

Brian Sandoval, Governor Leo M. Drozdoff, P.E., Director David Emme, Administrator

FACTSHEET (pursuant to NAC 445A.236)

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

Permit Number: NS0050025

Location: MOAPA VALLEY WASTEWATER TREATMENT PLANT, CLARK 1403 LEWIS AVENUE, OVERTON, NV - 89040 LATITUDE: 36.531667, LONGITUDE: -114.416389 TOWNSHIP: 16 S, RANGE: 68 E, SECTION: 20

Outfall / Well Num	Outfall / Well Name	Location Type	Well Log Num	Outfall City	Outfall State	Outfall Zip	Outfall County	Latitude	Longitude	Receiving Water
001	INFLUENT	Internal Outfall		OVERTON	NV	89040	CLARK	36.533133	-114.411122	GROUNDWATER
002	EFFLUENT	External Outfall		OVERTON	NV	89040	CLARK	36.533666	-114.414657	GROUNDWATER
003	MONITORING WELL MW-A	Monitoring Well		OVERTON	NV	89040	CLARK	36.534639	-114.410764	GROUNDWATER
004	MONITORING WELL MW-B	Monitoring Well		OVERTON	NV	89040	CLARK	36.534436	-114.416397	GROUNDWATER
005	MONITORING WELL MW-C	Monitoring Well		OVERTON	NV	89040	CLARK	36.533166	-114.416393	GROUNDWATER

General:

Clark County Water Reclamation District applied to renew a discharge permit for its Moapa Valley Wastewater Treatment Plant (WWTP) that serves approximately 593 residential and 62 commercial connections. Wastewater is collected and pumped from the Lewis Lane lift station to the treatment facility. Flow is monitored continuously with a flow meter. The WWTP is a mechanical treatment facility, utilizing the activated sludge 5-Stage Bardenpho process to produce tertiary-treated, denitrified effluent that is discharged to three rapid infiltration basins (RIBs). The facility can treat up to 0.75 million gallons per day (MGD), based on the 30-day average.

Groundwater at the facility is monitored via three monitoring wells. Monitoring well MW-A is up-gradient of the plant and wells MW-B and MW-C are down-gradient of the percolation ponds E and F. The monitoring wells are sampled quarterly for Total Dissolved Solids (TDS), Chlorides, Total Nitrogen, depth to groundwater and groundwater water elevation. Total Nitrogen is limited at 10.0 mg/L.

Discharge Characteristics:

Tertiary-treated effluent is discharged to the RIBs. Water quality results from 2015 show the following results:

Flows: 30-day average flows ranged from a minimum of 0.15 MGD to a maximum of 0.181 MGD. The

maximum day value was 0.23 MGD. These values are about 23-percent of the plant's capacity.

<u>Biochemical Oxygen Demand:</u> 30-day average BOD values ranged from a minimum of 3.6 mg/L to a maximum of 16.9 mg/L. The maximum day value was 34.1 mg/L. These values were within the permitted values of 30 mg/L and 45 mg/L, respectively.

<u>Total Suspended Solids</u>: 30-day average TSS values ranged from a minimum of 3.1 mg/L to a maximum of 11 mg/L. The maximum day value was 17 mg/L. These values were within the permitted values of 30 mg/L and 45 mg/L, respectively.

<u>pH</u>: pH values were all within the permitted values of 6.0 and 9.0 standard units.

<u>Total Nitrogen</u>: 30-day average TN values ranged from a minimum of 2.2 mg/L to a maximum of 3.4 mg/L. The maximum day value was 5.6 mg/L. These values were below the permitted value of 10 mg/L.

Receiving Water:

The receiving water is groundwater of the State. Water quality monitoring results from 2015 show the following results:

<u>Monitoring well (MW-A)</u>: The up-gradient monitoring well had average chloride values of 266 mg/L, average TN values of 5.45 mg/L and average TDS values of 2387 mg/L. Average depth to groundwater is approximately 74 feet.

<u>Monitoring well (MW-B):</u> This down-gradient monitoring well had average chloride values of 260 mg/L, average TN values of 5.4 mg/L and average TDS values of 2150 mg/L. Average depth to groundwater ranged from 24.4 feet to 28.2 feet.

<u>Monitoring well (MW-C):</u> The second down-gradient monitoring well had average chloride values of 250 mg/L, average TN values of 5.0 mg/L and average TDS values of 2150 mg/L. Average depth to groundwater ranged from 35.3 feet to 28.2 feet.

Summary of Changes From Previous Permit:

The following changes have been made to this permit from the previous permit:

The permit naming conventions at the Nevada Division of Environmental Protection (NDEP), Bureau of Water Pollution Control changed the permit number from NEV50025 to NS0050025. This change does not reflect a change in the type of permit being issued; and

Total nitrate values in the monitoring wells has been removed as a monitoring requirement from this permit since total nitrogen includes this value in the monitoring requirement.

Proposed Effluent Limitations:

The discharge shall be limited, sampled and monitored by the Permittee as specified below:

WWTP Discharge Limitations Table for Sample Location 001 (Internal Outfall) To Be Reported Monthly

		Discharge Lim	Monitoring Requirements				
Parameter	Base	Quantity	Concentration	Monitoring Loc	Sample Loc	Measurement Frequency	Sample Type
Flow rate	Daily Maximum	M&R Million Gallons per Day (Mgal/d)		Raw Sewage Influent	001	Continuous	METER
Flow rate	30 Day Average	<= 0.75 Million Gallons per Day (Mgal/d)		Raw Sewage Influent	001	Continuous	METER
Solids, total suspended	Monthly Maximum		M&R Milligrams per Liter (mg/L)	Raw Sewage Influent	001	Monthly	COMPOS
Solids, total suspended	Monthly Average		M&R Milligrams per Liter (mg/L)	Raw Sewage Influent	001	Monthly	COMPOS
BOD, 5-day	Monthly Maximum		M&R Milligrams per Liter (mg/L)	Raw Sewage Influent	001	Monthly	COMPOS
BOD, 5-day	Monthly Average		M&R Milligrams per Liter (mg/L)	Raw Sewage Influent	001	Monthly	COMPOS

WWTP Discharge Limitations Table for Sample Location 002 (External Outfall) To Be Reported Monthly

			Monitoring Requirements				
Parameter	Base	Quantity	Concentration	Monitoring Loc	Sample Loc	Measurement Frequency	Sample Type
Solids, total suspended	Monthly Maximum		<= 45 Milligrams per Liter (mg/L)	Effluent Gross	002	Monthly	COMPOS
Solids, total suspended	Monthly Average		<= 30 Milligrams per Liter (mg/L)	Effluent Gross	002	Monthly	COMPOS
BOD, 5-day	Monthly Maximum		<= 45 Milligrams per Liter (mg/L)	Effluent Gross	002	Monthly	COMPOS
BOD, 5-day	Monthly Average		<= 30 Milligrams per Liter (mg/L)	Effluent Gross	002	Monthly	COMPOS
pH, maximum	Monthly Maximum		<= 9 Standard Units (SU)	Effluent Gross	002	Monthly	COMPOS
pH, minimum	Monthly Minimum		>= 6 Standard Units (SU)	Effluent Gross	002	Monthly	COMPOS
Nitrogen, total	Monthly Maximum		<= 10 Milligrams per Liter (mg/L)	Effluent Gross	002	Monthly	COMPOS
Nitrogen, total	Monthly Average		M&R Milligrams per Liter (mg/L)	Effluent Gross	002	Monthly	COMPOS

Groundwater Monitoring Wells Table for Sample Location 003 (Monitoring Well - Mw-A) To Be Reported Quarterly

		Discharge Lir	Monitoring Requirements				
Parameter	Base	Quantity	Concentration	Monitoring Loc	Sample Loc	Measurement Frequency	Sample Type
Solids, total dissolved	Quarterly Maximum		M&R Milligrams per Liter (mg/L)	Groundwater	003	Quarterly	DISCRT
Chloride (as Cl)	Quarterly Maximum		M&R Milligrams per Liter (mg/L)	Groundwater	003	Quarterly	DISCRT
Nitrogen, total	Quarterly Maximum		M&R Milligrams per Liter (mg/L)	Groundwater	003	Quarterly	DISCRT
Water level relative to mean sea level ^[3]	Quarterly Maximum	M&R Feet (ft)		Groundwater	003	Quarterly	CALCTD
Depth to water level ft below landsurface ^[1]	Quarterly Maximum	M&R Feet (ft)		Groundwater	003	Quarterly	VISUAL ^[2]

Notes (Groundwater Monitoring Wells Table):

1. Depth to groundwater (ft).

2. Field measurement.

3. Groundwater elevation (ft. AMSL).

Groundwater Monitoring Wells Table for Sample Location 004 (Monitoring Well - Mw-B) To Be Reported Quarterly

		Discharge Lir	Monitoring Requirements				
Parameter	Base	Quantity	Concentration	Monitoring Loc	Sample Loc	Measurement Frequency	Sample Type
Solids, total dissolved	Quarterly Maximum		M&R Milligrams per Liter (mg/L)	Groundwater	004	Quarterly	DISCRT
Chloride (as Cl)	Quarterly Maximum		M&R Milligrams per Liter (mg/L)	Groundwater	004	Quarterly	DISCRT
Nitrogen, total	Quarterly Maximum		<= 10 Milligrams per Liter (mg/L)	Groundwater	004	Quarterly	DISCRT
Water level relative to mean sea level ^[3]	Quarterly Maximum	M&R Feet (ft)		Groundwater	004	Quarterly	CALCTD
Depth to water level ft below landsurface ^[1]	Quarterly Maximum	M&R Feet (ft)		Groundwater	004	Quarterly	VISUAL ^[2]

Notes (Groundwater Monitoring Wells Table):

1. Depth to groundwater (ft).

2. Field measurement.

3. Groundwater elevation (ft. AMSL).

Groundwater Monitoring Wells Table for Sample Location 005 (Monitoring Well - Mw-C) To Be Reported Quarterly

		Discharge Lir	Monitoring Requirements				
Parameter	Base	Quantity	Concentration	Monitoring Loc	Sample Loc	Measurement Frequency	Sample Type
Solids, total dissolved	Quarterly Maximum		M&R Milligrams per Liter (mg/L)	Groundwater	005	Quarterly	DISCRT
Chloride (as Cl)	Quarterly Maximum		M&R Milligrams per Liter (mg/L)	Groundwater	005	Quarterly	DISCRT
Nitrogen, total	Quarterly Maximum		<= 10 Milligrams per Liter (mg/L)	Groundwater	005	Quarterly	DISCRT
Water level relative to mean sea level ^[3]	Quarterly Maximum	M&R Feet (ft)		Groundwater	005	Quarterly	CALCTD
Depth to water level ft below landsurface ^[1]	Quarterly Maximum	M&R Feet (ft)		Groundwater	005	Quarterly	VISUAL ^[2]

Notes (Groundwater Monitoring Wells Table):

1. Depth to groundwater (ft).

2. Field measurement.

3. Groundwater elevation (ft. AMSL).

Rationale for Permit Requirements:

Monitoring is required to ensure that groundwaters of the State of Nevada are not degraded. Monitoring is also required to assess the level of treatment being provided, and to determine compliance with discharge permit limits. The Permittee is in substantial compliance with its current discharge permit.

Special Conditions:

SA – Special Approvals / Conditions Table

There are no Special Approval / Condition items

Flow:

0.75 MGD. (30-Day Average)

Corrective Action Sites:

There are no Corrective Actions sites within 1 mile of the facility.

Wellhead Protection Program:

The facility is not within a Drinking Water Protection Area nor a currently established Wellhead Protection Area.

Schedule of Compliance:

ltem #	Description	Due Date
1	Two copies of the revised Operations and Management (O&M) Manual for this facility shall be submitted to NDEP's Bureau of Water Pollution Control's Technical, Compliance and Enforcement Branch for review. The manual shall be prepared in accordance with the Division's WTS-2 guidance document: <i>Minimum Information Required for an Operations</i> <i>and Maintenance Manual</i> . If no revisions are needed, the Permittee shall submit a letter stating that the O&M Manual has no revisions.	10/1/2016

Deliverable Schedule:

Item #	Description	Interval	First Scheduled Due Date
1	Quarterly DMRs	Quarterly	10/28/2016
2	Annual Report	Annually	1/28/2017

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

Procedures for Public Comment:

The Notice of the Division's intent to issue a permit authorizing the facility to discharge to groundwater of the State of Nevada subject to the conditions contained within the permit, is being sent to the **Moapa Valley Progress and 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. 6/13/2016, 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.605.

Proposed Determination:

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

Prepared by:Steve McGoff, P.E.Date:5/29/2013Title:Professional Engineer