

NEVADA DIVISION OF ENVIRONMENTAL PROTECTION

F A C T S H E E T  
(pursuant to NAC 445A.236)

**Permittee Name:** Churchill County  
155 North Taylor Street, Suite 153  
Fallon, Nevada 89406

**Permit Number:** NEV2007500

**Description of Discharge**

**Location:** Churchill County Moody Lane Regional Water Reclamation  
Facility (WRF)  
Moody Lane, Northwest of Fallon  
Fallon, Nevada 89406

Churchill County, Nevada

Latitude 39° 30'N; Longitude 118° 47'W  
Section 14, T. 19N., R. 23E., MDB&M

**General:** The Permittee has applied for a permit to discharge treated wastewater from the Moody Lane Regional Water Reclamation Facility (WRF) to groundwaters of the state via an export pipeline to approved reuse land application sites for irrigation and wildlife enhancement, with winter storage onsite in an HDPE lined pond. The proposed membrane bioreactor facility with biological nutrient removal is designed to treat up to 0.600 MGD of domestic wastewater to meet 30 mg/l BOD and 30 mg/l TSS and less than 10 mg/l Total Nitrogen as N. The plant will produce a tertiary treated effluent that is denitrified and disinfected to meet Class B effluent (NAC 445A. 425) 2.2 MPN/CFU/100 ml fecal coliform suitable for reuse. The facility will be operated in accordance with the terms and conditions of the permit and the Operations and Maintenance Manual (O & M) for the WRF. Discharges will be to an onsite lined winter effluent storage pond (Outfall 001), and to approved effluent reuse sites (Outfall 002) for irrigation and land application for support of wildlife habitat, and a possible future rapid infiltration basin (RIB) (Outfall 003).

The plant will consist of a headworks with an automatic fine and coarse screening, with grit removal, a flow equalization basin with a 1.0 MGD emergency storage basin, and flow meter, twin concrete membrane bioreactor basins, effluent flow meters and turbidity meters, passing into a chlorine contact tank and to the effluent pump station for delivery to reuse sites, the winter effluent storage pond, or a future RIB. Sludge removed from the membrane bioreactor basins will be pumped to an aerobic digester from which the waste sludge will be directed to a sludge dewatering system (centrifuge) for disposal in the landfill, or land application.

The new plant is expected to be completed and in operation by the Summer of 2008. Once operational, treated effluent will be stored for the winter in an onsite storage pond, and then supplied to approved reuse sites for agricultural irrigation and land application for wildlife enhancement on lands adjacent to the facility, or be directed to a future RIB.

The wastewater treatment facility consists of a collection system, lift station(s), treatment facility, treated effluent storage, and export pipeline(s) to carry treated effluent to the reuse areas and a possible offsite RIB. Other approved reuse sites/facilities will be added as minor modifications to the permit.

**Flow:** The plant facility (Phase I) has a flow limit of 0.600 MGD (million gallons a day) for a 30-day average, and 0.900 daily maximum. It is expected that during the next permit period that future expansions to the facility in 5 to 10 years will be as a Phase II flow of 1.2 MGD and, in 15 years will be as a Phase III at 1.8 MGD.

**Effluent Limitations:**

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

<u>PARAMETERS</u>	<u>DISCHARGE LIMITATIONS</u>		<u>MONITORING REQUIREMENTS</u>	
	<u>30-day Ave.</u>	<u>Daily Max</u>	<u>Measurement Frequency</u>	<u>Sample Type</u>
INFLUENT FLOW:	M & R MGD	M & R MGD	Continuous	Recorder
TOTAL EFFLUENT FLOW:	0.600 MGD	0.900 MGD	Continuous	Meter
to Outfall 001 (winter storage); Outfall 002 (reuse); and Outfall 003 (RIB)				
INFLUENT BOD <sub>5</sub> :	M & R mg/L	M & R mg/L	Monthly	Composite
EFFLUENT BOD <sub>5</sub> :	30 mg/L	45 mg/L	Monthly	Composite
TOTAL SUSPENDED SOLIDS:				
INFLUENT:	M & R mg/L	M & R mg/L	Monthly	Composite
EFFLUENT:	30 mg/L	45 mg/L	Monthly	Composite
AMMONIA as N:	M & R mg/L	M & R mg/L	Monthly	Composite
NITRATE AS N:	M & R mg/L	M & R mg/L	Monthly	Composite
TOTAL NITROGEN as N:	10 mg/L	M & R mg/L	Monthly	Composite
pH:	Between 6.0 and 9.0 SU		Monthly	Discrete
FECAL COLIFORM:	2.2 CFU/MPN/ 100 ml	23 CFU/MPN 100 ml	Monthly	Discrete

Note: M & R = Monitor and Report      CFU = colony forming units  
MPN = most probable number      ml = milliliter      MGD = million gallons  
per day      SU = standard units      mg/L = milligrams per liter

**Receiving Water Characteristics:** The receiving water is the groundwater of the State of Nevada. Based on historic data, the shallow groundwater in the immediate area is not used as a drinking water source, and no development has occurred in this outlying area northwest of Fallon. The area, as it develops, will be served by the municipal drinking water system. Depth to groundwater is about 0 - 15 feet below ground surface depending on the location. Drinking water in rural Fallon is obtained from the intermediate aquifer at about 180' in depth. Drinking water in this service area will be provided from a municipal supply with arsenic removal as needed, and chlorinated to meet State Drinking Water regulation.

**Procedures for Public Comment:**

The notice of the Division's intent to issue a permit authorizing the facility to discharge to groundwaters of the State of Nevada subject to the conditions contained within the permit, is being sent to the **Lahontan Valley News/Fallon Eagle Standard** 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 30 days following the date of the newspaper publication of the public notice by November 12, 2006. 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 U.S. 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 scheduled by the Administrator 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 the proposed permit for a five (5) year period.

**Schedule of Compliance and Special Conditions**

- a. The Permittee shall achieve compliance with the effluent limitations upon issuance of the permit.
- b. An Operations and Maintenance Manual (O & M) stamped and signed by a Nevada Registered Engineer shall be submitted to the Division for review and approval after construction is completed and the plant is operational. A Sludge Management Plan shall also be included in the O & M Manual. If sludge is disposed to locations other than approved landfill sites, said plan must also address Part 40 CFR Section 503 of the federal regulations.
- c. A letter of Certification wet-stamped by a Nevada Registered Professional Engineer stating that all plant elements have been constructed in accordance with Division approved plans for the facility shall be submitted to the Division within 15 days of completion of plant construction. A copy of the as-builts for the new plant facility and its related infrastructure shall also be included with the Certification.
- d. An Effluent Management Plan (EMP) shall be submitted to the Division for review and approval prior to effluent reuse on County managed areas of reuse. Individual "Users" shall obtain their own effluent reuse permits as their sites receive treated effluent supplied by the facility, unless the County accepts responsibility for the operations and management of the effluent on that site(s).

**Rationale for Permit Requirements:**

Monitoring is required to assess the level of treatment being provided, to determine when design capacity is being approached and to ensure that groundwaters are not degraded.

Prepared by: Icyl C. Mulligan  
October 2006