

# DRAFT

## FACT SHEET (pursuant to NAC 445A.401)

Permittee Name: **Action Enterprises Nevada LLC**

Project Name: **Cloverdale Infiltration**

Permit Number: **NEV2010109 (New 2012)**

### **A. Location and General Description**

The facility is located on private land in Nye County, Nevada, within Section 24, Township 8 North, Range 39 East, Mount Diablo Baseline and Meridian (MDB&M), approximately 37 miles northwest of the town of Tonopah. The site can be accessed by proceeding north on State Highway 95 from Tonopah approximately 4 miles, then turning right (north) onto the Gabbs Pole Line Road (initially paved, then transitioning to maintained dirt road). After 31 miles, turn right on an unnamed dirt road and proceed 4 miles, turning left onto another unnamed dirt road, and proceeding approximately ½ mile to the project site.

The Cloverdale Infiltration is a dewatering water reinfiltration facility operated in support of the physical separation facility on the same property (Cloverdale Placer Project NEV2010108). Discharge of dewatering water is limited by the Permit to 1,000,000 gallons per day. The facility is required to be designed, constructed and must be operated and closed without any discharge or release in excess of those standards established in regulation except for meteorological events which exceed the design storm event.

### **B. Synopsis**

#### *Geology*

Bedrock in the project area consists of one or more Tertiary volcanic units collectively mapped as the Toiyabe quartz latite. Regionally, this unit is part of the hypothetical Cloverdale Caldera, an intrusive and extrusive volcanic complex. Mineralization is found in placer gravels covering the bedrock in the western two-thirds of the property.

The gravels pinch out on the eastern third of the property which is mainly covered by shallow colluvial sediments. An eroded remnant of the Gold Flats Alluvial Fan, most of which lies a few miles to the east, covers the southeast corner of the property and is the highest topographical point in the project area. Near the center of the property, the gravels are covered by a layer of mud, about two (2) feet thick, some of which is encrusted with alkali salts.

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### *Dewatering and Reinfiltration*

Mining under the Cloverdale Placer Project Permit (NEV 2010108) will consist of removal of placer gravels and will penetrate the ground water table, requiring dewatering. Excess water from the mine area not needed for mining activities (dust suppression, process water, etc.) will be pumped from sumps within the pit, through a 10-inch diameter high density polyethylene (HDPE) pipeline, to the rapid infiltration basin (RIB) located approximately 1000 ft southeast of the mine area. Secondary sumps and settling basins will be used as required to minimize fines content in the dewatering water prior to conveyance to the RIB.

The RIB is designed to be approximately 124 feet by 104 feet (crest to crest) in the initial (Phase I) configuration. Future expansion of the RIB (Phase II) may be carried out by the Permittee which would increase the size to 174 feet by 104 feet. The depth in each configuration would be six (6) feet from top of crest, approximately four (4) feet from original soil surface.

The depth of excavation will allow dewatering water to be introduced directly to the underlying gravel layer rather than to the finer topsoil layer. Test pits dug at the RIB site achieved infiltration rates in the exposed gravels greater than one (1) inch per second. For this reason, significant mounding or surface expression of the infiltrated water is not expected.

Construction of the RIB will consist of excavation of the overburden to a depth of approximately four (4) feet to expose the underlying gravel layer. The excavated soil will be used to extend the embankment an additional two (2) feet in height. Any excess soil will be stockpiled east of the RIB for use during closure of the facility.

Dewatering water will be delivered to the RIB through a 10-inch HDPE pipeline originating in the mine area. The outlet of the pipe will discharge onto a 6-foot by 6-foot rip-rap apron to prevent erosion of the base. The base of the RIB may be accessed by construction equipment if necessary to rip and/or repair the surface periodically.

### *Stormwater Control*

The east side of the RIB area is protected from upgradient run-on by a storm diversion ditch. The ditch measures four (4) feet across and one (1) foot deep. The diversion is designed to divert run-off from the 100 year, 24-hour storm event into natural drainages south of the RIB.

### *Ancillary Facilities*

Ancillary facilities at the site include equipment storage containers, a small office, and parking area. A small area designated for refueling of vehicles includes a 60-mil HDPE liner with containment berms around the perimeter. A separate area with the same liner design is used for equipment maintenance and used oil temporary storage.

### **C. Receiving Water Characteristics**

The Cloverdale Infiltration is located at an elevation of approximately 5,650 feet amsl. Depth to groundwater is as little as 6 ft below ground surface (bgs) within the placer gravels. Two (2) monitoring wells were installed downgradient (MW-3 and MW-4) from the RIB. MW-3 encountered groundwater 25 feet bgs, and MW-4 at 12 feet bgs. Groundwater quality is good with analyses of samples taken from these two wells showing exceedances only for arsenic at 0.020 mg/L (MW-3) and 0.017 mg/L (MW-4). The groundwater gradient is generally northeast to southwest through the RIB area.

Surface water at the site consists of intermittent flows in Cloverdale Creek which runs from north to south just to the west of the property, approximately 700 ft west of the RIB. Seasonal flows are strongest during storm events or during spring runoff, and normally completely dry in Summer and Fall. No springs are within the project boundary or directly downgradient.

Precipitation in the area of the mine averages approximately five (5) inches annually, mainly as snow in winter and rain in early spring. Runoff on the surface is ephemeral and runs from north to south on the western side of the property, with a strong east to west component on the east side.

### **D. Procedures for Public Comment**

The Notice of the Division's intent to issue a permit authorizing the facility to construct, operate and close, subject to the conditions within the permit, is being sent to the **Tonopah Times-Bonanza & Goldfield News** for publication. 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 of public notice. 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, any affected 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. All public hearings must be conducted in accordance with NAC 445A.403 through NAC 445A.406.

**E. Proposed Determination**

The Division has made the tentative determination to issue the permit.

**F. Proposed Effluent Limitations, Schedule of Compliance, Special Conditions**

See Section I of the permit.

**G. Rationale for Permit Requirements**

The facility is located in an area where annual evaporation is greater than annual precipitation. Therefore, it must operate under a standard of performance which authorizes no discharge(s) except for those accumulations resulting from a storm event beyond that required by design for containment.

The primary method for identification of escaping solution will be placed on required routine inspections of process equipment secondary containment, stormwater diversion berms, as well as sampling of the site monitoring wells. Specific monitoring requirements can be found in the Water Pollution Control Permit.

**H. Federal Migratory Bird Treaty Act**

Under the Federal Migratory Bird Treaty Act, 16 U.S.C. 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 CFR 10, April 15, 1985) includes nearly every bird species found in the State of Nevada. The U.S. Fish and Wildlife Service is authorized to enforce the prevention of migratory bird mortalities at ponds and tailings impoundments. 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 (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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