



STATE OF NEVADA

Department of Conservation & Natural Resources

Brian Sandoval, Governor

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DIVISION OF ENVIRONMENTAL PROTECTION

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NEVADA DIVISION OF ENVIRONMENTAL PROTECTION

FACT SHEET

(pursuant to NAC 445A.236)

Permittee Name: Bruce Miller Ranch
P.O. Box 1478
Elko, NV 89801

Permit Number: NEV99006

Location: Bruce Miller Ranch
Field No. 1 (Outfall 001) and Field No. 2 (Outfall 002)
2 Miles West of the City of Elko on Bullion Road
Elko, Nevada 89801

Outfall 001: Longitude: 115° 49' 11"W, Latitude: 40° 47' 50"N
(Southwest Border)

Township 34 North, Range 55 East
SE $\frac{1}{4}$ of SE $\frac{1}{4}$, Sec 20; and portions of the NE $\frac{1}{4}$, NW $\frac{1}{4}$, and
SW $\frac{1}{4}$, Sec 29; and a portion of the SE $\frac{1}{4}$ Sec 30.

Outfall 002: Longitude: 115° 50' 05"W, Latitude: 40° 46' 55"N
(Southwest Corner)

Township 34 North, Range 55 East
SE $\frac{1}{4}$ of NW $\frac{1}{4}$, and most of the SW $\frac{1}{4}$, Sec 31.

Public Water Supply: There is one public supply well (well NV0002064) within a one-mile radius from the center-point of the property. This well has a low vulnerability to contaminants. Irrigation conducted in accordance with the permit will not negatively impact this well.

Corrective Action Sites: There are no Bureau of Corrective Actions remediation sites located within a one-mile radius from the center-point of the property.

Wellhead Protection Area: This facility is located outside of the 6,000 feet Drinking Water Protection Area (DWPA) and is not within a delineated wellhead capture zone for any public supply well.

General: Under this permit, Mr. Miller (the Permittee) will be applying Category C treated wastewater effluent (reclaimed water) from the City of Elko's Water Reclamation Facility (Elko WRF) onto two large parcels by spray irrigation. One parcel is 160 acres (Outfall 001),

and is known as the Roy Young Ranch. The other parcel is 135 acres (Outfall 002), and is known as the Roy Young Ranch/Bruce Miller Farm. In addition, Class B biosolids from the Elko WRF may be applied at either site for soil amendment and nutrient addition. The discharge permit covers both regulated activities.

Flow: Reclaimed water flow is permitted at 2.5 MGD. Biosolids applications are based on the required agronomic rate for nitrogen, and the tonnage applied is reported by the Permittee.

Receiving Water Characteristics: Groundwater is located at depths of 4 to 20 feet below land surface. Groundwater flow direction is to the northwest, toward the Humboldt River.

Description of the Location of the Discharge: The two ranch parcels are located approximately 2 miles west of the City of Elko along Bullion Road, southeast of the Humboldt River. Both outfalls are located in Township 34 North, Range 55 East. Outfall 001 starts in the southeast quarter of Section 20, crosses Section 29, and concludes in the southeast quarter of Section 30. Outfall 002 is located in the northwest and southwest quarters of Section 31.

Proposed Effluent Limitations: TABLE I.1: Effluent Limitations

<u>PARAMETERS</u>	<u>EFFLUENT DISCHARGE LIMITATIONS</u>		<u>MONITORING REQUIREMENTS</u>	
	30-Day Average	Daily Maximum	Measurement Frequency	Sample Type
Flow	2.5 MGD	---	Continuous	Flow meter
pH	Between 6.0 - 9.0 Std. Units		Once/Month	Discrete
Fecal Coliform	23 cfu/100 ml	240 cfu/100 ml	Once/Week	Discrete
BOD ₅	30 mg/l	45 mg/l	Once/Month	Composite
Total Suspended Solids	30 mg/l	45 mg/l	Once/Month	Composite
Total Nitrogen as N	Monitor and Report		Once/Month	Calculate

Table Definitions:

MGD: Million Gallons per Day

cfu: colony forming units

mg/l: milligrams per liter

Groundwater Monitoring: Groundwater monitoring wells “A”, “B” and “C” have been installed at the 135-acre parcel (Outfall 002). The groundwater quality at the 160-acre parcel (Outfall 001) has been investigated using hydropunch technology. After the City of Elko (NEV20014) installs and begins utilizing a new denitrification system, and the Permittee has shown in four consecutive reporting quarters that the 30-day average of the total nitrogen in the effluent is below 10 mg/L, the required monitoring frequency for the parameters in Table I.2 will be reduced to annually. When the Permittee applies for renewal of the permit, if requested by the Permittee, the Division may consider removing the groundwater monitoring requirement for the next permit cycle.

Table I.2: Groundwater Monitoring, Outfall 001 & 002

<u>PARAMETERS</u>	<u>GROUNDWATER LIMITATIONS</u>	<u>MONITORING REQUIREMENTS</u>	
		Measurement Frequency	Sample Type
Depth to Groundwater	Monitor and Report	Once/Quarter	Discrete
Groundwater Elevation	Monitor and Report	Once/Quarter	Calculate
Total Nitrogen as N	10 mg/L	Once/Quarter	Calculate
Total Dissolved Solids	Monitor and Report	Once/Quarter	Discrete
Chloride	Monitor and Report	Once/Quarter	Discrete

Schedule of Compliance: The Permittee shall implement and comply with the provisions of the following 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 achieve compliance with the effluent limitations upon issuance of the permit.
- b. Within 60 days of permit issuance (MM DD, 2012), two copies a new Effluent Management Plan (EMP) for each reuse site shall be submitted to the Division, using form WTS-1B as a guide. The new EMPs must be stamped and signed by a Professional Engineer registered in the state of Nevada.

Table I.3: Biosolids Limitations

PARAMETER	DISCHARGE LIMITATIONS	MONITORING REQUIREMENTS	
	Average	Measurement Frequency	Sample Type
Dry Tonnes Applied	Monitor and Report	Determined by disposal rate	Calculate
Acres Biosolids Applied to	Monitor and Report	Determined by disposal rate	Calculate and Map
Crop Grown	Report	Determined by disposal rate	
Total Nitrogen (as N)	Monitor and Report	Determined by disposal rate	Composite
Arsenic	41 mg/Kg	Determined by disposal rate	Composite
Cadmium	39 mg/Kg	Determined by disposal rate	Composite
Chromium	1200 mg/Kg	Determined by disposal rate	Composite
Copper	1500 mg/Kg	Determined by disposal rate	Composite
Lead	300 mg/Kg	Determined by disposal rate	Composite
Mercury	17 mg/Kg	Determined by disposal rate	Composite
Molybdenum	Monitor and Report	Determined by disposal rate	Composite
Nickel	420 mg/Kg	Determined by disposal rate	Composite
Selenium	36 mg/Kg	Determined by disposal rate	Composite
Zinc	2800 mg/Kg	Determined by disposal rate	Composite

Rationale for Permit Requirements: Reclaimed water monitoring is required to assess the level of treatment being provided by the Elko WRF, to assess the management of reclaimed water usage, and to protect the local groundwater quality. Discharge limits for CBOD₅, TSS, and pH are standard secondary treatment conditions. This data is to be evaluated by the Permittee, as the receiver of the reclaimed water from the Elko WRF. Fecal Coliform and nitrogen species are required for monitoring the quality of reclaimed water being applied, and for protection of human health and the environment. The fecal coliform limit in Table I.1 corresponds with a minimum buffer zone requirement of 100 feet as defined in NAC 445A.276. Groundwater monitoring is required to assess the effectiveness of nitrogen management practices.

Biosolids monitoring is required to assess the level of treatment being provided by the Elko WRF, to assess the management of biosolids reuse, and to protect the local groundwater quality through monitoring of nitrogen species and metals. These requirements are detailed by the Federal Regulations in Section 503.

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, will be sent to the **Elko Daily Free Press** and the **Reno Gazette-Journal** for publication. The notice will also be mailed to interested

persons on our mailing list. Anyone wishing to comment on the proposed permit may do so in writing for a period of 30 days following the date of the public notice.

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 determination to renew the proposed permit for a five-year period.

Prepared by: Robert Wimer, Jr., E.I.
February, 2012