FACTSHEET
(pursuant to NAC 445A.236)

Permittee Name: NEVADA GOLD MINES LLC

1655 MOUNTAIN CITY HIGHWAY
ELKO, NV 89801

Permit Number: NV0022675

Permit Type: EXISTING MANUFACTURING, COMMERCIAL, MINING AND SILVICULTURAL DISCHARGE

Designation: MINOR NPDES

New/Existing: EXISTING

Location: BOULDER VALLEY WATER TREATMENT FACILITY, ELKO
27 MILES N OF CARLIN, CARLIN, NV 89822
LATITUDE: 40.946944, LONGITUDE: -116.444722
TOWNSHIP: ELKO, RANGE: 49E, SECTION: 33

Outfall / Well Num	Outfall / Well Name	Location Type	Well Log Num	Latitude	Longitude	Receiving Water
001	FACILITY OUTFALL TO LINED CANAL	External Outfall		40.9458	-116.4410	LINED CHANNEL
002	PIPELINE OUTFALL TO HUMBOLDT RIVER	Receiving Water - Ambient		40.704360	-116.5819	RIVER
003	HUMBOLDT RIVER, 3 METERS UPSTREAM OF CONFLUENCE WITH PIPELINE, AS NEAR AS POSSIBLE TO CENTROID OF RIVER FLOW	Receiving Water - Ambient		40.704250	-116.5817	RIVER
004	HUMBOLDT RIVER, 10 METERS DOWNSTREAM OF CONFLUENCE WITH PIPELINE, AS NEAR AS POSSIBLE TO CENTROID OF DISCHARGE FLOW	Receiving Water - Ambient		40.704210	-116.5821	RIVER
005	HUMBOLDT RIVER, 3 METERS UPSTREAM OF CONFLUENCE WITH ROCK CREEK, AS NEAR AS POSSIBLE TO CENTROID OF RIVER FLOW	Receiving Water - Ambient		40.647380	-116.9122	RIVER
006	HUMBOLDT RIVER, 10 METERS DOWNSTREAM OF CONFLUENCE WITH ROCK CREEK, AS NEAR AS POSSIBLE TO CENTROID OF DISCHARGE FLOW	Receiving Water - Ambient		40.647630	-116.9124	RIVER
007	LINED CANAL OUTFALL TO WHITEHOUSE DITCH	Receiving Water - Ambient		40.7214	-116.5714	DITCH
008	ROCK CREEK, 3 METERS UPSTREAM OF CONFLUENCE WITH WHITEHOUSE DITCH, AS NEAR AS POSSIBLE TO THE CENTROID OF FLOW	Receiving Water - Ambient		40.691830	-116.7349	CREEK
009	ROCK CREEK, 10 METERS DOWNSTREAM OF CONFLUENCE WITH WHITEHOUSE DITCH, AS NEAR AS POSSIBLE TO THE CENTROID OF DISCHARGE FLOW	Receiving Water - Ambient		40.691820	-116.7355	CREEK

Permit History/Description of Proposed Action

The Permittee, Nevada Gold Mines, LLC, has applied for renewal of National Pollutant Discharge Elimination System (NPDES) permit NV0022675 to discharge treated groundwater from the Boulder Valley Water Treatment Facility (hereinafter facility) to the Humboldt River via pipelines, lined canals, Whitehouse

Ditch, and Rock Creek.

The permit was first issued on July 10, 1999. The permit was last renewed on January 11, 2013, and expired on January 10, 2018, the permit has been administratively continued since. A minor modification was completed on January 22, 2021.

Facility Overview

The Permittee owns and operates a gold mining operation located in Eureka and Elko counties, NV. To ensure stability of open pit mine walls, to enable the development of underground mines, and to facilitate optimum recovery of the precious metals resources, the Permittee developed and implemented a groundwater management program and began pumping in 1990. Within the cone of depression created by the groundwater pumping, there are several gold deposits owned by the Permittee, as well as other mining companies. According to the Permittee, the NPDES discharge permit is expected to be adequate to manage surface water discharge rates associated with existing and presently anticipated mining development in the Little Boulder Basin area. If the Permittee plans to enter into an agreement to accept, treat, and discharge water produced by other mining companies, the Permittee must submit a revised application to the Division to allow for coverage of those discharges under a modified permit.

The dewatering water is used as makeup water for mining operations and processing, as well as irrigation water in Boulder Valley. Water discharged from the mine to the TS Ranch, located approximately 3.5 miles southwest of the TS Ranch Reservoir, for irrigation is separately regulated by the Division's Bureau of Mining Regulation and Reclamation (BMRR). In addition, excess water is permitted for infiltration and injection into the groundwater system in Boulder Valley, which is regulated under the Underground Injection Control (UIC) Permit No. UNEV93209. This permit, NV0022675, covers water pumped from the TS Ranch Dam coffer pond for treatment and discharge to surface waters only.

The facility is designed to treat up to 100.8 million gallons per day (MGD) of groundwater from pit mine operations, as a 30-day average, and up to 110 MGD as a daily maximum; however, there has been no discharge from the facility to the Humboldt River since February 1999.

An individual containment structure was constructed to contain 110 percent of the volume of the acid storage tank and the milk of lime slurry, manganese sulfate tank. The other chemicals used in the treatment process do not require secondary containment. The treatment site is graded and bermed to divert any spills to an unlined pond that is designed to contain 110 percent of the clarifier volume, the largest vessel, plus the contribution from the 25-year, 24-hour storm event. The clarifier sludge will be trucked to the processing area and used in the autoclave processing of sulfide ores.

Outfall Summary

Outfall 001 is for the discharge of treated groundwater to an unnamed pipeline, which flows to the Humboldt River via two discharge scenarios. Under one discharge scenario, discharges at Outfall 001 flow from the lined canal to an unnamed pipeline prior to discharge to the Humboldt River (Outfall 002). Under a second discharge scenario, discharges at Outfall 001 flow from the lined canal to Whitehouse Ditch (Outfall 007), Rock Creek, and ultimately the Humboldt River. Attachment B includes a flow schematic depicting the facility's two discharge scenarios.

Outfall 002 represents the outfall for discharges of treated groundwater from the unnamed pipeline to the Humboldt River.

Sample Location 003 is for monitoring the Humboldt River upstream of the unnamed pipeline.

Sample Location 004 is for monitoring the Humboldt River downstream of the unnamed pipeline.

Sample Location 005 is for monitoring the Humboldt River upstream of the confluence with Rock Creek.

Sample Location 006 is for monitoring the Humboldt River downstream of the confluence with Rock Creek.

Outfall 007 is for discharges of treated groundwater from the lined canal to Whitehouse Ditch.

Sample Location 008 is for monitoring Rock Creek upstream of the confluence with Whitehouse Ditch.

Sample Location 009 is for monitoring Rock Creek downstream of the confluence with Whitehouse Ditch.

Effluent Characterization
The groundwater associated with the discharge is carbonate saturated with associated calcium and magnesium hardness. Based on monitoring of the raw groundwater previously conducted by the Permittee; the quality of the raw groundwater does not meet the water quality standards (WQSs) applicable to the Humboldt River at Battle Mountain (NAC 445A.1442) for total dissolved solids, boron, fluoride, dissolved oxygen, and temperature. Therefore, to discharge, the Permittee treats the groundwater using precipitation, clarification/settling, and neutralization followed by cooling through cooling towers.

There has been no discharge from the facility since February 1999; therefore, no effluent data is available for the previous permit term.

Pollutants of Concern
Pollutants of concern are any pollutant or parameters that are believed to be present in the discharge and could affect or alter the physical, chemical, or biological conditions of the receiving water. Based on the quality of the raw groundwater, the nature of groundwater discharges from mining operations, and the WQSs applicable to the Humboldt River at Battle Mountain (NAC 445A.1442) and Rock Creek below Squaw Valley Ranch (NAC 445A.1522), pollutants of concern include ammonia, arsenic, boron, cadmium, chloride, copper, dissolved oxygen, fluoride, iron, lead, mercury, nitrogen (total), pH, phosphorus, sodium absorption ratio (SAR), temperature, total dissolved solids, total suspended solids (TSS), turbidity, and zinc. Monitoring and sampling for these parameters are required to determine compliance with the applicable effluent limitations and ensure protection of waters of the State.

Receiving Water
The receiving waters are the Humboldt River, Rock Creek, and Whitehouse Ditch.

The Humboldt River is approximately 330 miles long and the Humboldt River Basin, which contains Rock Creek and Whitehouse Ditch, is the largest basin that is entirely within one state, covering more than 16,000 square miles. The Humboldt River, Rock Creek, and Whitehouse Ditch in the vicinity of the discharge primarily serve agricultural purposes, and most of Nevada’s gold mines are located within this region. The Humboldt River historically contained Lahontan Cutthroat Trout (LCT); however, high temperatures and muddy conditions in the downstream portions of the river have confined LCT to the upper Humboldt River Basin.

Humboldt River water in the area of the discharge, from the Palisade Gage to the Battle Mountain Gage, is a calcium-bicarbonate type and the temperature of the river varies considerably based on the season and ambient air temperature. This segment of the Humboldt River generally meets the appropriate WQSs prescribed in NAC 445A.1442 except for exceedances of the standards for turbidity, total phosphorus, and TSS.

Applicable Water Quality Standards/Beneficial Uses
The WQSs for the nearest downstream control points, the Humboldt River at Battle Mountain (NAC 445A.1442) and Rock Creek below Squaw Valley Ranch (NAC 445A.1522), apply. WQSs for the Humboldt River at Battle Mountain and Rock Creek below Squaw Valley Ranch include beneficial uses for watering of livestock, irrigation, aquatic life, recreation involving contact with the water, recreation not involving contact with the water, municipal or domestic supply (or both), industrial supply, and propagation of wildlife.

Additional WQSs applicable to this receiving water include toxic materials (NAC 445A.1236). Furthermore, narrative WQSs applicable to all surface waters (NAC 445A.121) apply to the Humboldt River, Rock Creek,

and Whitehouse Ditch, and per NAC 445A.120, Whitehouse Ditch, which is a man-made waterway, must be protected for public health and the use for which the waterway was developed.

303 (d) Listing Status

Section 305(b) of the Clean Water Act (CWA) requires states to report on the overall condition of aquatic resources. Section 303(d) of the CWA requires states to develop lists of all impaired waterbodies and create a priority listing of waterbodies for which plans are needed to restore water quality. Combining requirements of these two sections produces the integrated report, which provides an overall assessment of the quality of surface water resources within the state. This report, required biennially by the U.S. Environmental Protection Agency (U.S. EPA), also describes the extent to which current conditions are protecting the designated beneficial uses of Nevada's surface waters. The Division's most recent integrated report is the Nevada 2020-2022 Water Quality Integrated Report (published February 2022).

According to Nevada's 2020-2022 Water Quality Integrated Report, the Humboldt River from Palisade to Battle Mountain does not support the beneficial uses of aquatic life, municipal or domestic supply, or recreation involving contact with the water. The Humboldt River from Palisade to Battle Mountain is listed as a Category 5 Water on the 2020-2022 303(d) List of Impaired Waters for beryllium and iron. Rock Creek below Squaw Valley Ranch is a Category 1 Water, attaining all designated uses. Whitehouse Ditch has not been assessed by the Division.

TMDL

Per section 303(d)(1)(C) of the Clean Water Act (CWA), states are required to develop Total Maximum Daily Loads (TMDLs) for parameters that do not meet WQSs for a waterbody. TMDLs are implemented during the permitting process by limiting the load of that parameter that may be discharged to the receiving water. TMDLs for total phosphorus and TSS are applicable to the Humboldt River from Palisades to Battle Mountain segment (NAC 445A.1442).

The existing TMDLs for TSS and total phosphorus applicable to the Humboldt River are included in Nevada's Non-designated Areas 208 Plan (1993). However, as described in Nevada's 2004 303(d) Impaired Waters List, the existing TMDLs oversimplify a complex situation and do little to characterize sources to the level needed for a meaningful implementation plan. The 2004 303(d) Impaired Waters List further states that additional work is needed to better identify sources in terms of their contributions and locations.

Waste Load Allocation

The existing TMDL for total phosphorus and TSS does not define any waste load allocations for point source discharges.

Compliance History

There has been no discharge from the facility since February 1999; therefore, no effluent data is available to evaluate compliance over the previous permit term.

Proposed Effluent Limitations

The discharge shall be limited and monitored by the Permittee as specified below:

Discharge Limitations Table for Sample Location 001 (External Outfall) To Be Reported Monthly

Discharge Limitations				Monitoring Requirements			
Parameter	**Base**	**Quantity**	**Concentration**	**Monitoring Loc**	**Sample Loc**	**Measurement Frequency**	**Sample Type**
Flow rate[1]	Daily Maximum	<= 110 Million Gallons per Day (Mgal/d)		Effluent Gross	001	Continuous	METER
Flow rate[1]	30 Day Average	<= 100.8 Million Gallons per Day (Mgal/d)		Effluent Gross	001	Continuous	METER
pH, maximum[2]	Daily Maximum		<= 8.6 Standard Units (SU)	Effluent Gross	001	Monthly When Discharging	DISCRT
pH, minimum[2]	Daily Minimum		>= 7.0 Standard Units (SU)	Effluent Gross	001	Monthly When Discharging	DISCRT
pH, maximum[2]	Maximum 30 Day Average		<= 8.4 Standard Units (SU)	Effluent Gross	001	Monthly When Discharging	DISCRT
pH, minimum[2]	Monthly Average Minimum		>= 7.0 Standard Units (SU)	Effluent Gross	001	Monthly When Discharging	DISCRT
Arsenic, total recoverable	Daily Maximum		<= 50 Micrograms per Liter (ug/L)	Effluent Gross	001	Weekly When Discharging[3]	DISCRT
Arsenic, total recoverable	30 Day Average		<= 50 Micrograms per Liter (ug/L)	Effluent Gross	001	Weekly When Discharging[3]	DISCRT
Boron, total recoverable	Daily Maximum		<= 750 Micrograms per Liter (ug/L)	Effluent Gross	001	Weekly When Discharging[3]	DISCRT
Boron, total recoverable	30 Day Average		<= 750 Micrograms per Liter (ug/L)	Effluent Gross	001	Weekly When Discharging[3]	DISCRT
Cadmium, total recoverable	Daily Maximum		<= 1.2 Micrograms per Liter (ug/L)	Effluent Gross	001	Weekly When Discharging[3]	DISCRT
Cadmium, total recoverable	30 Day Average		<= 1.2 Micrograms per Liter (ug/L)	Effluent Gross	001	Weekly When Discharging[3]	DISCRT

Discharge Limitations Table for Sample Location 001 (External Outfall) To Be Reported Monthly

Discharge Limitations				Monitoring Requirements			
Parameter	**Base**	**Quantity**	**Concentration**	**Monitoring Loc**	**Sample Loc**	**Measurement Frequency**	**Sample Type**
Chloride (as Cl)	Daily Maximum		<= 70 Micrograms per Liter (ug/L)	Effluent Gross	001	Monthly When Discharging	DISCRT
Chloride (as Cl)	30 Day Average		<= 50 Micrograms per Liter (ug/L)	Effluent Gross	001	Monthly When Discharging	DISCRT
Color, apparent (unfiltered sample)	Daily Maximum		<= 75 Color - Platinum Cobalt Unit (col unit (pc))	Effluent Gross	001	Monthly When Discharging	DISCRT
Copper, total recoverable	Daily Maximum		<= 14 Micrograms per Liter (ug/L)	Effluent Gross	001	Weekly When Discharging[3]	DISCRT
Copper, total recoverable	30 Day Average		<= 14 Micrograms per Liter (ug/L)	Effluent Gross	001	Weekly When Discharging[3]	DISCRT
Fluoride, total (as F)[4]	Daily Maximum		<= 1000 Micrograms per Liter (ug/L)	Effluent Gross	001	Weekly When Discharging[3]	DISCRT
Fluoride, total (as F)[4]	30 Day Average		<= 1000 Micrograms per Liter (ug/L)	Effluent Gross	001	Weekly When Discharging[3]	DISCRT
Iron, total recoverable	Daily Maximum		<= 1000 Micrograms per Liter (ug/L)	Effluent Gross	001	Weekly When Discharging[3]	DISCRT
Iron, total recoverable	30 Day Average		<= 1000 Micrograms per Liter (ug/L)	Effluent Gross	001	Weekly When Discharging[3]	DISCRT
Lead, total recoverable	Daily Maximum		<= 5.9 Micrograms per Liter (ug/L)	Effluent Gross	001	Weekly When Discharging[3]	DISCRT
Lead, total recoverable	30 Day Average		<= 5.9 Micrograms per Liter (ug/L)	Effluent Gross	001	Weekly When Discharging[3]	DISCRT
			<= 0.77				

Discharge Limitations Table for Sample Location 001 (External Outfall) To Be Reported Monthly

Discharge Limitations				Monitoring Requirements			
Parameter	**Base**	**Quantity**	**Concentration**	**Monitoring Loc**	**Sample Loc**	**Measurement Frequency**	**Sample Type**
Mercury, total recoverable	Daily Maximum		Micrograms per Liter (ug/L)	Effluent Gross	001	Weekly When Discharging[3]	DISCRT
Mercury, total recoverable	30 Day Average		<= 0.77 Micrograms per Liter (ug/L)	Effluent Gross	001	Weekly When Discharging[3]	DISCRT
Nitrogen, ammonia total (as N)[2]	Daily Maximum		<= 0.32 Milligrams per Liter (mg/L)	Effluent Gross	001	Monthly When Discharging	DISCRT
Nitrogen, ammonia total (as N)[2]	30 Day Average		<= 0.32 Milligrams per Liter (mg/L)	Effluent Gross	001	Monthly When Discharging	DISCRT
Nitrogen, nitrite total (as N)	Daily Maximum		<= 1.0 Milligrams per Liter (mg/L)	Effluent Gross	001	Monthly When Discharging	DISCRT
Nitrogen, nitrite total (as N)	30 Day Average		<= 1.0 Milligrams per Liter (mg/L)	Effluent Gross	001	Monthly When Discharging	DISCRT
Nitrogen, total	Daily Maximum[5]		<= 4.0 Milligrams per Liter (mg/L)	Effluent Gross	001	Monthly When Discharging	DISCRT
Nitrogen, total	30 Day Average		<= 1.9 Milligrams per Liter (mg/L)	Effluent Gross	001	Monthly When Discharging	DISCRT
Phosphorus, total (as P)	Daily Maximum[6]		<= 0.33 Milligrams per Liter (mg/L)	Effluent Gross	001	Weekly When Discharging[3]	DISCRT
Phosphorus, total (as P)	30 Day Average[7]		<= 0.10 Milligrams per Liter (mg/L)	Effluent Gross	001	Weekly When Discharging[3]	DISCRT
Solids, total dissolved	Daily Maximum[8]		<= 520 Milligrams per Liter (mg/L)	Effluent Gross	001	Monthly When Discharging	DISCRT
Solids, total dissolved	30 Day Average		<= 425 Milligrams per Liter (mg/L)	Effluent Gross	001	Monthly When Discharging	DISCRT
Solids, total suspended	Daily Maximum		<= 30 Milligrams per Liter (mg/L)	Effluent Gross	001	Monthly When Discharging	DISCRT
Solids, total suspended	30 Day Average		<= 20 Milligrams per Liter (mg/L)	Effluent Gross	001	Monthly When Discharging	DISCRT

Discharge Limitations Table for Sample Location 001 (External Outfall) To Be Reported Monthly

Discharge Limitations				Monitoring Requirements			
Parameter	**Base**	**Quantity**	**Concentration**	**Monitoring Loc**	**Sample Loc**	**Measurement Frequency**	**Sample Type**
Temperature, water deg. centigrade[2]	Daily Maximum		M&R Degrees Centigrade (deg C)	Effluent Gross	001	Monthly When Discharging	INSTAN
Turbidity	Daily Maximum		<= 50 Nephelometric Turbidity Units (NTU)	Effluent Gross	001	Monthly When Discharging	DISCRT
Zinc, total recoverable	Daily Maximum		<= 180 Micrograms per Liter (ug/L)	Effluent Gross	001	Weekly When Discharging[3]	DISCRT
Zinc, total recoverable	30 Day Average		<= 180 Micrograms per Liter (ug/L)	Effluent Gross	001	Weekly When Discharging[3]	DISCRT

Notes (Discharge Limitations Table):

1. If flow is directed to Whitehouse Ditch in the future, the discharge rate to Whitehouse Ditch will be limited to 50.8 MGD, as a daily maximum.
2. Monitoring for pH and temperature in the effluent (Sample Location 001) and receiving water (Sample Location 003) must be conducted concurrently with effluent monitoring for ammonia. If flow is directed to Whitehouse Ditch in the future, monitoring for pH and temperature in the effluent and receiving water must be conducted at Sample Location 001 and Sample Location 008, respectively, concurrently with effluent monitoring for ammonia.
3. Monitoring frequency may be reduced to monthly by the Division after one year of weekly monitoring with no exceedances of the discharge limitations. Monitoring frequency shall revert to weekly with a change in the source of the dewatering water as determined by the reporting required by Part I.A.3.
4. Analyze as total recoverable.
5. The daily maximum total nitrogen limit is based on a seasonal average and apply from April through November only.
6. This total phosphorus limit only applies when flow is directed to Whitehouse Ditch.
7. This total phosphorus limit is based on a seasonal average and applies from April through November only. This total phosphorus limit does not apply from December through March.
8. If flow is directed to Whitehouse Ditch in the future, the discharge of total dissolved solids to Whitehouse Ditch shall be limited to 500 mg/L, as a daily maximum.

Discharge Limitations Table for Sample Location 001 (External Outfall) To Be Reported Quarterly

Discharge Limitations				Monitoring Requirements			
Parameter	**Base**	**Quantity**	**Concentration**	**Monitoring Loc**	**Sample Loc**	**Measurement Frequency**	**Sample Type**
Sodium adsorption ratio	Quarterly Average		<= 8 Ratio (Ratio)	Effluent Gross	001	Quarterly	DISCRT

Discharge Limitations Table for Sample Location 001 (External Outfall) To Be Reported Annually

Discharge Limitations				Monitoring Requirements			
Parameter	**Base**	**Quantity**	**Concentration**	**Monitoring Loc**	**Sample Loc**	**Measurement Frequency**	**Sample Type**
Antimony, total (as Sb)	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	001	Annual	DISCRT
Barium, total (as Ba)	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	001	Annual	DISCRT
Beryllium, total recoverable (as Be)	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	001	Annual	DISCRT
Chromium, total recoverable	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	001	Annual	DISCRT
Chromium, Hexavalent [As CR] (Chromium (VI))	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	001	Annual	DISCRT
Chromium, Trivalent [As CR] (Chromium (III))	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	001	Annual	DISCRT
Cyanide, total (as CN)	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	001	Annual	DISCRT
Manganese, total recoverable	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	001	Annual	DISCRT
Molybdenum, total recoverable	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	001	Annual	DISCRT
Nickel, total recoverable	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	001	Annual	DISCRT
Selenium, dissolved [as Se]	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	001	Annual	DISCRT
			M&R				

Discharge Limitations Table for Sample Location 001 (External Outfall) To Be Reported Annually

Discharge Limitations				Monitoring Requirements			
Parameter	**Base**	**Quantity**	**Concentration**	**Monitoring Loc**	**Sample Loc**	**Measurement Frequency**	**Sample Type**
Silver total recoverable	Daily Maximum		Micrograms per Liter (ug/L)	Effluent Gross	001	Annual	DISCRT
Sulfide, total (as S)	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	001	Annual	DISCRT
Thallium, total (as Tl)	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	001	Annual	DISCRT
Acrolein	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	001	Annual	DISCRT
Aldrin	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	001	Annual	DISCRT
.alpha.-Endosulfan	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	001	Annual	DISCRT
.beta.-Endosulfan	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	001	Annual	DISCRT
Benzene	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	001	Annual	DISCRT
Bis(2-chloroethyl) ether	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	001	Annual	DISCRT
Chlordane (tech mix. and metabolites)	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	001	Annual	DISCRT
Vinyl Chloride (Chloroethylene (Vinyl))	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	001	Annual	DISCRT
Chlorpyrifos	Daily Maximum		M&R Micrograms per Liter	Effluent Gross	001	Annual	DISCRT

Discharge Limitations Table for Sample Location 001 (External Outfall) To Be Reported Annually

Discharge Limitations				Monitoring Requirements			
Parameter	**Base**	**Quantity**	**Concentration**	**Monitoring Loc**	**Sample Loc**	**Measurement Frequency**	**Sample Type**
			(ug/L)				
2,4-Dichlorophenoxyacetic Acid (2 4-D)	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	001	Annual	DISCRT
DDT	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	001	Annual	DISCRT
4,4-DDT	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	001	Annual	DISCRT
Demeton	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	001	Annual	DISCRT
Diazinon	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	001	Annual	DISCRT
Dibutyl phthalate	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	001	Annual	DISCRT
1,3-Dichlorobenzene (M-Dichlorobenzene)	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	001	Annual	DISCRT
1,2-Dichlorobenzene (O-Dichlorobenzene)	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	001	Annual	DISCRT
1,4-Dichlorobenzene (P-Dichlorobenzene)	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	001	Annual	DISCRT
1,2-Dichloroethane	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	001	Annual	DISCRT
1,1-Dichloroethylene	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	001	Annual	DISCRT
			M&R				

Discharge Limitations Table for Sample Location 001 (External Outfall) To Be Reported Annually

Discharge Limitations				Monitoring Requirements			
Parameter	**Base**	**Quantity**	**Concentration**	**Monitoring Loc**	**Sample Loc**	**Measurement Frequency**	**Sample Type**
2,4-Dichlorophenol	Daily Maximum		Micrograms per Liter (ug/L)	Effluent Gross	001	Annual	DISCRT
1,1-Dichloropropene (Dichloropropenes)	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	001	Annual	DISCRT
1,3-Dichloropropene (Dichloropropenes)	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	001	Annual	DISCRT
Dieldrin	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	001	Annual	DISCRT
Di-2-ethylhexyl phthalate	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	001	Annual	DISCRT
Diethyl phthalate	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	001	Annual	DISCRT
Dimethyl phthalate	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	001	Annual	DISCRT
2-Methyl-4,6-Dinitrophenol (4,6-Dinitro-2-Methylphenol)	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	001	Annual	DISCRT
2,4-Dinitrophenol (Dinitrophenols)	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	001	Annual	DISCRT
Endosulfan, total	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	001	Annual	DISCRT
Endrin	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	001	Annual	DISCRT
Ethylbenzene	Daily Maximum		M&R Micrograms per Liter	Effluent Gross	001	Annual	DISCRT

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Discharge Limitations				Monitoring Requirements			
Parameter	**Base**	**Quantity**	**Concentration**	**Monitoring Loc**	**Sample Loc**	**Measurement Frequency**	**Sample Type**
			(ug/L)				
Fluoranthene (Fluoranthene (Polynuclear Aromatic Hydrocarbon))	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	001	Annual	DISCRT
Azinphos-Methyl (Guthion)	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	001	Annual	DISCRT
Heptachlor	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	001	Annual	DISCRT
Heptachlor epoxide	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	001	Annual	DISCRT
Hexachlorocyclopentadiene	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	001	Annual	DISCRT
Isophorone	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	001	Annual	DISCRT
Lindane	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	001	Annual	DISCRT
Malathion	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	001	Annual	DISCRT
Methoxychlor	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	001	Annual	DISCRT
Mirex	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	001	Annual	DISCRT
Monochlorobenzenes	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	001	Annual	DISCRT
			M&R				

Discharge Limitations Table for Sample Location 001 (External Outfall) To Be Reported Annually

Discharge Limitations				Monitoring Requirements			
Parameter	**Base**	**Quantity**	**Concentration**	**Monitoring Loc**	**Sample Loc**	**Measurement Frequency**	**Sample Type**
Nitrobenzene	Daily Maximum		Micrograms per Liter (ug/L)	Effluent Gross	001	Annual	DISCRT
Nonylphenol	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	001	Annual	DISCRT
Parathion	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	001	Annual	DISCRT
Pentachlorophenol	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	001	Annual	DISCRT
Phenol	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	001	Annual	DISCRT
Polychlorinated biphenyls (PCBs)	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	001	Annual	DISCRT
Silvex	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	001	Annual	DISCRT
2,4,5-TP(silvex) acids/salts, whole water sample	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	001	Annual	DISCRT
Carbon Tetrachloride (Tetrachloromethane (Carbon Tetrachloride))	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	001	Annual	DISCRT
Toluene	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	001	Annual	DISCRT
Toxaphene	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	001	Annual	DISCRT
Tributyltin	Daily Maximum		M&R Micrograms per Liter	Effluent Gross	001	Annual	DISCRT

Discharge Limitations Table for Sample Location 001 (External Outfall) To Be Reported Annually

Discharge Limitations				Monitoring Requirements			
Parameter	**Base**	**Quantity**	**Concentration**	**Monitoring Loc**	**Sample Loc**	**Measurement Frequency**	**Sample Type**
			(ug/L)				
1,1,1-Trichloroethane	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	001	Annual	DISCRT
Trichloroethylene	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	001	Annual	DISCRT
Trihalomethane, tot.	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	001	Annual	DISCRT
Hydrocarbons, total petroleum	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Annual	DISCRT
Sulfate (as S)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Annual	DISCRT
Alkalinity, bicarbonate (as CaCO3)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Annual	DISCRT
E. coli	Daily Maximum		M&R Colony Forming Units per 100ml T (CFU/100mL)	Effluent Gross	001	Annual	DISCRT
Coliform, fecal general	Daily Maximum		M&R Number per 100 Milliliters T (#/100mL)	Effluent Gross	001	Annual	DISCRT

Discharge Limitations Table for Sample Location 002 (Receiving Water - Ambient) To Be Reported Monthly

Discharge Limitations				Monitoring Requirements			
Parameter	**Base**	**Quantity**	**Concentration**	**Monitoring Loc**	**Sample Loc**	**Measurement Frequency**	**Sample Type**
Oxygen, dissolved (DO)	Weekly Minimum		>= 5.0 Milligrams per Liter (mg/L)	Effluent Gross	002	Weekly When Discharging	DISCRT

Discharge Limitations Table for Sample Location 003 (Receiving Water - Ambient) To Be Reported Monthly

Discharge Limitations				Monitoring Requirements			
Parameter	**Base**	**Quantity**	**Concentration**	**Monitoring Loc**	**Sample Loc**	**Measurement Frequency**	**Sample Type**
Color, apparent (unfiltered sample)	Maximum		M&R Color - Platinum Cobalt Unit (col unit (pc))	Upstream Monitoring	003	Monthly When Discharging[1]	DISCRT
Temperature, water deg. centigrade	Maximum		M&R Degrees Centigrade (deg C)	Upstream Monitoring	003	Monthly When Discharging[2]	INSTAN

Notes (Discharge Limitations Table):

1. Monitoring required only when discharge occurs from unnamed pipeline to Humboldt River. The Permittee shall compare upstream color results collected at Sample Location 003 with the downstream color results recorded at Sample Location 004 to determine compliance with the color difference limitation applicable to the Humboldt River included in the discharge limitations table for Sample Location 004.
2. Monitoring required only when discharge occurs from unnamed pipeline to Humboldt River. The Permittee shall compare upstream temperature results collected at Sample Location 003 with the downstream temperature results recorded at Sample Location 004 to determine compliance with the temperature difference limitation applicable to the Humboldt River included in the discharge limitations table for Sample Location 004.

Discharge Limitations Table for Sample Location 003 (Receiving Water - Ambient) To Be Reported Annually

Discharge Limitations				Monitoring Requirements			
Parameter	**Base**	**Quantity**	**Concentration**	**Monitoring Loc**	**Sample Loc**	**Measurement Frequency**	**Sample Type**
Hardness, total (as CaCO3)	Annual Average		M&R Milligrams per Liter (mg/L)	Upstream Monitoring	003	Annual	DISCRT

Discharge Limitations Table for Sample Location 004 (Receiving Water - Ambient) To Be Reported Monthly

Discharge Limitations				Monitoring Requirements			
Parameter	**Base**	**Quantity**	**Concentration**	**Monitoring Loc**	**Sample Loc**	**Measurement Frequency**	**Sample Type**
Color, apparent (unfiltered sample)	Maximum		M&R Color - Platinum Cobalt Unit (col unit (pc))	Downstream Monitoring	004	Monthly When Discharging[1]	DISCRT
Color, apparent (unfiltered sample)	Maximum Value		<= 10 Color - Platinum Cobalt Unit (col unit (pc))	Downstream Monitoring	004	Monthly When Discharging[1]	DISCRT
Temperature, water deg. centigrade	Maximum		M&R Degrees Centigrade (deg C)	Downstream Monitoring	004	Monthly When Discharging[2]	INSTAN
Temp. diff. between samp. & upstrm deg. C	Maximum Value		<= 2.0 Degrees Centigrade (deg C)	Downstream Monitoring	004	Monthly When Discharging[2]	CALCTD

Notes (Discharge Limitations Table):

1. Monitoring required only when discharge occurs from unnamed pipeline to Humboldt River. The Permittee shall compare upstream color results collected at Sample Location 003 with the downstream color results recorded at Sample Location 004 to determine compliance with the color difference limitation of 10 PCU above natural conditions applicable to the Humboldt River.
2. Monitoring required only when discharge occurs from unnamed pipeline to Humboldt River. The Permittee shall compare upstream temperature results collected at Sample Location 003 with the downstream temperature results recorded at Sample Location 004 to determine compliance with the temperature difference limitation of 2.0 degrees Celsius above natural conditions applicable to the Humboldt River.

Discharge Limitations Table for Sample Location 005 (Receiving Water - Ambient) To Be Reported Monthly

Discharge Limitations				Monitoring Requirements			
Parameter	**Base**	**Quantity**	**Concentration**	**Monitoring Loc**	**Sample Loc**	**Measurement Frequency**	**Sample Type**
Color, apparent (unfiltered sample)	Maximum		M&R Color - Platinum Cobalt Unit (col unit (pc))	Upstream Monitoring	005	Monthly When Discharging[1]	DISCRT
Temperature, water deg. centigrade	Maximum		M&R Degrees Centigrade (deg C)	Upstream Monitoring	005	Monthly When Discharging[2]	INSTAN

Notes (Discharge Limitations Table):

1. Monitoring required only when discharge is directed to Whitehouse Ditch. The Permittee shall compare upstream color results collected at Sample Location 005 with the downstream color results recorded at Sample Location 006 to determine compliance with the color difference limitation applicable to the Humboldt River included in the discharge limitations table for Sample Location 006.
2. Monitoring required only when discharge is directed to Whitehouse Ditch. The Permittee shall compare upstream temperature results collected at Sample Location 005 with the downstream temperature results recorded at Sample Location 006 to determine compliance with the temperature difference limitation applicable to the Humboldt River included in the discharge limitations table for Sample Location 006.

Discharge Limitations Table for Sample Location 006 (Receiving Water - Ambient) To Be Reported Monthly

Discharge Limitations				Monitoring Requirements			
Parameter	**Base**	**Quantity**	**Concentration**	**Monitoring Loc**	**Sample Loc**	**Measurement Frequency**	**Sample Type**
Color, apparent (unfiltered sample)	Maximum		M&R Color - Platinum Cobalt Unit (col unit (pc))	Downstream Monitoring	006	Monthly When Discharging[1]	DISCRT
Color, apparent (unfiltered sample)	Maximum Value		<= 10 Color - Platinum Cobalt Unit (col unit (pc))	Downstream Monitoring	006	Monthly When Discharging[1]	DISCRT
Temperature, water deg. centigrade	Maximum		M&R Degrees Centigrade (deg C)	Downstream Monitoring	006	Monthly When Discharging[2]	INSTAN
Temp. diff. between samp. & upstrm deg. C	Maximum Value		<= 2.0 Degrees Centigrade (deg C)	Downstream Monitoring	006	Monthly When Discharging[2]	CALCTD

Notes (Discharge Limitations Table):

1. Monitoring required only when discharge is directed to Whitehouse Ditch. The Permittee shall compare upstream color results collected at Sample Location 005 with the downstream color results recorded at Sample Location 006 to determine compliance with the color difference limitation of 10 PCU above natural conditions applicable to the Humboldt River.
2. Monitoring required only when discharge is directed to Whitehouse Ditch. The Permittee shall compare upstream temperature results collected at Sample Location 005 with the downstream temperature results recorded at Sample Location 006 to determine compliance with the temperature difference limitation of 2.0 degrees Celsius above natural conditions applicable to the Humboldt River.

Discharge Limitations Table for Sample Location 007 (Receiving Water - Ambient) To Be Reported Monthly

Discharge Limitations				Monitoring Requirements			
Parameter	**Base**	**Quantity**	**Concentration**	**Monitoring Loc**	**Sample Loc**	**Measurement Frequency**	**Sample Type**
Oxygen, dissolved (DO)	Weekly Minimum		>= 5.0 Milligrams per Liter (mg/L)	Effluent Gross	007	Weekly When Discharging	DISCRT

Discharge Limitations Table for Sample Location 008 (Receiving Water - Ambient) To Be Reported Monthly

Discharge Limitations				Monitoring Requirements			
Parameter	**Base**	**Quantity**	**Concentration**	**Monitoring Loc**	**Sample Loc**	**Measurement Frequency**	**Sample Type**
Temperature, water deg. centigrade	Maximum		M&R Degrees Centigrade (deg C)	Upstream Monitoring	008	Monthly When Discharging[1]	INSTAN

Notes (Discharge Limitations Table):

1. Monitoring required only when discharge is directed to Whitehouse Ditch. The Permittee shall compare upstream temperature results collected at Sample Location 008 with the downstream temperature results recorded at Sample Location 009 to determine compliance with the temperature difference limitation applicable to Rock Creek included in the discharge limitations table for Sample Location 009.

Discharge Limitations Table for Sample Location 009 (Receiving Water - Ambient) To Be Reported Monthly

Discharge Limitations				Monitoring Requirements			
Parameter	**Base**	**Quantity**	**Concentration**	**Monitoring Loc**	**Sample Loc**	**Measurement Frequency**	**Sample Type**
Temperature, water deg. centigrade	Maximum[1]		M&R Degrees Centigrade (deg C)	Downstream Monitoring	009	Monthly When Discharging[2]	INSTAN
Temp. diff. between samp. & upstrm deg. C	Maximum Value[1]		<= 3.0 Degrees Centigrade (deg C)	Downstream Monitoring	009	Monthly When Discharging[2]	CALCTD

Notes (Discharge Limitations Table):

1. When there is no flow in Rock Creek upstream of the confluence with Whitehouse Ditch, the discharge temperature from Whitehouse Ditch shall be ≤ 34 °C. When there is flow in Rock Creek, Whitehouse Ditch absolute temperature is M&R, but the temperature recorded at Sample Location 009 shall be no more than 3 °C greater than the Rock Creek water temperature recorded at Sample Location 008.
2. Monitoring required only when discharge is directed to Whitehouse Ditch. The Permittee shall compare upstream temperature results collected at Sample Location 008 with the downstream temperature results recorded at Sample Location 009 to determine compliance with the temperature difference limitation applicable to Rock Creek.

Summary of Changes From Previous Permit

The proposed permit updates the location name for Outfall 001. As shown in Attachment B, Outfall 001 is representative of the discharge from the facility to the lined canal.

The proposed permit updates the location of Outfall 007 to the point at which the facility's effluent enters Whitehouse Ditch.

The proposed permit includes 30-day average effluent limits for arsenic, boron, fluoride, and iron.

The proposed permit includes 30-day average and daily maximum effluent limits for hardness-dependent metals (cadmium, copper, lead, and zinc) based on a receiving water hardness of 162 mg/L.

The proposed permit requires the Permittee to monitor and report cadmium in the effluent weekly, when discharging, to determine compliance with the applicable effluent limits.

The proposed permit establishes 30-day average and daily maximum effluent limits for ammonia based on the water quality criteria prescribed in NAC 445A.118.

The proposed permit establishes 30-day average and daily maximum effluent limits for nitrite based on the water quality criteria prescribed in NAC 445A.1442 and NAC 445A.1522.

The proposed permit establishes 30-day average and daily maximum effluent limits for mercury based on the water quality criteria prescribed in NAC 445A.1236.

The proposed permit revises the 30-day average effluent limit for total nitrogen to apply year-round, rather than from April through November only, based on the requirement to maintain existing higher quality (RMHQ) prescribed in NAC 445A.1442.

The proposed permit establishes a daily maximum effluent limit for total dissolved solids of 500 mg/L during periods of discharge to Whitehouse Ditch based on the specific value water quality criterion prescribed in NAC 445A.1522.

The proposed permit establishes a daily maximum effluent limit for color of 75 platinum cobalt units (PCU) at Outfall 001 based on the specific value water quality criterion prescribed in NAC 445A.1442 and NAC

445A.1522. The proposed permit also requires that the discharge not cause an increase in color more than 10 PCU above natural conditions within the Humboldt River based on the RMHQ prescribed in NAC 445A.1442.

The proposed permit establishes a daily maximum effluent limit for total phosphorus, applicable when effluent flow is directed to Whitehouse Ditch, based on the water quality criteria prescribed in NAC 445A.1522 for discharges to Rock Creek below Squaw Valley Ranch.

The proposed permit establishes annual effluent monitoring and reporting requirements for all NAC 445A.1236 pollutants to characterize the effluent for these pollutants and determine the potential for impacts to the receiving waters. If no discharge occurs during the permit term, the Permittee shall monitor the treated groundwater 180 days prior to the expiration date of the permit and include the monitoring results with the renewal application to allow the Division to conduct an RPA for the next permit term.

Technology Based Effluent Limitations

Technology-based effluent limitations are based on effluent guidelines which are national wastewater discharge standards that are developed by the U.S. EPA on an industry-by-industry basis. The facility falls under the following industry type:

- 40 CFR Part 440, Subpart J: Copper, Lead, Zinc, Gold, Silver, and Molybdenum Ores

The following technology-based effluent limitations are based on the limitations prescribed in 40 CFR Part 440, Subpart J for discharges of mine drainage from mines operated to obtain copper bearing ores, lead bearing ores, zinc bearing ores, gold bearing ores, or silver bearing ores, as adopted by the state of Nevada:

- TSS: The daily maximum threshold is limited to 30 mg/L. The 30-day average threshold is limited to 20 mg/L.
- Cadmium: The daily maximum threshold is limited to 100 µg/L. The 30-day average threshold is limited to 50 µg/L.
- Copper: The daily maximum threshold is limited to 300 µg/L. The 30-day average threshold is limited to 150 µg/L.
- Zinc: The daily maximum threshold is limited to 1,500 µg/L. The 30-day average threshold is limited to 750 µg/L.
- Lead: The daily maximum threshold is limited to 600 µg/L. The 30-day average threshold is limited to 300 µg/L.
- Mercury: The daily maximum threshold is limited to 2 µg/L. The 30-day average threshold is limited to 1 µg/L.
- pH: The pH range shall be maintained between 6.0 standard units (S.U.) and 9.0 S.U.

The proposed permit retains technology-based effluent limitations for TSS from the previous permit based on the effluent guidelines prescribed in 40 CFR Part 440, Subpart J. The proposed permit retains requirements for the Permittee to monitor the effluent for TSS monthly, when discharging, to determine compliance with the technology-based effluent limitations.

The proposed permit establishes more stringent effluent limitations for cadmium, copper, zinc, lead, and mercury consistent with the WQSs prescribed in NAC 445A.1236 and more stringent effluent limitations for pH consistent with the WQSs prescribed in NAC 445A.1442 and NAC 445A.1522.

Water Quality Based Effluent Limitations

The proposed permit retains effluent limits for pH, chloride, total nitrogen, total phosphorus, total dissolved solids, and turbidity at Outfall 001 in accordance with the WQSs for designated beneficial uses listed at NAC 445A.1442 and NAC 445A.1522.

The proposed permit retains effluent limits for SAR at Outfall 001 in accordance with the WQSs for

designated beneficial uses listed at NAC 445A.1442.

The proposed permit retains effluent limits for dissolved oxygen at Outfalls 002 and 007 in accordance with the WQSs for designated beneficial uses listed at NAC 445A.1442 and NAC 445A.1522.

The proposed permit retains effluent limits for temperature at Sample Locations 004, 006 and 009 in accordance with the WQSs for designated beneficial uses listed at NAC 445A.1442 and NAC 445A.1522.

The proposed permit establishes daily maximum and 30-day average effluent limits for arsenic, boron, cadmium, copper, fluoride, iron, lead, mercury, and zinc at Outfall 001 in accordance with the WQSs for toxic materials applicable to designated waters at NAC 445A.1236.

The proposed permit establishes daily maximum and 30-day average effluent limits for ammonia at Outfall 001 in accordance with the WQSs for ammonia applicable to designated waters at NAC 445A.118.

The proposed permit establishes daily maximum and 30-day average effluent limits for nitrite at Outfall 001 in accordance with the WQSs for nitrite applicable to designated waters at NAC 445A.1442 and NAC 445A.1522.

The proposed permit establishes a daily maximum effluent limit for color at Outfall 001 in accordance with the WQSs for designated beneficial uses listed at NAC 445A.1442 and NAC 445A.1522. The proposed permit also establishes effluent limits for color at Sample Locations 004 and 006 in accordance with the RMHQ listed at NAC 445A.1442.

Reasonable Potential Analysis (RPA)

Section 301(b)(1)(c) of the CWA requires effluent limitations necessary to meet WQSs, and 40 CFR section 122.44(d) requires permits to include conditions that are necessary to achieve WQSs established under section 303 of the CWA, including state narrative criteria for water quality. Federal regulations at 40 CFR section 122.44(d)(1)(i) state, "Limitations must control all pollutants or pollutant parameters (either conventional, nonconventional, or toxic pollutants) which the Director determines are or may be discharged at a level that will cause, have the reasonable potential to cause, or contribute to an excursion above any State water quality standard, including State narrative criteria for water quality." The process to determine whether a water quality based effluent limit (WQBEL) is required as described in 40 CFR 122.44(d)(1)(i) is referred to as a reasonable potential analysis, or RPA. Furthermore, NAC 445A.243 requires the Division to consider the establishment of effluent limitations necessary to meet WQSs.

There has been no discharge from the facility since February 1999 and no effluent data is available to conduct the RPA. Therefore, to prevent degradation of the receiving waters and satisfy anti-backsliding requirements at sections 402(o) and 303(d)(4) of the CWA and federal regulations of 40 CFR 122.44(l), the proposed permit includes WQBELs for all parameters for which WQBELs were established in the previous permit.

Proposed Water Quality Based Effluent Limits (monthly/weekly/daily)

State regulations require that point source discharges not cause a violation of any applicable WQSs in the receiving water, nor interfere with the attainment or maintenance of beneficial uses. The following WQBEL requirements, based on NAC 445A.1442, NAC 445A.1522, NAC 445A.1236, and NAC 445A.118, are included in the proposed permit to ensure that the discharge does not cause WQS violations.

NAC 445A.1442 includes requirements to maintain existing higher quality (RMHQs) for pH to be maintained between 7.0 and 8.6 S.U., as a single value, and 7.0 and 8.4, as an annual average for discharges to the Humboldt River at Battle Mountain. NAC 445A.1522 includes water quality criteria for pH to be maintained between 6.5 and 9.0 S.U. to protect the aquatic life beneficial use applicable for discharges to Rock Creek below Squaw Valley Ranch. In the previous permit, the Division applied the single value RMHQs for pH prescribed in NAC 445A.1442 as daily minimum and daily maximum limits, and the annual average RMHQs as 30-day minimum and 30-day maximum effluent limits at Outfall 001. Consistent with the previous permit,

the proposed permit establishes effluent limitations for pH of 7.0 S.U. as a daily minimum, 8.6 S.U. as a daily maximum, 7.0 as a 30-day average minimum, and 8.4 as a 30-day average maximum at Outfall 001 based on the RMHQs included in NAC 445A.1442 for discharges to the Humboldt River at Battle Mountain. The proposed permit requires the Permittee to monitor and report the pH of the effluent monthly, when discharging, to determine compliance with the effluent limits.

NAC 445A.1442 includes RMHQs of 50 mg/L as an annual average and 70 mg/L as a single value for chloride for discharges to the Humboldt River at Battle Mountain. Further, NAC 445A.1442 includes a water quality criterion of 250 mg/L as a single value for chloride to protect the municipal or domestic supply beneficial use. NAC 445A.1522 includes a 1-hour average criterion of 860 mg/L and a 96-hour average criterion of 230 mg/L for chloride in Rock Creek below Squaw Valley Ranch to protect the aquatic life beneficial use. In the previous permit, the Division applied the single value and annual average RMHQs for chloride prescribed in NAC 445A.1442 directly as daily maximum and 30-day average limits, respectively. Consistent with the previous permit, the proposed permit establishes daily maximum and 30-day average effluent limits for chloride of 70 mg/L and 50 mg/L, respectively, at Outfall 001 in accordance with the RMHQs included in NAC 445A.1442 for discharges to the Humboldt River at Battle Mountain. The proposed permit requires the Permittee to monitor and report chloride in the effluent monthly, when discharging, to determine compliance with the effluent limits.

NAC 445A.1442 includes RMHQs 1.9 mg/L as an annual average and 4.0 mg/L as a single value, applicable from April through November, for total nitrogen for discharges to the Humboldt River at Battle Mountain. In the previous permit, the Division applied the single value and annual average RMHQs for total nitrogen prescribed in NAC 445A.1442 directly as daily maximum and 30-day average limits respectively, applicable from April through November only. Consistent with the previous permit, the proposed permit establishes a daily maximum effluent limit for total nitrogen of 4.0 mg/L from April through November only. Since the RMHQ of 1.9 mg/L is an annual average criterion, the proposed permit applies the 30-day average effluent limit of 1.9 mg/L year-round. The proposed permit requires the Permittee to monitor and report total nitrogen in the effluent monthly, when discharging, to determine compliance with the effluent limits.

NAC 445A.1442 includes a water quality criterion of 0.1 mg/L as a seasonal average, applicable from April through November, for phosphorus to protect the aquatic life and recreation involving contact with the water beneficial uses applicable to the Humboldt River at Battle Mountain. NAC 445A.1522 includes a water quality criterion of 0.33 mg/L as a single value for total phosphorus to protect the aquatic life beneficial use applicable to Rock Creek below Squaw Valley Ranch. In the previous permit, the Division applied the seasonal average RMHQ for total phosphorus prescribed in NAC 445A.1442 directly as a 30-day average effluent limit applicable from April through November. Consistent with the previous permit, the proposed permit includes a 30-day average effluent limit for total phosphorus of 0.1 mg/L, applicable from April through November, at Outfall 001 in accordance with the water quality criterion included in NAC 445A.1442 for discharges to the Humboldt River at Battle Mountain. Additionally, the proposed permit establishes a daily maximum effluent limit for total phosphorus of 0.33 mg/L at Outfall 001, applicable when effluent flow is directed to Whitehouse Ditch, in accordance with the water quality criterion included in NAC 445A.1522 for discharges to Rock Creek below Squaw Valley Ranch. The proposed permit requires the Permittee to monitor and report total phosphorus in the effluent weekly, when discharging, to determine compliance with the effluent limits.

NAC 445A.1442 includes a SAR water quality criterion of 8 as an annual average to protect the irrigation beneficial use applicable to the Humboldt River at Battle Mountain. In the previous permit, the Division applied the annual average SAR criterion prescribed in NAC 445A.1442 directly as a quarterly average effluent limit. Consistent with the previous permit, the proposed permit establishes a quarterly average SAR effluent limit of 8 at Outfall 001. The proposed permit requires the Permittee to monitor and report the SAR in the effluent quarterly, when discharging, to determine compliance with the effluent limit.

NAC 445A.1442 includes RMHQs of 520 mg/L as a single value and 425 mg/L as an annual average for total dissolved solids for discharges to the Humboldt River at Battle Mountain. Further, NAC 445A.1442 includes a water quality criterion of 500 mg/L as an annual average for total dissolved solids to protect the

municipal or domestic supply beneficial use. NAC 445A.1522 includes a single value criterion of 500 mg/L for total dissolved solids in Rock Creek below Squaw Valley Ranch to protect the municipal or domestic supply beneficial use. In the previous permit, the Division applied the single value and annual average RMHQs for total dissolved solids prescribed in NAC 445A.1442 directly as daily maximum and 30-day average limits, respectively. Consistent with the previous permit, the proposed permit establishes daily maximum and 30-day average effluent limits for total dissolved solids of 520 mg/L and 425 mg/L, respectively, at Outfall 001 in accordance with the RMHQs included in NAC 445A.1442 for discharges to the Humboldt River at Battle Mountain. Additionally, the proposed permit establishes a daily maximum effluent limit for total dissolved solids of 500 mg/L during periods of discharge to Whitehouse Ditch in accordance with the water quality criterion included in NAC 445A.1522 for discharges to Rock Creek below Squaw Valley Ranch. The proposed permit requires the Permittee to monitor and report total dissolved solids in the effluent monthly, when discharging, to determine compliance with the effluent limits.

NAC 445A.1442 and NAC 445A.1522 include a single value water quality criterion for turbidity of 50 nephelometric turbidity units (NTU) to protect the aquatic life beneficial use applicable to the Humboldt River at Battle Mountain and Rock Creek below Squaw Valley Ranch. In the previous permit, the Division applied the single value water quality criterion for turbidity directly as a daily maximum effluent limit. Consistent with the previous permit, the proposed permit establishes a daily maximum effluent limit for turbidity of 50 NTU at Outfall 001. The proposed permit requires the Permittee to monitor and report effluent turbidity monthly, when discharging, to determine compliance with the effluent limit.

The previous permit included daily maximum effluent limits for arsenic, boron, fluoride, and iron based on the WQSs for toxic materials applicable to designated waters at NAC 445A.1236. NAC 445A.243, subsection 4 requires that WQBELs be specified as average and maximum daily quantitative limits; therefore, the proposed permit includes the following effluent limits for arsenic, boron, fluoride, and iron at Outfall 001:

- Arsenic: The daily maximum and 30-day average thresholds are limited to 50 µg/L based on the water quality criterion at NAC 445A.1236 for the protection of the municipal or domestic supply beneficial use.
- Boron: The daily maximum and 30-day average thresholds are limited to 750 µg/L based on the water quality criterion at NAC 445A.1236 for the protection of the irrigation beneficial use.
- Fluoride: The daily maximum and 30-day average thresholds are limited to 1,000 µg/L based on the water quality criterion at NAC 445A.1236 for the protection of the irrigation beneficial use.
- Iron: The daily maximum and 30-day average thresholds are limited to 1,000 µg/L based on the water quality criterion at NAC 445A.1236 for the protection of the aquatic life beneficial use.

The previous permit included daily maximum and 30-day average effluent limits for cadmium, copper, lead, and zinc based on the WQSs for toxic materials applicable to designated waters at NAC 445A.1236. The water quality criteria listed in NAC 445A.1236 for cadmium, copper, lead, and zinc vary as a function of hardness. The lower the hardness, the lower the water quality criteria. The Bureau of Water Quality Planning recommends calculating a 10th percentile receiving water hardness value to determine water quality criteria for hardness-dependent metals that are sufficiently protective of aquatic life. The Division's Water Quality Data Warehouse contains water quality data for the Humboldt River at Battle Mountain (Station ID HS7), including hardness samples collected from 1975 through 2023. Based on 40 hardness samples collected in the Humboldt River at Battle Mountain from 1975 through 2023, the 10th percentile hardness value is 162 mg/L. Therefore, the Division has used the 10th percentile value of 162 mg/L to calculate the applicable water quality criteria for hardness-dependent metals listed at NAC 445A.1236. The proposed permit establishes the following daily maximum and 30-day average effluent limits at Outfall 001 based on the applicable water quality criteria for hardness-dependent metals listed at NAC 445A.1236:

- Cadmium: The daily maximum and 30-day average thresholds are limited to 1.2 µg/L based on the water quality criterion at NAC 445A.1236 for the protection of the aquatic life beneficial use.
- Copper: The daily maximum and 30-day average thresholds are limited to 14 µg/L based on the water quality criterion at NAC 445A.1236 for the protection of the aquatic life beneficial use.
- Lead: The daily maximum and 30-day average thresholds are limited to 5.9 µg/L based on the water

quality criterion at NAC 445A.1236 for the protection of the aquatic life beneficial use.
- Zinc: The daily maximum and 30-day average thresholds are limited to 180 µg/L based on the water quality criterion at NAC 445A.1236 for the protection of the aquatic life beneficial use.

NAC 445A.1236 includes 1-hour average and 96-hour average water quality criteria for mercury of 1.4 µg/L and 0.77 µg/L, respectively. The Division considers mercury a parameter of concern for discharges from gold mining operations. NAC 445A.243, subsection 4 requires that WQBELs be specified as average and maximum daily quantitative limits; therefore, consistent with the requirements of NAC 445A.1236, the proposed permit establishes daily maximum and 30-day average effluent limits for mercury of 0.77 µg/L at Outfall 001. The proposed permit requires the Permittee to monitor and report mercury in the effluent weekly, when discharging, to determine compliance with the effluent limits.

NAC 445A.118 lists water quality criteria for ammonia for the protection of aquatic life. NAC 445A.118, Table 1 includes acute (1-hour average) criteria for cold water and warm water fisheries that vary based on pH (i.e., acute criteria decrease as the pH increases). NAC 445A.118 also includes chronic (30-day average) criteria for waters where freshwater fish in early life stages are present (Table 2) or absent (Table 3) that vary based on pH and temperature (i.e., the chronic criteria decrease as the pH and temperature increase). NAC 445A.118.2(c) specifies that Table 3 must not be used unless the Division receives acceptable documentation of the absence of freshwater fish in early life stages. In addition, NAC 445A.118 requires that the highest 4-day average within a 30-day period must not exceed 2.5 times the applicable chronic criterion. The Humboldt River at Battle Mountain and Rock Creek below Squaw Valley Ranch have aquatic life beneficial uses, with documented warm water fish species. Salmonids are not present in the receiving waters. Therefore, the Division used the acute criteria for warm water fisheries in NAC 445A.118, Table 1 and the chronic criteria for waters where freshwater fish in early life stages are present in NAC 445A.118, Table 2. The Division used the maximum permitted effluent pH of 8.6 S.U. to derive the acute criterion. The resulting acute criterion is 2.65 mg/L. Using water quality data available for the Humboldt River at Battle Mountain contained in the Division's Water Quality Data Warehouse (Station ID HS7), the Division calculated a chronic criterion for each day when paired pH and temperature data were measured. The Division then calculated rolling 30-day average criteria and selected the minimum observed 30-day average criterion as the applicable 30-day average chronic criterion. The resulting 30-day average chronic criterion is 0.32 mg/L. The 4-day average concentration, derived as 2.5 times the 30-day average chronic criterion, is 0.80 mg/L. Consistent with the requirements of NAC 445A.118, the proposed permit establishes daily maximum and 30-day average effluent limits for ammonia of 0.32 mg/L at Outfall 001. The proposed permit requires the Permittee to monitor and report ammonia in the effluent monthly, when discharging, to determine compliance with the effluent limits.

NAC 445A.1442 and NAC 445A.1522 include a single value water quality criterion for nitrite of 1.0 mg/L to protect the municipal or domestic supply beneficial use applicable to the Humboldt River at Battle Mountain and Rock Creek below Squaw Valley Ranch. Nitrite, as nitrogen, is a pollutant of concern for discharges from the facility. Therefore, consistent with the requirements of NAC 445A.1442 and NAC 445A.1522, the proposed permit establishes daily maximum and 30-day average effluent limits for nitrite of 1.0 mg/L at Outfall 001. The proposed permit requires the Permittee to monitor and report nitrite in the effluent monthly, when discharging, to determine compliance with the effluent limits.

NAC 445A.1442 and NAC 445A.1522 include a single value water quality criterion for dissolved oxygen of 5.0 mg/L (minimum criterion) to protect the aquatic life beneficial use applicable to the Humboldt River at Battle Mountain and Rock Creek below Squaw Valley Ranch. In the previous permit, the Division applied the single value water quality criterion for dissolved oxygen directly as a weekly minimum effluent limit at Sample Location 002, during periods of discharge to the unnamed pipeline, and Sample Location 007, during periods of discharge to Whitehouse Ditch. Consistent with the previous permit, the proposed permit establishes a weekly minimum limit for dissolved oxygen of 5.0 mg/L at Sample Location 002, during periods of discharge to the unnamed pipeline, and Sample Location 007, during periods of discharge to Whitehouse Ditch, to account for dissolved oxygen introduced within the lined canal and unnamed pipeline. The proposed permit requires the Permittee to monitor and report the dissolved oxygen at Sample Locations 002 and 007 weekly, when discharging, to determine compliance with the effluent limits.

NAC 445A.1442 includes an RMHQ for temperature stating that the maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone shall be 0 degrees Celsius. There are no feasible alternatives that the Permittee can implement to achieve a temperature difference of 0 degrees Celsius between the upstream and downstream receiving water. Therefore, the proposed permit requires that the maximum allowable increase in temperature between the upstream and downstream Humboldt River sample locations during periods of discharge to the unnamed pipeline (Sample Locations 003 and 004, respectively) and during periods of discharge to Whitehouse Ditch (Sample Locations 005 and 006, respectively) shall be 2 degrees Celsius. The temperature limit established in the proposed permit is consistent with the water quality criteria for temperature for the protection of the aquatic life beneficial use listed at NAC 445A.1442. The requirements for temperature have been retained from the previous permit. The proposed permit also requires the Permittee to monitor and report the temperature of the upstream and downstream receiving water, in degrees Celsius, in addition to calculating the difference in temperature between the applicable upstream and downstream sampling locations. The proposed permit requires the Permittee to monitor and report the receiving water temperature at Sample Locations 003, 004, 005, and 006, when discharging, to determine compliance with the effluent limits.

NAC 445A.1522 includes a single value water quality criterion for temperature of 34 degrees Celsius as well as a water quality criterion stating that the maximum allowable increase in temperature shall be 3 degrees Celsius for the protection of the aquatic life beneficial use within Rock Creek below Squaw Valley Ranch. In the previous permit, during periods of discharge to Whitehouse Ditch, the Division required that the maximum allowable increase in temperature between the Rock Creek sample locations upstream and downstream of the confluence with Whitehouse Ditch (Sample Locations 008 and 009) shall be 3 degrees Celsius in accordance with the water quality criterion at NAC 445A.1522. Additionally, during periods when no flow is present within Rock Creek, the previous permit required that the temperature of the discharge from Whitehouse Ditch not exceed 34 degrees Celsius. Consistent with the previous permit, during periods of discharge to Whitehouse Ditch, the proposed permit requires that the maximum allowable increase in temperature between the Rock Creek sample locations upstream and downstream of the confluence with Whitehouse Ditch (Sample Locations 008 and 009) shall not exceed 3 degrees Celsius. Furthermore, during periods when no flow is present within Rock Creek upstream of the confluence with Whitehouse Ditch, the proposed permit requires that the discharge from Whitehouse Ditch not exceed 34 degrees Celsius. The proposed permit requires the Permittee to monitor and report the receiving water temperature at Sample Locations 008 and 009, when discharging, to determine compliance with the effluent limits.

NAC 445A.1442 and NAC 445A.1522 include a single value water quality criterion for color of 75 PCU to protect the municipal or domestic supply beneficial use applicable to the Humboldt River at Battle Mountain and the aquatic life beneficial use at Rock Creek below Squaw Valley Ranch. Color is a pollutant of concern for discharges associated with mining operations. Therefore, the proposed permit establishes the water quality criterion for color of 75 PCU directly as a daily maximum effluent limit at Outfall 001. The proposed permit requires the Permittee to monitor and report effluent color monthly, when discharging, to determine compliance with the effluent limit.

NAC 445A.1442 includes an RMHQ for color stating that the increase in color must not be more than 10 PCU above natural conditions. Therefore, the proposed permit requires that the maximum allowable increase in color between the upstream and downstream Humboldt River sample locations during periods of discharge to the unnamed pipeline (Sample Locations 003 and 004, respectively) and during periods of discharge to Whitehouse Ditch (Sample Locations 005 and 006, respectively) shall be 10 PCU. The proposed permit also requires the Permittee to monitor and report the color of the upstream and downstream receiving water in addition to calculating the difference in color between the applicable upstream and downstream sampling locations. The proposed permit requires the Permittee to monitor and report the receiving water color at Sample Locations 003, 004, 005, and 006, when discharging, to determine compliance with the effluent limits.

Other Required Water Quality Monitoring:

The proposed permit requires the Permittee to monitor and report the temperature of the discharge at

Outfall 001 monthly, when discharging, to characterize the discharge for this parameter and ensure protection of the designated beneficial uses of waters of the State.

The proposed permit requires the Permittee to monitor and report hardness concentrations in the Humboldt River at Sample Location 003 (upstream of the confluence with the unnamed pipeline) annually to characterize the receiving water for this parameter.

The proposed permit requires the Permittee to annually monitor and report concentrations of toxic pollutants found at NAC 445A.1236 in the discharge at Outfall 001 to characterize the treated groundwater for these parameters. If no discharge occurs during the permit term, the Permittee shall monitor the treated groundwater 180 days prior to the expiration date of the permit and include the monitoring results with the renewal application to allow the Division to conduct an RPA for the next permit term.

NAC 445A.1442 and NAC 445A.1522 include a single value water quality criterion for sulfate of 250 mg/L to protect the municipal or domestic supply beneficial use applicable to the Humboldt River at Battle Mountain and Rock Creek below Squaw Valley Ranch. There has been no discharge from the facility since February 1999 and no effluent sulfate data is available to conduct an RPA for sulfate. Therefore, the proposed permit establishes annual monitoring and reporting requirements for sulfate, when discharging, at Outfall 001 as part of the effluent characterization monitoring. If no discharge occurs during the permit term, the Permittee shall monitor the treated groundwater for sulfate 180 days prior to the expiration date of the permit and include the monitoring results with the renewal application to allow the Division to conduct an RPA for the next permit term.

NAC 445A.1442 and NAC 445A.1522 include a geometric mean water quality criterion for *E. coli* of 126 colony-forming units per 100 milliliters (cfu/100 mL) and a single value water quality criterion of 410 cfu/100 mL to protect the recreation involving contact with the water beneficial use applicable to the Humboldt River at Battle Mountain and Rock Creek below Squaw Valley Ranch. NAC 445A.1442 and NAC 445A.1522 also include a single value water quality criterion for fecal coliform of 1,000 No./100 mL to protect the irrigation beneficial use applicable to the Humboldt River at Battle Mountain and Rock Creek below Squaw Valley Ranch. Further, NAC 445A.1442 includes RMHQs for fecal coliform of 50 No./100 mL, as an annual geometric mean, and 200 No./100 mL, as a single value. The discharge is not associated with treated domestic wastewater; therefore, the Division concludes that *E. coli* and fecal coliform are not pollutants of concern, and the proposed permit does not establish effluent limits for these parameters. The proposed permit establishes annual monitoring and reporting requirements for *E. coli* and fecal coliform, when discharging, at Outfall 001 as part of the effluent characterization monitoring. If no discharge occurs during the permit term, the Permittee shall monitor the treated groundwater for *E. coli* and fecal coliform 180 days prior to the expiration date of the permit and include the monitoring results with the renewal application to allow the Division to conduct an RPA for the next permit term.

The proposed permit retains the requirement for the Permittee to complete a study to determine the chromium speciation being discharged from the facility if total chromium is detected in the discharge at a concentration greater than 5 µg/L (the normal analytical detection limit). The Special Approvals / Conditions Table describes the chromium speciation study submittal requirements.

Basis for Effluent Limitations

The 30-day average and daily maximum discharge flow rate effluent limitations of 100.8 MGD and 110 MGD, respectively, established in the proposed permit will ensure that the facility operates within the design parameters. The Permittee has not discharged to the Humboldt River since February 1999. During the period of discharge from 1995 to 1999, the 30-day average discharge was 50.9 MGD with the highest 30-day average discharge being 91.6 MGD. The maximum daily discharge rate was 99.8 MGD.

Anti-backsliding

Sections 402(o) and 303(d)(4) of the CWA and federal regulations of 40 CFR 122.44(l) prohibit backsliding and require effluent limitations in a reissued permit to be as stringent as those in the previous permit. All effluent limitations in the proposed permit are at least as stringent as the effluent limitations in the previous permit.

Antidegradation

The Division has developed an antidegradation regulation that is applied on a statewide basis, and which meets the statutory requirements of Nevada's water pollution control law found at Nevada Revised Statute (NRS) 445A.520 and NRS 445A.565 and is consistent with the federal antidegradation policy found at Title 40 in the CFR section 131.12. The objective of the Division's antidegradation regulation is to prevent degradation of Nevada's surface waters and maintain the unique attributes and special characteristics and water quality associated with high-quality waters. This objective is achieved through the implementation of procedures to ensure that waters are protected from regulated activities that have the potential to degrade the water quality. The regulation uses four (4) tiers of antidegradation protection. Tier 1 protects water quality for beneficial uses of the water on a parameter-by-parameter basis. Tier 2 protects high-quality waters where data show the water quality is better than levels needed to protect beneficial uses (on a parameter-by-parameter basis). Tier 2.5 and Tier 3 protect water quality and the special characteristics of waterbodies designated with the beneficial use of "extraordinary, ecological, aesthetic or recreational value" (NAC 445A.122). The Division will conduct an antidegradation review only when a permit application is submitted for a new or expanding point source discharge to a surface water or for a new or altered zone of mixing.

As this is a renewal, and no changes to the flow or to the waste stream has been requested, a formal antidegradation review is not required. However, data reviewed during the renewal process does not indicate the potential for degradation of the receiving water body from the effluent discharged within the compliance limits of the proposed permit.

WET Testing

NAC 445A.121(4) states that all surface waters of the State "must be free from high temperature, biocides, organisms pathogenic to human beings, toxic, corrosive or other deleterious substances attributable to domestic or industrial waste or other controllable sources at levels or combinations sufficient to be toxic to human, animal, plant or aquatic life or in amounts sufficient to interfere with any beneficial use of the water."

The facility treats groundwater from mining operations containing toxic pollutants, and discharges the treated groundwater to the Humboldt River, Rock Creek, and Whitehouse Ditch. Accordingly, and consistent with the previous permit, the proposed permit requires acute whole effluent toxicity (WET) testing once every 5 years when there is discharge to the Humboldt River during the permit.

Special Conditions

In addition to the effluent limitations and other monitoring requirements described previously in this Fact Sheet, the proposed permit includes the following special conditions.

SA – Special Approvals / Conditions Table

Item #	Description
1	In the event of any exceedances, the Permittee shall report about the exceedances to the Division within 24 hours and provide a written response within five (5) business days.
2	The Permittee is required to continue submitting their DMRs through the Bureau of Water Pollution Control's (BWPC) Nevada NetDMR system.
3	The Permittee shall provide written notification to the Division sixty (60) days prior to acceptance of water for treatment at the Boulder Valley Water Treatment Facility and/or discharge under this permit from any source other than the Permittee's mine dewatering activities.
4	Within fourteen (14) days of acceptance of water for treatment at the Boulder Valley Water Treatment Facility and/or discharge under this permit from any source other than the Permittee's mine dewatering activities, the Permittee shall notify the Division of such acceptance.
5	Thirty (30) days prior to discharge to Whitehouse Ditch, the Permittee shall submit Nevada registered Professional Engineer-stamped as-built drawings of the diversion to Whitehouse Ditch and all related control structures. A revised O&M Manual shall be submitted at the same time.

Item #	Description
6	Within fourteen (14) days of discharge to Whitehouse Ditch, the Permittee shall notify the Division of the discharge.
7	If total chromium is detected in the discharge at a concentration greater than 5 µg/L, the normal analytical detection limit, the Permittee shall complete a study to determine the chromium speciation and submit the study to the Division within forty-five (45) days of chromium detection.
8	Within fourteen (14) days of detecting total chromium at a concentration greater than 5 µg/L, the Permittee shall notify the Division of the detection.
9	If no discharge occurs during the permit term, the Permittee shall monitor the treated groundwater 180 days prior to the expiration date of the permit to characterize the effluent for the toxic pollutants found at NAC 445A.1236 and allow the Division to conduct an RPA for the next permit term.
10	If the Permittee plans to enter into an agreement to accept, treat, and discharge water produced by other mining companies, the Permittee must submit a revised application to the Division to allow for coverage of those discharges under a modified NPDES permit.
11	There shall be no discharge of process wastewater associated with the extraction of gold by use of the cyanidation process from the facility to navigable waters.

Discharges From Future Outfalls/ Planned Facility Changes
If and when a discharge system is designed for discharge to Whitehouse Ditch the discharge rate will be limited to 50.4 MGD.

Corrective Action Sites
There are no Bureau of Corrective Actions case sites within one mile of the project area.

Wellhead Protection Program
The outfall is not located within a Wellhead Protection Area, which represents an approximate 10-year capture zone of a well, or within a Drinking Water Protection Area, which is defined by a 3,000-foot radius around a public water supply well.

Schedule of Compliance:

SOC – Schedule of Compliance Table

Item #	Description	Due Date
1	The Permittee shall submit for review and approval two copies (one electronic and one hard copy) of a new O&M Manual, prepared in accordance with the Division's WTS2 guidance: Minimum Information Required for an Operations and Maintenance Manual. The O&M Manual shall be prepared by a Nevada registered Professional Engineer and shall address the dewatering system, water treatment system, discharge system, and sampling and monitoring protocols.	8/1/2025

Deliverable Schedule:

DLV– Deliverable Schedule for Reports, Plans, and Other Submittals

Item #	Description	Interval	First Scheduled Due Date
1	Quarterly DMR	Quarterly	7/28/2025
2	Annual DMR	Annually	1/28/2026

Procedures for Public Comment:

The Notice of the Division's intent to issue a permit authorizing the facility to discharge to groundwater of the State of Nevada subject to the conditions contained within the permit, is being mailed to interested persons on our mailing list and will be posted on our website at https://ndep.nv.gov/posts. Anyone wishing to comment on the proposed permit can do so in writing until 5:00 P.M. **4/18/2025,** a period of 30 days following the date of the public notice. The comment period can be extended at the discretion of the Administrator.

A public hearing on the proposed determination can be requested by the applicant, any affected State, any affected interstate agency, the Regional Administrator of EPA Region IX 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 determined to be appropriate. All public hearings must be conducted in accordance with NAC 445A.238.

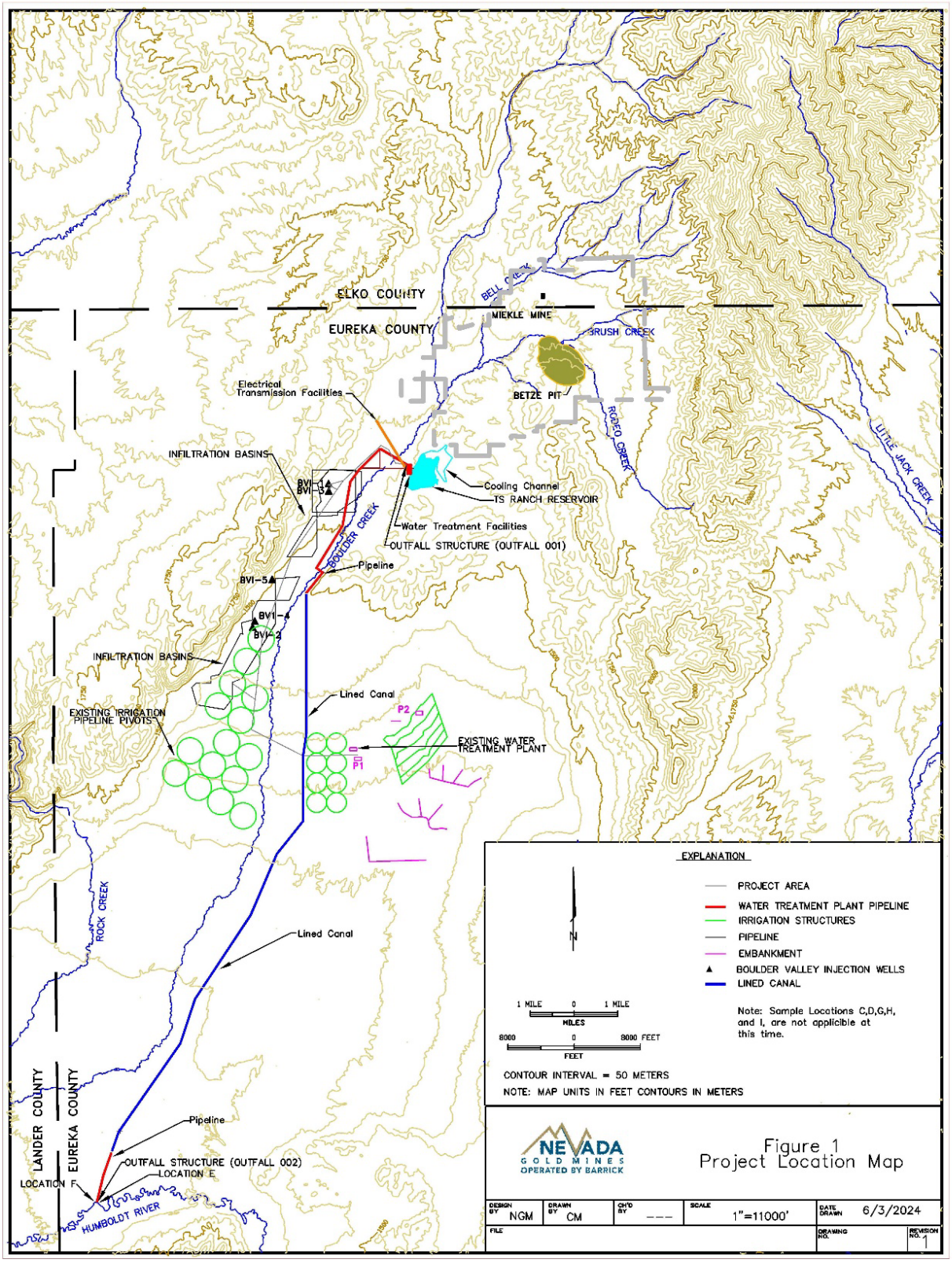
The final determination of the Administrator may be appealed to the State Environmental Commission pursuant to NRS 445A.605.

Proposed Determination:

The Division has made the tentative determination to issue/re-issue the proposed 5-year permit.

Prepared by: **Bonnie Hartley**
Date: **3/11/2025**
Title: **Staff II, Associate Engineer**

Attachment A: Facility Map



Attachment B: Facility Map