FACTSHEET
(pursuant to NAC 445A.236)

Permittee Name: LYON COUNTY

34 LAKES BLVD
DAYTON, NV 89403

Permit Number: NS0040039

Permit Type: GROUNDWATER DISCHARGE

Designation: GROUNDWATER

New/Existing: EXISTING

Location: WILLOW CREEK WASTEWATER TREATMENT FACILITY, LYON
THE CORNER OF SILVERADO RD AND SCARSDALE DR, YERINGTON, NV 89447
LATITUDE: 39.042778, LONGITUDE: -119.1925
TOWNSHIP: 14N, RANGE: 25E, SECTION: 28

Outfall / Well Num	Outfall / Well Name	Location Type	Well Log Num	Latitude	Longitude	Receiving Water
001	INFLUENT METER	Influent Structure		39.042778	-119.1925	TREATMENT PLANT
002	STORAGE LAGOON	External Outfall		39.043611	-119.1925	STORAGE/EVAPORATION LAGOON
003	REUSE FIELD	External Outfall		39.043889	-119.191389	GROUNDWATER
MW1	MW-1	Monitoring Well		39.042944	-119.192389	GROUNDWATER
MW2	MW-2	Monitoring Well		39.041583	-119.1925	GROUNDWATER
MW3	MW-3	Monitoring Well		39.043750	-119.1925	GROUNDWATER

Permit History/Description of Proposed Action
The Permittee, Lyon County Public Works Department, Utility Division, has applied for the renewal of Permit NS0040039 for the Willow Creek Wastewater Treatment Facility (WCWTF), located at the intersection of Scarsdale Drive and Silverado Road, four miles east of Yerington, off Highway 95A, within Lyon County, Nevada. Treated effluent is retained in the storage/evaporation lagoon, which may occasionally discharge Category E bacteriological quality level reclaimed water, per NAC 445.276, for flood irrigation of an agricultural field located immediately north of the treatment facility (permit NS2007502) to provide irrigation and groundwater recharge.

This permit was first issued on December 28, 1993. The most recent permit was issued on October 9, 2012, and expired on October 8, 2017; the permit has been administratively continued since.

Facility Overview
The WCWTF receives domestic sewage from approximately 140 residential service connections. The domestic sewage, or influent, is delivered to the WCWTF through a lift station located at the corner of Smoke Tree Lane and Scarsdale Drive in the Penrose Estates subdivision. The influent is metered at the lift station and then pumped via a primary 4-inch force main to the system which consists of three 60-mil HDPE lined lagoons. Treatment is provided in the first two 1.3 acre aerated facultative lagoons which are operated in series. Primary treatment in the first lagoon is provided by two 5-hp electric aerators. Aerated and

clarified wastewater then gravity flows into the secondary lagoon where additional aeration is provided by one 5-hp electric aerator. Treated effluent from the secondary lagoon gravity flows, controlled by a weir, into a 3.3-acre storage/evaporation lagoon which has a capacity of 6.9 million gallons. A portion of the treated effluent is lost to evaporation; the remainder may be discharged, as needed, for flood irrigation of a leach field located north of WCWTF. Flow into the irrigation line from the storage lagoon is measured by a meter located in the underground vault with a 7.5-horsepower leach field pump. Treated effluent is retained in the storage/evaporation lagoon, which may occasionally discharge Category E bacteriological quality level reclaimed water, per NAC 445.276, for flood irrigation of an agricultural field located immediately north of the treatment facility (permit NS2007502).

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

Outfall 002 – This external outfall is for the facility's effluent discharge into the storage/evaporation lagoon.

Outfall 003 – This external outfall is for the facility effluent discharge to the irrigated field located to the north of lagoons (see permit NS2007502, Sceirine Ranch).

Outfall MW1 – This outfall is for monitoring groundwater mid-gradient of the lagoons.

Outfall MW2 – This outfall is for monitoring groundwater upgradient of the lagoons.

Outfall MW3 – This outfall is for monitoring groundwater downgradient of the lagoons.

Facility Upgrades since last issued permit
The SCADA system, or Supervisory Control and Data Acquisition system, was updated since the previous permit was issued, along with replacing the liner ballast tubes on the storage/evaporation lagoon (Outfall 002). No structural facility updates were done since the last issued permit.

Solids Handling
Lagoons are sampled at least once a year to determine sludge depths. Lyon County contracts qualified services to clean the lagoons, as sludge loading requires, and the sludge is removed to a local landfill.

Effluent Management and Reuse
The Permittee has the options to either discharge to an irrigated leach field to the north of the facility, to percolate into the groundwater, or into an onsite storage pond for evaporation.

Design Flow (and basis) and Measurement & Current Capacity
The longterm 30-day average influent flow rate for Outfall 001 was 0.024 million gallons per day (MGD) during the 5-year reporting period (December 2019 through November 2024). The 30-day average is limited to 0.049 MGD.

The daily maximum influent flow rate for Outfall 001 is limited to 0.066 MGD, with this parameter being added to the permit during this renewal cycle.

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
Willow Creek's most recent Operation & Maintenance (O&M) manual was approved by the Division on October 22, 2013. The Technical, Compliance, and Enforcement Branch of the Bureau of Water Pollution Control requires O&M Manuals be updated every two (2) permit cycles which equates to every ten (10) years.An updated O&M Manual will be due 120 days after the permit issuance date.The O&M Manual shall

follow the Division's guidance document, WTS2 Minimum Information Required for an Operation and Maintenance Manual for a Wastewater Treatment Plant.

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 WCWTF treats domestic sewage from 140 residential service connections and provides treated reclaimed water that meets Category E bacteriological quality requirements per NAC 445A.276. The following reclaimed water averages were taken from December 2019 to November 2024 reporting period:

Notes;
mg/L = Milligrams per liter
S.U. = Standard Units

Outfall 001:
Flow Rate: 0.024 MGD

Outfall 002:
CBOD5: 20 mg/L
Nitrogen, total: 18 mg/L
pH: 8.74 S.U.
TSS: 100 mg/L

Outfall 003:
CBOD5: No Discharge.
Nitrogen, total: No Discharge.
pH: No Discharge.
TDS: No Discharge.

Outfall MW1:
Chloride: 141.0667 mg/L
Depth: 18.18 feet
Nitrogen: 4.71 mg/L
TDS: 759.23 mg/L

Outfall MW2:
Chloride: 19.41 mg/L
Depth: 13.43 feet
Ntrogen: 1.80 mg/L
TDS: 217.31 mg/L

Outfall MW3:
Chloride: 44.14 mg/L
Depth: 12.68 feet
Nitrogen: 4.19 mg/L
TDS: 402.5 mg/L

Pollutants of Concern
Pollutants of concern are any 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 Carbonaceous Biochemical Oxygen Demand, 5 day (CBOD5), Fecal Coliform, Total Nitrogen, pH, and Total Suspended Solids (TSS), along with potential inorganic chemicals and metals (Profile 1 contaminants).

Receiving Water
Depth to groundwater in the area is reported to be between 15 and 20 feet below ground surface. Groundwater flow at the treatment plant is to the northeast. Groundwater monitoring is required.

Compliance History
The facility has been in compliance with the exception of two non-reporting periods during the five years of records reviewed, spanning December 2019 through November 2024.

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 Structure) To Be Reported Monthly

Discharge Limitations				Monitoring Requirements			
Parameter	**Base**	**Quantity**	**Concentration**	**Monitoring Loc**	**Sample Loc**	**Measurement Frequency**	**Sample Type**
Flow rate	Daily Maximum	<= .066 Million Gallons per Day (Mgal/d)		Raw Sewage Influent	001	Continuous	METER
Flow rate	30 Day Average	<= .049 Million Gallons per Day (Mgal/d)		Raw Sewage Influent	001	Continuous	METER

WWTP Discharge Limitations Table for Sample Location 001 (Influent Structure) To Be Reported Quarterly[1]

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	001	Quarterly	DISCRT
BOD, carbonaceous, 05 day, 20 C	Quarterly Average		M&R Milligrams per Liter (mg/L)	Raw Sewage Influent	001	Quarterly	DISCRT
Solids, total suspended	Daily Maximum		M&R Milligrams per Liter (mg/L)	Raw Sewage Influent	001	Quarterly	DISCRT
Solids, total suspended	Quarterly Average		M&R Milligrams per Liter (mg/L)	Raw Sewage Influent	001	Quarterly	DISCRT

Notes (WWTP Discharge Limitations Table):

1. Sampling for CBOD, 5-day and total suspended solids (TSS) should be done concurrently when effluent (Outfall 002) is sampled to determine the exact percentages of removal achieved. If there is no discharge from Outfall 002, then no sampling of the influent is required.

WWTP Discharge Limitations Table for Sample Location 001 (Influent Meter) To Be Reported Annually

Discharge Limitations				Monitoring Requirements			
Parameter	**Base**	**Quantity**	**Concentration**	**Monitoring Loc**	**Sample Loc**	**Measurement Frequency**	**Sample Type**
Flow rate	Rolling Average[1]	M&R Million Gallons per Day (Mgal/d)		Raw Sewage Influent	001	Annual	CALCTD[2]

Notes (WWTP Discharge Limitations Table):

1. Rolling annual average.
2. The rolling annual average flow rate shall be calculated using the twelve (12) most recent reporting periods (months).

WWTP Discharge Limitations Table for Sample Location 002 (Storage Lagoon-Effluent) 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	002	Continuous	METER
Flow rate	30 Day Average	M&R Million Gallons per Day (Mgal/d)		Effluent Gross	002	Continuous	METER

WWTP Discharge Limitations Table for Sample Location 002 (Storage Lagoon-Effluent) To Be Reported Quarterly[1]

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	002	Quarterly	DISCRT
BOD, carbonaceous, 05 day, 20 C	Quarterly Average		<= 40 Milligrams per Liter (mg/L)	Effluent Gross	002	Quarterly	DISCRT
Nitrogen, total	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	002	Quarterly	DISCRT
pH, maximum	Daily Maximum[3]		<= 9.0 Standard Units (SU)	Effluent Gross	002	Quarterly	DISCRT
pH, minimum	Daily Minimum[3]		>= 6.0 Standard Units (SU)	Effluent Gross	002	Quarterly	DISCRT
Solids, total suspended	Daily Maximum		<= 135 Milligrams per Liter (mg/L)	Effluent Gross	002	Quarterly	DISCRT
Solids, total suspended	Quarterly Average		<= 90 Milligrams per Liter (mg/L)	Effluent Gross	002	Quarterly	DISCRT
BOD, carb-5 day, 20 deg C, percent removal	Quarterly Minimum[2]		>= 65 Percent (%)	Effluent Gross	002	Quarterly	CALCTD
Solids, suspended percent removal	Quarterly Minimum[2]		>= 65 Percent (%)	Effluent Gross	002	Quarterly	CALCTD

Notes (WWTP Discharge Limitations Table):

1. Sampling for CBOD, 5-day and total suspended solids (TSS) should be done concurrently when influent (Outfall 001) is sampled to determine the exact percentages of removal achieved. If there is no discharge from Outfall 002, then no sampling of the influent is required.
2. Quarterly Minimum Average.
3. If fewer than two samples are taken during the monitoring period, enter the result as both the minimum and maximum.

WWTP Discharge Limitations Table for Sample Location 002 (Storage Lagoon-Effluent) To Be Reported Annually

Discharge Limitations				Monitoring Requirements			
Parameter	**Base**	**Quantity**	**Concentration**	**Monitoring Loc**	**Sample Loc**	**Measurement Frequency**	**Sample Type**
Flow rate	Rolling Average[1]	M&R Million Gallons per Day (Mgal/d)		Effluent Gross	002	Annual	CALCTD[2]
Sludge/Solids, depth	Daily Maximum	M&R Feet (ft)		Effluent Gross	002	Annual	DISCRT

Notes (WWTP Discharge Limitations Table):

1. Rolling annual average.
2. The rolling annual average flow rate shall be calculated using the twelve (12) most recent reporting periods (months)

WWTP Discharge Limitations Table for Sample Location 002 (Storage Lagoon-Effluent) To Be Reported Once During The Permit Term[1]

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)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	002	Once Per Permit Term	DISCRT
Antimony, total (as Sb)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	002	Once Per Permit Term	DISCRT
Arsenic, total (as As)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	002	Once Per Permit Term	DISCRT
Barium, total (as Ba)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	002	Once Per Permit Term	DISCRT
Beryllium, total (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)	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)	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 (Storage Lagoon-Effluent) To Be Reported Once During The Permit Term[1]

Discharge Limitations				Monitoring Requirements			
Parameter	**Base**	**Quantity**	**Concentration**	**Monitoring Loc**	**Sample Loc**	**Measurement Frequency**	**Sample Type**
Copper, total (as Cu)	Daily Maximum		Milligrams per Liter (mg/L)	Effluent Gross	002	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)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	002	Once Per Permit Term	DISCRT
Lead, total (as Pb)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	002	Once Per Permit Term	DISCRT
Magnesium, total (as Mg)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	002	Once Per Permit Term	DISCRT
Manganese, total (as Mn)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	002	Once Per Permit Term	DISCRT
Mercury, total (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)	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 (Storage Lagoon-Effluent) To Be Reported Once During The Permit Term[1]

Discharge Limitations				Monitoring Requirements			
Parameter	**Base**	**Quantity**	**Concentration**	**Monitoring Loc**	**Sample Loc**	**Measurement Frequency**	**Sample Type**
Selenium, total (as Se)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	002	Once Per Permit Term	DISCRT
Silver, total (as Ag)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	002	Once Per Permit Term	DISCRT
Sodium, total (as Na)	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)	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, total (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. All monitoring and analyses shall be conducted for the dissolved fraction of the listed Profile 1 pollutants.

Groundwater Monitoring Wells Table for Sample Location Mw1 (Mid-Gradient Monitoring Well) 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[1]	Daily Minimum	M&R Feet (ft)		Groundwater	MW1	Quarterly	INSITU
Nitrogen, total	Daily Maximum		M&R Milligrams per Liter (mg/L)	Groundwater	MW1	Quarterly	DISCRT
pH	Value		M&R Standard Units (SU)	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[2]	Daily Maximum	M&R Feet (ft)		Groundwater	MW1	Quarterly	CALCTD

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 (Upgradient Monitoring Well) 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	MW2	Quarterly	DISCRT
Depth to water level ft below landsurface[1]	Daily Minimum	M&R Feet (ft)		Groundwater	MW2	Quarterly	INSITU
Nitrogen, total	Daily Maximum		M&R Milligrams per Liter (mg/L)	Groundwater	MW2	Quarterly	DISCRT
pH	Value		M&R Standard Units (SU)	Groundwater	MW2	Quarterly	DISCRT
Solids, total dissolved	Daily Maximum		M&R Milligrams per Liter (mg/L)	Groundwater	MW2	Quarterly	DISCRT
Water level relative to mean sea level[2]	Daily Maximum	M&R Feet (ft)		Groundwater	MW2	Quarterly	CALCTD

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 (Downgradient Monitoring Well) 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	MW3	Quarterly	DISCRT
Depth to water level ft below landsurface[1]	Daily Minimum	M&R Feet (ft)		Groundwater	MW3	Quarterly	INSITU
Nitrogen, total	Daily Maximum		<= 10 Milligrams per Liter (mg/L)	Groundwater	MW3	Quarterly	DISCRT
pH	Value		M&R Standard Units (SU)	Groundwater	MW3	Quarterly	DISCRT
Solids, total dissolved	Daily Maximum		M&R Milligrams per Liter (mg/L)	Groundwater	MW3	Quarterly	DISCRT
Water level relative to mean sea level[2]	Daily Maximum	M&R Feet (ft)		Groundwater	MW3	Quarterly	CALCTD

Notes (Groundwater Monitoring Wells Table):

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

Re-use Discharge Limitations Table for Sample Location 003 (Reuse Field) To Be Reported Monthly[1]

Discharge Limitations				Monitoring Requirements			
Parameter	**Base**	**Quantity**	**Concentration**	**Monitoring Loc**	**Sample Loc**	**Measurement Frequency**	**Sample Type**
Flow rate	30 Day Average	M&R Million Gallons per Day (Mgal/d)		Prior to Irrigation	003	Daily When Discharging	METER
Flow rate	Daily Maximum	M&R Million Gallons per Day (Mgal/d)		Prior to Irrigation	003	Daily When Discharging	METER

Notes (Re-use Discharge Limitations Table):

1. If no re-use occurs during the monitoring period, report as "C" for no discharge on the DMR form.

Summary of Changes From Previous Permit
The following parameters have been added to Outfall 001 (Influent-Meter) for a Monthly Reporting Period:

Naming convention has been updated to allow for easy identification.

Flow rate, with a "Daily Maximum" base, an "0.049 Million Gallons per Day" quantity, "Raw Sewage Influent" monitoring location, a "Continuous" measurement frequency, and a "Meter" sample type.

Flow rate, with a "30-Day Average" base, an "0.049 Million Gallons per Day" quantity, "Raw Sewage Influent" monitoring location, a "Continuous" measurement frequency, and a "Meter" sample type.

The following parameters have been added to Outfall 001 (Influent-Meter) for a Quarterly Reporting Period:

BOD, carbonaceous, 05 day, 20 C, with a "Daily Maximum" base, an "M&R Milligrams per Liter" concentration, "Raw Sewage Influent" monitoring location, a "Quarterly" measurement frequency, and a "Discrt" sample type.

BOD, carbonaceous, 05 day, 20 C, with a "Quarterly Average" base, an "M&R Milligrams per Liter" concentration, "Raw Sewage Influent" monitoring location, a "Quarterly" measurement frequency, and a "Discrt" sample type.

Solids, total suspended, with a "Daily Maximum" base, an "M&R Milligrams per Liter" concentration, "Raw Sewage Influent" monitoring location, a "Quarterly" measurement frequency, and a "Discrt" sample type.

Solids, total suspended, with a "Quarterly Average" base, an "M&R Milligrams per Liter" concentration, "Raw Sewage Influent" monitoring location, a "Quarterly" measurement frequency, and a "Discrt" sample type.

The following parameters have been added to Outfall 001 (Influent-Meter) for a Annual Reporting Period:

Flow rate, with a "Rolling Average" base, an "M&R Million Gallons per Day" quantity, "Raw Sewage Influent" monitoring location, a "Annual" measurement frequency, and a "Calctd" sample type.

with the following footnotes:

1. Rolling annual average.
2. The rolling annual average flow rate shall be calculated using the twelve (12) most recent reporting periods (months).

The following parameters were revised, to as shown below, at Outfall 002 (Effluent-Storage Lagoon) for a Monthly Reporting Period:

Naming convention has been updated to allow for easy identification.

Flow rate, with a "Daily Maximum" base, an "M&R Million Gallons per Day" quantity, "Effluent Gross" monitoring location, a "Continuous" measurement frequency, and a "Meter" sample type.

Flow rate, with a "30-Day Average" base, an "M&R Million Gallons per Day" quantity, "Effluent Gross" monitoring location, a "Continuous" measurement frequency, and a "Meter" sample type.

The following parameters were revised, to as shown below, at Outfall 002 (Effluent-Storage Lagoon) for a Quarterly Reporting Period:

BOD, carbonaceous, 05 day, 20 C, with a "Daily Maximum" base, an "Less than or equal to 60 Milligrams per Liter" concentration, "Effluent Gross" monitoring location, a "Quarterly" measurement frequency, and a "Discrt" sample type.

BOD, carbonaceous, 05 day, 20 C, with a "30-Day Average" base, an "Less than or equal to 40 Milligrams per Liter" concentration, "Effluent Gross" monitoring location, a "Quarterly" measurement frequency, and a "Discrt" sample type.

pH, maximum, with a "Daily Maximum" base, an "Less than or equal to 9.0 Standard Units" concentration, "Effluent Gross" monitoring location, a "Quarterly" measurement frequency, and a "Discrt" sample type.

pH, minimum, with a "Daily Minimum" base, an "Greater than or equal to 6.0 Standard Units" concentration, "Effluent" monitoring location, a "Quarterly" measurement frequency, and a "Discrt" sample type.

Solids, total suspended, with a "Daily Maximum" base, an "Less than or equal to 45 Milligrams per Liter" concentration, "Effluent Gross" monitoring location, a "Quarterly" measurement frequency, and a "Discrt" sample type.

Solids, total suspended, with a "Quarterly Average" base, an "Less than or equal to 30 Milligrams per Liter" concentration, "Effluent Gross" monitoring location, a "Quarterly" measurement frequency, and a "Discrt" sample type.

BOD, carbonaceous, 05 day, 20 C, with a "Quarterly Minimum Average" base, an "Greater than or equal to 65% Percent" concentration, "Effluent Gross" monitoring location, a "Quarterly" measurement frequency, and a "Calctd" sample type.

Solids, suspended percent removal, with a "Quarterly Minimum Average" base, an "Greater than or equal to 65% Percent" concentration, "Effluent Gross" monitoring location, a "Quarterly" measurement frequency, and a "Calctd" sample type.

along with the footnote:

1. Percent removal should be based on the 30-day average taken from the influent and effluent.

The following parameter was added at Outfall 002 (Effluent-Storage Lagoon) for a Quarterly Reporting Period:

Nitrogen, total, with a "Daily Maximum" base, an "M&R Milligrams per Liter" concentration, "Effluent Gross"

monitoring location, a "Quarterly" measurement frequency, and a "Compos" sample type.

The following parameters were added at Outfall 002 (Effluent-Storage Lagoon) for a Yearly Reporting Period:

Flow rate, with a "Rolling Average" base, an "M&R Million Gallons per Day" quantity, "Effluent Gross" monitoring location, a "Annual" measurement frequency, and a "Calctd" sample type.

Sludge/Solids, depth, with a "Daily Maximum" base, an "M&R Feet" quantity, "Effluent Gross" monitoring location, a "Annual" measurement frequency, and a "Discrt" sample type.

along with the footnotes:

1. Rolling annual average.
2. The rolling annual average flow rate shall be calculated using the twelve (12) most recent reporting periods (months).

The following parameters were added at Outfall 002 (Effluent-Storage Lagoon) for a Once During the Permit Term Reporting Period:

Profile 1 Pollutants, with a "Daily Maximum" base, an "M&R Milligrams per Liter" or "Standard Unit" concentration, a "Effluent Gross" monitoring location, a "Once per Permit Term" measurement frequency, and a "Discrt", "Insitu" or "Calctd" sample type.

along with the footnote:

1. All monitoring and analyses shall be conducted for the dissolved fraction of the listed Profile 1 pollutants.

The following parameters were revised at Outfall 003 (Reuse Field) for a Monthly Reporting Period:

BOD, carbonaceous, 05 day, 20 C: Removed.

Coliform, fecal: Removed.

Nitrogen, total: Removed.

pH (Maximum and Minimum): Removed.

Solids, total suspended: Removed.

These parameters were revised:

Flow rate, with a "30-Day Average" base, an "M&R Million Gallons per Day" quantity, "Prior to Irrigation" monitoring location, a "Daily when Discharging" measurement frequency, and a "Meter" sample type.

Flow rate, with a "Daily Maximum" base, an "M&R Million Gallons per Day" quantity, "Prior to Irrigation" monitoring location, a "Daily when Discharging" measurement frequency, and a "Meter" sample type.

along with the footnote:

1. If no reuse occurs during the monitoring period, report as "C" for no discharge on the DMR form.

The following parameters were revised at Outfalls 004, 005, and 006 (Gradient description Monitoring Well) for a Quarterly Reporting Period:

The naming convention was updated for the outfalls based on gradient to help make identification easier.

Depth to water level ft below landsurface's sample type was revised to "Insitu".

Water level relative to mean sea level's sample type was revised to "Calctd."

along with added footnotes:

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

An additional Special/Approval and Conditions item was added:

Section C.1.2, of the Monitoring and Reporting section, is not applicable based on continued online DMR reporting for more than five (5) years.

Technology Based Effluent Limitations
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 ground- water 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 minimum average threshold is limited to 40 mg/L.

The federal regulations allows 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 9.0 S.U.

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 flow rate at the end of treatment is limited to <= 0.049 MGD.

Daily maximum flow rate at the end of treatment is limited to <= 0.066 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.

Rationale for Permit Requirements
Quarterly reporting under this permit is allowed due to the low level of incoming influent flow and associated effluent discharge.

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 1 have been vetted by the Division and have been included in groundwater discharge permits for many years as a means of regulating groundwater quality. Per NRS 445A.490, “No permit may be issued which authorizes any discharge or injection of fluids through a well into any waters of the State: (3) which would result in the degradation of existing or potential underground sources of drinking water.”

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.

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

Quarterly effluent monitoring for pH is included to ensure protection of underground sources of drinking water. A quarterly sampling frequency for pH is sufficient for determining compliance with effluent limitations for pH 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.

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. 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 treated effluent / reclaimed water discharged within the compliance limits of the proposed permit.

Special Conditions
See the Special Approvals/Conditions Table below.

SA – Special Approvals / Conditions Table

Item #	Description
1	Section C.1.2, of the Monitoring and Reporting section, is not applicable based on continued online DMR reporting for more than five (5) years.

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 facility.

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 (2) copies of an updated Operations and Maintenance (O&M) Manual for review and approval by the Division. The O&M Manual shall be compiled in accordance with appropriate sections of WTS-2, Minimum Information Required for an Operation and Maintenance Manual for a Wastewater Treatment Plant and WTS-6 Guidance Document for Wastewater Pond System O&M."	1/1/2026

Deliverable Schedule:

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

Item #	Description	Interval	First Scheduled Due Date
1	Discharge Monitoring Reports	Quarterly	10/1/2025
2	Annual Reports	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. **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**