FACTSHEET
(pursuant to NAC 445A.236)

Permittee Name: CLARK COUNTY PUBLIC WORKS

500 SOUTH GRAND CENTRAL PARKWAY
LAS VEGAS, NV 89155

Permit Number: NV0024255

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

Designation: MINOR NPDES

New/Existing: NEW

Location: TROP/UCD GRADE SEPARATION, CLARK
TROPICANA AVENUE AND UNIVERSITY CENTER DRIVE NEC, LAS VEGAS, NV 89119
LATITUDE: 36.1011, LONGITUDE: -115.1496
TOWNSHIP: 21S, RANGE: 61E, SECTION: 22

Outfall / Well Num	Outfall / Well Name	Location Type	Well Log Num	Latitude	Longitude	Receiving Water
001	POST REMEDIATION PROCESS WATER	External Outfall		36.100950	-115.143630	LAS VEGAS WASH VIA THE CLARK COUNTY STORM DRAIN SYSTEM
PR1	PRE REMEDIATION PROCESS WATER AND GROUNDWATER	Internal Outfall		36.100951	-115.143631	LAS VEGAS WASH VIA THE CLARK COUNTY STORM DRAIN SYSTEM

Permit History/Description of Proposed Action

This is a new permit. The Permittee, Clark County Public Works, has applied for a new National Pollutant Discharge Elimination System (NPDES) permit NV0024255 for discharging ion exchange and Granular Activated Carbon (GAC) treated groundwater from the Tropicana University Center Drive Grade Separation project in Las Vegas, Nevada. Contaminated groundwater obtained from construction related and permanent groundwater dewatering will be discharged to the Las Vegas Wash via the Clark County storm drain system.

Facility Overview

The project design includes lowering Tropicana Avenue up to 30 feet and realigning it to the north of the current right-of-way, generally between Bock Street to the east and Kelch Drive to the west. Several ramps and bridges will be constructed to connect the lowered Tropicana Avenue with the existing cross streets, which will be left at grade. The overall length of the realigned section of Tropicana Avenue is about 3,800 feet.

A system of secant pile walls will be used on both sides of the lowered Tropicana Avenue to retain the existing soils up to 30 feet in height. Bridges will be supported on both individual drilled shafts and the shafts that are part of the secant pile wall system. The sequence of construction will include installing the secant pile walls on either side of the new roadway alignment, and then excavating the soils between the secant pile walls.

Construction dewatering is anticipated to occur during the excavation down to the final subgrade elevations

of the roadway. Beneath the new roadway subgrade, a passive system of perforated pipes and drain rock as part of the permanent dewatering system will collect groundwater and connect to a central sump/wet well where the groundwater will be pumped up into a treatment system and ultimately into an existing storm drain owned and operated by Clark County Public Works. The discharge from the system is anticipated to be up to 1.3 million gallons per day (MGD) and will likely be a lower value once construction of the project is complete and the localized groundwater elevations have stabilized.

Treatment of the groundwater before final discharge for both the temporary construction and permanent dewatering systems will include pumping through bag filters to remove excess solids, then through an ion-exchange process to remove excess selenium and boron, and finally through a GAC filter to remove excess methyl tert-butyl ether (MTBE) and tetrachloroethylene (PCE). Construction of the project is expected to take up to 2 years, during which the complete transition from construction dewatering to permanent dewatering will occur. Monitoring/testing of the discharge will be performed during both the construction and permanent dewatering phases of the project.

Outfall Summary
Outfall 001: This outfall is for discharges of treated intercepted groundwater to the Clark County storm drain system.

Outfall PR1: This outfall is for sampling of intercepted groundwater prior to entering the treatment system. A comparison of the pre-remediation water sample with the post-remediation water sample will provide information regarding the effectiveness of the remediation system. Additionally, this outfall data will provide a better understanding of the groundwater quality, which will assist in the future dewatering of the area.

Effluent Characterization
This is a new permit. The discharge will consist of treated intercepted groundwater, which remains partly uncharacterized because it cannot be generated for sampling prior to initiation of the proposed discharge. Some samples were collected from monitoring wells near the area that provided some knowledge on the groundwater near the area.

Pollutants of Concern
Based on known Bureau of Corrective Action (BCA) sites (see 'Corrective Action Sites' section in the fact sheet), the constituents in the groundwater that could cause an exceedance of water quality standards in the Las Vegas Wash without treatment, are PCE, per NAC 445A.1236, and benzene. According to the results of the BCA sites study, there are contamination levels of jet fuel, diesel, total petroleum hydrocarbons (TPH), gasoline, motor oil, and solvents hundreds of feet away from the site, but within the one mile buffer zone. Despite this, their mobility is minimal, and no significant concerns have been raised due to the minimal mobility. The GAC system will reduce the concentrations of all of these contaminants if encountered during the project prior to discharge.

Based on samples collected from monitoring wells near the area of the dewatering, elevated levels of boron and selenium were present in the groundwater. The ion exchange system will reduce the concentrations of these contaminants if encountered during the project prior to discharge.

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

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 at the Historic Lateral. However, because boron and selenium have been included in the 303(d) list for the Las Vegas Wash in years past, they will be sampled and limited to 750 ug/L and 6.3 ug/L, respectively.

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 ammonia TMDLs on the Las Vegas Wash were established in 1989 and became fully effective in 1994 and 1995, respectively. The Las Vegas Wash TMDL applies to the downstream segment: Las Vegas Wash at Lake Mead (NAC 445A.2158).

Waste Load Allocation
Total Ammonia as N and Total Phosphorous: The Las Vegas Wash ultimately discharges into the Inner Las Vegas Bay, which has established TMDLs for total ammonia and total phosphorus. Per a Bureau of Water Quality Planning (BWQP) memo dated June 9, 2017, "...dewatering discharge activities in the Las Vegas area...[are]...assumed to be part of the base phosphorous load recognized in the 1989 Lake Mead 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 for a new dewatering project.

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

Discharge Limitations Table for Sample Location 001 (Post Remediation Process Water) To Be Reported Monthly

Discharge Limitations				Monitoring Requirements			
Parameter	**Base**	**Quantity**	**Concentration**	**Monitoring Loc**	**Sample Loc**	**Measurement Frequency**	**Sample Type**
Flow rate	Daily Maximum	<= 1.3 Million Gallons per Day (Mgal/d)		Effluent Gross	001	Continuous	METER
Flow rate	30 Day Average	M&R Million Gallons per Day (Mgal/d)		Effluent Gross	001	Continuous	METER
Hydrocarbons, total petroleum	Daily Maximum		<= 1 Milligrams per Liter (mg/L)	Effluent Gross	001	Monthly	DISCRT
Benzene	Daily Maximum		<= 5.0 Micrograms per Liter (ug/L)	Effluent Gross	001	Monthly	DISCRT
Tetrachloroethylene	Daily Maximum		<= 5.0 Micrograms per Liter (ug/L)	Effluent Gross	001	Monthly	DISCRT
Methyl tert-butyl ether	Daily Maximum		<= 20 Micrograms per Liter (ug/L)	Effluent Gross	001	Monthly	DISCRT
Boron, total (as B)	Daily Maximum		<= 750 Micrograms per Liter (ug/L)	Effluent Gross	001	Monthly	DISCRT
Selenium, dissolved [as Se]	Daily Maximum		<= 6.3 Micrograms per Liter (ug/L)	Effluent Gross	001	Monthly	DISCRT

Discharge Limitations Table for Sample Location 001 (Post Remediation Process Water) To Be Reported Quarterly[1]

Discharge Limitations				Monitoring Requirements			
Parameter	**Base**	**Quantity**	**Concentration**	**Monitoring Loc**	**Sample Loc**	**Measurement Frequency**	**Sample Type**
Arsenic, total recoverable[3]	Daily Maximum		<= 100 Micrograms per Liter (ug/L)	Effluent Gross	001	Quarterly	DISCRT
Beryllium, total recoverable (as Be)	Daily Maximum		<= 100 Micrograms per Liter (ug/L)	Effluent Gross	001	Quarterly	DISCRT
Boron, total recoverable	Daily Maximum		<= 750 Micrograms per Liter (ug/L)	Effluent Gross	001	Quarterly	DISCRT
Cadmium, dissolved (as Cd)	Daily Maximum		<= 2.3 Micrograms per Liter (ug/L)	Effluent Gross	001	Quarterly	DISCRT
Chromium, total recoverable	Daily Maximum		<= 100 Micrograms per Liter (ug/L)	Effluent Gross	001	Quarterly	DISCRT
Chromium, Hexavalent [As CR] (Chromium (VI))[3]	Daily Maximum		<= 11 Micrograms per Liter (ug/L)	Effluent Gross	001	Quarterly	DISCRT
Chromium, Trivalent [As CR] (Chromium (III))[3]	Daily Maximum		<= 263 Micrograms per Liter (ug/L)	Effluent Gross	001	Quarterly	DISCRT
Copper, dissolved (as Cu)	Daily Maximum		<= 34 Micrograms per Liter (ug/L)	Effluent Gross	001	Quarterly	DISCRT
Cyanide, free available	Daily Maximum		<= 5 Micrograms per Liter (ug/L)	Effluent Gross	001	Quarterly	DISCRT
Fluoride, total (as F)	Daily Maximum		<= 1000 Micrograms per Liter (ug/L)	Effluent Gross	001	Quarterly	DISCRT
Iron, total recoverable	Daily Maximum		<= 1000 Micrograms per Liter (ug/L)	Effluent Gross	001	Quarterly	DISCRT
			<= 13				

Discharge Limitations Table for Sample Location 001 (Post Remediation Process Water) To Be Reported Quarterly[1]

Discharge Limitations				Monitoring Requirements			
Parameter	**Base**	**Quantity**	**Concentration**	**Monitoring Loc**	**Sample Loc**	**Measurement Frequency**	**Sample Type**
Lead, dissolved (as Pb)	Daily Maximum		Micrograms per Liter (ug/L)	Effluent Gross	001	Quarterly	DISCRT
Manganese, total recoverable	Daily Maximum		<= 200 Micrograms per Liter (ug/L)	Effluent Gross	001	Quarterly	DISCRT
Mercury, dissolved (as Hg)	Daily Maximum		<= 0.77 Micrograms per Liter (ug/L)	Effluent Gross	001	Quarterly	DISCRT
Molybdenum, total recoverable	Daily Maximum		<= 1650 Micrograms per Liter (ug/L)	Effluent Gross	001	Quarterly	DISCRT
Nickel, total recoverable[3]	Daily Maximum		<= 193 Micrograms per Liter (ug/L)	Effluent Gross	001	Quarterly	DISCRT
Silver total recoverable[3]	Daily Maximum		<= 46 Micrograms per Liter (ug/L)	Effluent Gross	001	Quarterly	DISCRT
Sulfide, total (as S)	Daily Maximum		<= 2 Micrograms per Liter (ug/L)	Effluent Gross	001	Quarterly	DISCRT
Zinc, dissolved (as Zn)	Daily Maximum		<= 438 Micrograms per Liter (ug/L)	Effluent Gross	001	Quarterly	DISCRT
Acrolein	Daily Maximum		<= 3 Micrograms per Liter (ug/L)	Effluent Gross	001	Quarterly	DISCRT
Aldrin	Daily Maximum		<= 3 Micrograms per Liter (ug/L)	Effluent Gross	001	Quarterly	DISCRT
.alpha.-Endosulfan	Daily Maximum		<= 0.056 Micrograms per Liter (ug/L)	Effluent Gross	001	Quarterly	DISCRT
			<= 0.056				

Discharge Limitations Table for Sample Location 001 (Post Remediation Process Water) To Be Reported Quarterly[1]

Discharge Limitations				Monitoring Requirements			
Parameter	**Base**	**Quantity**	**Concentration**	**Monitoring Loc**	**Sample Loc**	**Measurement Frequency**	**Sample Type**
.beta.-Endosulfan	Daily Maximum		Micrograms per Liter (ug/L)	Effluent Gross	001	Quarterly	DISCRT
Chlordane (tech mix. and metabolites)	Daily Maximum		<= 0.0043 Micrograms per Liter (ug/L)	Effluent Gross	001	Quarterly	DISCRT
Chlorpyrifos	Daily Maximum		<= 0.041 Micrograms per Liter (ug/L)	Effluent Gross	001	Quarterly	DISCRT
4,4-DDT	Daily Maximum		<= 0.001 Micrograms per Liter (ug/L)	Effluent Gross	001	Quarterly	DISCRT
Demeton	Daily Maximum		<= 0.1 Micrograms per Liter (ug/L)	Effluent Gross	001	Quarterly	DISCRT
Diazinon	Daily Maximum		<= 0.17 Micrograms per Liter (ug/L)	Effluent Gross	001	Quarterly	DISCRT
Dieldrin	Daily Maximum		<= 0.056 Micrograms per Liter (ug/L)	Effluent Gross	001	Quarterly	DISCRT
Endrin	Daily Maximum		<= 0.036 Micrograms per Liter (ug/L)	Effluent Gross	001	Quarterly	DISCRT
Azinphos-Methyl (Guthion)	Daily Maximum		<= 0.01 Micrograms per Liter (ug/L)	Effluent Gross	001	Quarterly	DISCRT
Heptachlor	Daily Maximum		<= 0.0038 Micrograms per Liter (ug/L)	Effluent Gross	001	Quarterly	DISCRT
Heptachlor epoxide	Daily Maximum		<= 0.0038 Micrograms per Liter (ug/L)	Effluent Gross	001	Quarterly	DISCRT
			<= 0.95				

Discharge Limitations Table for Sample Location 001 (Post Remediation Process Water) To Be Reported Quarterly[1]

Discharge Limitations				Monitoring Requirements			
Parameter	**Base**	**Quantity**	**Concentration**	**Monitoring Loc**	**Sample Loc**	**Measurement Frequency**	**Sample Type**
Lindane	Daily Maximum		Micrograms per Liter (ug/L)	Effluent Gross	001	Quarterly	DISCRT
Malathion	Daily Maximum		<= 0.1 Micrograms per Liter (ug/L)	Effluent Gross	001	Quarterly	DISCRT
Methoxychlor	Daily Maximum		<= 0.03 Micrograms per Liter (ug/L)	Effluent Gross	001	Quarterly	DISCRT
Mirex	Daily Maximum		<= 0.001 Micrograms per Liter (ug/L)	Effluent Gross	001	Quarterly	DISCRT
Nonylphenol	Daily Maximum		<= 6.6 Micrograms per Liter (ug/L)	Effluent Gross	001	Quarterly	DISCRT
Parathion	Daily Maximum		<= 0.013 Micrograms per Liter (ug/L)	Effluent Gross	001	Quarterly	DISCRT
Pentachlorophenol	Daily Maximum		<= 23.5 Micrograms per Liter (ug/L)	Effluent Gross	001	Quarterly	DISCRT
Polychlorinated biphenyls (PCBs)	Daily Maximum		<= 0.014 Micrograms per Liter (ug/L)	Effluent Gross	001	Quarterly	DISCRT
Toxaphene	Daily Maximum		<= 0.0002 Micrograms per Liter (ug/L)	Effluent Gross	001	Quarterly	DISCRT
Tributyltin	Daily Maximum		<= 0.072 Micrograms per Liter (ug/L)	Effluent Gross	001	Quarterly	DISCRT
pH, maximum	Daily Maximum		<= 9.0 Standard Units (SU)	Effluent Gross	001	Quarterly	DISCRT
pH, minimum	Daily Minimum		>= 6.5 Standard Units (SU)	Effluent Gross	001	Quarterly	DISCRT

Discharge Limitations Table for Sample Location 001 (Post Remediation Process Water) To Be Reported Quarterly[1]

Discharge Limitations				Monitoring Requirements			
Parameter	**Base**	**Quantity**	**Concentration**	**Monitoring Loc**	**Sample Loc**	**Measurement Frequency**	**Sample Type**
Solids, total dissolved	Daily Maximum		<= 1900 Milligrams per Liter (mg/L)	Effluent Gross	001	Quarterly	DISCRT
Nitrogen, inorganic total	Daily Maximum		<= 20 Milligrams per Liter (mg/L)	Effluent Gross	001	Quarterly	DISCRT
Nitrogen, nitrate total (as N)	Daily Maximum		<= 90 Milligrams per Liter (mg/L)	Effluent Gross	001	Quarterly	DISCRT
Nitrogen, nitrite total (as N)	Daily Maximum		<= 5.0 Milligrams per Liter (mg/L)	Effluent Gross	001	Quarterly	DISCRT
Nitrogen, ammonia total (as N)	Daily Maximum	M&R Pounds per Day (lb/d)[2]	M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Quarterly	DISCRT
Phosphorus, total (as P)	Daily Maximum	M&R Pounds per Day (lb/d)[2]	M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Quarterly	DISCRT

Notes (Discharge Limitations Table):

1. Limits for Cadmium, Copper, Chromium (III), Lead, Nickel, and Zinc, are based on a hardness concentration of 470 mg/L in the receiving water.
2. Calculated using the daily maximum flow and the concentration in mg/L.
3. Analysis of the dissolved fraction.

Discharge Limitations Table for Sample Location Pr1 (Pre Remediation Process Water And Groundwater) 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	PR1	Continuous	METER
Flow rate	30 Day Average	M&R Million Gallons per Day (Mgal/d)		Effluent Gross	PR1	Continuous	METER
Hydrocarbons, total petroleum	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	PR1	Monthly	DISCRT
Benzene	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	PR1	Monthly	DISCRT
Tetrachloroethylene	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	PR1	Monthly	DISCRT
Methyl tert-butyl ether	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	PR1	Monthly	DISCRT
Boron, total (as B)	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	PR1	Monthly	DISCRT
Selenium, dissolved [as Se]	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	PR1	Monthly	DISCRT

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

Technology Based Effluent Limitations
A selective ion exchange treatment is expected to remove boron and selenium from pumped groundwater. There will be ten 10,560-gallon vessels that operate in parallel, seven operating during normal service, one in stand-by, two being regenerated. The system is designed to handle a flow of 700 gallons per minute. Each vessel contains 2000 lbs. of media.

GAC treatment is expected to remove PCE (and its byproducts) and TPH including benzene from pumped groundwater. There will be four 7000 gallon GAC vessels, two parallel treatment trains of lead-leg beds,

with sampling ports. The system is designed to handle a flow of 700 gallons per minute. Each vessel contains 20,000 lbs. of media, which are anticipated to treat contaminants within the collected water between 2 to 6 months between changeouts, depending on the actual flow rate and purged volatile organic compound concentrations. In the event that the first vessel experiences a breakthrough, the second vessel will provide continuous treatment, while changeout of the first bed is scheduled.

Water Quality Based Effluent Limitations

Per NAC 445A.2156, sampling is required for dissolved oxygen (DO), temperature, total suspended solids (TSS), fecal coliform, and E. coli. The discharge from this facility will travel many miles through the Clark County storm drain system before finally reaching the Las Vegas Wash; therefore, sampling the discharge for DO and temperature is irrelevant in this instance. Also, as there are no sources of E. coli or fecal coliform in the intercepted groundwater, sampling of these constituents are not required. Additionally, TSS is not required to be sampled for as groundwater typically has very low concentrations of TSS.

The following parameters are limited in accordance with the Nevada water quality based effluent limit (WQBEL) standards as listed in NAC 445A.2156:

pH: pH has been limited to 6.5 standard units (S.U.) to 9.0 S.U. in accordance with the aquatic beneficial use.

Total Inorganic Nitrogen (TIN): TIN is limited to 20 mg/L in accordance with the requirement to maintain a higher existing quality (RMHQ) standard.

Nitrate: Total nitrate (as N) is limited to 90 mg/L in accordance with the aquatic beneficial use.

Nitrite: Total nitrite (as N) is limited to 5 mg/L in accordance with the aquatic beneficial use.

TDS: TDS is limited to 1,900 mg/L in accordance with the requirement to maintain a higher existing quality (RMHQ) standard.

Toxic Materials: Per NAC 445A.1236 the standards for toxic materials apply. Most of the toxic materials listed only have limits for 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. 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 six 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, 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, BWQP looked at 10 years of data on the Las Vegas Wash at the Historic Lateral (formerly Telephone Line Road) (NAC 445A.2156) to determine if a representative value for hardness could be derived for permitting purposes. 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 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. Furthermore, based on one pH sample collected in August of 2018 from an upstream water quality station located in the Flamingo Wash, a value of 8.25 S.U. for pH was used to calculate the permit limit for pentachlorophenol.

The relevant toxic materials list will be sampled quarterly in order to obtain initial water quality data. If, during the renewal review process, 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 for determining whether a water quality based effluent limit (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.

The RPA can include a quantitative (an observation that has a meaningful numerical value) or a qualitative (conclusions as to the likelihood that a constituent may pose a reasonable potential to cause, or contribute, to an in-stream excursion above a numeric criterion) analysis of data. As the facility has yet to discharge to the Las Vegas Wash via the Clark County storm drain system, the Division does not have effluent data to conduct a quantitative RPA. However, a qualitative RPA was conducted on the water quality data collected from nearby monitoring wells. Therefore, limitations, based on WQBELs as well as Division established limits, have been incorporated into the permit. If, during the renewal review process, 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.

Basis for Effluent Limitations

PCE: PCE is commonly used in dry cleaning businesses. The requirement to sample for PCE was added to the permit due to the presence of this constituent in the intercepted groundwater. PCE is limited to 5.0 µg/L as previously established by the Division.

TPH: (including: Jet Fuel, Diesel, Gasoline, and Motor Oil): TPH are limited to 1.0 mg/L, for Outfall 001, per the State action level for remediation projects.

Benzene: The requirement to sample for Benzene was added to the permit due to the presence of this constituent in the intercepted groundwater. Benzene is limited to 5.0 µg/L as previously established by the Division under NAC 445A and per February 1, 1991 memo BTXE Limits for Remediation Projects.

MTBE: Methyl tertbutyl ether (MTBE) is a flammable liquid that has been used as an additive for unleaded gasoline since the 1980s. The requirement to sample for MTBE was added to the permit due to the known spill in a less than one-mile radius from the dewatering site, documented in the BCAs' database. MTBE is limited to 20.0 µg/L as previously established by BCA and the Division.

Anti-backsliding

Sections 402(o) and 303(d)(4) of the CWA and federal regulations of 40 CFR 122.44(I) 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 implements antidegradation requirements through a “requirement to maintain existing higher quality (RMHQ) standards of the receiving water body.” RMHQ protection is not applicable during periods of

low and high flows of the receiving waterbody, and at a minimum, discharges shall meet the most restrictive standards established per designated beneficial use criteria. The Division compared available data with the most restrictive beneficial use criteria established per NAC 445A.1236 and NAC 445A.2156, applicable for discharges to the Las Vegas Wash from the confluence of the discharges from the City of Las Vegas and Clark County wastewater treatment plants to the Historic Lateral (formerly Telephone Line Road), and has concluded that currently, available data does not indicate any potential for degradation of the receiving waterbody from the effluent discharged within the compliance limits of the proposed permit. The only exception is TDS which has an established RMHQ of 1900 mg/L, which is below the 3000 mg/L water quality criterion to protect beneficial uses, so the permit is requiring the limit of 1900 mg/L.

Special Conditions
In addition to the effluent limitations and other monitoring requirements described previously in this Fact Sheet, the proposed permit includes the following special conditions.

SA – Special Approvals / Conditions Table

Item #	Description
1	The Permittee shall maintain a log of all the water management activities and flow volumes through each outfall. This log shall be made available to the Division upon request.
2	Discharge to the Clark County storm drain system shall not occur until the Division has reviewed and approved plans and specifications of the proposed treatment system. The plans and specifications shall be prepared by either a Nevada certified Professional Engineer or a Certified Environmental Manager (CEM).

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

Corrective Action Sites
There are 87 active BCA sites within a one-mile radius of the dewatering activity. The primary constituents of concern are benzene and PCE. There are contamination levels of jet fuel, diesel, TPH, gasoline, motor oil, and solvents hundreds of feet away from the site, but within the one-mile buffer zone. Despite this, their mobility is minimal, and no significant concerns have been raised due to the minimal mobility. VOCs such as toluene, ethylbenzene, xylenes, TCE, and vinyl chloride are of lesser concern. It is anticipated that the GAC system will reduce the concentrations of all of these contaminants, if encountered, to acceptable levels during the construction related, and permanent groundwater, dewatering activities.

Wellhead Protection Program
The nearest Public Water System (PWS) well is located approximately 1.4 miles to the west of the discharge point (i.e., storm drain drop inlet). The discharge location 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 permitted facility. 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 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 include a dewatering plan for the permitted project. The O&M Manual shall be prepared by a Nevada registered Professional Engineer.	10/1/2023
2	All Discharge Monitoring Reports (DMRs) shall be submitted electronically through the Nevada NetDMR website.	10/28/2023

Deliverable Schedule:

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

Item #	Description	Interval	First Scheduled Due Date
1	Quarterly DMR	Quarterly	10/28/2023

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. **6/30/2023** , 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: **5/31/2023**
Title: **Staff II, Associate Engineer**