

# NEVADA DIVISION OF ENVIRONMENTAL PROTECTION

## FACT SHEET

(pursuant to NAC 445A.236)

**Applicant:** Board of Regents of the Nevada System of Higher Education  
University of Nevada Las Vegas (UNLV)  
4505 Maryland Parkway  
Las Vegas, NV 89154

**Permit Number:** NV0023931

**Location:** UNLV –Mendenhall Building  
4505 Maryland Parkway  
Las Vegas, Clark County, NV 89154  
Latitude: 36° 06' 13.41" N, Longitude: 115° 08' 42.60" W  
SW ¼ SE ¼ S22 T21S, R61E MDB&M

**Discharge Outfall:** The water is collected in a system of perforated drain pipes under a basement slab and conveyed via gravity to a dewatering well adjacent to the new building. The well collects all nuisance water and discharges to one location at Outfall 001.

**Outfall 001: storm drain drop inlet near the intersection of Thomas and Mack Drive and Swenson Street on UNLV campus**

**Latitude: 36° 06' 14" N**

**Longitude: 115° 08' 37.3" W**

**General:** The Permittee has applied for a new National Pollutant Discharge Elimination System (NPDES) permit, NV0023931, to discharge shallow groundwater and stormwater to the Flamingo Wash via the Clark County stormdrain system.

The Permittee operates a system of higher education facilities, University of Nevada Las Vegas (UNLV), at 4505 Maryland Parkway in Las Vegas, Clark County, Nevada. The Permittee is constructing a new basketball stadium for UNLV, the Mendenhall Center, near the current Thomas and Mack Center and the Cox Pavilion, near the intersection of Swenson Street and East Tropicana Avenue. Construction dewatering is being discharged via a system of underground injection wells, permitted under TNEV2011336. The Mendenhall Center, once constructed will include a dewatering system to prevent the basement from flooding. A pumping well located outside of the new building will convey discharge flows to the nearest stormdrain system drop inlet, located on campus, approximately 40 feet away from the well. The storm drain system eventually discharges the pumped groundwater and stormwater to an outfall located at the Flamingo Wash. Pre-construction sampling and analysis of the shallow groundwater revealed non-detect for all hydrocarbon compounds. Monitoring of the discharge is conducted to ensure that surface waters are not degraded as a result of the basement dewatering discharge.

**Flow:** The facility's daily maximum discharge from the underslab dewatering will be 180 gallons per minute (gpm) and the 30-day average discharge will be permitted at 0.259 MGD. The flow into the dewatering system depends on the groundwater elevation in the Las Vegas Valley water table aquifer system and on the amount of precipitation.

**Receiving Water Characteristics:** Groundwater from the dewatering well and stormwater drainage is discharged to the Clark County stormdrain system. The stormdrain conveys the water to the Upper Las Vegas Wash via the Flamingo Wash. Water quality standards for the beneficial uses designated in NAC

445A.198, for the Upper Las Vegas Wash, are specified in NAC 445A.199.

**Site Groundwater:** Within the project area the groundwater elevation is generally quite shallow, approximately 12-16 feet below ground surface. The local groundwater flow direction is northeast.

**Corrective Actions Sites:** There are eight Bureau of Corrective Actions (BCA) remediation sites within a one-mile radius of the facility. The BCA case officers do not expect the remediation sites to be impacted by the proposed dewatering. Recent data from the on-site boring, B-3, shows non-detect for total petroleum hydrocarbons and volatile organics. Annual monitoring and sampling will be required to ensure that none of the BCA remediation projects are adversely impacted and that downstream water quality is not degraded.

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

**Proposed Discharge Limits:** Specific sampling and monitoring requirements are listed below in Table I.

**Table I. Discharge Limitations, Sampling and Monitoring Requirements**

Parameters	Units	Discharge Limitations		Monitoring Requirements		
		30-Day Average	Daily Maximum	Sampling Locations	Monitoring Frequency	Monitoring Type
Maximum Daily Discharge <sup>1</sup>	gpm	180	---	001	Continuous	Flow meter
30-Day Average Discharge Rate <sup>1</sup>	MGD	---	.259	001	Continuous	Calculate
pH	S.U.	6.5 ≤ pH ≤ 9.0		001	Quarterly	Discrete
TDS	mg/l	M&R	M&R	001	Quarterly	Discrete
TPH <sup>2</sup>	mg/l	M&R	1.0	001	Annually	Discrete
VOC <sup>2</sup>	µg/l	M&R	M&R	001	Annually	Discrete

**NOTES:**

1. Monitor and report in gpm and MGD, the total discharge from the dewatering well to the stormdrain system.
2. Sample and report in the calendar year 4<sup>th</sup> quarter (January). Analyze using EPA Methods 8260B and 8015B. Report the full range of hydrocarbons, C6-C40, purgeable and extractable. Report all VOC parameters.

gpm: gallons per minute  
 M&R: Monitor and Report  
 mg/l: milligrams per liter  
 TDS: Total Dissolved Solids  
 VOC: Volatile Organic Compounds

MGD: Million gallons per day  
 S.U.: standard pH units  
 µg/l: micrograms per liter  
 TPH: Total Petroleum Hydrocarbons

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

**Flow:** The rationale for the daily maximum and 30-day average discharge rates was explained in the Flow section of this fact sheet.

**pH:** 6.5 - 9.0, standard units. pH is required monitoring per standards stipulated in NAC 445A.199 for the beneficial uses designated in NAC 445A.198.

**TDS:** M&R. 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.

**TPH:** 1.0 mg/L. The limit is based on BCA action levels. The requirement is to sample annually to ensure that nearby groundwater plumes are not being drawn into the dewatering system.

**VOC:** M&R. The requirement is to sample annually to ensure that nearby groundwater plumes are not being drawn into the dewatering system.

**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.
- Two weeks prior to the start of dewatering discharge, or by **May 10, 2011**, whichever comes first, the Permittee shall submit to the Division, for review and approval, an **Operations & Maintenance Manual (O&M)**, per WTS-2, for the proposed dewatering and discharge activities. The **O&M** shall include a Dewatering Plan providing dewatering discharge details including discharge routing, methodology and BMPs to be utilized. The **O&M** shall also include a Sampling and Analysis Plan summarizing the monitoring, sampling, analytical, and data reporting procedures for the proposed sampling locations. Before implementing changes to an approved **O&M**, the Permittee shall submit the proposed changes to the Division for review and approval.
- The Permittee shall notify the Division in writing within 14 days of initiating discharge.

**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 for a five-year period, authorizing this facility to discharge into the Flamingo Wash via the Clark County stormdrain 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 **February 7, 2011 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, 2011

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