



STATE OF NEVADA

Department of Conservation & Natural Resources

DIVISION OF ENVIRONMENTAL PROTECTION

Brian Sandoval, Governor

Leo M. Drozdoff, P.E., Director

Colleen Cripps, Ph.D., Administrator

FACT SHEET (pursuant to NAC 445A.236)

Applicant: City of Las Vegas
6005 E. Vegas Valley Drive
Las Vegas, NV 89142

Permit Number: NV0023183

Location: City Center Place
455 S. Third St., between Lewis Avenue and Clark Avenue
Las Vegas, NV 89101
Latitude: 36° 09' 56.7" N Longitude: 115° 08' 41.9" W
Section 34, T20S, R61E MDB&M

Discharge Outfall: **Outfall 001:** City of Las Vegas storm drain system drop inlet in 4th Street
Latitude: 36° 09' 56.30" N Longitude: 115° 08' 40.40" W

General: The Applicant has applied for renewal of a National Pollutant Discharge Elimination System (NPDES) permit, NV0023183, to discharge untreated groundwater to the City of Las Vegas storm drain system, tributary to the Las Vegas Wash. The Applicant owns a public building located at 455 S. Third St., between Lewis Ave. and Clark Ave., in Las Vegas, Clark County, Nevada. The parking garage is partially below-grade and requires dewatering via sumps. The discharge is untreated due to a lack of organic pollutants above maximum contaminant levels (MCLs).

Flow: The discharge from the facility dewatering is permitted for a 30-day average discharge of 0.060 million gallons per day (MGD) flow rate. The flow rate is based on historic dewatering rates and groundwater elevation information.

Receiving Water Characteristics: The city storm drain system in this area is tributary to the Las Vegas Wash, and the standards set at the nearest downstream control point, "Las Vegas Wash at Telephone Line Road" (NAC 445A.2156), apply. In addition, the state wide standards for toxic materials, NAC445A.1236, are applicable, and Total Maximum Daily Loads (TMDLs) for Las Vegas Wash have been established for phosphorus and ammonia.

Site Groundwater: Within the project area the groundwater elevation is generally quite shallow, approximately 10 feet below grade. The local groundwater flow direction is east, towards the Las Vegas Wash. The project site is near a regional low-level groundwater tetrachloroethene (PCE) plume.

Corrective Actions Sites: There are eighteen Bureau of Corrective Actions (BCA) hydrocarbon remediation sites within a one-mile radius of the facility. The BCA case officers have stated that the dewatering activities are not likely to impact the remediation activities.

Well Head and Drinking Water Supply Protection: The facility is not within 6000' of a public supply well. A Wellhead Protection Area (WHPA) has not been established for this area.

Proposed Discharge Limitations and Special Conditions: The water discharged from the groundwater remediation system to the City of Las Vegas storm drain system shall be limited, sampled and monitored by the Permittee as specified below.

Discharge samples and measurements taken in compliance with the monitoring requirements specified below shall be taken prior to discharge to the storm drain drop inlet at the following location:

Parking garage sump flow meter: 455 S. Third Street, between Lewis and Clark
 Latitude: 36° 09' 56.7" N Longitude: 115° 08' 41.9" W

Proposed Discharge Limits: Specific sampling and monitoring requirements are provided in Table 1.

Table 1. Discharge Limitations, Sampling and Monitoring Requirements

| Parameters | Units | Discharge Limitations | | Monitoring Requirements | | |
|--|-------|-----------------------|---------------|-------------------------|----------------------|-----------------|
| | | 30-Day Average | Daily Maximum | Sampling Locations | Monitoring Frequency | Monitoring Type |
| Discharge ¹ | MGD | 0.060 | --- | 001 | Continuous | Flow meter |
| PCE | µg/l | --- | 5.0 | 001 | Quarterly | Discrete |
| pH min | S.U. | --- | 6.5 | 001 | Quarterly | Discrete |
| pH max | S.U. | --- | 9.0 | 001 | Quarterly | Discrete |
| TDS | mg/l | --- | M&R | 001 | Quarterly | Discrete |
| NH ₃ -N | mg/l | --- | M&R | 001 | Quarterly | Discrete |
| (NO ₂ + NO ₃)-N | mg/l | --- | M&R | 001 | Quarterly | Discrete |
| TIN-N | mg/l | --- | 20 | 001 | Quarterly | Discrete |
| TP-P | mg/l | --- | M&R | 001 | Quarterly | Discrete |
| TPH | mg/l | --- | 1.0 | 001 | Annually | Discrete |
| TCE | µg/l | --- | 5.0 | 001 | Quarterly | Discrete |
| MTBE | µg/l | --- | 20 | 001 | Annually | Discrete |
| Benzene | µg/l | --- | 5.0 | 001 | Annually | Discrete |
| Toluene | µg/l | --- | 100 | 001 | Annually | Discrete |
| Ethylbenzene | µg/l | --- | 100 | 001 | Annually | Discrete |
| Total xylenes | µg/l | --- | 200 | 001 | Annually | Discrete |
| Hardness | mg/l | --- | M&R | 001 | Annually | Discrete |
| Antimony | mg/l | --- | M&R | 001 | Annually | Discrete |
| Arsenic | mg/l | --- | M&R | 001 | Annually | Discrete |
| Barium | mg/l | --- | M&R | 001 | Annually | Discrete |
| Beryllium | mg/l | --- | M&R | 001 | Annually | Discrete |
| Boron | mg/l | --- | M&R | 001 | Annually | Discrete |
| Cadmium | mg/l | --- | M&R | 001 | Annually | Discrete |
| Calcium | mg/l | --- | M&R | 001 | Annually | Discrete |
| Chromium | mg/l | --- | M&R | 001 | Annually | Discrete |
| Copper | mg/l | --- | M&R | 001 | Annually | Discrete |
| Fluoride | mg/l | --- | M&R | 001 | Annually | Discrete |
| Iron | mg/l | --- | M&R | 001 | Annually | Discrete |
| Lead | mg/l | --- | M&R | 001 | Annually | Discrete |
| Magnesium | mg/l | --- | M&R | 001 | Annually | Discrete |
| Manganese | mg/l | --- | M&R | 001 | Annually | Discrete |

| | | | | | | |
|------------|------|-----|-----|-----|----------|----------|
| Mercury | mg/l | --- | M&R | 001 | Annually | Discrete |
| Molybdenum | mg/l | --- | M&R | 001 | Annually | Discrete |
| Nickel | mg/l | --- | M&R | 001 | Annually | Discrete |
| Selenium | mg/l | --- | M&R | 001 | Annually | Discrete |
| Silver | mg/l | --- | M&R | 001 | Annually | Discrete |
| Thallium | mg/l | --- | M&R | 001 | Annually | Discrete |
| Zinc | mg/l | --- | M&R | 001 | Annually | Discrete |

Table Definitions and Footnote Explanations are provided in Table 2.

Table 2. Table Definitions and Footnote Explanations

| Term/ Footnote | Definitions/ Explanations |
|--|--|
| MGD | Million gallons per day |
| M&R | Monitor and report |
| PCE | Tetrachloroethene |
| µg/l | micrograms per liter |
| TPH | Total Petroleum Hydrocarbons, purgeable and extractable, full range C6-C40. Sample and analyze and report annually. Analyze using EPA Method 8015B. |
| TCE | Trichloroethene |
| MTBE | Methyl-tertiary-butyl-ether |
| BTEX | Benzene, toluene, ethylbenzene, and total xylenes |
| TDS | Total dissolved solids |
| mg/l | milligrams per liter |
| (NO ₂ + NO ₃)-N | (Nitrite plus Nitrate) as Nitrogen |
| NH ₃ -N | Ammonia as Nitrogen |
| TIN-N | Total Inorganic Nitrogen as Nitrogen |
| TP-P | Total phosphorus as phosphorus |
| Footnote 1 | Monitor daily and record 30-day average in MGD, and report quarterly. Discharge shall be monitored at the sump flow meter prior to discharge to the storm drain system drop inlet. |

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

Flow: M&R. Flow data is necessary for determining impacts to the receiving water from the various constituents present.

PCE: 5.0 µg/l, a technology-based limit. PCE has been detected in the effluent every quarter; the maximum concentration was 4.2 µg/l in January 2011. The 5-year average was 2.9 µg/l. PCE will continue to be monitored quarterly to ensure that Las Vegas Wash beneficial uses are protected.

TPH: 1.0 mg/l, a technology-based limit. TPH has not been detected. If TPH is not detected in the effluent during this permit cycle the Permittee may request removal of the monitoring requirement at the next permit renewal.

TCE, MTBE, BTEX: TCE and Benzene limits of 5 µg/l are the toxic standards referenced in NAC 445A.1236. Toluene, ethyl benzene and total xylenes are technology based limits. MTBE is a risk-based limit of 20 µg/l. None of these parameters have been detected in the effluent. Quarterly monitoring is being changed to annual monitoring.

TDS: M&R. NAC 445A.2156 contains a single value standard of 1,900 mg/l and a 95% of all single value average of 3,000 mg/l. The discharge data set revealed an average of 1,355 mg/l and a single value maximum of 1,580 mg/l. A limit is not set because TDS is naturally occurring and difficult to treat. TDS is routinely monitored for all discharges to Las Vegas Wash, based on salinity issues in the Colorado River basin.

NH₃-N: M&R. This is included due to the TMDL mentioned above, and is part of the TIN analysis. No limit is applied because the Permittee was not assigned an individual waste load allocation. There have been no detectable concentrations in the past 5 years.

TIN-N: 20 mg/l. The limit is the water quality standard given by NAC 445A.2156, based on existing quality. TIN is determined from the sum of separate analyses for nitrate, nitrite, and ammonia. Concentrations have resided well below the standard, with the overall average being 2.91 mg/l.

NO₂ + NO₃ -N: M&R. No limit set as this is covered by TIN-N. The overall average is 2.91 mg/l.

TP-P: M&R. This is included due to the TMDL mentioned above. No limit is applied because the Permittee was not assigned an individual waste load allocation. The 5-year average concentration is 0.07 mg/l.

Metals: M&R. No limits, except for the specific inorganics detailed above. The requirement is to sample and report annually in the 4th quarter. There have been no exceedances of MCLs.

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 discharge limitations upon issuance of the permit.
- By **February 9, 2013** the Permittee shall submit two copies of an updated Operations and Maintenance Manual to the Division for review and approval, prepared in accordance with applicable sections of *WTS-2 Minimum Information Required for an Operation and Maintenance Manual for a Wastewater Treatment Plant*.

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

Procedures for Public Comment: The Notice of the Division's intent to issue a renewal NPDES permit for a five-year period, authorizing this facility to discharge to the Las Vegas Wash via the City of Las Vegas storm drain system, 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 **October 5, 2012 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: September 2012