



# STATE OF NEVADA

Department of Conservation & Natural Resources

DIVISION OF ENVIRONMENTAL PROTECTION

Brian Sandoval, Governor

Leo M. Drozdoff, P.E., Director

Colleen Cripps, Ph.D., Acting Administrator

## FACT SHEET

(Pursuant to NAC 445A.236)

**Permittee Name:** Lyon County Public Works Department  
Utilities Division  
P.O. Box 1699  
Dayton, NV 89403

**Permit Number:** NEV40039

**Location:** Willow Creek General Improvement District  
Wastewater Treatment Facility  
Lyon County, NV  
Latitude: 39° 02' 34" N, Longitude: 119° 11' 33" W  
T14N, R25E, Section 28, MDB&M

**Discharge Outfalls:** Storage lagoon - Latitude: 39° 02' 37" N, Longitude: 119° 11' 33" W  
Re-use field - Latitude: 39° 02' 38" N, Longitude: 119° 11' 29" W

**General:** Lyon County Public Works Department (Lyon Co.) has applied for renewal of groundwater discharge permit NEV40039. Lyon Co. owns the Willow Creek General Improvement District Wastewater Treatment Facility (WCWTF) which is operated through contract by the City of Yerington. WCWTF receives domestic influent from approximately 100 residential service connections.

Wastewater is delivered to WCWTF through one lift station located at the corner of Smoke Tree Lane and Scarsdale Drive in the Penrose Estates subdivision. Treatment is provided in two 60-mil HDPE lined 1.3 acre aerated facultative lagoons which are operated in series. Primary treatment in the first lagoon is provided by two 5-horsepower electric aerators. Aerated and clarified wastewater then gravity flows into the secondary lagoon where additional aeration is provided by one 5-horsepower electric aerator. Treated effluent from the secondary lagoon gravity flows into a 60-mil HDPE lined 3.3 acre storage/evaporation lagoon which has a capacity of 6.9 million gallons. A portion of the treated effluent is lost to evaporation; the remainder may be discharged, as needed, for flood irrigation of a field located north of WCWTF. Effluent that is to be used for irrigation meets re-use Category E requirements (NAC 445A.2771) and is authorized and monitored by groundwater discharge permit NEV2007502.

**Flow:** WCWTF is designed to treat a daily maximum flow of 0.066 million gallons per day (MGD). The Permittee has requested a 30-day average and daily maximum flow rate of 0.049 MGD.

**Receiving Water:** Treated effluent will be discharged to groundwater of the State via percolation in the permitted re-use field.

**Site Groundwater:** Depth to groundwater in the area is reported to be between 15 and 20 feet below ground surface. Groundwater flow at the treatment plant is to the northeast. Groundwater monitoring is required.

**Well Head and Drinking Water Supply Protection:** The treatment plant is not located within a Drinking Water Protection Area or a Wellhead Protection Area established for any well sources.

**Corrective Action Sites:** There are no Bureau of Corrective Actions remediation sites within a one-mile radius of the facility.

**Proposed Effluent Limitations:** The following discharge limits and monitoring requirements are proposed for the permit renewal.

Sampling locations:           001 - Influent flow meter  
   002 - Discharge line to the storage lagoon  
   003 - Discharge line to the irrigation (re-use) field

**Table 1: General Discharge Limitations**

| Parameter     | Units             | Discharge Limitations |               | Monitoring Requirements |                       |             |          |
|---------------|-------------------|-----------------------|---------------|-------------------------|-----------------------|-------------|----------|
|               |                   | 30-Day Average        | Daily Maximum | Sampling Locations      | Measurement Frequency | Sample Type |          |
| Influent Flow | MGD               | 0.049                 | 0.049         | 001                     | Continuous            | Meter       |          |
| Effluent      | Flow, Reuse       | MGD                   | M & R         | 003                     | Continuous            | Meter       |          |
|               | CBOD <sub>5</sub> | mg/L                  | ---           | 45                      | 002                   | Quarterly   | Discrete |
|               | CBOD <sub>5</sub> | mg/L                  | ---           | 45                      | 003                   | Monthly     | Discrete |
|               | TSS               | mg/L                  | ---           | 90                      | 002                   | Quarterly   | Discrete |
|               | TSS               | mg/L                  | ---           | 90                      | 003                   | Monthly     | Discrete |
|               | Total Nitrogen    | mg/L                  | ---           | M & R                   | 002                   | Quarterly   | Discrete |
|               | Total Nitrogen    | mg/L                  | ---           | M & R                   | 003                   | Monthly     | Discrete |
|               | pH                | S.U.                  | ---           | 6.0 - 9.0               | 002                   | Quarterly   | Discrete |
|               | pH                | S.U.                  | ---           | 6.0 - 9.0               | 003                   | Monthly     | Discrete |
|               | Fecal Coliform    | cfu/mpn               | ---           | M & R                   | 003                   | Monthly     | Discrete |

MGD: Million gallons per day

CBOD<sub>5</sub>: 5-day carbonaceous biochemical oxygen demand

TSS: Total suspended solids

cfu/mpn: Colony forming units/Most probable number per 100 milliliters

M & R: Monitor and report

mg/L: Milligrams per liter

S.U.: Standard Units

**Groundwater Monitoring:** Monitoring wells MW-1, MW-2, and MW-3 shall be monitored and sampled in accordance with the following table.

**Table 2: Monitoring Well Limitations and Requirements**

| Parameter                     | Permit Limit     | Monitoring Frequency | Sample Type |
|-------------------------------|------------------|----------------------|-------------|
| Depth to Groundwater (feet)   | Monitor & Report | Quarterly            | Discrete    |
| Groundwater Elevation (feet)  | Monitor & Report | Quarterly            | Discrete    |
| Nitrogen, Total as N (mg/L)   | 10.0             | Quarterly            | Discrete    |
| Chlorides (mg/L)              | Monitor & Report | Quarterly            | Discrete    |
| Total Dissolved Solids (mg/L) | Monitor & Report | Quarterly            | Discrete    |

If the total nitrogen level in any of the monitoring wells increases to 7.0 mg/L, a nitrogen reduction plan must be prepared and submitted to the Division for review and approval. If the total nitrogen level in any of the monitoring wells increases to 9.0 mg/L, the nitrogen reduction plan must be implemented. If the total nitrogen level in any of the monitoring wells increases to 10.0 mg/L the discharge to groundwater shall cease, unless otherwise authorized by the Division.

**Rationale for Permit Requirements:** Monitoring is required to ensure that the treatment plant capacity is not exceeded, to assess the level of treatment being provided, and to monitor groundwater quality.

**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 that 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, the Permittee shall submit two (2) copies of an updated Operations and Maintenance (O&M) Manual for review and approval by the Division. The O&M Manual shall be compiled in accordance with appropriate sections of WTS-2, *Minimum Information Required for an Operation and Maintenance Manual for a Wastewater Treatment Plant*.

If no updates or revisions are required, the Permittee shall submit a letter by the above due date stating that there have been no changes to the previously approved O&M Manual.

- c. 60 days prior to the use of treated effluent, the Permittee shall submit two (2) copies of an updated Effluent Management Plan (EMP) for review and approval by the Division. The EMP shall be compiled in accordance with NDEP guidance document WTS-1B, *General Design Criteria for Preparing an Effluent Management Plan*. Per WTS -1B, the EMP shall be prepared and stamped by a Nevada Registered Professional Engineer.

If no updates or revisions are required, the Permittee shall submit a letter by the above due date stating that there have been no changes to the previously approved EMP.

Before implementing changes to an approved O&M Manual or EMP, the Permittee shall submit proposed changes to the Division for review and approval.

All schedule of compliance submittals and evidence of compliance documents shall be submitted to the Bureau of Water Pollution Control at the address listed below:

**Nevada Division of Environmental Protection  
Bureau of Water Pollution Control  
901 S. Stewart Street, Suite 4001  
Carson City, Nevada 89701**

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

**Procedures for Public Comment:** The Notice of the Division's intent to renew a groundwater discharge permit authorizing this facility to discharge secondary treated effluent to groundwater of the State of Nevada for a five-year period, subject to the conditions contained within the permit, is being sent to the **Reno Gazette-Journal** and the **Mason Valley News** 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 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 **September 28, 2012, 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.

Prepared by: Arthur Marr, P.E.

Date: August, 2012