

ALASKA DEPARTMENT OF NATURAL RESOURCES

Water Resources Section

TO: Mike Walton, NRM II

DATE: April 9, 2019

FROM: Jenny March, NRS II

FILE NUMBER: LAS 31867 and LAS 31868
Hecla Greens Creek Mining Company

The subject water right case file has been reviewed for accuracy and conformance with statutes and regulations. The following comments, recommendations, or corrections are presented.

Project Description:

Hecla Greens Creek Mining Company (Applicant) proposes to withdraw and divert water for mining and milling uses as described below:

LAS 31867 – 920 Area Groundwater Seepage Collection System (920 AGSCS)

All water on the Greens Creek mine site that has come in contact with active mining areas must be collected and treated prior to being discharged through the outfall from the mine site. The Application for Water Rights is for the construction and use of the 920 AGSCS. The 920 Area Seepage Collection System includes mine dewatering, the Pond B curtain drain and Pond A below-liner drain, mill backslope drains, Site 23 finger drains, Pond D seeps, Site 23 curtain drain and Pond 23 below-liner drain, and the 1350 toe seep with production totaling up to 374 gallons per minute (gpm) for year-round use of a total daily volume of 538,560 gallons. The application area for LAS 31867 is located within Sections 4, 5, 8, and 9, T44S, R66E, CRM.

LAS 31868 – Tailings Facility Groundwater Collection System (TFGCS)

The TFGCS includes tailings underdrains consisting of East Ridge-North, Northwest/Pit 5, West Buttress, Southeast, Center, Pond 7 seepage return, and Pond 10 below liner return. This groundwater collection system is located within the Tributary Creek and Cannery Creek drainages. The Application for Water Rights includes production for the TFGCS averaging 42 gpm for year-round use of a total maximum daily volume of 60,480 gallons and an annual volume of 22 million gallons. The application area for LAS 31868 is located within the Greens Creek Mine Tailings Disposal Facility within Sections 22, 23, 26, and 27, T43S, R65E, CRM.

Public and Agency Notice:

- Agency notice dated: 12/10/2018. Updated Notice: 1/31/2019
- Deadline for agency comments: 12/27/2018. Updates Deadline: 2/15/2019
- ADF&G Habitat: No Comment.
- Alaska Department of Environmental Conservation: C. Palmer email 12/12/2018 asks applicant to adhere to DEC Recommendations for General Construction Projects.
- Public notice dated: 6/7/ 2018. Updated Notice: 1/31/2019
- Deadline for public comments: 6/22/2018. Updates Deadline: 2/14/2019
- No Public Comments Received.

Rights of a Prior Appropriator:

A search of the Department of Natural Resource's readily available databases was conducted to determine the presence of Applications for Water Rights, Reservations of Water, Permits to Appropriate, and/or Certificates of Appropriation. A land information search for Case Category 8 (water) within Township 44 South, Range 66 East, Copper River Meridian and Township 43 South, Range 65 East, Copper River Meridian revealed no Reservations of Water or active surface Water Rights other than those already held by the applicant. HGCMC currently holds Certificate ADL 43347 for the Cannery Creek Dam (17,000 gpd); Permits LAS 11807 for the Upper Greens Creek infiltration gallery (700 gpm), LAS 11808 for dewatering wells (10 gpm), LAS 30121 for diversion ditches (13 cfs), and LAS 30125 for the TSF interceptor system (650 gpm); and Application LAS 23150 for the Cannery Creek Dam (additional 86,400 gpd from same source as ADL 43347). Due to the lack of any other Water Rights in the area, it has been determined that issuing Water Right Permits to Appropriate Water LAS 31867 and LAS 31868 will not unduly affect the rights of any prior appropriators (including reservations of water), nor are there any applications for water rights or reservations of water in the area that require further consideration on account of such use (AS 46.15.080 (a)(1)).

Proposed means of diversion or construction:

The proposed means of construction are adequate (AS 46.15.080 (a)(2)). Adequate. Review of supplemental materials submitted by the applicant, including values and calculations used to support the application, are within accepted standards and valid from a hydrologic perspective. The applicant provided a detailed Project Description that describe the phases of construction and design methods to be implemented. For design parameters, the applicant provided supplemental information on the design details and flow modelling for the diversion design details.

Proposed use of water:

This proposed beneficial use of water is essential for the safe and successful operation of Greens Creek Mine (AS 46.15.080 (a)(3)). The water sources have been developed and water is beneficially used for tailings storage, mining and milling processes, and treatment for discharge. Water use is for groundwater collection systems to avoid mine contact water and remain in compliance with the Clean Water Act. The applicant's water use information in their Project Description for the 920 Seepage Collection System describes an average annual discharge volume of 197 million gallons (equivalent to an average of 538,560 gpd) for the LAS 31867 application. Application for Water Rights LAS 31868 requests 60,480 gpd (an annual volume of 22 million gallons) for the total daily production of groundwater from the tailings underdrains.

All information provided from the applicant in their Project Description also stated water use quantities in millions of gallons per year. Expressing the permitted amount in acre-feet per year (AFY) would allow the permit holder to accomplish the goal of keeping the clean surface runoff water away from the tailings disposal facility in all expected surface runoff conditions, not just when surface runoff is at or below average surface runoff rates. Water Resources determined to use the quantities provided by the applicant, but expressed instead as acre feet per year (AFY).

Proposed appropriation is in the public interest:

It is interpreted that the proposed use of water is in the public interest (AS 46.15.080 (a)(4)) and that this file contains no evidence of a likelihood of harm to the public interest.

1. *Benefit to the applicant resulting from the proposed appropriation.* Water use is for safe and successful mining operations at Greens Creek Mine.

2. *Effect of the economic activity resulting from the proposed appropriation.* The use of water is for the Greens Creek Mine, which provides beneficial infrastructure, industry, and employment to the local economies.
3. *Effect on fish and game resources and public recreation opportunities.* The water sources are groundwater seepage collection systems in which treated water is ultimately discharged to Hawk Inlet. The proposed water appropriations will have no effect on the resources of major rivers or lakes.
4. *Effect on public health.* Hecla Greens Creek operates two Department of Environmental Conservation (DEC) Public Water Systems, PWS Nos. 2119205 and 2113560, and holds DEC Individual Permit No. AK0043206 for wastewater discharge and DEC Waste Management Permit No. 2014DB0003. Therefore, it is determined that the proposed appropriation will have no effect on public health.
5. *Effect of loss of alternate uses of water that might be made within a reasonable time if not precluded or hindered by the proposed appropriation.* Mine dewatering is essential for the safety and operation of underground mining, and the groundwater collection system associated with the tailings facility is essential for the containment and treatment of mine contact water. For the foreseeable future, mine dewatering and groundwater collection is the most beneficial use of this water.
6. *Harm to other persons resulting from the proposed appropriation.* It is determined that there will be no undue harm to other persons resulting from the proposed appropriation based on evaluation of available data.
7. *Intent and ability of the applicant to complete the appropriation.*
The water systems are currently in operation within the Greens Creek Mine facilities.
8. *Effect upon access to navigable or public water.* This appropriation pertains to groundwater collection systems on a restricted-access mine site. Therefore, the appropriation will have no effect upon access to navigable or public water.

Determination:

DNR, Water Resources Section will issue Permits to Appropriate Water LAS 31867 for the 920 Area Groundwater Seepage Collection System and LAS 31868 for the Tailings Facility Groundwater Collection System with the standard conditions, including annual water use reporting requirements, each for a period of ten years.

Recommendation: Application for Water Right to Permit to Appropriate Water for both applications.

Concurrence Other : _____



Signature

January 9, 2020

Date

Michael Walton, Natural Resource Manager II

A person affected by this decision may appeal it, in accordance with 11 AAC 02. Any appeal must be received within 20 calendar days after the date of "issuance" of this decision, as defined in 11 AAC 02.040(c) and (d), and may be mailed or delivered to the Commissioner, Department of Natural Resources, 550 W. 7th Avenue, Suite 1400, Anchorage, Alaska, 99501; faxed to 907-269-8918, or sent by electronic mail to dnr.appeals@alaska.gov. If no appeal is filed by the appeal deadline, this decision becomes a final administrative order and decision of the department on the 31st calendar day after issuance. An eligible person must first appeal this decision in accordance with 11 AAC 02 before appealing this decision to Superior Court. A copy of 11 AAC 02 may be obtained from any regional information office of the Department of Natural Resources. Under 11 AAC 02.030, appeals and requests for reconsideration filed under 11 AAC 02 must be accompanied by the fee established in 11 AAC 05.160(d)(1)(F), which has been set at \$200 under the provisions of 11 AAC 05.160 (a) and (b).