

NEVADA DIVISION OF ENVIRONMENTAL PROTECTION

FACT SHEET

(pursuant to NAC 445A.236)

Permittee Name: City of Las Vegas
Durango Hills Water Resource Center
(Formerly Northwest Water Resource Center)

Location: 3271 N. Durango Drive
Northwest corner of Cheyenne Avenue and Durango Drive
Las Vegas, Clark County, NV 89143

Latitude: 36° 13' 20" N
Longitude: 115° 17' 05" W
Township 20S Range 60E Section 8

Permit Number: NEV98005

Flow: 30-Day Average Flow: 10 MGD.

Wellhead Protection: The facility is within the 3,000 foot but outside the 1,000 foot Drinking Water Protection Area (DWPA) around three Las Vegas Valley Water District (LVVWD) public water supply wells (Wells 90, 114 and 115). There is no currently established Wellhead Protection Area (WHPA) for this location

Bureau of Corrective Actions Sites: There are no Bureau of Corrective Actions remediation sites within one mile of this facility.

General: This permit covers production of secondary treated, disinfected wastewater effluent for irrigation purposes. The Durango Hills Water Resource Center (DHWRC) facility is an activated sludge domestic wastewater treatment facility, with effluent disinfected by ultra-violet light (UV). The treated effluent is discharged to reuse storage facilities owned and operated by LVVWD. LVVWD uses chlorination prior to discharging to the reuse distribution lines to further protect public health. The final discharge locations are currently various golf courses for irrigation reuse purposes.

During the non-reuse season or whenever there is insufficient reuse demand, the Permittee may discharge to a storm drain and ultimately to the Las Vegas Wash. The discharge to the Wash is authorized under existing NPDES permit NV0020133 as a separate outfall, and includes requirements for monitoring and reporting effluent quality. Additionally, sludge generated at the facility is discharged to the sanitary sewer for treatment at the City of Las Vegas main wastewater treatment plant and will be monitored according to the NPDES permit NV0020133.

Receiving Water Characteristics: The receiving water is groundwater in the western region of the Las Vegas Valley. The depth to groundwater in this area is approximately 500 feet. Each reuse site facility must be separately permitted prior to receiving effluent. Under the terms of the separate permits, Effluent Management Plans (EMP), detailing the proposed consumption of any nitrogen

compounds in the wastewater by turf and/or landscape vegetation, are required. Impacts to groundwater quality are not expected.

The following Table lists the facilities permitted to receive water supplied by the DHWRC to the LVVWD.

Reuse Application Sites

FACILITY NAME	PERMIT NUMBER	ORIGINAL EFFECTIVE DATE
Tournament Players Club (T.P.C.) Summerlin	NEV99001	11/19/1999
Tournament Players Club (T.P.C.) Las Vegas	NEV99002	11/19/1999
Angel Park Golf Club	NEV99003	11/19/1999
Badlands Golf Club	NEV99004	11/19/1999
Canyon Gate Golf Course	NEV99005	11/19/1999
Sun City Summerlin: Palm Valley Golf Club, Eagle Crest Golf Course, and Highland Falls Golf Club	NEV99015	01/14/2000
Durango Hills Golf Course	NEV2001514	02/13/2002

Note: Additional facilities may be added as a minor permit modification.

Effluent Characteristics: The facility treats sanitary sewage from domestic sources and has not exceeded the permit limitations on flow (10 MGD). During the term of the current permit, the following effluent quality has been reported:

PARAMETER		Permit Limit	REPORTED EFFLUENT CHARACTERISTICS		
			AVERAGE	MAXIMUM	MINIMUM
BOD ₅ (mg/l)	30-Day Average	30	1.53	5.9	0.1
	Daily Maximum	45	4.16	11	2
Total Suspended Solids (mg/l)	30-Day Average	30	1.07	4.7	0.2
	Daily Maximum	45	3.94	8.8	2
Total Coliform (MPN/100 mg)	30-Day Geo. Mean	2.2	0.69	1.57	0.55
	Daily Maximum	23	3.45	920	<1.1
Total Nitrogen (mg/l)	30-Day Average	M&R	18.12	28	9.5
	Daily Maximum	M&R	20.39	47.8	9.5
Total Oxidized Nitrogen (mg/l) (Nitrate + Nitrite)	30-Day Average	M&R	14.36	27	0.2
	Daily Maximum	M&R	16.59	27.9	0.2
Total Kjeldahl Nitrogen (mg/l)	30-Day Average	M&R	3.64	27.3	0.2
	Daily Maximum	M&R	5.63	47.3	1
Ammonia (mg/l)	30-Day Average	M&R	3.07	25.5	0.02
	Daily Maximum	M&R	5.31	28.5	<0.1
pH (Standard Units)	Minimum	M&R	6.84	7.21	6.58
	Maximum	M&R	7.23	7.72	6.99

M&R: Monitor and Report
 mg/l: milligrams per liter

Proposed Effluent Limitations and Monitoring Requirements: Effluent from the facility will be limited and monitored according to the specifications in the following table.

**Table I.1
 Effluent Limitations and Monitoring Requirements**

PARAMETER		EFFLUENT LIMITATIONS		MONITORING REQUIREMENTS	
		30-day Average	Daily Maximum	Measurement Frequency	Sample Type
Influent	Flow (MGD):	10	Monitor & Report	Continuous	Meter
	BOD ₅ (mg/l):	Monitor & Report		Daily	Composite
	TSS (mg/l):	Monitor & Report		Daily	Composite
Effluent	Flow (MGD)	Monitor & Report Volume For Each Discharge Location		Continuous	Meter
	BOD ₅ (mg/l):	30	45	Daily	Composite
	TSS (mg/l):	30	45	Daily	Composite
	Total Coliform (MPN/100 ml)	2.2	23	Daily	Discrete
	pH (Standard Units)	6.0 to 9.0		Daily	Discrete
	Total Nitrogen as N (mg/l)	Monitor and Report		Monthly	Composite
	Nitrate + Nitrite as N (mg/l)	Monitor and Report		Monthly	Composite
	Total Kjeldahl Nitrogen as N (mg/l)	Monitor and Report		Monthly	Composite
Total Ammonia as N (mg/l)	Monitor and Report		Monthly	Composite	

MGD: Million gallons per day
 TSS: Total Suspended Solids.
 MPN: Most Probable Number
 mg/l: milligrams per liter

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. The Permittee shall notify the Division of any new facility and/or reuse site that is to receive effluent **90 days** prior to delivering effluent. Each site shall have a discharge permit and an approved Effluent Management Plan prior to receiving effluent.
- c. The Permittee shall notify the NDEP Compliance Coordinator **within 7 days** after delivering effluent for the first time to a new site or facility at the following address:

**Division of Environmental Protection
Bureau of Water Pollution Control
ATTN: Compliance Coordinator
901 S. Stewart Street, Suite 4001
Carson City, NV 89701-5249**

- d. **By MMM DD, 2010**, the Permittee shall submit any revisions to the Operations and Maintenance manual prepared in accordance with "Minimum Information Required, Operation and Maintenance Manual WTS-2, 11/90". If no revisions are required, the Permittee shall submit a letter stating that condition by the submittal date above. The revisions to the manual shall be submitted to the following address:

Mr. Nadir Sous
**Division of Environmental Protection
Bureau of Water Pollution Control - Las Vegas
2030 E. Flamingo Rd, Suite 230
Las Vegas, NV 89119-0837**

A copy of the approved revisions to the manual shall also be sent to the Compliance Coordinator at the above Carson City address.

Rationale for Permit Requirements:

Monitoring is required to demonstrate that secondary treatment is being provided and to determine when design capacity is being approached. Total Nitrogen and nitrogen species are monitored to determine loading rates for reuse sites. The Permittee may discharge to a storm drain and ultimately to the Las Vegas Wash. The discharge to the Wash is authorized under existing NPDES permit NV0020133 as a separate outfall, and includes requirements for monitoring and reporting effluent quality.

Procedures for Public Comment:

The Notice of the Division's intent to issue a 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 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 public notice. The comment period can be extended at the discretion of the Administrator. **All comments must be received by NDEP by 5:00 pm, December 20, 2010.**

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.

Proposed Determination:

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

Prepared by: Janine O. Hartley, P.E.
Draft: November 2010
Final:

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