FACTSHEET
(pursuant to NAC 445A.236)

Permittee Name: GREAT BASIN WATER CO.

1240 EAST STATE ST S-115
PAHRUMP, NV 89048

Permit Number: NS0089063

Permit Type: GROUNDWATER DISCHARGE

Designation: GROUNDWATER

New/Existing: EXISTING

Location: UICN WASTEWATER TREATMENT PLANT #3, NYE
410 E. GLEN OAKS STREET - CALVADA, PAHRUMP, NV 89048
LATITUDE: 36.193197, LONGITUDE: -116.008302
TOWNSHIP: T20S, RANGE: R53E, SECTION: 22

Outfall / Well Num	Outfall / Well Name	Location Type	Well Log Num	Latitude	Longitude	Receiving Water
EFF	TOTAL EFFLUENT	External Outfall		36.193144	-116.007441	GROUNDWATER
INF	INFLUENT	Internal Outfall		36.193061	-116.007968	NOT APPLICABLE
MW1	MONITORING WELL # 1	Monitoring Well		36.19448140	-116.005067	GROUNDWATER
MW2	MONITORING WELL # 2	Monitoring Well		36.19317790	-116.008155	GROUNDWATER
MW3	MONITORING WELL # 3	Monitoring Well		36.19115610	-116.008812	GROUNDWATER

Permit History/Description of Proposed Action

The Permittee, Great Basin Water Co., has applied for the renewal of Permit NS0089063, for the UICN Wastewater Treatment Plant #3 (UICN WWTP #3), at 410 S. Glen Oaks Street, in Pahrump, within Nye County, Nevada. The Permittee proposes to continue to discharge reclaimed water to groundwater of the State either into onsite rapid infiltration basins (RIBs) or via an export pipeline to the following sites - The Property formerly Discovery Park (NS2005503), Lakeview Golf Course (NS2004518), and Pahrump Valley High School (NS2019514), along with potential future sites for reuse irrigation and/or storage (which may be added as a modification).

This permit was first issued on March 20, 1996. The most recent permit was issued on July 1, 2015, and expired on June 30, 2020; the permit has been administratively continued since.

Facility Overview

The UICN WWTP #3 serves to provide tertiary treatment of domestic sewage, along with a small portion of commercial wastewater, for the central Pahrump service area. The Aquatec sequencing batch reactor plant is designed to treat a 30-day average of 1.50 million gallons per day (Mgal/d) of domestic wastewater, and can produce high-quality denitrified, disinfected reclaimed water suitable for re-use, being Category B bacteriological quality, per Nevada Administrative Code (NAC) 445A.276 requirements.

Domestic sewage travels through the collection system, composed of multiple lift stations and pipelines, and then enters the headworks building, which includes an automatic fine screening system, a vortex grit

removal system, and a flow meter, along with dry air oxidizing scrubbers to prevent odors. From the headworks, the wastewater is discharged into flow equalization (EQ) basins. The EQ basins are also enclosed in an enameled steel building with odor scrubbers to handle odors. From there, the wastewater is pumped into the first of the three sequence batch reactor (SBR) tanks, where the wastewater is treated and then discharged to a post stabilization tank, and through a series of tertiary sand filters. After filtration, the effluent is disinfected with ultra-violet (UV) light and then chlorinated prior to being discharged, via gravity flow, to the reclaimed water storage ponds at The Property for reuse or winter storage at that site, or be diverted to the other permitted sites (Lakeview Golf Course and Pahrump Valley High School). Waste activated sludge is pumped from the SBRs to the aerobic sludge digester, then to the sludge handling building where it is dewatered for moisure removal to meet paint filter test requirements at the landfill. At the point of solids dewatering, the waste solids are sufficiently conditioned to avoid excess hydrogen sulfide release. Dewatered sludge is removed by truck to the Pahrump landfill for disposal.

There are three monitoring wells associated with the permit. Each well is approximately 45 feet deep. MW1 is a downgradient monitoring well located by the storage pond on the golf course. MW2 is a cross-gradient monitoring well being located at the plant site, south of the EQ basins. MW3 is an upgradient monitoring well, located behind the residence at 1951 Upland Avenue.

Outfall Summary
Outfall INF – This internal outfall is for measuring the domestic sewage (Influent) flowing into the UICN WWTP #3.

Outfall MW1 – This downgradient monitoring well (MW1) is located north of the RIBs.

Outfall MW2 – This cross-gradient monitoring well (MW2) is located at the UICN WWTP #3.

Outfall MW3 – This upgradient monitoring well (MW3) is located west of the UICN WWTP #3.

Outfall EFF – This external outfall is for the measurement of reclaimed water being discharged from the plant.

Facility Upgrades since last issued permit
Facility upgrades since the last issued permit include new generators installed at Lift Stations 1 and 2, the constructing of new sewer main extensions from the Pahrump Community Health Center, Two Medicine RV Park, Chipotle (restaurant), and within Laguna Street, along with replacing the flow meter and totalizer at the treatment plant.

Solids Handling
Digested solids are sent to one of the two vertical screw presses at the plant for dewatering, after which the dewatered solids are removed and hauled to the Pahrump Landfill.

Effluent Management and Reuse
Treated effluent is discharged to either onsite RIBs or piped to The Property formerly Discovery Park (NS2005503), Lakeview Golf Course (NS2004518), and Pahrump Valley High School (NS2019514) for applied irrigation or winter storage uses (The Property).

Design Flow (and basis) and Measurement & Current Capacity
The UICN WWTP #3 was designed with a total design flow of 1.50 million gallons per day (Mgal/d).

The reported longterm 30-day average influent flow rate for Outfall 001 was 0.70 Mgal/d for the period reviewed (December 2019 through November 2024). The daily maximum influent flow rate for Outfall 001 is limited to 1.50 Mgal/d with a reported Daily Maximum of 0.82 Mgal/d. There were no reported exceedances of this limit.

Pretreatment Program

The facility does not meet the federal Environmental Protection Agency's (EPA's) guidelines requiring them to have a pretreatment program.

Operations & Maintenance (O&M) Manual status
The UICN WWTP #3's O&M Manual was last reviewed and approved on April 9, 2021. The TCE branch requires O&M Manuals to be updated every two (2) permit cycles, which equates to every ten (10) years.

Effluent Characterization
Nevada State Network Discharge Monitoring Report (NetDMR) data, as reported from December 2019 to November 2024, was reviewed as part of this permit renewal process.

The UICN WWTP #3 discharges tertiary treated, denitrified, and disinfected reclaimed water treated to Category B bacteriological quality per NAC 445.276. Therefore, the reclaimed water should meet, at a minimum, a daily maximum fecal coliform of 23 colony forming units (CFU) / 100 mL and a 30-day geometric mean of 2.2 CFU / 100 mL. The reported longterm average for the daily maximum fecal coliform was 3.33 CFU / 100 mL, with four instances of exceedances reported during the period reviewed.

The following averages were taken from the December 2019 to November 2024 reporting period:

Abbreviations:
CBOD5 – Carbonaceous Biochemical Oxygen Demand, 5-day
TDS – Total Dissolved Solids
TSS – Total Suspended Solids
mg/L – Milligrams per Liter
Mgal/d – Million Gallons per Day
S.U. – Standard Units
MW – Monitoring Well

Outfall INF
CBOD5: 181.13 mg/L
Flow Rate: 0.70 Mgal/d for the 30-Day Average, and 0.82 Mgal/d for the Daily Maximum.
TSS: 327.84 mg/L

Outfall MW1 (one instance of reportable numbers with nineteen reported instances of "Dry Well")
Chloride: 142 mg/L
Depth to water level (feet below the surface): 41 feet
Nitrogen: 3.19 mg/L
TDS: 628 mg/L
Water level (relative to mean sea level): 2,530 feet

Outfall MW2 (one instance of reportable numbers with nineteen reported instances of "Dry Well")
Chloride: 54.9 mg/L
Depth level (feet below the surface): 38 feet
Nitrogen: 6.80 mg/L
TDS: 844 mg/L
Water level (relative to mean sea level): 2,523 feet

Outfall MW3 (one instance of reportable numbers with nineteen reported instances of "Dry Well")
Chloride: 325 mg/L
Depth level (feet below the surface): 40 feet
Nitrogen: 82.10 mg/L
TDS: 4,310 mg/L
Water level (relative to mean sea level): 2,524 feet

Outfall SUM (naming convention to be updated during this permit renewal to EFF)
CBOD, 5-day: 5.62 mg/L

Nitrogen: 4.68 mg/L
pH: 7.61 S.U.
TSS: 6.49 mg/L

Note: Based on an inquiry to the plant's operator, the high TDS levels reported at the monitoring wells were due to the shallow drilled depths of the wells, along with naturally occurring TDS in that area (with numerous studies done at both the state and federal levels starting in the late 1990s to determine potential causes and deterrents). The Pahrump groundwater basin is also severely over-pumped, which can cause greater levels of TDS concentrations, which is an ongoing problem that continues to plague that area.

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 reclaimed water are Fecal Coliform, Total Nitrogen, and TDS, along with inorganic chemicals and metals (Profile 1 contaminants).

Receiving Water
The receiving water is groundwater of the State. Depth to groundwater in the area is approximately 32 feet below ground surface. No adverse effects are expected with the discharge of this reclaimed water.

Compliance History
The facility was in substantial compliance during the December 2019 to November 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 Sum (Total Effluent) To Be Reported Monthly

Discharge Limitations				Monitoring Requirements			
Parameter	**Base**	**Quantity**	**Concentration**	**Monitoring Loc**	**Sample Loc**	**Measurement Frequency**	**Sample Type**
BOD, carbonaceous, 05 day, 20 C	Daily Maximum		<= 15 Milligrams per Liter (mg/L)	Effluent Gross	EFF	Monthly	COMPOS
BOD, carbonaceous, 05 day, 20 C	Monthly Average		<= 10 Milligrams per Liter (mg/L)	Effluent Gross	EFF	Monthly	COMPOS
Coliform, fecal general	Daily Maximum		<= 23 Colony Forming Units per 100ml T (CFU/100mL)[3]	Effluent Gross	EFF	Monthly	DISCRT
Coliform, fecal general	30 Day Geometric Mean		<= 2.2 Colony Forming Units per 100ml T (CFU/100mL)[3]	Effluent Gross	EFF	Monthly	DISCRT
Nitrogen, total	Daily Maximum		<= 10 Milligrams per Liter (mg/L)	Effluent Gross	EFF	Monthly	COMPOS
pH, maximum	Daily Maximum		<= 9.0 Standard Units (SU)	Effluent Gross	EFF	Monthly	DISCRT
pH, minimum	Daily Minimum		>= 6.0 Standard Units (SU)	Effluent Gross	SUM	Monthly	DISCRT
Solids, total suspended	Daily Maximum		<= 15 Milligrams per Liter (mg/L)	Effluent Gross	EFF	Monthly	COMPOS
Solids, total suspended	Monthly Average		<= 10 Milligrams per Liter (mg/L)	Effluent Gross	SUM	Monthly	COMPOS
BOD, carb-5 day, 20 deg C, percent removal[1]	Monthly Average Minimum[2]		>= 85 Percent (%)	Effluent Gross	EFF	Monthly	CALCTD
Solids, suspended percent removal[1]	Monthly Average Minimum[2]		>= 85 Percent (%)	Effluent Gross	SUM	Monthly	CALCTD

Notes (WWTP Discharge Limitations Table):

1. Percent removal shall be based on the 30-day average taken from the influent and effluent.
2. Sampling for CBOD, 5-day and total suspended solids (TSS) should be done concurrently when the influent is sampled to determine the exact percentages of removal achieved.
3. CFU or MPN/100mL.

WWTP Discharge Limitations Table for Sample Location Sum (Total Effluent) 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	EFF	Once Per Permit Term	DISCRT
Alkalinity, total (as CaCO3)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	EFF	Once Per Permit Term	DISCRT
Aluminum, total (as Al)[1]	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	EFF	Once Per Permit Term	DISCRT
Antimony, total (as Sb)[1]	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	EFF	Once Per Permit Term	DISCRT
Arsenic, total (as As)[1]	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	EFF	Once Per Permit Term	DISCRT
Barium, total (as Ba)[1]	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	EFF	Once Per Permit Term	DISCRT
Beryllium, dissolved (as Be)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	EFF	Once Per Permit Term	DISCRT
Cadmium, dissolved (as Cd)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	EFF	Once Per Permit Term	DISCRT
Calcium, total (as Ca)[1]	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	EFF	Once Per Permit Term	DISCRT
Chloride (as Cl)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	EFF	Once Per Permit Term	DISCRT
Chromium, total (as Cr)[1]	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	EFF	Once Per Permit Term	DISCRT
			M&R				

WWTP Discharge Limitations Table for Sample Location Sum (Total Effluent) 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	EFF	Once Per Permit Term	DISCRT
Fluoride, total (as F)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	EFF	Once Per Permit Term	DISCRT
Iron, total (as Fe)[1]	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	EFF	Once Per Permit Term	DISCRT
Lead, dissolved (as Pb)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	EFF	Once Per Permit Term	DISCRT
Magnesium, total (as Mg)[1]	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	EFF	Once Per Permit Term	DISCRT
Manganese, total (as Mn)[1]	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	EFF	Once Per Permit Term	DISCRT
Mercury, dissolved (as Hg)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	EFF	Once Per Permit Term	DISCRT
Nitrite plus nitrate total 1 det. (as N)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	EFF	Once Per Permit Term	DISCRT
Nitrogen, total	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	EFF	Once Per Permit Term	DISCRT
pH, maximum	Daily Maximum		M&R Standard Units (SU)	Effluent Gross	EFF	Once Per Permit Term	DISCRT
pH, minimum	Daily Minimum		M&R Standard Units (SU)	Effluent Gross	EFF	Once Per Permit Term	DISCRT
Potassium, total (as K)[1]	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	EFF	Once Per Permit Term	DISCRT

WWTP Discharge Limitations Table for Sample Location Sum (Total Effluent) 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	EFF	Once Per Permit Term	DISCRT
Silver, total (as Ag) [1]	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	EFF	Once Per Permit Term	DISCRT
Sodium, total (as Na)[1]	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	EFF	Once Per Permit Term	DISCRT
Solids, total dissolved	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	EFF	Once Per Permit Term	DISCRT
Sulfate, total (as SO4)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	EFF	Once Per Permit Term	DISCRT
Thallium, total (as Tl)[1]	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	EFF	Once Per Permit Term	DISCRT
Uranium, natural, total	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	EFF	Once Per Permit Term	DISCRT
Cyanide, weak acid, dissociable	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	EFF	Once Per Permit Term	DISCRT
Zinc, dissolved (as Zn)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	SUM	Once Per Permit Term	DISCRT

Notes (WWTP Discharge Limitations Table):

1. Analysis shall be for the dissolved fraction.

WWTP Discharge Limitations Table for Sample Location Inf (Influent) To Be Reported Monthly

Discharge Limitations				Monitoring Requirements			
Parameter	**Base**	**Quantity**	**Concentration**	**Monitoring Loc**	**Sample Loc**	**Measurement Frequency**	**Sample Type**
Flow rate	30 Day Average	<= 1.5 Million Gallons per Day (Mgal/d)		Raw Sewage Influent	INF	Continuous	METER
Flow rate	Daily Maximum	<= 1.5 Million Gallons per Day (Mgal/d)		Raw Sewage Influent	INF	Continuous	METER
BOD, carbonaceous, 05 day, 20 C[1]	Daily Maximum		M&R Milligrams per Liter (mg/L)	Raw Sewage Influent	INF	Monthly	COMPOS
BOD, carbonaceous, 05 day, 20 C[1]	Monthly Average		M&R Milligrams per Liter (mg/L)	Raw Sewage Influent	INF	Monthly	COMPOS
Solids, total suspended[1]	Daily Maximum		M&R Milligrams per Liter (mg/L)	Raw Sewage Influent	INF	Monthly	COMPOS
Solids, total suspended[1]	Monthly Average		M&R Milligrams per Liter (mg/L)	Raw Sewage Influent	INF	Monthly	COMPOS

Notes (WWTP Discharge Limitations Table):

1. Sampling for CBOD, 5-day and total suspended solids (TSS) should be done concurrently when the effluent is sampled to determine the exact percentages of removal achieved.

Groundwater Monitoring Wells Table for Sample Location Mw1 (Monitoring Well Mw#1) 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	MW1	Quarterly	DISCRT
Depth to water level ft below landsurface[2]	Daily Minimum	M&R Feet (ft)		Groundwater	MW1	Quarterly	DISCRT
Nitrogen, total	Daily Maximum		<= 10.0 Milligrams per Liter (mg/L)	Groundwater	MW1	Quarterly	DISCRT
Solids, total dissolved	Daily Maximum		M&R Milligrams per Liter (mg/L)	Groundwater	MW1	Quarterly	DISCRT
Water level relative to mean sea level[1]	Daily Maximum	M&R Feet (ft)		Groundwater	MW1	Quarterly	DISCRT

Notes (Groundwater Monitoring Wells Table):

1. Depth to groundwater.
2. Groundwater elevation above mean sea level (AMSL).

Groundwater Monitoring Wells Table for Sample Location Mw2 (Monitoring Well Mw#2) To Be Reported Quarterly

	Discharge Limitations			Monitoring Requirements			
Parameter	**Base**	**Quantity**	**Concentration**	**Monitoring Loc**	**Sample Loc**	**Measurement Frequency**	**Sample Type**
Solids, total dissolved	Daily Maximum		M&R Milligrams per Liter (mg/L)	Groundwater	MW2	Quarterly	DISCRT
Nitrogen, total	Daily Maximum		<= 10.0 Milligrams per Liter (mg/L)	Groundwater	MW2	Quarterly	DISCRT
Chloride (as Cl)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Groundwater	MW2	Quarterly	DISCRT
Water level relative to mean sea level[1]	Daily Maximum	M&R Feet (ft)		Groundwater	MW2	Quarterly	DISCRT
Depth to water level ft below landsurface[2]	Daily Minimum	M&R Feet (ft)		Groundwater	MW2	Quarterly	DISCRT

Notes (Groundwater Monitoring Wells Table):

1. Depth to groundwater.
2. Groundwater elevation above mean sea level (AMSL).

Groundwater Monitoring Wells Table for Sample Location Mw3 (Monitoring Well Mw#3) To Be Reported Quarterly

	Discharge Limitations			Monitoring Requirements			
Parameter	**Base**	**Quantity**	**Concentration**	**Monitoring Loc**	**Sample Loc**	**Measurement Frequency**	**Sample Type**
Solids, total dissolved	Daily Maximum		M&R Milligrams per Liter (mg/L)	Groundwater	MW3	Quarterly	DISCRT
Nitrogen, total	Daily Maximum		<= 10.0 Milligrams per Liter (mg/L)	Groundwater	MW3	Quarterly	DISCRT
Chloride (as Cl)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Groundwater	MW3	Quarterly	DISCRT
Water level relative to mean sea level[1]	Daily Maximum	M&R Feet (ft)		Groundwater	MW3	Quarterly	DISCRT
Depth to water level ft below landsurface[2]	Daily Minimum	M&R Feet (ft)		Groundwater	MW3	Quarterly	DISCRT

Notes (Groundwater Monitoring Wells Table):

1. Depth to groundwater.
2. Groundwater elevtaion above mean sea level (AMSL).

Summary of Changes From Previous Permit

The contact person under the Section 2 Billing Address of the application was updated from "Wendy Barnett" to "James Eason" due to her retirement from Great Basin Water Company and James Eason filing the role of President for the water company.

The contact person under Section 3.1 Facility / Site Location was updated from "Wendy Barnett" to "Bill Coates" due to her retirement.

The UICN WWTP's address was updated to reflect the Nye County Assessor's record being, "410 E. Glen Oaks Drive".

Coordinates were updated to reflect actual monitoring well locations based on site inspection findings. The revised decimal degrees are as follows:
Monitoring Well #1: Lat. 36.19448140, Long. -116.005067

Monitoring Well #2: Lat. 36.19317790, Long. -116.008155

Monitoring Well #3: Lat. 36.19115610, Long. -116.007441

The following changes were made to Outfalls MW1, MW2, and MW3:

The “Chloride”, “Nitrogen, total”, “Solids, total dissolved”, and “Water level relative to mean sea level” parameter bases were updated from “Quarterly Maximum” to “Daily Maximum.”

The “Depth to water level ft below landsurface” base was changed from “Quarterly Maximum” to “Daily

Minimum."

The footnotes were revised to:
1. Depth to groundwater.
2. Groundwater elevation above mean sea level (AMSL).

The following parameters were either revised or added to Outfall SUM (Effluent). For this permit renewal cycle, the name shall be updated to "EFF" to correctly describe what is being measured.
BOD, carbonaceous, 5-day, 20 C, with a "Monthly Maximum" base was changed to a "Daily Maximum" base.

Coliform, fecal, colony forming units, with a "Monthly Maximum" base was changed to a "Daily Maximum" base.

Coliform, fecal, colony forming units, with a "Monthly Average" base was changed to "30 Day Geometric Mean" base.

Nitrogen, total, with a "Monthly Maximum" base was changed to a "Daily Maximum" base.

pH, maximum, with a "Monthly Maximum" base was changed to a "Daily Maximum" base.

pH, minimum, with a "Monthly Minimum" base was changed to a "Daily Minimum" base.

Solids, total suspended, with a "Monthly Maximum" base was changed to a "Daily Maximum" base.

BOD, carb 5-day, 20 deg C, percent removal, with a "Monthly Average Minimum" base, a "Greater than or Equal to 85 Percent (%)" concentration, a "Effluent Gross" monitoring point, a "Monthly" measurement frequency, and a "Calctd" sample type.

Solids, suspended percent removal, percent removal, with a "Monthly Average Minimum" base, a "Greater than or Equal to 85 Percent (%)" concentration, a "Effluent Gross" monitoring point, a "Monthly" measurement frequency, and a "Calctd" sample type.

Along with the addition of Footnote 2:
2, Percent removal shall be based on the 30-day average taken from the influent and effluent.

Profile 1 Pollutants of Concern were added to the Wastewater Treatment Plant Table for Outfall EFF (previously SUM).

Along with the footnote:
1. Analysis shall be for the dissolved fraction.

Technology Based Effluent Limitations were added to the permit based on secondary treatment standards.

Basis for Effluent Limitations were added to the permit.

Technology Based Effluent Limitations
U.S. EPA published federal secondary treatment standards at Title 40 of the Code of Federal Regulation Section 133 based on an evaluation of performance data for publicly owned treatment works (POTWs) practicing a combination of physical and biological treatment. Performance is measured by monitoring biodegradable organics and suspended solids in the effluent, and the ability to maintain pH. As authorized in 40 CFR 133.102(a)(4) and consistent with the previous permit, the Division has chosen to implement minimum effluent quality requirements for CBOD5 in lieu of effluent limits for BOD5. Federal treatment standards for maximum CBOD5 are defined at 40 CFR 133 as a 30-day average of 25 mg/L and a 7-day average of 40 mg/L. Federal treatment standards for maximum TSS are defined in 40 CFR 133 as a 30-day average of 30 mg/L and a 7-day average of 45 mg/L. The Division applies the 7-day average thresholds as daily maximum effluent limits for CBOD5 and TSS.

The previous permit included effluent limitations for CBOD5 and TSS more stringent than the secondary technology based treatment standards defined at 40 CFR 133, based on the technical capability of the facility's tertiary treatment process. Sections 402(o) and 303(d)(4) of the Clean Water Act (CWA) and federal regulations at 40 CFR 122.44(l) prohibit backsliding and require effluent limitations in a reissued permit to be as stringent as those in the previous permit, with some exceptions. Consistent with the anti-backsliding requirements, the proposed permit retains effluent limits for CBOD5 and TSS based on the technical capability of the facility's tertiary treatment process, which includes a monthly average and daily maximum effluent limits for both CBOD5 and TSS of 10 mg/L (monthly) and 15 mg/L (daily), respectively.

The following limits are based on the technical capability of the facility's tertiary treatment process:

CBOD5: Average monthly limit: <= 10 mg/L; Daily maximum limit: <= 15 mg/L.

TSS: Average monthly limit: <= 10 mg/L; Daily maximum limit: <= 15 mg/L.

Along with secondary treatment limits for pH:

pH: Daily Maximum: <= 9.0 Standard Units

pH: Daily Minimum >=6.0 Standard Units

Technology based effluent limitations (TBELs) are required as promulgated by the U.S. EPA for POTWs. The following limits are based on secondary treatment standards as allowed by the 40 CFR 133, and which has been adopted by the State of Nevada. The following performance standards for POTWs with secondary treatment standards have been included in the permit:

Limits Based on Secondary Treatment Standards:
CBOD5 Percent removal: >= 85 percent.

TSS: Percent removal: >= 85 percent.

Limits Based on Facility's Design Criteria Review:
30-day average influent flow rate is limited to <= 1.50 MGD.

Daily maximum influent flow rate is limited to <= 1.50 MGD.

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 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 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 before.

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 Nevada Revised Statute (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.”

Influent and Effluent Monitoring Requirements:
Monthly influent and effluent monitoring for CBOD5 and TSS are included to assess the treatment performance of the UICN WWTP #3. A monthly sampling frequency for CBOD5 and TSS is sufficient for determining compliance with the applicable effluent limitations. Percent removal requirements for CBOD5 and TSS are established in the permit as monthly average minimums of 85%, based on secondary treatment standards.

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 daily minimum and 9.0 S.U. as a daily maximum.

Other Required Water Quality Monitoring:
The requirement to sample the effluent for fecal coliform prior to irrigation is for the protection of the environment and human health.

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 NRS 445A.520 and NRS 445A.565, and is consistent with the federal antidegradation policy found at 40 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. There are currently no specific water quality standards that have been formally adopted by the State for groundwater, however, data reviewed during the renewal process does not indicate the potential for degradation of the groundwater from the reclaimed water discharged within the compliance limits of the proposed permit.

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

SA – Special Approvals / Conditions Table

There are no Special Approval / Condition items

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 Action (BCA) remediation sites located within a one-mile radius of the wastewater treatment plant.

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

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 DMRs	Quarterly	10/28/2025
2	Annual Report	Annually	1/28/2026
3	Once during the permit term DMR - Profile 1	Once during the permit term	10/28/2030

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. **7/24/2025,** 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: **6/12/2025**
Title: **Staff II Engineer**