



FACTSHEET
(pursuant to NAC 445A.236)

Permittee Name: NEVADA DEPARTMENT OF CORRECTIONS - ELY STATE PRISON
5500 SNYDER AVENUE, BLDG. 89
CARSON CITY, NV 89701

Permit Number: NS0087034

Permit Type: GROUNDWATER DISCHARGE

Designation: GROUNDWATER

New/Existing: EXISTING

Location: ELY STATE PRISON, WHITE PINE
4569 N. STATE ROUTE 490, ELY, NV 89301
LATITUDE: 39.3775, LONGITUDE: -114.936389
TOWNSHIP: 18 N, RANGE: 62 E, SECTION: 36

Outfall / Well Num	Outfall / Well Name	Location Type	Well Log Num	Latitude	Longitude	Receiving Water
001	INFLUENT	Influent Structure		39.3775	-114.936389	NOT APPLICABLE
002	POND OUTLET	External Outfall		39.3775	-114.936389	GROUNDWATER
003	MONITORING WELL #1	Monitoring Well		39.37550640	-114.936389	GROUNDWATER
004	MONITORING WELL # 2	Monitoring Well		39.37550640	-114.937290	GROUNDWATER
005	POLISHING PONDS	External Outfall		39.3775	-114.936389	GROUNDWATER

Permit History/Description of Proposed Action

The Permittee, State of Nevada Department of Corrections – Ely State Prison (ESP), has applied for the renewal of Permit NS0087034 for their wastewater treatment facility (WWTF), located at 4569 North State Route 490, approximately 16 miles northwest of Ely, within White Pine County, Nevada. The Permittee proposes to continue discharging treated wastewater to rapid infiltration basins (RIBs) located onsite.

This permit was first issued on February 13, 1991. The most recent permit was issued on April 1, 2016, and expired on March 31, 2021; the permit has been administratively continued since.

Facility Overview

The ESP WWTF uses a submerged fixed-film reactor to treat wastewater from approximately 1,750 inmates and staff. The submerged fixed-film reactor has separate aerobic (nitrification) and anoxic (denitrification) zones to provide treatment to reduce total nitrogen (TN) levels, total suspended solids (TSS), and biochemical oxygen demand (BOD). The former treatment ponds will be used as polishing ponds to settle microbial growth that sloughs off the fixed-film media. The treated wastewater is then discharged into one of the four onsite RIBs for percolation into the groundwater.

Influent, composed of domestic sewage and cooling water (during the warmer months), flows through a channel and through the grinder (Muffin Monster) and auger screen units. The bypass flow channel includes a manual bar (trash) rack. The screened influent then flows into the bioreactor, which incorporates two sections of PVC crossflow media where ammonia nitrogen is nitrified (aerobic zone) and denitrified (anoxic

zone), along with reduction of BOD matter. Air scour diffusers were added to the anoxic compartments in 2010 to prevent the overgrowth of filamentous organisms (e.g., *Beggiatoa*), which had rapidly clogged the media. Based on information gathered during site inspections performed by the Division, much of the nitrogen removal occurs in the anoxic zone as the flow passes through the media blocks supporting the attached growth organisms (zooglycal mass). Also, effluent from the aerobic zone is recycled to the anoxic zone for additional nitrate removal. Wastewater flows through the media in both crossflows and recirculation mode, in a total of four passes. To prevent plugging, the final aerobic channel pass includes a sump pump to assist with the removal of sloughed biofilm, which is settled in the ponds for facultative digestion.

Next, the partially treated wastewater is discharged into polishing ponds that provide facultative digestion. The ponds are made up of a primary treatment pond and a secondary treatment pond, where the domestic sewage is treated using a facultative process, with an aerobic layer overlying an anaerobic layer. This process allows for additional removal of 5-day BOD, TSS, along with other pollutants.

The treated wastewater is then disposed of in four (4) RIBS, using alternate loading and drying cycles to further reduce nitrogen in the soil strata prior to groundwater percolation.

There are two (2) lysimeters, serving as groundwater monitoring wells, being utilized at the ESP WWTF to monitor potential impacts associated with operations, with both being located downgradient and west of the treatment ponds.

Outfall Summary

Outfall 001 – This internal outfall is for measuring and the monitoring of the domestic sewage entering into the WWTP.

Outfall 002 – This external outfall is for monitoring the facility's treated wastewater being discharged into the polishing ponds.

Outfall 003 – This monitoring well outfall (MW-1) is located downgradient and west of the treatment ponds.

Outfall 004 – This monitoring well outfall (MW-2) is located downgradient of the treatment ponds and northwest of MW-1.

Outfall 005 – This external outfall is for the measurement of sludge depth at Pond No. 2.

Facility Upgrades since last issued permit

There have been no facility upgrades since the last issued permit.

Solids Handling

Solids are retained in the polishing ponds providing additional treatment for the stored biosolids and reduces the amount requiring disposal by over 50%. During the summer months, ESP WWTF only operates one pond, which allows the out-of-service pond to completely dry out. This allows for easy observation of stored solids and determining the depths. ESP WWTF plans to continue to alternate the ponds so accumulation can be determined. As needed, solids are removed and disposed of, but estimated capacity in the ponds for solids storage is 30 years, with the last removal action done in 2008.

Effluent Management and Reuse

Treated wastewater is discharged into RIBs located onsite at the ESP WWTF. There is no reuse associated with this permit.

Design Flow (and basis) and Measurement & Current Capacity

The ESP WWTF was originally permitted with an average day flow rate of 0.45 Mgal/d.

The average daily flow rate reported for Outfall 001 (Influent) was 0.20 Mgal/d. The permitted daily maximum flow rate for Outfall INF is limited to 0.90 Mgal/d. There were no reported exceedances to the permitted limits.

Estimated plant capacity, based on the average reported flow rate, is at 44%.

Pretreatment Program

The ESP WWTF does not meet the U.S. EPA's guidelines requiring them to have a pretreatment program.

Operations & Maintenance (O&M) Manual status

The ESP WWTF's Operation & Maintenance Manual (O&M Manual) was last reviewed and approved by the Division on February 19, 2016. The Technical, Compliance and Enforcement Branch of the BWPC requires O&M Manuals to be updated every ten (10) years from the time of the last approved O&M Manual, with an updated O&M Manual due on April 16, 2026.

Effluent Characterization

Nevada State Network Discharge Monitoring Report (NetDMR) data, as reported from January 2020 to December 2025, was reviewed as part of the permit renewal process. The ESP WWTF discharges secondary treated, denitrified wastewater to onsite RIBs for percolation into the groundwater. The long-term daily average flow rate from Outfall 001 (Influent) from January 2020 to December 2025 was 0.20 million gallons per day (Mgal/d). The daily maximum flow for Outfall 001 is limited to 0.90 Mgal/d. There were no exceedances of this limit during the period reviewed.

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

Abbreviations:

BOD5 – Biochemical Oxygen Demand, 5-day
 Depth – Depth to water level feet below land surface
 TN - Total Nitrogen
 TDS – Total Dissolved Solids
 TSS – Total Suspended Solids
 Water Level - Water level relative to mean sea level
 mg/L – Milligrams per Liter
 Mgal/d – Million Gallons per Day
 S.U. – Standard Units
 MW – Monitoring Well

Outfall 001 (Influent):

BOD5: 255 mg/L
 Flow Rate: 0.20 Mgal/d
 TSS: 254 mg/L

Outfall 002 (Effluent):

BOD5: 27 mg/L
 Nitrogen: 8.00 mg/L
 pH: 8.44 S.U.
 TSS: 40.10 mg/L

Outfall 003 (MW-1):

No reporting done. The well was either dry or monitoring was not possible.

Outfall 004 (MW-2):

Chloride: 168 mg/L
 Depth: Not Quantifiable
 Nitrogen: 6.76 mg/L
 TDS: 818 mg/L

Outfall 005 (Pond Outlet):

Sludge Depth: Not Reported.

The removal rates achieved by the ESP WWTF were 90% for BOD5 and 84% for TSS.

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 effluent and monitoring wells are:

Effluent – BOD5, Nitrogen, pH, General Fecal Coliform, along with potential inorganic chemicals and metals (Profile 1 contaminants).

Monitoring Wells: Chloride, Nitrogen, and TDS.

Receiving Water

The receiving water is groundwater of the State. Continued monitoring is required to ensure groundwater of the State is protected. Groundwater flows in the southwest direction.

Compliance History

The ESP WWTF was in compliance during the period reviewed (January 2020 - December 2025) with the exception of a few exceedances reported of permitted constituents (BOD5, Nitrogen, and TSS), with each having less than five exceedances during that timeframe.

Proposed Effluent Limitations

The Permittee is authorized to discharge in accordance with the limitations, requirements and conditions of this permit. The discharge shall be limited, sampled and monitored by the Permittee as specified below:

WWTP Discharge Limitations Table for Sample Location 001 (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	<= 0.45 Million Gallons per Day (Mgal/d)		Raw Sewage Influent	001	Continuous	METER
Flow rate	Daily Maximum	<= 0.90 Million Gallons per Day (Mgal/d)		Raw Sewage Influent	001	Continuous	METER

WWTP Discharge Limitations Table for Sample Location 001 (Influent) To Be Reported Quarterly^[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	001	Quarterly	DISCRT
BOD, 5-day	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 of BOD5 and TSS should be done concurrently when the effluent (Outfall 002) is sampled to determine actual removal rates achieved.

WWTP Discharge Limitations Table for Sample Location 002 (Pond Outlet) To Be Reported Quarterly

Discharge Limitations				Monitoring Requirements			
Parameter	Base	Quantity	Concentration	Monitoring Loc	Sample Loc	Measurement Frequency	Sample Type
BOD, 5-day ^[1]	Daily Maximum		<= 45 Milligrams per Liter (mg/L)	Effluent Gross	002	Quarterly	DISCRT
BOD, 5-day ^[1]	Quarterly Average		<= 30 Milligrams per Liter (mg/L)	Effluent Gross	002	Quarterly	DISCRT
Nitrogen, total	Daily Maximum		<= 10 Milligrams per Liter (mg/L)	Effluent Gross	002	Quarterly	DISCRT
pH, maximum	Daily Maximum		<= 9 Standard Units (SU)	Effluent Gross	002	Quarterly	DISCRT
pH, minimum	Daily Minimum		>= 6 Standard Units (SU)	Effluent Gross	002	Quarterly	DISCRT
Solids, total suspended ^[1]	Quarterly Average		<= 90 Milligrams per Liter (mg/L)	Effluent Gross	002	Quarterly	DISCRT
Solids, total suspended ^[1]	Daily Maximum		<= 135 Milligrams per Liter (mg/L)	Effluent Gross	002	Quarterly	DISCRT
BOD, 5-day, percent removal	Quarterly Minimum ^[2]		>= 85 Percent (%)	Effluent Gross	002	Quarterly	CALCTD
Solids, suspended percent removal	Quarterly Minimum ^[2]		>= 85 Percent (%)	Effluent Gross	002	Quarterly	CALCTD

Notes (WWTP Discharge Limitations Table):

1. Sampling of BOD5 and TSS should be done concurrently when the influent (Outfall 001) is sampled to determine actual removal rates achieved.
2. Quarterly minimum average.

WWTP Discharge Limitations Table for Sample Location 002 (Pond Outlet) 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 CaCO ₃)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	002	Once Per Permit Term	DISCRT
Alkalinity, total (as CaCO ₃)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	002	Once Per Permit Term	DISCRT
Aluminum, dissolved (as Al)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	002	Once Per Permit Term	DISCRT
Antimony, dissolved (as Sb)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	002	Once Per Permit Term	DISCRT
Arsenic, dissolved (as As)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	002	Once Per Permit Term	DISCRT
Barium, dissolved (as Ba)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	002	Once Per Permit Term	DISCRT
Beryllium, dissolved (as Be)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	002	Once Per Permit Term	DISCRT
Cadmium, dissolved (as Cd)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	002	Once Per Permit Term	DISCRT
Calcium, dissolved (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, dissolved (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 (Pond Outlet) To Be Reported Once During The Permit Term

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

Discharge Limitations				Monitoring Requirements			
Parameter	Base	Quantity	Concentration	Monitoring Loc	Sample Loc	Measurement Frequency	Sample Type
Selenium, dissolved [as Se]	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	002	Once Per Permit Term	DISCRT
Silver, dissolved (as Ag)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	002	Once Per Permit Term	DISCRT
Sodium, dissolved (as Na)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	002	Once Per Permit Term	DISCRT
Sulfate, total (as SO ₄)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	002	Once Per Permit Term	DISCRT
Thallium, dissolved (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, dissolved (as Zn)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	002	Once Per Permit Term	DISCRT

WWTP Discharge Limitations Table for Sample Location 003 (Monitoring Well #1) To Be Reported Quarterly^[1]

Parameter	Discharge Limitations			Monitoring Requirements			
	Base	Quantity	Concentration	Monitoring Loc	Sample Loc	Measurement Frequency	Sample Type
Chloride (as Cl)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Groundwater	003	Quarterly	DISCRT
Depth to water level ft below landsurface ^[2]	Daily Minimum	M&R Feet (ft)		Groundwater	003	Quarterly	STATIC
Nitrogen, total	Daily Maximum		<= 10 Milligrams per Liter (mg/L)	Groundwater	003	Quarterly	DISCRT
Solids, total dissolved	Daily Maximum		M&R Milligrams per Liter (mg/L)	Groundwater	003	Quarterly	DISCRT
Water level relative to mean sea level ^[3]	Daily Maximum	M&R Feet (ft)		Groundwater	003	Quarterly	CALCTD

Notes (WWTP Discharge Limitations Table):

1. If the monitoring well is dry during the reporting period, report as "Dry" or "W" in the DMR database for this outfall.
2. Depth to groundwater.
3. Groundwater elevation above mean sea level (AMSL).

Groundwater Monitoring Wells Table for Sample Location 004 (Monitoring Well #2) To Be Reported Quarterly^[1]

Parameter	Discharge Limitations			Monitoring Requirements			
	Base	Quantity	Concentration	Monitoring Loc	Sample Loc	Measurement Frequency	Sample Type
Chloride (as Cl)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Groundwater	004	Quarterly	DISCRT
Depth to water level ft below landsurface ^[2]	Daily Minimum		M&R Feet (ft)	Groundwater	004	Quarterly	STATIC
Nitrogen, total	Daily Maximum		<= 10 Milligrams per Liter (mg/L)	Groundwater	004	Quarterly	DISCRT
Solids, total dissolved	Daily Maximum		M&R Milligrams per Liter (mg/L)	Groundwater	004	Quarterly	DISCRT
Water level relative to mean sea level ^[3]	Daily Maximum	M&R Feet (ft)		Groundwater	004	Quarterly	CALCTD

Notes (Groundwater Monitoring Wells Table):

1. If the monitoring well is dry during the reporting period, report as "Dry" or "W" in the DMR database for this outfall.
2. Depth to groundwater.
3. Groundwater elevation above mean sea level (AMSL).

Ponds / Rapid Infiltration Basins for Sample Location 005 (Polishing Ponds) 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
Sludge/Solids, depth ^[2]	Maximum Value	M&R Feet (ft)		See Footnote ^[3]	005	Once Per Permit Term ^[4]	VISUAL

Notes (Ponds / Rapid Infiltration Basins):

1. The Permittee shall use a method approved by NDEP to determine the sludge depth in its ponds. The plan for monitoring the sludge depths shall be submitted with O&M Manual. When sludge depths average 20-percent of the total depth of the pond(s), the Permittee shall submit to NDEP a plan to remove the sludge within two years.
2. The Permittee shall report the total depth of the pond and the depth of sludge.
3. The Permittee shall test the sludge depths at various spots in the pond that have been approved by NDEP.
4. The Permittee shall sample the sludge depths during the 3rd quarter and report in 3rd quarter DMRs.

Summary of Changes From Previous Permit

Under Outfall 001 (Influent Structure) To Be Reported Quarterly the following parameters were either added or changed:

ADDED – BOD, 5-day, with an “Daily Maximum” Base, a “M&R Milligrams per Liter (mg/L)” Concentration, a “Raw Sewage Influent” Monitoring Location, a “001” Sample Location, a “Quarterly” Measurement Frequency, and a “Discret” Sample Type.

ADDED – Solids, total suspended, with an “Daily Maximum” Base, a “M&R Milligrams per Liter (mg/L)” Concentration, a “Raw Sewage Influent” Monitoring Location, a “001” Sample Location, a “Quarterly” Measurement Frequency, and a “Discret” Sample Type.

CHANGED - BOD, 5-day, with an “Quarterly Maximum” Base to a “Quarterly Average” Base and an “Internal Monitoring Point” to a “Raw Sewage Influent” Monitoring Location, the remaining monitoring requirements remained unchanged.

CHANGED – Solids, total suspended, with an “Quarterly Maximum” Base to a “Quarterly Average” Base and an “Internal Monitoring Point” to a “Raw Sewage Influent” Monitoring Location, the remaining monitoring requirements remained unchanged.

ADDED – Footnote 1.

1. Sampling of BOD5 and TSS should be done concurrently when the effluent (Outfall 002) is sampled to determine actual removal rates being achieved.

Under Outfall 002 (Pond Outlet (Effluent) – External Outfall) To Be Reported Quarterly the following parameters were either added, changed, or deleted:

ADDED – BOD, 5-day, with an “Daily Maximum” Base, a “45 Milligrams per Liter (mg/L)” Concentration, a “Effluent Gross” Monitoring Location, a “002” Sample Location, a “Quarterly” Measurement Frequency, and a “Discret” Sample Type.

ADDED – BOD, 5-day, with an “Quarterly Average” Base, a “30 Milligrams per Liter (mg/L)” Concentration, a “Effluent Gross” Monitoring Location, a “002” Sample Location, a “Quarterly” Measurement Frequency, and a “Discret” Sample Type.

DELETED – BOD, 5-day, with a “Quarterly Maximum” Base.

ADDED – Solids, total suspended, with an “Daily Maximum” Base, a “135 Milligrams per Liter (mg/L)” Concentration, a “Effluent” Monitoring Location, a “002” Sample Location, a “Quarterly” Measurement Frequency, and a “Discret” Sample Type.

ADDED – Solids, total suspended, with an “Quarterly Average” Base, a “90 Milligrams per Liter (mg/L)” Concentration, a “Effluent” Monitoring Location, a “002” Sample Location, a “Quarterly” Measurement Frequency, and a “Discret” Sample Type.

DELETED – Solids, total suspended, with a “Quarterly Maximum” Base.

CHANGED – Nitrogen and pH maximum, with a “Quarterly Maximum” Base to a “Daily Maximum” Base. The remaining monitoring requirements were unchanged.

CHANGED – pH minimum, with a “Quarterly Minimum” Base to a “Daily Minimum” Base, with the remaining monitoring requirements remaining unchanged.

ADDED – BOD, 5-day, percent removal, with a “Quarterly Minimum” Base, a ≥ 85 Percent (%) Concentration, a “Effluent Gross” Monitoring Location, a “002” Sample Location, a “Quarterly” Measurement Frequency, and a “Calcd” Sample Type.

ADDED – Solids, suspended percent removal, with a “Quarterly Minimum” Base, a ≥ 85 Percent (%) Concentration, a “Effluent Gross” Monitoring Location, a “002” Sample Location, a “Quarterly” Measurement Frequency, and a “Calcd” Sample Type.

ADDED – Footnotes 1 and 2.

1. Sampling of BOD5 and TSS should be done concurrently when the influent (Outfall 001) is sampled to determine actual removal rates being achieved.

2. Quarterly minimum average.

ADDED Outfall 002 (Pond Outlet (Effluent) – External Outfall) To Be Reported Once During the Permit Term along with the following parameters:

Profile 1, with a “Daily Maximum” Base, a “M&R Milligrams per Liter (mg/L)” Concentration, a “Effluent Gross” Monitoring Location, a “002” Sample Location, a “Once Per Permit Term” Measurement Frequency, and a “Discret” Sample Type.

DELETED – Outfall 003 Monitoring Well MW-1 To Be Reported Quarterly, as it has been dry since 2010 and MW-2 was drilled to allow for continued monitoring of the groundwater conditions in that area.

Under Outfall 004 Monitoring Well MW-2 To Be Reported Quarterly, the following parameters were either added or changed:

ADDED – Water level relative to mean sea level, with a “Daily Maximum” Base, a “M&R Feet (ft)” Quantity, a “Groundwater” Monitoring Location, a “004” Sample Location, a “Quarterly” Measurement Frequency, and “Discret” Sample Type.

CHANGED – Chloride, Nitrogen, and Total Dissolved Solids, from a “Quarterly Maximum” Base to a “Daily Maximum” Base, the remaining monitoring requirements were unchanged.

CHANGED – Depth to water level ft below land surface, from a “Quarterly Minimum” Base to a “Daily Minimum” Base, the remaining monitoring requirements were unchanged.

DELETED – Footnotes 1 and 2.

ADDED – Footnotes 1, 2, and 3.

1. If the monitoring well is dry during the reporting period, report as "Dry" or "W" in the DMR database for this outfall.

2. Depth to groundwater.

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

CHANGED - Outfall 005, Polishing Ponds, From a "To Be Reported Annually" Reporting Period to a "Once During the Permit Term" Reporting Period.

Technology Based Effluent Limitations

Technology based effluent limitations (TBELs) are required as promulgated by the United States (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, suspended solids in the effluent, and ensuring pH remains within regulatory limits. Federal secondary treatment standards are defined under 40 CFR 133 for maximum BOD5 as a 30-day average of 30 mg/L and a 7-day average of 45 mg/L and for maximum TSS as a 30-day 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 30-day average percent removal of BOD5 and TSS shall not be less than 85%. The Division has adopted these standards for discharges from treatment facilities, and has applied the same 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: Quarterly 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

Federal regulations also allow states to adjust the maximum allowable TSS concentration for waste stabilization ponds, upwards from those specified in the secondary treatment standards, to conform to TSS concentrations achievable with waste stabilization ponds. The approved alternate TSS requirement in the state of Nevada is 90 mg/L as a 30-day average, implemented as an average monthly limit. Furthermore, the daily maximum TSS limit was calculated using a factor of 1.5 times the average monthly limitation ($90 \text{ mg/L} \times 1.5 = 135 \text{ mg/L}$).

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

BOD5 percent removal standard, based on a minimum quarterly average, must meet a minimum limit is 85%.

TSS percent removal standard, based on a minimum quarterly average, must meet a minimum limit is 85%.

Limits Based on Facility's Design Criteria Review:

Permitted 30-day average flow rate for influent is limited to ≤ 0.45 Mgal/d.

Permitted daily maximum flow rate for influent is limited to ≤ 0.90 Mgal/d.

Water Quality Based Effluent Limitations

Water quality based effluent limitations are not applicable to this permit.

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

Water quality based effluent limits 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 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 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 permit requires the Permittee to sample these constituents once per term because they are included in the Profile 1 list and have not been previously tested.

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."

Influent and Effluent Monitoring Requirements:

Quarterly influent and effluent monitoring for BOD5 and TSS are included to assess the treatment performance of the ESP WWTF. A quarterly sampling frequency for BOD5 and TSS is sufficient for determining compliance with the applicable effluent limitations. Percent removal requirements for BOD5 and TSS are established in the permit as quarterly average minimums of 85%, based on secondary treatment standards.

Some wastewater treatment processes can increase or decrease wastewater pH; therefore, quarterly 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.

Anti-backsliding

None of the proposed permit limits were changed to a less restrictive limit compared to those in the previous permit, with the exception of the reporting period for the polishing ponds and the associated sludge depth parameter. This was changed based on current Divisional reporting standards and the capacity of the polishing ponds being approximately 30 years prior to having to remove sludge; thus, between the two factors, the need to measure on a yearly basis was negated.

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 wastewater 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 Actions (BCA) remediation sites within a one-mile radius of the ESP WWTF.

Wellhead Protection Program

There is a Public Water Supply (PWS) well located approximately 2,120 feet north and is upgradient to Outfalls 002 and 005, having a depth of approximately 260 feet, with a sanitary seal at 50 feet, and a screen from 96 to 220 and then from 220 to 260 feet. A second well is located 1,800 feet to the north, and is upgradient to the outfalls, having a depth of approximately 510 feet, with a sanitary seal at 50 feet and a screen from 157 to 277 and then from 277 to 284 feet. The outfall is located in the Drinking Water Protection Area of the wells, which is defined by a 3,000-foot radius around a PWS well. The outfall is not located in a Wellhead Protection Area (WHPA), which represents an approximate 10-year capture zone of a well. The wells are at minimal risk based on the distance and gradient from the outfalls to the well.

Schedule of Compliance:

SOC – Schedule of Compliance Table

Item #	Description	Due Date
1	The Permittee shall submit two copies (one hard copy and one electronic copy) of an updated Operations and Maintenance (O&M) Manual for review and approval by the Division. The O&M Manual shall follow the Division's guidance document, WTS-2 Minimum Information Required for an Operation and Maintenance Manual for a Wastewater Treatment Plant and be prepared and wet stamped by a licensed, qualified Nevada professional engineer (P.E.).	4/16/2026

Deliverable Schedule:

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

Item #	Description	Interval	First Scheduled Due Date
1	Quarterly DMRs	Quarterly	7/28/2026
2	Annual Report	Annually	1/28/2027

Procedures for Public Comment:

The Notice of the Division's intent to issue a permit authorizing the facility to discharge to groundwater of the State of Nevada subject to the conditions contained within the permit, is being mailed to interested persons on our mailing list and will be posted on our website at <https://ndep.nv.gov/posts>. Anyone wishing to comment on the proposed permit can do so in writing until 5:00 P.M. **3/26/2026**, a period of 30 days following the date of the public notice. The comment period can be extended at the discretion of the Administrator.

A public hearing on the proposed determination can be requested by the applicant, any affected State, any affected interstate agency, the Regional Administrator of EPA Region IX or any interested agency, person or group of persons. The request must be filed within the comment period and must indicate the interest of the person filing the request and the reasons why a hearing is warranted. Any public hearing determined by the Administrator to be held must be conducted in the geographical area of the proposed discharge or any other area the Administrator determined to be appropriate. All public hearings must be conducted in accordance with NAC 445A.238.

The final determination of the Administrator may be appealed to the State Environmental Commission pursuant to NRS 445A.605.

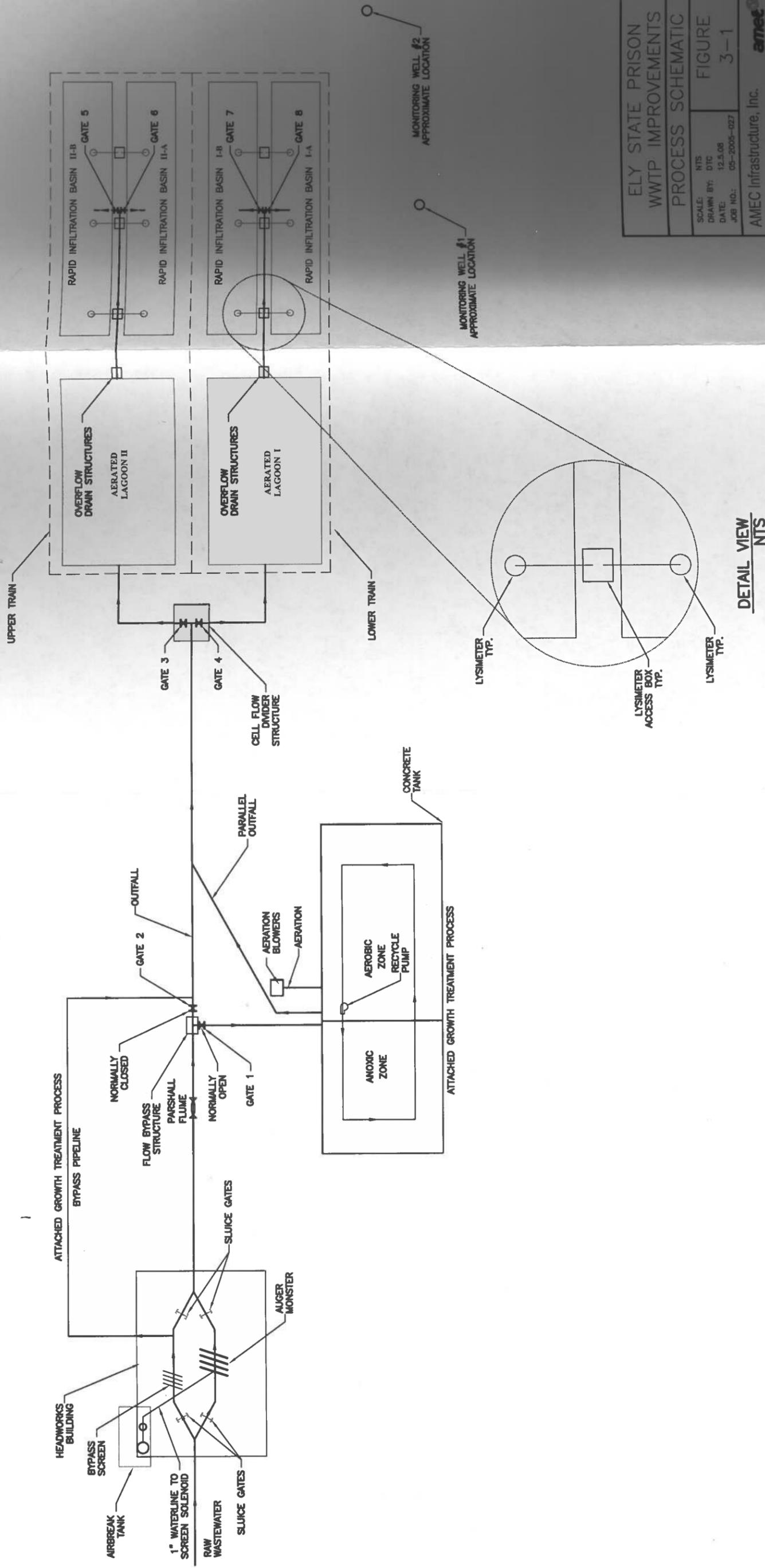
Proposed Determination:

The Division has made the tentative determination to issue/re-issue the proposed 5-year permit.

Prepared by: **Melissa Hanson**

Date: **2/20/2026**

Title: **Staff II Engineer**



DETAIL VIEW
NTS

ELY STATE PRISON WWTTP IMPROVEMENTS	
PROCESS SCHEMATIC	
SCALE: NTS	FIGURE 3-1
DRAWN BY: DTC	
DATE: 12.5.08	
JOB NO.: 05-2005-027	
AMEC Infrastructure, Inc.	
700 WEST BLVD, SUITE 100 SPARKS, NEVADA 89415 PHONE (775) 331-2375 FAX (775) 331-4153	

