

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

Permittee Name: Franktown Meadows Inc.
4200 Old Hwy. 395
Washoe Valley, NV 89704

Permit Number: NEV91006

Location: Franktown Meadows Equestrian Center
4200 Old US Highway 395 N, Washoe Valley, Washoe County, NV
Latitude: 39° 16' 48"N, Longitude: 119° 50' 06"W
Township 16N, Range 19E, Sections 2-3

Wellhead Protection Area: The Franktown Meadows package plant effluent is discharged into a clay-lined (soil-bentonite) evaporation pond, which is not located within a Wellhead Protection Area or within 6,000 ft. of any public supply wells. The equestrian center operates two non-public supply wells to provide potable water for the two caretaker residences and equestrian center.

General: The Franktown Meadows Equestrian Center uses an engineered treatment system for effluent disposal since leachfield disposal is impractical due to the shallow groundwater table, which varies from 2-8 ft. bgs at this site. Domestic (sanitary) wastewater is generated in the horse arena's public restrooms and two caretaker residences (mobile homes). The facility's wastewater treatment plant uses an Alternating Intermittent Recirculating Reactor (AIRR), manufactured by SPEC Industries, Inc. This system incorporates a biofilter, which reduces BOD₅ in the secondary treatment section and provides effluent polishing in the tertiary treatment section. The tertiary treatment zone accomplishes partial nitrogen removal down to 20 mg/l (TN). The AIRR system includes the biofilter enclosure plus separate septic, dosing, recirculation and holding tanks. Since the AIRR system treats pre-settled septic tank effluent, solids buildup and production within the biofilter is minimal. The treated effluent is discharged for evaporation into a 0.145 million gallon (MG) capacity clay-lined holding pond, which measures 0.13 acres in surface area. Effluent disposal is via evaporation, but a minimum volume of water is maintained in this pond (0.08 MG) at all times for emergency fire needs (e.g. hay storage area). The pond is augmented with groundwater discharged from a dewatering well. The well is operated to prevent buoyancy uplift of the system's underground holding tanks. For maintenance, the holding pond water can be drained into a fenced pasture area where cattle and horses graze.

Flow: The design capacity of this treatment system is 0.0015 MGD (1,500 gpd). The average daily flow is currently < 0.0005 MGD (< 500 GPD) or below 33% of available treatment capacity. Over the last one-year period, effluent quality was reported as follows: BOD₅/TSS, 10 mg/l; pH, 6.5 S.U.; TN, 26 mg/l; and Fecal Coliform, 75 cfu/100 ml. Peak wastewater demand occurs during horse show events, at which time the facility rents portable chemical toilets to accommodate the participants and visitors. The potable toilet waste is disposed off-site an approved, regional wastewater treatment facility.

Receiving Water Characteristics: Groundwater flows east towards Washoe Lake. To date, the Division has not required groundwater monitoring at this site provided that the integrity of the soil-bentonite liner is maintained. The liner permeability in the holding pond was determined to be the facility’s engineer at $< 1 \times 10^{-7}$ cm/sec.

Proposed Effluent Limitations and Special Conditions:

Table 1: Plant Discharge Limitations

PARAMETER	DISCHARGE LIMITATIONS		MONITORING REQUIREMENTS	
	30-Day Average	Daily Maximum	Measurement Frequency	Sample Type
Flow, MGD (Influent)	0.0015 (1,500 gpd)		Continuous	Pump Timer
BOD ₅ , mg/L (Effluent)	30		Quarterly	Discrete
TSS, mg/L (Effluent)	30		Quarterly	Discrete
pH, Std. Units (Effluent)	Between 6.0 – 9.0		Quarterly	Discrete
Total Nitrogen as N, mg/L (Effluent)	Monitor & Report		Quarterly	Discrete
Fecal Coliform, cfu or mpn/100 ml (Holding Pond)	240 (Daily Maximum)		Quarterly	Discrete

Rationale for Permit Requirements: The effluent limits are consistent with secondary treatment standards, i.e., biologically treated wastewater. This AIRR system is not designed to denitrify below 10 mg/L. Therefore total nitrogen content is monitor and report. Since the last permit renewal, the reuse standard for fire suppression water to fight a wild land fire (e.g. pasture or non-urban use) has been revised to Category C (NAC 445A.2766). Based on the quarterly sampling frequency and the limited, emergency use of the holding pond for fire water, the Division will require the Category C fecal coliform level to be demonstrated by achieving a daily maximum level not to exceed 240 cfu (mpn) per 100 ml. Since the effluent is blended with water from the dewatering well, the fecal coliform sample shall be obtained by sampling the holding pond contents. Normally, the effluent and holding pond contents are not disinfected, but the O&M Manual process flow diagram does list a chlorinator unit for disinfection, if needed. Presently, coliform die off occurs through biofilter treatment and natural decay (sunlight exposure) in the holding pond.

Schedule of Compliance: According to the application, there has been no substantial change in the method of plant operation in the past five years. The only equipment change listed was an electronics (instrumentation) upgrade to a control panel. Therefore, the Division is not proposing an SOC requirement, including revision of O&M Manual, at this time.

Operator Requirement: None required since the design capacity is below 5,000 gpd (NAC

445A.286). Supervision of and compliance sampling of this package plant is presently contracted to a certified Grade V operator.

Procedures for Public Comment: The Notice of the Division's intent to issue (renew) a zero-discharge permit authorizing the operation of this facility's wastewater treatment and effluent storage facility, subject to the conditions contained within the permit is being sent to the **Reno Gazette-Journal** 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 **Monday, July 7, 2008, 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.

Proposed Determination: The Division has made the tentative determination to issue (renew) the proposed zero-discharge permit for a period of five (5) years.

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Bureau of Water Pollution Control

Date: June 4, 2008