

STATE OF ALASKA

DEPARTMENT OF FISH AND GAME
DIVISION OF HABITAT

SEAN PARNELL, GOVERNOR

Douglas Island Center Building
802 W. 3rd Street, Douglas
P.O. BOX 110024
JUNEAU, AK 99811-0024
PHONE: (907) 465-4105
FAX: (907) 465-4759

FISH HABITAT PERMIT FH05-I-0050 Amendment B

ISSUED: May 6, 2005

AMENDMENT: April 19, 2007

AMENDMENT: August 28, 2009

EXPIRES: Upon Satisfactory Completion of Restoration

Coeur Alaska, Inc
ATTN: Clyde Gillespie, Surface Operations Manager
3031 Clinton Drive, Suite 202
Juneau, AK 99801

RE: **Lower Slate Lake Tailings Impoundment Dam**
Slate Creek (Stream No. 115-20-10030)
T. 35 S., R. 62 E. Section 26, CRM (Juneau D-4)
Location: N 58.8081 W 135.0383
City and Borough of Juneau, Alaska

Dear Mr. Gillespie:

Pursuant to AS 16.05.841 and AS 16.05.871(b), the Alaska Department of Fish and Game Division of Habitat reviewed Coeur Alaska, Inc.'s request to reinstate Fish Habitat Permit FH05-I-0050 in its entirety. The permit authorized Coeur to construct the Lower Slate Lake tailings storage facility (TSF), which included installing a dam in East Fork Slate Creek below the outlet of Lower Slate Lake and diverting Mid-Lake Slate Creek around the TSF during construction and operations. Upon closure, Coeur will reclaim Lower Slate Lake and restore water flow between Mid-Lake Slate Creek, Lower Slate Lake and East Fork Slate Creek.

Project Description

Coeur will construct a dam that will raise the water level in Lower Slate Lake by about 85 feet, increasing the size of the lake from about 20 to 56 acres and flooding the majority of Mid-Lake Slate Creek, the main inflow to Lower Slate Lake. Mine tailings will be permanently stored in the lake. Mid-Lake Slate Creek will be diverted around the TSF during operations. Downstream fish passage will be provided by manual relocation of fish or through the diversion. The TSF will be used for approximately twelve (12) years, and then reclaimed and improved to provide fish habitat. At reclamation, downstream fish migration will be provided via a constructed spillway. This project was found consistent with the Alaska Coastal Management Program on 4/25/2005 (State ID No. AK 0406-13J).

Background

Below is a chronological summary of Fish Habitat Permitting for the Lower Slate Lake TSF:

<u>Date</u>	<u>Permit No.</u>	<u>Authorization</u>
5/06/05	FH05-I-0050	Construct the Lower Slate Lake TSF.
4/19/07	FH05-I-0050A	Remove the cofferdam and restore lake water flow into the natural East Fork Slate Creek watercourse.
9/5/08	FH08-I-0151	Remove the diversion pipeline from Mid-Lake Slate Creek and restore creek flow into Lower Slate Lake.

On August 24, 2006, the Ninth Circuit Court of Appeals ordered an injunction on the portion of the US Army Corps of Engineers (USACE) permit that authorized development of the Lower Slate Lake TSF, and on August 25, 2006, USACE suspended that portion of the permit. On April 13, 2007, USACE authorized Coeur to remove the cofferdam and dam construction materials at Lower Slate Lake as part of an interim reclamation plan by order of the Ninth Circuit. Habitat issued permit Amendment A on April 19 approving the required reclamation work. Habitat also issued Fish Habitat Permit FH08-I-0151 on September 5, 2008 to remove the diversion pipeline and restore flow between Mid-Lake Slate Creek and Lower Slate Lake, also part of their interim reclamation plan.

On June 22, 2009, the US Supreme Court ruled that USACE has deference in determining compliance with the Clean Water Act, and therefore reversed the Ninth Circuit's 2006 order. On July 8, 2009, the Ninth Circuit lifted the injunction in response to the US Supreme Court's decision, and on August 14, 2009, USACE lifted the permit suspension to allow development of the Lower Slate Lake TSF.

Anadromous Fish Act, Fishway Act and Coastal Consistency Requirements

The dam and the impoundment of tailings in Lower Slate Lake will impact the aquatic ecosystem, both above and below the dam during construction and operation. However, Coeur proposes habitat improvements during reclamation that meet the requirements of AS 16.05.851. The Division of Habitat has determined that there will not be an overall negative impact to fishery resources in the Slate Creek drainage, and after the area is reclaimed fish habitat will be improved. The basis for our decision follows:

- Slate Creek below Lower Slate Lake has been specified as being important for the migration, spawning or rearing of anadromous fishes in accordance with AS 16.05.871(a). However, a permanent barrier to the upstream migration of anadromous fish is located approximately one mile below the proposed dam near the confluence of East and West Fork Slate Creek.
- Lower Slate Lake is a deeply incised 20-acre lake up to 50 feet deep. The lake has populations of resident Dolly Varden char and three-spine stickleback. Productivity of the lower lake is relatively low compared to Upper Slate Lake, largely because it is deep and lacks substantial shallow littoral habitat and productive inlet streams. The lower lake provides rearing habitat for Dolly Varden char, but successful spawning has not been documented in the lower lake or inlet streams. Recruitment of Dolly Varden char comes from fish spawned in inlet streams to Upper Slate Lake which enter Lower Slate Lake via Mid-Lake Slate Creek

- The tailings in Lower Slate Lake are expected to be inert. Following reclamation, the larger and shallower lake is expected to provide habitat for macroinvertebrates and forage fish that will support a population of Dolly Varden char year-round. If monitoring shows the tailings are not suitable for colonization, the tailings will be capped with clean material. We anticipate the reclaimed area will provide over-wintering, spawning, and rearing habitat for Dolly Varden char.
- Upper Slate Lake is not expected to be affected by the dam and will provide seed populations of fish, invertebrates, and plants native to the lake system during the reclamation of the lower lake.
- In order to assure that there are adequate flows to maintain conditions for spawning, incubation, rearing and migration of fish in Slate Creek, water withdrawals will not be allowed when natural flows are below the in-stream flow schedule specified in Water Right LAS 24486.

The original permit and Amendment A included four permit stipulations. Stipulation #1 requires Coeur to submit to the Division of Habitat for review and approval dam construction plans that specify how downstream fish passage will be provided during development and reclamation of the TSF¹. In May 2005, Coeur submitted a copy of the Final Plan of Operations containing those plans, which specifies that Coeur will manually relocate fish from the diversion intake area to East Fork Slate Creek below the dam during construction and operation. In addition, pending further review and approval, fish passage may be provided via the diversion pipeline if safe downstream fish passage can be demonstrated. During reclamation, Coeur will construct a spillway to provide water flow and downstream fish passage around the dam and remove the temporary diversion pipeline, restoring flow between Mid-Lake Slate Creek, Lower Slate Lake, and East Fork Slate Creek. However, the plans do not specify how the spillway will provide safe downstream fish passage after closure of the facility, as required in the original permit and Amendment A.

Permit Stipulations #3 and #4 included in the original permit and Amendment A require Coeur to develop and submit for Division of Habitat approval an ecological monitoring plan for Upper and Lower Slate Lakes and East Fork Slate Creek, and a reclamation and closure plan for aquatic habitats in the Lower Slate Lake area. Coeur submitted these plans in May 2005 under cover of the Final Plan of Operations, however Division of Habitat staff did not thoroughly review or approve these plans while the project was pending judicial review of the USACE permit.

Therefore, in accordance with AS 16.05.841 and AS 16.05.871(d) project approval is hereby given subject to the following three stipulations²:

¹ Pursuant to AS 16.05.841, Coeur proposes to offset impacts resulting from construction of an upstream fish barrier in East Fork Slate Creek through restoring and enhancing habitat in Lower Slate Lake as described in the Final Plan of Operations Reclamation Plan. The Division of Habitat determined that construction of an efficient Fishway over the dam is impracticable and further concluded that opportunities exist to enhance aquatic habitats in Lower Slate Lake following closure that will satisfy the compensation requirements of AS 16.05.851.

² Stipulations #1 and #2 are required for compliance with AS 16.05.841. Stipulation #3 is required for compliance with AS 16.05.841 and AS 16.05.871.

1. Prior to construction of the spillway, Coeur shall develop and submit plans and specifications for the structure, including an analysis of how the spillway will provide safe downstream fish passage after reclamation of the TSF. Also, if Coeur plans to use the diversion pipeline for downstream fish passage around the TSF during operations, Habitat biologists will work with Coeur to ensure the pipeline provides safe fish passage.
2. The integrity of the earthen dam in Mid-Lake Slate Creek must be maintained for the life of the structure in accordance with the terms and conditions of this permit.
3. The Division of Habitat received your ecological monitoring plan for Upper and Lower Slate Lakes and East Fork Slate Creek, and a reclamation and closure plan for aquatic habitats in the Lower Slate Lake area under cover of the May 2005 Final Plan of Operations. The Division of Habitat will review the plans as soon as possible, and provide recommendations and required changes for compliance with AS 16.05.841 and AS 16.05.871. The Division of Habitat will approve the final plans via future permit amendments.

You are responsible for the actions of contractors, agents, or other persons who perform work to accomplish the approved project. For any activity that significantly deviates from the approved plan, you shall notify Division of Habitat and obtain written approval in the form of a permit amendment before beginning the activity. Any action that increases the project's overall scope or that negates, alters, or minimizes the intent or effectiveness of any stipulation 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 the responsibility of the Division of Habitat. Therefore, it is recommended you consult Division of Habitat immediately when a deviation from the approved plan is being considered.

Please be advised that this determination applies only to activities regulated by Division of Habitat; other agencies also may have jurisdiction under their respective authorities. This determination does not relieve you of your responsibility to secure other permits; state, federal, or local. You are still required to comply with all other applicable laws.

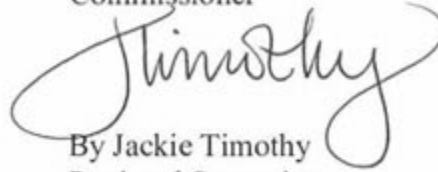
This letter constitutes a permit issued under the authority of AS 16.05.841 and AS 16.05.871 and must be retained on site during construction. In addition to the penalties provided by law, this permit may be terminated or revoked for failure to comply with its provisions or failure to comply with applicable statutes and regulations. The department reserves the right to require mitigation measures to correct disruption to fish created by the project which was a direct result of 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.

This AS 16.05.871 permit decision may be appealed in accordance with the provisions of AS 44.62.330-630.

If you have any questions regarding this permit, please contact Kate Kanouse at (907) 465-4290 or by email at kate.kanouse@alaska.gov.

Sincerely,
Denby Lloyd
Commissioner

A handwritten signature in black ink that reads "Jackie Timothy". The signature is written in a cursive style with a large, looping initial "J".

By Jackie Timothy
Regional Supervisor
Division of Habitat

Email cc:

Al Ott, ADF&G Habitat, Fairbanks
Kate Kanouse, ADF&G Habitat, Douglas
Brian Glynn, ADF&G Sport Fish, Douglas
Rich Chapell, ADF&G Sport Fish, Haines
Kevin Monagle, ADF&G Comm Fish, Douglas
Randy Bachman, ADF&G Comm Fish, Haines
Ryan Scott, ADF&G Wildlife Conservation, Douglas
Tom Crafford, ADNR OPMP, Anchorage
Carrie Bohan, ADNR DCOM, Juneau
Jim Anderson, ADNR DMLW, Juneau
Kenwyn George, ADEC, Juneau
Richard Jackson, USACE, Anchorage
Chad Hood, USFS, Juneau
Kevin Eppers, Coeur, Juneau

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FISH HABITAT PERMITS FH11-I-0128, FH11-I-0129 and FH11-I-0130

ISSUED: February 13, 2012

Coeur Alaska, Inc.
ATTN: Mr. Luke J. Russell
3031 Clinton Dr., Suite 202
Juneau, AK 99801

RE: **Johnson Creek Bridges and Water Use**
T. 35 S., R. 62 E. Sec. 15, C.R.M. (Juneau D4)

Locations:

58.8250 N, 135.0260 W	Johnson Creek "Bridge 1" (FH11-I-0128)
58.8370 N, 135.0430 W	Johnson Creek "Bridge 2" (FH11-I-0129)
58.8370 N, 135.0430 W	Johnson Creek Water Intake (FH11-I-0130)

Dear Mr. Russell:

Pursuant to AS 16.05.841 (Fishway Act), the Alaska Department of Fish and Game (ADF&G), Division of Habitat reviewed three existing structures on Johnson Creek, two bridges and one infiltration gallery, that support the Kensington Gold Mine. These new permits replace the preceding permits for these structures, which all occur upstream of the cataloged anadromous portion of Johnson Creek (Stream No. 115-20-10070). The purpose of issuing these re-authorizations is to update departmental change and current conditions of these structures.

Project Description

The structures on Johnson Creek include the following:

- 1) "Bridge 1" **FH11-I-0128** (previously permitted under FH05-I-0047)

The 30' full-span steel bridge is located about 0.5 miles upstream of a natural barrier to anadromous fish migration. It was constructed above the ordinary high water mark, and the previous log abutments were left in place downstream.

2) “Bridge 2” **FH11-I-0129** (previously permitted under FH05-I-0048)

The 30’ full-span steel bridge is located about 1.4 miles upstream of a natural barrier to anadromous fish migration. It was constructed above the ordinary high water mark, and the previous log abutments were left in place upstream.

3) Intake Structure **FH11-I-0130** (previously permitted under FH05-I-0049)

The structure provides water to the mill and camp. You excavated a 15’ long trench, measuring 5-6’ wide and 10’ deep. The trench was dug perpendicular to the stream channel extending primarily into the bank, but also into the stream channel. The excavated area was backfilled with coarse gravel surrounding a 24” diameter vertical pipe that intersects the bank at the low flow water surface elevation and extends approximately 3 feet below the streambed.

Fish Resources

Johnson Creek supports resident Dolly Varden char.

Fishway Act

In accordance with AS 16.05.841, project approval is hereby given subject to the project description and the terms of this permit:

The structures shall maintained to accommodate the efficient passage and movement of fish, both upstream and downstream.

You are responsible for the actions of contractors, agents, or other persons who perform work to accomplish the approved project. For any activity that significantly deviates from the approved plan, you shall notify the Division of Habitat and obtain written approval in the form of a permit amendment before beginning the activity. Any action that increases the project's overall scope or that negates, alters, or minimizes the intent or effectiveness of any stipulation 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 the responsibility of the Division of Habitat. Therefore, it is recommended you consult the Division of Habitat immediately when a deviation from the approved plan is being considered.

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

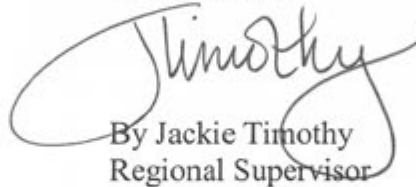
This letter constitutes a permit issued under the authority of AS 16.05.841 and must be retained on site during project activities. Please be advised that this determination applies only to activities regulated by the Division of Habitat; other agencies also may have jurisdiction under their respective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

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. The department reserves the right to require mitigation measures to correct disruption to fish and game created by the project and which was a direct result of the 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.

Any questions or concerns about this permit may be directed to Habitat Biologist Kate Kanouse at (907) 465-4290 or emailed to kate.kanouse@alaska.gov.

Sincerely,
Cora Campbell
Commissioner



By Jackie Timothy
Regional Supervisor
Division of Habitat

CC via email:

Al Ott, ADF&G Habitat, Fairbanks
Brian Glynn, ADF&G/SF, Douglas
Kevin Monagle, ADF&G/CF, Douglas
Ryan Scott, ADF&G/WC, Douglas
Ted Deats, ADNR Water, Juneau
Steve Brockmann, USFWS, Juneau
Mary Goode, NMFS, Juneau
Heidi Firstencel, USACE, Juneau
Linda Speerstra, USACE, Sitka
Kevin Eppers, Coeur Alaska, Juneau

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FISH HABITAT PERMITS FH11-I-0134 and FH11-I-0135

ISSUED: February 13, 2012

Coeur Alaska, Inc.
ATTN: Mr. Luke J. Russell
3031 Clinton Dr., Suite 202
Juneau, AK 99801

RE: **Sherman Creek Tributary Bridges**

T. 35 S., R. 62 E. Sec. 5, C.R.M. (Juneau D4)

Locations:

58.8633 N, 135.1082 W	South Fork Sherman Creek Bridge (FH11-I-0134)
58.8632 N, 135.1022 W	Upper Sherman Creek Bridge (FH11-I-0135)

Dear Mr. Russell:

Pursuant to AS 16.05.841 (Fishway Act), the Alaska Department of Fish and Game (ADF&G) Division of Habitat reviewed two existing bridges located on tributaries to Sherman Creek that support the Kensington Gold Mine. These structures are located upstream of the cataloged anadromous portion of Sherman Creek (Stream No. 115-31-10330).

Project Description

The bridges on tributaries¹ to Sherman Creek include the following:

1) South Fork Sherman Creek Bridge

FH11-I-0134

The log stringer bridge is located on the South Fork Sherman Creek, about 1500' upstream of its confluence with Sherman Creek and was installed above the ordinary high

¹South Fork Sherman Creek and Upper Sherman Creek are commonly referenced in project documents for Kensington Gold Mine. They are not shown on most USGS Quad maps of the area.

water mark. On April 17, 1998, this office issued Coeur Alaska, Inc. a permit (FG97-I(J)-66) authorizing replacement of this bridge with a new prefabricated bridge, but that work was never completed and the original log stringer bridge is still in place.

2) Upper Sherman Creek Bridge

FH11-I-0135

The log stringer bridge is located on the Upper Sherman Creek, about 2400' upstream of the confluence of South Fork Sherman Creek and Upper Sherman Creek, and was installed above the ordinary high water mark. On April 17, 1998, this office issued Coeur Alaska, Inc. a permit (FG97-I(J)-65) authorizing replacement of this bridge with a new prefabricated bridge, but that work was never completed and the original log stringer bridge is still in place.

Fish Resources

South Fork and Upper Sherman Creeks support resident Dolly Varden char.

Fishway Act

In accordance with AS 16.05.841, project approval is hereby given subject to the project description and the terms of this permit:

The structures shall be maintained to accommodate the efficient passage and movement of fish, both upstream and downstream.

You are responsible for the actions of contractors, agents, or other persons who perform work to accomplish the approved project. For any activity that significantly deviates from the approved plan, you shall notify the Division of Habitat and obtain written approval in the form of a permit amendment before beginning the activity. Any action that increases the project's overall scope or that negates, alters, or minimizes the intent or effectiveness of any stipulation 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 the responsibility of the Division of Habitat. Therefore, it is recommended you consult the Division of Habitat immediately when a deviation from the approved plan is being considered.

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

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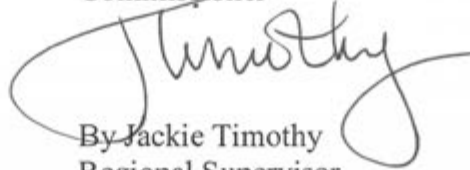
In addition to the penalties provided by law, this permit may be terminated or revoked for failure to comply with its provisions or failure to comply with applicable statutes and regulations. The

department reserves the right to require mitigation measures to correct disruption to fish and game created by the project and which was a direct result of the 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.

Any questions or concerns about this permit may be directed to Habitat Biologist Kate Kanouse at (907) 465-4290 or emailed to kate.kanouse@alaska.gov.

Sincerely,
Cora Campbell
Commissioner

A handwritten signature in black ink, appearing to read "Jackie Timothy", written over a large, stylized loop.

By Jackie Timothy
Regional Supervisor
Division of Habitat

CC via email:

Al Ott, ADF&G Habitat, Fairbanks
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Kevin Monagle, ADF&G/CF, Douglas
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Ted Deats, ADNR Water, Juneau
Steve Brockmann, USFWS, Juneau
Mary Goode, NMFS, Juneau
Heidi Firstencel, USACE, Juneau
Linda Speerstra, USACE, Sitka
Kevin Eppers, Coeur Alaska, Juneau

