



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

**Permittee Name:** SOUTHERN NEVADA WATER AUTHORITY/LAS VEGAS VALLEY WATER DISTRICT

1001 S. VALLEY VIEW BLVD  
LAS VEGAS, NV 89153

**Permit Number:** NS2009503

**Permit Type:** GROUNDWATER DISCHARGE

**Designation:** GROUNDWATER

**New/Existing:** EXISTING

**Location:** COYOTE SPRINGS/MOAPA ARSENIC TREATMENT FACILITY, CLARK  
4949 COMMUNICATIONS DRIVE, COYOTE SPRINGS, NV 89067  
LATITUDE: 36.795297, LONGITUDE: -114.891542  
TOWNSHIP: 13 S, RANGE: 63 E, SECTION: 23, 26

Outfall / Well Num	Outfall / Well Name	Location Type	Well Log Num	Latitude	Longitude	Receiving Water
001	DRYING BEDS	External Outfall		36.795028	-114.892719	GROUNDWATER
002	COYOTE SPRINGS WRF	External Outfall	22449	36.7970	-114.893258	PAHRANAGAT WASH

**Permit History/Description of Proposed Action**

The Permittee, Southern Nevada Water Authority/Las Vegas Valley Water District (LVVWD), has applied for the renewal of Permit NS2009503 for the Coyote Springs/Moapa Arsenic Treatment Facility (CS/MATF), located approximately 52 miles north of Las Vegas, at 4949 Communications Drive, in Coyote Springs, Clark County, Nevada. The Permittee proposes to continue to discharge treated sludge, generated during arsenic removal, into either two onsite concrete lined drying beds or to the Coyote Springs Water Reclamation Facility (CSWRF).

This permit was first issued on December 10, 2009. The most recent permit was issued on July 1, 2016, and expired on June 30, 2021; the permit has been administratively continued since.

**Facility Overview**

The CS/MATF is a water treatment plant constructed to serve the Coyote Springs' expanding development area through the delivery of potable water. The plant was designed to treat groundwater containing naturally occurring arsenic. Water used to serve the Coyote Springs' area was to be provided by a municipal supply well, Well MX-5. The well water has naturally occurring arsenic levels above the Maximum Contamination Level (MCL) of 0.01 mg/L, based on the Environmental Protection Agency's drinking water standards. Treatment consists of the removal of the arsenic from the well water using oxidation, coagulation and filtration. Ferric chloride is used as the coagulant. The thickened backwash waste can either be discharged into onsite, concrete lined drying beds or piped to the Coyote Springs WRF (NS2007501) for treatment and potential reuse at other sites.

When the thickened backwash waste is discharged into two drying beds, the supernatant is decanted and returned by the filter backwash pumps to the backwash holding tanks. After clarification, it is recycled upstream of the sodium hypochlorite feed for re-use. Liquid left in the sludge is to evaporate, leaving a sludge with a solids' concentration of approximately 30%. The total drying bed size is based on the wet solids volume, with a six-day drying time, and a maximum sludge depth, in the drying beds, of 13 inches. A concrete runway is provided to each drying bed and spaced to accommodate mechanical equipment access. The entrance ramps lead down to the level of the drying surface. Based on the drying bed sizing calculation, dewatered residuals in the drying beds will need to be removed periodically. The sludge in the drying beds will not be allowed to become dry enough to form airborne particulates prior to disposal at an approved landfill. Therefore, no fugitive dust pollution issue needs to be considered. Nuisance odor is not anticipated to be an issue.

The facility discontinued operation in 2015, due to declining water levels in the basin caused by the pumping of Well MX-5, concern for the endangered Dace (a species of fish that live in the spring fed groundwaters of the Moapa Valley), along with it being cost prohibitive to operate the actual Moapa WTF itself as compared to utilizing water from the Muddy River to satisfy Coyote Spring's water supply needs. Permit NS2009503 is being maintained due to the potential re-starting of Well MX-5. The facility systems and equipment have remained in place and are available to resume operation, if needed.

The Moapa WTF's Operation and Maintenance Manual (O&M Manual) was last reviewed and approved by the Division on October 20, 2023. The Technical, Compliance, and Enforcement (TCE) Branch of the Bureau of Water Pollution Control requires O & M manuals be updated every two (2) permit cycles which equates to every ten (10) years.

### **Outfall Summary**

Outfall 001 – This external outfall is for discharge into the reinforced concrete-lined sludge drying beds for evaporation.

Outfall 002 – This external outfall is for discharge into the CSWRF.

### **Effluent Characterization**

Nevada State Network Discharge Monitoring Report (NetDMR) data, as reported from July 2019 to July 2024, was reviewed as part of this permit renewal process. Due to CS/MATF discontinuing operation, there has been no discharge from the outfalls. The daily maximum discharge flow rate for Outfall 001 is limited to 0.03 million gallons per day (MGD).

### **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 are Arsenic, Iron, and Total Dissolved Solids (TDS).

### **Receiving Water**

The receiving water is groundwater of the State. Depth to groundwater in the area is 360 feet below ground surface, based on a review of localized water level measurements, done by the Nevada Division of Water Resources personnel, as found on their website.

### **Compliance History**

The non-operational facility was in substantial compliance during the July 2019 to July 2024 reporting period.

### **Proposed Effluent Limitations**

The discharge shall be limited and monitored by the Permittee as specified below.



**WWTP Discharge Limitations Table for Sample Location 002 (Coyote Springs Wrf) To Be Reported Quarterly**

Discharge Limitations				Monitoring Requirements			
Parameter	Base	Quantity	Concentration	Monitoring Loc	Sample Loc	Measurement Frequency	Sample Type
Flow rate	30 Day Average	<= 0.025 Million Gallons per Day (Mgal/d)		See Footnote <sup>[1]</sup>	002	Quarterly	TOTALZ
Flow rate	Daily Maximum	<= 0.03 Million Gallons per Day (Mgal/d)		See Footnote <sup>[1]</sup>	002	Quarterly	TOTALZ

Notes (WWTP Discharge Limitations Table):

1. The Permittee shall measure the flow rate through a totalizing meter prior to discharge to the Coyote Springs WWTF.

**Ponds / Rapid Infiltration Basins for Sample Location 001 (Drying Beds) To Be Reported Monthly**

Parameter	Discharge Limitations			Monitoring Requirements			
	Base	Quantity	Concentration	Monitoring Loc	Sample Loc	Measurement Frequency	Sample Type
Flow rate	Daily Maximum	<= 0.03 Million Gallons per Day (Mgal/d)		Effluent Gross <sup>[1]</sup>	001	Once Per Batch	METER <sup>[2]</sup>
Flow rate	30 Day Average	M&R Million Gallons per Day (Mgal/d)		Effluent Gross <sup>[1]</sup>	001	Once Per Batch	METER

Notes (Ponds / Rapid Infiltration Basins):

1. Drying beds discharge flow meter.
2. Should discharging continue for more than one day, then meter readings should be recorded daily.

**Ponds / Rapid Infiltration Basins for Sample Location 001 (Drying Beds) To Be Reported Quarterly**

Discharge Limitations				Monitoring Requirements			
Parameter	Base	Quantity	Concentration	Monitoring Loc	Sample Loc	Measurement Frequency	Sample Type
Arsenic, total (as As)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross <sup>[1]</sup>	001	Quarterly	DISCRT
Iron, total (as Fe)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Quarterly	DISCRT
Sludge weight, wet <sup>[2]</sup>	Daily Maximum	M&R Tons (ton)		See Footnote <sup>[3]</sup>	001	Quarterly	CALCTD
Solids, total dissolved	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross <sup>[1]</sup>	001	Quarterly	DISCRT

Notes (Ponds / Rapid Infiltration Basins):

1. Discharge to the drying beds.
2. Sludge removed, tons.
3. Within the reinforced concrete-lined drying bed.

**Summary of Changes From Previous Permit**

A “Flow Rate” Parameter, requiring reporting of both the “Daily Maximum” and a “30-Day Average” was added to the Ponds/Rapid Infiltration Basins Table under the permit.

Quarterly reporting was added for Outfall 001 Drying Beds, under the Ponds/Rapid Infiltration Basins Table under the permit, for “Solids, total dissolved”, an “Arsenic, total (as As)”, and a “Sludge weight, wet” each with a “Daily Maximum”. This additional reporting period is a current Division requirement.

**Technology Based Effluent Limitations**

Technology based effluent limitations are not applicable to this permit.

**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)**

Proposed water quality based effluent limitations are not applicable to this permit.

**Rationale for Permit Requirements**

Monitoring is required to gain information on supernatant quality should a catastrophic leak in the drying bed occur.

**Anti-backsliding**

None of the proposed permit limits were changed to a less restrictive limit compared to those in the previous permit.

**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 Nevada Revised Statute (NRS) 445A.520 and NRS 445A.565 and is consistent with the federal antidegradation policy found at Title 40 in the Code of Federal Regulations (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**

Substantial compliance with the current permit is a condition of permit renewal. See the Special Approvals/Conditions Table below:

SA – Special Approvals / Conditions Table

Item #	Description
1	Should the Coyote Springs/Moapa Arsenic Treatment Facility (CS/MATF) resume operation, the Division should be contacted to determine if any additional requirements or inspections are needed at that time.

**Discharges From Future Outfalls/ Planned Facility Changes**

There are currently no planned future outfalls or facility changes.

**Corrective Action Sites**

There are no active Bureau of Corrective Actions (BCA) sites located within a one-mile radius of the discharge location.

**Wellhead Protection Program**

There is a Public Water Supply (PWS) well located approximately 200 feet to the east to the closest outfall placing the well in a Drinking Water Protection Area, which is defined by a 3,000-foot radius around a PWS well. There is another PWS well located to the northeast of the outfalls. The outfalls are not located in a Wellhead Protection Area (WHPA), which represents an approximate 10-year capture zone of a well. The wells are drilled within an unconfined aquifer at a depth of 628 feet. The well has a static water level depth of 357.1 feet and the screen depth is 121 feet. The well is at minimal risk based on the well structure and depth.

**Schedule of Compliance:**

SOC – Schedule of Compliance Table

There are no Schedule of Compliance items
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**Deliverable Schedule:**

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

Item #	Description	Interval	First Scheduled Due Date
1	Quarterly DMRs	Quarterly	4/28/2025
2	Annual Report	Annually	1/28/2026

**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. **12/27/2000**, 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: **Melissa Marr**

Date: **11/21/2024**

Title: **Staff II Engineer**