

NEVADA DIVISION OF ENVIRONMENTAL PROTECTION

FACT SHEET

(pursuant to NAC 445A.236)

- Applicant:** Clark County Water Reclamation District
5857 E. Flamingo Rd.
Las Vegas, NV 89122
- Permit Number:** NV0023884
- Facility Locations:** Tropicana & Eastern Sewer Rehabilitation Project 634
City of Las Vegas in Clark County, Nevada
Section 25 T21S R61E
Latitude: 36° 05' 57.35" N Longitude: 115° 07' 07.72" W
- Discharge Outfalls:** Several well points will be established within the Eastern Avenue trench; all of the sumps and well points will combine into a common pipe with one discharge location at Outfall 001.
- Outfall 001: storm drain drop inlet at SE corner of Tropicana & Eastern**
Latitude: 36° 05' 59.31" N Longitude: 115° 07' 7.50" W

General: Clark County Water Reclamation District is proposing upgrades to a 350-foot section of sanitary sewer located within Eastern Avenue, extending from Tropicana Avenue south, in Las Vegas, Nevada. The purpose of the project is to increase capacity of the system by addition of two manholes. Dewatering is required for the trench excavation and facility upgrades. Eight pumping wells will be required for the dewatering, for a maximum total pumping rate of no more than 500 gallons per minute (gpm). The project is scheduled to begin February 1, 2011. The proposed NPDES permit is for a period of five years although the sewer line replacement, dewatering and discharge activities are expected to be completed in 6 weeks or less.

Flow: The applicant requested a daily maximum dewatering discharge flow rate of 500 gallons per minute (gpm), equivalent to 0.72 million gallons per day (MGD). Daily average dewatering flow rates are anticipated to be 230 gpm, and dewatering will likely be required for no more than 3 weeks.

Receiving Water Characteristics: After initial discharge to the stormdrain drop inlet the stormwater drainage system will deliver the discharge to the Flamingo Wash (Wash), the receiving water body. From the storm drain drop inlet the discharge will flow into the main stormdrain conduit along Tropicana Avenue, which will deliver flows to a concrete-lined channel crossing Tropicana. The channel continues to route flow northward to the intersection of McLeod Drive and Pecos McLeod Connect, where it meets the Flamingo Wash. The Flamingo Wash is a major tributary to the Las Vegas Wash, which is the primary wastewater and stormwater drainage outlet for the Las Vegas Valley and surrounding watershed. **Settling tanks will be used to settle sediment from the water prior to discharge to the Wash.** Monitoring of the discharge outfall to the stormdrain drop inlet will ensure that Wash water quality is not adversely impacted and that downstream projects and downstream water users are not adversely impacted by the additional activities.

Site Groundwater: Within the project area the groundwater elevation is generally quite shallow, approximately 2-6 feet below ground surface. The local groundwater flow direction is northeast.

Corrective Actions Sites: There are three Bureau of Corrective Actions (BCA) hydrocarbon remediation sites within a one-mile radius of the facility. These include Terrible Herbst 106, located approximately ¼ mile down-gradient on Tropicana Ave., east of Eastern; Tropicana East Shopping Center, located approximately ½ mile down-gradient on Tropicana; and, Village East Cleaners, located approximately 250 feet up-gradient of the site on Eastern Ave. The BCA does not expect that the two down-gradient sites to be potentially impacted by the dewatering and discharge. Recent data from three on-site monitoring wells for the up-gradient tetrachloroethylene (PCE) plume show elevated PCE concentrations (<10 µg/l), but the plume appears to be restricted to the site. Recent down-gradient off-site monitoring well data shows much lower PCE concentrations (<0.5 µg/l). Monitoring and sampling will be required twice weekly to ensure that the BCA remediation projects are not adversely impacted and that downstream water quality is not degraded.

Wellhead and Drinking Water Supply Protection: The application identified no public drinking water supply wells within 6000’ of the site. The sewer line construction and discharge sites are not within a wellhead protection area.

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

Table I. Discharge Limitations, Sampling and Monitoring Requirements

Parameters & Units		Discharge Limitations	Sampling Location	Monitoring Frequency	Monitoring Type
Total Flow ¹	gpm	500	001	Continuous	Flow meter
Total Daily Discharge Maximum ¹	MGD	0.720	001	Continuous	Calculation
pH	S.U.	6.5 - 9.0	001	Twice Weekly ⁶	Discrete
TDS ²	mg/l	M&R	001	Twice Weekly ⁶	Discrete
TPH ³	mg/l	1.0	001	Twice Weekly ⁶	Discrete
MTBE ³	µg/l	20	001	Twice Weekly ⁶	Discrete
Benzene ³	µg/l	5.0	001	Twice Weekly ⁶	Discrete
Toluene ³	µg/l	100	001	Twice Weekly ⁶	Discrete
Ethylbenzene ³	µg/l	100	001	Twice Weekly ⁶	Discrete
Total xylenes ³	µg/l	200	001	Twice Weekly ⁶	Discrete
VOC ⁴	µg/l	M&R	001	Twice Weekly ⁶	Discrete
PCE ⁵	µg/l	10	001	Twice Weekly ⁶	Discrete

NOTES:

1. Monitor daily and report quarterly on DMR forms, the total combined discharge from all wellpoints.
2. Measure TDS concentration twice weekly and report quarterly.
3. Sample twice weekly and analyze using EPA Methods 8260B and 8015B. Report quarterly the full range of hydrocarbons, C6-C40, purgeable and extractable.
4. Sample twice weekly, and analyze using EPA Method 8260B. Report all parameters quarterly.
5. Sample twice weekly, and analyze using EPA Method 8260B. If a single reading exceeds 5 µg/l, submit a letter to NDEP, and prepare a revised dewatering plan. If a single reading exceeds 8 µg/l, reduce dewatering discharge rate, and submit revised dewatering plan to Compliance Coordinator and Permit Writer for approval. If a single reading exceeds 10 µg/l, cease dewatering discharge, notify NDEP, and implement the NDEP-approved revised dewatering plan, before resuming dewatering discharge. Report all results, maximum, and mean values quarterly.
6. Sample twice weekly, a minimum of three days apart. Report maximum and average values quarterly on DMR forms.

gpm: gallons per minute

MGD: Million gallons per day

M&R: Monitor and Report
mg/l: milligrams per liter
TDS: Total Dissolved Solids
MTBE: Methyl tertiary butyl ether
PCE: Tetrachloroethylene

S.U.: standard pH units
µg/l: micrograms per liter
TPH: Total Petroleum Hydrocarbons
VOC: Volatile Organic Compounds

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

Flow: The rationale for the 30-day average and daily maximum discharges 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 to sample twice weekly is due to the hydrocarbon plumes in the vicinity to ensure that the dewatering discharge is not drawing contamination in from the plumes.

MTBE: 20 µg/L. The limit is based on BCA action levels. The requirement to sample twice weekly is due to the hydrocarbon plumes in the vicinity to ensure that the dewatering discharge is not drawing contamination in from the plumes.

Benzene: 5.0 µg/L. The limit is set per requirements listed in NAC 445A.144. The requirement to sample twice weekly is due to the hydrocarbon plumes in the vicinity to ensure that the dewatering discharge is not drawing contamination in from the plumes.

Toluene: 100 µg/L. The limit is based on BCA action levels. The requirement to sample twice weekly is due to the hydrocarbon plumes in the vicinity to ensure that the dewatering discharge is not drawing contamination in from the plumes.

Ethylbenzene: 100 µg/L. The limit is based on BCA action levels. The requirement to sample twice weekly is due to the hydrocarbon plumes in the vicinity to ensure that the dewatering discharge is not drawing contamination in from the plumes.

Xylenes, total: 200 µg/L. The limit is based on BCA action levels. The requirement to sample twice weekly is due to the hydrocarbon plumes in the vicinity to ensure that the dewatering discharge is not drawing contamination in from the plumes.

VOC: M&R. The requirement to sample twice weekly is due to the hydrocarbon plumes in the vicinity to ensure that the dewatering discharge is not drawing contamination in from the plumes.

PCE: 10 µg/l. The limit is based on BCA action levels. The requirement to sample twice weekly is due to the hydrocarbon plumes in the vicinity to ensure that the dewatering discharge is not drawing contamination in from the plumes. PCE is a known contaminant up-gradient of the project area. It is not likely that PCE concentrations above background will be noted in the discharge, but frequent sampling will ensure that downstream water quality is not adversely impacted. If a single reading exceeds 5 µg/l the Permittee is required to submit a letter to NDEP, and formulate a revised dewatering plan. If a single reading exceeds 8 µg/l, the Permittee will reduce dewatering discharge rates and submit the revised dewatering plan to the Compliance Coordinator and Permit Writer for approval. If a single reading exceeds 10 µg/l, the Permittee will cease dewatering discharge, notify NDEP, and implement the NDEP-approved revised dewatering plan, before resuming dewatering discharge.

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 issue date (**MM DD, 2010**), the Permittee shall submit to the Division, for review and approval, an updated **Dewatering Discharge Plan (Plan)** for the proposed shallow groundwater dewatering and discharge activities. Before implementing changes to an approved Plan, the Permittee shall submit proposed changes to the Division for review and approval.
- Within 90 days of the permit issue date (**MM DD, 2010**), the Permittee shall submit to the Division, for review and approval, a **Sampling and Analysis Plan (SAP)**. The SAP shall summarize the sampling, analytical, monitoring, notification procedures and data reporting to be conducted for Outfall 001 sampling location. Before implementing changes to an approved SAP, 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 for a five-year period, authorizing this facility to discharge into the Pittman Wash, 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 **September 27, 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

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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: August 2010

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