

FACT SHEET

(Pursuant to Nevada Administrative Code (NAC) 445A.236)

Permittee Name: **Nevada Gold Mines LLC**

Project Name: **Grass Valley Infiltration Project**

Permit Number: **NEV2018107**

Review Type/Year/Revision: **Renewal 2024, Fact Sheet Revision 00**

A. Location and Description

The facility is located in Eureka and Lander Counties, within Sections 1, 12, and 13, Township 26 North (T26N), Range 47 East (R47E); Sections 6, 7, 17, 18, 19, and 20, T26N, R48E; and Section 31, T27N, R48E, Mount Diablo Baseline and Meridian, approximately 40 miles southeast of the town of Battle Mountain, Nevada. The facility is located on both private land controlled by the Permittee and public land administered by the U.S. Bureau of Land Management (BLM), Mount Lewis Field Office in Battle Mountain, Nevada. The site may be accessed by traveling approximately 40 miles west from Elko, or 30 miles east from Battle Mountain, on Interstate Highway 80, then 31 miles south on Nevada State Route 306, then 9 miles southeast on Lander County Road 222.

General Description: The Grass Valley Infiltration Project consists of infiltration of mine dewatering water at a maximum rate of 8,500 gallons per minute (gpm; equivalent to 12,240,000 gallons per day (gpd)) via rapid infiltration basins (RIBs) located in Grass Valley. The Grass Valley infiltration site contains four RIBs. The facilities is designed, constructed, operated, and closed without any discharge or release in excess of those standards established in regulation, except as authorized in the Permit and for meteorological events which exceed the 24-hour, 25-year design storm event.

The Permit was originally issued to Barrick Cortez Inc. a subsidiary of Barrick Gold Corporation for construction and operation of the Grass Valley Infiltration Project. In July 2019, Barrick Gold Corporation and Newmont Mining Corporation entered into a joint venture transferring the Permit to Nevada Gold Mines LLC, the current Permittee.

B. Synopsis

General: The Permittee mines gold ore from the Pipeline Project (Water Pollution Control Permit (WPCP) NEV0093109) and Cortez Hills deposit (WPCP NEV2007106) by open pit extraction methods, and conducts underground mining for the Cortez Hills deposit, all from elevations below the pre-mining groundwater table in the southern portion of Crescent Valley. Therefore, the operation requires a dewatering program to extract groundwater from within the excavations and from

the periphery of the open pit and underground workings in advance of mining. Dewatering water from the Cortez mining operation is infiltrated under this Permit, the Pipeline Infiltration Project (WPCP NEV0095111), and Pine Valley Infiltration Project (WPCP NEV2018109). The Grass Valley facility will consist of four RIBs, a booster pump station, surface pipelines, and associated infrastructure and apparatuses.

The facility is located in the northern portion of Grass Valley, on the southwest flank of the Cortez Mountains, between the elevations of 5,700 feet above mean sea level (amsl) and 5,980 feet amsl. The facility provides for return of the Cortez Hills Mine dewatering water to Grass Valley in order to compensate inter-basin transfers of groundwater out of the Grass Valley basin.

Infiltration System Design: The Project begins at the dewatering pipeline leading from the dewatering well DW-15 manifold at the western perimeter of the existing Cortez Hills open pit. The dewatering pipeline extends southward into Grass Valley and west of the Cortez hills Area 34 heap leach facility. South of the Grass Valley heap leach facility, the dewatering pipeline connects to the Cortez hills pump station before continuing towards the southeast and terminating at the Grass Valley Infiltration Basins approximately 2 miles south of the Cortez Hills open pit. The project is designed to infiltrate up to 8,500 gpm, the dewatering delivery pipeline system is designed to convey an addition of 4,300 gpm for a total of 12,800 gpm. The additional 4,300 gpm is conveyed to the future infiltration sites proposed in Pine Valley (WPCP NEV2018109).

The dewatering pipeline is approximately 26,000 feet in length and consists of a single 30-inch diameter high-density polyethylene (HDPE) pipe with a standard dimension ratio of 17 or a 30-inch diameter steel pipe. At road crossings, the pipe is inserted into a 36-inch diameter corrugated polyethylene pipe. The pipeline is constructed with various air/vacuum valves, expansion joints, butterfly joints, and pipe drains.

Cortez Hills Pump Station: The Cortez Hills Pump Station is located approximately 2.5 miles south of the DW-15 manifold. The station consists of three centrifugal split case pumps with the motor starters housed in an enclosed metal building. The pumps are mounted on a 2-foot thick concrete foundation base.

RIB Construction and Water Management: The RIBs are constructed on an alluvial fan. Each of the four Grass Valley RIBs are 200 feet wide and 1,000 feet long at the crest. Basins are designed to be 20 feet deep with 3 horizontal to 1 vertical inside slopes. An infiltration enhancement trench was constructed within the floor of each basin. These trenches are designed to be approximately 16 feet deep and 4 feet wide and are filled with pit-run aggregate material. The aggregate material shall be sized with 50-percent passing 1-inch and without fines passing a number 200-mesh screen.

Within the infiltration site, the dewatering water is distributed to each RIB through dedicated 14-inch diameter HDPE RIB inlet pipes equipped with butterfly valves,

which are used to manage flow amongst two or more RIBs. The RIB inlet pipe runs down the RIB side slope to the bottom of the basin, typically near one end of the RIB. The inlet pipeline terminates into a 3-foot thick by 10-foot square layer of riprap having a mass median diameter (D_{50}) of 9 inches. There are no totalizers or flow meters at individual RIBs as the flow is totalized at the Cortez Hills Pump Station.

The RIBs are constructed in pairs, one upgradient and one downgradient, typically 100 to 200 feet apart. The upgradient RIB has a 5-foot diameter basin overflow manhole located within the lower sideslope of the RIB. The manhole is constructed of precast concrete rings to a height of 7 feet above a concrete base set into the floor of the RIB. If water in the RIB reaches the top of the manhole, it will overflow through a trash screen and flow by gravity through a 16-inch diameter HDPE overflow pipe that discharges into the downgradient RIB. Each downgradient RIB, therefore, includes two inlet pipes: the overflow pipeline from the upgradient RIB, and the normal RIB inlet distribution pipe. Both inlets are constructed to the same design as the RIB inlet pipe termination structure described above. The spillway connects to a surface rip-rap apron downgradient of the RIB. The spillway is a minimum of 10 feet wide and 2 feet deep, with a 12-inch thick layer of riprap over a base layer of geotextile. The Permit prohibits surface discharges from RIBs; spillways are constructed for emergency use only.

Petroleum-Contaminated Soil Management: No PCS storage or disposal is approved for the facility. The Permittee is required to remove all PCS from the facility for provisional storage and disposal at the approved Pipeline Project waste rock dump (WPCP NEV0093109) in accordance with the approved PCS Management Plan and the Division Guidance for Mine-Site PCS Management Plans.

C. Receiving Water Characteristics

In the Project area, groundwater is localized in structural bedrock aquifers with no substantial water-bearing zones in the alluvium. Groundwater flow is controlled by the numerous north-south and east-west trending faults and fractures. Local bedrock has generally low hydraulic conductivity.

Groundwater depths range from 100 feet below ground surface (bgs) to 300 feet bgs. Receiving waters are located in the northern portion of Grass Valley (State of Nevada Hydrographic Basin #138). Grass Valley is closed topographically. The Toiyabe Range separates Grass Valley from the southernmost part of Crescent Valley (State Hydrographic Basin #54); the southern Cortez Mountains and northernmost section of the Simpson Park Range separate the northern part of Grass Valley from Pine Valley (State Hydrographic Basin #53) to the east.

Through hydraulic studies, the Permittee determined that dewatering activities for the Cortez Complex in Crescent Valley, is drawing small amounts of water from Grass Valley and Pine Valley. Baseline groundwater chemistry for Grass Valley is circum-neutral (pH). Baseline characteristics of several analyses periodically

exceed Division Profile I reference values (drinking water standards) in one or more locations for arsenic, iron, and manganese.

There are no surface waterways, springs, and seeps within a mile of the Project.

D. Procedures for Public Comment

The Notice of the Division's intent to issue a Permit authorizing the discharge, subject to the conditions within the Permit, is being published on the Division website: <https://www.ndep.nv.gov/posts/catgory/land>. The Notice is being mailed to interested persons on the Bureau of Mining Regulation and Reclamation mailing list. Anyone wishing to comment on the proposed Permit can do so in writing within a period of 30 days following the date the public notice is posted on the Division website. The comment period can be extended at the discretion of the Administrator. All written comments received during the comment period will be retained and considered in the final determination.

A public hearing on the proposed determination can be requested by the applicant, any affected State or intrastate agency, or any interested agency, person or group of persons. The request must be filed within the comment period and must indicate the interest of the person filing the request and the reasons why a hearing is warranted.

Any public hearing determined by the Administrator to be held must be conducted in the geographical area of the proposed discharge or any other area the Administrator determines to be appropriate. The public hearing must be conducted in accordance with Nevada Revised Statutes (NRS) Chapter 233B, unless waived by the applicant.

E. Proposed Determination

The Division has made the tentative determination to issue the renewed Permit.

F. Proposed Limitations, Schedule of Compliance, Monitoring, Special Conditions

See Section I of the Permit.

G. Rationale for Permit Requirements

The facility must not discharge a pollutant that would result in the degradation of existing or potential underground sources of drinking water, or that would cause an exceedance of an applicable surface water quality standard or regulation.

The primary methods for ensuring compliance will be required routine monitoring and reporting, augmented by Division site inspections. Specific monitoring requirements can be found in the Permit.

H. Federal Migratory Bird Treaty Act

Under the Federal Migratory Bird Treaty Act, 16 U.S. Code 701-718, it is unlawful to kill migratory birds without license or permit, and no permits are issued to take migratory birds using toxic ponds. The Federal list of migratory birds (50 Code of Federal Regulations 10, 15 April 1985) includes nearly every bird species found in the State of Nevada. The U.S. Fish and Wildlife Service (the Service) is authorized to enforce the prevention of migratory bird mortalities at ponds. Compliance with State permits may not be adequate to ensure protection of migratory birds for compliance with provisions of Federal statutes to protect wildlife.

Open waters attract migratory waterfowl and other avian species. High mortality rates of birds have resulted from contact with toxic ponds at operations utilizing toxic substances. The Service is aware of two approaches that are available to prevent migratory bird mortality: 1) physical isolation of toxic water bodies through barriers (e.g., by covering with netting), and 2) chemical detoxification. These approaches may be facilitated by minimizing the extent of the toxic water. Methods which attempt to make uncovered ponds unattractive to wildlife are not always effective. Contact the U.S. Fish and Wildlife Service at 1340 Financial Boulevard, Suite 234, Reno, Nevada 89502-7147, (775) 861-6300, for additional information.

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Date: 18 January 2024

Revision 00: Renewal