

NEVADA DIVISION OF ENVIRONMENTAL PROTECTION

FACT SHEET
(Pursuant to NAC 445A.236)

Permittee Name: Town of Beatty
Permit Number: NEV2010501
Description of Discharge Settled Backwash water from a drinking water treatment plant
Location: 3 miles southwest of Beatty
Nye County, Nevada

at

E1/2, Section 22; T. 12 S., R. 47 E., MDB&M
Latitude: 36° 52' 45" N; Longitude: 116° 49' 09 " W

Characteristics: The Town of Beatty's new Arsenic Water Treatment Plant is being constructed in 2009-2010 to provide arsenic removal for the municipal water supply for the residents of Beatty. The background level of arsenic in the raw water is around 0.040 mg/l, which is above the newly implemented MCL for arsenic of 0.01 mg/l. In order to meet the drinking water standards, the Town has entered a construction contract to build a treatment plant that will remove arsenic by using coagulation with ferric chloride, followed by pressure filtration. The backwash water from the pressure filter will be routed to a 25,000 gallon settling tank. About 85% of the settled water will be returned back to the front end of the treatment plant, leaving about 15% of the settled backwash water to be disposed to a series of unlined basins. This discharged water will have a total solid concentration of around 3,000 mg/l and will have elevated levels of iron and arsenic. It is estimated that the iron levels will be 11 lbs/backwash and the arsenic levels will be 0.17 lbs/backwash. The average discharge rate at start-up operation is 1,500 gallons per day. A build-out flow of 5,000 gpd may occur in the future as the water treatment plant is expanded.

The Division is allowing the use of three unlined basins for disposal of this settled backwash water for five year period because the depth to groundwater is over 600 feet and the discharge rate is intermittent and low. As a condition of this authorization, the Division will require semi-annual removal of the dried

solids from the pond and soil coring testing to a depth of ten feet. If after this five year permit period, the Town has demonstrated no impact or potential for impact to the underlying groundwater, the Division will renew the permit for another five year period. Otherwise, the town will be required to lined the ponds or pursue another method for handling the settled backwash water.

Flow: The backwash basin system is rated for a hydraulic capacity of 1500 GPD 30-Day Average and daily maximum. A two foot freeboard requirement for the basins will be in force.

Site Crosschecks: The facility is not located within a high risk well head capture zone or within a Bureau of Corrective Actions remediation site.

Permit Monitoring and Limitations:

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

TABLE ONE: Discharge Limitations

PARAMETER	DISCHARGE LIMITATIONS		MONITORING REQUIREMENTS		
	30 Day Average	Daily Maximum	Sample Location(s)	Measurement Frequency	Sample Type
Effluent Flow (GPD)	1500	1500	Effluent Line to the Basins	Continuously	Meter
Total Arsenic (mg/kg)	M & R ¹	M & R	Ten foot soil coring	Semi-Annually	Discrete
Total Iron (mg/kg)	M & R	M & R	Ten foot soil coring	Semi-Annually	Discrete

Footnotes: ¹M & R = Monitor and Report

General: The Town of Beatty has not undergone a fluctuation and reduction in its population within the last ten year period. A very slow growth rate for the area is anticipated so it is not anticipated that the flow rate will need to be increased during this next permit period. A semi-annual solids removal limit was imposed in the permit to minimize the amount iron and arsenic that would remain in a leachable state.

Receiving Water Characteristics: The potential receiving water is ground water underlying the basin site. Depth to groundwater is 600 feet.

Procedures for Public Comment:

The notice of the Division's intent to issue a 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 **LAS VEGAS REVIEW JOURNAL** and the **Tonopah Time-Bonanza** for publication. The notice is being mailed to interested persons on our 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 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, 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 scheduled by the Administrator 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 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.

Proposed Determination

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

Schedule of Compliance and Special Conditions

See Permit Part I.A.14. for detailed Compliance requirements

Rationale for Permit Requirements

Monitoring is required to assess the leaching to metals to the subsurface.

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