



THE STATE
of **ALASKA**

GOVERNOR MICHAEL J. DUNLEAVY

Department of Environmental
Conservation

DIVISION OF WATER

Wastewater Discharge Authorization Program

555 Cordova Street
Anchorage, Alaska 99501-2617
Main: 907.269.6285
Fax: 907.334.2415
www.dec.alaska.gov/water/wwdp

April 5, 2019

Donlin Gold, LLC
Attention: Andy Cole
4720 Business Park Blvd, Suite G-25
Anchorage, AK 99503

Re: Donlin Gold, LLC, Donlin Gold Mine
POA-1995-120, Crooked Creek

Dear Mr. Cole:

In accordance with Section 401 of the Federal Clean Water Act of 1977 and provisions of the Alaska Water Quality Standards, the Department of Environmental Conservation (DEC) is reissuing the enclosed Certificate of Reasonable Assurance for placement of dredged and/or fill material in waters of the U.S., including wetlands and streams, associated with the development of a gold mine 10 miles north of the village of Crooked Creek, Alaska.

DEC regulations provide that any person who disagrees with this decision may request an informal review by the Division Director in accordance with 18 AAC 15.185 or an adjudicatory hearing in accordance with 18 AAC 15.195 – 18 AAC 15.340. An informal review request must be delivered to the Director, Division of Water, 555 Cordova Street, Anchorage, AK 99501, within 20 days of the permit decision. Visit <http://dec.alaska.gov/commish/review-guidance/> for information on Administrative Appeals of Department decisions.

An adjudicatory hearing request must be delivered to the Commissioner of the Department of Environmental Conservation, PO Box 111800, Juneau, AK 99811-1800, Location: 410 Willoughby Avenue, Suite 303, Juneau within 30 days of the permit decision. If a hearing is not requested within 30 days, the right to appeal is waived.

By copy of this letter we are advising the U.S. Army Corps of Engineers of our actions and enclosing a copy of the certification for their use.

Sincerely,

Handwritten signature of James Rypkema in black ink.

James Rypkema
Program Manager, Storm Water and Wetlands

Enclosure: 401 Certificate of Reasonable Assurance

cc: (with enclosure via email)
Dan Graham, Donlin Gold
Shelia Newman, USACE Anchorage
Calvin Alvarez, USACE Anchorage
Faith Martineau, ADNR

Megan Marie, ADF&G
USFWS Field Office Anchorage
Matthew LaCroix, EPA Operations, Anchorage



STATE OF ALASKA
DEPARTMENT OF ENVIRONMENTAL CONSERVATION
CERTIFICATE OF REASONABLE ASSURANCE

In accordance with Section 401 of the Federal Clean Water Act (CWA) and the Alaska Water Quality Standards (18 AAC 70), a Certificate of Reasonable Assurance, is reissued to Donlin Gold, LLC, attention: Andy Cole, at 4720 Business Park Blvd, Suite G-25, Anchorage, Alaska 99503, for placement of dredged and/or fill material in waters of the U.S. including wetlands and streams in association with the development of a gold mine located 277 miles west of Anchorage, 145-miles northeast of Bethel, and 10 miles north of the village of Crooked Creek in the Kuskokwim watershed. The activities covered under this certification are further described in the attached project summary.

A state issued water quality certification is required under Section 401 because the proposed activity authorized by a Department of Army (DA) permit (POA-1995-120) may result in the discharge of pollutants to waters of the U.S. located in the State of Alaska. The department publically noticed its intent to issue a CWA §401 Certificate from June 13, 2018 to July 13, 2018.

Donlin Gold submitted a Preliminary Section 404 and Section 10 permit application to the USACE in July 2012. Donlin Gold revised the application in December 2014, August 2015, and December 20, 2017. The December 2017 application includes revisions and refinements to the project design and footprint resulting, in part, from the National Environmental Protection Act process review, and supersedes all previous applications. The DA permit requires compensatory mitigation for the direct impacts to waters of the U.S., including wetlands.

State Certification and Conditions

The Department of Environmental Conservation (DEC) reviewed the application and certifies that there is reasonable assurance that the proposed activity, as well as any discharge which may result, will comply with applicable provisions of Section 401 of the CWA and the Alaska Water Quality Standards, 18 AAC 70, provided that the following additional measures are adhered to.

1. Reasonable precautions and controls must be used to prevent incidental and accidental discharge of petroleum products or other hazardous substances. Fuel storage and handling activities for equipment must be sited and conducted so there is no petroleum contamination of the ground, subsurface, or surface waterbodies.
2. During construction, spill response equipment and supplies such as sorbent pads shall be available and used immediately to contain and cleanup oil, fuel, hydraulic fluid, antifreeze, or other pollutant spills. Any spill amount must be reported in accordance with Discharge Notification and Reporting Requirements (AS 46.03.755 and 18 AAC 75 Article 3). The applicant must contact by telephone the DEC Area Response Team for Central Alaska at (907) 269-3063 during work hours or 1-800-478-9300 after hours. Also, the applicant must contact by telephone the National Response Center at 1-800-424-8802.

3. If the industrial activity of this project includes storm water discharges associated from mineral or metal mining, or open-cut gravel quarries, the permittee will need to obtain additional discharge coverage from an appropriate Alaska Pollutant Discharge Elimination System (APDES) permit. Further information in regards to the Multi-Sector General Permit (MSGP) authorization, please see <http://dec.alaska.gov/water/wastewater/stormwater/MultiSector.aspx> and/or contact William Ashton, 907-269-6283, William.Ashton@alaska.gov for more information. The applicant currently has received an APDES MSGP authorization (AKR06AA92) for storm water discharges.
4. All surface runoff from areas disturbed during the stripping of overburden or moving of existing overburden piles shall be diverted to existing mine cuts or stabilized areas, such as settling ponds, using berms, diversion channels, or brush barriers. Surface runoff containing sediment from disturbed areas shall not be discharged without treatment into any water body.
5. Construction equipment shall not be operated below the ordinary high water mark if equipment is leaking fuel, oil, hydraulic fluid, or any other hazardous material. Equipment shall be inspected and recorded in a log on a daily basis for leaks. If leaks are found, the equipment shall not be used and pulled from service until the leak is repaired.
6. For culverts that carry waters that are discharging or will discharge into fish-bearing waters, installation shall not occur within the flowing waters of the stream. Culvert installation techniques such as stream diversion, dam and pump, or stream fluming shall be incorporated into the installation activity to insure that silt laden water is not carried into sensitive fish habitat.
7. All work areas, material access routes, and surrounding wetlands involved in the construction project shall be clearly delineated and marked in such a way that equipment operators do not operate outside of the marked areas.
8. Excavated or fill material, including overburden, shall be placed so that it is stable, meaning after placement the material does not show signs of excessive erosion. Indicators of excess erosion include: gulying, head cutting, caving, block slippage, material sloughing, etc. The material must be contained with siltation best management practices (BMPs) to preclude reentry into any waters of the U.S., which includes wetlands.
9. If a BMP is not working properly (for instance, sediment runoff) corrective measures shall be implemented as soon as possible.
10. A minimum 50-foot wide, vegetated buffer zone should be maintained between a snow storage area and any surface water bodies. This distance could be decreased if adequate stormwater/sediment catchment basins, coarse gravel berms, or sediment traps/barriers/filters are built to reduce impacts on surface water bodies from snowmelt that may potentially run off from these sites.

11. Accumulated trash and debris need to be removed from the snow storage area in the spring as they become visible when the snow melts. This may need to be done several times over the course of the summer as the snow piles continue to melt. Wastes and litter that become uncovered as the snow melts need to be picked up before off-site migration of the waste becomes a problem.

DEC reserves the right to modify, amend, or revoke this certification if DEC determines that, due to changes in relevant circumstances – including without limitation, changes in project activities, the characteristics of the receiving water bodies, or state water quality standards (WQS) – there is no longer reasonable assurance of compliance with WQS or other appropriate requirements of state law.

This certification expires August 31, 2038. If your project is not completed by then and work under USACE Permit will continue, or for a modification of the USACE permit, you must submit an application for renewal of this certification at least 30 days before the expiration date or any deadline established by USACE for certification action on the modification, or 30 days before the proposed effective date of the modification, whichever is sooner.

Date: April 5, 2019



James Rypkema, Program Manager
Storm Water and Wetlands

ATTACHMENT 1
Project Summary for Donlin Gold, LLC, Donlin Gold Mine
POA-1995-120, Crooked Creek

Donlin Gold, LLC proposes the development of an open-pit, hard-rock gold mine in the Kuskokwim River watershed, 277 miles west of Anchorage, 145 miles northeast of Bethel, and 10 miles north of the community of Crooked Creek in the Kuskokwim watershed. There is no existing overland year-round access to the site or utility service to supply the mine.

The mine site is located at latitude 62.0179° N, longitude 158.1884°W, 277-miles west of Anchorage and 10-miles north of Crooked Creek village. The river port (Jungjuk) is located on the north bank of the Kuskokwim River approximately 9-river miles south of Crooked Creek village at 61.7952° N, 158.2142° W. The mine site airstrip is located approximately 15.5-miles northwest of Crooked Creek village at 62.0319°N, 158.2351°W. The natural gas pipeline would tie in near the community of Beluga at 61.2694° N, 150.9017°W.

The proposed Donlin Gold Project includes land leased from Calista Corporation (Calista), The Kuskokwim Corporation (TKC) and CIRI Inc. All three are Alaska Native Claims Settlement Act (ANCSA) regional corporations. The remainder of potentially affected lands (principally pipeline impacts) are owned primarily by the State of Alaska or U.S. Bureau of Land Management (BLM).

1 Request for Clean Water Act Section 401 Certification

Donlin Gold, LLC's request to the Department of Environmental Conservation (Department) for a Clean Water Act (CWA) §401 certificate references its application to the U.S. Army Corps of Engineers (USACE) for a CWA §404 permit and the *Donlin Gold Project Final Environmental Impact Statement* (FEIS)¹. The §404 application and the FEIS encompass the construction and operation of the Donlin Gold Project including the proposed mine site, transportation corridor, and pipeline. The USACE and BLM issued the *Donlin Gold Project Joint Record of Decision and Permit Evaluation* (JROD)² on August 13, 2018. Attachment B2 of the JROD is the *Evaluation of the Discharge of Dredge and Fill Material in Accordance with 404(B)(1) Guidelines (40 CFR Section 230, Subparts B through H)* and considers the construction and operation of the Donlin Gold Project in order to determine the least environmentally damaging practicable alternative.

Pursuant to Section 10 of the River Harbors Act of 1899 in the United States Code (U.S.C.) at 33 U.S.C. 403 and Section 404 of the CWA (33 U.S.C. 1344), the US Army Corps of Engineers (USACE) issued Department of Army Permit #POA-1995-120 (DA Permit) on August 13, 2018 to Donlin Gold, LLC for the discharge of fill material into waters of the U.S., including wetlands, and the construction of structures in and under navigable waters. The DA Permit authorized the proposed action, Alternative 2, which incorporates the North Route Pipeline

¹ All FEIS citations are to the version posted at <http://dnr.alaska.gov/mlw/mining/largemine/donlin/pdf/dgfeis.pdf>. Note that the pagination in the online version does not always match the pagination in the hard copy version.

² USACE BLM JROD, accessible at <http://dnr.alaska.gov/mlw/mining/largemine/donlin/pdf/dg-usace-blm-rod-2018-08-13.pdf>.

option as detailed in the FEIS. This alternative was determined to incorporate all practicable avoidance and minimization measures.³

2 Project Components and Fill Activities

Major project components include the proposed mine site, transportation corridor, and pipeline. See the FEIS for a detailed description of the project. The construction of all project components (mine site, transportation corridor, and pipeline) will result in the discharge of 4,368,300 cubic yards (cy) of fill material, permanently impacting 2,877 acres of wetland, 3 acres of fill below the ordinary high water mark (OHWM) of the Kuskokwim River, and 172,944 linear feet of stream, and temporarily impacting 538 acres of wetland and 53,346 linear feet of stream.

The project would have an average process throughput of 59,000 tons of ore per day, an estimated operational life of 27 years, and would produce approximately 30 million ounces of gold. Construction of the project would take three to four years. Final reclamation and closure activities will take six years post operations. Approximately 45 years post-reclamation (51 years post operations) the mine pit will fill and there will be need for treatment in perpetuity of the wastewater discharged from the mine pit.

The three major project components are summarized as follows:

2.1 Mine Site

The proposed mine site is located entirely within the Crooked Creek watershed of the Kuskokwim River. All proposed mine-related facilities are located in areas that drain to tributaries of Crooked Creek, including American, Anaconda, Lewis, and Queen creeks, and Omega and Snow gulches, all of which flow west into Crooked Creek. The mine site construction will result in the discharge of 2,943,005 cy of fill material, resulting in the permanent loss of 2,572 acres of wetland and 171,100 linear feet of stream. The primary project subcomponents of the mine site include Donlin-Jungjuk road (east of Crooked Creek), laydown areas, mine internal roads, north and south overburden stockpiles, open pit, Snow Gulch freshwater reservoir, tailings storage facility, treated water discharge facility, material sites and stockpiles, and waste rock facility.

2.2 Transportation Corridor

The transportation corridor construction will result in the discharge of 156,280 cy of material, resulting in the permanent impact to 105 acres of wetland, three acres below the OHWM of the Kuskokwim River, and 1,844 linear feet of stream. The primary project subcomponents of the transportation corridor include a port facility at Angyaruaq (Jungjuk), a 30-mile mine access road from the port (west of Crooked Creek), a 5,000 foot airstrip, airstrip spur road, material sites.

2.3 Pipeline

The pipeline construction will result in the discharge of 1,269,015 cy of material, resulting in the permanent loss of 200 acres of wetland and temporary impacts to 538 acres of wetland and 53,346 linear feet of stream. The pipeline component includes the construction of a 14-inch-

³ [JROD, 2-1](#)

diameter steel pipeline to transport natural gas approximately 316 miles from an existing 20-inch gas pipeline tie-in near Beluga, Alaska to the mine site power plant. Natural gas will be supplied to the pipeline from existing Cook Inlet infrastructure. The pipeline will require one compressor station at milepost 0.4. An associated fiber optic line will be installed in the right-of-way corridor parallel to the natural gas pipeline for operational needs and communications. The primary project subcomponents of the pipeline include access routes, airstrips, block valves, work camps, horizontal directional drill workspace, material sites, pipeline storage yards, pipeline, water extraction sites, and work pads.

3 Regulatory Plans

A detailed compensatory mitigation plan is part of the DA permit. Highlights include:

- Restore and preserve approximately 102-acres of wetlands and riparian areas with 8,501-linear feet (1.61-miles) of stream, and establish another 71- acres of riparian preservation buffers, in historic placer mining areas in the Upper Crooked Creek watershed (within the HUC-10 of the mine site).
- Preserve a total of 5,888-acres of important and productive habitat, of which it is estimated 2,558 acres are wetland and ponds, with an additional 3,330-acres of riparian areas, stream area, and buffers, and 228,325-linear feet (43.24-miles) of streams in the Chuitna watershed.