

NEVADA DIVISION OF ENVIRONMENTAL PROTECTION

FACT SHEET

(pursuant to NAC 445A.236)

Permittee Name: Clark County Water Reclamation District (CCWRD)
5857 East Flamingo Road
Las Vegas, Nevada 89122

Permit Number: NEV2005501

Description of Discharge: Treated Effluent Reuse for Irrigation

Location: Sunrise Ridge
3372 Theme Road
Las Vegas, Nevada 89122

Sec. 35	Township 21 South	Range 62 East	Mt Diablo Base & Meridian	
FEATURE	LAT (d m s)	LON (d m s)	LAT (decimal °)	LON (decimal °)
General locale within development tract	36° 07' 13.00" N	115° 01' 58.00" W	36.1202778°	-115.0327778°

General: CCWRD wastewater is treated to tertiary standards and effluent is piped to the reuse site, Sunrise Ridge development (formerly John Laing Homes) adjacent to, and north of the CCWRD facility. Application will be by drip and spray irrigation. Runoff from the reuse sites is prohibited. The permit is held by CCWRD as the Permittee and responsible party for the development and its onsite reuse of treated effluent for irrigation.

Flow: 0.0432 MGD 30-Day Average. Annual application volume authorized by supplier is 48.39 acre feet per year(AF/YR) on approximately 20 acres of landscaped streetscapes and park/open space land. There is approximately 1.76 acres of turf and 18.24 acres of desert scape with shrubs and trees at the site.

Characteristics: The permit is for the discharge of tertiary treated, partially denitrified (20.0 mg/L Total N), filtered and disinfected effluent for use in the irrigation of streetscapes and parkland open space landscape via drip and spray irrigation at the Sunrise Ridge site adjacent to the CCWRD facility in Las Vegas, Nevada. The property lies between the Las Vegas Wash on the east and Stallion Mountain Golf Course on the west, Desert Inn Road on the north and Flamingo Road and the CCWRD facility on the south.

Reuse Water Quality supplied by the Clark County Water Reclamation District [NV0021261]:

CBOD ₅ :	30 mg/l 30-Day average; 45 mg/l Daily Maximum
TSS:	30 mg/l 30-day average; 45 mg/l Daily Maximum
Fecal Coliform (cfu, mpn ¹)	2.2/100 ml 30 day average; 23/100 ml daily max.
Total Nitrogen - N:	<17.25 mg/L
pH	Between 6.0 and 9.0 SU
¹ cfu = colony forming unit	mpn = most probable number

Receiving Water Characteristics: The receiving waters are the groundwaters underlying the reuse sites. The shallow groundwater aquifer is a perched saline aquifer consisting of water which commonly has TDS ranging from 4,500 to 9,000 mg/l, chlorides around 1,100 mg/l, and sulfate up to 5,200 mg/l at locations proximal to the Las Vegas Wash. The shallow aquifer is dominated by infiltration from excess irrigation and recharge from nuisance waters, septic systems, leaking sewer lines and leaking swimming pools or discharges from swimming pools, and stormwater. The shallow aquifer fluctuates seasonally and yearly, and overlies confining layers which protect the potable aquifers below by restricting movement into the deeper aquifers. This shallow aquifer is of poor quality and is not used for drinking water.

Drinking Water Protection: Wellhead Protection Areas (WHPA) have not been established for this vicinity. The permitted facility property does not lie within the Drinking Water Protection Area (DWPA) of Public Water System (PWS)

wells. Reuse water used by the facility in accordance with permit limitations is not expected to adversely impact PWS wells in the area.

Corrective Action Sites: This Bureau of Water Pollution Control (BWPC) permit facility is not within a one mile radius of any active Bureau of Corrective Actions (BCA) facility site.

Proposed Effluent Limitations: During the period beginning on the effective date of this permit, and lasting until the permit expires, the Permittee is authorized to manage and discharge reuse water supplied by the CCWRD on the Sunrise Ridge development. The Sunrise Ridge site is authorized to irrigate turf and other desert scape features with effluent treated in accordance with permit NV0021261 issued to CCWRD. The Permittee is authorized consumptive use of treated effluent water for spray and drip irrigation and soil conditioning at the site.

The Permittee shall monitor the discharge (Outfall 001) of treated effluent delivered to the Sunrise Ridge development for use authorized by this permit [NEV2005501]. Samples taken for compliance with the monitoring requirements specified below shall be obtained from CCWRD [NV0021261] and reported by the Permittee for permit compliance before blending with any water supplied by any other source. The quality of the irrigation water used by the Permittee may be reported as calculated values when the treated effluent is blended with another water supply.

Discharge shall be monitored and reported by Permittee in accordance with limitations specified in Table I.1.

TABLE I.1

PARAMETER	LIMITATIONS		MONITORING REQUIREMENTS ¹	
	30-Day Average	Daily Maximum	Measurement Frequency	Sample Type
Outfall 001 MGD	0.043200	M&R	Daily	Flow meter
Total Nitrogen ² as N mg/l	M&R	20.0	Weekly	Composite
Fecal Coliform ² cfu, mpn per 100 ml	2.2	23	Weekly	Discrete
MGD: Million Gallons per Day M&R: Monitor & Report	cfu: Colony Forming Unit mpn: Most Probable Number	ml: milliliter mg/l: milligram per liter		

1. See Part I.C. of permit for additional information on sampling, testing, reporting, monitoring and definitions related to requirements.

2. During application periods, sample results are to be obtained weekly from NV0021261 and reported in Permittee's quarterly DMR.

Rationale for Permit Requirements

Required parameters are monitored to ensure effluent reuse requirements are maintained (NAC 445A.275, 445A.276) and groundwaters of the State are protected. Bacteriological quality (Coliform) limitation is set to meet NAC 445A.276 reuse Category B requirement for human contact with effluent reclaim water.

Schedule of Compliance and Special Conditions

The Permittee shall implement and comply with the provisions of the following schedule of compliance after approval by the Administrator, including in said implementation and compliance, any additions or modifications which 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. The Permittee shall maintain and revise, as necessary, the Effluent Management Plan (EMP) sections for each site keeping all information required by I.B of the permit current in accordance with WTS-1-B design criteria. Materials submitted for Division approval shall be stamped by a registered Nevada PE.

Within ninety (90) days of permit effective date, **MM DD, 2011**, the Permittee shall:

- i. Submit an updated EMP for the permittee's managed reclaimed water use site(s) for review and approval by the Division. The submitted EMP shall include any change made to the treatment system since the last Division approved edition needed to comply with this permit as issued.

OR

- ii. Submit a letter to the Division indicating that the current approved EMP has not changed since the

last Division approval and that the manual and approved operations are still valid for the permittee's managed reclaimed water use site(s).

- c. In adherence with the approved EMP, the Permittee shall provide the following certification with each quarterly report: *"I certify that during each month of the previous quarterly reporting period, all operational procedures outlined in the approved Effluent Management Plan for this facility were adhered to."*

Proposed Determination

The Division has made the tentative determination to issue the proposed permit for a period of five (5) years.

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 NDEP-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 August 9, 2011. 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.
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