



STATE OF
COLORADO

Eschberger - DNR, Amy <amy.eschberger@state.co.us>

M-1977-410 Cross Gold Mine, Response to Consideration of Permit Application

Vargas-Johnson - DNR, Javier <javier.vargasjohnson@state.co.us>

Thu, Feb 25, 2021 at 10:41 AM

To: Amy Eschberger - DNR <amy.eschberger@state.co.us>

Cc: Lauren Berrien - DNR <Lauren.Berrien@state.co.us>

Dear Ms. Eschberger,

Please see the attached letter for comments regarding the reclamation permit application for Cross Gold Mine, File No. M-1977-410-AM02. Please add the electronic file to your Laserfiche.

Thank you,

Javier Vargas-Johnson
Water Resources Engineer



COLORADO
Division of Water Resources
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M-1977-410 Cross Gold Mine.pdf

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Response to Consideration of 110(2) Hard Rock Reclamation Permit Amendment Application

DATE: February 25, 2021
TO: Amy Eschberger, Environmental Protection Specialist
FROM: Javier Vargas-Johnson
RE: Cross Gold Mine, Permit No. M-1977-410 -AM02
Applicant/Operator: Grand Island Resources, LLC
Phone Number: (720) 893-3749
Pt. NW ¼, Section 9, Twp. 1 South, Rng. 73 West, 6th P.M., Boulder County
Water Division 1, Water District 6

CONDITIONS FOR APPROVAL

- ☒ The operator will need to document that any water used at the site was obtained from a legal source or diverted in priority under a water right decreed for such mining/industrial use.
 - ☒ A dewatering system well permit must be obtained for the pumping and discharge of any groundwater at the site. If the groundwater is not returned to the stream system with efforts to ensure minimal consumption, an approved substitute water supply plan or decreed plan for augmentation will be required.
 - ☒ Unless the storm water detention structure(s) can meet the requirements of a “storm water detention and infiltration facility” as defined in section 37-92-602(8) of the Colorado Revised Statutes, the structure(s) may be subject to administration by this office.
 - ☒ An approved substitute water supply plan or decreed plan for augmentation is required to replace evaporative depletions from the exposed water surface area of the settling ponds.
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COMMENTS: The Cross Gold Mine (M-1977-410) is an underground mining operation located 3 miles west of Nederland. The Cross Gold Mine permit includes both the “Caribou Portal Idaho Tunnel” and the “Cross Mine Portal”. The primary commodities mined at the site are gold and silver. The application seeks to increase the approved permit area from 8.96 to 9.99 acres and to add additional independent parcels to the permit area, to add an internal property road between the Cross Gold Mine and the Consolidated Caribou Mine, and to add the newly included and created areas to the Mine Reclamation Plan for the site. No other changes to the mining operation are proposed.

The potable water supply is supplied by three existing wells with permit nos. 111953, 116655, and 111951. Permit no. 111953 was approved for use in drinking and sanitary facilities only at the Cross Mill Mining Site #20681-B. Permit nos. 116655 and 111951 were each approved for ordinary household purposes inside one (1) single family dwelling. Figure “Amendment 1 Permit Disturbance” only shows two wells on the site, the “Cross Well” and the “Caribou Well”. The Water Sampling and Analysis Plan states that the “Cabin Well” is no longer operational and states that the applicant will evaluate whether to keep or plug and abandon the well. Based on the location of each well, it appears that well permit no. 111953 is associated with the Cross Well, well permit no. 116655 is associated with the Caribou Well, and permit no. 111951 is associated with the Cabin Well. Based on the description of the use of the Caribou Well in



the Water Sampling and Analysis Plan as being used for washing, toilets, and showers associated with the mining operation, the applicant must submit an application to re-permit the well for commercial use.

The application states that no changes are proposed for the use of operational water. This office does not have information regarding the use of water at the site for operational purposes such as dust control, processing of mining materials, or other mining activities. If any water is used for operational purposes, the applicant will need to document that such water was obtained from a legal source or diverted in priority under a water right decreed for such mining/industrial use.

There are five settling ponds within the permit boundaries, Ponds 1, 2, 3A, 3B, and 3C. The mine currently manages discharges from both the Idaho Tunnel and Cross Mine directly into Coon Track Creek below Pond 2 under Colorado Department of Public Health and Environment (CDPHE) National Pollutant Discharge Elimination System Permit CO-0032751. Discharge from the Cross Mine reports directly to Pond 1 and is then directed to Pond 2. As part of Technical Revision #8, approved on November 10, 2020, the applicant proposed to discharge water from the Idaho Tunnel into Ponds 3A, 3B, and 3C, and then into Pond 2 during the rehabilitation of the Idaho Tunnel. At other times, discharge from the Idaho Tunnel does not require treatment and is sent directly to Pond 2. If the water discharged from the mines at any point is considered groundwater, rather than surface water intercepted by the mines, then the applicant will need to obtain a dewatering system well permit. **The applicant must obtain a valid substitute water plan or court-decreed plan for augmentation to replace evaporative depletions from the exposed surface area of the settling ponds.**

The applicant has engineered a stormwater retention area on the north-central portion of the mining operation. The retention area is connected to a culvert which can divert overflow back across the county road. The applicant will implement straw bale or wattle barriers or temporary channel diversions around waste stockpiles as needed to route stormwater based on forthcoming mining operations. The applicant has proposed to pump stormwater that enters the mine workings into the settling ponds prior to discharge to the creek. The settling ponds do not meet the definition of a "stormwater detention and infiltration facility" as defined in section 37-92-602(8), C.R.S., and are therefore subject to administration by this office. Evaporative depletions resulting from stormwater stored in the settling pond must be augmented pursuant to a substitute water supply plan or a court-decreed plan for augmentation.

The application states that Pond 1 will be removed as part of the reclamation of the site. The applicant has proposed to leave Pond 2 at the conclusion of the mining operation if requested by the landowner. The application does not state whether Ponds 3A, 3B, and 3C will be removed at the conclusion of the mining operation. After the conclusion of mining operations evaporative depletions from any ponds that are not removed must continue to be augmented pursuant to a valid substitute water supply plan or a court-decreed plan for augmentation.

The DRMS or the applicant may contact the State Engineer's Office with any questions.