

NEVADA DIVISION OF ENVIRONMENTAL PROTECTION

FACT SHEET

(pursuant to NAC 445A.236)

Applicant: Las Vegas Hilton Hotel and Casino
3000 Paradise Road
Las Vegas, NV 89109

Permit Number: NV0021750

Location: Las Vegas Hilton Parking Garage
3000 Paradise Road
Las Vegas, NV 89109 (Clark County)
Latitude: 36° 07' 58"N, Longitude: 115° 09' 15"W
S9 T21S, R61E

Discharge Outfall: Clark County storm drain drop inlet at the southeast corner of the Hilton parking garage near Joe W. Brown Drive, in Las Vegas. The storm drain system eventually discharges to the Flamingo Wash, which discharges to the Las Vegas Wash. The storm drain inlet coordinates are:
Latitude: 36° 08' 2.4900" N Longitude: 115° 8' 57.2964" W

General: The Las Vegas Hilton Hotel and Casino operates a parking garage structure on Paradise Road. Groundwater seepage beneath the parking structure passively drains into east and west collection sumps located in the basement. The sumps are bermed, posted (signs), and located in storage areas not accessible to the general public. Collected water in the sumps is combined and treated prior to discharge to the Clark County storm drain system. The storm drain system discharges the sump water to the Flamingo Wash. The facility discharges under NPDES permit, NV0021750, originally issued in 1996.

In 1999, the Permittee notified the Division that a full flow fiber media filtration system was being installed to remove Total Petroleum Hydrocarbons (TPH) from the collected sump water. This control system was installed in response to a 1998 Division inspection, which identified that an oily sheen was apparent on the water surface in the west sump. TPH, benzene, toluene, ethylbenzene and total xylenes (BTEX), methyl tert-butyl ether (MTBE), tetrachloroethene (PCE) and trichloroethene (TCE) observed in the collected groundwater have been attributed to various point/non-point sources located up-gradient of the property.

Through the life of this permit, there have been numerous exceedances which have been dealt with by the Division. As a result of the historical exceedances, an activated carbon fiber filtration system, replacing the fiber media system, was installed in late 2004 and approved by the NDEP in early 2006. The carbon filtration system consists of two cartridge pre-filters and three 3,000-lb capacity activated carbon adsorption vessels for adsorption of low-level solvents. Initially, Hilton engineering staff operated the treatment system after installation. In 2006, the Hilton hired a professional environmental consulting service to perform maintenance, sampling, and reporting for the groundwater discharge system. Since that time, three exceedances have been reported. TPH exceedances were reported for the 4th quarter 2006 and 1st quarter 2008, at concentrations of 1.1 mg/L, compared to a permit limit of 1.0 mg/L. There was also a TCE exceedance reported in the 4th quarter 2007, at a concentration of 6.1 µg/L, compared to a permit limit of 5.0 µg/L.

Flow: The facility’s daily maximum flow limit (design capacity) is 120,000 gallons per day (gpd) from basement dewatering. Current operational flow is approximately 13,000 gpd.

Receiving Water Characteristics: The east and west basement sumps collect seepage from the shallow groundwater located on the property. This shallow groundwater flows in a southeasterly direction where it would eventually recharge the Flamingo and Las Vegas Washes by gravity flow, if not intercepted in the sumps. The receiving water for the dewatering activity is the Las Vegas Wash via the Flamingo Wash and the Clark County storm drain system. Water quality standards for the Upper Las Vegas Wash are specified in NAC 445A.199. Monitoring data reported to the Division indicates that the shallow groundwater is naturally high in Total Dissolved Solids and also contains low levels of contaminants such as TPH, tetrachloroethene (PCE) and trichloroethene (TCE) and BTEX (benzene, toluene, ethylbenzene & total xylenes).

Corrective Actions Sites: There are seven (7) Bureau of Corrective Actions (BCA) remediation sites located within a one-mile radius of the permitted facility. Three of the sites are up-gradient of the facility, and contain substantial concentrations of PCE. BCA case officers have stated that the current and permitted discharge rates at the Hilton parking garage will not substantially impact the PCE clean-up efforts.

Well Head and Drinking Water Supply Protection: The facility is not within 6000’ of a public water supply. The facility is not within an established Wellhead Protection Area (WPA) or capture zone.

Proposed Effluent Limitations:

Table I. Effluent Limits and Sampling and Monitoring Requirements

Parameters & Units		Discharge Limitations	Sampling Location	Monitoring Frequency	Monitoring Type
Flow ¹	gpd	120,000	001	Continuous, report quarterly	Flow meter, calculation
Purgeable & Extractable Total TPH ²	mg/L	1.0	001, 002	Quarterly	Discrete
Trichloroethene (TCE)	µg/L	5.0	002	Quarterly	Discrete
Tetrachloroethene (PCE)	µg/L	5.0	002	Quarterly	Discrete
MTBE ³	µg/L	20	002	Quarterly	Discrete
Benzene	µg/L	5.0	002	Quarterly	Discrete
Toluene	µg/L	100	002	Quarterly	Discrete
Ethylbenzene	µg/L	100	002	Quarterly	Discrete
Total Xylenes	µg/L	200	002	Quarterly	Discrete
Total Ammonia as N	mg/L	M&R	002	Quarterly	Discrete
Nitrite + Nitrate as N	mg/L	M&R	002	Quarterly	Discrete
Total Inorganic Nitrogen	mg/L	20	002	Quarterly	Discrete
Total Phosphorus	lbs/day	M&R	002	Quarterly	Discrete
pH	S.U.	6.5 - 9.0	002	Quarterly	Discrete
TDS ⁴	lbs/day	M&R	002	Quarterly	Discrete

001 = Influent to treatment system 002 = Treatment system discharge line prior to discharge to storm drain drop inlet.

1. Monitor and report average gallons per day monthly on DMR forms, for Outfall 001.
2. Report full range, C6-C40, analyses with EPA Methods 8015B and 8260B, report all parameters, including the organics listed below this entry in the Table.
3. Methyl tert-butyl ether.
4. Sample and report quarterly for Outfall 002.

gpd: gallons per day
mg/L: milligrams per liter
M&R: Monitor and Report
S.U.: standard pH units
lbs/day: pounds per day load

TPH: Total Petroleum Hydrocarbons
µg/L: micrograms per liter
N: Nitrogen
TDS: Total Dissolved Solids

Rationale for Permit Requirements: The Division has established the monitoring requirements in Table 1 above to ensure that the receiving water, Flamingo Wash, is not degraded appreciably as a result of project activities.

Flow: The rationale for the 30-day average daily discharge was explained in the Flow section of this fact sheet. This requested flow rate is equal to the permitted flow rate for the previous permit.

Purgeable and extractable TPH (full range C6-C40) -EPA 8015B/8260B: 1.0 mg/L. TPH and volatile organics (VOC) are being treated by a filtration system including 3 in-series granular activated carbon absorption canisters. Specific VOCs are noted in the table below the TPH. TPH and VOC concentrations are measured prior to entering the treatment system and at the effluent of the last carbon canister, and may be monitored between each canister to better determine breakthrough of an individual canister. Same requirements and limits as in the previous permit.

Inorganic Nitrogen: Monitor & Report individual inorganic species noted in Table I. Same requirements and limits as in the previous permit.

Phosphorus: Monitor & Report. Same requirements and limits as in the previous permit.

pH: 6.5 - 9.0, standard units. pH is required monitoring per NAC 445A.198 and NAC 445A.199.

TDS: Monitor & Report. The shallow groundwater with naturally occurring elevated TDS levels would flow to the Wash, if it was not intercepted by the dewatering system. Therefore, the TDS standard is not applied to dewatering discharges in this area. This permit is for the interception and passage of groundwater and thus is exempted under the Colorado River Basin Salinity Control Forum's policy on groundwater interception. Same requirements and limits as in the previous permit.

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 which the Administrator may make in approving the schedule of compliance:

- The Permittee shall achieve compliance with the effluent limitations upon issuance of the permit.
- Within 90 days of the permit effective date (**MM DD, 2010**), the Permittee shall submit to the Division, for review and approval, an updated **Operations & Maintenance Manual (O&MM)** for the groundwater treatment system. Before implementing changes to an approved O&MM, the Permittee shall submit proposed changes to the Division for review and approval.

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 a NPDES permit authorizing this facility to discharge into the Flamingo Wash for a five-year period, 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 thirty (30) days following the date of publication of the public notice in the newspaper. 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 **February 10, 2010 by 5:00 P.M.**

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.

Prepared by: Jeryl R. Gardner, P.E.
Date: January, 2010