

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

PERMITTEE NAME: Galeppi Land & Livestock Company

PERMIT NUMBER: NEV2002513

LOCATION: Galeppi Land & Livestock Company
560 Genoa Lane
Minden, Douglas County, Nevada
Longitude: 119° 48' 52"W.; Latitude: 39° 00' 20"N.
Township 13 North, Range 19 East, Sections 11, 12, 13 MDB&

FLOW: 30-Day Average: 2.00 Million Gallons per Day (MGD)
Daily Maximum: 2.00 MGD

PUBLIC WATER SUPPLY: Not within a Drinking Water Protection Area.

GENERAL:

Under proposed permit conditions, **Galeppi Land & Livestock Company**, located in Minden, Douglas County, would be authorized to use and discharge Category D (NAC 445A.276) reclaimed water supplied by the Minden-Gardnerville Sanitation District (**MGSD - Permit NEV40027**) for the irrigation of all its common property. The treated effluent will be land applied via flood irrigation on selected fields totaling 820 acres. Water is delivered to this property via Rosser Ditch or Middle Ditch to a ditch system with check gates. Reclaimed water usage is estimated to be 375 acre-feet per year; reuse irrigation is seasonal. Reclaimed water must be applied within a NDEP approved effluent management plan (EMP).

Reuse irrigation is supplemental on some fields, and the sole irrigation on others. Tailwater control is accomplished via a series of check gates and low berms to deliver treated effluent as needed. Pasture grasses, clover hay and alfalfa are the irrigated crops. Irrigation will be conducted during the growing season. Surface water diversions provide the primary source of irrigation water on most fields.

DISCHARGE CHARACTERISTICS:

Reclaimed water used to irrigate **Galeppi Land & Livestock Company** meets **NAC 445A.2768 for Reuse Category D** which is effluent that has a 30 day average 200 CFU or MPN/100ml or better fecal with a Maximum Daily number of 400 CFU or MPN/100ml. Total Nitrogen is limited to restrict and attenuate potential impacts to groundwater. Please note that fecal coliform test results for **MGSD - Permit NEV40027** – shows 30-day averages of 30 MPN/100ml; discharge characteristics are shown in **Table 1**.

RECEIVING WATER CHARACTERISTICS:

Groundwater in the area ranges from 5 feet below ground to above ground. Groundwater monitoring results since January 2004 show TDS averages 600 mg/L, chlorides averages of 40 mg/L and total nitrogen averages below 1.0 mg/L. No adverse effects are expected to occur as a result of this effluent reuse. Groundwater monitoring is required to ensure that groundwater down-gradient is not degraded by this application. **Discharges to the Carson River or its tributaries are strictly prohibited.**

CURRENT RECLAIM WATER LIMITS:

During the period beginning on the effective date of this permit and lasting until the permit expires,

Galeppi Land & Livestock Company is authorized to apply reclaimed water for irrigation purposes. Reclaimed water application must be based on Nitrogen budgets proposed in the approved Effluent Management Plan (EMP). Effluent application limits are listed in **Table 1 below**.

Table 1: Effluent Limitations - MGSD - Permit NEV40027

PARAMETER	DISCHARGE LIMITATIONS		MONITORING REQUIREMENTS	
	30-Day Average	Daily Maximum	Measurement Frequency	SAMPLE TYPE
Proposed Irrigation Flow ¹ (MGD)	2.00	2.00	Continuous	Flow Meter
Total Suspended Solids (mg/L)	30	45	Quarterly	Discrete
BOD ₅ (mg/L)	30	45	Quarterly	Discrete
Fecal Coliform ³ (MPN/100ml)	200	400	Quarterly	Discrete
Total Nitrogen ⁴ – as N (mg/L)	Monitor & Report	Monitor & Report	Quarterly	Discrete
pH (Standard pH Units)	6.0 to 9.0		Quarterly	Discrete
CURRENT RECLAIM WATER USAGE				
Irrigation Volume ²	375 Acre Feet / Year		Continuous	EMP & Records
Facility Area (Acres)	820 Acre		-	EMP & Records
Annual Nitrogen Loading ²	270 - lbs/acre/year - Alfalfa		Annually ⁵	EMP & Records
	158 - lbs/acre/year – Sweet Clover		Annually ⁵	EMP & Records
	134 - lbs/acre/year – Pasture Grass		Annually ⁵	EMP & Records
Annual Nitrogen Use ¹	30,600 pounds per year		Annually ⁵	EMP & Records

CFU: Coliform forming Unit
MGD: Million gallons per day
SU: Standard pH Units

mg/L: Milligrams per liter
MPN: Most Probable Number
BOD: Biochemical oxygen demand

1. Monthly application rates in the EMP should be used as a guide.
2. Annual Application Volume is based upon 110% of the application volume determined in the EMP – Typical values.
3. Monitoring may be done by the supplier of the effluent, results may be reported by the Permittee. The fecal coliform count must meet Class D standards specified in NAC 445A.276.
4. The total nitrogen applied (lbs/acre) shall not be greater than the total nitrogen uptake (lbs/acre).
5. Report in 4th Quarter DMR

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 achieve and/or maintain compliance with the effluent limitations upon issuance of the permit;
- b. **By March 1st, 2010**, the Permittee shall submit to NDEP an updated Effluent Management plan (EMP). This EMP must meet requirements listed in section 1.B.3 of the permit.
- c. **By March 1st, 2010**, the Permittee shall submit to NDEP an updated Operations & Maintenance manual (O & M).

RATIONALE FOR EFFLUENT DISCHARGE LIMITATIONS:

Irrigation practices have been certified by an engineer licensed in the State of Nevada to effectively operate at this flow rate; this flow is also consistent with the fields' absorption capacity. The total nitrogen applied (lbs/year) shall not be greater than the maximum yearly nitrogen application defined in the EMP. If the Permittee determines that the calculated nitrogen application rate has been exceeded in any one year, the Permittee shall prepare a report which includes an evaluation of the application rates in the EMP, an

explanation of conditions which led to the exceedance, and any planned changes the Permittee deems necessary.

GROUNDWATER MONITORING:

Monitoring wells shall be sampled for the presence of nitrogen compounds, total dissolved solids (TDS), pH, groundwater elevation and chloride as established in **Table 2** below. Wells shall be monitored in accordance with permit conditions and sampling and analysis protocol defined in the proposed permit and in the facility Operations and Maintenance (O&M) Manual.

Table 2: Groundwater Monitoring Protocol.

PARAMETERS	DISCHARGE LIMIT	MONITORING FREQUENCY	SAMPLE TYPE
Depth to Groundwater (feet)	Monitor & Report	Quarterly	Discrete
Groundwater Elevation (feet AMSL)	Monitor & Report	Quarterly	Discrete
Total Dissolved Solids (mg/L)	Monitor & Report	Quarterly	Discrete
Nitrate	Monitor & Report	Quarterly	Discrete
Total Nitrogen as N (mg/L)	10	Quarterly	Discrete
Chloride (mg/L)	Monitor & Report	Quarterly	Discrete

mg/L: Milligrams per liter

SU: Standard pH Units

Nitrogen level Action Plans: The detection of concentrations of total nitrogen as nitrogen (N) in groundwater samples invoke the following limitations and response requirements:

- a. If the total Nitrogen (TN) levels measured in these monitoring wells' groundwater increases to **7.0 mg/l**, as a result of reclaimed water irrigation, the Effluent Management Plan shall be revised, and stamped by a Licensed Professional Engineer. The revised EMP shall provide management practices decrease this Nitrogen (TN) uptrend.
- b. Monitoring wells which have Nitrogen (TN) levels higher than 7.0 mg/l shall be monitored at least quarterly unless otherwise specified by the Division.
- c. If the Nitrogen (TN) levels increase to 9.0 mg/l as the result of reclaimed water irrigation, the Permittee shall submit a corrective plan of action which shall ensure that there is no further degradation of groundwater.
- d. If the Nitrogen (TN) levels increase to 10.0 mg/l as the result of reclaimed water usage, the reuse site will be in violation of the permit and formal enforcement actions may be initiated.
- e. Additional changes to the current operation and/or testing protocol may be required by the Division if the current Nitrogen (TN) levels in these monitoring wells continue with an uptrend.

OPERATION REQUIREMENTS:

The Permittee shall operate the facility in compliance with permit provisions and requirements and in accordance with the approved Effluent Management Plan (EMP).

- a. The EMP shall contain the information required to comply with this permit. It is recommended that the Permittee utilize "WTS-1B: General Criteria for Preparing an Effluent Management Plan, as a guidance to prepare the EMP.
- b. The Permittee shall calculate the **Consumptive Use Balance** based upon parameters listed in Appendix One of WTS-1B. The evaluation of the rates shall be included in the EMP.
- c. The annual application volume limit shall be determined from this balance.
- d. If the actual annual application volume exceeds the calculated annual application limit, the

Permittee shall prepare a report which includes an evaluation of the application rates in the EMP, an explanation of conditions (overseeding, reseeding, extraordinary weather conditons, etc.) which lead to the exceedance, and any planned changes the Permittee deems necessary. This evaluation shall be submitted with the fourth quarter Discharge Monitoring Report (DMR).

- e. **All EMP Revisions** shall be signed and stamped by a Nevada Registered Professional Engineer; a signed and stamped copy must be submitted to NDEP, Bureau of Water Pollution Control (BWPC), at the address listed below within 60 days of permit issuance for review and approval, if any changes in the effluent delivery system or management system (pumps, valves, filters, effluent lines) have occurred.
- f. **Minor revisions/updates** may be submitted by the property's manager or the engineering agent for **Galeppi Land & Livestock Company**.
- g. The Permittee shall not apply effluent prior to having an approved EMP per NAC 445A.275, unless authorized otherwise by the Division.

PROPOSED DETERMINATION:

The Division has made the tentative determination to issue the proposed permit, under the provisions prescribed, for a 5-year period. Under NAC 445A.232, this permit is classified as a Discharge of Treated Effluent for Irrigation – 1,000,000 gallons or more but less than 10,000,000 gallons daily.

PROCEDURES FOR PUBLIC COMMENT:

The Notice of the Division's intent to issue a groundwater discharge permit to the applicant, subject to the conditions contained within the permit is being sent to **The Reno Gazette-Journal & The Record-Courier** 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 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 **January 9th, 2010 by 5:00 P.M.**

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.

The application and proposed permit on file and may be copied or copies may be obtained by writing or by calling **Alexi Lanza, P.E.**, Bureau of Water Pollution Control at **(775)687-9468**; fax: **(775)687-4684**; or email: alanza@ndep.nv.gov. This notice and the fact sheet can be viewed at <http://ndep.nv.gov/admin/public.htm>

Prepared by:

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Nevada Division of Environmental Protection
Bureau of Water Pollution Control – Permits Branch