



STATE OF NEVADA

Department of Conservation & Natural Resources

DIVISION OF ENVIRONMENTAL PROTECTION

Brian Sandoval, Governor

Leo M. Drozdoff, P.E., Director

Colleen Cripps, Ph.D., Administrator

NEVADA DIVISION OF ENVIRONMENTAL PROTECTION FACT SHEET (Pursuant to NAC 445A.236)

Permittee Name: Washoe County Department of Water Resources
4930 Energy Way
Reno, NV 89502

Permit Number: NEV92026

Location: Cold Springs Water Reclamation Facility
1805 Mud Springs Drive
Reno, NV
Latitude: 39° 41' 44" N
Longitude: 119° 58' 38" W
Township 21N, Range 18E, Section 9, MDB&M

General: The Permittee is requesting renewal of groundwater discharge permit NEV92026. Cold Springs Water Reclamation Facility (CSWRF) receives domestic and light commercial wastewater from 2,004 sewer connections serving a population of approximately 5,500 residents. The wastewater influent is derived from domestic and light commercial sources with no reported industrial facilities. The treatment plant consists of an on-site lift station, basket screen, vortex grit removal system, an aerated oxidation ditch, two (2) secondary clarifiers, an equalization basin, and three (3) aerobic digesters. In addition, a bypass bar screen is in place to allow maintenance of the basket screen system. The plant is equipped with system control and data acquisition (SCADA) telemetry to monitor plant and alarm conditions. A small chlorine contact basin in the equalization basin provides disinfected effluent for use in and around the treatment plant, including the washing of removed screenings and grit prior to disposal. Treated effluent is discharged to 12 Rapid Infiltration Basins (RIBs). Digested sludge is periodically withdrawn, dewatered, and hauled to a landfill for disposal.

Receiving Water Characteristics: Discharge is to groundwater of the State via the RIBs. Groundwater in the area of the treatment plant varies between 20 and 60 feet below ground surface (bgs). Due to the relatively shallow depth of groundwater, and a public supply well located approximately 1,400 feet cross-gradient to the treatment facility and RIBs, monitoring wells are required. Currently there are four shallow wells screened at depths from 20 to 60 feet bgs, and three deep wells screened at depths from 100 to 516 feet bgs.

Wellhead Protection: The CSWRF and RIB sites are outside of the 1,000 foot buffer, but inside of the 3,000 foot buffer of a Drinking Water Protection Area for Public Supply Well W05 (NV0000207). A Wellhead Protection Area has not been established for this area.

Corrective Action Sites: There are no Bureau of Corrective Actions remediation sites within a one-mile radius of the facility.

Flow and Characteristics: The treatment plant is designed to treat a 30-day average flow of 0.7 million gallons per day (MGD) and a daily maximum flow of 1.75 MGD. The Permittee has requested 30-day average and daily maximum flow limits of 0.7 MGD. During the previous four (4) quarters, January through December 2011, the 30-day average influent flow has been 0.279 MGD with a daily maximum reported flow of 0.365 MGD. The Permittee is required to notify the Division when the 30-day average flow rate equals or exceeds 85% of the design capacity.

During the previously referenced four quarters, reported primary effluent characteristics have been:

Parameter	Permitted 30-day Average	Permitted Daily Maximum	Average Reported	Maximum Reported	Minimum Reported
BOD ₅ (mg/L)	30	45	6.5	13.0	3.0
Total Suspended Solids (mg/L)	30	45	4.8	9.0	1.0
pH (Standard Units)	6.5 to 8.5		7.5	7.7	7.2
Total Nitrogen (mg/l)	M & R	10	4.0	10.0*	2.3

*One Occurrence

Proposed Limitations: The Division proposes the following permit limitations and monitoring requirements:

Table 1: Effluent Discharge Limitations

Parameter		Discharge Limitations		Monitoring Requirements	
		30-day Average	Daily Maximum	Measurement Frequency	Sample Type
Influent	Flow (MGD)	0.7	0.7	Continuous	Flow Meter
	BOD ₅ (mg/L)	Monitor & Report		Monthly	Composite
	TSS (mg/L)	Monitor & Report		Monthly	Composite
Effluent	BOD ₅ (mg/L)	30	45	Monthly	Composite
	BOD ₅ Removal	At least 85%		Monthly	Calculate
	TSS (mg/L)	30	45	Monthly	Composite
	TSS Removal	At least 85%		Monthly	Calculate
	pH (Standard Units)	Between 6.0 & 9.0		Monthly	Discrete
	Total Nitrogen (mg/L)	10		Monthly	Discrete
	Nitrate (mg/L)	Monitor & Report		Monthly	Discrete
	NDEP Profile I (Attachment A)	Monitor & Report		Annually	Discrete

MGD: Million Gallons per Day
 mg/L: Milligrams per Liter

BOD₅: 5-day Biochemical Oxygen Demand
 TSS: Total Suspended Solids

Monitoring wells MW-2S, MW-3S, MW-4S, MW-5S, MW-2D, MW-3D, and MW-4D shall be monitored according to the following table:

Table 2.a: Monitoring Well Limitations and Requirements

Parameter	Permit Limit	Monitoring Frequency	Sample Type
Depth to Water (feet)	Monitor & Report	Quarterly	Discrete
Groundwater Elevation	Monitor & Report	Quarterly	Discrete
Total Nitrogen (mg/L)	10	Quarterly	Discrete
Nitrate as N (mg/L)	Monitor & Report	Quarterly	Discrete
Total Kjeldahl as N (mg/L)	Monitor & Report	Quarterly	Discrete
Chloride (mg/L)	Monitor & Report	Quarterly	Discrete
Total Dissolved Solids (mg/L)	Monitor & Report	Quarterly	Discrete

In addition to the above table, the deep monitoring wells MW-2D, MW-3D, and MW-4D shall be monitored according to the following table:

Table 2.b: Deep Monitoring Well Limitations and Requirements

Parameter	Permit Limit	Monitoring Frequency	Sample Type
Fecal Coliform (cfu or mpn/100 ml)	Monitor & Report	Quarterly	Discrete
Total Coliform (cfu or mpn/100 ml)	Monitor & Report	Quarterly	Discrete

cfu: Colony Forming Units mpn: Most Probable Number per 100 milliliters of treated effluent

Rationale for Permit Requirements: Monitoring is required to assess the level of treatment being provided, to determine when design capacity is being approached, and to ensure that surface and groundwater are not degraded.

The Division requires quarterly groundwater monitoring to ensure that State groundwater resources are not impacted from discharges to the RIBs. As the effluent is not disinfected, Fecal Coliform and Total Coliform shall be monitored in the three deep monitoring wells due to the proximity of the public supply well. These groundwater parameters and limits have been retained from the previous permit.

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 that the Administrator may make in approving the schedule of compliance:

- a. The Permittee shall achieve compliance with the effluent limitations upon issuance of the permit.
- b. By **MMM DD, 2012** (60 days), 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 Manuals shall address any changes in the operational procedures or equipment used at the facility that are not addressed in the O&M Manual that was approved by the Division in August of 2006. The O&M Manual shall be compiled in accordance with appropriate sections of WTS-2, "*Minimum Information Required for an Operations and Maintenance Manual for a Wastewater Treatment Plant*".

If no updates or revisions are required, the Permittee shall submit a letter by the above due date stating that there have been no changes to the approved O&M Manual.

Proposed Determination: The Division has made the tentative determination to renew the proposed groundwater discharge permit for a period of five (5) years.

Procedures for Public Comment: The Notice of the Division's intent to renew a permit authorizing this facility to discharge secondary-treated effluent to groundwater of the State, 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 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 written comments are to be submitted (via postmarked mail or time-stamped faxes, e-mails, or hand delivered items) to the Division is **March 30, 2012 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: Arthur Marr, P.E.
Date: February 2012

Attachment A

NDEP Profile I

Parameter	Reference Value (mg/L)
Alkalinity, Bicarbonate (as CaCO ₃)	---
Alkalinity, Total (as CaCO ₃)	---
Aluminum	0.2
Antimony	0.006
Arsenic	0.010
Barium	2.0
Beryllium	0.004
Cadmium	0.005
Calcium	---
Chloride	400
Chromium	0.1
Copper	1.0
Fluoride	4.0
Iron	0.6
Lead	0.015
Magnesium	150
Manganese	0.10
Mercury	0.002
Nickel	0.1
Nitrate + Nitrite, Total (as N)	10
Nitrogen, Total (as N)	10
ph (standard units)	6.5 - 8.5
Phosphorus, Total (for non-mining projects)	---
Potassium	---
Selenium	0.05
Silver	0.1
Sodium	---
Sulfate	500
Thallium	0.002
Total dissolved Solids	1000
WAD Cyanide (for mining projects only)	0.2
Zinc	5.0

All analyses for the dissolved fraction

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