

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

Permittee Name: Nevada Department of Corrections
P.O. Box 7011
Carson City, NV 89072

Permit Number: NEV93016

Location: Wells Conservation Camp
HC 67 Box 50
Wells, NV 89835-9500

Located 14 mi. East of Wells, Elko County, Nevada
Township 37N, Range 64E, NE¼ of SE¼ of Section 14
Latitude: 41° 5' 19" N, Longitude: 114° 42' 39" W

General: The Nevada Department of Corrections has submitted a water pollution control permit application to the Division for a major modification of discharge permit NEV93016. The modification is to replace the existing septic system with a denitrifying system capable of nutrient (nitrogen) removal for groundwater protection. The upgrade will address the elevated groundwater nitrogen level due to past disposal of septic system effluent. The denitrifying system has been constructed and authorized to commence operation in December 2010 under temporary discharge permit TNEV2011369. The updated Operations and Maintenance (O&M) Manual for the denitrifying system was approved by the Division on January 19, 2011.

Bureau of Corrective Actions Sites: There is no Bureau of Corrective Action (BCA) remediation site located within a one-mile radius of the denitrifying system.

Wellhead Protection Area: The denitrifying system will discharge treated effluent to leach fields located south (1993) and northeast (2010) of the treatment pond. The facility is located within 1,000 ft. proximity (Drinking Water Protection Area No. 2) of a supply well for the camp. The wellhead capture zone has not been defined for the supply well. The supply well vulnerability ranking is defined as being low.

Receiving Water Characteristics: A monitoring well (MW-1) is installed in the southwest corner of the camp and located down-gradient of the south leach field. This well is screened from 144 to 164 ft. below ground surface. Presently, this well is reported as dry (no sample). The last groundwater sample obtained from this well was in third quarter 2009 when the groundwater level was reported at 149 ft. below ground surface. With operation of the septic system, in a ten year period from 1996 to 2005, the groundwater nitrate level had increased from 2.9 to 11.0 mg/l (state nitrate limit of 10 mg/l) requiring an upgrade to a denitrifying system.

Denitrifying Plant: The plant design is by Shaw Engineering, which has designed a similar denitrifying system for the Humboldt Camp. The Wells Camp design incorporates features of an oxidation ditch, sequencing batch reactor, and a partial-mix treatment pond. The wastewater will be treated in an HDPE-lined, oval-shaped pond (100 ft. (L) × 80 ft. (W) × 7 ft. (D)). Denitrifying is by

on-off aeration sequencing for a total period of twenty hours daily. Settling and decant steps of 2 hours each occur daily in the early morning hours during the camp's low flow period. The existing septic tank will remain in use as a preliminary influent settling tank, while waste sludge from the pond will be stored in separate holding tanks. The holding and septic tanks will be pumped by a septage hauler. The Division approved the Wells Camp engineering design in August 2009 at a capacity rating of 0.021 / 0.032 MGD. This capacity rating used a typical per capita flow of 120 GPD. The camp houses up to 152 inmates and is staffed by 22 correctional and forestry officers.

Flow: The septic system lacked a flow meter. Wastewater flow was reported with the supply well meter, which had overestimated wastewater flow in summer with outdoor water use (irrigation). The denitrifying system will track wastewater flow at the effluent lift station using the pumping time.

Wastewater Analysis: The septic system reported effluent CBOD and TSS levels semi-annually. Recent data indicated CBOD and TSS levels of 200 and 87 mg/l, respectively. Consistent with the temporary permit limitations, the denitrifying plant will sample effluent BOD₅/TSS/TN quarterly at limits of 45/45/10 mg/l.

Rational for Permit Requirements: The limits in Tables 1 (below) and 2 (following page) are proposed for the denitrifying system and monitoring well. The Division may approve by a minor permit modification a request from the facility to discontinue groundwater monitoring. This request shall include the submission of four consecutive quarters of groundwater monitoring data indicating that the groundwater Total Nitrogen level has decreased below the action level of 7.0 mg/l.

TABLE 1: DISCHARGE LIMITATIONS

PARAMETERS	DISCHARGE LIMITATIONS		MONITORING REQUIREMENTS		
	30-Day Average	Daily Maximum	Sample Location	Measurement Frequency	Sample Type
Flow, Millions Gallons per Day (MGD)	0.021	0.032	Effluent Lift Station	Continuous	Pump Timers
BOD ₅ , mg/l	-	45	Effluent	Quarterly	Discrete
TSS, mg/l	-	45	Effluent	Quarterly	Discrete
Total Nitrogen as N, mg/l	-	10	Effluent	Quarterly	Discrete
pH, Std. Units	-	6.0 – 9.0	Effluent	Quarterly	Discrete

TABLE 2: GROUNDWATER MONITORING (MW-1)

PARAMETER	GROUNDWATER LIMITATIONS	MONITORING REQUIREMENTS	
		Measurement Frequency	Sample Type
TDS, mg/L	Monitor & Report	Quarterly	Discrete
Chlorides, mg/L	Monitor & Report	Quarterly	Discrete
Nitrate as N, mg/L	Monitor & Report	Quarterly	Discrete
Total Nitrogen as N, mg/L	10.0	Quarterly	Discrete
Depth to Groundwater, ft.	Monitor & Report	Quarterly	Field Measurement
Groundwater Elevation, ft.	Monitor & Report	Quarterly	Field Measurement

Schedule of Compliance: (all compliance deliverables shall be addressed to the attention of the Compliance Coordinator, Bureau of Water Pollution Control):

- The Permittee shall achieve compliance with the effluent limitations upon issuance of the permit.

Procedures for Public Comment: The Notice of the Division's intent to modify the conditions of discharge permit NEV93016, subject to the conditions contained within the permit is being sent to the **Elko Daily Free Press** newspaper for publication. The notice is also being electronically mailed to all interested persons requesting listing on our public notification mailing list. Anyone wishing to comment on the proposed permit can do so in writing within a period of thirty (30) calendar days of the date of publication of the public notice in the newspapers. The comment period can be extended at the discretion of the Administrator. The deadline date and time by which all comments are to be submitted (via postmarked mail or time-stamped faxes, e-mails, or hand-delivered items) to the Division is **Friday, March 25, 2011, by 5:00 P.M. PST.**

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 determines 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 modify the proposed discharge permit, which was last renewed on April 27, 2010. Discharge permit NEV93016 will expire at midnight, April 27, 2015.

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Bureau of Water Pollution Control

Date: February 16, 2011