

NEVADA DIVISION OF ENVIRONMENTAL PROTECTION**FACT SHEET**
(pursuant to NAC 445A.236)

Permittee Name: Elko County Public Works
155 South 9th Street
Elko, Nevada 89801

Permit Number: NEV2003305

Location:

The Bear Creek Water Treatment Plant is located on Bear Street near the unincorporated town of Jarbidge, Elko County, Nevada in the NE4-SE4 of S17, T. 46N., R. 58E. MDB&M.

Latitude: 41°52'23.65"N.; Longitude: 115°26'17.31"W.

General

The Permittee operates a water treatment system which diverts water from Bear Creek. The facility is designed to meet State and Federal requirements for protection against *giardia cysts* and *cryptosporidium oocysts*. The water supply treatment system first uses caustic soda and aluminum sulfate as a flocculent aid in a 33,000 gallon sedimentation flocculation tank. Following the flocculation process, the water is further treated by a three component filtration system consisting of a sand filter, a 5 micron cartridge filter, and two one micron cartridge filters. Product water from the filtration plant is then chlorinated and pumped into a 34,000 gallon chlorine contact chamber for disinfection. Leaving the chamber, water flows by gravity to two 150,000 gallon storage tanks prior to delivery into the Jarbidge town water distribution system.

The Permittee discharges the filter backwash waste stream from the sand filter to a catch basin, which in turn is piped to a baffled sand interceptor for solids settling, prior to discharge to a perforated pipe extending 1100 feet in an infiltration gallery for disposal via percolation. The percolation pipe is bedded in drain rock in the lower portion of a common trench in the middle of the service roadway extending below the plant and water storage tanks. The common trench also contains the distribution pipe, an emergency water pipe (dry) to service the plant from the Jarbidge River if ever needed, and telephone and electric utilities that serve the plant. The Permittee is required to monitor the discharge (flow) to the perforated pipe.

Flow:

The system backwashes (discharges) approximately two to 3 times a day depending on water use; the design capacity of the system is 0.0222 MGD (4.16 gpm for a daily max. flow). The current flow averages 0.0048 MGD (3.33 gpm per day).

Receiving Water Characteristics

The receiving waters are the groundwater of the State of Nevada. Depth to groundwater from the bottom of the percolation trench is approximately 6 - 20 feet, and is potable. No adverse effects are expected as a result of this discharge on the ground or surface waters of the State.

Monitoring:

Number of Backwash Cycles/month:	Monitor and Report	Continuous	Record
Total Flow: (gallons)	Monitor and Report	Monthly	Calculate ¹

- 1.) The total flow in gallons per month shall be calculated by multiplying the number of backwash cycles recorded in a log, by the calculated backwash flow (gallons) per cycle. This information shall be reported quarterly, as required by the permit.

Schedule of Compliance:

The Permittee shall implement and comply with the provisions of the schedule of compliance after approval by the Administrator, including in said implementation and compliance, any additions or modifications which the Administrator may make in approving the schedule of compliance.

- a. The Permittee shall keep a log of the number of daily backwash cycles, and of flow discharged to the perforated pipe in accordance with the permit requirements in Part I.A.1.
- b. Any revisions to the approved Operations and Maintenance Manual (O & M) for the backwash discharge management, and system components management is required to be submitted to NDEP by December 30, 2008. The document shall be prepared by the Certified Water Treatment Plant Operator for the facility, and reviewed by the Elko County Public Works Department Engineer prior to submission to NDEP for review and approval.

Rationale for Permit Requirements

Monitoring is required to monitor the quantity of water discharged to the percolation trench, and the number of complete backwash cycles which contribute to that discharge of water.

Proposed Determination

The Division has made the tentative determination to reissue the proposed permit for a five (5) year period.

Procedures for Public Comment:

The Notice of the Division's intent to issue the permit authorizing the facility to discharge to the groundwater of the State of Nevada subject to the conditions contained within the permit is being sent to the **Elko Daily Free Press** and the **Reno Gazette Journal** for publication. The notice is being mailed to interested persons on the NDEP-BWPC mailing list. Anyone wishing to comment on the proposed permit can do so in writing for a period of 30 days following the date of the publication of the public notice. All comments must be received by 5:00 pm local time on March 23, 2009. 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 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 to accordance with NAC 445A.238.

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

Prepared by: E. Samuel Stegeman, P.E.
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