



FISH HABITAT PERMIT FH22-I-0058

ISSUED: May 9, 2022

EXPIRES: Upon Satisfactory Completion

Coeur Alaska, Inc.
ATTN: Kevin Eppers
3031 Clinton Drive, Suite 202
Juneau, AK 99801

RE: Stream Fill
Uncataloged Stream 1
Uncataloged Stream 2
Uncataloged Stream 3
Section 5, T 35S, R 62E, CRM (Juneau D-4)
Location: 58.8657 N, 135.1041 W (WGS 84)

Dear Kevin Eppers:

Pursuant to the Fishway Act at AS 16.05.841, the Alaska Department of Fish and Game (ADF&G) Habitat Section reviewed your proposal to divert and fill three tributaries to Sherman Creek that support Dolly Varden char.

Project Description

You will construct a diversion channel upgradient of the Comet Waste Rock Storage (WRS) footprint, directing streamflow away from the WRS and into Upper Sherman Creek. Dolly Varden char stream habitat within the disturbance boundary (identified as Tributaries 1 and 2 in the enclosed application materials) will be filled with waste rock; stream habitat immediately downgradient (identified as Streams 1–3) will be permanently dewatered and partially filled to construct a conveyance channel directing stormwater runoff to a series of sediment retention ponds. A diversion channel will direct filtered stormwater to Middle Sherman Creek, in which you will prevent fish access to the sediment retention ponds.

During the WRS design process, you will consult with Habitat Section and seek opportunities to provide fish habitat in the lower portion of the new diversion channel upgradient of the WRS to replace fish habitat filled in Sherman Creek tributaries. You will provide Habitat Section a proposed design; if satisfactory, Habitat Section will approve the plan in the form of a permit amendment.

You will notify Habitat Section at least 10 days prior to beginning in-water work affecting water bodies identified as Tributaries 1 and 2, and Streams 1–3 so biologists can remove and exclude fish from the work area.

Fishway Act

The three unnamed streams support resident Dolly Varden char.

In accordance with AS 16.05.841, your project is approved subject to the project description and permit terms, and the following stipulations:

- You will notify ADF&G Habitat Section at least 10 days prior to beginning in-water work affecting water bodies identified as Tributaries 1 and 2, and Streams 1–3 so biologists can remove and exclude fish from the work area; and
- You will provide a proposed design for the lower reach of the new diversion channel upgradient of the WRS, incorporating fish habitat features, to the extent possible. If satisfactory, Habitat Section will approve the plans in the form of a permit amendment.

Permit Terms

This letter constitutes a permit issued under the authority of AS 16.05.841 and must be retained on site during project activities. Please be advised that this determination applies only to Habitat Section regulated activities; other agencies also may have jurisdiction under their respective authorities. This determination does not relieve you of your responsibility to secure other state, federal, or local permits. You are still required to comply with all other applicable laws.

You are responsible for the actions of contractors, agents, or other persons who perform work to accomplish the approved project. Prior to engaging in any activity that significantly deviates from the approved plan, you shall notify the Habitat Section and obtain written approval in the form of a permit amendment. Any action that increases the project's overall scope or that negates, alters, or minimizes the intent or effectiveness of any provision contained in this permit will be deemed a significant deviation from the approved plan. The final determination as to the significance of any deviation and the need for a permit amendment is a Habitat Section responsibility. Therefore, it is recommended the Habitat Section be consulted immediately when a deviation from the approved plan is being considered.

You shall give an authorized representative of the state free and unobstructed access to the permit site, at safe and reasonable times, for the purpose of inspecting or monitoring compliance with any provision of this permit. You shall furnish whatever assistance and information the authorized representative reasonably requires for monitoring and inspection purposes.

In addition to the penalties provided by law, this permit may be terminated or revoked for failure to comply with its provisions or failure to comply with applicable statutes and regulations. You shall mitigate any adverse effect upon fish or wildlife, their habitats, or any restriction or interference with public use that the commissioner determines was a direct result of your failure to comply with this permit or any applicable law.

You shall indemnify, save harmless, and defend the department, its agents, and its employees from any and all claims, actions, or liabilities for injuries or damages sustained by any person or property arising directly or indirectly from permitted activities or your performance under this permit. However, this provision has no effect if, and only if, the sole proximate cause of the injury is the department's negligence.

Please direct questions about this permit to Habitat Biologist Bill Kane at (907) 465-6474 or william.kane@alaska.gov.

Sincerely,
Doug Vincent-Lang
Commissioner



By: Kate Kanouse
Regional Supervisor

Enclosure: Coeur Alaska, Inc. Fish Habitat Permit Application Package

Email cc:

Al Ott, ADF&G Habitat, Fairbanks
ADF&G Habitat Staff, Douglas
Dan Teske, ADF&G SF, Douglas
Scott Forbes, ADF&G CF, Douglas
Roy Churchwell, ADF&G WC, Douglas
Ben Soiseth, USACE, Soldotna
Andy Stevens, USFWS, Anchorage
Habitat Conservation Division, NMFS, Juneau
Sylvia Kreel, DNR OPMP, Juneau
Matt Reece, USDA Forest Service, Juneau



FH# _____
(Office Use Only)

FISH HABITAT PERMIT APPLICATION
Alaska Department of Fish and Game - Habitat Section
[Office Locations](#)

A. APPLICANT

Name: _____

Mailing Address: _____

Email Address: _____

Phone: _____ Alt Phone: _____

AGENT / POINT OF CONTACT:

Name: _____

Mailing Address: _____

Email Address: _____

Phone: _____ Alt Phone: _____

B. PROJECT DESCRIPTION:

C. PROJECT TIME FRAME: _____ to _____

D. PROJECT LOCATION:

Water body name: _____

[Anadromous stream number:](#) _____

Latitude & longitude in decimal degrees: _____

Section _____ Township _____ Range _____ Meridian _____ USGS Quad _____

E. WATERBODY CHARACTERISTICS:

Water body width: _____ Water body depth: _____

Substrate type (Boulder, cobble, gravel, sand, mud): _____

Stream gradient: _____

PLEASE COMPLETE THE APPLICABLE SECTIONS BELOW:

A list of best practices for many commonly authorized activities can be found at our [Habitat Permits Website](#).

F. IN-WATER WORK:

Will you place a structure or any fill below [ordinary high water](#)? Yes No

Will you remove material from below ordinary high water? Yes No

Type and amount: _____

Will you alter the bed or banks of the water body? Yes No

How? _____

Will you use tracked or wheeled equipment below ordinary high water? Yes No

What type? _____

Will you drive piles below ordinary high water? Yes No

How many and what type? _____

Pile installation method: vibratory hammer impact hammer drilled

other: _____

Will you divert the stream around the work area? Yes No

How long will the stream be diverted? _____

How will you divert the stream? _____

Will you be placing a coffer dam or silt fencing to isolate the work area? Yes No

Will you dewater the work area with a pump? Yes No

Who will trap fish and remove them from the work area? _____

Capture and relocation of fish will require an [Aquatic Resource Permit](#) from the ADF&G Division of Sport Fish.

G. STREAM CROSSINGS:

What type of vehicles or equipment will cross the stream or lake?

How many crossings (one-way) will be required? _____

Will you build ice bridges for winter crossing? Yes No

H. WATER WITHDRAWAL:

Pump intake size (inches): _____ Maximum pumping rate (gpm): _____

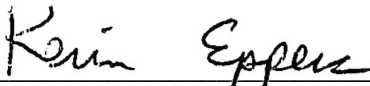
Total daily amount (gal): _____ Total seasonal amount (gal): _____

Water withdrawal from fish-bearing waterbodies will require appropriate intake screening to avoid impacts to fish. Screening criteria can vary by location depending on the species of fish and life stages present at the time of withdrawal. Contact the [Habitat Section](#) for more information on intake screens.

Intake screening specifications (attach photos if available):

Please attach plans, specifications, aerial photographs, site rehabilitation plans, or other information in support of your application. Submit your completed application by postal mail, email, or in person at the appropriate [Habitat Section office](#).

I certify all information provided in my application and supporting documents is true and complete to the best of my knowledge.



Applicant Signature

_____ Date



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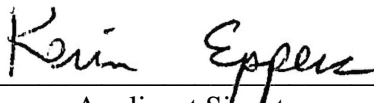
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Applicant Signature

Date

Kensington Mine Plan of Operations Amendment 1

Project Description to Support Fish Habitat Permit Applications: Comet WRS Expansion - January 2022

Introduction

Coeur Alaska, Inc. (Coeur) is planning a life of mine (LOM) extension at the Kensington Mine (Mine), which is an underground gold mine located in the Berners Bay Mining District, approximately 45 air miles northwest of Juneau and 35 air miles south of Haines in Southeast Alaska. The Mine is located at the southern end of the Kakuhan Range off the coastal mountains in the Tongass National Forest on the small peninsula formed between Lynn Canal and Berners Bay (Figure 1). The Mine is accessible by passenger ferry, cargo barge, floatplane, or helicopter.

Coeur's underground mining operations began at the Mine in 2010, operating in accordance with a Plan of Operations that was approved in 2005. The current remaining LOM is expected through 2023 and the existing Tailings Treatment Facility (TTF) has the capacity to store the resultant tailings within the authorized Stage 3 facility. Existing Mine facilities are shown on Figure 1.

The proposed LOM extension, Plan of Operations Amendment 1 (POA 1; Coeur 2018), will require new surface disturbance on private and/or public lands within the Slate, Johnson, and Sherman creek drainages. Under POA 1, Coeur will construct an additional raise (Stage 4) to the existing TTF Dam to increase the TTF tailings storage capacity, construct a new Waste Rock Storage (WRS) site (Pipeline Road WRS), and expand the size of the existing Kensington, Pit #4, and Comet WRS facilities (Figure 1). The United States Forest Service evaluated the environmental effects of the proposed POA 1 in a Supplemental Environment Impact Statement (SEIS) under the National Environmental Policy Act (NEPA) and released the Final SEIS and Draft Record of Decision (ROD) on June 29, 2021. The project record for the NEPA process, including the draft ROD and FSEIS can be found on the USFS website: www.fs.usda.gov/project/?project=55533. Additional details about POA 1 components and existing mine features can be found in the Final SEIS.

Construction of POA 1 will require work below ordinary high water of streams documented to support resident fish. Currently, Coeur is seeking authorization from the Alaska Department and Fish and Game (ADF&G) under Title 16 specifically for the Comet WRS site expansion. Coeur will request ADF&G authorization prior to constructing other POA 1 components, where required, under separate cover and at a later date.

This document, which focuses on activities specific to the Comet WRS expansion that require prior ADF&G authorization, is intended to support three fish habitat permit applications.

Comet WRS Expansion

The proposed Comet WRS expansion is located southeast of the current Comet WRS site¹ and will include a growth media stockpile to the west of the existing Comet Water Treatment Facility (Figure 2).

¹ The Comet area is accessed by the Kensington Portal through the main underground tunnel, or by water at Comet Beach via the Lynn Canal.

The Comet WRS expansion will provide an additional storage capacity of approximately 1 million tons and will disturb approximately 33 acres. The WRS will be approximately 140 feet high at closure.

Coeur anticipates that construction of the Comet WRS expansion will begin in 2022 with clearing, grubbing, and topsoil removal after spring thaw. The topsoil will be moved to the growth media stockpile. A five-foot deep diversion channel will be constructed uphill from the expanded Comet WRS footprint to direct stream flow away from the WRS and directly into upper Sherman Creek (Figure 2). Most stream habitat within the disturbance area will be dewatered, as flow in the streams' upper reaches will be directed into the diversion channel. Dewatered stream channels within the expanded WRS footprint will ultimately be filled by waste rock.

Silt fencing will be installed on the west and south sides of the expanded WRS footprint to control stormwater runoff flowing downhill. On the downhill side of the expanded WRS footprint, a conveyance channel will be constructed inside of the silt fencing to direct flow into a new culvert, which will convey water underneath the road and into the coarse sediment pond. The new coarse and fine sediment ponds will filter stormwater runoff from the stockpile before it is discharged into Sherman Creek via a diversion channel. The exact size and location of the sediment ponds will be determined after the engineering survey is complete.

Dolly Varden presence has been confirmed in three streams within the Comet WRS expansion disturbance boundary (HDR 2018, 2021; Kane 2020, 2021). These three fish streams are labeled as Stream 1, Stream 2, and Stream 3 on Figure 2 and are described below. The following subsections also describe activities proposed within each stream. Fish presence/absence sampling data collected within the Comet WRS expansion area is presented in the Streams Survey Report (HDR 2021) previously submitted to the ADF&G.

Fish Habitat Intersections

Stream 1 – Comet WRS

Stream 1 is a perennial resident fish stream that flows into Sherman Creek downstream of the disturbance area. This stream receives flow from two small tributaries on the east side of the Comet Beach Road that were also found to support Dolly Varden. Tributary 1 flows south from a small pond through a roadside ditch on the southeast side of the current WRS footprint, and Tributary 2 flows east to west. The two tributaries join just prior to being directed through a culvert under Comet Beach Road (Figure 2). While Dolly Varden occur upstream from this culvert, the culvert is perched and is currently a barrier to upstream fish movement.

The two tributaries will be directed into the new diversion channel, once constructed, and will no longer flow into Stream 1. Fish habitat in these tributaries (approximately 480 feet total) will be dewatered and ultimately filled with waste rock. The main stem of Stream 1 will also be dewatered since it will no longer receive water from the tributaries after the diversion channel is constructed. Therefore, expansion of the Comet WRS site will eliminate approximately 1,723 feet of fish habitat in Stream 1, including fish habitat in the two tributary streams.

Fish within Stream 1 and its two tributaries will be captured and relocated to Sherman Creek prior to the construction of the diversion channel. ADF&G will capture and relocate fish as soon as streams are clear

of ice in the spring of 2022. An Aquatic Resource Permit (ARP) will not be required since ADF&G will be capturing the fish.

Stream 2 – Comet WRS

Stream 2 is a perennial resident fish stream that flows into Sherman Creek near the disturbance area boundary. Stream 2 generally flows east to west, beginning at the west side of a culvert under Comet Beach Road. This stream receives water from perennial and intermittent streams located within the Comet WRS expansion footprint, which will ultimately be filled by waste rock. The existing Stream 2 channel will no longer receive water once the diversion channel is constructed. Therefore, approximately 452 feet of fish habitat within Stream 2 will be eliminated.

Fish within Stream 2 will be captured and relocated to Sherman Creek prior to the construction of the diversion channel. ADF&G will capture and relocate fish as soon as streams are clear of ice in the spring of 2022. Coeur will not need to acquire an ARP since ADF&G will capture the fish.

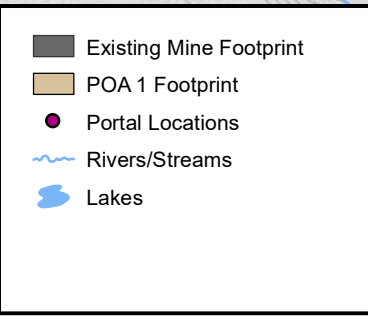
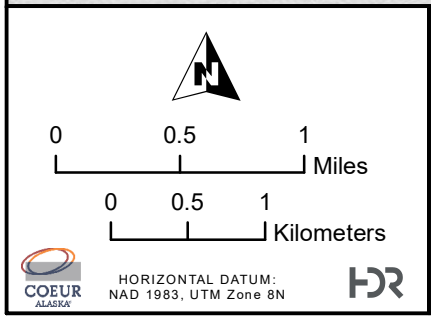
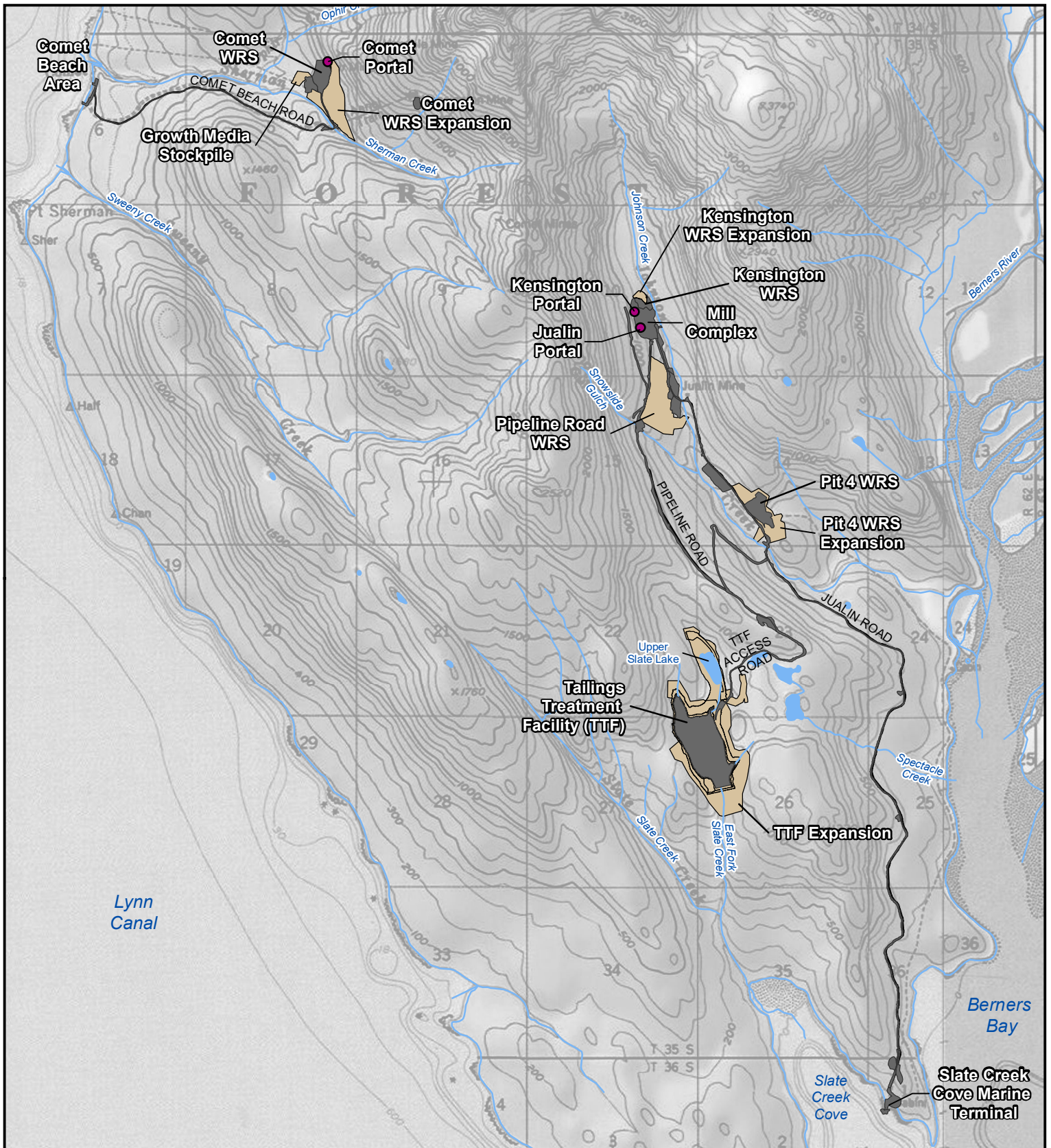
Stream 3 – Comet WRS

Stream 3 is a perennial resident fish stream that flows southeast to northwest within the Comet WRS disturbance boundary before discharging into Sherman Creek. This stream includes a portion of an intermittent fish habitat tributary that flows from a culvert under Comet Beach Road. Stream 3 receives water from intermittent non-fish bearing streams located within the Comet WRS expansion footprint, which will ultimately be filled by waste rock. Stream 3 will no longer receive input from these streams once the diversion channel is constructed. Approximately 525 feet of fish habitat within Stream 3 will therefore be eliminated.

ADF&G will capture fish within Stream 3 and relocate fish to Sherman Creek prior to the construction of the diversion channel. Coeur will not need to apply for an ARP since ADF&G will capture the fish.

References

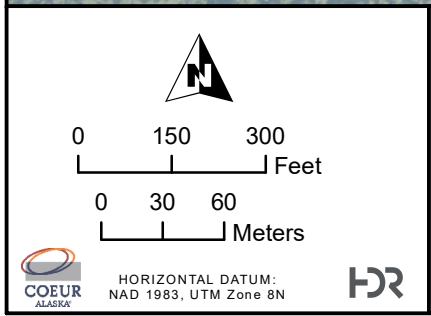
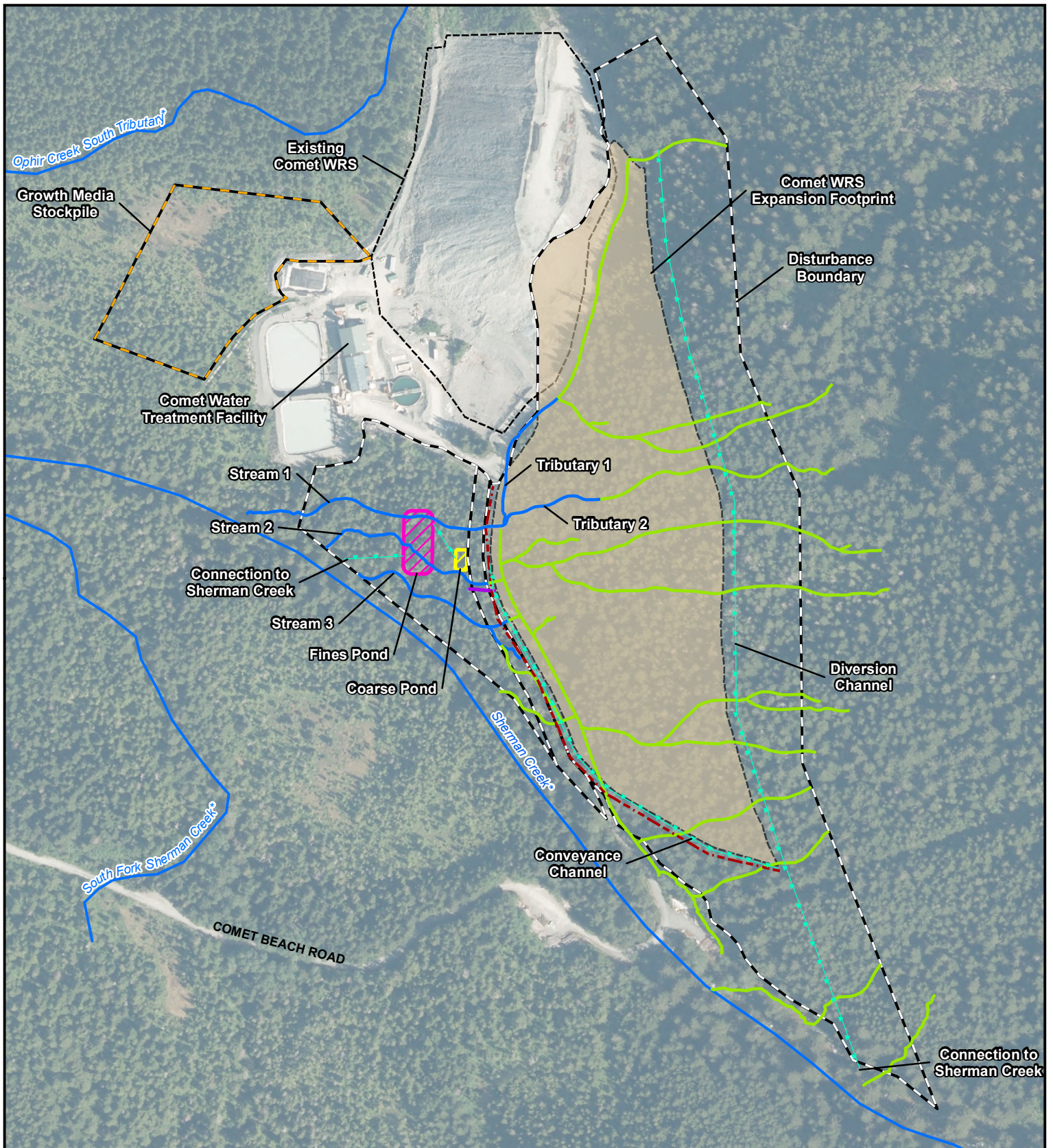
- Coeur. 2018. Plan of Operations Amendment 1 (POA 1) for the Kensington Gold Mine. Prepared by NewFields and Coeur Alaska, Inc. Prepared for U.S. Forest Service. March 2018.
- HDR Engineering, Inc. (HDR). 2018. Collection report SF2017-181d (reconnaissance level minnow trap survey, 2017 – Kensington Mine).
- HDR. 2021. Streams Survey, 2021. Plan of Operations Amendment 1, Waste Rock Storage Areas.
- Kane, B. 2020. *Kensington Gold Mine POA 1 PDSEIS Investigations – Amendment 1*. Memorandum, November 20, 2020.
- Kane, B. 2021. *Kensington Gold Mine POA 1 – Upper Sherman Cr. Fish Use Investigations*. Memorandum, August 9, 2021.



KENSINGTON MINE POA 1

FISH HABITAT PERMIT APPLICATION

FIGURE 1
EXISTING AND PROPOSED FEATURES



<ul style="list-style-type: none"> Existing WRS Footprint Comet WRS Site Expansion Disturbance Boundary Growth Media Stockpile Coarse Pond Fines Pond Comet WRS Expansion Footprint 	<ul style="list-style-type: none"> Proposed Culvert Proposed Channel Proposed Silt Fence Aquatic Habitat (HDR 2021; ADF&G 2020, 2021; USFS) Resident Fish Habitat Non-Fish Bearing Stream
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*USFS mapped stream lines were delineated at a different scale than HDR mapped stream lines.

KENSINGTON MINE POA 1

FISH HABITAT PERMIT APPLICATION

**FIGURE 2
COMET WRS EXPANSION**