



FISH HABITAT PERMIT

FH18-III-0189

ISSUED: August 30, 2018
EXPIRES: Upon Removal of Dam

Daniel Graham
Donlin Gold
4720 Business Park Blvd.
Suite G-25
Anchorage, AK 99503

Dear Mr. Graham:

RE: Snow Gulch Freshwater Dam
Snow Gulch
Sections 25, T23N, R49W, and Section 30, T23N, R48W, SM, Iditarod A-5
Location coordinates (WGS84): 62.0597 N 158.1783 W

Pursuant to AS 16.05.841 (Fishway Act), the Alaska Department of Fish and Game (ADF&G), Division of Habitat, has reviewed your proposal to construct a dam on Snow Gulch. We received your application on December 29, 2017.

Project Description

Donlin Gold LLC is proposing the development of an open pit, hardrock gold mine. The proposed Donlin Gold project would require three to four years to construct, and have an active mine life of approximately 27 years. A freshwater dam (FWD) would be constructed in the Snow Gulch valley, north of the proposed open pit and waste rock facilities, to provide process make-up water during start-up and during periods of low water availability. The Snow Gulch FWD would be located within the Snow Gulch drainage approximately 1.7 straight line miles upstream from the Snow Gulch confluence with Donlin Creek. The dam would be constructed upstream of two sites sampled for fish (almost annually) between 2004 and 2014, where an average of about 3 Dolly Varden were documented each year. The dam would be in service for the life of the mine, and would be decommissioned upon closure. The dam would have a crest elevation of 756 ft. above mean sea level (amsl), and would be approximately 154 ft. tall and 1,200 ft. long at the crest elevation. Fill of around 1.04 million cubic

yards (yds³) would be placed within the Snow Gulch valley to complete the dam. Upon completion, the dam will be capable of storing 3,243 acre ft. (1.06 billion gallons) of water. The dam impoundment would be 77 acres when full. During early construction, flow from Snow Gulch could be diverted around the work area either through construction of a diversion channel or flume, or by dam-and-pump methods. It is at this point in construction that fish passage upstream of the dam site would be eliminated. Fish passage would remain obstructed until the dam is breached at closure. Preliminary plans were included in the December 29, 2017, application.

Fish Resources

Snow Gulch in the area of your project supports resident species of fish such as Dolly Varden. Your project as proposed will obstruct the efficient passage and movement of fish. Fish passage to habitats upstream from the FWD will be obstructed until the dam is breached at mine closure. Your proposed plans include provisions for restoration of fish habitat and passage in lower Snow Gulch, which has been altered by historical placer mining. Fish Habitat Permit FH18-III-0193 has been issued for this restoration. This work will mitigate for the adverse effects of the fish passage barrier.

Determination

In accordance with AS 16.05.841, project approval is hereby given subject to the project description above with the following stipulations:

1. Donlin Gold shall submit final plans and specifications to the Division of Habitat for review and approval, noting any deviations from the preliminary plan set submitted for this permit.
2. Donlin Gold or its contractor shall provide plans for any diversion, dewatering, or bypass pumping needed for dam installation for review and approval by the Division of Habitat before these activities occur.

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 any 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 Division of Habitat 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 Maria Wessel at 907-459-7281 or emailed to maria.wessel@alaska.gov.

Sincerely,

Sam Cotten, Commissioner



BY: Audra L. J. Brase, Regional Supervisor
Division of Habitat
Alaska Department of Fish and Game

ecc: John Chythlook, ADF&G SF, Fairbanks
Douglass Cooper, USFWS, Fairbanks

Al Ott, ADF&G HAB, Fairbanks
Faith Martineau, ADNR, Fairbanks

Donlin Gold
FH18-III-0189

4

Issued: August 30, 2018
Expires: Upon Removal of Dam

Ben Soiseth, USACE, Fairbanks
AWT Northern Detachment, Fairbanks
Lee McKinley, ADF&G-JPO, Anchorage
Aaron Tiernan, ADF&G CF, Anchorage
Josh Peirce, ADF&G WC, McGrath

Permit Coordinator, ADF&G SF, Anchorage
NOAA Fisheries, Anchorage
Michael Walton, ADNR Fairbanks
Charlie Cobb, ADNR, Anchorage

AB/mlw