## STATE OF ALASKA

## DEPARTMENT OF FISH AND GAME

DIVISION OF HABITAT

SEAN PARNELL, GOVERNOR

Douglas Island Center Building 802 W. 3<sup>d</sup> 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).

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## Background

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

Date	Permit No.	<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

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• 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 stipulations<sup>2</sup>:

<sup>1</sup> 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.

<sup>&</sup>lt;sup>2</sup> 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.

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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.

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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

By Jackie Timothy ( Regional Supervisor Division of Habitat

#### Email ce:

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

# STATE OF ALASKA

DEPARTMENT OF NATURAL RESOURCES
OFFICE OF HABITAT MANAGEMENT AND PERMITTING
JUNEAU AREA OFFICE

Sarah Palin, GOVERNOR

400 WILLOUGHBY AVENUE JUNEAU, ALASKA 99801-1796

PHONE: (907) 465-4105 FAX: (907) 465-4759

## FISH HABITAT PERMIT FH05-I-0050A

ISSUED: May 6, 2005 AMENDED: April 19, 2007

Mr. Luke J. Russell VP Environmental Services Coeur Alaska, Inc. 3031 Clinton Dr., Suite 202 Juneau, AK 99801

RE: Tailings Impoundment Dam

Slate Creek (Stream #115-20-10030)

T35S, R62E, Section 26, CRM, Juneau (D-4)

City & Borough of Juneau, Alaska

Dear Mr. Russell:

Pursuant to AS 41.14.840 and AS 41.14.870(b), the Alaska Department of Natural Resources (DNR) Office of Habitat Management and Permitting (OHMP) has reviewed your proposal to remove a cofferdam below lower Slate Lake and harden a watercourse to direct Slate Lake flow into the natural Slate Creek streamcourse. The cofferdam, a component of the larger tailings storage facility (TSF) dam complex, was installed below the ordinary high water mark of lower Slate Lake after the waterbody was lowered 13 feet and as a measure to maintain water quality during construction. With the cofferdam removed, water flow from lower Slate Lake will be directed into Slate Creek via a waterway hardened with geotextile and riprap for erosion control. The water level in lower Slate Lake will return to a historical elevation. Water from upper Slate Lake continues to be diverted from mid-Lake Creek around lower Slate Lake and into Slate Creek. Downstream water quality will be monitored in accordance with Coeur Alaska's updated Stormwater Pollution Prevention Plan. I verbally authorized Coeur Alaska to conduct the work under AS 41.14.890 on 4/13/07.

In accordance with AS 41.14.840 and AS 41.14.870(d), your Fish Habitat permit is amended.

## Project Description for FISH HABITAT PERMIT FH05-I-0050

Coeur Alaska, Inc. proposes to 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 Creek, the main inflow to Lower Slate Lake. Mine tailings will be stored in the lake. mid-Lake Slate Creek will be diverted around the TSF during operations. Downstream fish passage will be provided by either manual relocation of fish or through the diversion. The TSF will be used for approximately twelve (12) years and then reclaimed to provide fish and wildlife habitat

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equivalent to the existing habitat. At reclamation, downstream migration would be provided via a spillway located on the west side of the dam. This project was found consistent with the Alaska Coastal Management Program on 04/25/2005 (State I.D. No. AK 0406-13J).

## Anadromous Fish Act and Fishway Act 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. Alaska Statute (AS) 41.14.850 provides ways to compensate for the impacts to fish passage. Coeur Alaska, Inc. proposes habitat improvements during reclamation that meet the requirements of AS 41.14.850. OHMP has determined that there will not be an overall negative impact to fish and wildlife resources in the Slate Creek drainage after the area is reclaimed. 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 chum, pink and coho salmon in accordance with AS 41.14.870(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 the East and West Forks of 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 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 have very low toxicity. 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. 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, plants, and wildlife 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.

Luke Russell, Coeur Alaska, Inc. Page 3 of 5

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Therefore, in accordance with AS 41.14.840 and AS 41.14.870(d) project approval is hereby given subject to the following stipulations:<sup>1</sup>

- 1. Prior to construction, Coeur Alaska, Inc. shall provide plans and specifications to the Office of Habitat Management and Permitting for review and approval for the earthen fill dam to be constructed near the outlet of Lower Slate Lake. Plans and specifications must address how safe downstream passage of fish will be provided during construction and operation of the facility and how dam and spillway design will provide for safe downstream passage after closure of the facility.<sup>2</sup>
- The integrity of the earthen dam fishway must be maintained for the life of the structure in accordance with the terms and conditions of this permit so that free passage of fish is assured. Any obstruction to the free passage of fish must be restored to the satisfaction of OHMP.
- 3. Prior to construction, Coeur Alaska, Inc. shall develop and submit an ecological monitoring plan for Upper and Lower Slate Lakes and East Fork Slate Creek to OHMP for review and approval. The ecological monitoring plan must include a list of objectives and a general description of sampling methods and timing. The ecological monitoring plan must be updated annually.
- 4. Prior to construction, Coeur Alaska, Inc. shall develop and submit a reclamation and closure plan for aquatic habitats in the Lower Slate Lake area to OHMP for review and approval. Proposed revisions to the reclamation and closure plan may be submitted to OHMP at any time, but the plan must be updated every three years with the final plan submitted two years prior to closure.

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 OHMP 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 stipulations 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 OHMP. Therefore, it is recommended you consult OHMP immediately when a deviation from the approved plan is being considered.

This letter constitutes a permit issued under the authority of AS 41.14.840 and AS 41.14.870. This permit must be retained on site during construction. Please be advised that this determination applies only to activities regulated by OHMP; other divisions with ADNR also may have jurisdiction under their respective authorities. This determination does not relieve you of your

<sup>&</sup>lt;sup>1</sup> Stipulations #1 and #2 are required for compliance with AS 41.14.840. Stipulations #3 and #4 are required for compliance with both AS 41.14.840 and AS 41.14.870.

<sup>&</sup>lt;sup>2</sup> Pursuant to AS 41.14.840, Coeur Alaska, Inc. has proposed to offset impacts from construction of the dam by restoring and enhancing habitat in Lower Slate Lake. OHMP has determined construction of an efficient upstream fishway over the dam is not practical and that reclamation will satisfy the compensation requirements of AS 41.14.850.

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

If you have any questions, please contact me at (907) 465-4275.

Sincerely,

Richard A. LeFebvre Deputy Commissioner

By Jackie Timothy

Office of Habitat Management and Permitting

Department of Natural Resource

Cc: by email:

Al Ott, DNR/OHMP, Fairbanks
Tom Crafford, DNR/OPMP, Anchorage
Brian Glynn, ADF&G, Douglas
Richard Chapell, ADF&G, Haines
Randy Bachman, ADF&G, Haines
Mark Fink, ADF&G, Anchorage
Kenwyn George, ADEC, Juneau
Victor Ross, USACE, Anchorage
Pete Griffin, USFS, Juneau
Steve Hohensee, USFS, Juneau
Crellin Scott, Coeur, Juneau

## References:

Kline, E. (Kline Environmental Research, LLC), 2003a. *Kensington Project: Summary and Interpretation of Fish and Habitat Data from Slate Creek and Johnson Creek Drainages with an Emphasis on Lower Slate Lake.* 

Kline, E. (Kline Environmental Research, LLC), 2003b. Technical memorandum to Rick Richins and Eric Klepfer: Premiminary results of 2003 Slate Lakes field work.

USFS, December 2004. Kensington Gold Project, Final Supplemental Environmental Impact Statement. Juneau Ranger District, Tongass National Forest, Juneau, AK.

## STATE OF ALASKA

DEPARTMENT OF NATURAL RESOURCES
OFFICE OF HABITAT MANAGEMENT AND PERMITTING
JUNEAU AREA OFFICE

FRANK H. MURKOWSKI, GOVERNOR

400 WILLOUGHBY AVENUE JUNEAU, ALASKA 99801-1796

PHONE: (907) 465-4105 FAX: (907) 465-4759

## FISH HABITAT PERMIT FH05-I-0050

ISSUED: May 6, 2005

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

RE:

Tailings Impoundment Dam

Slate Creek (Stream #115-20-10030)

T35S, R62E, Section 26, NW 1/4, CRM, Juneau (D-4)

City & Borough of Juneau, Alaska

Dear Mr. Russell:

Pursuant to AS 41.14.840 and AS 41.14.870(b), the Alaska Department of Natural Resources (DNR) Office of Habitat Management and Permitting (OHMP) has reviewed your proposal to construct a dam on the East Fork of Slate Creek below the outlet of Lower Slate Lake. The dam will create a basin for a tailings storage facility (TSF).

## **Project Description**

Coeur Alaska, Inc. proposes to 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 Creek, the main inflow to Lower Slate Lake. Mine tailings will be stored in the lake. Mid-Lake Slate Creek will be diverted around the TSF during operations. Downstream fish passage will be provided by either manual relocation of fish or through the diversion. The TSF will be used for approximately twelve (12) years and then reclaimed to provide fish and wildlife habitat equivalent to the existing habitat. At reclamation, downstream migration would be provided via a spillway located on the west side of the dam. This project was found consistent with the Alaska Coastal Management Program on 04/25/2005 (State I.D. No. AK 0406-13J).

## Anadromous Fish Act and Fishway Act 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. Alaska Statute (AS) 41.14.850 provides ways to compensate for the impacts to fish passage. Coeur Alaska, Inc. proposes habitat improvements during reclamation that meet the requirements of AS 41.14.850. OHMP has determined that there will not be an overall negative impact to fish and wildlife resources in the Slate Creek drainage after the area is reclaimed. The basis for our decision follows:

Luke Russell, Coeur Alaska, Inc. Page 2 of 4

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 41.14.870(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.

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- 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 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 have very low toxicity. 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. 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, plants, and wildlife 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.

Therefore, in accordance with AS 41.14.840 and AS 41.14.870(d) project approval is hereby given subject to the following stipulations:<sup>1</sup>

1. Prior to construction, Coeur Alaska, Inc. shall provide plans and specifications to the Office of Habitat Management and Permitting for review and approval for the earthen fill dam to be constructed near the outlet of Lower Slate Lake. Plans and specifications must address how safe downstream passage of fish will be provided during construction and operation of the facility and how dam and spillway design will provide for safe downstream passage after closure of the facility.<sup>2</sup>

<sup>&</sup>lt;sup>1</sup> Stipulations #1 and #2 are required for compliance with AS 41.05.840. Stipulations #3 and #4 are required for compliance with both AS 41.14.840 and AS 41.14.870.

<sup>&</sup>lt;sup>2</sup> Pursuant to AS 41.14.840, Coeur Alaska, Inc. has proposed to offset impacts resulting from construction of an upstream fish barrier in East Fork Slate Creek through the restoring and enhancing habitat in Lower Slate Lake as described in the reclamation plan. OHMP has determined that construction of an efficient Fishway over the dam is impracticable and further we have concluded that opportunities exist to enhance aquatic habitats in Lower Slate Lake following closure and will satisfy the compensation requirements of AS 41.14.850.

Luke Russell, Coeur Alaska, Inc. Page 3 of 4 FH05-I-0050 Issued: May 6, 2005

2. The integrity of the earthen dam fishway must be maintained for the life of the structure in accordance with the terms and conditions of this permit so that free passage of fish is assured. Any obstruction to the free passage of fish must be restored to the satisfaction of OHMP.

- 3. Prior to construction, Coeur Alaska, Inc. shall develop and submit an ecological monitoring plan for Upper and Lower Slate Lakes and East Fork Slate Creek to OHMP for review and approval. The ecological monitoring plan must include a list of objectives and a general description of sampling methods and timing. The ecological monitoring plan must be updated annually.
- 4. Prior to construction, Coeur Alaska, Inc. shall develop and submit a reclamation and closure plan for aquatic habitats in the Lower Slate Lake area to OHMP for review and approval. Proposed revisions to the reclamation and closure plan may be submitted to OHMP at any time, but the plan must be updated every three years with the final plan submitted two years prior to closure.

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 OHMP 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 stipulations 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 OHMP. Therefore, it is recommended you consult OHMP immediately when a deviation from the approved plan is being considered.

This letter constitutes a permit issued under the authority of AS 41.14.840 and AS 41.14.870. This permit must be retained on site during construction. Please be advised that this determination applies only to activities regulated by OHMP; other divisions with ADNR 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 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 permit decision may be appealed in accordance with the provisions of AS 44.62.330-630.

Luke Russell, Coeur Alaska, Inc. Page 4 of 4 **FH05-I-0050** Issued: May 6, 2005

If you have any questions, please contact Carl Schrader at (907) 465-4287 or email carl schrader@dnr.state.ak.us.

Sincerely,

Richard A. LeFebvre Deputy Commissioner

By Jackie Timothy

Office of Habitat Management and Permitting

Department of Natural Resource

Unother

## CC by email:

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