



FACTSHEET
(pursuant to NAC 445A.236)

Permittee Name: NORTHERN NEVADA INDUSTRIAL CENTER WATER AND SEWER COMPANY
4129 W. CHEYENNE AVE
N. LAS VEGAS, NV 89032

Permit Number: NS2023509

Permit Type: GROUNDWATER DISCHARGE

Designation: GROUNDWATER

New/Existing: NEW

Location: NNIC WASTEWATER TREATMENT PLANT, LYON
101 DAKAR ROAD, SILVER SPRINGS, NV 89429
LATITUDE: 39.417523, LONGITUDE: -119.330589
TOWNSHIP: 18N, RANGE: 24E, SECTION: 19

Outfall / Well Num	Outfall / Well Name	Location Type	Well Log Num	Latitude	Longitude	Receiving Water
001	INFLUENT	Influent Structure		39.4178	-119.3289	N/A
002	EFFLUENT	External Outfall		39.4177	-119.3290	GROUNDWATER
003	RIB #1	External Outfall		39.4173	-119.3290	GROUNDWATER
004	RIB #2	External Outfall		39.4171	-119.3289	GROUNDWATER
005	EMERGENCY STORAGE BASIN	Internal Outfall		39.4176	-119.3290	GROUNDWATER
006	NORTH LEAK DETECTION PORT	Internal Outfall		39.4176	-119.3290	N/A
007	SOUTH LEAK DETECTION PORT	Internal Outfall		39.4176	-119.3290	N/A
008	MW #1	Monitoring Well		39.4169	-119.3286	GROUNDWATER
009	MW #2	Monitoring Well		39.4167	-119.3284	GROUNDWATER
010	MW #3	Monitoring Well		39.4174	-119.3291	GROUNDWATER

Permit History/Description of Proposed Action

The Permittee, Northern Nevada Industrial Center (NNIC) Water and Sewer Company, has applied for a new groundwater discharge permit, NS2023509, for their proposed wastewater treatment plant (WWTP) located at 101 Dakar Road in Silver Springs, NV. The Permittee proposes to discharge treated effluent into two (2) onsite rapid infiltration basins (RIBs).

Facility Overview

NNIC is a proposed Western States Contracting development located southeast of Reno, NV. Western States Contracting owns over 10,000 developable acres east of the Storey-Lyon County line. The proposed development will include industrial and commercial uses, similar to the Tahoe Reno Industrial Center. The proposed development will be divided into three (3) phases (phase 0 – 2) and is likely to reach buildout within seven (7) to ten (10) years. NNIC WWTP phase 0 is designed for 25,000-gallons per day (equivalent to 0.025 million gallons per day (MGD)) based on owner estimates that include a maximum of four (4) separate 750,000-square foot warehouses.

Phase 0 of the WWTP will include two (2) precast septic tank structures, an emergency overflow storage basin, an anoxic basin, a Smith & Loveless Fixed Film and Activated Sludge Treatment (FAST) system, a

secondary clarifier, a sludge holding tank, a chlorine contact structure, and two (2) RIBs.

The emergency overflow storage basin will have a 750,000-gallon storage capacity and be double lined with 200 ml geocomposite including geomembrane between layers placed on a 12 oz non-woven geotextile. The basin will also include two (2) leak detection testing locations, one on the north end of the basin and one on the south end.

The RIBs will be constructed with a bottom length and width of 200-feet by 25-feet, a depth of 5-feet, and a side slope ratio of 3:1 (H:V). The RIBs for phase 0 have been designed for an expected service life of no more than five (5) years as phase 1 is planned to be on-line within two (2) to four (4) years after phase 0.

Outfall Summary

Outfall 001 – This outfall is for raw sewage (influent) entering the facility.

Outfall 002 – This outfall is for the discharge of treated effluent prior to entering either RIB.

Outfall 003 – This outfall is for the discharge of treated effluent to RIB #1.

Outfall 004 – This outfall is for the discharge of treated effluent to RIB #2.

Outfall 005 – This outfall is for the discharge of untreated or preliminary treated (after treatment in the septic tanks) effluent to the emergency storage basin.

Outfall 006 – This outfall is for the north leak detection sample port for the emergency storage basin.

Outfall 007 – This outfall is for the south leak detection sample port for the emergency storage basin.

Outfall 008 – This outfall is for monitoring well #1 located approximately 50 feet south (downgradient) of RIB #2.

Outfall 009 – This outfall is for monitoring well #2 located approximately 150 feet south (downgradient) of RIB #2.

Outfall 010 – This outfall is for monitoring well #3 located approximately 10 feet north (upgradient) of RIB #1.

Facility Upgrades since last issued permit

This is a new permit for a facility that has not been constructed yet.

Solids Handling

During phase 0 of the WWTP, solids from the preliminary septic tank system and sludge holding tank will be pumped out and disposed of at an authorized offsite location.

Effluent Management and Reuse

Treated effluent will be disposed of via two (2) onsite RIBs. The Permittee has not proposed to use reclaimed water on or offsite at this time.

Design Flow (and basis) and Measurement & Current Capacity

For phase 0 of the facility, the design criteria includes a daily maximum flow design of 0.025 MGD.

Pretreatment Program

The proposed WWTP does not currently meet EPA's guidelines requiring them to have a pretreatment program. However, the facility may have to self-implement a pretreatment program should discharges from facilities connected to the WWTP interfere with the plant's operations.

Operations & Maintenance (O&M) Manual status

As this is a new facility, an O&M Manual will need to be submitted to the Division for review and approval once phase 0 of the facility is completed.

Effluent Characterization

The proposed discharge will consist of secondary treated, denitrified, and disinfected effluent.

Pollutants of Concern

Pollutants of concern are any pollutant, or parameters, that are believed to be present in the discharge and could affect or alter the physical, chemical, or biological conditions of the receiving water. Common pollutants of concern for wastewater treatment plants are nitrogen and fecal coliform; the proposed WWTP will denitrify the effluent. Fecal coliform is only a pollutant of concern when the treated effluent will be used as reclaimed water. At this time the Permittee has not proposed to use reclaimed water on or offsite; therefore, fecal coliform is not currently a pollutant of concern. Common pollutants of concern for wastewater treatment plants that accept commercial and industrial wastewater includes metals.

Receiving Water

Receiving water is to groundwater of the state. According to a geotechnical design report from Wood Rodgers dated October 24, 2022, depth to groundwater in the vicinity of the proposed RIBs is likely below 150 feet. A groundwater sample was acquired during the hydrogeological characterization for the proposed RIBs. The sample was analyzed for Profile I constituents and common ionic compounds. All constituents analyzed were within drinking water standards except for arsenic, which had a concentration of 0.011 mg/L (Profile I limit, and the drinking water standard, for arsenic is 0.01 mg/L).

Compliance History

This is a new permit.

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	<= 0.025 Million Gallons per Day (Mgal/d)		Raw Sewage Influent	001	Continuous	METER
Flow rate	30 Day Average	M&R Million Gallons per Day (Mgal/d)		Raw Sewage Influent	001	Continuous	METER
BOD, 5-day	Daily Maximum		M&R Milligrams per Liter (mg/L)	Raw Sewage Influent	001	Weekly	DISCRT
BOD, 5-day	30 Day Average		M&R Milligrams per Liter (mg/L)	Raw Sewage Influent	001	Weekly	DISCRT
Solids, total suspended	Daily Maximum		M&R Milligrams per Liter (mg/L)	Raw Sewage Influent	001	Weekly	DISCRT
Solids, total suspended	30 Day Average		M&R Milligrams per Liter (mg/L)	Raw Sewage Influent	001	Weekly	DISCRT

WWTP Discharge Limitations Table for Sample Location 001 (Influent Structure) 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 30-Day average flow data from the four (4) most recent reporting periods (quarters).

WWTP Discharge Limitations Table for Sample Location 002 (Effluent) 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	002	Weekly	DISCRT
BOD, 5-day	30 Day Average		<= 30 Milligrams per Liter (mg/L)	Effluent Gross	002	Weekly	DISCRT
Solids, total suspended	Daily Maximum		<= 45 Milligrams per Liter (mg/L)	Effluent Gross	002	Weekly	DISCRT
Solids, total suspended	30 Day Average		<= 30 Milligrams per Liter (mg/L)	Effluent Gross	002	Weekly	DISCRT
BOD, 5-day, percent removal	Monthly Average Minimum		>= 85 Percent (%)	Effluent Gross	002	Weekly	CALCTD
Solids, suspended percent removal	Monthly Average Minimum		>= 85 Percent (%)	Effluent Gross	002	Weekly	CALCTD
Nitrogen, total	Daily Maximum		<= 10 Milligrams per Liter (mg/L)	Effluent Gross	002	Weekly	DISCRT
pH, maximum	Daily Maximum		<= 9.0 Standard Units (SU)	Effluent Gross	002	Weekly	DISCRT
pH, minimum	Daily Minimum		>= 6.0 Standard Units (SU)	Effluent Gross	002	Weekly	DISCRT
Solids, total dissolved	Daily Maximum		<= 1000 Milligrams per Liter (mg/L)	Effluent Gross	002	Weekly	DISCRT

Notes (WWTP Discharge Limitations Table):

1. Sample shall be collected after the chlorine contact basin but before discharge to either RIB.

WWTP Discharge Limitations Table for Sample Location 002 (Effluent) To Be Reported Annually^[1]

Discharge Limitations				Monitoring Requirements			
Parameter	Base	Quantity	Concentration	Monitoring Loc	Sample Loc	Measurement Frequency	Sample Type
Arsenic, total recoverable	Daily Maximum		<= 50 Micrograms per Liter (ug/L)	Effluent Gross	002	Annual	DISCRT
Barium, total recoverable	Daily Maximum		<= 2000 Micrograms per Liter (ug/L)	Effluent Gross	002	Annual	DISCRT
Beryllium, total recoverable (as Be)	Daily Maximum		<= 0 Micrograms per Liter (ug/L)	Effluent Gross	002	Annual	DISCRT
Cadmium, total recoverable	Daily Maximum		<= 5 Micrograms per Liter (ug/L)	Effluent Gross	002	Annual	DISCRT
Chromium, total recoverable	Daily Maximum		<= 100 Micrograms per Liter (ug/L)	Effluent Gross	002	Annual	DISCRT
Cyanide, total (as CN) ^[2]	Daily Maximum		<= 200 Micrograms per Liter (ug/L)	Effluent Gross	002	Annual	DISCRT
Mercury, total recoverable	Daily Maximum		<= 2 Micrograms per Liter (ug/L)	Effluent Gross	002	Annual	DISCRT
Nickel, total recoverable	Daily Maximum		<= 13 Micrograms per Liter (ug/L)	Effluent Gross	002	Annual	DISCRT
Selenium, total recoverable	Daily Maximum		<= 50 Micrograms per Liter (ug/L)	Effluent Gross	002	Annual	DISCRT
Acrolein	Daily Maximum		<= 320 Micrograms per Liter (ug/L)	Effluent Gross	002	Annual	DISCRT
Aldrin	Daily Maximum		<= 0 Micrograms per Liter (ug/L)	Effluent Gross	002	Annual	DISCRT
			<= 5				

WWTP Discharge Limitations Table for Sample Location 002 (Effluent) To Be Reported Annually^[1]

Discharge Limitations				Monitoring Requirements			
Parameter	Base	Quantity	Concentration	Monitoring Loc	Sample Loc	Measurement Frequency	Sample Type
Benzene	Daily Maximum		Micrograms per Liter (ug/L)	Effluent Gross	002	Annual	DISCRT
Bis(2-chloroethyl) ether	Daily Maximum		<= 35 Micrograms per Liter (ug/L)	Effluent Gross	002	Annual	DISCRT
Chlordane (tech mix. and metabolites)	Daily Maximum		<= 0 Micrograms per Liter (ug/L)	Effluent Gross	002	Annual	DISCRT
Vinyl Chloride (Chloroethylene (Vinyl))	Daily Maximum		<= 2 Micrograms per Liter (ug/L)	Effluent Gross	002	Annual	DISCRT
2,4-Dichlorophenoxyacetic Acid (2 4-D)	Daily Maximum		<= 100 Micrograms per Liter (ug/L)	Effluent Gross	002	Annual	DISCRT
DDT	Daily Maximum		<= 0 Micrograms per Liter (ug/L)	Effluent Gross	002	Annual	DISCRT
Dibutyl phthalate	Daily Maximum		<= 34000 Micrograms per Liter (ug/L)	Effluent Gross	002	Annual	DISCRT
1,3-Dichlorobenzene (M-Dichlorobenzene)	Daily Maximum		<= 400 Micrograms per Liter (ug/L)	Effluent Gross	002	Annual	DISCRT
1,2-Dichlorobenzene (O-Dichlorobenzene)	Daily Maximum		<= 400 Micrograms per Liter (ug/L)	Effluent Gross	002	Annual	DISCRT
1,4-Dichlorobenzene (P-Dichlorobenzene)	Daily Maximum		<= 75 Micrograms per Liter (ug/L)	Effluent Gross	002	Annual	DISCRT
1,2-Dichloroethane	Daily Maximum		<= 5 Micrograms per Liter (ug/L)	Effluent Gross	002	Annual	DISCRT
			<= 7				

WWTP Discharge Limitations Table for Sample Location 002 (Effluent) To Be Reported Annually^[1]

Discharge Limitations				Monitoring Requirements			
Parameter	Base	Quantity	Concentration	Monitoring Loc	Sample Loc	Measurement Frequency	Sample Type
1,1-Dichloroethylene	Daily Maximum		Micrograms per Liter (ug/L)	Effluent Gross	002	Annual	DISCRT
2,4-Dichlorophenol	Daily Maximum		<= 3090 Micrograms per Liter (ug/L)	Effluent Gross	002	Annual	DISCRT
1,1-Dichloropropene (Dichloropropenes)	Daily Maximum		<= 87 Micrograms per Liter (ug/L)	Effluent Gross	002	Annual	DISCRT
1,3-Dichloropropene (Dichloropropenes)	Daily Maximum		<= 87 Micrograms per Liter (ug/L)	Effluent Gross	002	Annual	DISCRT
Dieldrin	Daily Maximum		<= 0 Micrograms per Liter (ug/L)	Effluent Gross	002	Annual	DISCRT
Di-2-ethylhexyl phthalate	Daily Maximum		<= 15000 Micrograms per Liter (ug/L)	Effluent Gross	002	Annual	DISCRT
Diethyl phthalate	Daily Maximum		<= 350000 Micrograms per Liter (ug/L)	Effluent Gross	002	Annual	DISCRT
Dimethyl phthalate	Daily Maximum		<= 313000 Micrograms per Liter (ug/L)	Effluent Gross	002	Annual	DISCRT
2-Methyl-4,6-Dinitrophenol (4,6-Dinitro-2-Methylphenol)	Daily Maximum		<= 13 Micrograms per Liter (ug/L)	Effluent Gross	002	Annual	DISCRT
2,4-Dinitrophenol (Dinitrophenols)	Daily Maximum		<= 70 Micrograms per Liter (ug/L)	Effluent Gross	002	Annual	DISCRT
Endosulfan, total	Daily Maximum		<= 75 Micrograms per Liter (ug/L)	Effluent Gross	002	Annual	DISCRT
			<= 0.20				

WWTP Discharge Limitations Table for Sample Location 002 (Effluent) To Be Reported Annually^[1]

Discharge Limitations				Monitoring Requirements			
Parameter	Base	Quantity	Concentration	Monitoring Loc	Sample Loc	Measurement Frequency	Sample Type
Endrin	Daily Maximum		Micrograms per Liter (ug/L)	Effluent Gross	002	Annual	DISCRT
Ethylbenzene	Daily Maximum		<= 1400 Micrograms per Liter (ug/L)	Effluent Gross	002	Annual	DISCRT
Fluoranthene (Fluoranthene (Polynuclear Aromatic Hydrocarbon))	Daily Maximum		<= 42 Micrograms per Liter (ug/L)	Effluent Gross	002	Annual	DISCRT
Hexachlorocyclopentadiene	Daily Maximum		<= 206 Micrograms per Liter (ug/L)	Effluent Gross	002	Annual	DISCRT
Isophorone	Daily Maximum		<= 5200 Micrograms per Liter (ug/L)	Effluent Gross	002	Annual	DISCRT
Lindane	Daily Maximum		<= 4 Micrograms per Liter (ug/L)	Effluent Gross	002	Annual	DISCRT
Methoxychlor	Daily Maximum		<= 100 Micrograms per Liter (ug/L)	Effluent Gross	002	Annual	DISCRT
Mirex	Daily Maximum		<= 0 Micrograms per Liter (ug/L)	Effluent Gross	002	Annual	DISCRT
Monochlorobenzenes	Daily Maximum		<= 488 Micrograms per Liter (ug/L)	Effluent Gross	002	Annual	DISCRT
Nitrobenzene	Daily Maximum		<= 19800 Micrograms per Liter (ug/L)	Effluent Gross	002	Annual	DISCRT
Pentachlorophenol	Daily Maximum		<= 1010 Micrograms per Liter (ug/L)	Effluent Gross	002	Annual	DISCRT
			<= 3500				

WWTP Discharge Limitations Table for Sample Location 002 (Effluent) To Be Reported Annually^[1]

Discharge Limitations				Monitoring Requirements			
Parameter	Base	Quantity	Concentration	Monitoring Loc	Sample Loc	Measurement Frequency	Sample Type
Phenol	Daily Maximum		Micrograms per Liter (ug/L)	Effluent Gross	002	Annual	DISCRT
Polychlorinated biphenyls (PCBs)	Daily Maximum		<= 0 Micrograms per Liter (ug/L)	Effluent Gross	002	Annual	DISCRT
Silvex	Daily Maximum		<= 10 Micrograms per Liter (ug/L)	Effluent Gross	002	Annual	DISCRT
2,4,5-TP(silvex) acids/salts, whole water sample	Daily Maximum		<= 10 Micrograms per Liter (ug/L)	Effluent Gross	002	Annual	DISCRT
Carbon Tetrachloride (Tetrachloromethane (Carbon Tetrachloride))	Daily Maximum		<= 5 Micrograms per Liter (ug/L)	Effluent Gross	002	Annual	DISCRT
Toluene	Daily Maximum		<= 14300 Micrograms per Liter (ug/L)	Effluent Gross	002	Annual	DISCRT
Toxaphene	Daily Maximum		<= 5 Micrograms per Liter (ug/L)	Effluent Gross	002	Annual	DISCRT
1,1,1-Trichloroethane	Daily Maximum		<= 200 Micrograms per Liter (ug/L)	Effluent Gross	002	Annual	DISCRT
Trichloroethylene	Daily Maximum		<= 5 Micrograms per Liter (ug/L)	Effluent Gross	002	Annual	DISCRT
Trihalomethane, tot.	Daily Maximum		<= 100 Micrograms per Liter (ug/L)	Effluent Gross	002	Annual	CALCTD ^[3]
Alkalinity, bicarbonate (as CaCO ₃)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	002	Annual	DISCRT
			M&R				

WWTP Discharge Limitations Table for Sample Location 002 (Effluent) To Be Reported Annually^[1]

Discharge Limitations				Monitoring Requirements			
Parameter	Base	Quantity	Concentration	Monitoring Loc	Sample Loc	Measurement Frequency	Sample Type
Alkalinity, total (as CaCO ₃)	Daily Maximum		Milligrams per Liter (mg/L)	Effluent Gross	002	Annual	DISCRT
Aluminum, total (as Al) ^[4]	Daily Maximum		<= 0.20 Milligrams per Liter (mg/L)	Effluent Gross	002	Annual	DISCRT
Antimony, total (as Sb) ^[4]	Daily Maximum		<= 0.006 Milligrams per Liter (mg/L)	Effluent Gross	002	Annual	DISCRT
Calcium, total (as Ca) ^[4]	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	002	Annual	DISCRT
Chloride (as Cl)	Daily Maximum		<= 400 Milligrams per Liter (mg/L)	Effluent Gross	002	Annual	DISCRT
Copper, dissolved (as Cu)	Daily Maximum		<= 1 Milligrams per Liter (mg/L)	Effluent Gross	002	Annual	DISCRT
Fluoride, total (as F)	Daily Maximum		<= 4 Milligrams per Liter (mg/L)	Effluent Gross	002	Annual	DISCRT
Iron, total (as Fe) ^[4]	Daily Maximum		<= 0.60 Milligrams per Liter (mg/L)	Effluent Gross	002	Annual	DISCRT
Lead, dissolved (as Pb)	Daily Maximum		<= 0.015 Milligrams per Liter (mg/L)	Effluent Gross	002	Annual	DISCRT
Magnesium, total (as Mg) ^[4]	Daily Maximum		<= 150 Milligrams per Liter (mg/L)	Effluent Gross	002	Annual	DISCRT
Manganese, total (as Mn) ^[4]	Daily Maximum		<= 0.10 Milligrams per Liter (mg/L)	Effluent Gross	002	Annual	DISCRT
			<= 10				

WWTP Discharge Limitations Table for Sample Location 002 (Effluent) To Be Reported Annually^[1]

Discharge Limitations				Monitoring Requirements			
Parameter	Base	Quantity	Concentration	Monitoring Loc	Sample Loc	Measurement Frequency	Sample Type
Nitrite plus nitrate total 1 det. (as N)	Daily Maximum		Milligrams per Liter (mg/L)	Effluent Gross	002	Annual	DISCRT
Potassium, total (as K) ^[4]	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	002	Annual	DISCRT
Silver, total (as Ag) ^[4]	Daily Maximum		<= 0.10 Milligrams per Liter (mg/L)	Effluent Gross	002	Annual	DISCRT
Sodium, total (as Na) ^[4]	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	002	Annual	DISCRT
Sulfate, total (as SO ₄)	Daily Maximum		<= 500 Milligrams per Liter (mg/L)	Effluent Gross	002	Annual	DISCRT
Thallium, total (as Tl) ^[4]	Daily Maximum		<= 0.002 Milligrams per Liter (mg/L)	Effluent Gross	002	Annual	DISCRT
Uranium, natural, total	Daily Maximum		<= 0.010 Milligrams per Liter (mg/L)	Effluent Gross	002	Annual	DISCRT
Zinc, dissolved (as Zn)	Daily Maximum		<= 5 Milligrams per Liter (mg/L)	Effluent Gross	002	Annual	DISCRT

Notes (WWTP Discharge Limitations Table):

1. Toxic materials list (NAC 445A.1236) and Profile I list. Since some of the toxic material constituents and Profile I constituents overlap, the most stringent limit from each list was selected.
2. Total recoverable.
3. The standard for trihalomethanes is the sum of the concentration of bromodichloromethane, dibromochloromethane, bromoform, and chloroform.
4. Analysis is for the dissolved fraction.

Groundwater Monitoring Wells Table for Sample Location 008 (Monitoring Well #1) To Be Reported Quarterly

Discharge Limitations				Monitoring Requirements			
Parameter	Base	Quantity	Concentration	Monitoring Loc	Sample Loc	Measurement Frequency	Sample Type
Depth to water level ft below landsurface ^[1]	Value	M&R Feet (ft)		Groundwater	008	Quarterly	INSITU
Water level relative to mean sea level ^[2]	Value	M&R Feet (ft)		Groundwater	008	Quarterly	CALCTD
pH	Value		M&R Standard Units (SU)	Groundwater	008	Quarterly	DISCRT
Chloride (as Cl)	Value		<= 400 Milligrams per Liter (mg/L)	Groundwater	008	Quarterly	DISCRT
Solids, total dissolved	Value		<= 1000 Milligrams per Liter (mg/L)	Groundwater	008	Quarterly	DISCRT
Nitrogen, total	Value		M&R Milligrams per Liter (mg/L)	Groundwater	008	Quarterly	DISCRT

Notes (Groundwater Monitoring Wells Table):

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

Groundwater Monitoring Wells Table for Sample Location 009 (Monitoring Well #2) To Be Reported Quarterly

Discharge Limitations				Monitoring Requirements			
Parameter	Base	Quantity	Concentration	Monitoring Loc	Sample Loc	Measurement Frequency	Sample Type
Depth to water level ft below landsurface ^[1]	Value	M&R Feet (ft)		Groundwater	009	Quarterly	INSITU
Water level relative to mean sea level ^[2]	Value	M&R Feet (ft)		Groundwater	009	Quarterly	CALCTD
pH	Value		M&R Standard Units (SU)	Groundwater	009	Quarterly	DISCRT
Chloride (as Cl)	Value		<= 400 Milligrams per Liter (mg/L)	Groundwater	009	Quarterly	DISCRT
Solids, total dissolved	Value		<= 1000 Milligrams per Liter (mg/L)	Groundwater	009	Quarterly	DISCRT
Nitrogen, total	Value		M&R Milligrams per Liter (mg/L)	Groundwater	009	Quarterly	DISCRT

Notes (Groundwater Monitoring Wells Table):

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

Groundwater Monitoring Wells Table for Sample Location 010 (Monitoring Well #3) To Be Reported Quarterly

Discharge Limitations				Monitoring Requirements			
Parameter	Base	Quantity	Concentration	Monitoring Loc	Sample Loc	Measurement Frequency	Sample Type
Depth to water level ft below landsurface ^[1]	Value	M&R Feet (ft)		Groundwater	010	Quarterly	INSITU
Water level relative to mean sea level ^[2]	Value	M&R Feet (ft)		Groundwater	010	Quarterly	CALCTD
pH	Value		M&R Standard Units (SU)	Groundwater	010	Quarterly	DISCRT
Chloride (as Cl)	Value		M&R Milligrams per Liter (mg/L)	Groundwater	010	Quarterly	DISCRT
Solids, total dissolved	Value		<= 1000 Milligrams per Liter (mg/L)	Groundwater	010	Quarterly	DISCRT
Nitrogen, total	Value		<= 10 Milligrams per Liter (mg/L)	Groundwater	010	Quarterly	DISCRT

Notes (Groundwater Monitoring Wells Table):

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

Ponds / Rapid Infiltration Basins for Sample Location 003 (Rib #1) 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	003	Monthly	METER
Flow rate	30 Day Average	M&R Million Gallons per Day (Mgal/d)		Effluent Gross	003	Monthly	METER

Ponds / Rapid Infiltration Basins for Sample Location 004 (Rib #2) 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	004	Monthly	METER
Flow rate	30 Day Average	M&R Million Gallons per Day (Mgal/d)		Effluent Gross	004	Monthly	METER

Ponds / Rapid Infiltration Basins for Sample Location 005 (Emergency Storage Basin) To Be Reported Quarterly

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)		Primary/Preliminary Process Complete	005	Daily When Discharging	METER
Flow rate	30 Day Average	M&R Million Gallons per Day (Mgal/d)		Primary/Preliminary Process Complete	005	Daily When Discharging	METER
Freeboard	Daily Minimum	>= 3 Feet (ft)		Primary/Preliminary Process Complete	005	Quarterly	VISUAL

Ponds / Rapid Infiltration Basins for Sample Location 006 (North Leak Detection Port) To Be Reported Quarterly

Discharge Limitations				Monitoring Requirements			
Parameter	Base	Quantity	Concentration	Monitoring Loc	Sample Loc	Measurement Frequency	Sample Type
Liner Leakage Rate	Daily Maximum	<= 500 Gallons per Acre per Day (gal/acre/d) ^[1]		Internal Monitoring Point	006	Quarterly	METER

Notes (Ponds / Rapid Infiltration Basins):

1. If 25% of the allowable leakage rate of 500 gal/acre/day (125 gal/acre/day) occurs, the Permittee shall submit to the Division, for review and approval, a leak-detection plan per item 4.F.i. of the Water Technical Sheet (WTS) 37: *Guidance Document For Design of Wastewater and Other Detention Basins*.

Ponds / Rapid Infiltration Basins for Sample Location 007 (South Leak Detection Port) To Be Reported Quarterly

Discharge Limitations				Monitoring Requirements			
Parameter	Base	Quantity	Concentration	Monitoring Loc	Sample Loc	Measurement Frequency	Sample Type
Liner Leakage Rate	Daily Maximum	<= 500 Gallons per Acre per Day (gal/acre/d) ^[1]		Internal Monitoring Point	007	Quarterly	METER

Notes (Ponds / Rapid Infiltration Basins):

1. If 25% of the allowable leakage rate of 500 gal/acre/day (125 gal/acre/day) occurs, the Permittee shall submit to the Division, for review and approval, a leak-detection plan per item 4.F.i. of the Water Technical Sheet (WTS) 37: Guidance Document For Design of Wastewater and Other Detention Basins.

Summary of Changes From Previous Permit

This is a new permit.

Technology Based Effluent Limitations

Technology based effluent limitations (TBELs) are required as promulgated by the United States Environmental Protection Agency for Publicly Owned Treatment Works (POTWs). The following limits are based on secondary treatment standards as allowed by the Code of Federal Regulations (CFR) Title 40 section 133, and which have been adopted by the state of Nevada for all wastewater treatment plants:

- BOD5: The daily maximum is limited to 45 mg/L and the 30-day average is limited to 30 mg/L.
- TSS: The daily maximum is limited to 45 mg/L and the 30-day average is limited to 30 mg/L.

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

- Percent removal for BOD5: $\geq 85\%$.
- Percent removal for TSS: $\geq 85\%$.
- pH: The daily maximum is limited to 9.0 S.U. and the daily minimum is limited to 6.0 S.U.

Water Quality Based Effluent Limitations

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

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

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

Basis for Effluent Limitations

TBELs have been implemented to evaluate the performance of the facility. Limits for BOD5 and TSS, including the percent removal, have been set in accordance with secondary treatment standards per §133; this regulation has been adopted by the state of Nevada and is being applied to this groundwater discharge permit.

Weekly sampling of total nitrogen and total dissolved solids (TDS) have been limited to Profile I limits for Outfall 002

Per NAC 445A.120, water quality standards found at, "NAC 445A.070 to 445A.2234, inclusive, apply to all natural streams and lakes, reservoirs or impoundments on natural streams and other specified waterways, unless excepted on the basis of existing irreparable conditions which preclude such use." The discharge of treated effluent from the NNIC WWTP will be to groundwaters of the State; therefore, water quality

standards found at NAC 445A.070 to 445A.2234, inclusive, are not applicable. Furthermore, 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 per NAC 445A.243 which states, "In establishing an effluent limitation to carry out the policy of this State set forth in NRS 445A.305, consideration must be given to, but is not limited by, the following: (2) the need for standards that specify by chemical, physical, biological or other characteristics the extent to which pollution by various substances will not be tolerated." Additionally, 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."

Typically, wastewater treatment facilities that accept industrial wastewater are required to sample for 126 priority pollutants. The Environmental Protection Agency (EPA) developed the priority pollutant list in 1977 to make implementation of the Toxic Pollutant List more practical for water testing and regulatory purposes. The State of Nevada has adopted its own toxic pollutant list with limits found at NAC 445A.1236; therefore, this list has been incorporated into this permit. Additionally, as the NNIC is still in its development phase, it is unknown what type of industrial facilities will be located within the NNIC. Therefore, to be conservative, the proposed permit establishes an annual sampling requirement for toxic materials per NAC 445A.1236. Testing for priority pollutants may be added into future permits depending on the type of users that move into the service area. The municipal or domestic supply beneficial use standards are included as groundwater is considered an existing or potential source of drinking water.

The proposed permit establishes the requirement to sample for constituents included in Profile I once every year for Outfall 002 to assess the quality of treated effluent. The exception to this is the requirement to sample for total nitrogen, TDS, and pH which are already being sampled once a week from Outfall 002. Since some of the Profile I constituents and some of the toxic material constituents overlap, the most stringent limit from each list was selected and incorporated into the permit.

The requirement to report the annual average influent flow rate is included to acquire additional flow information of the facility.

Groundwater monitoring is included to assess the operations of the facility and to monitor any changes in groundwater of the State. Monitoring well #3 is located upgradient of both RIBs but downgradient of the septic tanks. As monitoring well #3 may act as a leak detection system for the septic tanks, the proposed permit establishes limits for total nitrogen and TDS, in accordance with Profile I reference values, for this well. The proposed permit also establishes limits for TDS and chloride, in accordance with Profile I reference values, for the downgradient wells. However, as the proposed facility will denitrify the effluent, the proposed permit has not established limits for total nitrogen for the wells located downgradient of the RIBs.

Antidegradation

The State's antidegradation policy has a requirement to maintain higher quality (RMHQ) standards of the receiving water body, at a minimum, meet the most restrictive standards established per the designated beneficial use criteria. At this time there are currently no specific water quality standards that have been formally adopted by the State for groundwater. However, available data does not currently indicate any potential for degradation of groundwater from the effluent 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
	The Permittee shall apply for a major modification to increase the permitted influent flow rate limit in

Item #	Description
1	anticipation of the completion of the next phase (phase 1) of the facility. Plans for the next phase of construction shall be submitted and approved by the Technical, Compliance, and Enforcement Branch of the Bureau of Water Pollution Control before a modification to the permit will be conducted.
2	Phase 1 construction shall not commence until after the permit modification, per Special Approvals / Condition Item #1, is issued.
3	Discharge to reuse site(s) is contingent upon Division approvals and permits being obtained for the reuse site(s) by the entity(ies) responsible for each site(s).
4	After no less than 1 year of weekly measurement frequency data has been received and reviewed by NDEP, the Permittee may request to have the sampling frequency of weekly sampled parameters reduced. Based on the data collected, the NDEP may conduct a minor modification to the permit in order to reduce the frequency of weekly sampled parameters. In no case will the sampling frequency be reduced to less than monthly.
5	If 25% of the allowable leakage rate of 500 gal/acre/day (125 gal/acre/day) occurs, the Permittee shall submit to the Division, for review and approval, a leak-detection plan per item 4.F.i. of the Water Technical Sheet (WTS) 37: Guidance Document For Design of Wastewater and Other Detention Basins.

Discharges From Future Outfalls/ Planned Facility Changes

The Permittee proposes to develop the WWTP in three (3) phases. The first phase, phase 0, will allow the facility to treat up to 0.025 MGD of raw sewage. The second phase, phase 1, will include facility buildout to accommodate up to 1.5 MGD of raw sewage. The third, and final phase, phase 2, will eventually allow the WWTP to treat up to 2.0 MGD of raw sewage.

Corrective Action Sites

There are no active Bureau of Corrective Action sites located within a one-mile radius of the proposed facility's location.

Wellhead Protection Program

The closest Public Water System (PWS) well is located approximately 4.1 miles to the southwest. The proposed WWTP is not located within a Drinking Water Protection Area, which is defined by a 3,000-foot radius around the well, or a Wellhead Protection Area (WHPA), which represents an approximate 10-year capture zone of a well. The Division does not anticipate the PWS wells to be impacted as a result of discharged associated with this facility.

Schedule of Compliance:

SOC – Schedule of Compliance Table

Item #	Description	Due Date
1	All discharge monitoring reports (DMRs) shall be submitted electronically through the Nevada NetDMR system: https://netdmr.ndep.nv.gov/netdmr/public/home.htm .	1/28/2024
2	Once Phase 0 of the NNIC WWTP is completed, the Permittee shall submit two (2) copies (one hard copy and one electronic copy) of a new Operation and Maintenance (O&M) Manual to the Division for review and approval. The O&M Manual shall follow WTS-2: <i>Minimum Information Required for an Operation and Maintenance Manual for a Wastewater Treatment Plant</i> and shall be stamped, dated, and signed by a Nevada registered Professional Engineer.	10/31/2028

Deliverable Schedule:

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

Item #	Description	Interval	First Scheduled Due Date
1	Quarterly DMRs	Quarterly	1/28/2024
2	Annual DMRs	Annually	1/28/2024
3	Annual Report (See section C.1.2. of the Permit)	Annually	1/28/2024

Procedures for Public Comment:

The Notice of the Division's intent to issue a permit authorizing the facility to discharge to groundwater of the State of Nevada subject to the conditions contained within the permit, is being mailed to interested persons on our mailing list and will be posted on our website at <https://ndep.nv.gov/posts>. Anyone wishing to comment on the proposed permit can do so in writing until 5:00 P.M. **10/30/2023**, 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: **Bonnie Hartley**

Date: **9/28/2023**

Title: **Staff II, Associate Engineer**

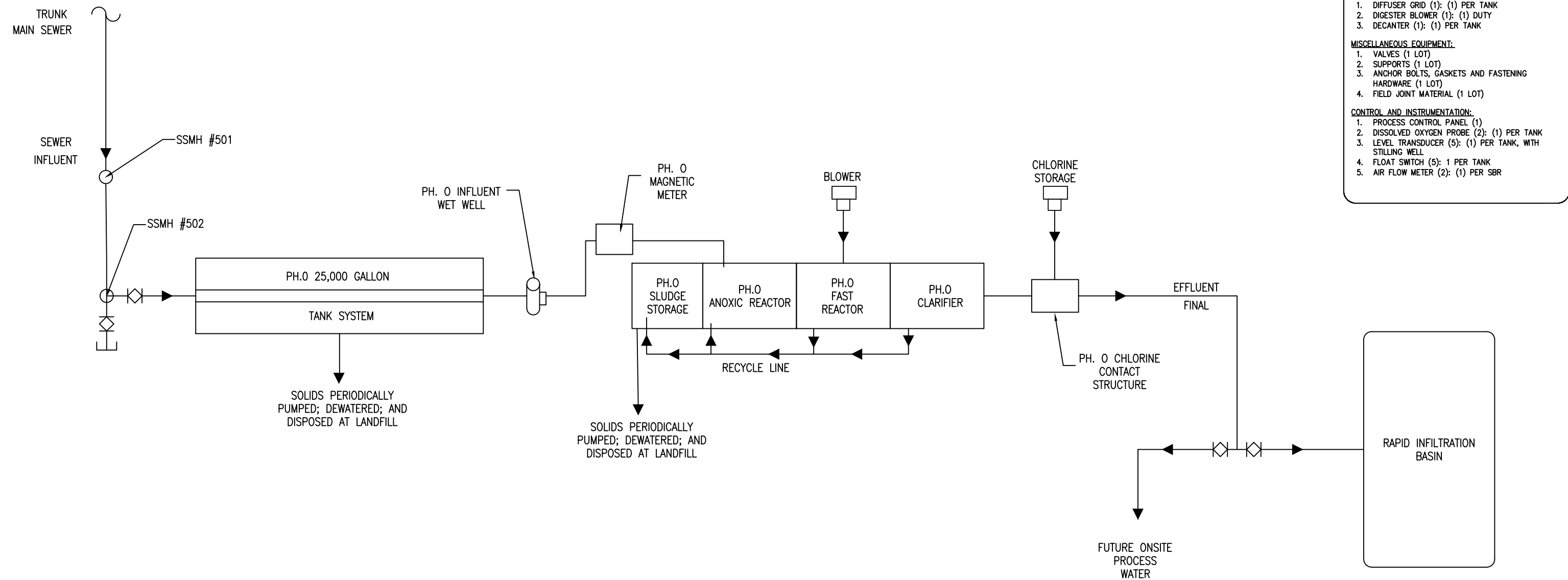


FIGURE 3 - SITE SCHEMATIC