Dear Mr. Graham:

Pursuant to AS 16.05.871(b) and AS 16.05.841 (Fishway Act), the Alaska Department of Fish and Game (ADF&G) Division of Habitat has reviewed your request to add two additional stream crossings (American Creek 2 and 3) to a previously issued permit to conduct geotechnical investigations and resource drilling at the Donlin Gold project site. Your request was received by email on February 18, 2020.

**Project Description**

Donlin Gold is proposing geotechnical investigations and resource drilling beginning during the summer of 2019 and continuing over the next several years, in support of the development of an open pit, hardrock gold mine (Donlin Gold project) located in the Yukon Kuskokwim region, approximately 10 miles north of the village of Crooked Creek (located on the Kuskokwim River). Work will take place during summer and winter seasons. Equipment to be used for overland travel includes, but is not limited to, two Core Drilling Rigs, one RC Drilling Rig, two Geoprobe 6712
DT, one Cat 318CL Excavator, and two Cat D5N LGP Dozers. The following stream crossings will be utilized, primarily in the winter, and may include the building of ice bridges:

<table>
<thead>
<tr>
<th>Waterbody Crossing</th>
<th>Latitude</th>
<th>Longitude</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anaconda Creek 1</td>
<td>61.998 N</td>
<td>158.214 W</td>
</tr>
<tr>
<td>Anaconda Creek 2</td>
<td>62.000 N</td>
<td>158.245 W</td>
</tr>
<tr>
<td>American Creek 1</td>
<td>62.026 N</td>
<td>158.204 W</td>
</tr>
<tr>
<td>American Creek 2</td>
<td>62.036 N</td>
<td>158.237 W</td>
</tr>
<tr>
<td>American Creek 3</td>
<td>62.042 N</td>
<td>158.251 W</td>
</tr>
<tr>
<td>Queen Gulch</td>
<td>62.059 N</td>
<td>158.225 W</td>
</tr>
<tr>
<td>Snow Gulch</td>
<td>62.060 N</td>
<td>158.181 W</td>
</tr>
</tbody>
</table>

Water will be utilized from American Creek, Anaconda Creek, Snow Gulch, Queen Gulch along with Lewis Gulch and tributaries. It is estimated that up to three, two-inch pumps will be utilized for providing water to the drills with the capacity to pump 20 gpm each. The pumps will be located near the planned drill sites and utilize existing access to the extent possible.

In addition, seismic surveys are planned with approximately 15 miles of seismic lines. Details on the separation distance between fish bearing streams and holes used for explosive charges along with the size of the planned explosive charges, their depth and spacing will be provided to ADF&G as these details are developed and prior to transporting the explosives to site. A complete description of your project was contained in your APMA application dated April 22, 2019, and supplementary material provided by email on February 18, 2020.

**Anadromous Fish Act**

American Creek in the area of the American Creek 3 crossing, has been specified as being important for the spawning, rearing, or migration of anadromous fishes pursuant to AS 16.05.871(a). American Creek provides rearing habitat for juvenile coho salmon. Additionally, Anaconda Creek downstream of your activities also provides rearing habitat for juvenile coho salmon. Anaconda and American creeks, and their tributaries support resident fish species including Dolly Varden, slimy sculpin, burbot, and Arctic grayling. Queen, Snow, and Lewis gulches and their tributaries likely support resident fish species such as ninespine stickleback. Your project as proposed should not have adverse effects on anadromous fish or their habitat and should not obstruct the efficient passage and movement of fish.

In accordance with AS 16.05.871(d) and AS 16.05.841, your project is approved subject to the project description and permit terms, with the following stipulations:

1) Crossings shall be made from bank to bank in a direction substantially perpendicular to the direction of stream flow, and only at locations with gradually sloping banks. There shall be no crossings at locations with sheer or cut banks. Equipment crossings shall be made in a manner
that precludes creation of barriers to efficient fish passage (ridging and/or rutting of streambed, etc.).

2) Any ice/snow bridges and approach ramps constructed at stream crossings must be substantially free of extraneous material (i.e., soil, rock, wood, or vegetation). Any ice/snow bridge shall be breached or weakened, and fill used for ramps shall be removed upon completion of use to facilitate breakup such that fish passage is maintained.

3) Each water intake structure shall be designed to prevent the entrainment, impingement and/or entrapment of fish and shall be installed and maintained at each intake location. The effective screen openings may not exceed 0.25 inches (1/4 inch), and water velocity at the screen/water interface may not exceed 0.5 feet per second when the pump is operating.


Permit Terms
This letter constitutes a permit issued under the authority of AS 16.05.871 and 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 Habitat Section of ADF&G; 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.

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 ADF&G Habitat Section 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 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 the responsibility of the ADF&G Habitat Section. Therefore, it is recommended that you consult the Habitat Section before considering any deviation from the approved plan.

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.

You may appeal this permit decision relating to AS 16.05.871 in accordance with the provisions of AS 44.62.330-630.

Please direct questions about this permit to Habitat Biologist Maria Wessel at (907) 459-7281 or maria.wessel@alaska.gov.

Sincerely,
Doug Vincent-Lang, Commissioner

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

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Jenny March, ADNR, Fairbanks

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