



**FACTSHEET**  
**(pursuant to NAC 445A.236)**

**Permittee Name:** WASHOE COUNTY WATER RESOURCES  
1001 EAST 9TH STREET, BUILDING A  
RENO, NV 89512

**Permit Number:** NS0092026

**Permit Type:** GROUNDWATER DISCHARGE

**Designation:** GROUNDWATER

**New/Existing:** EXISTING

**Location:** COLD SPRINGS WATER RECLAMATION FACILITY, WASHOE  
1805 MUD SPRINGS DRIVE, RENO, NV 89508  
LATITUDE: 39.695556, LONGITUDE: -119.977222  
TOWNSHIP: 21 N, RANGE: 18 E, SECTION: 9

Outfall / Well Num	Outfall / Well Name	Location Type	Well Log Num	Latitude	Longitude	Receiving Water
001	INFLUENT	Internal Outfall		39.695556	-119.977222	N/A
002	EFFLUENT	Surface Disposal Site		39.695556	-119.977222	GROUNDWATER
003	MONITORING WELL MW-2S (CROSS-GRADIENT)	Monitoring Well		39.697242	-119.974439	GROUNDWATER
004	MONITORING WELL MW-2D (CROSS-GRADIENT)	Monitoring Well		39.6965	-119.9750	GROUNDWATER
005	MONITORING WELL MW-3S (DOWNGRADIENT)	Monitoring Well		39.695139	-119.976266	GROUNDWATER
006	MONITORING WELL MW-3D (DOWNGRADIENT)	Monitoring Well		39.694894	-119.977390	GROUNDWATER
007	MONITORING WELL MW-4S (UPGRADIENT)	Monitoring Well		39.69805556	-119.978055	GROUNDWATER
008	MONITORING WELL MW-4D (CROSS-GRADIENT)	Monitoring Well		39.697279	-119.974488	GROUNDWATER
009	MONITORING WELL MW-5S (DOWNGRADIENT)	Monitoring Well		39.69916667	-119.974166	GROUNDWATER
010	SIDE STREAM TO RECLAIM WATER FOR REUSE	External Outfall		39.695694	-119.976532	GROUNDWATER

**Permit History/Description of Proposed Action**

The Permittee, Washoe County Water Resources (WCWR), has applied for the renewal of groundwater discharge permit NS0092026 for the Cold Springs Water Reclamation Facility (CSWRF). It is located at 1805 Mud Springs Drive in the community of Cold Springs, Washoe County, approximately 13 miles northwest of Reno, Nevada. The facility produces secondary-treated, denitrified effluent and is operated under contract by SPB Utility Services, with plans to bring operations in-house soon. CSWRF proposes to continue its discharge to groundwater of the State via infiltration through twelve (12) onsite rapid infiltration basins (RIBs). CSWRF requested an adjustment of maximum daily influent flow limit from 0.70 to 0.515

million gallons per day (Mgal/d) to reflect the most recent RIB capacity analysis. Seven (7) monitoring wells located around the perimeter of CSWRF are maintained and monitored. The Permittee also seeks to keep the side stream of reclaimed water for potential third party reuse. Prior to use, the reclaimed water shall undergo additional treatment to achieve Category D bacteriological quality pursuant to Nevada Administrative Code (NAC) 445A.276 and will require additional monitoring.

The permit was first issued on May 10, 1993. The most recent permit was issued on February 1, 2018, and expired on January 31, 2023; the permit has been administratively continued since.

### **Facility Overview**

CSWRF services the community of Cold Springs area located north of White Lake. The service area covers approximately three (3) square miles (mi<sup>2</sup>) and consists primarily of residential customers, with a few commercial customers and one elementary school. The collection system includes two lift stations: Diamond Peak and Woodland Village. The Diamond Peak lift station discharges to the CSWRF headworks while Woodland Village lift station discharges to the influent pump station. The treatment plant consists of influent pump station; headworks (including a rotating fine screen and vortex grit removal system); an aerated oxidation ditch; two (2) secondary clarifiers; an equalization (EQ) basin; and three (3) aerobic digesters. A bypass bar screen is provided at the headworks to allow maintenance of the fine screen system. The facility is equipped with supervisory control and data acquisition (SCADA) telemetry for monitoring of plant operations and alarm conditions. Treated effluent (Outfall 002) is discharged to the RIBs in accordance with a rotation schedule. Biosolids produced at the facility are aerobically digested, thickened, and dewatered using a centrifuge. When the centrifuge is offline for maintenance, waste activated sludge (WAS) from the digesters may be discharged into one of two lined sludge storage ponds located north of the digesters. Dewatered biosolids are stored in a roll-off dumpster and transported to Lockwood Landfill for final disposal.

A small chlorine contact basin within the EQ basin is utilized to produce NAC 445A.276 Category D bacteriological quality reclaimed water, which requires maximum 30-day geometric mean fecal coliform of 200 most probable number per 100 milliliters (MPN/100mL) and 400 MPN/100mL maximum daily number. This reclaimed water is injected back for reuse in and around the treatment plant, including the washing of removed screenings and grit prior to disposal. CSWRF is also permitted to reuse this side stream of disinfected treated effluent (Outfall 010), with additional monitoring, for potential third party reuse per facility's request letter dated November 22, 2017.

Although the treatment facility has the biological capacity to treat up to 0.70 Mgal/d, the RIB loading capacity is limited to 0.515 Mgal/d, which therefore overrule the maximum daily influent flow (Outfall 001) until a suitable effluent disposal mechanism has been approved by BWPC and constructed.

### **Outfall Summary**

Outfall 001 – This internal outfall is the cumulative sewage (influent) entering the plant, measured at the headworks.

Outfall 002 – This outfall is the endpoint of the treatment system, where all treated effluent is collected prior to discharge to the RIBs.

Outfall 003 – This monitoring well outfall is Monitoring Well MW-2S, located cross-gradient and east of RIBs.

Outfall 004 – This monitoring well outfall is Monitoring Well MW-2D, located cross-gradient and east of sludge ponds.

Outfall 005 – This monitoring well outfall is Monitoring Well MW-3S, located downgradient and east of the headworks structure.

Outfall 006 – This monitoring well outfall is Monitoring Well MW-3D, located downgradient and south of the

treatment facility.

Outfall 007 – This monitoring well outfall is Monitoring Well MW-4S, located upgradient and west of the RIBs.

Outfall 008 – This monitoring well outfall is Monitoring Well MW-4D, located cross-gradient and next to MW-2S.

Outfall 009 – This monitoring well outfall is Monitoring Well MW-5S, located downgradient of MW-4D and east of RIB #9.

Outfall 010 – This outfall is the side stream for reuse after going through the chlorine contact basin and achieving Category D reclaimed water standards per NAC 445A.276.

### **Facility Upgrades since last issued permit**

CSWRF installed one (1) monitoring well in 2023, located in between the RIBs (MW-6S), and has been collecting data from it. After reviewing the available data and applicable regulations, the Bureau of Water Pollution Control (BWPC) determined that this monitoring well does not point out any significant concerns at the moment and that the facility has met the upgradient and downgradient monitoring well requirements. Based on this, BWPC provided the Permittee with the option to either include or exclude MW-6S from the outfall list. The Permittee chose not to include this well in the permit and will continue to monitor it.

### **Solids Handling**

CSWRF was upgraded in 2006 from a Sequencing Batch Reactor (SBR) system to an extended aeration treatment system using a single oxidation ditch. The facility's solid management system follows the pre-upgrade system for solids digestion and thickening. Sludge is digested in the two digesters for about two weeks. Once the sludge has been digested in either Digester 1 or Digester 2, the operator will use the jet motive pumps to direct the WAS over to Digester 3 for thickening. The WAS from Digester 3 is then pumped over to the solids dewatering system (centrifuge) for dewatering, which occurs two times per week on average. Thickened and aerobically digested sludge is dewatered with centrifuge and hauled off to the Lockwood landfill for disposal. In addition, when the dewatering centrifuge is down for maintenance, WAS from the digesters can be discharged to one of the two (2) lined sludge storage ponds located north of the digesters.

### **Effluent Management and Reuse**

Treated effluent is discharged to the twelve (12) onsite RIBs for evaporation and percolation. The reclaimed water is permitted for reuse via Outfall 010, provided it meets Category D bacteriological quality in accordance with NAC 445A.276.

### **Design Flow (and basis) and Measurement & Current Capacity**

The original RIBs capacity allowed in the previous permit was 0.70 Mgal/d, which is consistent with the Phase 1 predicted RIBs capacity detailed in the 2003 report: *Technical Memorandum No. 008* by Kennedy/Jenks Consultants. In 2022, CSWRF contracted Stantec to perform a RIB capacity analysis and reevaluate the maximum daily effluent rate that the RIBs can efficiently handle. This study concluded that the effective maximum daily loading rate is approximately 0.515 Mgal/d due to the groundwater mounding beneath the RIBs. NetDMR data review (February 2018 - December 2025) shows the Outfall 001 average flow rate of 0.380 Mgal/d with the highest recorded flow of 0.659 Mgal/d.

### **Pretreatment Program**

CSWRF does not meet the United States Environmental Protection Agency's (U.S. EPA's) guidelines requiring them to have a pretreatment program.

### **Operations & Maintenance (O&M) Manual status**

CSWRF's Operation and Maintenance (O&M) Manual was last reviewed and approved in March 2019. The Technical, Compliance, and Enforcement (TCE) branch of the BWPC requires O&M Manuals to be updated every ten (10) years with an updated O&M Manual being due on March 21, 2029.

**Effluent Characterization**

Nevada State Network Discharge Monitoring Report (NetDMR) data, as reported from February 2018 to December 2025, was reviewed as part of this permit renewal process. During the monitoring period, the wastewater treatment discharged secondary-treated, denitrified effluent water into RIBs. The following averages from all outfalls are based on the reported during the same reporting period stated above:

## Notes:

mg/L: Milligrams per Liter

S.U.: Standard Units

BOD<sub>5</sub>: 5-day biological oxygen demand

WL: Water level

TDS: Total dissolved solids

TSS: Total suspended solids

TN: Total Nitrogen

ft AMSL: feet above mean sea level

Outfall 001 (Influent):

- Flow rate, daily max: 0.421 Mgal/d
- Flow rate, 30-day average: 0.380 Mgal/d
- pH: 7.80 S.U.
- BOD<sub>5</sub>: 310 mg/L
- TSS: 262 mg/L

Outfall 002 (Effluent):

- pH: 7.30 S.U.
- BOD<sub>5</sub>: 5.8 mg/L
- TSS: 4.2 mg/L
- Total Nitrate-N: 0.53 mg/L
- TN: 2.91 mg/L

## Outfall 003 (MW-2S):

- Chloride: 50.9 mg/L
- Total Nitrate-N: 2.11 mg/L
- TN: 2.77 mg/L
- TDS: 367 mg/L
- WL depth: 22.8 ft
- WL elevation: 5,067.6 ft AMSL

## Outfall 004 (MW-2D):

- Chloride: 13.4 mg/L
- Total Nitrate-N: 0.17 mg/L
- TN: 0.56 mg/L
- TDS: 71 mg/L
- WL depth: 58.1 ft
- WL elevation: 5,025.4 ft AMSL

## Outfall 005 (MW-3S):

- Chloride: 55.0 mg/L
- Total Nitrate-N: 2.11 mg/L
- TN: 2.59 mg/L
- TDS: 379 mg/L
- WL depth: 21.7 ft
- WL elevation: 5,056.9 ft AMSL

## Outfall 006 (MW-3D):

- Chloride: 6.9 mg/L
- Total Nitrate-N: 0.42 mg/L
- TN: 0.75 mg/L
- TDS: 183 mg/L
- WL depth: 49.5 ft
- WL elevation: 5,026.8 ft AMSL

## Outfall 007 (MW-4S):

- Chloride: 49.9 mg/L
- Total Nitrate-N: 2.11 mg/L
- TN: 2.57 mg/L
- TDS: 338 mg/L
- WL depth: 15.8 ft
- WL elevation: 5,063.4 ft AMSL

## Outfall 008 (MW-4D):

- Chloride: 15.8 mg/L
- Total Nitrate-N: 3.55 mg/L
- TN: 3.78 mg/L
- TDS: 232 mg/L
- WL depth: 48.2 ft
- WL elevation: 5,038.0 ft AMSL

## Outfall 009 (MW-5S):

- Chloride: 54.7 mg/L
- Total Nitrate-N: 1.30 mg/L
- TN: 1.97 mg/L
- TDS: 359 mg/L

- WL depth: 20.0 ft
- WL elevation: 5,072.0 ft AMSL

The calculated percent removal average for both BOD<sub>5</sub> and TSS from Outfall 002 during the reviewed period are 98.2% and 98.3% respectively.

No discharges through Outfall 010 during the period reviewed.

### **Pollutants of Concern**

Pollutants of concern are any pollutants or parameters that are believed to be present in the discharge and could affect or alter the physical, chemical, or biological condition of the receiving water. Common pollutants of concern for the treated wastewater and monitoring wells are:

- Effluent: Total Nitrogen, pH, along with potential inorganic chemicals and metals (Profile 1 constituents).
- Monitoring Wells: Chloride, Total Nitrogen, and TDS.

### **Receiving Water**

Discharge is to groundwater of the State via percolation through twelve (12) onsite RIBs. Groundwater in the area of the treatment plant varies between 20 feet below ground surface (ft bgs) and 65 ft 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 the RIBs, monitoring wells are required. Currently there are four shallow wells screened at depths from 40 to 55 ft bgs, and three deep wells screened at depths from 149 to 525 ft bgs.

### **Compliance History**

Some exceedances were detected at Outfall 002 showing elevated values of TN (July 2019), BOD<sub>5</sub> (October 2017), Thallium (2017), Iron (2018), and Aluminum (2021). Otherwise, CSWRF was in compliance and timely report submission during the reviewed period (February 2018 - December 2025).

### **Proposed Effluent Limitations**

The discharges from the facility shall be limited and monitored by the Permittee as specified below:

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

Discharge Limitations				Monitoring Requirements			
Parameter	Base	Quantity	Concentration	Monitoring Loc	Sample Loc	Measurement Frequency	Sample Type
Flow rate	Daily Maximum	<= 0.515 Million Gallons per Day (Mgal/d)		Raw Sewage Influent	001	Continuous	METER
Flow rate	30 Day Average	M&R Million Gallons per Day (Mgal/d)		Raw Sewage Influent	001	Continuous	METER
BOD, 5-day <sup>[1]</sup>	Daily Maximum		M&R Milligrams per Liter (mg/L)	Raw Sewage Influent	001	Monthly	COMPOS
BOD, 5-day <sup>[1]</sup>	Monthly Average		M&R Milligrams per Liter (mg/L)	Raw Sewage Influent	001	Monthly	COMPOS
Solids, total suspended <sup>[1]</sup>	Daily Maximum		M&R Milligrams per Liter (mg/L)	Raw Sewage Influent	001	Monthly	COMPOS
Solids, total suspended <sup>[1]</sup>	Monthly Average		M&R Milligrams per Liter (mg/L)	Raw Sewage Influent	001	Monthly	COMPOS

Notes (WWTP Discharge Limitations Table):

1. BOD, 5-day and TSS should be sampled concurrently when the same parameters are sampled in the effluent (Outfall 002) to determine actual removal rates achieved.

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

Discharge Limitations				Monitoring Requirements			
Parameter	Base	Quantity	Concentration	Monitoring Loc	Sample Loc	Measurement Frequency	Sample Type
Nitrogen, total	Daily Maximum		<= 10 Milligrams per Liter (mg/L)	Effluent Gross	002	Monthly	DISCRT
pH, minimum	Daily Minimum		>= 6.0 Standard Units (SU)	Effluent Gross	002	Monthly	DISCRT
pH, maximum	Daily Maximum		<= 9.0 Standard Units (SU)	Effluent Gross	002	Monthly	DISCRT
Solids, total suspended <sup>[2]</sup>	Daily Maximum		<= 45 Milligrams per Liter (mg/L)	Effluent Gross	002	Monthly	COMPOS
Solids, total suspended <sup>[2]</sup>	Monthly Average		<= 30 Milligrams per Liter (mg/L)	Effluent Gross	002	Monthly	COMPOS
BOD, 5-day <sup>[2]</sup>	Daily Maximum		<= 45 Milligrams per Liter (mg/L)	Effluent Gross	002	Monthly	COMPOS
BOD, 5-day <sup>[2]</sup>	Monthly Average		<= 30 Milligrams per Liter (mg/L)	Effluent Gross	002	Monthly	COMPOS
BOD, 5-day, percent removal	Monthly Average Minimum	>= 85 Percent (%)		Effluent Gross <sup>[1]</sup>	002	Monthly	CALCTD
Solids, suspended percent removal	Monthly Average Minimum	>= 85 Percent (%)		Effluent Gross <sup>[1]</sup>	002	Monthly	CALCTD

Notes (WWTP Discharge Limitations Table):

1. Percent removal to be compared to corresponding samples taken from the influent and the effluent.
2. BOD, 5-day and TSS should be sampled concurrently when the same parameters are sampled in the influent (Outfall 001) to determine actual removal rates achieved.

**WWTP Discharge Limitations Table for Sample Location 002 (External Outfall - Effluent) To Be Reported Annually**

Discharge Limitations				Monitoring Requirements			
Parameter	Base	Quantity	Concentration	Monitoring Loc	Sample Loc	Measurement Frequency	Sample Type
Alkalinity, bicarbonate (as CaCO <sub>3</sub> )	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	002	Annual	DISCRT
Alkalinity, total (as CaCO <sub>3</sub> )	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	002	Annual	DISCRT
Aluminum, dissolved (as Al)	Daily Maximum		<= 0.2 Milligrams per Liter (mg/L)	Effluent Gross	002	Annual	DISCRT
Antimony, dissolved (as Sb)	Daily Maximum		<= 0.006 Milligrams per Liter (mg/L)	Effluent Gross	002	Annual	DISCRT
Arsenic, dissolved (as As)	Daily Maximum		<= 0.01 Milligrams per Liter (mg/L)	Effluent Gross	002	Annual	DISCRT
Barium, dissolved (as Ba)	Daily Maximum		<= 2 Milligrams per Liter (mg/L)	Effluent Gross	002	Annual	DISCRT
Beryllium, dissolved (as Be)	Daily Maximum		<= 0.004 Milligrams per Liter (mg/L)	Effluent Gross	002	Annual	DISCRT
Cadmium, total (as Cd)	Daily Maximum		<= 0.005 Milligrams per Liter (mg/L)	Effluent Gross	002	Annual	DISCRT
Calcium, total (as Ca)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	002	Annual	DISCRT
Chloride (as Cl)	Daily Maximum		<= 400 Milligrams per Liter (mg/L)	Effluent Gross	002	Annual	DISCRT
Chromium, total (as Cr)	Daily Maximum		<= 0.1 Milligrams per Liter (mg/L)	Effluent Gross	002	Annual	DISCRT
			<= 1				

**WWTP Discharge Limitations Table for Sample Location 002 (External Outfall - Effluent) To Be Reported Annually**

Discharge Limitations				Monitoring Requirements			
Parameter	Base	Quantity	Concentration	Monitoring Loc	Sample Loc	Measurement Frequency	Sample Type
Copper, total (as Cu)	Daily Maximum		Milligrams per Liter (mg/L)	Effluent Gross	002	Annual	DISCRT
Fluoride, total (as F)	Daily Maximum		<= 4 Milligrams per Liter (mg/L)	Effluent Gross	002	Annual	DISCRT
Iron, total (as Fe)	Daily Maximum		<= 0.6 Milligrams per Liter (mg/L)	Effluent Gross	002	Annual	DISCRT
Lead, dissolved (as Pb)	Daily Maximum		<= 0.015 Milligrams per Liter (mg/L)	Effluent Gross	002	Annual	DISCRT
Magnesium, dissolved (as Mg)	Daily Maximum		<= 150 Milligrams per Liter (mg/L)	Effluent Gross	002	Annual	DISCRT
Manganese, dissolved (as Mn)	Daily Maximum		<= 0.1 Milligrams per Liter (mg/L)	Effluent Gross	002	Annual	DISCRT
Mercury, dissolved (as Hg)	Daily Maximum		<= 0.002 Milligrams per Liter (mg/L)	Effluent Gross	002	Annual	DISCRT
Nitrite plus nitrate total 1 det. (as N)	Daily Maximum		<= 10 Milligrams per Liter (mg/L)	Effluent Gross	002	Annual	DISCRT
Potassium, dissolved (as K)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	002	Annual	DISCRT
Selenium, dissolved [as Se]	Daily Maximum		<= 0.05 Milligrams per Liter (mg/L)	Effluent Gross	002	Annual	DISCRT
Silver, dissolved (as Ag)	Daily Maximum		<= 0.1 Milligrams per Liter (mg/L)	Effluent Gross	002	Annual	DISCRT
			M&R				

**WWTP Discharge Limitations Table for Sample Location 002 (External Outfall - Effluent) To Be Reported Annually**

Discharge Limitations				Monitoring Requirements			
Parameter	Base	Quantity	Concentration	Monitoring Loc	Sample Loc	Measurement Frequency	Sample Type
Sodium, dissolved (as Na)	Daily Maximum		Milligrams per Liter (mg/L)	Effluent Gross	002	Annual	DISCRT
Sulfate, total (as SO <sub>4</sub> )	Daily Maximum		<= 500 Milligrams per Liter (mg/L)	Effluent Gross	002	Annual	DISCRT
Thallium, dissolved (as Tl)	Daily Maximum		<= 0.002 Milligrams per Liter (mg/L)	Effluent Gross	002	Annual	DISCRT
Solids, total dissolved	Daily Maximum		<= 1000 Milligrams per Liter (mg/L)	Effluent Gross	002	Annual	DISCRT
Uranium, natural, total	Daily Maximum		<= 0.01 Milligrams per Liter (mg/L)	Effluent Gross	002	Annual	DISCRT
Cyanide, weak acid, dissociable	Daily Maximum		<= 0.2 Milligrams per Liter (mg/L)	Effluent Gross	002	Annual	DISCRT
Zinc, dissolved (as Zn)	Daily Maximum		<= 5 Milligrams per Liter (mg/L)	Effluent Gross	002	Annual	DISCRT

**Groundwater Monitoring Wells Table for Sample Location 003 (Monitoring Well - Mw-2S, Cross-Gradient) To Be Reported Quarterly**

Discharge Limitations				Monitoring Requirements			
Parameter	Base	Quantity	Concentration	Monitoring Loc	Sample Loc	Measurement Frequency	Sample Type
Chloride (as Cl)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Groundwater	003	Quarterly	DISCRT
Nitrogen, total	Daily Maximum		<= 10 Milligrams per Liter (mg/L)	Groundwater	003	Quarterly	DISCRT
Solids, total dissolved	Daily Maximum		M&R Milligrams per Liter (mg/L)	Groundwater	003	Quarterly	DISCRT
Depth to water level ft below landsurface <sup>[1]</sup>	Daily Minimum	M&R Feet (ft)		Groundwater	003	Quarterly	VISUAL
Water level relative to mean sea level <sup>[2]</sup>	Daily Maximum	M&R Feet (ft)		Groundwater	003	Quarterly	CALCTD

Notes (Groundwater Monitoring Wells Table):

1. Depth to groundwater (feet).
2. Groundwater elevation (feet AMSL).

**Groundwater Monitoring Wells Table for Sample Location 004 (Monitoring Well - Mw-2D, Cross-Gradient) To Be Reported Quarterly**

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

Notes (Groundwater Monitoring Wells Table):

1. Depth to groundwater (feet).
2. Groundwater elevation (feet AMSL).

**Groundwater Monitoring Wells Table for Sample Location 005 (Monitoring Well - Mw-3S, Downgradient) To Be Reported Quarterly**

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

Notes (Groundwater Monitoring Wells Table):

1. Depth to groundwater (feet).
2. Groundwater elevation (feet AMSL).

**Groundwater Monitoring Wells Table for Sample Location 006 (Monitoring Well - Mw-3D, Downgradient) To Be Reported Quarterly**

Parameter	Discharge Limitations			Monitoring Requirements			
	Base	Quantity	Concentration	Monitoring Loc	Sample Loc	Measurement Frequency	Sample Type
Chloride (as Cl)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Groundwater	006	Quarterly	DISCRT
Nitrogen, total	Daily Maximum		<= 10 Milligrams per Liter (mg/L)	Groundwater	006	Quarterly	DISCRT
Solids, total dissolved	Daily Maximum		M&R Milligrams per Liter (mg/L)	Groundwater	006	Quarterly	DISCRT
Depth to water level ft below landsurface <sup>[1]</sup>	Daily Minimum	M&R Feet (ft)		Groundwater	006	Quarterly	VISUAL
Water level relative to mean sea level <sup>[2]</sup>	Daily Maximum	M&R Feet (ft)		Groundwater	006	Quarterly	CALCTD

Notes (Groundwater Monitoring Wells Table):

- 1. Depth to groundwater (feet).
- 2. Groundwater elevation (feet AMSL).

**Groundwater Monitoring Wells Table for Sample Location 007 (Monitoring Well - Mw-4S, Cross-Gradient) To Be Reported Quarterly**

Parameter	Discharge Limitations			Monitoring Requirements			
	Base	Quantity	Concentration	Monitoring Loc	Sample Loc	Measurement Frequency	Sample Type
Chloride (as Cl)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Groundwater	007	Quarterly	DISCRT
Nitrogen, total	Daily Maximum		M&R Milligrams per Liter (mg/L)	Groundwater	007	Quarterly	DISCRT
Solids, total dissolved	Daily Maximum		M&R Milligrams per Liter (mg/L)	Groundwater	007	Quarterly	DISCRT
Depth to water level ft below landsurface <sup>[1]</sup>	Daily Minimum	M&R Feet (ft)		Groundwater	007	Quarterly	VISUAL
Water level relative to mean sea level <sup>[2]</sup>	Daily Maximum	M&R Feet (ft)		Groundwater	007	Quarterly	CALCTD

Notes (Groundwater Monitoring Wells Table):

1. Depth to groundwater (feet).
2. Groundwater elevation (feet AMSL).

**Groundwater Monitoring Wells Table for Sample Location 008 (Monitoring Well - Mw-4D, Cross-Gradient) To Be Reported Quarterly**

Parameter	Discharge Limitations			Monitoring Requirements			
	Base	Quantity	Concentration	Monitoring Loc	Sample Loc	Measurement Frequency	Sample Type
Chloride (as Cl)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Groundwater	008	Quarterly	DISCRT
Nitrogen, total	Daily Maximum		<= 10 Milligrams per Liter (mg/L)	Groundwater	008	Quarterly	DISCRT
Solids, total dissolved	Daily Maximum		M&R Milligrams per Liter (mg/L)	Groundwater	008	Quarterly	DISCRT
Depth to water level ft below landsurface <sup>[1]</sup>	Daily Minimum	M&R Feet (ft)		Groundwater	008	Quarterly	VISUAL
Water level relative to mean sea level <sup>[2]</sup>	Daily Maximum	M&R Feet (ft)		Groundwater	008	Quarterly	CALCTD

Notes (Groundwater Monitoring Wells Table):

1. Depth to groundwater (feet).
2. Groundwater elevation (feet AMSL).

**Groundwater Monitoring Wells Table for Sample Location 009 (Monitoring Well - Mw-5S, Downgradient) To Be Reported Quarterly**

Parameter	Discharge Limitations			Monitoring Requirements			
	Base	Quantity	Concentration	Monitoring Loc	Sample Loc	Measurement Frequency	Sample Type
Chloride (as Cl)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Groundwater	009	Quarterly	DISCRT
Nitrogen, total	Daily Maximum		<= 10 Milligrams per Liter (mg/L)	Groundwater	009	Quarterly	DISCRT
Solids, total dissolved	Daily Maximum		M&R Milligrams per Liter (mg/L)	Groundwater	009	Quarterly	DISCRT
Depth to water level ft below landsurface <sup>[1]</sup>	Daily Minimum	M&R Feet (ft)		Groundwater	009	Quarterly	VISUAL
Water level relative to mean sea level <sup>[2]</sup>	Daily Maximum	M&R Feet (ft)		Groundwater	009	Quarterly	CALCTD

Notes (Groundwater Monitoring Wells Table):

1. Depth to groundwater (feet).
2. Groundwater elevation (feet AMSL).

**Re-use Discharge Limitations Table for Sample Location 010 (External Outfall - Side Stream Reclaimed For Reuse) To Be Reported Monthly**

Discharge Limitations				Monitoring Requirements			
Parameter	Base	Quantity	Concentration	Monitoring Loc	Sample Loc	Measurement Frequency	Sample Type
Flow rate	Daily Maximum	M&R Gallons per Day (gal/d)		Prior to Reuse	010	Continuous	METER
Flow rate	30 Day Average	M&R Gallons per Day (gal/d)		Prior to Reuse	010	Continuous	METER
Coliform, fecal general <sup>[1]</sup>	Daily Maximum		<= 400 Colony Forming Units per 100ml T (CFU/100mL) <sup>[2]</sup>	Prior to Reuse	010	Weekly When Discharging	DISCRT
Coliform, fecal general <sup>[1]</sup>	30 Day Geometric Mean		<= 200 Colony Forming Units per 100ml T (CFU/100mL) <sup>[2]</sup>	Prior to Reuse	010	Weekly When Discharging	DISCRT
Nitrogen, total	Daily Maximum		M&R Milligrams per Liter (mg/L)	Prior to Reuse	010	Weekly When Discharging	DISCRT
Nitrogen, total	30 Day Average		M&R Milligrams per Liter (mg/L)	Prior to Reuse	010	Weekly When Discharging	DISCRT

Notes (Re-use Discharge Limitations Table):

1. Category D bacteriological quality per NAC 445A.276.
2. CFU/100 mL or MPN/100 mL.

**Summary of Changes From Previous Permit**

The Permittee requested an adjustment of maximum daily flow limit for Outfall 001 to reflect the 2022 RIB capacity analysis done by Stantec. The maximum daily effluent flow limit is reduced from *0.70 Mgal/d* to *0.515 Mgal/d* per said analysis.

The following revision, addition, and removal within this permit were done to maintain consistency with similar permitted facilities in Nevada.

**Outfall 001**

- Revised: BOD, 5-day - discharge base from "Monthly Maximum" to "Daily Maximum". All other monitoring requirements remained the same.
- Revised: Solids, total suspended - discharge base from "Monthly Maximum" to "Daily Maximum". All other monitoring requirements remained the same.
- Removed: pH, Minimum, with a "Daily Minimum" base, a "M&R Standard Units (SU)" concentration, a "Raw Sewage Influent" monitoring location, a "Monthly" measurement frequency, and a "COMPOS" sample type.
- Removed: pH, Maximum, with a "Daily Maximum" base, a "M&R Standard Units (SU)" concentration, a "Raw Sewage Influent" monitoring location, a "Monthly" measurement frequency, and a "COMPOS"

sample type.

- Added: Footnote - 1. BOD, 5-day and TSS should be sampled concurrently when the same parameters are sampled in the effluent (Outfall 002) to determine actual removal rates achieved.

### **Outfall 002 (Monthly Reporting)**

- Revised: pH, minimum - discharge base from "Monthly Minimum" to "Daily Minimum". All other monitoring requirements remained the same.
- Revised: pH, maximum - discharge base from "Monthly Maximum" to "Daily Maximum". All other monitoring requirements remained the same.
- Revised: BOD, 5-day - discharge base from "Monthly Maximum" to "Daily Maximum". All other monitoring requirements remained the same.
- Revised: Solids, total suspended - discharge base from "Monthly Maximum" to "Daily Maximum". All other monitoring requirements remained the same.
- Revised: BOD, 5-day, percent removal - discharge base from "Monthly Maximum" to "Monthly Average Minimum"; quantity from "M&R Percent" to "≥ 85 Percent (%)"; and sample type from "COMPOS" to "CALCTD". All other monitoring requirements remained the same.
- Revised: Solids, suspended percent removal - discharge base from "Monthly Maximum" to "Monthly Average Minimum"; quantity from "M&R Percent" to "≥ 85 Percent (%)"; and sample type from "COMPOS" to "CALCTD". All other monitoring requirements remained the same.
- Removed: Nitrogen, nitrate total (as N), with a "Daily Maximum" base, a "M&R Milligrams per Liter (mg/L)" concentration, a "Effluent Gross" monitoring location, a "Monthly" measurement frequency, and a "DISCRT" sample type.
- Removed: Nitrogen, nitrate total (as N), with a "Monthly Average" base, a "M&R Milligrams per Liter (mg/L)" concentration, a "Effluent Gross" monitoring location, a "Monthly" measurement frequency, and a "DISCRT" sample type.
- Removed: Nitrogen, total, with a "Monthly Average" base, a "≤ 10 Milligrams per Liter (mg/L)" concentration, a "Effluent Gross" monitoring location, a "Monthly" measurement frequency, and a "DISCRT" sample type.
- Added: Footnote - 1. Percent removal to be compared to corresponding samples taken from the influent and the effluent.
- Added: Footnote - 2. BOD, 5-day and TSS should be sampled concurrently when the same parameters are sampled in the influent (Outfall 001) to determine actual removal rates achieved.

### **Outfall 002 (Annually Reporting)**

- Removed: Nitrogen, total, with a "Daily Maximum" base, a "≤ 10 Milligrams per Liter (mg/L)" concentration, a "Effluent Gross" monitoring location, a "Annual" measurement frequency, and a "DISCRT" sample type.
- Removed: pH, maximum, with a "Daily Maximum" base, a "≤ 8.5 Standard Unit (SU)" concentration, a "Effluent Gross" monitoring location, a "Annual" measurement frequency, and a "DISCRT" sample type.
- Removed: pH, minimum, with a "Daily Minimum" base, a "≥ 6.5 Standard Unit (SU)" concentration, a "Effluent Gross" monitoring location, a "Annual" measurement frequency, and a "DISCRT" sample type.

### **Outfall 003 through Outfall 009**

- Removed: Nitrogen, nitrate total (as N), with a "Quarterly Maximum" base, a "M&R Milligrams per Liter (mg/L)" concentration, a "Groundwater" monitoring location, a "Quarterly" measurement frequency, and a "DISCRT" sample type.
- Revised: *Discharge Limitations Base* for Solids, total dissolved; Chloride (as Cl); Nitrogen, total; and Water level relative to mean sea level from "Quarterly Maximum" to "Daily Maximum".
- Revised: *Discharge Limitations Base* for Depth to water level ft below landsurface from "Quarterly Maximum" to "Daily Minimum".

**Outfall 004**

- Revised: *Discharge Limitations Concentration* for Nitrogen, total from " $\leq$  10 Milligrams per Liter (mg/L)" to "M&R Milligrams per Liter (mg/L)".

**Outfall 010**

- Revised: Table format from "WWTP Discharge Limitations Table" to "Re-use Discharge Limitations Table".
- Revised: *Monitoring Location* for all parameters from "Beneficial Reuse" to "Prior to Reuse".
- Revised: *Measurement Frequency* for Flow Rate (Daily Maximum and 30 Day Average) from "Weekly When Discharging" to "Continuous".
- Added: Footnote - 1. Category D bacteriological quality per NAC 445A.276.

**Technology Based Effluent Limitations**

Technology based effluent limitations (TBELs) are required as promulgated by the U.S. EPA for Publicly Owned Treatment Works (POTWs). The following limits are based on secondary treatment standards as allowed by the Code of Federal Regulation (CFR) Title 40, Section 133, and which has been adopted by the State of Nevada. U.S. EPA published federal secondary treatment standards at 40 CFR 133 based on an evaluation of performance data for POTWs practicing a combination of physical and biological treatment. Performance is measured by monitoring biodegradable organics, suspended solids in the effluent, and ensuring pH remains within regulatory limits. Federal secondary treatment standards defined under 40 CFR 133 are for maximum BOD<sub>5</sub> as a 30-day average of 30 mg/L and a 7-day average of 45 mg/L and for maximum TSS as a 30-day average of 30 mg/L and a 7-day average of 45 mg/L. In addition to describing the minimum levels of effluent quality attainable by secondary treatment, 40 CFR 133.102 states that the 30-day average percent removal of BOD<sub>5</sub> and TSS shall not be less than 85%. The Division has adopted these standards for discharges from treatment facilities, and has applied the same 7-day average thresholds as daily maximum effluent limits for BOD<sub>5</sub> and TSS.

The following performance standards for POTWs with secondary treatment standards have been included in the permit:

- BOD<sub>5</sub> – 30-day average limit:  $\leq$  30 mg/L; Daily maximum limit:  $\leq$  45 mg/L.
- TSS – 30-day average limit:  $\leq$  30 mg/L; Daily maximum limit:  $\leq$  45 mg/L.
- pH – Daily Maximum:  $\leq$  9.0 S.U.
- pH – Daily Minimum:  $\geq$  6.0 S.U.

Limits based on Secondary Treatment Standards:

- BOD<sub>5</sub> percent removal:  $\geq$  85%
- TSS percent removal:  $\geq$  85%

Limits based on facility's design criteria review:

- 30-day average influent flow rate is limited to Monitor and Report (M&R) Mgal/d.
- Daily maximum influent flow rate is limited to  $\leq$  0.515 Mgal/d.

**Water Quality Based Effluent Limitations**

Water quality based effluent limitations are not applicable to this permit.

**Proposed Water Quality Based Effluent Limits (monthly/weekly/daily)**

Water quality based effluent limitations are not applicable to this permit.

**Basis for Effluent Limitations**

There are currently no specific water quality standards that have been formally adopted by the State for

groundwater. However, the Division has the discretion to implement effluent limitations outside water quality standards per NAC 445A.243, which states, "In establishing an effluent limitation to carry out the policy of this State set forth in Nevada Revised Statutes (NRS) 445A.305, consideration must be given to, but is not limited by the following: ... (2) the need for standards that specify by chemical, physical, biological or other characteristics the extent to which pollution by various substances will not be tolerated."

The requirement to monitor the effluent for Profile 1 annually is included to evaluate the quality of the effluent and determine whether the effluent has potential to impact the receiving water. The constituents listed in Profile 1 have been vetted by the Division and have been included in groundwater discharge permits for many years as a means of regulating groundwater quality. Per NRS 445A.490, "No permit may be issued which authorizes any discharge or injection of fluids through a well into any waters of the State: ... (3) which would result in the degradation of existing or potential underground sources of drinking water." Although cyanide and uranium are not expected to be present in the effluent, the permit requires the Permittee to sample these constituents annually because they are included in the Profile 1 list.

Few exceedances for Profile 1 constituents were detected in Outfall 002 during the previous permit period; therefore, the same Profile 1 concentration limits are retained in this permit renewal.

Monthly influent and effluent monitoring for BOD<sub>5</sub>, TSS, and pH are included to assess the treatment performance of CSWRF. A monthly sampling frequency for BOD<sub>5</sub>, TSS, and pH is sufficient for determining compliance with the applicable effluent limitations. Based on secondary treatment standards, percent removal requirements for BOD<sub>5</sub> and TSS are established in the permit as monthly average minimums of 85%.

Some wastewater treatment processes can increase or decrease wastewater pH; therefore, monthly monitoring for pH is included in assessing compliance with effluent limits of 6.0 S.U. as a monthly minimum and 9.0 S.U. as a monthly maximum.

The RIBs capacity is the limiting factor for this facility, and the most recent RIB capacity analysis done by Stantec revealed that the maximum capacity of the RIB is 0.515 Mgal/d. This study considered historical loading rates, observed infiltration rates, and groundwater mounding analysis. The study concluded that loading rates above said value could potentially lead to a vertical separation between groundwater and the bottom of the RIB of less than five (5) feet, which is the minimum distance allowed under NDEP regulations. Additionally, this amount of vertical separation can cause a decrease in performance at the RIBs.

In addition, given the potential for the percolation from the RIBs to reach the aquifer and stay within the watershed, continuation of the total Nitrogen monitoring is warranted, hence continued without any modification and limited to  $\leq 10$  mg/L. Outfall 010 is reserved for potential reuse by third party and require to achieve Category D bacteriological quality pursuant to NAC 445A.276.

### **Anti-backsliding**

None of the proposed permit limits were changed to a less restrictive limit compared to those in the previous permit, apart from the removal of the requirement to sample and report the Total Nitrate Nitrogen. The Total Nitrogen (as N) parameter encompasses all form of nitrogen, including organic, ammonia, nitrite, and nitrate. No backsliding will be caused by changing limitation bases as it does not change the frequency of required reporting and allows for this permit to adhere to current Division reporting standards.

### **Antidegradation**

The Division has developed an antidegradation regulation that is applied on a statewide basis, and which meets the statutory requirements of Nevada's water pollution control law found at NRS 445A.520 and NRS 445A.565 and is consistent with the federal antidegradation policy found at Title 40 in the CFR § 131.12. The objective of the Division's antidegradation regulation is to prevent degradation of Nevada's surface waters and maintain the unique attributes and special characteristics and water quality associated with high quality waters. As this permit is for discharges to groundwater, and not surface water, the new antidegradation rule is not applicable.

**Special Conditions**

There are no Special Approvals/Conditions applicable to this permit.

SA – Special Approvals / Conditions Table

There are no Special Approval / Condition items
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**Discharges From Future Outfalls/ Planned Facility Changes**

The Permittee anticipates no discharges from any future outfalls or planned facility changes.

**Corrective Action Sites**

There are no Bureau of Corrective Actions (BCA) remediation sites within a one-mile radius of the facility.

**Wellhead Protection Program**

A public water system (PWS) well, owned by Great Basin Water Company (NV0000207), is located approximately 1,600 feet east of the RIBs. This location is within the 3,000-foot radius drinking water protection area (DWPA) around the well. Near the ribs, the groundwater flow direction is to the south. The well (W05) is cross-gradient of the ribs. The well is screened within a confined aquifer from 100 to 350 feet bgs. The depth of the sanitary seal is 50 feet. A review of the water quality data for W05 from 1998 through 2017 showed no MCL exceedances. Nitrate concentrations were 2.7 mg/L or less for that period. W05 will probably not be affected by the RIBs given proper well construction, the confined nature of the aquifer and the groundwater flow direction. The water quality data from W05 supports this conclusion. Other PWS wells are located to the south and downgradient of the RIBs at distances greater than 7,600 feet, hence outside the 6,000-foot radius DWPA around these wells. These wells will not be impacted by groundwater discharge from the RIBs.

**Schedule of Compliance:**

SOC – Schedule of Compliance Table

Item #	Description	Due Date
1	The Permittee shall submit two (2) copies, one hard copy and one digital copy, of an updated Operations and Maintenance (O&M) Manual for review and acceptance by the Division. The O&M Manual shall be compiled in accordance with appropriate sections of <i>WTS-2: Minimum Information Required for an Operations and Maintenance Manual</i> , and be prepared and wet stamped by a licensed, qualified Nevada engineer (P.E.).	3/21/2029

**Deliverable Schedule:**

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

Item #	Description	Interval	First Scheduled Due Date
1	Quarterly DMRs	Quarterly	10/28/2026
2	Annual DMRs	Annually	1/28/2027

**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 mailed to interested persons on our mailing list and will be posted on our website at <https://ndep.nv.gov/posts>. Anyone wishing to comment on the proposed permit can do so in writing until 5:00 P.M. **7/8/2026**, 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 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.

**Proposed Determination:**

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




Prepared by: **Florida Nasategay**  
 Date: **6/3/2026**  
 Title: **Staff I, Associate Engineer**

# Cold Springs Water Reclamation Facility

Permit # NS0092026  
2026 Renewal



## Legend

-  Cold Springs Water Reclamation Facility
-  Deep Monitoring Well
-  Shallow Monitoring Well

