

Denial of a permit for POA 1 (USACE's selection of the No Action Alternative) will result in loss of both benefits to community cohesion provided by the Kensington Mine."

Corps Response: Regarding the SEC's comment concerning tax revenues and community cohesion, the Corps agrees that the Kensington Mine provides important economic benefits to the economy of the region; see also Section 3.9 of the FSEIS. Regarding the comment concerning the public interest, the Corps agrees; see also Section 7.1 of this ROD. Regarding the comment concerning DA permit denial, the Corps agrees; see also Section 1.0 and 9.0 of this ROD.

SEC2: "The Kensington Mine positively affects property values in the CBJ, directly through contribution to property taxes as the second highest property taxpayer in the borough and indirectly through both direct and indirect employment, which in turn supports housing occupancy and homeownership rates. As described in the DSEIS, approval of POA 1 will continue these benefits to local property values both through continued property tax revenues to the borough as well as through homeownership support for 165 households."

Corps Response: Regarding the SEC's comment concerning property taxes and values, the Corps agrees that the Kensington Mine provides important economic benefits to the economy of the region; see also Section 3.9 of the FSEIS.

SEC3: "The mine area falls within the boundaries of the Tongass National Forest managed by the USFS and the City and Borough of Juneau (CBJ). Each has land use planning documents that guide their respective management of Coeur's activities Coeur.

Coeur's Proposed Action Alternative is clearly consistent with the 2016 Forest Plan and consistent with the City and Borough of Juneau's land use zone as Rural Resource District."

Corps Response: Land use and zoning matters are primarily under the authority of local and State authorities. The USFS manages the Tongass National Forest and implements the Forest Plan. Land use and zoning are not within the Corps' purview.

Southeast Conservation Council (SEACC): The SEACC in a letter dated December 9, 2020, submitted comments on the PN.

SEACC1: "The Clean Water Act precludes ACOE from approving an alternative if it is not the LEDPA, if it would cause or contribute to significant degradation of the waters of the United States, or if it would otherwise not comply with the guidelines promulgated under section 404(b)(1) of the Clean Water Act.

Due to significant missing, inconsistent, and inaccurate information relevant to environmental impacts and alternatives, which SEACC will describe in greater detail in its comments on the DSEIS, ACOE cannot rely on analyses in the DSEIS to make the required Clean Water Act findings for POA-1990-00592-M9. The following is a non-exhaustive summary of errors and gaps in the DSEIS that undermine ACOE's ability to rely on the DSEIS analyses in this 404 permit application:

- The DSEIS ignores the reasonable possibility of further mine production after 2023 adding to cumulative effects.

- The DSEIS ignores the effect climate change will have on implementing all alternatives and closure plans and their long-term performance.

- The DSEIS does not consider the effects of increasing the mill capacity on power generation, storage and transport of chemicals and fuel, increased road traffic or life of mine.

- The DEIS lacks any information as to gaps in data and the relevance of the missing or unavailable information as required.

Neither the DSEIS nor Coeur's application to ACOE contains adequate information to support a finding that the alternative proposed in POA-1990-00592-M9 is the LEDPA, that it would not cause or contribute to significant degradation of waters of the United States, or that it would comply with the 404(b)(1) guidelines.

POA-1990-00592-M9 contains no information on the applicant's performance implementing State and Federal Water Quality Standards under the last action approved by ACOE. It is reasonably foreseeable that if the Applicant will not be able to avoid violating water quality standards under this proposal when they could not do so under the previous approval half the size.

On August 5, 2019 and again on July 30th 2019 the U.S. EPA stepped in after a multi-year investigation and negotiated a Consent Agreement between EPA R-10 and Coeur Alaska (applicants) over repeated violations of various permit limitations, State water quality standards and other requirements."

Applicant's Response: "SEACC does not fully consider the environmental benefits included as part of POA 1 or the risks posed by other action alternatives when opining about the LEDPA. Under the DSEIS's FTF with No Stage 4 Dam Alternative, graphitic phyllite material at the Stage 3 dam will continue to be a long-term issue as the alternative does not encapsulate all known sources of graphitic phyllite. Furthermore, the alternative has an additional risk of exposure due to ground disturbance associated with the FTF. Under the TTF Closure with Reduced Water Alternative's closure condition, Lower Slate Lake would remain inferior Dolly Varden habitat compared to POA 1 due to shallow water depths and other factors as the DSEIS describes. In contrast, POA 1 includes environmental benefits from fish habitat enhancements that are not available to any of the other action alternatives.

Coeur Alaska disagrees with the statement by commenters that the DSEIS does not support a finding of no significant degradation. The DSEIS identifies significant issues but no significant impacts. The DSEIS does not identify any likely significant impacts to environmental resources resulting from POA 1. The primary goal of POA 1 is to design a project that maximizes the use of existing infrastructure, minimizes new disturbances, minimizes the carbon footprint, and provides a net benefit for fish and wildlife by creating more aquatic habitat.

The design of the TTF is based on the Probable Maximum Precipitation (PMP) event developed for the project site using established and published analytical techniques. This is the maximum rainfall event that can theoretically occur, given the site conditions and historical precipitation records. In determining the flow generated by the PMP storm event, the Probable Maximum Flood (PMF) analysis assumed that the storm occurred when the maximum potential snowpack existed, and the resulting runoff was a combination of rain and snowmelt. This analysis is considered a conservative engineering approach using currently accepted techniques for estimating maximum events and the resulting runoff. The analysis meets the requirements of the State of Alaska Dam Safety Regulations and the Global Industry Standards on Tailings Management.

To facilitate the understanding of this from a design perspective, if POA 1's Stage 4 design needed to be modified to accommodate for presumably higher precipitation events than the PMP, the adjustments could be accomplished easily by adjusting the size (capacity) of features such as the spillway and diversion ditches. In the case of the diversion ditches, increasing the size of the ditches by just a few inches substantially increases the amount of water they can pass. These design features could be included in the design now and could also be adjusted after construction and/or after closure.

The authority described in Sections 401 and 402 of the Clean Water Act, which are programs administered by the Alaska Department of Environmental Conservation (ADEC) and are not specific to Section 404 of the Clean Water Act regarding the placement of dredged and/or fill material into WOTUS. Coeur Alaska understands that USACE's analysis under the Section 404(b)(1) Guidelines is specific to impacts that would result from the placement of dredged or fill material. Furthermore, as documented in 33 CFR 323.2(d)(2)(i):

> *The term discharge of dredged material does not include the following: (i) Discharges of pollutants into waters of the United States resulting from the onshore subsequent processing of dredged material that is extracted for any commercial use (other than fill). These discharges are subject to section 402 of the Clean Water Act even though the extraction and deposit of such material may require a permit from the Corps or applicable State section 404 program.*

Finally, 33 CFR 320.4(d) reiterates that

> *the Clean Water Act assigns responsibility for control of non-point sources of pollution to the states. Certification of compliance with applicable effluent limitations and water quality standards required under provisions of section 401 of the Clean Water Act will be considered conclusive with respect to water quality considerations unless the Regional Administrator, Environmental Protection*

Agency (EPA), advises of other water quality aspects to be taken into consideration.

Coeur Alaska encourages a focused analysis limited to only those water quality comments specific to the discharge of fill material and not to discharges otherwise regulated under Section 401 or 402.

Coeur Alaska recommends that USACE recognize that comments related to water quality in the TTF are not applicable to the evaluation under the Section 404(b)(1) Guidelines based on past precedent. As documented in the 2005 ROD:

The Alaska Department of Environmental Conservation (ADEC) described the impoundment structure as a "treatment work'' under State law (see AS 46.03.900(33)), and stated that the State of Alaska water quality standards will not have to be met within that area. 18 AAC 70.010(c).

Coeur Alaska understands that ADEC will maintain the same approach in evaluation of POA 1. As such, comments pertaining to water quality conditions in the TTF are not relevant to analysis under the Section 404(b)(1) Guidelines.

APDES exceedances fall under the regulatory authority of the State of Alaska under Section 402 of the Clean Water Act and are not applicable to USACE's evaluation for compliance with the Section 404(b)(1) Guidelines. The monitoring stations on Sherman Creek and East Fork Slate Creek are located downstream of Outfall 001 and Outfall 002, respectively; discharges from Outfall 1 and Outfall 2 are authorized and regulated under APDES permit AK0050571. The monitoring station on Ophir Creek is located downstream of the Comet WRS; discharge of storm water is authorized by the Multi-Sector General Permit for Storm Water Discharges Associated with Industrial Activities authorization AKR06AA50.

Coeur Alaska notes that the issues raised by the EPA do not represent significant degradation of WOTUS. As detailed in Coeur Alaska's comment letter to the USFS on the DSEIS (dated January 4, 2021), most of the referenced alleged exceedance events were administrative and related to documentation, maintenance, and frequency of reporting, and none of these alleged exceedances resulted in environmental harm or degradation. In addition, the number of events appears inflated. For example, for a single alleged permit exceedance of a monthly average limit, an exceedance for each day of the applicable month was counted and factored into the total. In each situation, corrective actions were taken, and subsequent measurements were well within limits. Coeur Alaska has suggested revisions to the DSEIS to accurately describe the functional effects of these alleged exceedances and place them in the context of environmental contaminations from other industries and sources."

Corps Response: The Corps agrees with the applicant's response. Additionally, regarding SEACC's comments concerning the LEDPA, the Corps disagrees; see also Sections 3.3, 5.0, and 6.0 of this ROD, and see Sections 2.3, 2.4, 2.5, 2.6, 3.2, 3.3, 3.4, 3.5, 3.6, 3.7, 3.8, and 3.12 of the FSEIS. Regarding SEACC's comments concerning State water quality standards, on June 3, 2021, the State of Alaska issued a conditioned water quality certification pursuant to Section 401, Clean Water Act for the proposed

discharge of fill material under POA 1. Regarding SEACC's comments concerning discharge exceedances subject EPA Consent Agreement with Coeur Alaska, those discharges were and continue to be subject to Section 402, Clean Water Act subject to regulation by the State APDES program and are outside the purview of the Corps. Regarding SEACC's comments that the DSEIS had data gaps and was not adequate for the Corps to rely on for the purposes of NEPA and analyze the proposed POA 1 for Section 404, Clean Water Act permitting, including the 404(b)(1) analysis, the Corps disagrees and has determined that the FSEIS is sufficient for the agency's needs. Regarding SEACC's comment concerning mining operations beyond 2023, the Corps disagrees as the FSEIS contemplates mining operations to continue for another 10 years. Regarding SEACC's comment concerning increasing the mill capacity on power generation, storage and transport of chemicals and fuel, increased road traffic or life of mine, these components are outside the Corps' purview.

Greater Juneau Chamber of Commerce (GJCC): The GJCC in a letter dated December 7, 2020, submitted comments on the PN.

GJCC1: "Mine life extension under POA 1 would directly employ 359 year-round and high-paying jobs in Juneau; mining is the highest paid industry in Juneau with average monthly wages more than double the Juneau average (DSEIS pg. 3-98). POA 1 would indirectly create or induced an additional 321 jobs in Juneau (DSEIS pg. 3-103). The positive benefits of this cannot be overstated and POA 1 is clearly not contrary to the public interest.

In addition, the National Emergency caused by the COVID-19 pandemic has resulted in severe economic losses in Juneau, Southeast Alaska, and Alaska. Recent job losses have resulted in fewer opportunities to be employed with a job that provides a living wage. Approval of POA 1 in an expedited manner will help reduce the economic uncertainty for both the public and private sectors.

Extension of the Kensington Mine life through approval of POA 1 would have significant beneficial economic effects in the City and Borough and Juneau and throughout Alaska. As described in the Draft EIS, the Kensington Mine is the second highest taxpayer in Juneau, contributing more than $159,000 in property tax, which in turn helps support local government jobs and services."

GJCC 2: "Coeur also supports and enhances community cohesion in Juneau and Southeast Alaska through its trained and highly skilled work force who come to Coeur with training and skills and/or learn and develop important skills through Coeur's training program. These workers then apply their knowledge and skills for the benefit of others in their communities during their time off from work."

GJCC 3: "As the mine area is within the boundaries of the Tongass National Forest, managed by the USFS, and the City and Borough of Juneau (CBJ), USACE should easily conclude that POA 1 is consistent with the land use planning policies of the USFS and CBJ, respectively.

Overall, the USFS's 2016 Forest Plan contains a goal in the Land Use Designation for Coeur's project area, which is to encourage the mining and processing minerals in areas with the highest potential for minerals development.

Additionally, the CBJ's designation for the area is Rural Resource District, which is "intended for lands primarily in public ownership managed for the conservation and development of natural resources and for future community growth." (CBJ 49.25.200)"

GJCC 4: "Coeur's Life of Mine Extension of the Kensington Mine, described at the Proposed Action in the DSEIS, will continue providing jobs that provide a living wage and enhances the long-term economic future of Southeast Alaska. It is understood that keeping the mine open will benefit the Juneau economy by maintaining over 350 jobs and $36.4 million in annual wages. In turn, this indirectly supports 500 jobs and $21.5 million (statewide) in annual wages.

If the USACE selects the No Action Alternative by denying the permit for POA 1, it means the mine will close, there would be severe adverse impacts property tax revenue. Coeur Alaska is one of the top two property taxpayers in Juneau. This property tax revenue is used to fund city services, schools, etc. which improves overall quality of life in the region. As a Cooperating Agency, we urge you to engage in this role with the USFS so that Final SEIS acknowledges this is a detrimental impact associated with the No Action Alternative."

Corps Response: Regarding the GJCC's comment concerning economics, tax revenues and community cohesion, the Corps agrees that the Kensington Mine provides important economic benefits to the economy of the region; see also Section 3.9 of the FSEIS. Regarding the comment concerning the public interest, see Section 7.1 of this ROD. Regarding the comment concerning DA permit denial see Section 1.0 and 9.0 of this ROD. Regarding the GJCC's comment concerning land use and the Forest Plan, land use and zoning matters are primarily under the authority of local and State authorities. The USFS manages the Tongass National Forest and implements the Forest Plan. Land use and zoning are not within the Corps' purview. Regarding the comment concerning DA permit denial, the Corps agrees. See also Section 1.0 and 9.0 of this ROD.

James F. Clark (JFC): JFC in a letter dated December 9, 2020, submitted comments on the PN.

JFC1: "While POA 1 would require placement of fill in waters of the U.S., including wetlands, the DSEIS does not document significant impacts to wetlands in the affected watersheds or the watersheds' fish and wildlife values. As described in Coeur's DA permit application, POA 1 will result in just a 0.8-acre net decrease in WOUS when factoring in conversion of upland habitats at closure. Furthermore, at closure, flow between Upper Slate Lake and East Fork Creek would pass through the restored TTF/Lower Slate Lake, allowing reestablishment of fish habitat and Dolly Varden populations in Lower Slate Lake. Finally, POA 1 includes fish habitat enhancements to minimize impacts and support resident fish populations the Slate Creek watershed."

JFC2: "Coeur has shown a decade worth of dedication to protecting water quality. POA 1 will be no different as Coeur works with the USFS and the Alaska Department of

Environmental Conservation (DEC). Coeur has used the highest level of technology in terms of advanced water treatment and waste management at the mine. Its current plan to use existing infrastructure to expand the current tailings treatment facility and waste rock storage sites and only add one more waste rock site will have the least impact on the environment. It will also allow Coeur to reduce risks that are associated with shifting to different tailings storage alternatives like the Filter Tailings Facility (FTF) Alternative."

JFC3: "For the Johnson Creek Waste Rock Storage (WRS) Alternative, the new north access road that is needed is located at the base of the Snow Slide Gulch which is an active avalanche zone. While the road appears to be sited at the base of the runout zone it is also constrained from being shifted further to the east so that an adequate buffer to Johnson Creek can be provided. With the duration of winter and the heavy snow loads, it appears this alternative could put worker safety at risk as slow-moving heavy machinery travel this road corridor. For reasons of creating a safer working environment for the mine's workers, the Pipeline Road WRS is a preferred alternative over the Johnson Creek WRS.

POA 1's development brings with it lower risk to personnel compared to the new construction that is needed for the FTF Alternative. Also, during operations of the FTF, the movement of trucks and other heavy equipment on top of the filtered tailings in the winter months creates a higher worker safety risk.

With the TTF Closure with Reduced Water Alternative, closure activities have a higher worker safety risk regarding the ability to safely operate heavy equipment on deposited tailings whole working during this stage of the alternatives."

Corps Response: Regarding JFC's comments on impacts to the aquatic environment, including wetlands, the Corps agrees (see Section 2.0, 5.0 and 6.0 of this ROD, and see Section 3.4 of the FSEIS). Regarding JFC's comments concerning State water quality standards, on June 3, 2021, the State of Alaska issued a conditioned water quality certification pursuant to Section 401, Clean Water Act for the proposed discharge of fill material under POA 1. Regarding JFC's comments concerning that the TTF Closure with Reduced Water, the Filtered Tailings Facility and the Johnson Creek WRS the Alternatives would result in increase safety hazards potential contrary to the impacts of POA 1, the Corps agrees (see Section 3.0 of this ROD, and see Sections 2.3, 2.4, 3.5 and 3.12.3 of the FSEIS).

5.0 MEANS TO MINIMIZE OR AVOID ADVERSE ENVIRONMENTAL IMPACTS TO AQUATIC RESOURCES (40 CFR 1505.2(C), 40 CFR 1505.3, 40 CFR 230.70, SUBPART H)

5.1 Mitigation:

5.1.1 Applicant's Proposed Mitigation: No compensatory mitigation is proposed.

5.1.2 Avoidance: POA 1's Stage 4 TTF expansion and the WRS sites were designed to limit, to the extent practicable, new impacts to WOTUS. Where feasible, POA 1 expands upon the existing footprint of the Mine. Three of the four proposed WRS sites would be expansions of existing WRS sites, which reduces the need for additional roads, reduces fragmentation of wildlife habitat, and reduces the amount of additional edge area created through the additional WRS areas. The new Pipeline Road WRS site was selected

because it is adjacent to an existing road, thus eliminating the need for new roads and potential additional impacts to WOTUS.

5.1.3 Minimization: Coeur reduced the footprint at WRS sites to minimize impacts to WOTUS and incorporated fish habitat improvement projects as part of POA 1 to replace habitat function that may have otherwise been reduced as a result of increasing water levels to the maximum Stage 4 TTF post-closure elevations. The six fish habitat projects incorporated into POA 1 were recommended by the ADF&G (see the TTF Environmental Monitoring Plan Appendix D of POA 1, Coeur 2018). Specific mitigation measures include harvesting gravel from existing stream beds to form deltas to provide Dolly Varden char spawning habitat; replacing culverts on South Creek, Fat Rat Creek, and Spectacle Creek to ensure adequate upstream passage and improve upstream habitat quality; and rerouting Fat Rat Creek to South Creek to create a wider and deeper channel at the new stream mouth. Additionally, Coeur Alaska modified the design of the proposed Kensington WRS to avoid placing fill material into Johnson Creek, which would result in a reduction of the WRS footprint by 0.07 acres.

Coeur currently implements mitigation measures to provide downstream fish passage from above the intake dam to East Fork Slate Creek. Measures are implemented to re-establish benthic and fish populations in the TTF (formerly Lower Slate Lake), and documented macroinvertebrate and Dolly Varden char seed sources around the TTF are considered sufficient to meet the reclamation goal of re-established benthic and fish populations without intervention (Wilson-Nananjo and Kanouse 2016; Kline 2001). Coeur will continue to provide downstream fish passage throughout Stage 4 operations.

The Mine is currently operating under an existing DA permit (POA-1990-592-M), which includes a number of special conditions. Where applicable, Coeur will continue to comply with all conditions of the existing permit. Additional avoidance, minimization, and monitoring activities to which Coeur has committed are described in the POA 1 (Coeur 2018) and supporting documents therein.

Coeur will implement BMPs and mitigation measures during the life of the operation, for the protection of freshwater aquatic resources, includes:

- The work limit for each mine component located in WOTUS will be clearly identified in the field prior to excavation, clearing, and/or construction;
- All project contractors and all workers on POA 1 will be advised of the terms and conditions in the DA permit;
- Secondary containment around all fuel storage and transfer locations will be provided;
- Double-walled tailings pipeline from the mill to the TTF will be provided;
- Oil-water separation for runoff collected from the fueling area will be provided;
- Spill cleanup equipment will be stored at the Slate Cove Marine Terminal, the process area, and any fueling sites;
- Freshwater instream construction work will be avoided from May 1 through October 31;

- All surface disturbance will be limited to the approved project footprint and placing fill or construction materials outside of the approved footprint will be avoided;
- Bypass around construction will be provided, silt fence will be installed, and streambed traffic for instream bridge construction work will be minimized;
- Natural drainage patterns will be maintained and flooding or excessive drainage of adjacent wetlands will be avoided by the use of a sufficient number and size of culverts under roads;
- Stream diversion, dam and pump, or stream fluming techniques will be employed to avoid installation of culverts in flowing water;
- Brush berm or equivalent down gradient of flow to contain sediment will be installed in all permitted construction areas;
- Fill material that is clean of silt, clays, and organic materials will be used for instream work;
- The effects of sidecast slash within 30 feet of road shoulders will be mitigated by the most appropriate method: (1) end-haul slash to a central approved area or (2) pile slash in areas not visible from visual priority travel routes or use areas;
- A nontoxic chemical flocculent will be added to the slurry to enhance the deposition of suspended particles in the TTF;
- Instream flow needs will be met in all streams, intake will be limited as necessary, and underground mine water and reclaimed tailings water will be used as primary water supply where practicable. Sediment ponds and silt fences will be maintained, and dams throughout the Mine will be checked.

Coeur salvages and stockpiles growth media for use during revegetation and closure. All soil stockpiles are constructed with erosion control measures, including stabilization and stormwater diversion ditches, and include establishment of vegetative cover to minimize erosion. Reclamation will be performed using the stockpiled growth media and will consist of re-grading, placement of growth media, seeding, and fertilizing. Coeur will avoid disturbing steep slopes during inclement weather. Disturbance to stream banks or streambeds will be stabilized to prevent erosion. Monitoring of growth media stockpiles includes inspection of the growth media to verify that the stockpiles are intact and that erosion is minimized. Stockpiles are periodically inspected to ensure that stormwater diversions are functioning as designed and that vegetation is established as planned. Coeur will identify and implement BMPs that allow for quick action where erosion is imminent or underway.

Mitigation measures to minimize impacts to vegetation include the use of native plants originating near the Mine during reclamation to the extent possible and maintenance of drainage patterns, water quality, and water quantity to support aquatic plant populations and habitats. To prevent the establishment of invasive species, disturbed areas will be seeded as quickly as practical following the completion of reclamation activities. All seed mix used at the Mine will be state certified weed-free. Revegetation is discussed in more detail in Section 7.5 of POA 1. Reclamation objectives will be met by establishing 75 percent live vegetation cover on reclaimed areas, and ensuring that water quality criteria will be met. The reclamation plan also reflects that growth media will be placed at an average depth of 1 foot over all disturbed areas receiving cover soil. Coeur may request an exemption from this requirement based on site-specific conditions or to achieve

diversity in the post-mining landscape. Such a request will be presented in the final reclamation plan to be submitted two years prior to closure and approved by the USFS and State of Alaska.

No USFS Alaska Region-listed sensitive plant species (USFS 2009) have been identified at the Mine to date. If a listed sensitive plant species is identified at the Mine, Coeur will notify the USFS and close the area to off-road vehicle use. Coeur will prohibit the collection of any plants or plant parts, except by permit issued by the USFS for scientific or educational purposes.

Coeur implements mitigation measures and monitoring programs to continually evaluate the potential effects of Mine operations on the surrounding environment. In general, the proposed actions under POA 1 will not affect current mitigation and monitoring activities at the Mine. Coeur will continue to implement mitigation measures and conduct monitoring activities similar to those described in the 2005 Plan of Operations (Coeur 2005). Annual photographs of stream habitat types are included in the Alaska Pollutant Discharge Elimination System (APDES) Permit AK-005057-1 Annual Water Quality submittal. Additionally, annual adult salmon escapement surveys conducted in Sherman, Slate, and Johnson creeks, and fish and minnow trapping surveys in USL are conducted and reported.

5.1.4 Compensatory Mitigation Determination:
5.1.4.1 Is compensatory mitigation required? ☒ yes ☐ no [If "no," state why, and do not complete the rest of this section]

5.1.4.2 Is the impact in the service area of an approved mitigation bank? ☒ yes ☐ no
Does the mitigation bank have the appropriate number and resource type of credits available?
☒ yes ☐ no ☐ n/a

5.1.4.3 Is the impact in the service area of an approved in-lieu fee program? ☒ yes ☐ no
Does the in-lieu fee program have the appropriate number and resource type of credits available?
☒ yes ☐ no ☐ n/a

5.1.4.4 Check the selected compensatory mitigation option(s):
- ☒ mitigation bank credits
- ☒ in-lieu fee program credits
- ☐ permittee-responsible mitigation under a watershed approach
- ☐ permittee-responsible mitigation, on-site and in-kind
- ☐ permittee-responsible mitigation, off-site and out-of-kind

5.1.4.5 Mitigation Summary: The applicant has avoided and minimized to the maximum extent practicable. For the long-term loss of wetland functions that would accrue by extending the life of the mine under POA 1, compensatory mitigation is required, because the proposed project would result in the long-term filling of 1.7 acres of non-wetland waters and 31.1 acres of wetlands. Additionally, the Tailings Treatment Facility expansion would include the discharge of up to 4 million tons of tailings into an

area of approximately 66.9 acres of WOTUS, resulting in raising the lake water level and inundating 26.3 acres of wetlands. Compensatory mitigation, namely the purchasing of mitigation bank and/or in-lieu fee program credits would result in offsetting temporal losses of aquatic functions that would accrue over the 10 years before reclamation, including the time period that reclamation would take to complete and the ensuing return of aquatic functions to the impacted WOTUS. Based on the Wetland Assessment Report, Kensington Mine Plan of Operations Amendment 1 prepared by HDR, Inc., the Alaska District Mitigation Thought Process, and the Alaska District Credit/Debit Calculation Methodology, the proposed project impacts to waters and wetland would result in 10.4 debits that would need to be offset to comply with the 404(b)(1) Guidelines. Therefore, the applicant shall purchase 10.4 Palustrine water/wetland credits from a mitigation bank or in-lieu-fee program with an operating area that encompasses the POA 1 project location.

5.1.4.6 Other Mitigative Actions (e.g. voluntary actions that exceed compensatory mitigation as needed to offset resource impacts): Construction of the Stage 4 TTF would convert 6.1 acres of WOTUS to uplands. Of that 6.1 acres, 1.4 acres is located below 768 feet amsl and would therefore be converted back to WOTUS when the TTF reaches its final Stage 4 post-closure water level. The remaining 4.7 acres, located above 768 feet amsl, would remain upland habitat after reclamation. Similarly, of the 9.4 acres of WOTUS converted to uplands during construction of the fish habitat mitigation projects, 4.9 acres would be converted back to WOTUS when the TTF reaches its final Stage 4 post-closure water level. However, 4.5 acres would be located above 768 feet and would not be inundated. This would result in a long-term impact to WOTUS of 9.2 acres due to the Stage 4 Dam Raise and TTF Expansion. Expansion of the WRS capacity would convert 17.5 acres of WOTUS to uplands. Therefore, POA 1 would require an estimated 26.7 acres of WOTUS to be filled.

At closure, when the Stage 4 water levels rise, 26.3 acres of upland habitat would be converted to WOTUS once water levels reach 768 feet amsl. Thus, at closure, POA 1 would have a 0.3-acre net decrease in WOTUS.

5.2 Mitigation Measures Required by State Agencies

ADEC's Certificate of Reasonable Assurance for the proposed action includes the following caveats and conditions:

1. Fuel storage and handling activities for equipment must be sited and conducted so there is no petroleum contamination of the ground, subsurface, or surface waterbodies.

2. During construction, spill response equipment and supplies such as sorbent pads shall be available and used immediately to contain and cleanup oil, fuel, hydraulic fluid, antifreeze, or other pollutant spills. Any spill amount must be reported in accordance with Discharge Notification and Reporting Requirements (AS 46.03.755 and 18 AAC 75 Article 3). The applicant must contact by telephone the DEC Area Response Team for Southeast Alaska (907) 465-5340 during work hours or 1-800-478-9300 after hours. Also, the applicant must contact by telephone the National Response Center at 1-800-424-8802.

3. Construction equipment shall not be operated below the ordinary high-water mark if equipment is leaking fuel, oil, hydraulic fluid, or any other hazardous material. Equipment shall be inspected daily for leaks. If leaks are found, the equipment shall not be used and pulled from service until the leak is repaired.

4. Excavated or fill material, including overburden, shall be placed so that it is stable, meaning after placement the material does not show signs of excessive erosion. Indicators of excess erosion include gullying, head cutting, caving, block slippage, material sloughing, etc. The material must be contained with siltation best management practices (BMPs) to preclude reentry into any waters of the U.S., which includes wetlands.

5. Include the following BMPs to handle storm water and total storm water volume discharges as they apply to the site:

a. Divert storm water from off-site around the site so that it does not flow onto the project site and cause erosion of exposed soils;

b. Slow down or contain storm water that may collect and concentrate within a site and cause erosion of exposed soils;

c. Place velocity dissipation devices (e.g., check dams, sediment traps, or riprap) along the length of any conveyance channel to provide a non-erosive flow velocity. Also place velocity dissipation devices where discharges from the conveyance channel or structure join a water course to prevent erosion and to protect the channel embankment, outlet, adjacent stream bank slopes, and downstream waters.

6. Any disturbed ground and exposed soil not covered with fill must be stabilized and re-vegetated with endemic species, grasses, or other suitable vegetation in an appropriate manner to minimize erosion and sedimentation, so that a durable vegetative cover is established in a timely manner.

7. DEC coordinates with several regulatory programs to review the impacts of mining operations. A Section 401 Certification does not release the applicant from obtaining all necessary federal, state, and local permits, nor does it limit more restrictive requirements set through any such program. It does not eliminate, waive, or vary the applicant's obligation to comply with all state water statutes and rules through construction, installation, and operation of the project or mitigation, including, but not limited to the APDES permitting program 18 AAC 83 and 18 AAC 72.

8. USACE has stated that projects shall be reviewed under the federal rules in place at the time the application is received. This project and its mitigation were reviewed under the federal and state statutes and laws in place at the time the application was received. If the USACE determines any part or condition of this Certification is not lawful or is waived and unenforceable, the determination shall apply only to the part or condition so determined. The determination shall not apply to nor invalidate any remaining parts or conditions of this Certification. If the USACE makes such a determination, the applicant remains responsible for meeting state water quality statutes and rules, and if a violation occurs, may be subject to state enforcement (18 AAC 70.010).

9. This Certification does not release the applicant from any liability, penalty, or duty imposed by Alaska or federal statutes, regulations, rules or local ordinances, and it does not convey a property right or an exclusive privilege.

10. If your project is not completed by the time limit specified under USACE Permit and will continue, or for a modification of the USACE permit, you must submit an application for renewal of this certification at least 60 days before the expiration date or any deadline established by USACE for certification action on the modification, or 60 days before the proposed effective date of the modification, whichever is sooner. (18 AAC 15.120(b), 18 AAC 15.130, 18 AAC 15.180).

5.3 Special Conditions of the Corps Permit

In addition, in order to comply with the 404(b)(1) Guidelines, and to ensure the project is not contrary to the public interest, the following special conditions will be added to the Department of the Army permit:

1. Prior to commencing the work authorized by this permit, the Permittee shall purchase 10.4 Palustrine water/wetland credits from a mitigation bank or in-lieu-fee program with an operating area that encompasses the Kensington Mine POA 1 project location for the long-term loss of aquatic functions. You must email the signed credit transaction form to mitigationmanager@usace.army.mil and to Randal.P.Vigil@usace.army.mil upon completion of credit transaction (see form attached). If you are unable to complete this transaction, you are required to obtain a permit modification prior to commencing the work authorized by this permit for approval of an alternate mitigation method.

Rationale: This condition is required to compensate for resource losses important to the human and aquatic environment (33 CFR 320.4(r)(1), 33 CFR 332.1, 33 CFR 332.3(a)(1) and (b)(3), and 40 CFR 230.41).

2. Within 60 days of completion of the work authorized by this permit, the Permittee shall complete the attached "Self-Certification Statement of Compliance" form and submit it to the Corps (U.S. Army Corps of Engineers, Regulatory Division, CEPOA-RD, Juneau Field Office, P.O. Box 22270 Juneau, AK). In the event that the completed work deviates in any manner from the authorized work, the Permittee shall describe the deviations between the work authorized by this permit and the work as constructed on the "Self-Certification Statement of Compliance" form. The description of any deviations on the "Self-Certification Statement of Compliance" form does not constitute approval of any deviations by the Corps.

Rationale: This special condition is required to ensure compliance with the permit and in order to efficiently plan compliance inspections.

6.0 EVALUATION OF THE DISCHARGE OF DREDGE AND FILL MATERIAL IN ACCORDANCE WITH 404(B)(1) GUIDELINES (40 CFR Section 230, Subparts B through F)

6.1 SUBPART B- Compliance with the Guidelines:

Findings of significant degradation related to the proposed discharge shall be based upon appropriate factual determinations, evaluation 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 (40 CFR 230.10(c)).

The determinations of potential short or long-term effects of proposed discharges of dredged or fill material on the physical, chemical and biological components of the aquatic environment shall include the following:

6.1.1 Physical Substrate Determinations [230.11(a), *230.20*]: See Section 6.2.1 of this ROD.

6.1.2 Water Quality, circulation, fluctuation and salinity determinations [230.11(b), *230.22 – 230.25*]: See Sections 6.2.2 through 6.2.6 of this ROD. Also see discussion under 6.1.7, Determination of Secondary Effects below.

6.1.3 Suspended Particulate/Turbidity determinations [230.11(c), *230.21*]: See Section 6.2.2 of this ROD.

A State individual water quality certification has been issued for the proposed POA 1 and contains conditions to minimize impacts to suspended particulates and turbidity, which are listed in Section 5.2 of this ROD.

6.1.4 Contaminant determinations [230.11(d)]:

References: FSEIS Section 3.3

6.1.4.1 The following information has been considered in evaluating the biological availability of possible contaminants in dredged or fill material for all alternatives: (checked boxes apply)

☒ Physical characteristics (receiving waters, bottom sediments, slurry constituents).

☐ Hydrograph in relation to known or anticipated sources of contaminants.

☐ Results from previous testing of the material or similar material in the vicinity of the project.

☐ Known, significant, sources of persistent pesticides from land runoff or percolation.

☐ Spill records for petroleum products or designated (§311 of CWA) hazardous substances.

☐ Other public records of significant introduction of contaminants from industry, municipalities or other sources.

☒ Known existence of substantial material deposits of substances which could be released in harmful quantities to the aquatic environment by man-induced discharge activities (Section 2 Alternatives FSEIS).

See Section 3.3.3.1 of the FSEIS. Tailings and waste rock at the Kensington Mine are primarily slightly altered to unaltered diorite and can contain minor amounts (less than 5 percent) of metabasalts. Mined ore is processed through a conventional milling gold froth flotation recovery circuit. The major components include crushing, grinding, gravity separation, flotation, thickening, and filtering

tailings into a paste for discharge into the TFF. If the required testing or sampling required by water monitoring show changes in waste rock or tailing geochemistry that may cause impacts to water quality, Coeur Alaska is required to inform the USFS and State of Alaska. The tailing and waste rock have the potential to generate acid rock drainage or release constituents of concern (e.g., heavy metals). This was a significant issue identified during the FSEIS process. This is a driver in the TTF water treatment facility design and operation. All contact water with the TTF must be treated before discharge. The Corps concurs with the discussion in the FSEIS and has determined that the proposed POA 1, with the State water quality conditions and appropriate mitigation, would result in the least impacts to the aquatic environment and would be in compliance with the 404(b)(1) Guidelines (33 CFR Part 230).

6.1.4.2 An evaluation of the information above indicates that there is reason to believe the proposed dredged or fill material is not a carrier of contaminants, or that levels of contaminants are substantively similar at extraction and disposal sites. The material meets the testing exclusion criteria**.**

☒ Yes ☐ No ☐ Unknown

6.1.4.3 Is the discharge site adjacent to the extraction site and subject to the same sources of contaminants, or are the materials at the two sites substantially similar?

☒ Yes ☐ No ☐ Unknown

6.1.4.4 If there is a high probability that the material proposed for discharge is a carrier of contaminants are there constraints available that are acceptable to the permitting authority, and the Regional Administrator, to reduce potential contamination to acceptable levels at the disposal site? Yes. See Section 6.1.4.1, and Section 3.3.3.1 of the FSEIS.

6.1.5: Aquatic ecosystem and organism determinations [230.11(e)]: See 6.3.2, 6.4.2, and 6.5.2 of this ROD.

6.1.6: Proposed disposal site determination [230.11(f)]: The mine tailings and water are held in place by a dam constructed in three stages in 2010, 2012, and 2018. The surface of the TTF currently covers approximately 60.2 acres, and under the proposed POA 1 would increase to 66.9 acres. The tailings under the proposed action would continue to be delivered to the TTF as a paste through a buried tailings pipeline. Tailings would be deposited in the TTF based on the depth of the water cover that is being maintained. A minimum water cover of 9 feet above the tailings would be maintained during the operational phase. During closure, the depth of cover water over the TTF would increase to 28 feet. Tailings would continue to be discharged by using a single discharge point that is moved around to maintain uniform deposition. The TTF would be able to withstand 200-year rain and/or stormflow events (see Section 2.2.2 and 2.3.1 of the FSEIS). The ADEC did not require a mixing zone for the discharge of tailings into the TTF. Fill for the proposed WRS would not be discharged into open water bodies. An evaluation of the appropriate factors below indicates that the disposal site and/or size of the mixing zone are acceptable.

☒ Depth of water
☒ Current velocity, direction, and variability
☒ Degree of turbulence
☐ Water column stratification
☐ Discharge vessel speed and direction
☒ Rate of discharge
☐ Dredged material characteristics
☐ Other factors affecting rates and patterns of mixing (natural sediment loads)

6.1.7 Determination of Secondary Effects on the Aquatic Ecosystem [40 CFR 230.11(h)]:

References: FSEIS Section 3

Secondary effects are effects on an aquatic ecosystem that are associated with a discharge of dredged or fill materials, but do not result from the actual placement of the dredged or fill material. The FSEIS contain a broad discussion of secondary effects for the proposed POA 1.

Secondary impacts would include altered animal behavior during construction activities resulting from noise related disturbance, although predicting the degree of impact would be difficult. An increase in air emissions would occur from the increased motor vehicle traffic associated with the proposed project. However, this impact would be minimal. The Corps has determined that potential adverse secondary impacts from the placement of fill, fuel/oil spills, and safety hazards would be minimal, provided that adequate best management practices are employed.

6.1.8 Determination of Cumulative Effects on the Aquatic Ecosystem [40 CFR230.11(g)]:

References: FSEIS Section 3.12

Cumulative impact is the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative impacts can result from individually minor direct and indirect but collectively significant actions taking place over a period of time. Although a particular project may constitute a minor impact in itself, the cumulative impacts that result from a large number of such projects could cause a significant impairment of water resources and interfere with the productivity and water quality of existing aquatic ecosystems.

The FSEIS contains a broad discussion of cumulative effects from the proposed project. The FSEIS estimates for cumulative effects due to past, present, and reasonably foreseeable future development are given in Chapter 3.12. The Corps has reviewed the cumulative effects discussion in the FSEIS and finds it to be a sufficient and accurate assessment, and therefore appropriate for the purposes of determining consistency with the 404(b)(1) Guidelines.

The impacts that are expected in that area from the proposed project are long-term impacts to 1.7 acres of non-wetland waters and 31.1 acres of wetlands due to the expansion of the TTF, WRS, and fish habitat enhancement. Past actions which the Corps has reviewed within this portion of the Berner's Bay/Lynn Canal watershed consist of past development of the Kensington Mine. Reasonably foreseeable future actions include additional expansions to the Kensington Mine and the Juneau Hydropower, Inc Transmission Line Easement.

The placement of the fill material due to the reasonably foreseeable future actions listed above would directly impact the physical substrate, water and water quality, and would cause the loss of aquatic habitat. Other potential impacts to WOTUS would be similar to the ones identified for the proposed project and include impacts to natural drainage patterns and the secondary impacts to wetland distribution and extent. Other cumulative impacts to non-aquatic resources include impacts on wildlife habitat, including the impacts of expanded mining operations and the TTF and/or other mine infrastructure on wildlife habitat and breeding grounds. These impacts would include habitat disturbance and loss due to increased mining activity. These impacts would be cumulative to those caused by the previous Kensington Mine work. Additional cumulative impacts are discussed in Chapter 3.12 of the FSEIS. Overall, the project when combined with past, present, and reasonably foreseeable future projects, with the appropriate avoidance, minimization and compensatory mitigation measures, would not result in significant adverse cumulative impacts to aquatic resources within the area of cumulative effect.

Any proposed future projects requiring a DA permit would be evaluated as separate permit actions and the appropriate environmental analysis (a Categorical Exclusion, EA, EIS, or a supplemental EIS as appropriate) would be required, including a cumulative effects analysis. Permitting of these projects would be pursuant to Section 404 of the Clean Water Act, including the Guidelines, and/or Section 10 of the Rivers and Harbors Act and other appropriate laws and regulations. If the appropriate avoidance, minimization and compensatory mitigation measures do not result in a project in compliance with the above regulations, authorization under Section 404 of the Clean Water Act and/or Section 10 of the Rivers and Harbors Act could not be granted.

The Corps concurs with the discussion in the FSEIS and has determined that the proposed project (Alt Kensington Mine POA 1), with appropriate conditions and mitigation, would result in the least secondary and cumulative impacts to waters of the U.S. and would be in compliance with the 404(b)(1) Guidelines.

6.1.9 Findings of compliance or non-compliance with the restrictions on discharge [40 CFR 230.12]:

☐ On the basis of these Guidelines (Subparts C through G), the proposed disposal site for discharge of dredged or fill material complies with the Section 404(b)(1) Guidelines.

☒ On the basis of these Guidelines (Subparts C through G), the proposed disposal site for the discharge of dredged or fill material complies with the

Section 404(b)(1) Guidelines with the inclusion of the appropriate and practicable discharge conditions to minimize pollution or adverse effects to the affected aquatic ecosystem. See Section 5.3 for a list of Special Conditions.

☐ The proposed disposal site for discharge of dredged or fill material does not comply with the Section 404(b)(1) Guidelines for the following reasons:

☐ There is a less damaging practicable alternative.

☐ The proposed discharge will result in significant degradation of the aquatic ecosystem.

☐ The proposed discharge does not include all practicable and appropriate measures to minimize potential harm to the aquatic ecosystem.

☐ There does not exist sufficient information to make a reasonable judgment as to whether the proposed discharge will comply with these Guidelines

6.2 Subpart C - Potential Impacts on Physical and Chemical Characteristics of the Aquatic Ecosystem (40 CFR Section 230 Subpart C) (Note: The effects described in this subpart were considered in making the factual determinations and the findings of compliance or non-compliance in subpart B (see 6.1 above).)

6.2.1 Substrate *[230.20, required under Section 230.11(a)]* –
References: FSEIS Sections 3.2 and 3.8

Impacts to substrate include the discharge of fill into 31.1 acres of wetland substrates. The Corps concurs with the discussion in the FSEIS and has determined that the proposed project (POA 1) would result in the least impacts to wetland substrates, since it is the alternative that would result in the smallest cumulative loss of WOTUS, upon reclamation, and would be in compliance with the 404(b)(1) Guidelines. Additional discussion regarding specific impacts and minimization of impacts is included in the Section 6.1.1 of this ROD.

6.2.2 Suspended particulates/turbidity *[230.21, required under 230.11(c)]*
References: FSEIS Sections 3.2 and 3.3

All wastewater that comes into contact with the tailings must be treated and meet the terms and conditions of the APDES permit. The State water quality certification contains a condition that requires stabilization of disturbed areas to prevent the spread of sediment into areas adjacent to the project area. The Corps concurs with the discussion in the FSEIS and has determined that the proposed project (POA 1) would result in the least impacts to suspended particulates/turbidity and would be in compliance with the 404(b)(1) Guidelines. Additional discussion regarding specific impacts and minimization of impacts is included in the Sections 6.1.3 and 6.1.4.1 of this ROD.

6.2.3 Water *[230.22, required under 230.11(b)]*
References: FSEIS Sections 2.2.3 and 3.3

Potential impacts to water include potential discharge of untreated water due to failure of testing and monitoring, containment, and treatment facilities. All wastewater that comes into contact with the tailings must be treated and meet the terms and conditions of the APDES permit. Additionally, the Alaska Department of Conservation issued a conditioned Certificate of Reasonable Assurance for POA 1 on June 3, 2021, which the Corps finds conclusive with regards to water quality issues. Additional discussion regarding specific impacts and minimization of impacts is included in Sections 6.1.2 and 6.1.4.1.

The Corps concurs with the discussion in the FSEIS and has determined that the proposed project (POA 1) would result in the least impacts to water and would be in compliance with the 404(b)(1) Guidelines.

6.2.4 Current patterns and water circulation *[230.23, required under 230.11(b)]*

References: FSEIS Section 3.3

At mine closure, the water level of the TTF would be raised to increase its depth to 28 feet, and it would be connected with Upper Slate Lake to create one large 120 acre lake. This depth increase and connection with Upper Slate Lake would inundate the lower portions of three tributaries (Upper Slate Creek, South Creek, and Fat Rat Creek). The intersection between the TTF and Upper Slate Lake would result in changes to the lake currents. However, the lake would remain impounded and is not expected to have complex current or circulatory patterns. Due to inundation, the three tributaries would have their overall reach reduced by about 0.3-mile total, but it is anticipated to have only a negligible effect on the stream's flow regime. Most of the impacts to current patterns and water circulation occurred with the initial construction of the mine's infrastructure with the construction of the Stage 3 dam and spillway and the Slate Creek diversion. The proposed project impacts would cumulative to those that have already occurred.

Additional discussion regarding specific impacts and minimization of impacts is included in Section 6.1.2.

The Corps concurs with the discussion in the FSEIS and has determined that the proposed project (POA 1) would result in the minimal impacts to current patterns and water circulation and would be in compliance with the 404(b)(1) Guidelines.

6.2.5 Normal Water Fluctuation *[230.24, required under 230.11(b)]*

References: FSEIS Section 3.3

Information regarding normal water fluctuation within the project area and impacts from project related structures and activities are discussed in the reference documents. Additional discussion regarding specific impacts and minimization of impacts is included in Section 6.1.2.

6.2.6 Salinity gradients *[230.25, required under 230.11(b)]*

References: FSEIS Section 3.3

All wastewater that comes into contact with the tailings must be treated and meet the terms and conditions of the APDES permit. If the required testing or sampling required by water monitoring show changes in waste rock or tailing geochemistry that may cause impacts to water quality, Coeur Alaska is required to inform the USFS and State of Alaska. Additionally, an individual State water quality certification for the proposed POA was issued on June 20, 2021, which the Corps finds conclusive with regard to water quality matters.

The Corps concurs with the discussion in the FSEIS and has determined that the proposed project (POA 1) would result in the negligible impacts to salinity gradients and would be in compliance with the 404(b)(1) Guidelines.

6.3 Subpart D - Potential Impacts on Biological Characteristics of the Aquatic Ecosystem (40 CFR Section 230 Subpart D) (Note: The impacts described in this subpart were considered in making the factual determinations and the findings of compliance or non-compliance in subpart B (see 6.1 above).)

6.3.1 Threatened and endangered species *[230.30]*

References: FSEIS Section 3.7

The USFS requested written concurrence from the National Marine Fisheries Service (NMFS) with determinations of effects made in a Biological Assessment finding that the proposed action may affect, but is not likely to adversely affect, western Distinct Population Segment (DPS) Steller sea lions (*Eumetopias jubatus*), Mexico DPS humpback whales (*Megaptera novaeangliae*), or sperm whales (*Physeter macrocephalus*). In a letter of concurrence dated September 14, 2021NMFS stated that "based on this analysis, NMFS concurs with your determination that the proposed POA 1 may affect, but is not likely to adversely affect, Mexico DPS humpback whales, sperm whales, or western DPS Steller sea lions or Steller sea lion critical habitat."

The Corps has determined that the consultation completed by the USFS during the SEIS process is sufficient for the purposes of the Corps permit process. The Corps concurs with the discussion in the FSEIS and has determined that the proposed project (POA 1) would result in negligible impacts to Threatened and Endangered Species and would be in compliance with the 404(b)(1) Guidelines.

6.3.2 Fish, crustaceans, mollusks, and other aquatic organisms in the food web *[230.31]*

References: FSEIS Section 3.5

Coeur Alaska's POA 1 includes proposals to expand the Comet WRS and construct sediment ponds for stormwater runoff. These expansion activities would impact resident fish habitat in the upper Sherman Creek drainage. The location of the Comet Growth Media Stockpile as proposed would not intersect Ophir Creek South Tributary and impact fish habitat.

Downgradient of Comet Beach Road, Alaska Department of Fish and Game (ADF&G) have documented several headwater tributaries providing habitat for Dolly Varden char in the vicinity of the proposed location for sediment pond construction. In Upper Sherman Creek, ADF&G have documented the stream course and found Dolly Varden char near 1,000 ft elevation. Additionally, Dolly Varden char use the Ophir Creek South Tributary and Upper Johnson Creek.

The Comet WRS expansion could eliminate approximately 1,350 feet of ephemeral resident fish habitat in headwater tributaries draining to Upper Sherman Creek, within the disturbance boundary. Impacts to a portion of the existing habitat include direct stream fill and dewatering as a result of upstream activities. Upgradient of the proposed WRS, a diversion channel would redirect surface water southward to Upper Sherman Creek, while contact water would be diverted to a sediment pond system. Consequently, small tributaries downgradient may no longer have streamflow.

However, water bodies within the disturbance boundaries of the proposed Comet WRS and Growth Media Stockpile provide marginal and ephemeral habitat for Dolly Varden char.

Northeast of the Jualin Area, Upper Johnson Creek comprises several active braided channels; the Kensington WRS as originally proposed would have filled at least 30 meters of one of these channel braids. Coeur Alaska refined the design of the Kensington WRS to avoid adversely impacting resident fish habitat.

Upper Slate Lake has a small population of Dolly Varden char. The Lake under POA 1 would undergo fish habitat enhancement. Additionally, upon mine closure the TTF is expected to have Dolly Varden char colonize that portion of the large lake that would remain.

Essential Fish Habitat (EFH) species of concern include Pacific salmon, Gulf of Alaska groundfish, and prey species important to federally managed stocks. Johnson and Slate Creeks have been identified by the ADF&G as spawning and rearing streams for chum, coho, and pink salmon. Lower Sherman Creek provides spawning habitat for chum and pink salmon. However, these creeks are only anadromous fish habitat within their lower reaches outside the POA 1 fill footprint. Therefore, the proposed discharge of fill under POA 1 would not adversely impact EFH.

The Corps concurs with the discussion in the FSEIS and has determined that the proposed project (POA 1) would result in negligible impacts to the Aquatic food web and would be in compliance with the 404(b)(1) Guidelines.

6.3.3 Other wildlife *[230.32]*

References: FSEIS Section 3.7

The excavation and backfilling operations in wetlands and streams associated with the proposed project would result in loss of habitat for the wildlife that use the proposed project location. It would be expected that a variety of bird species particularly bald eagle, and including common raven, Stellar's jay, hummingbird, and chickadee would use the proposed project location for resting or feeding.

Additionally, brown bear, moose, and Sitka black-tailed deer traverse the proposed project area and use it for feeding, breeding and shelter. Common small terrestrial mammals at the proposed project location would be similar to those found in other areas of southeastern Alaska including various rodent species such as squirrel, vole and shrew. Deer, bear, moose, and many species of bird would be vulnerable to disturbance by the human use of the proposed project location during construction and once the project is developed, if the DA permit were issued. The proposed fill would eliminate temporary cover for brown bear, moose, Sitka Black-tailed deer, and a variety of birds as they traverse the proposed project area. The number of small terrestrial mammals that would be displaced is higher.

The Corps concurs with the discussion in the FSEIS and has determined that the proposed project (POA 1) would result in minor impacts to wildlife, due to the abundance of similar habitat outside the mine area. POA 1 would be in compliance with the 404(b)(1) Guidelines.

6.4 Subpart E - Potential Impacts on Special Aquatic Sites (40 CFR Section 230 Subpart E) (Note: The impacts described in this subpart were considered in making the factual determinations and the findings of compliance or non-compliance in subpart B (see 6.1 above).)

6.4.1 Sanctuaries and refuges *[40 CFR 230.40]*

Not applicable. The proposed POA 1 would not be located in a sanctuary or refuge.

6.4.2 Wetlands *[40 CFR 230.41]*
References: FSEIS Section 3.4

For the long-term loss of wetland functions that would accrue by extending the life of the mine under POA 1, compensatory mitigation is required, because the proposed project would result in the long-term filling of 1.7 acres of non-wetland waters and 31.1 acres of wetlands. See Section 5.1.4.5 for a discussion of mitigation.

The Corps concurs with the discussion in the FSEIS, and along with the analysis contained within this document, has determined that the proposed project (POA 1) would result in the least impacts to wetlands, because it would have the smallest footprint of disturbance once reclamation is complete at mine closure and would be in compliance with the 404(b)(1) Guidelines.

6.4.3 Mud Flats *[40 CFR 230.42]*

Not applicable. No fill material would be discharge into mud flats under the proposed POA 1.

6.4.4 Vegetated Shallows *[40 CFR 230.43]*

Not applicable. No fill material would be discharge into vegetated shallows under the proposed POA 1.

6.4.5 Coral Reefs *[40 CFR 230.44]*

Not applicable. There are no coral reefs within or adjacent to the proposed project location.

6.4.6 Riffle and Pool Complexes *[40 CFR 230.45]*

Not applicable. No fill material would be discharge into riffle and pool complexes under the proposed POA 1.

6.5 Subpart F - Potential Effects on Human Use Characteristics (40 CFR Section 230, Subpart F) (Note: The impacts described in this subpart were considered in making the factual determinations and the findings of compliance or non-compliance in subpart B (see 6.1 above).)

6.5.1 Municipal and Private Water Supplies *[40 CFR 230.50]*

Not applicable. There are no municipal and private water supplies with or adjacent to the proposed project location.

6.5.2 Recreational and Commercial Fisheries *[230.51]*

Not applicable. Coeur Alaska does not allow recreational fishing within boundaries of the mine for safety reasons. There are no commercial fisheries within the mine boundaries. Additionally, the nearest recreational and commercial fisheries are within the waters of Berner's Bay and Lynn Canal, however the proposed POA 1 does not have project component that would be located within or would impact these waters.

6.5.3 Water-related Recreation *[230.52]*

Not applicable. Coeur Alaska does not allow water-related recreation within boundaries of the mine for safety reasons. Additionally, the nearest opportunity for water-related recreation would be within the waters of Berner's Bay and Lynn Canal, however the proposed POA 1 does not have project component that would be located within or would impact these waters.

6.5.4 Aesthetics *[230.53]*

References: FSEIS Section 3.11

Aesthetic impacts already exist due to the existing facilities. Additional impacts to aesthetics would occur under all alternatives and would be cumulative to the existing condition. Rehabilitation of the mine site upon closure, required by the USFS, would reduce impacts to aesthetics.

The Corps concurs with the discussion in the FSEIS and has determined that the proposed project (POA 1) would result in negligible impacts to aesthetics, because it would have the smallest footprint of disturbance once reclamation is complete at mine closure and would be in compliance with the 404(b)(1) Guidelines.

6.5.5 Parks, national and historical monuments, national seashores, wilderness areas, research sites, and similar preserves *[230.54]*

References: FSEIS Sections 2.3.5, 2.3.6, and 2.3.7

There are no parks, national and historical monuments, national seashores, wilderness areas, research sites, and similar preserves with or adjacent to the proposed project location.

6.6 Subpart G – Evaluation and Testing (40 CFR Section 230, Subpart G)

Reference: FSEIS Section 3.3

Mine tailings and waste rock are subject to testing and monitoring naturally occurring constituents of concern and are discussed in the reference document. See also Section 6.1.4 Contaminant determinations, above, for more detail. There is no reason to believe that any of the material to be discharged into waters of the U.S. would be contaminated. Therefore, no requirement for additional testing is triggered.

6.7 Subpart H – Actions to Minimize Adverse Effects (40 CFR Section 230, Subpart H)

Actions to Minimize Adverse Effects, including required mitigation and permit special conditions are discussed in Section 5.0 above.

7.0 GENERAL POLICIES FOR EVALUATING SECTION 10 RHA AND 404 CWA PERMIT DECISIONS [33 CFR 320.4]:

7.1 Public Interest Review [33 CFR 320.4(a)]: The decision whether to issue a permit will be based on an evaluation of the probable impacts, including cumulative impacts, of the proposed activity and its intended use on the public interest.

The Corps has determined, after evaluation of the following general criteria (*i – iii* below) and the factors listed in Section 7.2 through 7.18, that the proposed POA 1 project will not be contrary to the public interest, as long as all permit special conditions listed in Section 5.3 of this ROD are implemented.

i. **The relative extent of the public and private need for the proposed work:** Coeur Alaska has continually operated the Kensington Mine since 2010. The approved 2005 Plan of Operations allows for sufficient waste rock storage through 2023. Mineral exploration by Coeur Alaska has identified a gold deposit that would extend the life of the mine for a minimum of 10 additional years, which has precipitated the need for additional waste rock and tailings storage to continue operation. Extending the life of the mine would result in job availability and security for mine workers, continued tax revenue for the City and Borough of Juneau, and significant benefit to the economies of Southeast Alaska.

ii. **The practicability of using reasonable alternative locations and/or methods to accomplish the objective of the proposed structure or work:**

Mining operations have been on-going for over ten years, and the proposed POA 1 would continue operations at the existing location. The TTF and WRS must be located near the mine, therefore offsite alternatives for these project components are not practicable due to logistical factors. No offsite alternatives were considered. There are no other practicable alternatives that would result in fewer impacts to waters of the U.S. than the applicant's proposed project (POA 1). See discussion at Section 3.0 of this ROD.

iii. **The extent and permanence of the beneficial and/or detrimental effects that the proposed structures or work may have on the public and private uses which the area is suited:**
The economic benefits received from mining operations would last until mine closure. Impacts to WOTUS would be long-term until reclamation is completed and would result in the permanent loss of 0.3 acres of WOTUS. For the temporal loss of wetland functions that would accrue by extending the life of the mine under POA 1, compensatory mitigation would be required. See discussion at Section 5.0 of this ROD.

7.2 Effects on Wetlands [33 CFR 320.4(b)]: Impacts to wetlands are discussed in Sections 6.1.8 and 6.4.2 above.

7.3 Fish and Wildlife [33 CFR 320.4(c)]: Impacts to Fish and Wildlife are discussed in Sections 6.1.8, 6.3.1, 6.3.2 and 6.3.3 above.

7.4 Water Quality [33 CFR 320.4(d)]: Impacts to water quality are discussed in Sections 6.1.2, 6.1.3, and 6.1.4 above. The Section 401 Certificate of Reasonable Assurance for the proposed POA 1 from the State of Alaska Department of Environmental Conservation was received on June 3, 2021.

7.5 Historic, Cultural, Scenic and Recreational Values [33 CFR 320.4(e)]:
References: FSEIS Section 3.10.1
As the lead Federal agency the USFS was responsible for the historic properties consultation, and the required consultation with the State Historic Preservation Officer (SHPO) was completed on June 24, 2021. Their findings are discussed in the USFS ROD: "The Forest Service engaged in consultation regarding our determination recommendations with the Alaska SHPO and received concurrence with our finding of no historic properties affected determination." This completes consultation requirements under Section 106 of the National Historic Preservation Act (16 U.S.C. § 470f), and its implementing regulations, §36 CFR 800 and §33 CFR 325, Appendix C; Kensington Mine impact site.

7.6 Effects on Limits of the Territorial Sea [33 CFR 320.4(f)]: Not applicable. There are no territorial seas with the proposed project area.

7.7 Consideration of Property Ownership [33 CFR 320.4(g)]:
References: FSEIS Section 1.5 and Appendix A

The proposed project is located on the Tongass National Forest (Juneau Ranger District), and partially on the Jualin mine at is leased by Coeur Alaska from owner Hyak Mining

Company. Hyak Mining Company has had a contractual relationship with Coeur Alaska for over twenty seven years (See Section 4.0 of this ROD).

Copies of the public notice were mailed to the adjacent property owners identified by the applicant. No objections to the proposal were received from the adjacent property owners.

7.8 Activities Affecting Coastal Zones [33 CFR 320.4(h)]: By operation of Alaska State law, the federally approved Alaska Coastal Management Program expired on July 1, 2011, resulting in a withdrawal from participation in the Coastal Zone Management Act's (CZMA) National Coastal Management Program. The CZMA Federal consistency provision, section 307, no longer applies in Alaska. Federal Register Notice published July 7, 2011, Volume 76 N. 130, page 39857.

7.9 Activities in Marine Sanctuaries [33 CFR 320.4(i)]: Not applicable. There are no marine sanctuaries with the proposed project area.

7.10 Other Federal, State, and Local Requirements [33 CFR 320.4(j)]: See Other Required Findings Required by Law and Regulation in the USFS ROD. Also, see Section 8.16 below for State and Local authorizations obtained.

7.11 Safety of Impoundment Structures [33 CFR 320.4(k)]: The proposed TTF Stage 4 dam design would have to satisfy the requirements of the Alaska Dam Safety Program.

The proposed project would result in the construction of storm water retention facilities and new sedimentation ponds. These features are needed for the capture and treatment of all water that comes into contact with the TTF. These facilities would be required to be constructed and operated in compliance with the APDES permit. The Corps has determined that the proposed project would not be contrary to the Public Interest with regards to safety of impoundment structures.

See "Other Required Findings Required by Law and Regulation" in the USFS ROD.

7.12 Floodplain Management [33 CFR 320.4(l); Executive Order (EO) 11988]:
Reference: FSEIS Section 3.3

The proposed project would result in the discharge of fill into 1.7 acres of non-wetland waters and 31.1 acres of wetlands. The proposed project would not result in an increase in the risk of flood loss and would not result in a significant loss of floodplain functions and values. See Sections 6.2.4 and 6.2.5 of this ROD. The Corps has determined that the proposed project would not be contrary to the Public Interest with regards to floodplain management and would be in compliance with Executive Order 11988.

7.13 Water Supply and Conservation [33 CFR 320.4(m)]: There are no public water supplies that would be affected by the project. The project would not be contrary to the public interest with regards to this factor. See Section 6.5.1 above.

7.14 Energy Conservation and Development [33 CFR 320.4(n)]: The proposed project would result in an increased use of energy during the construction phase of the

proposed POA 1. Once the construction period is over, the use of energy would return to preconstruction levels. The proposed project would not result in any energy development. The Corps has determined that any impacts to energy conservation and development would be negligible, temporary, and not contrary to the public interest.

7.15 Navigation [33 CFR 320.4(o)]: Under the proposed POA 1 no discharge of fill or work in any Section 10 navigable waters would occur. There would be no impacts to navigation from the proposed project. The project would not be contrary to the public interest with regards to this factor.

7.16 Environmental Benefits [33 CFR 320.4(p)]: Under the proposed POA 1 enhancement to fish habitat in Upper Slate Lake would be constructed. See Section 3.2 of this ROD.

7.17 Economics [33 CFR 320.4(q)]:
References: FSEIS Section 3.9
See Section 4.0 and 7.1 of this ROD.

7.18 Mitigation [33 CFR 320.4(r)]: Mitigation is discussed in Section 5.0 of this ROD.

8.0 COMPLIANCE WITH ENVIRONMENTAL REQUIREMENTS (33 CFR 320.3 Related Laws):

8.1 Clean Water Act (33 USC Section 1341) Section 401 Certificate of Reasonable Assurance [33 CFR 320.4(d)]:

Date Issued: June 3, 2021 ☒Issued ☐Denied ☐Waived

Special Conditions: ☒Yes ☐No

8.2 Coastal Zone Management Consistency Determination [33 CFR 320.4(h)]: See Section 7.8 of this ROD.

8.3 Endangered Species Act of 1973 [16 U.S.C. 1531]: See Section 6.3.1 of this ROD.

8.4 Fish and Wildlife Coordination Act [16 U.S.C. 661]: Coordination with the United States Fish and Wildlife Service, State of Alaska Department of Fish and Game, and completion of the process and analysis contained within this ROD and signature by the authorizing official completes the Corps' Fish and Wildlife Coordination Act responsibilities.

8.5 Magnuson-Stevens Fishery Conservation and Management Act: See Section 6.3.2 of this ROD. Also, see the USFS ROD "Other Required Findings Required by Law and Regulation."

8.6 National Environmental Policy Act of 1969 [42 U.S.C. 4321 - 4347]: Signature of this ROD by the authorizing official completes the Corps NEPA requirements and responsibilities.

8.7 National Historic Preservation Act of 1966 [16 U.S.C. 470 et seq.]:

8.8 Clean Water Act [33 U.S.C. 1251 et seq. 404(B)(1) Guidelines 40 CFR 230 Subpart B]: Completion of the process and analysis contained within this ROD completes the Corps 404(b)(1) requirements.

8.9 Clean Water Act [33 U.S.C. 1251 et seq.] Section 404 [33 U.S.C. 1344]: Completion of the process and analysis contained within this ROD and signature by the authorizing official completes the Corps CWA 404 requirements.

8.10 Rivers and Harbors Appropriation Act of 1899 [33 U.S.C. 401, 403, 407]: See Section 7.15 of this ROD.

8.11 Marine Mammal Protection Act of 1972 [16 U.S.C. 1361 et seq, 1401-1407, 1538, 4107]: Not applicable to this proposed project.

8.12 Executive Order 13175 Consultation and Coordination with Indian Tribal Governments: The USFS sent scoping information, including the POA 1 document, scoping letter, and scoping figures to potentially affected tribal governments. No tribal governments or Alaska Native Corporations requested additional involvement or consultation on this proposed project. The Juneau Ranger District regularly updated the Douglas Indian Association monthly during the SEIS process. Additionally, the Corps did not receive any comments during the public notice period, and no requests for consultation were received.

8.13 Clean Air Act [42 U.S.C. 7401 - 7671 Section 176(c)]: The proposed project is not located in a non-attainment area; therefore a conformity analysis is not required.

8.14 Executive Order 12898 (Environmental Justice): Environmental Justice is discussed in Section 3.9 of FSEIS. The USFS determined that the proposed POA 1 would not negatively impact minority or low-income populations, based on the population in the Juneau area not meeting the definitions of a "minority population" and "low income population." The Corps concurs with the findings in Section 3.9 of the FSEIS. Completion of the process and analysis contained within this ROD and signature by the authorizing official completes the Corps EO 12898 requirements.

8.15 Executive Order 11988 (Flood Plain Management): See Section 7.12 above. Completion of the process and analysis contained within this ROD and signature by the authorizing official completes the Corps EO 11988 requirements.

8.16 EO 13112, Invasive Species: The evaluation above in this ROD and Section 3.6 of the FSEIS included invasive species concerns in the analysis of impacts at the project site and associated compensatory mitigation projects.

8.17 EO 13212 and 13302, Energy Supply and Availability: The project was not one that will increase the production, transmission, or conservation of energy, or strengthen pipeline safety.

8.16 Other State and/or Local Authorizations (if issued):

A Section 402 APDES Permit for point source discharges to WOTUS is required under the CWA. The ADEC administers the APDES permit program in Alaska and issued the permit on June 2, 2021.

A permit to construct and operate a source of potential air pollution is required from ADEC pursuant to state and federal clean air laws and regulations. No revisions to the existing permit are necessary to implement POA 1.

Water use authorizations, as regulated and controlled by ADNR for both surface and groundwater systems and other bodies of water, are required. No revisions to the existing permit are necessary to implement POA 1.

An allowable use permit issued by the City and Borough of Juneau (CBJ), based on a review of the mining project proposed within CBJ boundaries, is required. A revised permit to implement POA 1was issued on February 14, 2022.

8.17 Significant National Issues [33 CFR 325.2(a)(6)]: The regulations state that if a district engineer makes a decision on a permit application which is contrary to state or local decisions, the district engineer will include in the decision document any significant national issues and explain how they are overriding in importance. This decision document and final decision are not contrary to state or local decisions.

9.0 Decision

I find that the issuance of the Corps permit, as described by regulations published in 33 CFR Parts 320 through 332, with the scope of work as described in this document is based on a thorough analysis and evaluation of all issues set forth in this ROD. There are no less environmentally damaging, practicable alternatives available to Coeur Alaska, Inc. to construct POA 1. The issuance of this permit is consistent with National Policy, statutes, and administrative directives; and on balance, issuance of a Corps permit to construct POA 1 is not contrary to the public interest. As explained above, all practicable means to avoid and/or minimize environmental harm from the selected, permitted alternative have been adopted and required by terms and conditions of this permit.

David S. Hobbie

David S. Hobbie
Chief, Regional Regulatory Division

04 - March - 2022
Date