FACTSHEET
(pursuant to NAC 445A.236)

Permittee Name: ELKO COUNTY

540 COURT ST. SUITE 104
ELKO, NV 89801

Permit Number: NS0040023

Permit Type: GROUNDWATER DISCHARGE

Designation: GROUNDWATER

New/Existing: EXISTING

Location: MOUNTAIN CITY WATER AND SEWER USERS, ELKO
1111 BRIDGE TO NOWHERE, MOUNTAIN CITY, NV 89831
LATITUDE: 41.84223470, LONGITUDE: -115.969680
TOWNSHIP: 46 N, RANGE: 53 E, SECTION: 36

Outfall / Well Num	Outfall / Well Name	Location Type	Well Log Num	Latitude	Longitude	Receiving Water
001	INFLUENT	Internal Outfall		41.84223470	-115.969680	NOT APPLICABLE
002	EFFLUENT	External Outfall		41.83695250	-115.968839	GROUNDWATER
003	MONITORING WELL - MW-1	Monitoring Well		41.837023	-115.969274	GROUNDWATER
004	MONITORING WELL - MW-2	Monitoring Well		41.83709290	-115.968159	GROUNDWATER

Permit History/Description of Proposed Action

The Permittee, Mountain City Water and Sewer Users, has applied for the renewal of Permit NS0040023 for the Mountain City Water and Sewer Users wastewater treatment facility (MCWTF), located approximately a 1/2-mile northwest of the small, unincorporated community of Mountain City, at 1111 Bridge to Nowhere, within Elko County, Nevada. The Permittee proposes to continue to discharge domestic sewage into a single, high-density polyethylene (HDPE) lined treatment pond, then into a polishing pond, followed by four rapid infiltration basins (RIBs) for infiltration into the ground.

This permit was first issued on March 25, 1993. The most recent permit was issued on January 1, 2016, and expired on December 31, 2020; the permit has been administratively continued since.

Facility Overview

MCWTF receives domestic sewage from approximately 15 full-time residential service connections, serves approximately 60 part-time residents during the summer season, and includes wastewater from a hotel, restaurant, and small sporting goods store. The treatment process for the MCWTF includes an aerated and facultative two-celled treatment pond, a polishing pond, an effluent pump station, a force main with air/vacuum valve, and four RIBs.

The MCWTF's collection system consists of mostly asbestos cement piping. Domestic sewage flows to lift station #1 (LS #1), via gravity, from the wastewater connections. Raw sewage is conveyed from LS #1, which utilizes two 3 HP Smith and Loveless pumps, to the MCWTF through a 6" diameter force main. Flow to the MCWTF is not metered but is calculated using pump hours. Unscreened influent enters the sewage

treatment pond system, discharging into a HDPE-lined treatment pond, which is divided into two cells, one that is aerobic and the other being facultative, which provides primary treatment of the influent. A baffle wall divides the two cells and provides longer detention time and prevents short circuiting. Wastewater enters the primary treatment cell at the west end and discharges at the east end.

In the aerated cell, a portion of the particulate 5-day carbonaceous biochemical oxygen demand (CBOD5) is removed by sedimentation into the ponds. Influent suspended solids are also removed by sedimentation, while algal solids are produced through photosynthesis. Aeration, either mechanical or natural (via wind currents), helps to mix the water and provide oxygen, which supports the growth of algae and the biological degradation of organic matter. Oxygen for biological degradation of organic matter is supplied by wind aeration and photosynthetic algae. In the facultative cell portion of the pond, the aerated wastewater enters the cell with the heavier solids settling to the bottom, forming a sludge. The accumulated sludge in the bottom is digested by anaerobic bacteria, which thrive in the absence of oxygen. In the upper layer of the facultative cell, algae perform photosynthesis in the presence of sunlight, producing oxygen. This oxygen, along with atmospheric re-aeration, supports aerobic bacteria that further stabilizes the organic material in the water column. Between the aerobic and anaerobic layers, a facultative zone exists where bacteria can utilize either aerobic or anaerobic processes depending on oxygen availability. The primary treatment pond's treated effluent is discharged through a baffled pipe, to prevent scum and duckweed from flowing out of the pond, and then enters through the north end of the polishing pond.

The polishing pond serves to settle biological sludge from the aerated pond, for storage of the sludge and effluent, along with some additional biological removal of organic material. Treated effluent is pumped through the effluent lift station #2 (LS #2) utilizing two 5-HP pumps. The treated effluent exits the pond from the south end and through LS #2, which conveys the treated wastewater to one of the four RIBs, which are rotated quarterly, for final treatment. The RIBs provide additional CBOD5, total suspended solids (TSS), and pathogen removal, via soil infiltration, allowing the treated effluent to achieve equivalent to secondary treatment standards based on the requirements as set forth by the federal Environmental Protection Agency (EPA) and adopted by the state of Nevada.

Sludge removal is done as needed, with it being sent to either a solid waste disposal facility or applied at a nearby cultivated field for supplemental irrigation.

Outfall Summary
Outfall 001 – This internal outfall is for the facility's influent pumped from the lift station to the primary pond.

Outfall 002 – This external outfall is for the facility's effluent discharge into the RIBs.

Outfall MW1 – This outfall is for monitoring groundwater upgradient of the RIBs and is located opposite of the third RIB and west of the RIBs.

Outfall MW2 – This outfall is for monitoring groundwater downgradient of the RIBs and is located 150 feet east of the RIBs.

Facility Upgrades since last issued permit
There were no facility upgrades done during the last permit cycle.

Solids Handling
Solids are either 1) sent for disposal to a solid waste disposal facility; or, 2) applied at a nearby cultivated field for supplemental irrigation. Additional permits from the Division are needed prior to the second option being exercised.

Effluent Management and Reuse
There is no reuse of the treated effluent.

Design Flow (and basis) and Measurement & Current Capacity

The MCWTF was designed with an average day flow rate of 0.048 Mgal/d and a peak flow (daily maximum) flow rate of 0.086 Mgal/d.

The permitted daily maximum was 0.072 Mgal/d, with an average of 0.021 Mgal/d reported during the July 2020 to June 2025 period.

Pretreatment Program
The facility does not meet the federal EPA's guidelines requiring them to have a pretreatment program.

Operations & Maintenance (O&M) Manual status
MCWTF's Operation & Maintenance Manual (O&M Manual) was last reviewed and approved by the Division on March 10, 2016. The Technical, Compliance, and Enforcement Branch of the Bureau of Water Pollution Control requires O&M Manuals to be updated every two (2) permit cycles which equate to every ten (10) years, with an updated O&M Manual due on March 10, 2026.

The updated O&M Manual should follow the Division's guidance document, WTS-2 Minimum Information Required for an Operation and Maintenance Manual for a Wastewater Treatment Plant, and be prepared and wet stamped by a licensed, qualified Nevada engineer (P.E.).

Effluent Characterization
Nevada State Network Discharge Monitoring Report (NetDMR) data, as reported from July 2020 to June 2025, was reviewed as part of this permit renewal process. Data reviewed during the renewal process does not indicate the potential for degradation of the groundwater from the treated effluent discharged within the compliance limits of the proposed permit.

The following averages were taken from the reporting period stated above:

Notes:
Ft.= Feet
Mg/L = Milligrams per liter
Mgal/d = Million Gallons per Day
S.U. = Standard Units
CBOD5 = Carbonaceous Biochemical Oxygen Demand, 5-Day
TDS = Total Dissolved Solids
TSS = Total Suspended Solids

Outfall 001:
Flow Rate: 0.021 Mgal/d
CBOD5: 39.79 mg/L
TSS: 55.79 mg/L

Outfall 002:
CBOD5: 11.02 mg/L
TSS: 16.11 mg/L

Outfall 003:
Chloride: 10.22 mg/L
Depth to water level ft. below the land surface: 21.52 ft.
Nitrogen, nitrate total: 0.44 mg/L
Nitrogen: 2.80 mg/L
TDS: 139 mg/L

Outfall 004:
Chloride: 24.28 mg/L
Depth to water level ft. below the land surface: 10.17 ft.

Nitrogen, nitrate total: 0.28 mg/L
Nitrogen: 0.93 mg/L
TDS: 270 mg/L

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 effluent are Fecal Coliform, Nitrogen and pH, along with potential inorganic chemicals and metals (Profile 1 contaminants).

Receiving Water
Groundwater in the area of the RIBs is 10 to 26 feet below ground surface. These values fluctuate during the year depending on the amount of precipitation. Monitoring well data indicates that there has been no discernible impact to the groundwater during the previous permit period.

Compliance History
The facility has been in substantial compliance during the period spanning July 2020 through June 2025.

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

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

Discharge Limitations				Monitoring Requirements			
Parameter	**Base**	**Quantity**	**Concentration**	**Monitoring Loc**	**Sample Loc**	**Measurement Frequency**	**Sample Type**
Flow rate	Daily Maximum	<= 0.072 Million Gallons per Day (Mgal/d)		Raw Sewage Influent[1]	001	Weekly	METER
Flow rate	Monthly Average	<= 0.048 Million Gallons per Day (Mgal/d)		Raw Sewage Influent[1]	001	Weekly	METER

Notes (WWTP Discharge Limitations Table):

1. Based upon pump run times from the lift station.

WWTP Discharge Limitations Table for Sample Location 001 (Influent-Internal Outfall) To Be Reported Quarterly[2]

Discharge Limitations				Monitoring Requirements			
Parameter	**Base**	**Quantity**	**Concentration**	**Monitoring Loc**	**Sample Loc**	**Measurement Frequency**	**Sample Type**
BOD, carbonaceous, 05 day, 20 C	Daily Maximum		M&R Milligrams per Liter (mg/L)	Raw Sewage Influent[1]	001	Quarterly	DISCRT
BOD, carbonaceous, 05 day, 20 C	Quarterly Average		M&R Milligrams per Liter (mg/L)	Raw Sewage Influent[1]	001	Quarterly	DISCRT
Solids, total suspended	Daily Maximum		M&R Milligrams per Liter (mg/L)	Raw Sewage Influent[1]	001	Quarterly	DISCRT
Solids, total suspended	Quarterly Average		M&R Milligrams per Liter (mg/L)	Raw Sewage Influent[1]	001	Quarterly	DISCRT

Notes (WWTP Discharge Limitations Table):

1. Wet well for the lift station.
2. Sampling should be done concurrently with the quarterly sampling of the treated effluent to allow for precise determination of removal rates being achieved.

WWTP Discharge Limitations Table for Sample Location 002 (Ribs-External Outfall) To Be Reported Quarterly

Discharge Limitations				Monitoring Requirements			
Parameter	**Base**	**Quantity**	**Concentration**	**Monitoring Loc**	**Sample Loc**	**Measurement Frequency**	**Sample Type**
BOD, carbonaceous, 05 day, 20 C	Daily Maximum		<= 60 Milligrams per Liter (mg/L)	Effluent Gross[1]	002	Quarterly	DISCRT
BOD, carbonaceous, 05 day, 20 C	Quarterly Average		<= 40 Milligrams per Liter (mg/L)	Effluent Gross[1]	002	Quarterly	DISCRT
Nitrogen, total	Daily Maximum		<= 10 Milligrams per Liter (mg/L)	Effluent Gross[1]	002	Quarterly	DISCRT
pH, minimum	Daily Minimum[2]		>= 6.0 Standard Units (SU)	Effluent Gross[1]	002	Quarterly	DISCRT
pH, maximum	Daily Maximum[2]		<= 9.0 Standard Units (SU)	Effluent Gross[1]	002	Quarterly	DISCRT
Solids, total suspended	Daily Maximum		<= 135 Milligrams per Liter (mg/L)	Effluent Gross[1]	002	Quarterly	DISCRT
Solids, total suspended	Quarterly Average		<= 90 Milligrams per Liter (mg/L)	Effluent Gross[1]	002	Quarterly	DISCRT
BOD, carb-5 day, 20 deg C, percent removal[3]	Quarterly Minimum[4]		>= 65 Percent (%)	Effluent Gross	002	Quarterly	CALCTD
Solids, suspended percent removal[3]	Quarterly Minimum[4]		>= 65 Percent (%)	Effluent Gross	002	Quarterly	CALCTD

Notes (WWTP Discharge Limitations Table):

1. As measured from the discharge outfall at the polishing pond.
2. If fewer than two samples are taken during the monitoring period, enter the result as both the minimum and maximum value.
3. Sampling should be done concurrently with the quarterly sampling of the influent to allow for precise determination of the removal rates being achieved.
4. Quarterly Minimum Average.

WWTP Discharge Limitations Table for Sample Location 002 (Ribs-External Outfall) To Be Reported Once During The Permit Term

Discharge Limitations				Monitoring Requirements			
Parameter	**Base**	**Quantity**	**Concentration**	**Monitoring Loc**	**Sample Loc**	**Measurement Frequency**	**Sample Type**
Alkalinity, bicarbonate (as CaCO3)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	002	Once Per Permit Term	DISCRT
Alkalinity, total (as CaCO3)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	002	Once Per Permit Term	DISCRT
Aluminum, total (as Al)[1]	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	002	Once Per Permit Term	DISCRT
Antimony, total (as Sb)[1]	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	002	Once Per Permit Term	DISCRT
Arsenic, total (as As)[1]	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	002	Once Per Permit Term	DISCRT
Barium, total (as Ba)[1]	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	002	Once Per Permit Term	DISCRT
Beryllium, dissolved (as Be)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	002	Once Per Permit Term	DISCRT
Cadmium, total (as Cd)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	002	Once Per Permit Term	DISCRT
Calcium, total (as Ca)[1]	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	002	Once Per Permit Term	DISCRT
Chloride (as Cl)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	002	Once Per Permit Term	DISCRT
Chromium, total (as Cr)[1]	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	002	Once Per Permit Term	DISCRT
			M&R				

WWTP Discharge Limitations Table for Sample Location 002 (Ribs-External Outfall) To Be Reported Once During The Permit Term

Discharge Limitations				Monitoring Requirements			
Parameter	**Base**	**Quantity**	**Concentration**	**Monitoring Loc**	**Sample Loc**	**Measurement Frequency**	**Sample Type**
Copper, dissolved (as Cu)	Daily Maximum		Milligrams per Liter (mg/L)	Effluent Gross	002	Once Per Permit Term	DISCRT
Fluoride, total (as F)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	002	Once Per Permit Term	DISCRT
Iron, total (as Fe)[1]	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	002	Once Per Permit Term	DISCRT
Lead, dissolved (as Pb)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	002	Once Per Permit Term	DISCRT
Magnesium, total (as Mg)[1]	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	002	Once Per Permit Term	DISCRT
Manganese, total (as Mn)[1]	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	002	Once Per Permit Term	DISCRT
Mercury, dissolved (as Hg)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	002	Once Per Permit Term	DISCRT
Nitrite plus nitrate total 1 det. (as N)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	002	Once Per Permit Term	DISCRT
Nitrogen, total	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	002	Once Per Permit Term	DISCRT
pH, maximum	Daily Maximum		M&R Standard Units (SU)	Effluent Gross	002	Once Per Permit Term	DISCRT
pH, minimum	Daily Minimum		M&R Standard Units (SU)	Effluent Gross	002	Once Per Permit Term	DISCRT
Potassium, total (as K)[1]	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	002	Once Per Permit Term	DISCRT

WWTP Discharge Limitations Table for Sample Location 002 (Ribs-External Outfall) To Be Reported Once During The Permit Term

Discharge Limitations				Monitoring Requirements			
Parameter	**Base**	**Quantity**	**Concentration**	**Monitoring Loc**	**Sample Loc**	**Measurement Frequency**	**Sample Type**
Selenium, dissolved [as Se]	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	002	Once Per Permit Term	DISCRT
Silver, total (as Ag) [1]	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	002	Once Per Permit Term	DISCRT
Sodium, total (as Na)[1]	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	002	Once Per Permit Term	DISCRT
Sulfate, total (as SO4)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	002	Once Per Permit Term	DISCRT
Thallium, total (as Tl)[1]	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	002	Once Per Permit Term	DISCRT
Solids, total dissolved	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	002	Once Per Permit Term	DISCRT
Uranium, natural, total	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	002	Once Per Permit Term	DISCRT
Cyanide, weak acid, dissociable	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	002	Once Per Permit Term	DISCRT
Zinc, dissolved (as Zn)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	002	Once Per Permit Term	DISCRT

Notes (WWTP Discharge Limitations Table):

1. Analysis shall be for the dissolved fraction.

Groundwater Monitoring Wells Table for Sample Location 003 (Monitoring Well - Mw-1) To Be Reported Semi Annually

	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	Semiannual[2]	DISCRT
Depth to water level ft below landsurface[1]	Daily Minimum	M&R Feet (ft)		Groundwater	003	Semiannual[2]	VISUAL
Nitrogen, total	Daily Maximum		M&R Milligrams per Liter (mg/L)	Groundwater	003	Semiannual[2]	DISCRT
pH	Value		M&R Standard Units (SU)	Effluent Gross	003	Semiannual[2]	DISCRT
Solids, total dissolved	Daily Maximum		M&R Milligrams per Liter (mg/L)	Groundwater	003	Semiannual[2]	DISCRT
Water level relative to mean sea level[3]	Daily Maximum	M&R Feet (ft)		Groundwater	003	Semiannual[2]	CALCTD

Notes (Groundwater Monitoring Wells Table):

1. Depth to groundwater (ft).
2. Sampling of the monitoring wells shall be performed in the second and fourth quarters of each year, and the results shall be submitted with the second and fourth quarter DMRs.
3. Groundwater elevation above mean sea level (AMSL).

Groundwater Monitoring Wells Table for Sample Location 004 (Monitoring Well - Mw-2) To Be Reported Semi Annually

	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	004	Semiannual[2]	DISCRT
Depth to water level ft below landsurface[1]	Daily Minimum	M&R Feet (ft)		Groundwater	004	Semiannual[2]	VISUAL
Nitrogen, total	Daily Maximum		<= 10 Milligrams per Liter (mg/L)	Groundwater	004	Semiannual[2]	DISCRT
pH	Value		M&R Standard Units (SU)	Groundwater	004	Semiannual[2]	DISCRT
Solids, total dissolved	Daily Maximum		M&R Milligrams per Liter (mg/L)	Groundwater	004	Semiannual[2]	DISCRT
Water level relative to mean sea level[3]	Daily Maximum	M&R Feet (ft)		Groundwater	004	Semiannual[2]	CALCTD

Notes (Groundwater Monitoring Wells Table):

1. Depth to groundwater (ft).
2. Sampling of the monitoring wells shall be performed in the second and fourth quarters of each year, and the results shall be submitted with the second and fourth quarter DMRs.
3. Groundwater elevation above mean sea level (AMSL).

Summary of Changes From Previous Permit

The following outfall coordinates were updated based on a Latitude (Lat) and Longitudinal (Long) application:

1. The treatment pond coordinates were revised to show actual influent outfall location being: Lat 41.8422347°, Long -115.9696805°.

The effluent outfall coordinates were revised to show actual outfall location being: Lat 41.8369521°, Long -115.9688396°.

2. The monitoring well (MW-1) outfall coordinates were revised to show actual location being: Lat 41.8370230°, Long -115.9692742°.

3. The monitoring well (MW-2) outfall coordinates were revised to show actual location being: Lat 41.8340929°, Long -115.9681597°.

Under Outfall 001, for a quarter reporting requirement, the following parameters were ADDED:

BOD, carbonaceous, 5-day, 20 C, with a “Daily Maximum” base, a “M&R Milligrams per Liter (mg/L)” concentration, a “Raw Sewage Influent” monitoring location, a “Quarterly” measurement frequency, and a

“Discrt” sample type.

Solids, total suspended, with a “a “Daily Maximum” base, a “M&R Milligrams per Liter (mg/L)” concentration, a “Raw Sewage Influent” monitoring location, a “Quarterly” measurement frequency, and a “Discrt” sample type.

Along with Footnote 2:

2. Sampling should be done concurrently with the quarterly sampling of the treated effluent to allow for precise determination of removal rates being achieved.

Under Outfall 002, the following parameters were ADDED, with a quarterly reporting requirement:

BOD, carbonaceous, 5-day, 20 C, with a “Daily Maximum” base, a “<=60 Milligrams per Liter (mg/L)” concentration, a “Effluent Gross” monitoring location, a “Quarterly” measurement frequency, and a “Discrt” sample type.

Nitrogen total, with a “Daily Maximum” base, a “<=10 Milligrams per Liter (mg/L)” concentration, a “Effluent Gross” monitoring location, a “Quarterly” measurement frequency, and a “Discrt” sample type

pH, minimum, with a “Daily Minimum” base, a “>=6.0 Standard Units (SU)” , an “Eflfuent Gross” monitoring location, a “Quarterly” measurement frequency, and a “Discrt” sample type.

pH, maximum, with a “Daily Maximum” base, a “<=9.0 Standard Units (SU)” an “Effluent Gross” monitoring location, a “Quarterly” measurement frequency, and a “Discrt” sample type.

Solids, total suspended, with a “Daily Maximum” base, a “<=135 Milligrams per Liter (mg/L)” concentration, a “Effluent Gross” monitoring location, a “Quarterly” measurement frequency, and a “Discrt” sample type.

Solids, total suspended, with a “Quarterly Average” base, a "<=90 Milligrams per Liter (mg/L)” concentration, a “Effluent Gross” monitoring location, a “Quarterly” measurement frequency, and a “Discrt” sample type.

BOD, carb-5 day, 20 deg C, percent removal, with a “Quarterly Minimum” base, a ">=65 Percent (%)” concentration, a “Effluent Gross” monitoring location, a “Quarterly” measurement frequency, and a “Calctd” sample type.

Solids, suspended percent removal, with a “Quarterly Minimum” base, a “>=65 Percent (%)” concentration, a “Effluent Gross” monitoring location, a “Quarterly” measurement frequency, and a “Calctd” sample type.

Along with Footnotes 2, 3, and 4.

2. If fewer than two samples are taken during the monitoring period, enter the result as both the minimum and maximum value.

3. Sampling should be done concurrently with the quarterly sampling of the influent to allow for precise determination of the removal rates being achieved.

4. Quarterly Minimum Average.

Under Outfall 002, a “Once during the Permit Term” reporting period was ADDED with the following parameters:

Profile 1, with a “Daily Maximum” base, a “M&R Milligrams per Liter (mg/L)” concentration, a “Effluent Gross” monitoring location, a “Once during the Permit Term” sampling frequency, and a “Discrt” sample type.

Under Outfalls 003 and 004, the following parameters were added:

pH, with a “Value” base, a “M&R Milligrams per Liter (mg/L)” concentration, an “Groundwater” monitoring location, a “Semi-Annual” measurement frequency, and a “Discrt” sample type.

Water level relative to mean sea level, with a “Daily Maximum” base, a “M&R Feet (ft)” quantity, a “Groundwater” monitoring location, a “Semi-Annual” measurement frequency, and a “Calctd” sample type.

Along with Footnote 3:

3. Groundwater elevation above mean sea level (AMSL).

Under Outfalls 003 and 004, the following parameters were CHANGED:

Chloride, total, the base was changed:
From: “Semi-Annual Maximum” To: “Daily Maximum”

Depth to water level ft. below land surface, the base was changed:
From: “Semi-Annual Maximum” To: “Daily Minimum”

Nitrogen, total, the base was changed:
From: “Semi-Annual Maximum” To: “Daily Maximum”

Solids, total dissolved, the base was changed:
From: “Semi-Annual Maximum” To: “Daily Maximum”

Under Outfalls 003 and 004, the following parameter was DELETED:

Nitrogen, nitrate total (as N), with a “Semi-Annual Maximum” base, a “M&R Milligrams per Liter (mg/L)” concentration, a “Groundwater” monitoring location, a “Semiannual” measurement frequency, and a “Discrt” sample type.

Technology Based Effluent Limitations
The following technology based effluent limitations (TBELs) are based on equivalent to secondary treatment. The U.S. EPA published federal equivalent to secondary treatment standards under Title 40 of the Code of Federal Regulations (CFR) Section 133.105, based on an evaluation of performance data for Publicly Owned Treatment Works (POTWs) practicing a combination of physical and biological treatment. Facilities primarily using biological treatment technologies, such as trickling filters or waste stabilization ponds, can achieve significant reductions in CBOD5 and TSS, but might not consistently achieve the secondary treatment standards for these parameters.
Because of this, the U.S. EPA promulgated regulations at 40 CFR Section 133.105 that includes alternative standards that apply to facilities using equivalent to secondary treatment. As allowed by 40 CFR 133, the Division has adopted these standards for groundwater discharges from facilities using equivalent to secondary treatment. Additionally, the Division uses a daily maximum limit in place of the 7-day average limit.

The following equivalent to secondary treatment standards are applicable to this permit:
CBOD5: The daily maximum threshold is limited to 60 mg/L. The quarterly average threshold is limited to 40 mg/L.

TSS: The daily maximum threshold is limited to 135 mg/L. The quarterly average threshold is limited to 90 mg/L.

The federal regulations also allow states to adjust the maximum allowable TSS concentration for

waste stabilization ponds, upwards from those specified in the secondary treatment standards, to conform to TSS concentrations achievable with waste stabilization ponds. The approved alternate TSS requirement in the state of Nevada is 90 mg/L as a 30-day average, implemented as an average quarterly limit. Furthermore, the daily maximum TSS limit was calculated using a factor of 1.5 times the average monthly limitation (90 mg/L X 1.5 = 135 mg/L).

pH daily maximum threshold is limited to 9.0 standard units (S.U.) and the daily minimum limit is 6.0 S.U., based on EPA standards for this parameter.

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

CBOD5 percent removal standard, based on a minimum quarterly average, must meet a minimum limit is 65%.

TSS percent removal standard, based on a minimum quarterly average, must meet minimum limit is 65%.

Limits Based on Facility's Design Criteria Review:
30-day average permitted influent flow rate is limited to <= 0.048 Mgal/d.

Daily maximum permitted influent flow rate is limited to <= 0.072 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 Nevada Administrative Code (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 constituents listed in Profile I 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.”

Other Required Water Quality Monitoring:
The requirement to monitor the effluent for Profile 1 pollutants once per permit term is included to evaluate the quality of the effluent and determine whether the effluent has potential to impact the receiving water. Although cyanide and uranium are not expected to be present in the effluent, the proposed permit requires the Permittee sample these constituents once during the permit term as they are included in the Profile 1 list and they have not been sampled for before.

EPA has an equivalent to secondary treatment standards established value range for pH of 6.0 S.U. through 9.0 S.U., which the Division has applied to protect underground sources of drinking water. Raw domestic wastewater inherently has variable pH. Additionally, some wastewater treatment processes can increase or decrease wastewater pH, which, if not properly controlled, could cause exceedances outside of the reference value range. Therefore, the proposed permit establishes effluent limitations for pH of 6.0 S.U. as a daily minimum and 9.0 S.U. as a daily maximum. A quarterly sampling frequency for pH is sufficient for determining compliance with effluent limitations for pH and is consistent with the Division's policy.

Influent and Effluent Monitoring Requirements:
Quarterly influent and effluent monitoring requirements for CBOD5 and TSS are included to assess treatment performance of the lagoons. A monthly sampling frequency for CBOD5 and TSS is sufficient for determining compliance with the applicable effluent limitations and is consistent with the Division's policy.

Anti-backsliding
None of the proposed permit limits were changed to a less restrictive limit compared to those in the previous permit. 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 Total Nitrate Nitrogen. The Total Nitrogen (as N) parameter encompasses all forms of nitrogen, including organic, ammonia, nitrite, and nitrate. Thus, no backsliding will be caused by this removal and allows this permit to adhere to current Nevada Division of Water Pollution Control's anti-backsliding policy.

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
See the Special Approvals/Conditions Table below.

SA – Special Approvals / Conditions Table

Item #	Description
1	The MCWTF shall use a method approved by NDEP to determine the sludge depth in its ponds. The levels shall be tested in the 4th quarter of each year of this permit and reported in the Annual Report as the total depth of the ponds and the depth of sludge in each pond. The sludge depth monitoring plan shall be submitted with O&M Manual.
2	The portion of Section A.2.8 Records Retention associated with the instrumentation calibration and maintenance is not applicable. All other records of monitoring activities shall be retained as required under that section of the permit.

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

Corrective Action Sites
There is one active Bureau of Corrective Actions (BCA) remediation site located within a one-mile radius of the facility. The site (6-000366) had a confirmed release of gasoline from an underground storage tank in September 1995. It is not anticipated that the discharge of treated wastewater at the MCWTF will negatively affect the BCA site.

Wellhead Protection Program
The outfalls are not located within a Wellhead Protection Area, which represents an approximate 10-year capture zone of a well, or within a Drinking Water Protection Area, which is defined by a 3,000-foot radius around a PWS well.

Schedule of Compliance:

SOC – Schedule of Compliance Table

Item #	Description	Due Date
1	The Permittee shall submit two copies (one hard copy and one electronic copy) of an updated Operations and Maintenance (O&M) Manual for review and approval by the Division. The O&M Manual shall follow the Division's guidance document, WTS-2 Minimum Information Required for an Operation and Maintenance Manual for a Wastewater Treatment Plant and prepared and wet stamped by a licensed, qualified Nevada engineer (P.E.).	3/10/2026

Deliverable Schedule:

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

Item #	Description	Interval	First Scheduled Due Date
1	Quarterly DMRs	Quarterly	1/28/2026
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. **10/24/2025,** 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: **9/18/2025**
Title: **Staff II Engineer**