FACTSHEET
(pursuant to NAC 445A.236)

Permittee Name: OFFICE OF THE MILITARY, NVARNG

2460 FAIRVIEW DR.
CARSON CITY, NV 89701

Permit Number: NS0098016

Permit Type: GROUNDWATER DISCHARGE

Designation: GROUNDWATER

New/Existing: EXISTING

Location: OFFICE OF THE MILITARY, NVARNG, ELKO
100 UNIVERSITY AVE, CARLIN, NV 89822
LATITUDE: 40.730994, LONGITUDE: -116.031925
TOWNSHIP: T33N, RANGE: R53E, SECTION: 20

Outfall / Well Num	Outfall / Well Name	Location Type	Well Log Num	Latitude	Longitude	Receiving Water
001	EFFLUENT TO POND 2	External Outfall		40.731481	-116.030904	GROUNDWATER
002	OVERFLOW FROM POND 2 TO RIB	External Outfall		40.728905	-116.029104	GROUNDWATER
004	POND 2	External Outfall		40.728905	-116.029104	GROUNDWATER
INF	INFLUENT	Internal Outfall		40.731481	-116.030904	NOT APPLICABLE
MW1	MONITORING WELL 1	Monitoring Well		40.730238	-116.031905	GROUNDWATER
MW2	MONITORING WELL 2	Monitoring Well		40.730321	-116.030909	GROUNDWATER
MW3	MONITORING WELL 3	Monitoring Well		40.730738	-116.029952	GROUNDWATER

Permit History/Description of Proposed Action

The Permittee, Office of the Military, NVARNG, as leased to the Battle Born Youth ChalleNGe Academy (BBYCA), has applied for the renewal of Permit NS0098016, for the wastewater treatment plant (WWTP) serving the BBYCA campus, located at 100 University Avenue, in Carlin, within Elko County, Nevada. The Permittee proposes to continue to discharge reclaimed water to a lined pond to evaporate, with the ability to divert to a rapid infiltration basin (RIB) during high flow or emergency events.

This permit was first issued on August 11, 1999. The most recent permit was issued on April 1, 2014, and expired on March 31, 2019; the permit has been administratively continued since.

Facility Overview

The BBYCA is located on the north side of Interstate 80 about four miles east of Carlin, Elko County, Nevada. The campus facility encompasses an administration building, classroom building, a dormitory, a service repair garage, equipment (shop) building, restroom building, commercial utility building, and WWTP building with a storage pond (Pond #2), within which reclaimed water is discharged, with the ability to divert to the RIB during high flow or emergency events (located at the end of the treatment system). There are three ponds at the facility with the other two (Ponds #1 and #3) formerly being utilized for firewater treatment during the period that the facility served as a fire science academy.

The WWTP is a sequenced aeration, with continuous clarification, package treatment plant manufactured by AeroMod Inc. that includes a selector tank, first stage aeration basin, second stage aeration basin, clarifier, sludge digester, and a single layer high density polyethylene (HDPE)lined pond for storage, with optional diversion capabilities for irrigation, or the reclaimed water can flow into a RIB for infiltration into the ground. The WWTP was designed for an average flow rate of 0.02 million gallons per day (Mgal/d) with a maximum daily flow rate 0.044 Mgal/d, with the ability to treat to a Category B bacteriological quality level per Nevada Administrative Code (NAC) 445A.276.

Influent enters an anoxicselector fermenter/anaerobic selector tank, where the raw sewage is combined with returned activated sludge (RAS) from the clarifiers. This mixture then flows into the first stage aeration basins where the air is sequenced on/off on a 2-hour cycle. During peak organic loadings, the operator can control the alternation of air and can activate both the first stage aeration basins. Flow continues into the second stage aeration tank, where aeration is sequenced on/off on a 2-hour cycle between the two basins. This sequencing is opposite to the 1st Stage Aeration Basins. This results in denitrification through sequential reactions, eliminating the need for turning blowers on and off or using dedicated internal recycle pumps and mixers in separate anoxic tanks. The flow then enters the clarifier where the biomass is settled and returned to the Selector Tank. The clarified effluent is withdrawn and discharged. At regular intervals solids are automatically, or is manually wasted, to an aerobic digester/aerated sludge holding tank. Supernatant is simultaneously decanted back to the aeration process over a fixed level weir. The reclaimed water is diverted from Pond #2 through an 18-inch discharge pipe located at the bottom of the east end of Pond #2. The water is chlorinated using an inline, hypochlorite injection system with static mixer. Following injection of the hypochlorite, the reclaimed water flows through several hundred feet of 18-inch pipe to the irrigation pump station for distribution throughout the facility's grounds for applied irrigation use.

There are three monitoring wells located downgradient and to the south of the facility to allow for continued monitoring of the treatment capabilities of the plant and associated groundwater quality.

The site's Reclaimed Water Management Plan (RWMP) (formerly known as an Effluent Management Plan) was last reviewed and approved by the Division on September 11, 2015. The Technical, Compliance, and Enforcement (TCE) Branch of the Bureau of Water Pollution Control requires RWMPs be updated every two (2) permit cycles which equates to every ten (10) years. The next RWMP will be due on September 11, 2025.

Outfall Summary

Outfall INF – This internal outfall is for measuring the incoming raw domestic sewage.

Outfall 001 – This external outfall is for measuring the treated effluent being discharged into Pond #2.

Outfall 002 – This external outfall is for measuring any overflow of the treated effluent from Pond #2 into the RIB.

Outfall 003 – This external outfall was removed, as the outfall was demolished, and the BBYCA no longer uses reclaimed water to irrigate around the facility.

Outfall 004 – This external outfall is for the discharge of the treated wastewater for Pond 2. Permittee requested the insertion of a pond outfall to report the freeboard parameter added during this renewal cycle.

Outfall MW1 – This downgradient monitoring well (MW1) is located south of Pond #2 and east of the buildings.

Outfall MW2 – This downgradient monitoring well (MW2) is located south of Pond #2 and east of MW1.

Outfall MW3 – This downgradient monitoring well (MW3) is located south of Pond #2 and northeast of MW2.

Facility Upgrades since last issued permit
There have been minor upgrades to the plant since the last issued permit, most being maintenance in nature. In 2021, the lower lift station was upgraded, with wash pad drainage improvements, minor concrete repairs; and at the treatment plant, new blowers, piping, compressor, mechanical mixer and associated equipment were installed in the WWTP aeration system, along with a new Supervisory Control and Data Acquisition (SCADA) system. A new concrete slab was installed at the headworks, along with a new mechanical inlet screen, control panel and new pipe.

Solids Handling
Solids are removed and taken to a local landfill for disposal.

Effluent Management and Reuse
The treated wastewater is sent to a lined pond to evaporate, with the ability to divert to the RIB during high flow or emergency events.

Design Flow (and basis) and Measurement & Current Capacity
The WWTP was designed for an average day flow rate of 0.02 Mgal/d.

The daily maximum influent flow rate for Outfall 001 is limited to 0.044 Mgal/d.

The long-term average discharge (effluent) flow rate for Outfall 001 was 0.01 Mgal/d. The daily maximum discharge rate was previously based on a daily maximum of 0.044 Mgal/d. The revised flow rates will be based on monitor and report (M & R) basis for both the 30-day daily average and daily maximum during this renewal period.

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

Operations & Maintenance (O&M) Manual status
The BBYCA's Operation and Maintenance (O&M) Manual was last reviewed and approved on September 11, 2015. 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 and being due on or before September 11, 2025.

Effluent Characterization
Nevada State Network Discharge Monitoring Report (NetDMR) data, as reported from December 2019 to December 2024, was reviewed as part of this permit renewal process. The WWTP treats to tertiary treated, denitrified, and disinfected reclaimed water which meets Category B bacteriological quality level per NAC 445A.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 following reclaimed water averages were taken from the December 2019 to December 2024 reporting period:

Notes:
mg/L = Milligrams per Liter
Mgal/d = Million Gallons per Day
S.U.= Standard Units
BOD5 = Biochemical Oxygen Demand, 5-Day
TSS = Total Suspended Solids

Outfall 001:
BOD5: 6.49 mg/L
Flow Rate: 0.01 Mgal/d
Nitrogen: 5.51 mg/L

pH: 7.91 S.U.
TSS: 5.86 mg/L

Outfall 002:
Flow Rate: No Discharge Reported

Outfall 003:
Fecal Coliform: Operation Shutdown
Flow Rate: Operation Shutdown

Outfall MW1:
Depth to water level feet below land surface: 2.13 Feet
Hydrocarbons: Below Detection
Nitrogen: 1.38 mg/L

Outfall MW2:
Depth to water level feet below land surface: 2.13 Feet
Hydrocarbons: Below Detection
Nitrogen: 1.33 mg/L

Outfall MW3:
Depth to water level feet below land surface: 3.75 Feet
Hydrocarbons: Below Detection
Nitrogen: 1.75 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 wastewater treatment facilities that denitrify and provide reclaimed water are BOD5, Fecal Coliform, Nitrogen, and pH along with potential inorganic chemicals and metals (Profile 1 contaminants).

Receiving Water
The receiving water is groundwater of the State. Depth to groundwater is approximately 15 feet, with monitoring wells installed to monitor groundwater quality and depth.

Compliance History
The facility was in compliance during the December 2019 to December 2024 reporting period, apart from episodic nonreporting.

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

WWTP Discharge Limitations Table for Sample Location 001 (Effluent To Pond 2) To Be Reported Monthly[1]

Discharge Limitations				Monitoring Requirements			
Parameter	**Base**	**Quantity**	**Concentration**	**Monitoring Loc**	**Sample Loc**	**Measurement Frequency**	**Sample Type**
BOD, 5-day	Daily Maximum		<= 45 Milligrams per Liter (mg/L)	Effluent Gross	001	Monthly	DISCRT
BOD, 5-day	Monthly Average		<= 30 Milligrams per Liter (mg/L)	Effluent Gross	001	Monthly	DISCRT
Coliform, fecal general	Daily Maximum		<= 23 Colony Forming Units per 100ml T (CFU/100mL)	Effluent Gross	001	Monthly	DISCRT
Coliform, total general	30 Day Geometric Mean		<= 2.2 Colony Forming Units per 100ml T (CFU/100mL)	Effluent Gross	001	Monthly	DISCRT
Nitrogen, total	Daily Maximum		<= 10 Milligrams per Liter (mg/L)	Effluent Gross	001	Monthly	DISCRT
pH, maximum[2]	Daily Maximum		<= 9.0 Standard Units (SU)	Effluent Gross	001	Monthly	DISCRT
pH, minimum[2]	Daily Minimum		>= 6.0 Standard Units (SU)	Effluent Gross	001	Monthly	DISCRT
Solids, total suspended	Daily Maximum		<= 45 Milligrams per Liter (mg/L)	Effluent Gross	001	Monthly	DISCRT
Solids, total suspended	Monthly Average		<= 30 Milligrams per Liter (mg/L)	Effluent Gross	001	Monthly	DISCRT
BOD, 5-day, percent removal[3]	Monthly Average Minimum		>= 85 Percent (%)	Effluent Gross	001	Monthly	CALCTD
Solids, suspended percent removal[3]	Monthly Average Minimum		>= 85 Percent (%)	Effluent Gross	001	Monthly	CALCTD

Notes (WWTP Discharge Limitations Table):

1. If no discharge takes place from this outfall during the reporting period, then enter NODI code "C" on the DMR for this outfall.
2. If fewer than two samples are taken during the monitoring period, enter the single result as both the minimum and maximum value.
3. Sampling for BOD, 5-day and total suspended solids (TSS) should be done concurrently when influent (Outfall INF) is sampled to determine exact percentages of removal being achieved.

WWTP Discharge Limitations Table for Sample Location 001 (Effluent To Pond 2) 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	001	Once Per Permit Term	DISCRT
Alkalinity, total (as CaCO3)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Once Per Permit Term	DISCRT
Aluminum, total (as Al)[1]	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Once Per Permit Term	DISCRT
Antimony, total (as Sb)[1]	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Once Per Permit Term	DISCRT
Arsenic, total (as As)[1]	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Once Per Permit Term	DISCRT
Barium, total (as Ba)[1]	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Once Per Permit Term	DISCRT
Beryllium, dissolved (as Be)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Once Per Permit Term	DISCRT
Cadmium, total (as Cd)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Once Per Permit Term	DISCRT
Calcium, total (as Ca)[1]	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Once Per Permit Term	DISCRT
Chloride (as Cl)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Once Per Permit Term	DISCRT
Chromium, total (as Cr)[1]	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Once Per Permit Term	DISCRT
			M&R				

WWTP Discharge Limitations Table for Sample Location 001 (Effluent To Pond 2) 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, dissolved (as Cu)	Daily Maximum		Milligrams per Liter (mg/L)	Effluent Gross	001	Once Per Permit Term	DISCRT
Fluoride, total (as F)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Once Per Permit Term	DISCRT
Iron, total (as Fe)[1]	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Once Per Permit Term	DISCRT
Lead, dissolved (as Pb)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Once Per Permit Term	DISCRT
Magnesium, total (as Mg)[1]	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Once Per Permit Term	DISCRT
Manganese, total (as Mn)[1]	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Once Per Permit Term	DISCRT
Mercury, dissolved (as Hg)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Once Per Permit Term	DISCRT
Nitrite plus nitrate total 1 det. (as N)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Once Per Permit Term	DISCRT
Nitrogen, total	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Once Per Permit Term	DISCRT
pH, maximum	Daily Maximum		M&R Standard Units (SU)	Effluent Gross	001	Once Per Permit Term	DISCRT
pH, minimum	Daily Minimum		M&R Standard Units (SU)	Effluent Gross	001	Once Per Permit Term	DISCRT
Potassium, total (as K)[1]	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Once Per Permit Term	DISCRT

WWTP Discharge Limitations Table for Sample Location 001 (Effluent To Pond 2) 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, dissolved [as Se]	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Once Per Permit Term	DISCRT
Silver, total (as Ag) [1]	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Once Per Permit Term	DISCRT
Sodium, total (as Na)[1]	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Once Per Permit Term	DISCRT
Sulfate, total (as SO4)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Once Per Permit Term	DISCRT
Thallium, total (as Tl)[1]	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Once Per Permit Term	DISCRT
Solids, total dissolved	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Once Per Permit Term	DISCRT
Uranium, natural, total	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Once Per Permit Term	DISCRT
Cyanide, weak acid, dissociable	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Once Per Permit Term	DISCRT
Zinc, dissolved (as Zn)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Once Per Permit Term	DISCRT

Notes (WWTP Discharge Limitations Table):

1. Analysis is for the dissolved fraction.

WWTP Discharge Limitations Table for Sample Location 002 (Overflow From Pond 2 To Rib) 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	M&R Million Gallons per Day (Mgal/d)		See Footnote[1]	002	Continuous	METER
Flow rate	Daily Maximum	M&R Million Gallons per Day (Mgal/d)		See Footnote[1]	002	Continuous	METER

Notes (WWTP Discharge Limitations Table):

1. Treated effluent discharged from Pond #2 to the Rapid Infiltration Basin.

WWTP Discharge Limitations Table for Sample Location Inf (Influent) To Be Reported Monthly[1]

Discharge Limitations				Monitoring Requirements			
Parameter	**Base**	**Quantity**	**Concentration**	**Monitoring Loc**	**Sample Loc**	**Measurement Frequency**	**Sample Type**
BOD, 5-day	Daily Maximum		M&R Milligrams per Liter (mg/L)	Raw Sewage Influent	INF	Monthly	DISCRT
BOD, 5-day	Monthly Average		M&R Milligrams per Liter (mg/L)	Raw Sewage Influent	INF	Monthly	DISCRT
Flow rate	Daily Maximum	<= 0.044 Million Gallons per Day (Mgal/d)		Raw Sewage Influent	INF	Continuous	METER
Flow rate	30 Day Average	<= 0.02 Million Gallons per Day (Mgal/d)		Raw Sewage Influent	INF	Continuous	METER
Solids, total suspended	Daily Maximum		M&R Milligrams per Liter (mg/L)	Raw Sewage Influent	INF	Monthly	DISCRT
Solids, total suspended	Monthly Average		M&R Milligrams per Liter (mg/L)	Raw Sewage Influent	INF	Monthly	DISCRT

Notes (WWTP Discharge Limitations Table):

1. Sampling for BOD, 5-day and total suspended solids (TSS) should be done concurrently when the associated effluent outfall is sampled to determine the exact percentages of removal being achieved. If there is no discharge from Outfall 001, then no sampling of the influent is required.

Groundwater Monitoring Wells Table for Sample Location Mw1 (Monitoring Well) To Be Reported Annually[1]

	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	Annual	DISCRT
Depth to water level ft below landsurface[2]	Daily Minimum	M&R Feet (ft)		Groundwater	MW1	Annual	VISUAL
Nitrogen, total	Daily Maximum		<= 10 Milligrams per Liter (mg/L)	Groundwater	MW1	Annual	DISCRT
pH	Value		M&R Standard Units (SU)	Groundwater	MW1	Annual	DISCRT
Solids, total dissolved	Daily Maximum		M&R Milligrams per Liter (mg/L)	Groundwater	MW1	Annual	DISCRT
Water level relative to mean sea level[3]	Daily Maximum	M&R Feet (ft)		Groundwater	MW1	Annual	CALCTD

Notes (Groundwater Monitoring Wells Table):

1. If the monitoring well is found to be dry during the reporting period, report as "Dry" on the DMR for this outfall.
2. Depth to groundwater.
3. Static water level.

Groundwater Monitoring Wells Table for Sample Location Mw2 (Monitoring Well) To Be Reported Annually[1]

	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	Annual	DISCRT
Depth to water level ft below landsurface[2]	Daily Minimum	M&R Feet (ft)		Groundwater	MW2	Annual	VISUAL
Nitrogen, total	Daily Maximum		<= 10 Milligrams per Liter (mg/L)	Groundwater	MW2	Annual	DISCRT
pH	Value		M&R Standard Units (SU)	Groundwater	MW2	Annual	DISCRT
Solids, total dissolved	Daily Maximum		M&R Milligrams per Liter (mg/L)	Groundwater	MW2	Annual	DISCRT
Water level relative to mean sea level[3]	Daily Maximum	M&R Feet (ft)		Groundwater	MW2	Annual	CALCTD

Notes (Groundwater Monitoring Wells Table):

1. If the monitoring well is found to be dry during the reporting period, report as "Dry" on the DMR for this outfall.
2. Depth to groundwater.
3. Static water level.

Groundwater Monitoring Wells Table for Sample Location Mw3 (Monitoring Well) To Be Reported Annually[1]

	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	Annual	DISCRT
Depth to water level ft below landsurface[2]	Daily Minimum	M&R Feet (ft)		Groundwater	MW3	Annual	VISUAL
Nitrogen, total	Daily Maximum		<= 10 Milligrams per Liter (mg/L)	Groundwater	MW3	Annual	DISCRT
pH	Value		M&R Standard Units (SU)	Groundwater	MW3	Annual	DISCRT
Solids, total dissolved	Daily Maximum		M&R Milligrams per Liter (mg/L)	Groundwater	MW3	Annual	DISCRT
Water level relative to mean sea level[3]	Daily Maximum	M&R Feet (ft)		Groundwater	MW3	Annual	CALCTD

Notes (Groundwater Monitoring Wells Table):

1. If the monitoring well is found to be dry durng the reporting period, report as "Dry" on the DMR for this outfall.
2. Depth to groundwater.
3. Static water level.

Ponds / Rapid Infiltration Basins for Sample Location 003 (Pond 2) To Be Reported Monthly

	Discharge Limitations			Monitoring Requirements			
Parameter	**Base**	**Quantity**	**Concentration**	**Monitoring Loc**	**Sample Loc**	**Measurement Frequency**	**Sample Type**
Freeboard	Daily Minimum	>= 3 Feet (ft)		Effluent Gross	003	Twice Per Month	VISUAL

Summary of Changes From Previous Permit
The name was updated from the "Nevada Army National Guard" to the "Office of the Military, NVARNG".

The INF Outfall was added to measure incoming domestic sewage parameters to allow for determining actual removal occurring. The following parameters were added:

BOD, 5-day, with a “Daily Maximum” base, a “M&R Standard Units (SU)" concentration, a “Raw Sewage Influent” monitoring location, a “Monthly” measurement frequency, and a “Discrt” sample type.

BOD, 5-day, with a “Monthly Average” base, a “M&R Standard Units (SU)" concentration, a “Raw Sewage Influent” monitoring location, a “Monthly” measurement frequency, and a “Discrt” sample type.

Solids, total suspended, with a “Daily Maximum” base, a “M&R Standard Units (SU)" concentration, a “Raw Sewage Influent” monitoring location, a “Monthly” measurement frequency, and a “Discrt” sample type.

Solids, total suspended, with a “Monthly Average” base, a “M&R Standard Units (SU)" concentration, a “Raw Sewage Influent” monitoring location, a “Monthly” measurement frequency, and a “Discrt” sample type.

The flow rate parameters, for both “Daily Maximum” and “30-Day Average” were moved from Outfall 001 to Outfall INF.

Under Outfall 001, for a “Monthly” reporting period, the following parameters were added:

BOD, 5-day, with a “Daily Maximum” base, a “Less than or Equal to 45 Milligrams per Liter (mg/L)" concentration, a “Effluent Gross” monitoring location, a “Monthly” measurement frequency, and a “Discrt” sample type.

BOD, 5-day, with a “Monthly Average” base, a “Less than or Equal to 30 Milligramsper Liter (mg/L)" concentration, a “Effluent Gross” monitoring location, a “Monthly” measurement frequency, and a “Discrt” sample type.

Nitrogen, total, with a “Daily Maximum” base, a “M&R Milligrams per Liter (mg/L)" concentration, a “Effluent Gross” monitoring location, a “Monthly” measurement frequency, and a “Discrt” sample type.

pH, maximum, with a “Daily Maximum” base, a “Less than or Equal to 9.0 Standard Units (S.U.)" concentration, a “Effluent Gross” monitoring location, a “Monthly” measurement frequency, and a “Discrt” sample type.

pH, minimum, with a “Daily Minimum” base, a “Greater than or Equal to 6.0 Standard Units (S.U.)" concentration, a “Effluent Gross” monitoring location, a “Monthly” measurement frequency, and a “Discrt” sample type.

Solids, total suspended, with a “Daily Maximum” base, a “Greater than or Equal to 45 Milligrams per Liter (mg/L)" concentration, a “Effluent Gross” monitoring location, a “Monthly” measurement frequency, and a “Discrt” sample type.

Solids, total suspended, with a “Monthly Average” base, a “Less than or Equal to 30 Milligrams per Liter (mg/L)" concentration, a “Effluent Gross” monitoring location, a “Monthly” measurement frequency, and a “Discrt” sample type.

BOD, 5-day, 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 footnotes:
1. If no discharge takes place from this outfall during the reporting period, enter "No Discharge" on the DMR for this outfall.

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

3. Sampling for BOD, 5-day and total suspended solids (TSS) should be done concurrently when influent (Outfall 003) is sampled to determine the exact percentages of removal achieved.

Under Outfall 001, Profile 1 Pollutants were added for a “M&R Milligrams per Liter” or “Standard Units” base, with a “Once During Permit Term”.

Profile 1 Pollutants, with a “Daily Maximum” base, a “M&R Milligrams per Liter (mg/L)” concentration, a “Effluent Gross” monitoring location, a “Once Per Permit Term” measurement frequency, and a “Discrt” sample type. The monitoring and report concentrations are based on the influent being made up of domestic sewage, should it be discovered that there are any excess concentration levels or industrial waste pollutants found in the sample group, then concentration limits shall be added during the next renewal cycle.

Along with the footnote:
1. Analysis is for the dissolved fraction.

Outfall 003 was removed from this permit due to it being demolished and no longer in use.

The following parameters were added to a new outfall, being Outfall 004 for Pond 2, for a “Monthly” reporting period:
Freeboard, with a “Daily Minimum” base, a “Less than or Equal to 3 Feet” quantity unit, with a “Effluent Gross” monitoring location, a “Twice Per Month” measurement frequency, and a “Visual” sample type.

For Outfalls MW1, MW2, and MW3 the following changes were made:

The following parameters were added based on current Division reporting requirements:

Chloride, with a “Daily Maximum” base, for an “Monitoring & Report (M&R) Milligrams per Liter” concentration, a “Groundwater” monitoring location, a “Annual” measurement frequency, and a “Discrt” sample type.

Nitrogen, total, with a “Daily Maximum” base, a “Less Than or Equal to 10 Milligrams per Liter”concentration, a “Groundwater” monitoring location, a "Annual" measurement frequency, and a “Discrt” sample type.

pH, with a “Value” base, a “M&R Standard Units (SU)" concentration, a “Groundwater” monitoring location, a “Annual” measurement frequency, and a “Discrt” sample type.

Solids, total dissolved, with a “Daily Maximum” base, a “M&R” Milligrams per Liter” concentration,

a “Groundwater” monitoring location, a “Annual” measurement frequency, and a “Discrt” sample type.

Along with the footnotes:
1. If the monitoring well is found to be dry during the reporting period, report as "Dry" on the DMR for this outfall.

2. Depth to groundwater.

3. Static water level.

Technology Based Effluent Limitations
Technology based effluent limitations (TBELs) are required as promulgated by the U.S. EPA for Publicly Owned Treatment Works (POTWs). The following limits are based on secondary treatment standards as allowed by the Code of Federal Regulation (CFR) Title 40, Section 133, and which has been adopted by the State of Nevada.

U.S. EPA published federal secondary treatment standards at 40 CFR 133 based on an evaluation of performance data for 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. Federal secondary treatment standards are defined under 40 CFR 133 for maximum BOD5 as a monthly average of 30 mg/L and a 7-day average of 45 mg/L and for maximum TSS as a monthly average of 30 mg/L and a 7-day average of 45 mg/L. In addition to describing the minimum levels of effluent quality attainable by secondary treatment, 40 CFR 133.102 states that the monthly average percent removal of BOD5 and TSS shall not be less than 85%. The Division has adopted these standards for groundwater dischargers and applied the 7-day average thresholds as daily maximum effluent limits for BOD5 and TSS.

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

BOD5: Monthly average limit: <= 30 mg/L; Daily maximum limit: <= 45 mg/L.

TSS: Monthly average limit: <= 30 mg/L; Daily maximum limit: <= 45 mg/L.

pH: Daily Maximum: <= 9.0 Standard Units

pH: Daily Minimum >= 6.0 Standard Units

Limits Based on Secondary Treatment Standards:

BOD5 Percent removal: >= 85 percent.

TSS: Percent removal: >= 85 percent.

Limits Based on Facility's Design Criteria Review:

30-day average flow rate for influent is limited to <= 0.02 Mgal/d.

Daily maximum flow rate for influent is limited to <= 0.044 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)
There are no proposed water quality based effluent limits 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 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 before.

Influent and Effluent Monitoring Requirements:
Monthly influent and effluent monitoring for BOD5 and TSS are included to assess the treatment performance of the WWTP. A monthly sampling frequency for BOD5 and TSS is sufficient for determining compliance with the applicable effluent limitations. The recent removal requirements for BOD5 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 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 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 currently no planned discharges from future outfalls or facility changes.

Corrective Action Sites
There are no Bureau of Corrective Actions (BCA) remediation sites within a one-mile radius of this 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 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, WTS2 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.).	9/11/2025

Deliverable Schedule:

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

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

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. **8/18/2025,** 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: **7/9/2025**
Title: **Staff II Engineer**