

**NEVADA DIVISION OF ENVIRONMENTAL PROTECTION**

**FACT SHEET**  
(pursuant to NAC 445A.236)

**Permittee Name:** City of Mesquite  
10 East Mesquite Boulevard  
Mesquite, Nevada 89027

**Permit Number:** NEV40011

**Description of Discharge:** Discharge of tertiary treated, denitrified, disinfected effluent for reuse irrigation, dust control, and construction uses are authorized.

**Location:** City of Mesquite Wastewater Treatment Facility  
600 Riverside Road  
Mesquite, Nevada 89027

Sec 20: Part NW4-NW4	Township 13 South	Range 71 East	Mt Diablo Base & Meridian	
FEATURE	LAT (d m s)	LON (d m s)	LAT (decimal °)	LON (decimal °)
Mesquite Wastewater Treatment Facility	36° 47' 32.85" N	114° 05' 26.10" W	36.7924583°	-114.0905833°

**Characteristics:** The City of Mesquite operates a wastewater treatment and water reclamation facility (WTF) designed to treat domestic and commercial sewage to meet tertiary standards of treatment. Treatment is provided via an extended aeration (oxidation ditch), activated sludge process and filtration, with a parallel system with an aerated pond, wetlands, subsurface wetlands, and an overland flow terrace system. The effluent is denitrified to less than 10 mg/L total Nitrogen and is filtered and disinfected via UV and chlorination to meet the 2.2 total coliform standard for reuse (NAC 445A.276 Category A). The planned facility expansion will include the addition of a second oxidation ditch, with additional clarification, filtration, sludge handling and expansion of the disinfection system. Treated effluent is delivered to several golf courses and City parks and other approved sites for irrigation reuse. Onsite landscape irrigation, dust control, construction and other uses are also authorized.

**Flow:** 3.50 MGD 30-day average design discharge flow; wetlands 1.2 MGD.  
Expansion (2009-10) design discharge flow 6.0 MGD 30-day average upon Division approval.  
Expansion (2009-10) Daily Maximum 12.9 MGD upon Division approval.  
Influent flow and effluent flow to reuse or storage is monitored.  
Flow to all outfalls is also be monitored.

**Permit Monitoring:** The effluent parameters monitored are:

CBOD<sub>5</sub> (inhibited), Total Suspended Solids, pH,  
Fecal Coliform, Total Coliform, Total Phosphorus as P  
Total Nitrogen as N, Nitrate as N, and Ammonia as N

Groundwater monitoring parameters are:  
TDS, Chloride, Total Phosphorus as P, Total Nitrogen as N, and Nitrate as N

**General:** The continued seasonal and normal growth in Mesquite has necessitated the planned expansion of the present wastewater treatment and water reclamation facility to accommodated growth well into the future. The golf course properties, parks and other sites using treated effluent for irrigation are mostly all located north of the WTF, the I-15 freeway, and the City of Mesquite proper. Monitoring and sampling are required to ensure

quality of reuse water.

**Receiving Water Characteristics:** The receiving water is groundwater. The depth to groundwater is in excess of 100 feet at the golf course sites. Shallow groundwater quality in the area meets drinking water standards with the exception of TDS which is as high as 5000 mg/l.

### **Schedule of Compliance and Special Conditions**

- a. The Permittee shall achieve compliance with the effluent limitations upon issuance of the permit.
- b. Notify the NDEP compliance section of construction completion no later than 14 days following completion date.
- c. Revisions to the Operations and Management (O & M) Plan for the plant expansion of facilities shall be submitted for Division review and approval, be stamped and signed by a Nevada P.E., and submitted after construction is completed, but no later than 6 months after the new process facilities are in use.
- d. All future reuse sites shall be approved for reuse irrigation as they become active reuse sites. Notify NDEP compliance section no later than 14 days of reuse site activation.
- e. Phase I expansion plans and revisions to the O & M shall be approved by the Division for the 6.0 MGD flow to become effective. A Certification that the plant expansion facilities have been constructed in accordance with the plans approved by NDEP Technical Services shall be provided to the NDEP by a Nevada Registered Professional Engineer within 30 days of construction completion, and prior to being placed into service.
- f. Per I.A.14. of the permit, the water treatment and reclamation facility shall be operated by a Nevada Certified Class IV Operator/Supervisor. Certification must be submitted to NDEP no later than 90 days following construction completion of plant expansion.
- g. A revised Effluent Management Plan (EMP) updating information on entities receiving reuse effluent provided by the Mesquite WRF, including amounts and locations, must be submitted to the Division by September 30, 2009.
- h. All compliance deliverables shall be submitted to the Carson City Compliance Coordinator and to Nadir Sous, in Las Vegas at 2030 E. Flamingo Road, Suite 230, Las Vegas, Nevada 89119.

There are no other special conditions

### **Rationale for Permit Requirements**

Monitoring is required to assess the level of treatment provided to ensure the effluent meets standards for reuse.

### **Proposed Determination**

The Division has made the tentative determination to reissue the proposed permit. The permit will be for a five (5) year period.

### **Procedures for Public Comment:**

The Notice of the Division's intent to issue the permit authorizing the facility to discharge to the groundwater of the State of Nevada subject to the conditions contained within the permit is being sent to the **Las Vegas Review-Journal** for publication. The notice is being mailed to interested persons on the NDP-BWPC 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 publication of the public notice. All comments must be received by 5:00 pm local time on March 20, 2009. 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 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.

Prepared by: E. Samuel Stegeman, P.E.  
February 2009

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