

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

Permittee Name: Elko County School District
P.O. Box 102
Elko, NV 89803

Permit Number: NEV90025

Location: Spring Creek School Complex
14550 Lamoille Hwy
Spring Creek, NV 89815
Latitude: 40° 46' 44" N, Longitude: 115° 38' 47" W
Township 33N, Range 56E, Section 3

Wellhead Protection Area: This facility is located within 1,000 ft (Drinking Water Protection Area #2) from and down gradient of three non-transient, non-community supply wells operated by the Lamoille Valley Plaza (1st well) and the Spring Creek School Complex (2nd & 3rd wells). The NDEP database (i.e., I-Map application) indicates that the disposal area is not within a delineated wellhead capture zone of these wells. The presumed groundwater flow gradient is in a west-northwest (WNW) direction (Ten Mile Creek drainage). A denitrification standard of ≤ 10 mg/l Total Nitrogen (TN) is required for effluent disposal along with groundwater monitoring.

General: The Spring Creek School Complex (Spring Creek, NV; pop. 10,961) comprises elementary, middle and high school campuses. Since 2003, domestic wastewater from the three school campuses has been treated in a package plant manufactured by HYDRO-AEROBICS[®]. This package plant is rated for 0.020 MGD (20,000 GPD) capacity. Operations staff reports a carbon-limited influent and non-steady, varying flows, e.g., nighttime/weekend/holiday school closure, requiring supplemental carbon-source addition (i.e., dog food in EQ and methanol in post-anoxic compartments, respectively). On/off aeration cycling and a post-anoxic zone are used for BOD₅ and nitrogen matter reduction. Following the clarifier (TSS removal), the tertiary-treated effluent is not disinfected prior to leach field disposal. The leach fields are fenced and posted to exclude vehicular and foot traffic. School maintenance staff maintain this package plant daily M-F. A Grade 4 Certified WW Operator makes two monthly site visits on a contract basis. Hookup of the school complex to a larger municipal WWTP is on hold pending future development of the Ruby Vista Ranch Project.

Flow: Effluent discharge was 0.006 / 0.009 MGD (6,000 GPD average), measured by the lift station pumping time. The 85% capacity threshold has not been reached at present student and staff occupancy levels.

DMR Analysis:

- *BOD₅*: Influent reporting is not required, but has been reported as being weak-strength domestic wastewater (carbon-limited). Effluent level of this parameter averaged 7 mg/l based on quarterly sampling.

- *TSS*: Effluent level of this parameter averaged 8 mg/l based on quarterly sampling.
- *Total Nitrogen (TN)*: Effluent level of this parameter, based on ammonia and nitrate sampling, averaged 9 mg/l on a quarterly basis by averaging the monthly sampling results. An exceedance of the 10 mg/l limit (daily maximum) was reported in each quarter. Response by the operator included process adjustments, supplemental carbon addition and taking an additional effluent sample(s) until quarterly compliance levels were indicated.
- *pH*: Sampling of this parameter was not required.

Receiving Water Characteristics: There are two leach fields, which are rotated monthly. Down (MW-2) and up (MW-3) gradient monitoring wells are provided, indicating corresponding depths to groundwater of 16 (MW-2) and 22 ft (MW-3), respectively. Sampling of the original monitoring well (MW-1) was waived because it was installed too close (i.e., within 25 ft) of the trench periphery and effectively sampled effluent. Presently, a 10 mg/l nitrate-nitrogen limit is required. The up gradient well reports compliance of this parameter at 0.5 mg/l (NO₃-N). The down gradient well reports non-compliance of this parameter averaging 16 mg/l (NO₃-N) but is on a five-year downward trend from a maximum level of 27 mg/l due to decommission of the original septic system and requirement of denitrification since 2003. It is noted that highway easement restrictions (i.e., Lamoille Highway) prohibited installation of a down gradient monitoring well 250 ft of the disposal area in accordance with NDEP guidance document WTS-4. The highway easement restrictions required installing the down gradient well within 100 ft of the trench periphery, and lower nitrate-nitrogen levels would have been observed if the well's location were moved out an additional 150 ft down gradient of the trench periphery.

Proposed Effluent Limitations and Special Conditions:

Table 1: Discharge Limitations

PARAMETER	DISCHARGE LIMITATIONS		MONITORING REQUIREMENTS	
	30-Day Average	Daily Maximum	Measurement Frequency	Sample Type
Flow, MGD (Effluent)	0.02		Continuous	Pump Station
BOD ₅ , mg/L (Effluent)	45		Quarterly	Discrete
TSS, mg/L (Effluent)	45		Quarterly	Discrete
Total Nitrogen as N (Effluent), mg/l	10		Quarterly	Discrete
pH, Std. Units (Effluent)	6.0 to 9.0		Quarterly	Discrete

Table 2: Groundwater Monitoring (MW-2 & MW-3)

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: The Permittee shall submit the following item to the Division for review and approval (**all compliance deliverables shall be addressed to the attention of the Compliance Coordinator, Bureau of Water Pollution Control**):

- In accordance with NAC 445A.290.2, “Any person, other than a supervisor or assistant supervisor, who is working as an operator of a plant for sewage treatment must be certified as at least a Grade I operator of a plant for sewage treatment, or obtain such certification within 1 year after the date on which he begins his employment at the plant for sewage treatment as such an operator”. Within ninety (90) days of the permit renewal date, the Permittee shall provide a schedule for the school district’s daily operator to comply with this regulation.
- Within ninety (90) days of the permit’s renewal date, the Permittee shall provide an updated copy of the O&M Manual to document any changes made during the five-year permit term.

Procedures for Public Comment: The Notice of the Division’s intent to issue (renew) this discharge permit, 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 interested persons on our public notification mailing list. Anyone wishing to comment on the proposed permit can do so in writing for a period of thirty (30) days following the date of publication of the public notice in the newspaper. 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 **Wednesday, June 24, 2009, 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 issue (renew) the proposed effluent reuse permit for a period of five (5) years.

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NDEP Bureau of Water Pollution Control

Date: May 20, 2009