

NEVADA DIVISION OF ENVIRONMENTAL PROTECTION

FACT SHEET

(pursuant to NAC 445A.236)

Permittee Name: Hacienda Hotel & Casino
U.S. Highway 93
Boulder City, NV 89005

Permit Number: NEV10007

Location: Treatment plant located approximately 300 feet south of the casino parking lot on the south side of Highway 93.

Latitude: 36° 00' 29" N

Longitude: 114° 47' 12" W

Township 22S, Range 64E, Section 25 Clark County, Nevada

General: The Permittee operates an 85,000 gallon per day (GPD) package wastewater treatment plant, which receives domestic wastewater from the Hacienda Hotel and Casino, formerly Gold Strike Hotel and Casino (the Gold Strike Hotel and Casino property was razed by a fire in 1998). The property is located south of Lake Mead on the southern fringe of Hemenway Wash in the Eldorado Mountain Range. The treatment plant consists of an aerated equalization basin, two (2) extended aeration basins, final clarifier, chlorine contact tank, and an aerated sludge digestion tank. The plant aeration blowers are cycled on/off to achieve nitrification and denitrification of the influent. The effluent meets secondary treatment standards and is either discharged to three (3) Rapid Infiltration Basins (RIBs) or stored in two (2) asphalt-lined evaporation/detention ponds. Effluent from the evaporation/detention ponds may be applied for dust control on haul roads at a nearby sand and gravel pit. The treatment facility and dust control application areas are fenced and posted. Digested sludge is periodically withdrawn, dried in two (2) sludge drying beds, and hauled by a contract hauler to an approved sanitary landfill.

Bureau of Corrective Actions Sites: There are no Bureau of Corrective Actions (BCA) remediation sites located within a one-mile radius of the proposed facility.

Wellhead Protection Area: The proposed facility is not located within a defined drinking water protection area. The nearest public water supply (PWS), a non-transient, non-community surface water intake, is located 2 ½ miles east of the existing treatment facility at Hoover Dam.

Groundwater Characteristics: Secondary treated, disinfected effluent is discharged to groundwaters of the State of Nevada via percolation in three RIBs. The depth to groundwater beneath the RIBs is approximately 680 feet. Groundwater direction is assumed to be north toward Lake Mead. The groundwater is historically high in Total Dissolved Solids (TDS). The Permittee originally sampled from three (3) monitoring wells for the appearance of free standing and surfacing water to see if effluent had perched rather than percolated. According to the Discharge Monitoring Reports (DMRs) from 2001 to 2007, free standing and surfacing water in the wells had not been observed, indicating proper effluent percolation toward the groundwater aquifer. The DMRs also

indicated that MW-1 had been historically dry so that the groundwater level had not risen to the screened depth of this monitoring well. Groundwater does not appear to be affected by continued discharge of the effluent. NDEP proposed to eliminate monitoring of the wells and in May 2007 the Permittee properly abandoned these wells.

Effluent Flow and Characteristics: The Permittee has re-applied for an equivalent 30-day average and daily maximum flow limits of 85,000 gallons per day (GPD) and 100,000 GPD, respectively, which are the existing permit limits. The specific permit limitations, standard to all treatment facility dischargers, requires the Permittee to notify the Division when the 30-day average daily influent flow rate first equals or exceeds 85% of the 85,000 GPD design treatment capacity. During the period from 2007 to present, the average of the daily maximum flows reported was 27,000 GPD; the permit limit was not exceeded.

During the period from 2007 to present, effluent characteristics were reported as the following:

Table 1 – Effluent Characteristics

Parameter	Permit Limit	Average	Maximum Reported	Minimum Reported
Total Suspended Solids (mg/L)	45	10.14	15.0	1.0
BOD5 (mg/L)	45	4.65	49.0	2.0
pH (Standard Units)	6 to 9	7.44	7.6	7.3
Fecal Coliform (CFU- or MPN-/100 ml)	400	1.0	2.0	0
Total Nitrogen (mg/l)	10	5.34	10.7	0.98

Nitrification/denitrification is effectively achieved during operation of the facility. NDEP intends to require that the effluent meet the 30-day average total nitrogen limit of 10 mg/l, to ensure that any effluent migrating to the groundwater does not degrade water quality.

Proposed Effluent Limitations and Special Conditions: NDEP proposes the following permit limitations and monitoring requirements:

Table 2 – Plant Discharge Limitations

PARAMETER		DISCHARGE LIMITATIONS		MONITORING REQUIREMENTS	
		30 - Day Average	Daily Maximum	Measurement Frequency	Sample Type
Influent	Flow (GPD)	85,000	100,000	Daily	Pump Station Time Clocks
Effluent	Flow to RIBs (Outfall 001) (GPD)	Monitor & Report		Daily	Flow Meter
	Flow to Evaporation/Detention Ponds (Outfall 002) (GPD)	Monitor & Report		Daily	Flow Meter
	TSS (mg/l)	30	45	Monthly	Composite
	BOD ₅ (mg/l)	30	45	Monthly	Composite
	TSS and BOD ₅ Removal (percent)	85%		Monthly	Calculate
	pH (Standard Units)	6.0 to 9.0		Monthly	Discrete
	Fecal Coliform (CFU/100 ml or MPN/100 ml)	200	400	Monthly	Discrete
	Total Nitrogen (mg/l)	---	10	Monthly	Composite

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.

Rationale for Permit Requirements: The monitoring proposed by this permit is consistent with current facility practices and existing permit limitations to protect groundwater quality.

Procedures for Public Comment: The Notice of the Division's intent to renew a permit authorizing the facility to discharge to the groundwaters of the State of Nevada subject to the conditions contained within the permit is being sent to the **Boulder City News** and the **Las Vegas Review Journal** for publication. The notice is also 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. 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 **5:00 PM, January 13, 2012**.

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.

Proposed Determination:

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

Prepared by: Jason Ferrin, E.I.
Bureau of Water Pollution Control
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