



STATE OF NEVADA

Department of Conservation & Natural Resources

Brian Sandoval, Governor

Leo M. Drozdoff, P.E., Director

DIVISION OF ENVIRONMENTAL PROTECTION

Colleen Cripps, Ph.D., Administrator

FACTSHEET (pursuant to NAC 445A.236)

Permittee Name: CLARK COUNTY WATER RECLAMATION DISTRICT
5857 EAST FLAMINGO ROAD
LAS VEGAS, NV - 89122

Permit Number: NV0024213

Location: CLARK COUNTY WATER RECLAMATION DISTRICT PROJECT #669, CLARK
5857 EAST FLAMINGO ROAD, LAS VEGAS, NV - 89122
LATITUDE: 36.092917, LONGITUDE: -115.077603
TOWNSHIP: T21S, RANGE: R62E, SECTION: S15

Outfall / Well Num	Outfall / Well Name	Location Type	Well Log Num	Outfall City	Outfall State	Outfall Zip	Outfall County	Latitude	Longitude	Receiving Water
001	CORNER OF PEARL ST & PATRICK LN	External Outfall		LAS VEGAS	NV	89122	CLARK	36.078869	-115.096378	LAS VEGAS WASH
002	CORNER OF HACIENDA AVE & PALM AVE	External Outfall		LAS VEGAS	NV	89122	CLARK	36.092917	-115.077603	LAS VEGAS WASH
003	CORNER OF NELLIS BLVD AND FLAMINGO RD	External Outfall		LAS VEGAS	NV	89122	CLARK	36.114861	-115.064631	LAS VEGAS WASH
004	COMBINED DISCHARGE TO STORM DRAIN	External Outfall		LAS VEGAS	NV	89122	CLARK	36.092917	-115.077603	LAS VEGAS WASH

General:

Clark County Water Reclamation District (CCWRD) has applied for a National Pollutant Discharge Elimination System permit to discharge groundwater generated during dewatering activities associated with CCWRD project #669. This project will consist of installation of approximately five miles of 54-inch, 60-inch, 66-inch, and 72-inch relief sewer within Nellis Boulevard, Hacienda Avenue, Grapevine Springs Park boundary, Lamb Boulevard, Oquendo Road, Pearl Street, and Patrick Lane. The majority of the project will require groundwater dewatering during construction. CCWRD will pump the groundwater to a sedimentation tank prior to discharging to the storm drain inlets along the project alignment. CCWRD has submitted plans that show numerous drop inlets along the project alignment where the Clark County Public Works has given authorization to discharge. Outfall 001-003 are spaced evenly throughout the project to give NDEP a representative sample of groundwater quality; however, CCWRD is authorized to discharge to any of the drop inlets included in the Division-approved plans.

Discharge Characteristics:

The discharge will be shallow groundwater encountered during construction dewatering. The project alignment is located within one hydrocarbon plume in the southeast portion of the greater Las Vegas area; construction dewatering will not occur in the area of this plume. A groundwater sample collected in November 2012 revealed concentrations of total nitrogen (2.73 mg/L), chloride (245 mg/L), fluoride (0.66 mg/L), sulfate (1370 mg/L), and total dissolved solids (3052 mg/L). A separate groundwater sample

collected in October 2012 revealed a concentration of 9.01 µg/L for perchlorate.

Receiving Water:

The receiving water for the construction dewatering discharge is the Las Vegas Wash (Wash) via the Clark County storm drain system and Duck Creek. The Wash is the primary wastewater and stormwater drainage outlet for the Las Vegas Valley and surrounding watershed. The shallow groundwater encountered during the construction activities is generally background Wash water quality. To reduce sediment loads, settling tanks will be used as needed to filter the water prior to discharge to the Wash. Water quality standards for the beneficial uses are designated in NAC 445A.2142, and specified in NAC 445A.2156.

Summary of Changes From Previous Permit:

This is a new permit.

Proposed Effluent Limitations:

The Division proposes the following permit limitations and monitoring requirements:

Discharge Limitations Table for Sample Location 001 (External Outfall) To Be Reported Monthly^[1]

Parameter	Discharge Limitations			Monitoring Requirements			
	Base	Quantity	Concentration	Monitoring Loc	Sample Loc	Measurement Frequency	Sample Type
Hydrocarbons, total petroleum ^[2]	Daily Maximum		<= 1.0 Milligrams per Liter (mg/L)	Effluent Gross	001	Monthly	DISCRT
Perchlorate (ClO ₄)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Monthly	DISCRT
Nitrogen, inorganic total	Daily Maximum		<= 20 Milligrams per Liter (mg/L)	Effluent Gross	001	Monthly	DISCRT
Solids, total suspended	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Monthly	DISCRT
Solids, total dissolved	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Monthly	DISCRT
pH, maximum	Daily Maximum		<= 9.0 Standard Units (SU)	Effluent Gross	001	Monthly	DISCRT
pH, minimum	Daily Minimum		>= 6.5 Standard Units (SU)	Effluent Gross	001	Monthly	DISCRT
Fluoride, total (as F)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Monthly	DISCRT

Notes (Discharge Limitations Table):

1. If no discharge takes place from this outfall during the reporting period, enter "No Discharge" on the DMR for this outfall.
2. Report full range of purgeable and extractable TPH, C6-C40.

Discharge Limitations Table for Sample Location 002 (External Outfall) To Be Reported Monthly^[1]

Parameter	Discharge Limitations			Monitoring Requirements			
	Base	Quantity	Concentration	Monitoring Loc	Sample Loc	Measurement Frequency	Sample Type
Hydrocarbons, total petroleum ^[2]	Daily Maximum		<= 1.0 Milligrams per Liter (mg/L)	Effluent Gross	002	Monthly	DISCRT
Perchlorate (ClO ₄)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	002	Monthly	DISCRT
Nitrogen, inorganic total	Daily Maximum		<= 20 Milligrams per Liter (mg/L)	Effluent Gross	002	Monthly	DISCRT
Solids, total suspended	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	002	Monthly	DISCRT
Solids, total dissolved	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	002	Monthly	DISCRT
pH, maximum	Daily Maximum		<= 9.0 Standard Units (SU)	Effluent Gross	002	Monthly	DISCRT
pH, minimum	Daily Minimum		>= 6.5 Standard Units (SU)	Effluent Gross	002	Monthly	DISCRT
Fluoride, total (as F)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	002	Monthly	DISCRT

Notes (Discharge Limitations Table):

1. If no discharge takes place from this outfall during the reporting period, enter "No Discharge" on the DMR for this outfall.
2. Report full range of purgeable and extractable TPH, C6-C40.

Discharge Limitations Table for Sample Location 003 (External Outfall) To Be Reported Monthly^[1]

Parameter	Discharge Limitations			Monitoring Requirements			
	Base	Quantity	Concentration	Monitoring Loc	Sample Loc	Measurement Frequency	Sample Type
Hydrocarbons, total petroleum ^[2]	Daily Maximum		<= 1.0 Milligrams per Liter (mg/L)	Effluent Gross	003	Monthly	DISCRT
Perchlorate (ClO ₄)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	003	Monthly	DISCRT
Nitrogen, inorganic total	Daily Maximum		<= 20 Milligrams per Liter (mg/L)	Effluent Gross	003	Monthly	DISCRT
Solids, total suspended	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	003	Monthly	DISCRT
Solids, total dissolved	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	003	Monthly	DISCRT
pH, maximum	Daily Maximum		<= 9.0 Standard Units (SU)	Effluent Gross	003	Monthly	DISCRT
pH, minimum	Daily Minimum		>= 6.5 Standard Units (SU)	Effluent Gross	003	Monthly	DISCRT
Fluoride, total (as F)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	003	Monthly	DISCRT

Notes (Discharge Limitations Table):

1. If no discharge takes place from this outfall during the reporting period, enter "No Discharge" on the DMR for this outfall.
2. Report full range of purgeable and extractable TPH, C6-C40.

Discharge Limitations Table for Sample Location 004 (External Outfall) To Be Reported Monthly^[1]

Parameter	Discharge Limitations			Monitoring Requirements			
	Base	Quantity	Concentration	Monitoring Loc	Sample Loc	Measurement Frequency	Sample Type
Flow rate	30 Day Average	M&R Million Gallons per Day (Mgal/d)		Effluent Gross	004	Continuous	METER
Flow rate	Daily Maximum	<= 4.0 Million Gallons per Day (Mgal/d)		Effluent Gross	004	Continuous	METER

Notes (Discharge Limitations Table):

1. Report the combined flow from all discharge points.

Rationale for Permit Requirements:

Total Petroleum Hydrocarbons: 1 mg/L. The limit is the State standard for remediation projects. Groundwater data indicates non-detection of all purgeable and extractable hydrocarbons. TPH is included to insure that dewatering activities are not pulling in any of the hydrocarbon plumes in the area.

Perchlorate: Monitor and Report (M&R). The initial groundwater data indicated perchlorate at 9.01 µg/L.

Total Inorganic Nitrogen: 20 mg/L. Limit is based on beneficial uses designated in NAC 445A.2156.

Total Suspended Solids (TSS): M&R. Settling tanks will be used prior to discharge to the Wash. Reporting is required to monitor the treatment capabilities of the settling tanks.

Total Dissolved Solids (TDS): M&R. The discharge of shallow groundwater with elevated TDS levels will be well below the Colorado River Basin Salinity Control Forum's policy of 366 tons per year of salinity. 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.

pH: 6.5 - 9.0 standard units. pH limits are based on the beneficial uses designated in NAC 445A.2156.

Fluoride: NAC 445A.1236 identifies the most restrictive use as irrigation for fluoride, limiting discharges to 1 mg/L. NAC 445A.121(8) indicates the specified standards are not considered violated when the natural conditions of the receiving water are outside the established limits, including periods of high and low flow. Where effluents are discharged to such waters, the discharges are not considered a contributor to substandard conditions provided maximum treatment in compliance with permit requirements is maintained. The Las Vegas Wash Coordination Committee, 2008-2012 Year End Report (pages 25, 28) samples collected on Duck Creek for the Tributary Water Quality Monitoring program indicated that fluoride averaged 1.29 mg/L. Due to the proximity of the project to Duck Creek, the shallow groundwater, with these

naturally occurring constituents, would flow to Duck Creek and Las Vegas Wash were it not intercepted by the dewatering system. The Permittee provided the Division 20 samples for fluoride along the project route. The fluoride sampling results showed an average concentration of 0.85 mg/L, which is approximately 35% lower than the background concentrations in Duck Creek; therefore, a discharge limit for fluoride is not applied to the dewatering discharge. This parameter will be monitored monthly to allow NDEP the opportunity to review and ensure concentrations remain below background levels and degradation of waters does not occur.

Special Conditions:

SA – Special Approvals / Conditions Table

There are no Special Approval / Condition items

Reasonable Potential Analysis and Antidegradation Review:

The discharge shall meet the applicable standards listed in NAC 445A.1236 and NAC 445A.2156, therefore no degradation of existing water in the Wash is expected.

Flow:

The Permittee has requested a maximum daily flow of 4.0 million gallons per day.

Corrective Action Sites:

There are two (2) Bureau of Corrective Actions (BCA) remediation sites located within one mile of the construction project. The pipeline alignment for this project is located adjacent to BCA remediation site Pecos Express Sinclair. CCWRD is proposing to avoid dewatering this site by tunneling, which would allow construction of the pipeline without the need to dewater along the alignment that would otherwise be required by open trench construction. The BCA case officers don't expect the project activities to impact these remediation facilities.

Wellhead Protection Program:

The dewatering project is not located within an established Drinking Water Protection Area or Wellhead Protection Area.

Schedule of Compliance:

SOC – Schedule of Compliance Table

Item #	Description	Due Date
1	Two weeks prior to commencing dewatering discharge, or by July 1, 2014 at the latest, the Permittee shall submit two (2) copies of an Operation and Maintenance (O&M) Manual for review and approval by the Division. The O&M Manual shall contain a Dewatering Discharge Plan and a Sampling and Analysis Plan. The O&M Manual shall be prepared by a Nevada Registered Professional Engineer or other Division-approved qualified person. ^[1]	8/1/2014

Notes (Schedule of Compliance Table):

- O&M Manuals prepared by Nevada Registered Professional Engineers must be signed and stamped in accordance with NAC 625.610.

Deliverable Schedule:

DLV– Deliverable Schedule for Reports, Plans, and Other Submittals

Item #	Description	Interval	First Scheduled Due Date
1	Discharge Monitoring Reports	Quarterly	7/28/2014
2	Annual Reports	Annually	1/28/2015

Procedures for Public Comment:

The Notice of the Division's intent to reissue a permit authorizing the facility to discharge to surface waters of the State of Nevada 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 until 5:00 P.M. **4/7/2014**, a period of 30 days following the date of the public notice. The comment period can be extended at the discretion of the Administrator.

A public hearing on the proposed determination can be requested by the applicant, any affected State, any affected interstate agency, the Regional Administrator of EPA Region IX 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 determined to be appropriate. All public hearings must be conducted to accordance with NAC 445A.238.

The final determination of the Administrator may be appealed to the State Environmental Commission pursuant to NRS 445A.650.

Proposed Determination:

The Division has made the tentative determination to issue / re-issue the proposed 5-year permit.

Prepared by: **Jason Ferrin**

Date: **8/7/2013**

Title: **E.I., Staff II Associate**