



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: WASHOE COUNTY UTILITY SERVICES DIVISION
4930 ENERGY WAY
RENO, NV - 89502

Permit Number: NS0040024

Location: SOUTH TRUCKEE MEADOWS WATER RECLAMATION FACILITY, WASHOE
8500 ALEXANDER LAKE ROAD, RENO, NV - 89511
LATITUDE: 39.457703, LONGITUDE: -119.743681
TOWNSHIP: 18N, RANGE: 20E, SECTION: 4

Outfall / Well Num	Outfall / Well Name	Location Type	Well Log Num	Outfall City	Outfall State	Outfall Zip	Outfall County	Latitude	Longitude	Receiving Water
001	PARSHALL FLUME/HEADWORKS	Internal Outfall		RENO	NV	89502	WASHOE	39.458333	-119.6583	GROUNDWATER OF THE STATE
002	POST CHLORINE CONTACT BASIN PRIOR TO EFFLUENT PUMP STATION	Internal Outfall		RENO	NV	89502	WASHOE	39.458333	-119.6583	GROUNDWATER OF THE STATE
004	MONITORING WELL A	Monitoring Well		RENO	NV	89502	WASHOE	39.457870	-119.7443	GROUNDWATER OF THE STATE
005	MONITORING WELL B	Monitoring Well		RENO	NV	89502	WASHOE	39.459630	-119.7445	GROUNDWATER OF THE STATE
006	MONITORING WELL C	Monitoring Well		RENO	NV	89502	WASHOE	39.457807	-119.7440	GROUNDWATER OF THE STATE

General:

The Permittee has applied for renewal of water pollution control discharge permit NS0040024 to operate a wastewater reclamation plant. The plant provides tertiary treatment of domestic residential and commercial sewage generated in the South Truckee Meadows service area. The plant utilizes an activated sludge process to biologically treat influent wastewater to tertiary treatment standards in the aerated "race track" type oxidation ditch systems to reduce BOD and nitrogen. Activated sludge generated in the treatment process is either returned to the oxidation ditches as return activated sludge, or removed as waste activated sludge, which is pumped to the Truckee Meadows Water Reclamation Facility (TMWRF) via a City of Reno sanitary sewer interceptor. After clarification, the effluent is then passed through tertiary sand filters and chlorine contact basins for disinfection. The treated effluent is then pumped to a wet well where it may be mixed with creek water to supplement flow. The effluent is then pumped into the effluent export pipeline for reuse deliveries during the irrigation season. The lined Huffaker Reservoir adjacent to the plant provides winter and emergency storage for the treated effluent.

The tertiary treated, denitrified and disinfected effluent is delivered via reuse pipeline for landscape irrigation at several permitted golf courses, miles of common and median roadway areas, the South Valley Sports Complex, South Meadows Business Park, and other permitted sites located both east of Highway 395 and west of Highway 395 in the greater southwest Reno and southern Truckee Meadows area.

Discharge Characteristics:

During the current permit period which began on October 4, 2007, STMWRF had one documented

exceedance. On September 23, 2011, STMWRF reported a Total Coliform violation of 104 CFU/100ml. There were no obvious reasons for the violation. Chlorine residual was satisfactory at the time the sample was taken and treatment at the plant had been very stable. Two samples prior to and one sample after the violation were all within the permit limits.

Receiving Water:

The receiving waters are groundwater of the State of Nevada at various reuse irrigation sites and the effluent reservoir. Depth to groundwater near the plant site is approximately 4 to 7 feet below ground surface. The groundwater is monitored quarterly at the plant site and near the effluent storage reservoir in Monitoring Wells A, B, and C.

Summary of Changes From Previous Permit:

Due to new Permit naming conventions at NDEP, Bureau of Water Pollution Control, the permit ID has been changed from NEV40024 to NS0040024. This change does not reflect a change in the type of permit being issued. NEV and NS permits are for groundwater discharges to the State of Nevada. These are not to be confused with "NV" permits which are reserved for NPDES Permitting.

BOD and TSS monitoring have been removed from the influent monitoring requirements. As such the percent removal has also been removed from the monitoring requirements. The facility will continue to be required to meet the appropriate effluent limitations set for these parameters.

The requirement for monitoring both electrical conductivity and total dissolved solids (TDS) is duplicative in that they measure essentially the same thing. The quarterly electrical conductivity monitoring in the groundwater monitoring wells will be removed since TDS is considered to be more precisely measured in the lab. The annual TDS monitoring requirement will be changed to a quarterly requirement in lieu of the electrical conductivity monitoring.

During the past five annual monitoring periods for priority pollutant metals, the samples have consistently been below the Nevada priority pollutant reference values. The sampling period for metals has been changed to one time per permit cycle in the 4th year for submission with the renewal application.

Proposed Effluent Limitations:

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

Parameter	Discharge Limitations			Monitoring Requirements			
	Base	Quantity	Concentration	Monitoring Loc	Sample Loc	Measurement Frequency	Sample Type
Flow rate	30 Day Average	<= 4.1 Million Gallons per Day (Mgal/d)		Intake	001	Continuous	METER
Flow rate	Daily Maximum	<= 4.5 Million Gallons per Day (Mgal/d)		Intake	001	Continuous	METER

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

Parameter	Discharge Limitations			Monitoring Requirements			
	Base	Quantity	Concentration	Monitoring Loc	Sample Loc	Measurement Frequency	S a m p l e Type
Coliform, total general	30 Day Average		<= 2.2 Most Probable Number per 100ml T (MPN/100m L)	Effluent Gross	002	Weekly	DISCRT
Coliform, total general	Daily Maximum		<= 23 Most Probable Number per 100ml T (MPN/100m L)	Effluent Gross	002	Weekly	DISCRT
Nitrogen, total	Monthly Maximum		<= 10 Milligrams per Liter (mg/L)	Effluent Gross	002	Monthly	DISCRT
pH, minimum	Monthly Minimum		>= 6 Standard Units (SU)	Effluent Gross	002	Monthly	DISCRT
Flow rate	30 Day Average	M&R Million Gallons per Day (Mgal/d)		Effluent Gross	002	Weekly	DISCRT
Flow rate	Daily Maximum	M&R Million Gallons per Day (Mgal/d)		Effluent Gross	002	Weekly	DISCRT
BOD, carbonaceous, 05 day, 20 C	Daily Maximum		<= 45 Milligrams per Liter (mg/L)	Effluent Gross	002	Weekly	COMPOS
BOD, carbonaceous, 05 day, 20 C	30 Day Average		<= 30 Milligrams per Liter (mg/L)	Effluent Gross	002	Weekly	COMPOS
Solids, total suspended	30 Day Average		<= 30 Milligrams per Liter (mg/L)	Effluent Gross	002	Weekly	COMPOS
Solids, total suspended	Daily Maximum		<= 45 Milligrams per Liter (mg/L)	Effluent Gross	002	Weekly	COMPOS
pH, maximum	Monthly Maximum		<= 9 Standard Units (SU)	Effluent Gross	002	Monthly	DISCRT

**WWTP Discharge Limitations Table for Sample Location 002 (Internal Outfall) To Be Reported
Once During The Permit Term**

Parameter	Discharge Limitations			Monitoring Requirements			
	Base	Quantity	Concentration	Monitoring Loc	Sample Loc	Measurement Frequency	Sample Type
Chromium, total (as Cr)	Single Sample		M&R Milligrams per Liter (mg/L)	Effluent Gross	002	Once Per Permit Term [1]	DISCRT
Copper, total (as Cu)	Single Sample		M&R Milligrams per Liter (mg/L)	Effluent Gross	002	Once Per Permit Term [1]	DISCRT
Lead, total (as Pb)	Single Sample		M&R Milligrams per Liter (mg/L)	Effluent Gross	002	Once Per Permit Term [1]	DISCRT
Mercury, total (as Hg)	Single Sample		M&R Milligrams per Liter (mg/L)	Effluent Gross	002	Once Per Permit Term [1]	DISCRT
Nickel, total (as Ni)	Single Sample		M&R Milligrams per Liter (mg/L)	Effluent Gross	002	Once Per Permit Term [1]	DISCRT
Selenium, total (as Se)	Single Sample		M&R Milligrams per Liter (mg/L)	Effluent Gross	002	Once Per Permit Term [1]	DISCRT
Silver, total (as Ag)	Single Sample		M&R Milligrams per Liter (mg/L)	Effluent Gross	002	Once Per Permit Term [1]	DISCRT
Thallium, total (as Tl)	Single Sample		M&R Milligrams per Liter (mg/L)	Effluent Gross	002	Once Per Permit Term [1]	DISCRT
Zinc, total (as Zn)	Single Sample		M&R Milligrams per Liter (mg/L)	Effluent Gross	002	Once Per Permit Term [1]	DISCRT
Antimony, total (as Sb)	Single Sample		M&R Milligrams per Liter (mg/L)	Effluent Gross	002	Once Per Permit Term [1]	DISCRT
Arsenic, total (as As)	Single Sample		M&R Milligrams per Liter (mg/L)	Effluent Gross	002	Once Per Permit Term [1]	DISCRT
Beryllium, total (as Be)	Single Sample		M&R Milligrams per Liter (mg/L)	Effluent Gross	002	Once Per Permit Term [1]	DISCRT

**WWTP Discharge Limitations Table for Sample Location 002 (Internal Outfall) To Be Reported
Once During The Permit Term**

Parameter	Discharge Limitations			Monitoring Requirements			
	Base	Quantity	Concentration	Monitoring Loc	Sample Loc	Measurement Frequency	Sample Type
Cadmium, total (as Cd)	Single Sample		M&R Milligrams per Liter (mg/L)	Effluent Gross	002	Once Per Permit Term [1]	DISCRT

Notes (WWTP Discharge Limitations Table):

1. Sampling shall be conducted in the 4th year of the permit and submitted with the 2017 4th quarter DMRs

Groundwater Monitoring Wells Table for Sample Location Mwa (Monitoring Well) To Be Reported Quarterly

Parameter	Discharge Limitations			Monitoring Requirements			
	Base	Quantity	Concentration	Monitoring Loc	Sample Loc	Measurement Frequency	S a m p l e Type
Depth to water level ft below landsurface	Value	M&R Feet (ft)		Groundwater	MWA	Quarterly	DISCRT
Phosphorus, total (as P)	Single Sample		M&R Milligrams per Liter (mg/L)	Groundwater	MWA	Quarterly	DISCRT
Chloride (as Cl)	Single Sample		M&R Milligrams per Liter (mg/L)	Groundwater	MWA	Quarterly	DISCRT
Nitrogen, total	Single Sample		<= 10 Milligrams per Liter (mg/L)	Groundwater	MWA	Quarterly	DISCRT
Solids, total dissolved	Single Sample		M&R Milligrams per Liter (mg/L)	Groundwater	004	Quarterly	DISCRT

Groundwater Monitoring Wells Table for Sample Location Mwb (Monitoring Well) To Be Reported Quarterly

Parameter	Discharge Limitations			Monitoring Requirements			
	Base	Quantity	Concentration	Monitoring Loc	Sample Loc	Measurement Frequency	S a m p l e Type
Depth to water level ft below landsurface	Value	M&R Feet (ft)		Groundwater	MWB	Quarterly	DISCRT
Phosphorus, total (as P)	Single Sample		M&R Milligrams per Liter (mg/L)	Groundwater	MWB	Quarterly	DISCRT
Chloride (as Cl)	Single Sample		M&R Milligrams per Liter (mg/L)	Groundwater	MWB	Quarterly	DISCRT
Nitrogen, total	Single Sample		<= 10 Milligrams per Liter (mg/L)	Groundwater	MWB	Quarterly	DISCRT
Solids, total dissolved	Single Sample		M&R Milligrams per Liter (mg/L)	Groundwater	005	Quarterly	DISCRT

Groundwater Monitoring Wells Table for Sample Location Mwc (Monitoring Well) To Be Reported Quarterly

Parameter	Discharge Limitations			Monitoring Requirements			
	Base	Quantity	Concentration	Monitoring Loc	Sample Loc	Measurement Frequency	S a m p l e Type
Depth to water level ft below landsurface	Value	M&R Feet (ft)		Groundwater	MWC	Quarterly	DISCRT
Phosphorus, total (as P)	Single Sample		M&R Milligrams per Liter (mg/L)	Groundwater	MWC	Quarterly	DISCRT
Chloride (as Cl)	Single Sample		M&R Milligrams per Liter (mg/L)	Groundwater	MWC	Quarterly	DISCRT
Nitrogen, total	Single Sample		<= 10 Milligrams per Liter (mg/L)	Groundwater	MWC	Quarterly	DISCRT
Solids, total dissolved	Single Sample		M&R Milligrams per Liter (mg/L)	Groundwater	006	Quarterly	DISCRT

Proposed Technology Based Effluent Limitations:

Proposed Water Quality-Based Effluent Limitations:

Waste Load Allocation:

Rationale for Permit Requirements:

Effluent monitoring is required to assess the level of treatment being provided by the STMWRF, and to determine when design capacity is being approached.

Groundwater monitoring is required to ensure that the operations of the facility do not degrade the groundwater of the State.

Fecal Coliform:

WET Testing:

Special Conditions:

SA – Special Approvals / Conditions Table

There are no Special Approval / Condition items

Reasonable Potential Analysis and Antidegradation Review:

Flow:

The flow for STMWRF is limited to 4.10 MGD, 30-day average; 4.50 MGD, daily maximum.

Discharges From Future Outfalls:

Discharge to new reuse sites is contingent upon Division approvals and permits being obtained for the new reuse site(s) by the entity in responsible charge for that site.

Corrective Action Sites:

There are no Bureau of Corrective Actions sites within a one-mile radius of this facility.

Wellhead Protection Program:

The facility is not within 6000' of a public water supply. A Wellhead Protection Area (WHPA) has not been established for this area.

Schedule of Compliance:

SOC – Schedule of Compliance Table

Item #	Description	Due Date
1	The Permittee shall submit two (2) copies of an updated Operations and Maintenance (O&M) Manual for review and approval by the Division. The O&M Manual shall be prepared by a Nevada Registered Professional Engineer or a Division-approved qualified person. If prepared by a Nevada Registered Professional Engineer, the O&M Manual shall be wet stamped.. If no updates or revisions are required, the Permittee shall submit a letter indicating such.	7/1/2013

Deliverable Schedule:

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

Item #	Description	Interval	First Scheduled Due Date
1	Discharge Monitoring Reports	Quarterly	7/28/2013
2	Annual Report	Annually	1/28/2014

Procedures for Public Comment:

The Notice of the Division's intent to reissue 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 **Reno Gazette 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. **5/17/2013**, 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: **Michele Reid**

Date: **4/12/2013**

Title: **ES III**