



STATE OF NEVADA

Department of Conservation & Natural Resources

Jim Gibbons, Governor

Allen Biaggi, Director

DIVISION OF ENVIRONMENTAL PROTECTION

Leo M. Drozdoff, P.E., Administrator

FACT SHEET

(pursuant to NAC 445A.236)

Permittee Name: Las Vegas Golf I, LLC
dba Angel Park Golf Club
241 S. Rampart Boulevard
Las Vegas, Nevada 89145

for the

Angel Park Golf Courses (Palm Course & Mountain Course, 12-hole short course and the 18-hole putting course)
241 S. Rampart Boulevard
Las Vegas, Nevada 89145

Permit Number: NEV99003

Location: Section 32, T20S, R60E; Latitude: 36°10'29"N, Longitude: 115°17'13"W.

General: The Angel Park Golf Courses receive tertiary treated and disinfected effluent (reclaimed water) from the Durango Hills Water Resource Center (DHWRC – Permit No. NEV98005) and use it to irrigate turf grass and landscaped areas. The DHWRC reclaimed (reuse) water is blended with potable water to provide the course with the adequate volume of water required. The relative percentages of potable and reclaimed water vary with the seasonal irrigation demand. This reuse site is not located within a wellhead protection area.

Receiving Water Characteristics: Groundwater depth in the vicinity of the course is approximately 500 feet. This depth was determined from Las Vegas Valley Water District Well #076 which is located about two miles north of the course. Groundwater flow direction is reported to be due east. Due to the depth to groundwater, monitoring wells at the course are not required.

Description of the Location of the Discharge: This golf course consists of the 18-hole “Mountain Course,” the 18-hole “Palm Course,” a 12-hole par 3 short course, and an 18-hole putting course. The clubhouse is located at 100 S. Rampart Boulevard, Las Vegas, Clark County, Nevada. The facility has two irrigation reservoirs, and a number of decorative lakes throughout the Palms Course. All lakes are supplied with reclaimed water through a supply pipeline. Angel Park has approximately 225 acres of golf course greens, fairways and perimeter landscaping available for reuse; however, in the past two years Angel Park has removed approximately 60 acres of turf and returned it to desert landscaping. The facility is supplied by

the reclaimed water supply line from DHWRC located north of the Angel Park Golf Club.

Flow: The permitted 30-day average flow is 3.41 MGD, and the maximum flow is 3.41 MGD, the maximum anticipated amount during the summer months. The annual average usage is approximately 1.75 MGD per month, due to lower usage during the cooler months.

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 30 day period following the date of the public notice **by June 1, 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 was 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.

Discharge Limitations: As noted in Table I.1 below, DHWRC will be providing the courses with high quality disinfected reclaimed water to the different golf courses. The coliform requirement is set at 2.2 CFU or MPN/100 ml Total Coliform, 30-day average. Therefore, in accordance with NAC 445A.277, a buffer zone and control of public access are not required.

Samples taken in compliance with the monitoring requirements specified in Table I.1 are collected and analyzed by DHWRC and reported by the Permittee. The quality of the effluent used by the Permittee may be reported as calculated values based upon the blend of treated effluent and Las Vegas Valley Water District (LVVWD) water.

Monitoring requirements may be satisfied by data collected by the Northwest Water Resource Center and analyzed by the LVVWD. Discharge Monitoring Reports (DMRs) are to be submitted by the Permittee. Copies of backup data of the water quality calculation summaries are to be maintained at the golf course's reuse site.

TABLE I.1: Discharge Limitations

PARAMETERS	EFFLUENT DISCHARGE LIMITATIONS		MONITORING REQUIREMENTS	
	30 Day Ave.	Daily Max.	Measurement Frequency	Sample Type
Flow	3.41 MGD	3.41 MGD	Continuous	Flow meter
Total Coliform	2.2 CFU or MPN/100 ml	23 CFU or MPN/100 ml	Weekly	Discrete
Total Nitrogen as N ⁽¹⁾	Monitor and Report mg/L		Monthly	Calculate
Total Kjeldahl Nitrogen as N	Monitor and Report mg/L		Monthly	Composite
Total Oxidized Nitrogen as N (Nitrate + Nitrite)	Monitor and Report mg/L		Monthly	Composite
Ammonia as N	Monitor and Report mg/L		Monthly	Composite
Total Nitrogen Applied in lbs/ac/year	475 lb/ac/year		Annual	Calculate

⁽¹⁾ Total Nitrogen as N can be reported as the sum of Total Oxidized Nitrogen and Total Kjeldahl Nitrogen
 CFU = Colony Forming Unit; MPN = Most Probable Number

Schedule of Compliance: 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:

- a. The Permittee shall achieve compliance with the discharge limitations upon issuance of the permit;
- b. The Permittee, or its Agent shall adequately address any and all updates to the EMP as a revision of the EMP within ninety (90) days of the effective date of this permit; and
- c. The Permittee shall provide the Division with the documentation updates that notification required in permit condition I.B.13., has been complied with **prior to continued use of treated effluent (recycled water)** within ninety (90) days of the effective date of this permit.
- d. All compliance deliverables shall be submitted to BWPC, NDEP-LV, 2030 East Flamingo Road, Suite 230, Las Vegas, Nevada 89119-0837, with copies to the Compliance Coordinator in NDEP’s Carson City office.

Rationale for Permit Requirements: Reclaimed water monitoring is required to assess the level of treatment being provided by the DHWRC, to assess the quality of blended water delivered to the courses by the LVVWD, to assess the management of recycled water usage, and to protect the

local groundwater quality. Total Coliform and nitrogen species are required for monitoring the quality of reclaim water being applied, and for the protection of human health and the environment.

Determination: The Division has made the determination to renew (issue) the proposed permit for a five (5) year period.

Prepared by: Steve McGoff, P.E.
Staff Engineer III
April 28, 2009