FACTSHEET
(pursuant to NAC 445A.236)

Permittee Name: SOUTHERN NEVADA WATER AUTHORITY

100 NORTH CITY PARKWAY, SUITE 700
LAS VEGAS, NV 89106

Permit Number: NV0024259

Permit Type: MANUFACTURING, COMMERCIAL, MINING AND SILVICULTURAL FACILITY THAT DISCHARGES NON-PROCESS WASTEWATER

Designation: MINOR NPDES

New/Existing: NEW

Location: MONTHILL PS & PIPELINE, CLARK
4095 E. FLAMINGO ROAD, LAS VEGAS, NV 89121
LATITUDE: 36.113110, LONGITUDE: -115.084170
TOWNSHIP: 21S, RANGE: 62E, SECTION: 19

Outfall / Well Num	Outfall / Well Name	Location Type	Well Log Num	Latitude	Longitude	Receiving Water
001	MONTHILL AVENUE AND LAMB BOULEVARD (DIF1023)	External Outfall		36.111332	-115.082950	LAS VEGAS WASH
002	TROPICANA AVENUE AND S PEARL STREET (MHF24689)	External Outfall		36.100025	-115.096510	LAS VEGAS WASH
003	HACIENDA PUMP STATION (MH1624)	External Outfall		36.092559	-115.085340	LAS VEGAS WASH
SUM	SUM OF DISCHARGES FROM OUTFALLS 001 + 002 + 003	Sum		36.092559	-115.085340	LAS VEGAS WASH

Permit History/Description of Proposed Action
The Permittee, Southern Nevada Water Authority (SNWA), has applied for a new National Pollutant Discharge Elimination System (NPDES) permit for discharges associated with the Stage II Reliability Upgrades Project in Las Vegas, Clark County, Nevada.

Facility Overview
SNWA's Stage II Reliability Upgrades Project proposes to enhance existing infrastructure as well as construct new infrastructure to support its water system and improve reliability for customers. A portion of the Stage II Reliability Upgrades will consist of modifications to the Hacienda Pumping Station. This Station has a conveyance capacity of 180 million gallons per day (MGD) and serves a critical, central area of the Las Vegas Valley. The project also includes construction of a new 90 MGD pumping station (Monthill Pumping Station) on the south portion of the Las Vegas Valley Water District's Campbell Pumping Station and Reservoir site and approximately 1.75 miles of 66-inch diameter pipeline from the new pumping station to the existing Hacienda Pumping Station. Furthermore, a forebay for the new Monthill pumping Station will also be constructed. Additionally, a new fiber optics line will be installed between the intersection with Pearl Street and Hacienda Avenue and the existing Hacienda Pumping Station. Finally, an 18-inch diameter blow-off line will be constructed below the fiber optic line from the Hacienda vault to the existing Hacienda Pumping Station.

The Monthill Pumping Station and its forebay will be constructed approximately 25 feet below the existing grade while the pipelines will be constructed between 15 feet and 23 feet below existing grade. The blow-off line is anticipated to be installed at a depth of approximately 18 feet below grade with the new fiber optic line above. Area groundwater levels range from 3 feet to 48 feet below ground surface (bgs). In order to place the new infrastructure, the groundwater will need to be intercepted and removed from the active construction areas. The Permittee is proposing to install an array of 50-foot-deep dewatering wells for the pumping station and forebay area and 30-foot-deep wells for the piping and fiber optics placement. According to a Groundwater Technical Memorandum dated April 26, 2023, prepared by Stantec, the drawdown time to achieve the targeted dewatering depths will take approximately 30 to 40 days.

The Permittee is also proposing to have three discharge locations where the intercepted groundwater will be discharged to. The first proposed location is at the northeast corner of Monthill Avenue and Lamb Boulevard. This location is expected to receive discharges of intercepted groundwater from the pumping station and a portion of the pipeline installation from Monthill Avenue and Annie Oakley Drive. The second proposed location is at the southeast corner of Tropicana Avenue and Pearl Street. The Permittee does not expect to use this outfall; however, if groundwater is encountered, the maximum discharge rate will be less than 250 gallons per minute (gpm). Lastly, the third proposed discharge location, a drainage ditch located on SNWA's property, is expected to receive intercepted groundwater from Hacienda Avenue from Pearl Street to Annie Oakley Drive.

Outfall Summary
Outfall 001 – This outfall is for the storm drain drop inlet located at the northeast corner of Monthill Avenue and Lamb Boulevard.

Outfall 002 – This outfall is for the storm drain drop inlet located at the southeast corner of Tropicana Avenue and Pearl Street.

Outfall 003 – This outfall is for a drainage ditch located on SNWA's property where the Hacienda pump station is located.

Outfall SUM – This outfall is for the sum of discharges from Outfalls 001 + 002 + 003.

Effluent Characterization
The discharge will consist of intercepted groundwater. Initial water quality samples, taken from three onsite monitoring wells, indicate elevated levels of total dissolved solids (TDS) and total suspended solids (TSS).

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. According to the Reasonable Potential Analysis (RPA) that was conducted, pollutants of concern include arsenic, selenium, boron, fluoride, total inorganic nitrogen (TIN), TDS, and TSS. Furthermore, there is a known tetrachloroethylene (PCE) plume located less than a mile northwest of the intersection of East Harmon Avenue and South Pearl Street.

Receiving Water
The receiving water is the Las Vegas Wash via the Clark County storm drain system.

Applicable Water Quality Standards/Beneficial Uses
The water quality standards (WQSs) for the nearest downstream control point, "Las Vegas Wash at the Historic Lateral" (NAC 445A.2156) apply. WQSs for the Las Vegas Wash, from the confluence of Sloan Channel and Las Vegas Wash to the Historic Lateral include the following beneficial uses: watering of livestock, irrigation, propagation of aquatic life, recreation not involving contact with the water, propagation of wildlife, and maintenance of freshwater marsh. Additional WQSs applicable to this section of the Las Vegas Wash include toxic materials (NAC 445A.1236). Furthermore, water quality narrative standards applicable to all surface waters (NAC 445A.121) apply.

303 (d) Listing Status
According to Nevada's 2020 – 2022 Water Quality Integrated Report, none of the designated beneficial uses are currently impaired for the Las Vegas Wash, from the confluence of the Sloan Channel and the Las Vegas Wash to the Historic Lateral.

TMDL
Per section 303(d)(1)(C) of the Clean Water Act (CWA), states are required to develop Total Maximum Daily Loads (TMDLs) for parameters that do not meet water quality standards for a waterbody. TMDLs are implemented during the permitting process by limiting the load of that parameter that may be discharged to the receiving water. According to the Las Vegas Wash TMDL Evaluation dated October 2003, the current total phosphorus and total ammonia (as N) TMDLs on the Las Vegas Wash were established in 1989 and became fully effective in 1994 and 1995, respectively. The TMDL applies to the downstream segment: Las Vegas Wash at Lake Mead (NAC 445A.2158).

Waste Load Allocation
The Las Vegas Wash at Lake Mead (NAC 445A.2158) has established TMDLs for total ammonia (as N) and total phosphorus. Per a Bureau of Water Quality Planning (BWQP) memo dated May 16, 2024, "For NPDES permitting purposes, total phosphorus discharge loads associated with groundwater dewatering activities in the Las Vegas area can be assumed to be part of the base phosphorus load recognized in the 1989 Las Vegas Wash Total Phosphorous TMDL Load Allocation." Thus, total phosphorus, both concentration and mass, will be monitored and reported. Using the same rationale, total ammonia (as N), both concentration and mass, will be monitored and reported.

Compliance History
This is a new permit.

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

Discharge Limitations Table for Sample Location 001 (Monthill Avenue And Lamb Boulevard (Dif1023)) 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	001	Continuous	METER
Flow rate	Monthly Average	M&R Million Gallons per Day (Mgal/d)		Effluent Gross	001	Continuous	METER
Arsenic, total recoverable	Daily Maximum		<= 100 Micrograms per Liter (ug/L)	Effluent Gross	001	Monthly	DISCRT
Benzene	Daily Maximum		<= 5 Micrograms per Liter (ug/L)	Effluent Gross	001	Monthly	DISCRT
Boron, total recoverable	Daily Maximum		<= 750 Micrograms per Liter (ug/L)	Effluent Gross	001	Monthly	DISCRT
Fluoride, total (as F)	Daily Maximum		<= 1000 Micrograms per Liter (ug/L)	Effluent Gross	001	Monthly	DISCRT
Hydrocarbons, total petroleum	Daily Maximum		<= 1.0 Milligrams per Liter (mg/L)	Effluent Gross	001	Monthly	DISCRT
Methyl tert-butyl ether	Daily Maximum		<= 20 Micrograms per Liter (ug/L)	Effluent Gross	001	Monthly	DISCRT
Nitrogen, inorganic total	Daily Maximum		<= 20 Milligrams per Liter (mg/L)	Effluent Gross	001	Monthly	DISCRT
Nitrogen, nitrate total (as N)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Monthly	DISCRT
Nitrogen, nitrite total (as N)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Monthly	DISCRT

Discharge Limitations Table for Sample Location 001 (Monthill Avenue And Lamb Boulevard (Dif1023)) To Be Reported Monthly

Discharge Limitations				Monitoring Requirements			
Parameter	**Base**	**Quantity**	**Concentration**	**Monitoring Loc**	**Sample Loc**	**Measurement Frequency**	**Sample Type**
pH, maximum	Daily Maximum		<= 9.0 Standard Units (SU)	Effluent Gross	001	Monthly	DISCRT
pH, minimum	Daily Minimum		>= 6.5 Standard Units (SU)	Effluent Gross	001	Monthly	DISCRT
Selenium, dissolved [as Se]	Daily Maximum		<= 3.9 Micrograms per Kilogram (mg/kg)	Effluent Gross	001	Monthly	DISCRT
Solids, total dissolved	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Monthly	DISCRT
Solids, total suspended	Daily Maximum		<= 135 Milligrams per Liter (mg/L)	Effluent Gross	001	Monthly	DISCRT
Tetrachloroethylene	Daily Maximum		<= 5 Micrograms per Liter (ug/L)	Effluent Gross	001	Monthly	DISCRT

Discharge Limitations Table for Sample Location 001 (Monthill Avenue And Lamb Boulevard (Dif1023)) To Be Reported Annually

Discharge Limitations				Monitoring Requirements			
Parameter	**Base**	**Quantity**	**Concentration**	**Monitoring Loc**	**Sample Loc**	**Measurement Frequency**	**Sample Type**
Beryllium, total recoverable (as Be)	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	001	Annual	DISCRT
Cadmium, total recoverable	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	001	Annual	DISCRT
Chromium, total recoverable	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	001	Annual	DISCRT
Chromium, Hexavalent [As CR] (Chromium (VI))[1]	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	001	Annual	DISCRT
Chromium, Trivalent [As CR] (Chromium (III))[1]	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	001	Annual	DISCRT
Copper, total recoverable[1]	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	001	Annual	DISCRT
Cyanide, total (as CN)	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	001	Annual	DISCRT
Iron, total recoverable	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	001	Annual	DISCRT
Lead, total recoverable[1]	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	001	Annual	DISCRT
Manganese, total recoverable	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	001	Annual	DISCRT
Mercury, total recoverable[1]	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	001	Annual	DISCRT
Molybdenum, total recoverable	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	001	Annual	DISCRT
Nickel, total recoverable[1]	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	001	Annual	DISCRT
Silver total recoverable[1]	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	001	Annual	DISCRT

Discharge Limitations Table for Sample Location 001 (Monthill Avenue And Lamb Boulevard (Dif1023)) To Be Reported Annually

Discharge Limitations				Monitoring Requirements			
Parameter	**Base**	**Quantity**	**Concentration**	**Monitoring Loc**	**Sample Loc**	**Measurement Frequency**	**Sample Type**
Sulfide, total (as S)	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	001	Annual	DISCRT
Zinc, total recoverable[1]	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	001	Annual	DISCRT
Acrolein	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	001	Annual	DISCRT
Aldrin	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	001	Annual	DISCRT
.alpha.-Endosulfan	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	001	Annual	DISCRT
.beta.-Endosulfan	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	001	Annual	DISCRT
Chlordane (tech mix. and metabolites)	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	001	Annual	DISCRT
Chlorpyrifos	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	001	Annual	DISCRT
4,4-DDT	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	001	Annual	DISCRT
Demeton	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	001	Annual	DISCRT
Diazinon	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	001	Annual	DISCRT
Dieldrin	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	001	Annual	DISCRT
Endrin	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	001	Annual	DISCRT
Azinphos-Methyl (Guthion)	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	001	Annual	DISCRT
Heptachlor	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	001	Annual	DISCRT

Discharge Limitations Table for Sample Location 001 (Monthill Avenue And Lamb Boulevard (Dif1023)) To Be Reported Annually

Discharge Limitations				Monitoring Requirements			
Parameter	**Base**	**Quantity**	**Concentration**	**Monitoring Loc**	**Sample Loc**	**Measurement Frequency**	**Sample Type**
Heptachlor epoxide	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	001	Annual	DISCRT
Lindane	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	001	Annual	DISCRT
Malathion	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	001	Annual	DISCRT
Methoxychlor	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	001	Annual	DISCRT
Mirex	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	001	Annual	DISCRT
Nonylphenol	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	001	Annual	DISCRT
Parathion	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	001	Annual	DISCRT
Pentachlorophenol	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	001	Annual	DISCRT
Polychlorinated biphenyls (PCBs)	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	001	Annual	DISCRT
Toxaphene	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	001	Annual	DISCRT
Tributyltin	Daily Maximum		<= 0.072 Micrograms per Liter (ug/L)	Effluent Gross	001	Annual	DISCRT
Nitrogen, ammonia total (as N)	Daily Maximum	M&R Pounds per Day (lb/d)	M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Annual	DISCRT
Phosphorus, total (as P)	Daily Maximum	M&R Pounds per Day (lb/d)	M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Annual	DISCRT
			M&R Most				

Discharge Limitations Table for Sample Location 001 (Monthill Avenue And Lamb Boulevard (Dif1023)) To Be Reported Annually

Discharge Limitations				Monitoring Requirements			
Parameter	**Base**	**Quantity**	**Concentration**	**Monitoring Loc**	**Sample Loc**	**Measurement Frequency**	**Sample Type**
Coliform, fecal general	Daily Maximum		Probable Number per 100ml T (MPN/100mL)[2]	Effluent Gross	001	Annual	DISCRT

Notes (Discharge Limitations Table):

1. Analysis is for the dissolved fraction.
2. MPN / 100 mL or CFU / 100 mL.

Discharge Limitations Table for Sample Location 002 (Tropicana Avenue And S Pearl Street (Mhf24689)) To Be Reported Monthly

Discharge Limitations				Monitoring Requirements			
Parameter	**Base**	**Quantity**	**Concentration**	**Monitoring Loc**	**Sample Loc**	**Measurement Frequency**	**Sample Type**
Flow rate	Daily Maximum	M&R Million Gallons per Day (Mgal/d)		Effluent Gross	002	Continuous	METER
Flow rate	Monthly Average	M&R Million Gallons per Day (Mgal/d)		Effluent Gross	002	Continuous	METER
Arsenic, total recoverable	Daily Maximum		<= 100 Micrograms per Liter (ug/L)	Effluent Gross	002	Monthly	DISCRT
Benzene	Daily Maximum		<= 5 Micrograms per Liter (ug/L)	Effluent Gross	002	Monthly	DISCRT
Boron, total recoverable	Daily Maximum		<= 750 Micrograms per Liter (ug/L)	Effluent Gross	002	Monthly	DISCRT
Fluoride, total (as F)	Daily Maximum		<= 1000 Micrograms per Liter (ug/L)	Effluent Gross	002	Monthly	DISCRT
Hydrocarbons, total petroleum	Daily Maximum		<= 1.0 Milligrams per Liter (mg/L)	Effluent Gross	002	Monthly	DISCRT
Methyl tert-butyl ether	Daily Maximum		<= 20 Micrograms per Liter (ug/L)	Effluent Gross	002	Monthly	DISCRT
Nitrogen, inorganic total	Daily Maximum		<= 20 Milligrams per Liter (mg/L)	Effluent Gross	002	Monthly	DISCRT
Nitrogen, nitrate total (as N)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	002	Monthly	DISCRT
Nitrogen, nitrite total (as N)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	002	Monthly	DISCRT

Discharge Limitations Table for Sample Location 002 (Tropicana Avenue And S Pearl Street (Mhf24689)) To Be Reported Monthly

Discharge Limitations				Monitoring Requirements			
Parameter	**Base**	**Quantity**	**Concentration**	**Monitoring Loc**	**Sample Loc**	**Measurement Frequency**	**Sample Type**
pH, maximum	Daily Maximum		<= 9.0 Standard Units (SU)	Effluent Gross	002	Monthly	DISCRT
pH, minimum	Daily Minimum		>= 6.5 Standard Units (SU)	Effluent Gross	002	Monthly	DISCRT
Selenium, dissolved [as Se]	Daily Maximum		<= 3.9 Micrograms per Kilogram (mg/kg)	Effluent Gross	002	Monthly	DISCRT
Solids, total dissolved	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	002	Monthly	DISCRT
Solids, total suspended	Daily Maximum		<= 135 Milligrams per Liter (mg/L)	Effluent Gross	002	Monthly	DISCRT
Tetrachloroethylene	Daily Maximum		<= 5 Micrograms per Liter (ug/L)	Effluent Gross	002	Monthly	DISCRT

Discharge Limitations Table for Sample Location 002 (Tropicana Avenue And S Pearl Street (Mhf24689)) To Be Reported Annually

Discharge Limitations				Monitoring Requirements			
Parameter	**Base**	**Quantity**	**Concentration**	**Monitoring Loc**	**Sample Loc**	**Measurement Frequency**	**Sample Type**
Beryllium, total recoverable (as Be)	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	002	Annual	DISCRT
Cadmium, total recoverable	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	002	Annual	DISCRT
Chromium, total recoverable	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	002	Annual	DISCRT
Chromium, Hexavalent [As CR] (Chromium (VI))[1]	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	002	Annual	DISCRT
Chromium, Trivalent [As CR] (Chromium (III))[1]	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	002	Annual	DISCRT
Copper, total recoverable[1]	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	002	Annual	DISCRT
Cyanide, total (as CN)	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	002	Annual	DISCRT
Iron, total recoverable	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	002	Annual	DISCRT
Lead, total recoverable[1]	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	002	Annual	DISCRT
Manganese, total recoverable	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	002	Annual	DISCRT
Mercury, total recoverable[1]	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	002	Annual	DISCRT
Molybdenum, total recoverable	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	002	Annual	DISCRT
Nickel, total recoverable[1]	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	002	Annual	DISCRT
Silver total recoverable[1]	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	002	Annual	DISCRT

Discharge Limitations Table for Sample Location 002 (Tropicana Avenue And S Pearl Street (Mhf24689)) To Be Reported Annually

Discharge Limitations				Monitoring Requirements			
Parameter	**Base**	**Quantity**	**Concentration**	**Monitoring Loc**	**Sample Loc**	**Measurement Frequency**	**Sample Type**
Sulfide, total (as S)	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	002	Annual	DISCRT
Zinc, total recoverable[1]	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	002	Annual	DISCRT
Acrolein	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	002	Annual	DISCRT
Aldrin	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	002	Annual	DISCRT
.alpha.-Endosulfan	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	002	Annual	DISCRT
.beta.-Endosulfan	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	002	Annual	DISCRT
Chlordane (tech mix. and metabolites)	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	002	Annual	DISCRT
Chlorpyrifos	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	002	Annual	DISCRT
4,4-DDT	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	002	Annual	DISCRT
Demeton	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	002	Annual	DISCRT
Diazinon	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	002	Annual	DISCRT
Dieldrin	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	002	Annual	DISCRT
Endrin	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	002	Annual	DISCRT
Azinphos-Methyl (Guthion)	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	002	Annual	DISCRT
Heptachlor	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	002	Annual	DISCRT

Discharge Limitations Table for Sample Location 002 (Tropicana Avenue And S Pearl Street (Mhf24689)) To Be Reported Annually

Discharge Limitations				Monitoring Requirements			
Parameter	**Base**	**Quantity**	**Concentration**	**Monitoring Loc**	**Sample Loc**	**Measurement Frequency**	**Sample Type**
Heptachlor epoxide	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	002	Annual	DISCRT
Lindane	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	002	Annual	DISCRT
Malathion	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	002	Annual	DISCRT
Methoxychlor	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	002	Annual	DISCRT
Mirex	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	002	Annual	DISCRT
Nonylphenol	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	002	Annual	DISCRT
Parathion	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	002	Annual	DISCRT
Pentachlorophenol	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	002	Annual	DISCRT
Polychlorinated biphenyls (PCBs)	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	002	Annual	DISCRT
Toxaphene	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	002	Annual	DISCRT
Tributyltin	Daily Maximum		<= 0.072 Micrograms per Liter (ug/L)	Effluent Gross	002	Annual	DISCRT
Nitrogen, ammonia total (as N)	Daily Maximum	M&R Pounds per Day (lb/d)	M&R Milligrams per Liter (mg/L)	Effluent Gross	002	Annual	DISCRT
Phosphorus, total (as P)	Daily Maximum	M&R Pounds per Day (lb/d)	M&R Milligrams per Liter (mg/L)	Effluent Gross	002	Annual	DISCRT
			M&R Most				

Discharge Limitations Table for Sample Location 002 (Tropicana Avenue And S Pearl Street (Mhf24689)) To Be Reported Annually

Discharge Limitations				Monitoring Requirements			
Parameter	**Base**	**Quantity**	**Concentration**	**Monitoring Loc**	**Sample Loc**	**Measurement Frequency**	**Sample Type**
Coliform, fecal general	Daily Maximum		Probable Number per 100ml T (MPN/100mL)[2]	Effluent Gross	002	Annual	DISCRT

Notes (Discharge Limitations Table):

1. Analysis is for the dissolved fraction.
2. MPN / 100 mL or CFU / 100 mL.

Discharge Limitations Table for Sample Location 003 (Hacienda Pump Station (Mh1624)) 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	Continuous	METER
Flow rate	Monthly Average	M&R Million Gallons per Day (Mgal/d)		Effluent Gross	003	Continuous	METER
Arsenic, total recoverable	Daily Maximum		<= 100 Micrograms per Liter (ug/L)	Effluent Gross	003	Monthly	DISCRT
Benzene	Daily Maximum		<= 5 Micrograms per Liter (ug/L)	Effluent Gross	003	Monthly	DISCRT
Boron, total recoverable	Daily Maximum		<= 750 Micrograms per Liter (ug/L)	Effluent Gross	003	Monthly	DISCRT
Fluoride, total (as F)	Daily Maximum		<= 1000 Micrograms per Liter (ug/L)	Effluent Gross	003	Monthly	DISCRT
Hydrocarbons, total petroleum	Daily Maximum		<= 1.0 Milligrams per Liter (mg/L)	Effluent Gross	003	Monthly	DISCRT
Methyl tert-butyl ether	Daily Maximum		<= 20 Micrograms per Liter (ug/L)	Effluent Gross	003	Monthly	DISCRT
Nitrogen, inorganic total	Daily Maximum		<= 20 Milligrams per Liter (mg/L)	Effluent Gross	003	Monthly	DISCRT
Nitrogen, nitrate total (as N)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	003	Monthly	DISCRT
Nitrogen, nitrite total (as N)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	003	Monthly	DISCRT

Discharge Limitations Table for Sample Location 003 (Hacienda Pump Station (Mh1624)) To Be Reported Monthly

Discharge Limitations				Monitoring Requirements			
Parameter	**Base**	**Quantity**	**Concentration**	**Monitoring Loc**	**Sample Loc**	**Measurement Frequency**	**Sample Type**
pH, maximum	Daily Maximum		<= 9.0 Standard Units (SU)	Effluent Gross	003	Monthly	DISCRT
pH, minimum	Daily Minimum		>= 6.5 Standard Units (SU)	Effluent Gross	003	Monthly	DISCRT
Selenium, dissolved [as Se]	Daily Maximum		<= 3.9 Micrograms per Kilogram (mg/kg)	Effluent Gross	003	Monthly	DISCRT
Solids, total dissolved	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	003	Monthly	DISCRT
Solids, total suspended	Daily Maximum		<= 135 Milligrams per Liter (mg/L)	Effluent Gross	003	Monthly	DISCRT
Tetrachloroethylene	Daily Maximum		<= 5 Micrograms per Liter (ug/L)	Effluent Gross	003	Monthly	DISCRT

Discharge Limitations Table for Sample Location 003 (Hacienda Pump Station (Mh1624)) To Be Reported Annually

Discharge Limitations				Monitoring Requirements			
Parameter	**Base**	**Quantity**	**Concentration**	**Monitoring Loc**	**Sample Loc**	**Measurement Frequency**	**Sample Type**
Beryllium, total recoverable (as Be)	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	003	Annual	DISCRT
Cadmium, total recoverable	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	003	Annual	DISCRT
Chromium, total recoverable	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	003	Annual	DISCRT
Chromium, Hexavalent [As CR] (Chromium (VI))[1]	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	003	Annual	DISCRT
Chromium, Trivalent [As CR] (Chromium (III))[1]	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	003	Annual	DISCRT
Copper, total recoverable[1]	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	003	Annual	DISCRT
Cyanide, total (as CN)	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	003	Annual	DISCRT
Iron, total recoverable	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	003	Annual	DISCRT
Lead, total recoverable[1]	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	003	Annual	DISCRT
Manganese, total recoverable	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	003	Annual	DISCRT
Mercury, total recoverable[1]	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	003	Annual	DISCRT
Molybdenum, total recoverable	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	003	Annual	DISCRT
Nickel, total recoverable[1]	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	003	Annual	DISCRT
Silver total recoverable[1]	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	003	Annual	DISCRT

Discharge Limitations Table for Sample Location 003 (Hacienda Pump Station (Mh1624)) To Be Reported Annually

Discharge Limitations				Monitoring Requirements			
Parameter	**Base**	**Quantity**	**Concentration**	**Monitoring Loc**	**Sample Loc**	**Measurement Frequency**	**Sample Type**
Sulfide, total (as S)	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	003	Annual	DISCRT
Zinc, total recoverable[1]	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	003	Annual	DISCRT
Acrolein	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	003	Annual	DISCRT
Aldrin	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	003	Annual	DISCRT
.alpha.-Endosulfan	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	003	Annual	DISCRT
.beta.-Endosulfan	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	003	Annual	DISCRT
Chlordane (tech mix. and metabolites)	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	003	Annual	DISCRT
Chlorpyrifos	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	003	Annual	DISCRT
4,4-DDT	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	003	Annual	DISCRT
Demeton	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	003	Annual	DISCRT
Diazinon	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	003	Annual	DISCRT
Dieldrin	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	003	Annual	DISCRT
Endrin	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	003	Annual	DISCRT
Azinphos-Methyl (Guthion)	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	003	Annual	DISCRT
Heptachlor	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	003	Annual	DISCRT

Discharge Limitations Table for Sample Location 003 (Hacienda Pump Station (Mh1624)) To Be Reported Annually

Discharge Limitations				Monitoring Requirements			
Parameter	**Base**	**Quantity**	**Concentration**	**Monitoring Loc**	**Sample Loc**	**Measurement Frequency**	**Sample Type**
Heptachlor epoxide	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	003	Annual	DISCRT
Lindane	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	003	Annual	DISCRT
Malathion	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	003	Annual	DISCRT
Methoxychlor	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	003	Annual	DISCRT
Mirex	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	003	Annual	DISCRT
Nonylphenol	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	003	Annual	DISCRT
Parathion	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	003	Annual	DISCRT
Pentachlorophenol	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	003	Annual	DISCRT
Polychlorinated biphenyls (PCBs)	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	003	Annual	DISCRT
Toxaphene	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	003	Annual	DISCRT
Tributyltin	Daily Maximum		<= 0.072 Micrograms per Liter (ug/L)	Effluent Gross	003	Annual	DISCRT
Nitrogen, ammonia total (as N)	Daily Maximum	M&R Pounds per Day (lb/d)	M&R Milligrams per Liter (mg/L)	Effluent Gross	003	Annual	DISCRT
Phosphorus, total (as P)	Daily Maximum	M&R Pounds per Day (lb/d)	M&R Milligrams per Liter (mg/L)	Effluent Gross	003	Annual	DISCRT
			M&R Most				

Discharge Limitations Table for Sample Location 003 (Hacienda Pump Station (Mh1624)) To Be Reported Annually

Discharge Limitations				Monitoring Requirements			
Parameter	**Base**	**Quantity**	**Concentration**	**Monitoring Loc**	**Sample Loc**	**Measurement Frequency**	**Sample Type**
Coliform, fecal general	Daily Maximum		Probable Number per 100ml T (MPN/100mL)[2]	Effluent Gross	003	Annual	DISCRT

Notes (Discharge Limitations Table):

1. Analysis is for the dissolved fraction.
2. MPN / 100 mL or CFU / 100 mL.

Discharge Limitations Table for Sample Location Sum (Sum Of Discharges From Outfalls 001 + 002 + 003) To Be Reported Monthly[1]

Discharge Limitations				Monitoring Requirements			
Parameter	**Base**	**Quantity**	**Concentration**	**Monitoring Loc**	**Sample Loc**	**Measurement Frequency**	**Sample Type**
Flow rate	Daily Maximum	<= 2.95 Million Gallons per Day (Mgal/d)		Effluent Gross	SUM	Continuous	METER
Flow rate	Monthly Average	M&R Million Gallons per Day (Mgal/d)		Effluent Gross	SUM	Continuous	METER

Notes (Discharge Limitations Table):

1. The daily maximum and monthly average flow rates shall be calculated from the sum of discharges from Outfalls 001 + 002 + 003.

Summary of Changes From Previous Permit
This is a new permit.

Technology Based Effluent Limitations
Technology based effluent limitations are not applicable to this permit.

Water Quality Based Effluent Limitations
State regulations require that point source discharges not cause a violation of any applicable WQSs in the receiving water, nor interfere with the attainment or maintenance of beneficial uses. The following water quality based effluent limit (WQBEL) requirements, based on NAC 445A.2156, are included in the proposed permit to ensure that the discharge does not cause WQS violations. In addition, the proposed permit requires monitoring and reporting of constituents that are the subject of WQSs and may be present in the discharge.

Per NAC 445A.2156, sampling is required for dissolved oxygen (D.O.) and temperature. The discharge from this project will travel many miles through the Clark County storm drain system before finally reaching the Las Vegas Wash; therefore, sampling the discharge for D.O. and temperature is irrelevant in this instance.

The proposed permit establishes the requirement to monitor and report fecal coliform in accordance with the irrigation beneficial use. Although fecal coliform is not considered to have the reasonable potential to cause, or contribute to, an excursion above any State water quality standard, there was a reported value of 3.1 most probable number (MPN) per 100 mL from a water quality sample taken at monitoring well B-10. *Escherichia coli (E. coli)* is also included in the WQSs; however, since *E. coli* is a sub-group of fecal coliform, the requirement to sample for *E. coli* has not been included in the proposed permit.

The proposed permit establishes a daily maximum limit of 9.0 standard units (S.U.) and a daily minimum of 6.5 S.U. for pH as prescribed at NAC 445A.2156 to protect the aquatic life designated beneficial use.

The proposed permit establishes a daily maximum limit of 20 mg/L for TIN as prescribed at NAC 445A.2156 in accordance with the requirement to maintain a higher existing quality (RMHQ) standard and based on the findings of the Reasonable Potential Analysis (RPA) (See the Reasonable Potential Analysis section of the Fact Sheet).

The proposed permit establishes the requirement to monitor and report total nitrate (as N) and total nitrite (as N) in lieu of establishing a limit based on WQS as these constituents proved no reasonable potential to cause, or contribute to, in-stream excursions above the applicable water quality criteria.

The proposed permit establishes a daily maximum limit of 135 mg/L for total suspended solids as prescribed at NAC 445A.2156 to protect the aquatic life designated beneficial use and based on the findings of the RPA (See the Reasonable Potential Analysis section of the Fact Sheet).

The receiving water body, the Las Vegas Wash, has an RMHQ of 95 percent of single value samples of less than or equal to 1,900 mg/L limit and a criterion of less than or equal to 3,000 mg/L for total dissolved solids, per NAC 445A.2156. According to multiple water quality results obtained from three (3) monitoring wells located in the vicinity of the project location, total dissolved solids (TDS) were reported at 3,884 mg/L, 2,422 mg/L, 5,144 mg/L, 4,700 mg/L, and 3,918 mg/L. The project, by design, should not alter the background TDS, as such, the TDS concentration in the effluent is expected to be the same as that of the influent. The RPA determined that TDS has the potential to cause, or contribute to, an exceedance above the RMHQ as well as the beneficial use standard.

Due to the elevated levels of TDS in the groundwater, the Permittee submitted to the Division, for review and approval, a No-salt Discharge Policy Tech Memo (henceforth Memo) on August 15, 2024, in conformance with item III of the Policy for Implementation of Colorado River Salinity Standards Through the NPDES Permit Program for Intercepted Ground Water (henceforth Policy). The Policy, adopted by the Colorado River Basin Salinity Control Forum, allows permitting agencies to waive the “no-salt” discharge requirement if 1) the salt load discharged is less than one (1) ton per day or 366 tons per year, 2) the groundwater, if not intercepted, will reach the Colorado River System in a reasonable time frame, or 3) in situations where the discharge does not meet the criteria in items 1 and 2, additional information must be submitted to the permitting agency for review to determine if a “no-salt” discharge is not practical.

According to the Memo provided by the Permittee, the proposed discharge would not meet the Policy’s one (1) ton per day requirement. Additionally, although the groundwater, if not intercepted, would normally reach the Colorado River System, and thereby qualifying the Permittee for the waiver of the “no-salt” discharge, there is not enough data (e.g., rate of groundwater flow, quantity of groundwater, etc.) to determine whether the groundwater would have reached the river system in a ‘reasonable time frame’. Therefore, the Permittee provided the Division the required additional information for review to determine if a “no-salt” discharge is not practical.

Based on the Division’s review of the Memo, it has been determined that a “no-salt” discharge is not practical. The Division’s findings are based on the following:

- According to the Memo, the estimated total salt discharged for each alternative treatment method ranges from 172 tons per year to 11,859 tons per year. Although some of the alternative plans will be able to treat the intercepted groundwater to meet the one (1) ton per day or 366 ton per year requirement, costs associated with meeting the “no-salt” discharge range from $27.3 million to $50.4 million. The Memo states that, “...unanticipated treatment of TDS in shallow groundwater to “no-salt” discharge levels...represents an additional capital cost burden to water utility rate-payers...”. The Memo goes on to state that, “...this requirement could result in delay and/or cancellation of the currently proposed SNWA project...”. As the proposed project will improve the reliability of SNWA’s water supply system for the Las Vegas metropolitan area, the delay and/or cancellation of the project could negatively impact the residents of the Las Vegas metropolitan area.

- Per the Memo, “A temporary 1% increase in TDS in the [Las Vegas] Wash...is believed to have no significant impact to the ecosystem of the Wash and Lake Mead.” The proposed project is estimated to last approximately 2 years. The discharge of the intercepted groundwater to the Las Vegas Wash would be temporary and thus should not cause any long-term affects to the Wash. Furthermore, the 1% increase is believed to be less than the impact the groundwater could have on the Wash should it not be intercepted. Per the Memo, “...intercepting this shallow groundwater at project site and discharging to the Wash through the storm drain system has the potential to actually decrease the

ultimate shallow groundwater TDS load reaching the Wash...". The Permittee explains that as the shallow groundwater migrates from west to east across the Las Vegas Valley, the TDS concentrations have shown to increase, "...with [reported] values as high as 8,000 mg/L being detected in the eastern portion of the Valley near the Las Vegas Wash."

It is for these reasons that the Division has waived the 'no-salt discharge' requirement and establishes the condition that TDS shall be monitored and reported in the proposed permit.

Per NAC 445A.1236, the standards for toxic materials apply. Most of the toxic materials listed only have criteria to protect the municipal or domestic water supply beneficial uses which are not applicable to the section of the Las Vegas Wash receiving the discharge. Therefore, only the constituents with a beneficial use for aquatic life, irrigation, or watering of livestock apply. Constituents that proved no reasonable potential, per the RPA, have no permit limits. Constituents that proved to have reasonable potential, or that were not sampled for during the initial sampling, have a limit. Furthermore, taking the discharge flow rate into consideration, the 96-hour limits are used, unless there was no 96-hour limit listed for that constituent in which case the 1-hour limit was used.

NAC 445A.1236 lists water quality criteria for seven (7) metals that vary as a function of hardness. The lower the hardness, the lower the water quality criteria. The metals with hardness dependent criteria include cadmium, chromium (III), copper, lead, nickel, silver, and zinc. The BWQP recommends calculating a 10th percentile receiving water hardness value to determine water quality criteria for hardness dependent metals that are sufficiently protective of aquatic life.

For NPDES permitting purposes, the BWQP looked at 10 years of data on the Las Vegas Wash at the Historic Lateral (NAC 445A.2156) to determine if a representative value for hardness could be derived for permitting purposes. The BWQP found the hardness data to be normally distributed and recommends a 10th percentile value of 470 mg/L for hardness to be sufficiently protective of aquatic life under most conditions for this reach of the Las Vegas Wash. Therefore, the Division has used the 10th percentile value of 470 mg/L to calculate the applicable water quality criteria for hardness dependent metals listed at NAC 445A.1236.

The proposed permit establishes the requirement to sample the relevant toxic materials once per year to obtain additional water quality data. If, during the renewal review process, should there be one, water quality data shows a reasonable potential (via a Reasonable Potential Analysis) for any constituent, the Division will retain that constituent with a limit and may increase the sampling frequency for that constituent during the renewal process. Limits for constituents that prove no reasonable potential may be removed or the sampling frequency may be decreased in future permits unless new information proves otherwise.

Reasonable Potential Analysis (RPA)

Section 301(b)(1)(c) of the CWA requires effluent limitations necessary to meet WQSs, and Title 40 of the Code of Federal Regulation (CFR) section 122.44(d) requires permits to include conditions that are necessary to achieve WQSs established under section 303 of the CWA, including state narrative criteria for water quality. Federal regulations at 40 CFR section 122.44(d)(1)(i) state, "Limitations must control all pollutants or pollutant parameters (either conventional, nonconventional, or toxic pollutants) which the Director determines are or may be discharged at a level that will cause, have the reasonable potential to cause, or contribute to an excursion above any State water quality standard, including State narrative criteria for water quality." The process to determine whether a WQBEL is required as described in 40 CFR 122.44(d)(1)(i) is referred to as a reasonable potential analysis, or RPA. Furthermore, NAC 445A.243 requires the Division to consider the establishment of effluent limitations necessary to meet WQSs.

For conducting the RPA, the Division used a mass-balanced approach to determine the expected critical downstream receiving water concentration using steady-state modeling. The Division determined critical effluent pollutant concentrations using statistics recommended in EPA's Technical Support Document (TSD) for Water Quality-Based Toxics Control for statistically calculating the projected maximum effluent concentration (i.e., Table 31 of the TSD using the 99 percent probability basis and 99 percent confidence interval). For purposes of the RPA, the critical receiving water flow was assumed to be zero (i.e., no

dilution); therefore, the critical effluent pollutant concentrations were compared with the most restrictive water quality criteria in NAC 445A.1236 and NAC 445A.2156 to determine if the discharge has reasonable potential to cause or contribute to an excursion above a state WQS.

The RPA was based on raw groundwater data collected from monitoring well B-10 on February 25, 2022, and from monitoring wells B-1 and B-14 on April 8, 2022, and August 9, 2023.

NAC 445A.1236 lists water quality criteria for seven (7) metals that vary as a function of hardness. The lower the hardness, the lower the water quality criteria. The metals with hardness-dependent criteria include cadmium, chromium (III), copper, lead, nickel, silver, and zinc. The BWQP recommends calculating a 10th percentile receiving water hardness value to determine water quality criteria for hardness-dependent metals that are sufficiently protective of aquatic life. As discussed in the Water Quality Based Effluent Limitations section of the Fact Sheet, the Division has used the 10th percentile value of 470 mg/L to calculate the applicable water quality criteria for hardness-dependent metals listed at NAC 445A.1236. Unit conversions have been used to convert milligrams per liter to micrograms per liter when applicable.

Based on the RPA, the discharge exhibits reasonable potential to cause, or contribute to, an in-stream excursion above the applicable water quality criteria for arsenic, selenium, boron, fluoride, TIN, TDS, and TSS (See Attachment A for a summary of the RPA findings). Therefore, except for TDS (see the Water Quality Based Effluent Limitations section of the Fact Sheet), limits were included for these constituents. If, during the renewal review process (if discharges are still ongoing), the water quality data shows a reasonable potential (via an RPA) for any constituent, the Division will retain that constituent with a limit and may increase the sampling frequency for that constituent during the renewal process. Limits for constituents that prove no reasonable potential may be removed or the sampling frequency may be decreased in future permits unless new information proves otherwise.

Mass-Based Limits (If Applicable)
There are no mass-based limits associated with this permit.

Basis for Effluent Limitations
The daily maximum flow rate has been limited to 2.95 million gallons per day (MGD). This is based on the anticipated total maximum pumping rates of 1,300 gpm for Outfall 001, 250 gpm for Outfall 002, and 500 gpm for Outfall 003 for a combined total maximum pumping rate of 2,050 gpm which equates to 2.95 MGD.

The proposed permit includes the requirement to sample for PCE due to its presence in a nearby plume. The proposed permit implements a limit of 5.0 µg/L as previously established by the Division.

The proposed permit includes the requirement to sample for total petroleum hydrocarbons (TPH), benzene, and methyl tertbutyl ether (MTBE) in response to the Bureau of Corrective Action's (BCA's) comment that, "...there are quite a few old gas stations near the [project] route...". The proposed permit implements a limit of 1.0 mg/L for TPH per the State action level for remediation projects, 5.0 µg/L for benzene per a memo (BTXE Limits for Remediation Projects) dated February 1, 1991, and 20 µg/L for MTBE as previously established by the BCA and the Division.

Anti-backsliding
Sections 402(o) and 303(d)(4) of the CWA and 40 CFR 122.44(l) prohibit backsliding and require effluent limitations in a reissued permit to be as stringent as those in the previous permit. As this is a new permit, backsliding is not applicable.

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 CFR section 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. This objective is achieved through the implementation of procedures to ensure that waters are protected from regulated activities that have the potential to degrade the water quality. The regulation uses four (4) tiers of antidegradation protection. Tier 1 protects water quality for beneficial uses of the water on a parameter-by-parameter basis. Tier 2 protects high-quality waters where data show the water quality is better than levels needed to protect beneficial uses (on a parameter-by-parameter basis). Tier 2.5 and Tier 3 protect water quality and the special characteristics of waterbodies designated with the beneficial use of “extraordinary, ecological, aesthetic or recreational value” (NAC 445A.122). The Division will conduct an antidegradation review only when a permit application is submitted for a new or expanding point source discharge to a surface water or for a new or altered zone of mixing.

Since the discharge is going to a waterbody that is considered an “effluent-dominated water”, the antidegradation review is not required and, therefore, each parameter defaults to Tier 1 protection. However, data reviewed during the drafting process does not indicate the potential for degradation of the receiving water body from the intercepted groundwater discharged within the compliance limits of the proposed permit.

Special Conditions
There are no special conditions associated with this permit.

SA – Special Approvals / Conditions Table

There are no Special Approval / Condition items

Discharges From Future Outfalls/ Planned Facility Changes
Discharges from future outfalls are not anticipated at this time.

Corrective Action Sites
There is one active BCA site located within a one-mile radius of the project. The site (H-000961) is for the release of solvents to groundwater. There is a known PCE plume located less than a mile away from the dewatering activity. Furthermore, per the BCA, “...there are quite a few old gas stations near the [project] route...”.

Wellhead Protection Program
The closest Public Water System (PWS) well is located approximately 2.0 miles north of the project site. There are additional PWS wells located to the north, south, and west of the site. The project site is not located within a Drinking Water Protection Area, which is defined by a 3,000-foot radius around a PWS well. Furthermore, there are no Wellhead Protection Areas, which represents an approximate 10-year capture zone of a well, in the vicinity of the project site. The discharge is not anticipated to affect any PWSs due to the distances of the PWS wells.

Schedule of Compliance:

SOC – Schedule of Compliance Table

Item #	Description	Due Date
1	The Permittee shall submit for review and approval two copies (one electronic and one hard copy) of a new Operation and Maintenance (O&M) Manual, prepared in accordance with WTS-2A: *Minimum Information for an Operations and Maintenance (O&M) Manual for Pump-and-Treat Facilities and Dewatering Operations.* The O&M Manual shall be prepared by a Nevada registered Professional Engineer.	5/1/2025
2	All Discharge Monitoring Reports (DMRs) shall be submitted electronically through the Nevada NetDMR website: https://netdmr.ndep.nv.gov/netdmr/public/home.htm.	4/28/2025

Deliverable Schedule:

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

Item #	Description	Interval	First Scheduled Due Date
1	Quarterly DMR	Quarterly	4/28/2025
2	Annual DMR	Annually	1/28/2026
3	Annual Report (See section C.1.2 of the permit)	Annually	1/28/2026

Procedures for Public Comment:

The Notice of the Division's intent to issue a permit authorizing the facility to discharge to groundwater of the State of Nevada subject to the conditions contained within the permit, is being mailed to interested persons on our mailing list and will be posted on our website at https://ndep.nv.gov/posts. Anyone wishing to comment on the proposed permit can do so in writing until 5:00 P.M. **1/10/2025,** 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 reason 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: **12/5/2024**
Title: **Staff II, Associate Engineer**

Atachment A

Summary of Reasonable Potential Analysis

Parameter	Units	No. of Effluent Samples	Critical Effluent Concentration	Most Stringent Criterion	Criterion Basis	Does RP Exist?
Metals (Total Recoverable), Cyanide and Phenols						
Arsenic, Total Recoverable	ug/L	5	75.5	50	Municipal or Domestic	**Yes**
Barium, Total Recoverable	ug/L	7	106.3	2,000	Municipal or Domestic	No
Chromium (VI), Total Recoverable	ug/L	5	2.7	11	Chronic Aquatic Life	No
Chromium (III), Total Recoverable	ug/L	5	19.7	100	Irrigation	No
Chromium, Total	ug/L	7	15.9	100	Municipal or Domestic	No
Copper, Total Recoverable	ug/L	7	10.3	35	Chronic Aquatic Life	No
Manganese, Total Recoverable	ug/L	7	74.4	200	Irrigation	No
Molybdenum, Total Recoverable	ug/L	5	197.0	1,650	Chronic Aquatic Life	No
Selenium, Total Recoverable	ug/L	7	81.5	4	Chronic Aquatic Life	**Yes**
Thallium, Total Recoverable	ug/L	5	1.5	13	Municipal or Domestic	No
Zinc, Total Recoverable	ug/L	7	31.2	445	Acute Aquatic Life	No
Volatile Organic Compounds						
Chlorodibromomethane	ug/L	6	27.1	No Criteria		No
Chloroform	ug/L	5	92.2	No Criteria		No
Dichlorobromomethane	ug/L	5	50.3	No Criteria		No
Other Pollutants						
Boron	ug/L	7	7,086.44	750	Irrigation	**Yes**
Chloride	mg/L	1	3,299.22	No Criteria		No
Fluoride	ug/L	5	12,576.19	1000	Irrigation	**Yes**
Inorganic Nitrogen, Total (as N)	mg/L	5	21.38	20	RMHQ	**Yes**
Nitrate, Total (as N)	mg/L	4	24.15	90	WQC to Protect Beneficial Uses	No
Phosphorus, Total (as P)	mg/L	4	0.47	No Criteria		No
Specific Conductance (EC)	umhos/cm	2	39,925.94	No Criteria		No
Sulfate	mg/L	2	22,181.08	No Criteria		No
Total Dissolved Solids	mg/L	5	21,563.97	1900	RMHQ	**Yes**
Total Suspended Solids (TSS)	mg/L	5	2,842.22	135	WQC to Protect Beneficial Uses	**Yes**