FACTSHEET
(pursuant to NAC 445A.236)

Permittee Name: FRANKTOWN MEADOWS EQUESTRIAN CENTER
4200 OLD HWY 395
WASHOE VALLEY, NV - 89704

Permit Number: NS0091006

Location: FRANKTOWN MEADOWS EQUESTRIAN CENTER, WASHOE
4200 OLD HWY 395, WASHOE VALLEY, NV - 89704
LATITUDE: 39.28, LONGITUDE: -119.8350
TOWNSHIP: T16N, RANGE: R19E, SECTION: S3

Outfall / Well Num	Outfall / Well Name	Location Type	Well Log Num	Outfall City	Outfall State	Outfall Zip	Outfall County	Latitude	Longitude	Receiving Water
001	INFLUENT	Internal Outfall		RENO	NV	89704	WASHOE	39.28	-119.8350	GROUNDWATER
002	EFFLUENT	External Outfall		RENO	NV	89704	WASHOE	39.28	-119.8350	GROUNDWATER

General:

The Franktown Meadows Equestrian Center is applying for a renewal of its discharge permit to use an engineered treatment system for effluent disposal since leachfield disposal is impractical due to the shallow groundwater table, which varies from 2-8 feet below ground surface 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 Biochemical Oxygen Demand (BOD_5) 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 Total Nitrogen (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 (0.08 MG) is maintained in this pond at all times for emergency fire needs (e.g. hay storage area). Groundwater from a dewatering well is also discharged into the pond to prevent 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. Peak wastewater demand occurs during horse show events, at which time the facility rents portable chemical toilets to accommodate the participants and visitors. The portable toilet waste is disposed of off-site at an approved, regional wastewater treatment facility.

Discharge Characteristics:

Average annual results of the effluent quality were reported as follows: BOD_5/TSS, 15 mg/l; pH, 7 S.U.; TN, 20 mg/l; and Fecal Coliform, 100 mg/l.

Receiving Water:

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.

Summary of Changes From Previous Permit:

Due to a new permit naming convention at NDEP, Bureau of Water Pollution Control, the permit ID has been changed from NEV91006 to NS0091006. This change does not reflect a change in the type of permit being issued. NEV and NS permits are for groundwater discharges to the State of Nevada. These are not to be confused with "NV" permits which are reserved for NPDES permitting.

Proposed Effluent Limitations:

The discharge shall be limited and monitored by the Permittee as specified below:

WWTP Discharge Limitations Table for Sample Location 001 (Internal Outfall) To Be Reported Monthly

		Discharge Limitations		Monitoring Requirements			
Parameter	**Base**	**Quantity**	**Concentration**	**Monitoring Loc**	**Sample Loc**	**Measurement Frequency**	**Sample Type**
Flow rate	Daily Maximum	<= 0.0015 Million Gallons per Day (Mgal/d)		Raw Sewage Influent	001	Continuous	SUMATN[1]
Flow rate	30 Day Average	<= 0.0015 Million Gallons per Day (Mgal/d)		Raw Sewage Influent	001	Continuous	SUMATN[1]

Notes (WWTP Discharge Limitations Table):

1. Pump timer.

WWTP Discharge Limitations Table for Sample Location 002 (External Outfall) To Be Reported Quarterly

Discharge Limitations				Monitoring Requirements			
Parameter	**Base**	**Quantity**	**Concentration**	**Monitoring Loc**	**Sample Loc**	**Measurement Frequency**	**Sample Type**
Coliform, fecal general	Quarterly Maximum		<= 240 Colony Forming Units per 100ml T (CFU/100mL)[1]	Effluent Gross[2]	002	Quarterly	DISCRT
Nitrogen, total	Quarterly Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	002	Quarterly	DISCRT
Nitrogen, total	Quarterly Average		M&R Milligrams per Liter (mg/L)	Effluent Gross	002	Quarterly	DISCRT
pH, maximum	Quarterly Maximum		<= 9 Standard Units (SU)	Effluent Gross	002	Quarterly	DISCRT
pH, minimum	Quarterly Minimum		>= 6 Standard Units (SU)	Effluent Gross	002	Quarterly	DISCRT
Solids, total suspended	Quarterly Maximum		<= 30 Milligrams per Liter (mg/L)	Effluent Gross	002	Quarterly	DISCRT
Solids, total suspended	Quarterly Average		<= 30 Milligrams per Liter (mg/L)	Effluent Gross	002	Quarterly	DISCRT
BOD, 5-day	Quarterly Maximum		<= 30 Milligrams per Liter (mg/L)	Effluent Gross	002	Quarterly	DISCRT
BOD, 5-day	Quarterly Average		<= 30 Milligrams per Liter (mg/L)	Effluent Gross	002	Quarterly	DISCRT

Notes (WWTP Discharge Limitations Table):

1. CFU or MPN/100 ml.
2. Obtained from the AIRR effluent after the chlorinator's discharge.

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. The reuse standard for fire suppression water to fight a wild land fire (e.g. pasture or non-urban use) is 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 from the AIRR effluent after the chlorinator's discharged. If, in the holding pond, there is an increase in waterfowl activity the coliform levels will be elevated from the wildlife input into the pond. During the most recent inspection, the operator was using household strength bleach (5.25%) for basic effluent disinfection. Normally, the effluent and holding pond contents are not disinfected, but the Operations and

Maintenance 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.

Fecal Coliform:

240 CFU or MPN/100 ml - quarterly maximum

Special Conditions:

SA – Special Approvals / Conditions Table

There are no Special Approval / Condition items

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.

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 Program:

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.

Franktown Meadows Equestrian Center is located within the 1,000-foot Drinking Water Protection Area for two public supply wells.

Schedule of Compliance:

SOC – Schedule of Compliance Table

Item #	Description	Due Date
1	The Permittee shall provide the Division with an updated Effluent Management Plan (EMP). The submitted EMP shall address any changes in the operations procedures or equipment used at the permitted facility. The Permittee shall not reuse treated effluent prior to having an EMP, pursuant to NAC 445A.275. The EMP shall be prepared and wet-stamped by a Nevada registered professional engineer in accordance with guidance document WTS-1B: general criteria for preparing an effluent management plan. Alternatively, the Permittee may submit a letter to the Division indicating that there have been no changes to the EMP, and that the operations are still valid for the Permittee's managed reclaimed water use site.	1/1/2016

Deliverable Schedule:

DLV– Deliverable Schedule for Reports, Plans, and Other Submittals

Item #	Description	Interval	First Scheduled Due Date
1	Quarterly DMRs	Quarterly	1/28/2016
2	Annual Report	Annually	1/28/2016

Procedures for Public Comment:

The Notice of the Division's intent to issue a permit authorizing the facility to discharge to groundwater of the State of Nevada 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 until 5:00 P.M. **8/13/2015** , a period of 30 days following the date of the public notice. The comment period can be extended at the discretion of the Administrator.

A public hearing on the proposed determination can be requested by the applicant, any affected State, any affected interstate agency, the Regional Administrator of EPA Region IX 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 determined to be appropriate. All public hearings must be conducted to 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 / re-issue the proposed 5-year permit.

Prepared by: **Felicia Nichols**
Date: **7/6/2015**
Title: **Staff Engineer**