FACTSHEET
(pursuant to NAC 445A.236)

Permittee Name: TRUCKEE MEADOWS WATER AUTHORITY

PO BOX 30013
RENO, NV 89520

Permit Number: NV0024230

Permit Type: NEW MANUFACTURING, COMMERCIAL, MINING AND SILVICULTURAL DISCHARGE

Designation: MINOR NPDES

New/Existing: EXISTING

Location: MT. ROSE WATER TREATMENT PLANT, WASHOE
5264 MOUNTAIN RANCH RD, RENO, NV 89511
LATITUDE: 39.388687, LONGITUDE: -119.813997
TOWNSHIP: 18 NORTH, RANGE: 19 EAST, SECTION: 35

Outfall / Well Num	Outfall / Well Name	Location Type	Well Log Num	Latitude	Longitude	Receiving Water
001	BACKFLOW TO OUTFALL 001	Intake Structure		39.388323	-119.814790	WHITES CREEK
002	RETURN FLOW TO OUTFALL 002	External Outfall		39.388478	-119.814647	WHITES CREEK
003	DOWNSTREAM MONITORING	External Outfall		39.388766	-119.813830	WHITES CREEK
004	UPSTREAM MONITORING	External Outfall		39.388214	-119.814933	WHITES CREEK
005	PLANT START-UP DISCHARGES	External Outfall		39.388478	-119.814647	WHITES CREEK

Permit History/Description of Proposed Action

The Permittee, Truckee Meadows Water Authority (TMWA), has applied for the renewal of Permit NV0024230 for their Mt. Rose Water Treatment Plant (MRWTP), at 5264 Mountain Ranch Road, located in southwest Reno, within Washoe County, Nevada. The Permittee proposes to discharge backwash water, stormwater, and return flow to Whites Creek at Steamboat Ditch.

This permit was first issued October 31, 2018, and expired on October 30, 2023; the permit has been administratively continued since.

Facility Overview

The MRWTP is designed to supply 4 million gallons per day (Mgal/d) of treated, potable water to supplement TMWA's surface water supply along with recharging several local supply wells due to declining groundwater levels in the Mt. Rose supply area due to drought and residential development. The MRWTP operates when sufficient creek flow is available, leaving behind sufficient downstream flow to maintain prescribed wildlife and aquatic habitat supply. During low flow creek periods, there may be no water diversion from the creek per prior agreements with Nevada Department of Wildife (NDOW) and the State Engineer (Division of Water Resources).

The MRWTP includes a raw water diversion, raw water pump station, two Trident HS units (in parallel), two ultraviolet (UV) irradiation disinfection units (in series), a chlorine contact basin, a finished water clear well,

and a solids handling/recycling facility. The entire system is controlled by onsite programmable logic controls (PLCs) with a telemetry system with data and alarm annunciation at the TMWA Operations at the Glendale Water Treatment Plant.

The facility diverts water from Whites Creek for treatment and distribution to the public water system. The water is diverted via an instream collection well. There are times, often weekly, when the facility backflow flushes the water intake to clear the intake of sediment. This occurs at Outfall 001.

The sourced creek water at the MRWTP is treated by chemical coagulant injection, coagulation and flocculation, clarification, media filtration and hypochlorite disinfection. There is a raw water pump station that collects fine sediment that settles out of the diverted water and discharges the collected sediment, along with some creek water, back to Whites Creek at Outfall 002.

Sludge and sediment from the clarifier and media filter units are sent to the recycle tank, where it settles and is thickened and then discharged into the South Truckee Meadows Water Reclamation Facility (STMWRF) municipal sanitary sewer collection system for additional treatment and dewatering. A detention basin, located east of the MRWTP, is used for diversion and infiltration of plant storm runoff to prevent creek sedimentation.

During creek discharge events, chemicals used include VitaDChlor (ascorbic acid), which removes the chlorine residual without scavenging oxygen in the receiving water to prevent fish kill. During maintenance events, some of TMWA's water is recycled for dust control water via water truck application at local construction projects.

Stormwater, from an onsite stormwater detention basin, along with periodic discharges from the clear well, are discharged from Outfall 005.

The MRWTP’s O&M Manual was last reviewed and approved on February 3, 2022. The Technical, Compliance, and Enforcement Branch of the Bureau of Water Pollution Control requires Operation and Maintenance (O&M) Manuals to be updated every ten (10) years with an updated O&M Manual due on February 3, 2032.

Outfall Summary

Outfall 001 This external outfall is for backflow flushing of the intake structure for sediment removal from the three intake screens. The associated pump is located at the raw water pump station and is for the discharge of non-chlorinated backflow water being discharged weekly when the MRWTP is operational.

Outfall 002 This external outfall for the discharge of untreated creek water returned from the raw water pump station (excess water). The frequency of raw water return is intermittent when operational.

Outfall 003 This downstream, external outfall is for monitoring temperature and turbidity downstream of the MRWTP when the facility is discharging backflow or raw water.

Outfall 004 This upstream outfall is for monitoring temperature and turbidity when the WTP is discharging backflow or raw water.

Outfall 005 This external outfall represents the sum of dechlorinated water discharged from the dichlorination vault during startup and equipment testing along with any stormwater discharge.

Effluent Characterization

Nevada State Network Discharge Monitoring Report (NetDMR) data, as reported from January 2020 to December 2025, was reviewed as part of this permit renewal process. MRWTP discharges returned flow water, stormwater, start-up water, plant overflow water, and clearwell water to Whites Creek.

The following reported averages were taken from January 2020 to December 2025 reporting period:

Abbreviations:
DO – Dissolved Oxygen
TDS – Total Dissolved Solids
TSS – Total Suspended Solids
° - Degrees
mg/L – Milligrams per Liter
Gal/d – Gallons per Day
Mgal/d – Million Gallons per Day
NTU – Nephelometric Turbidity Units
S.U. – Standard Units

Outfall 001 (Backwash Intake Screen):
Flow Rate: 4.32 Mgal/d
Temperature: 9.98° C
Turbidity: 124.43 NTU

Outfall 002 (Return Creek Flow):
Temperature: 9.98° C
Turbidity: 32.05 NTU

Outfall 003 (Downstream Monitoring):
Temperature: 10.22° C
Temperature Difference (upstream to downstream): +1.48° C
Turbidity: 75.03 NTU

Outfall 004 (Upstream Monitoring):
Temperature: 10.28° C
Turbidity: 15.32 NTU

Outfall 005 (Plant Start-Up):
Chlorine: 0.04 mg/L
Flow Rate: 2.05 Gal/d
Flow, Total: 24,406,532 Gallons
# of Events (Discharges): 32
pH: 7.47 S.U.
Temperature: 14.17° C

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 discharged creek water, with some treatment, are turbidity, pH, temperature, DO, phosphorus, ammonia (as N), and TDS.

Receiving Water
The receiving water is Whites Creek at Steamboat Ditch (NAC 445A.1756).

Applicable Water Quality Standards/Beneficial Uses
The water quality standards (WQSs) for the nearest downstream control point, Whites Creek at Steamboat Ditch (NAC 445A.1756) apply. WQSs include beneficial uses for watering of livestock, irrigation, aquatic life, recreation involving contact with the water, recreation not involving contact with the water, municipal or domestic supply, industrial supply, and propagation of wildlife. Additional WQSs applicable to this section of Whites Creek to Steamboat water quality narrative standards applicable to all surface waters (NAC 445A.121).

303 (d) Listing Status

Whites Creek does not have a 303(d) listing status. According to Nevada's 2020 – 2022 Water Quality Integrated Report, Whites Creek at Steamboat Ditch is classified as a Category 1, by the Nevada Bureau of Water Quality Planning, being unimpaired by any constituents of concern along with all the beneficial uses being fully supported.

TMDL
There are no Total Maximum Daily Loads (TMDLs) applicable to the Whites Creek at Steamboat Ditch segment.

Waste Load Allocation
There are no waste load allocations applicable to the Whites Creek at Steamboat Ditch segment.

Compliance History
The facility was found to be in substantial compliance during the January 2020 through December 2025 reporting period.

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

Discharge Limitations Table for Sample Location 001 (Backflow To Outfall 001) 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 Million Gallons per Day (Mgal/d)		Effluent Gross	001	Daily When Discharging	CALCTD
Flow rate	30 Day Average	M&R Million Gallons per Day (Mgal/d)		Effluent Gross	001	Daily When Discharging	CALCTD
Turbidity	Daily Maximum		M&R Nephelometric Turbidity Units (NTU)	Effluent Gross	001	Weekly	DISCRT
Temperature, water deg. centigrade	Daily Maximum		<= 20 Degrees Centigrade (deg C)	Effluent Gross	001	Weekly	DISCRT

Discharge Limitations Table for Sample Location 002 (Return Flow To Outfall 002) To Be Reported Monthly

Discharge Limitations				Monitoring Requirements			
Parameter	**Base**	**Quantity**	**Concentration**	**Monitoring Loc**	**Sample Loc**	**Measurement Frequency**	**Sample Type**
Oxygen, dissolved (DO)	Daily Minimum		>= 6.0 Milligrams per Liter (mg/L)	Effluent Gross	002	Weekly When Discharging	DISCRT
pH, maximum	Daily Maximum		<= 9.0 Standard Units (SU)	Effluent Gross	002	Weekly When Discharging	DISCRT
pH, minimum	Daily Minimum		>= 6.5 Standard Units (SU)	Effluent Gross	002	Weekly When Discharging	DISCRT
Temperature, water deg. centigrade	Daily Maximum		<= 20 Degrees Centigrade (deg C)	Effluent Gross	002	Weekly When Discharging	DISCRT

Discharge Limitations Table for Sample Location 003 (Downstream Monitoring) To Be Reported Monthly

Discharge Limitations				Monitoring Requirements			
Parameter	**Base**	**Quantity**	**Concentration**	**Monitoring Loc**	**Sample Loc**	**Measurement Frequency**	**Sample Type**
Temperature, water deg. centigrade	Daily Maximum		M&R Degrees Centigrade (deg C)	Downstream Monitoring	003	Weekly When Discharging	DISCRT
Temp. diff. between samp. & upstrm deg. C	Daily Maximum		M&R Degrees Centigrade (deg C)	Downstream Monitoring	003	Weekly When Discharging	DISCRT
Turbidity	Daily Maximum		M&R Nephelometric Turbidity Units (NTU)	Downstream Monitoring	003	Weekly When Discharging	DISCRT

Discharge Limitations Table for Sample Location 004 (Upstream Monitoring) To Be Reported Monthly

Discharge Limitations				Monitoring Requirements			
Parameter	**Base**	**Quantity**	**Concentration**	**Monitoring Loc**	**Sample Loc**	**Measurement Frequency**	**Sample Type**
Turbidity	Daily Maximum		M&R Nephelometric Turbidity Units (NTU)	Upstream Monitoring	004	Weekly When Discharging	DISCRT
Temperature, water deg. centigrade	Daily Maximum	M&R Degrees Centigrade (deg C)		Upstream Monitoring	004	Weekly When Discharging	DISCRT

Discharge Limitations Table for Sample Location 005 (Plant Start-Up Discharges) To Be Reported Annually

Discharge Limitations				Monitoring Requirements			
Parameter	**Base**	**Quantity**	**Concentration**	**Monitoring Loc**	**Sample Loc**	**Measurement Frequency**	**Sample Type**
Flow, total	Total	M&R Gallons (gal)		Effluent Gross	005	Daily When Discharging	CALCTD
Number of Events	Total	M&R Number (#)		Effluent Gross	005	Annual	CALCTD
Chlorine, total residual	Daily Maximum		<= 0.1 Milligrams per Liter (mg/L)	Effluent Gross	005	Weekly When Discharging	DISCRT
pH, minimum	Daily Minimum		>= 6.5 Standard Units (SU)	Effluent Gross	005	Weekly When Discharging	DISCRT
pH, maximum	Daily Maximum		<= 9.0 Standard Units (SU)	Effluent Gross	005	Weekly When Discharging	DISCRT
Flow rate	Daily Maximum	M&R Million Gallons per Day (Mgal/d)		Effluent Gross	005	Daily When Discharging	CALCTD
Temperature, water deg. centigrade	Daily Maximum		<= 20 Degrees Centigrade (deg C)	Effluent Gross	005	Weekly When Discharging	DISCRT

Summary of Changes From Previous Permit

UPDATED - Facility Address from 14212 Callahan Road to 5264 Mountain Ranch Road.

Under Outfall 002 To Be Reported Monthly the following parameters were added:

ADDED – Nitrogen, ammonia total (as N), with a “Daily Maximum” Base, a “<=0.885 Milligrams per Liter (mg/L)” Concentration, a “Downstream Monitoring” Monitoring Location, a “002” Sample Location, a “Weekly when Discharging”, and a “Discrt” Sample Type.

ADDED – pH, maximum, with a “Daily Maximum” Base, a “<=9.0 Standard Units (SU)” Concentration, a “Downstream Monitoring” Monitoring Location, a “002” Sample Location, a “Weekly when Discharging”, and a “Discrt” Sample Type.

ADDED – pH, minimum, with a “Daily Minimum” Base, a “>=6.5 Standard units (SU)” Concentration, a “Downstream Monitoring” Monitoring Location, a “002” Sample Location, a “Weekly when Discharging”, and a “Discrt” Sample Type.

ADDED – Phosphorus, total (as P), with a “Daily Maximum” Base, a “<=0.10 Milligrams per Liter (mg/L)” Concentration, a “Downstream Monitoring” Monitoring Location, a “002” Sample Location, a “Weekly when Discharging”, and a “Discrt” Sample Type.

ADDED – Solids, total dissolved, with a “Daily Maximum” Base, a “<=500 Milligrams per Liter (mg/L)” Concentration, a “Downstream Monitoring” Monitoring Location, a “002” Sample Location, a “Weekly when Discharging”, and a “Discrt” Sample Type.

DELETED - SOC Schedule of Compliance Table, Item 1, "The Permittee shall submit an operations and maintenance manual for Division review."

DELETED - SA Special Approvals / Conditions Table, Item 1, "The Permittee shall submit Discharge Monitoring Reports through the Nevada NetDMR system."

Technology Based Effluent Limitations
Technology based effluent limitations are not applicable to this permit.

Water Quality Based Effluent Limitations
The proposed permit requires monitoring and reporting of constituents that are subject of WQSs and may be present in the discharge. The following water quality-based effluent limit (WQBEL) requirements, based on NAC 445A.1756, are included in the proposed permit to ensure that the discharge does not cause WQS violations. In addition, the proposed permit requires monitoring and reporting of constituents that are subject of WQSs.

The proposed permit retains a daily maximum limit of 9.0 S.U. and a daily minimum limit of 6.5 S.U. for pH as prescribed at NAC 445A.1756 to protect the aquatic life designated beneficial use, to be sampled at Outfall 002.

The proposed permit retains a daily maximum limit of 20° C for Temperature as prescribed at NAC 445A.1756 to protect the aquatic life designated beneficial use, to be sampled at Outfalls 001, 002, and 005.

Reasonable Potential Analysis (RPA)
Section 301(b)(1)(c) of the Clean Water Act (CWA) requires effluent limitations necessary to meet WQSs, and Title 40 of the Code of Federal Regulation (CFR) section 122.44(d) requires permits to include conditions that are necessary to achieve WQSs established under section 303 of the CWA, including state narrative criteria for water quality. Federal regulations at 40 CFR 122.44(d)(1)(i) state, “Limitations must control all pollutants or pollutant parameters (either conventional, nonconventional, or toxic pollutants) which the Director determines are or may be discharged at a level that will cause, have the reasonable potential to cause, or contribute to an excursion above any State water quality standard, including State narrative criteria for water quality.” The process to determine whether a WQBEL is required as described in 40 CFR 122.44(d)(1)(i) is referred to as a reasonable potential analysis, or RPA. Furthermore, NAC 445A.243 requires the Division to consider the establishment of effluent limitations necessary to meet WQSs.

For conducting the RPA, the Division used a mass balanced approach to determine the expected critical downstream receiving water concentration using statistics recommended in the United States Environmental Protection Agency’s Technical Support Document (TSD) for Water Quality-Based Toxic Control for statistically calculating the projected maximum effluent concentration (i.e., Table 31 of the TSD using the 99 percent probability basis and 99 percent confidence interval). For purposes of the RPA, the critical receiving water flow was assumed to be zero (i.e., no dilution); therefore, the critical effluent pollutant concentrations were compared with the most restrictive water quality criteria under NAC 445A.1236 and NAC 445A.1756 to determine if the discharge has reasonable potential to cause, or contribute to, an excursion above a State WQS.

The RPA was based on data collected on April 19, 2022. Based on the RPA, the discharge does not exhibit reasonable potential to cause, or contribute to, insteam excurions above the applicable water quality criteria for Whites Creek.

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

The proposed permit establishes once per permit term sampling of toxic materials as these constituents are listed in NAC 445A.1236. The Division does not expect most of these constituents to be present in the discharge; therefore, once per permit term sampling is deemed sufficient for obtaining initial water quality data for toxic materials.

The proposed permit establishes a daily maximum limit of 6.0 milligrams per liter (mg/L) for Dissolved Oxygen, as prescribed at NAC 445A.1756 to protect the Aquatic Life designated beneficial use.

The proposed permit establishes a daily maximum limit of 0.10 mg/L for Phosphorus, as prescribed by NAC 445A.1756 to protect the Aquatic Life and Recreation with Contact designated beneficial uses.

The proposed permit establishes a daily maximum limit of 500 mg/L for Total Dissolved Solids, as prescribed by NAC 445A.1756 to protect the Municipal or Domestic Supply designated beneficial use.

Basis for Effluent Limitations
Temperature is based on the criteria set forth under NAC 445A.1756 Single Value <=20 degrees Celcius, along with the temperature limits proposed by the Nevada Department of Wildlife, which can affect wildlife, cause potential algal blooms, increase pollutant toxicity, and affect chemical reactions.

Toxic materials standards are defined under NAC 445A.1236, standards for toxic materials applicable to designated waters, to allow for the adherence to the CWA.

The requirement to sample for Turbidity is based on high turbidity having the potential to block sunlight, harm aquatic plants, cause high amounts of suspended particles that can clog fish gills and smother fish eggs, along with carrying pollutants, thus disrupting the ecosystem, and potentially posing health risks for humans if the creek is used for municipal and/or domestic water supply.

Anti-backsliding
Sections 303(d) and 402(o) of the CWA and federal regulations of 40 CFR 122.44(i) prohibit backsliding and require effluent limitations in a reissued permit to be as stringent as those in the previous permit. This permit has maintained the same 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 Nevada Revised Statute (NRS) 445A.520 and NRS 565 and is consistent with the federal antidegradation policy found at Title 40 in the CFR section 131.12. The objective of the Division's antidegradation regulation is to prevent degradation of Nevada's surface water and maintain the unique attributes and special characteristics and water quality associated with high-quality waters. This objective is achieved through the implementation of procedures to ensure that water is protected from regulated activities that have the potential to degrade the water quality.

The regulation uses four (4) tiers of antidegradation protection. Tier 1 protects water quality for beneficial uses of the water on a parameter-by-parameter basis. Tier 2 protects high-quality waters where data show the water quality is better than levels needed to protect beneficial uses (on a parameter-by-parameter basis). Tier 2.5 and Tier 3 protect water quality and the special characteristics of waterbodies designated with the beneficial uses of "extraordinary, ecological, aesthetic or recreation value" (NAC 445A.122). The Division will conduct an antidegradation review only when a permit application is submitted for a new or expanding point source discharge to a surface water or for a new or altered zone of mixing.

Since the proposed renewal of this permit does not include a new, or expanding, point source discharge; or, a new or altered zone of mixing, the antidegradation review is not required.

Special Conditions
There are no applicable special approvals/conditions applicable to the proposed permit.

SA – Special Approvals / Conditions Table

Item #	Description
1	Section C.1.7.2 is not applicable to this permit as this is not a wastewater treatment plant nor is any sewer sludge being generated.
2	The C.5.1 Public Owned Treatment Works Section, and associated Subsections C.5.1.1, C.5.1.2, C.5.1.3, and C.5.1.4, are not applicable to this permit as the permitted facility is not a publicly owned treatment works (POTW) system.
3	Under C.8.1 the term, "upset" is not applicable to this permit, as the permitted facility is not a POTW.
4	Sections C.8.2.3.6 and C.8.2.3.7 are not applicable to this permit as the permitted facility is not a POTW.
5	Under Section C.8.4 Bypass not exceeding limitations, in which the portion of the paragraph states, "*The bypass must be scheduled such that required monitoring/sampling will occur during the bypass event (or extra sampling, if necessary) in order to ensure effluent limitations have been met. These bypasses are not subject to the provisions of the applicable Section of Section C.8. (Noncompliance,* *Unauthorized Discharge, Bypass and Upset including Prohibition of Bypass (C.8.6.),*" is not applicable to this permit.
6	Section 21.1 is not applicable to this permit as the permitted facility is not a POTW.

Discharges From Future Outfalls/ Planned Facility Changes
There are no planned discharges from future outfalls or facility changes.

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

Wellhead Protection Program
There is a Public Water Supply (PWS) well located approximately 2,930 feet southwest and upgradient of Outfall 004. The outfall is located in the Drinking Water Protection Area of the wells, which is defined by a 3,000-foot radius around a PWS well. The outfall is not located within a Wellhead Protection Area (WHPA), which represents an approximate 10-year capture zone of a well. The wells are at minimal risk based on the distance, direction, and gradient of the well.

Schedule of Compliance:

SOC – Schedule of Compliance Table

There are no Schedule of Compliance items

Deliverable Schedule:

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

Item #	Description	Interval	First Scheduled Due Date
1	Quarterly Reports	Quarterly	7/28/2026
2	Annual Reports	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. **5/1/2026,** 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: **Melissa Hanson**
Date: **3/27/2026**
Title: **Staff II Engineer**

Summary of Reasonable Potential Analysis

Parameter	Units	No. of Effluent Samples	Critical Effluent Concentration	Most Stringent Criterion	Criterion Basis	Does RP Exist?
Barium, Total Recoverable	ug/L	1	149.1	2,000	Municipal or Domestic	No
Chloride	mg/L	1	63.35	No Criteria		No
Sulfate	mg/L	1	110.85	No Criteria		No