NEVADA DIVISION OF
ENVIRONMENTAL
PROTECTION
A division of the
Nevada Department of Conservation & Natural Resources

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FACTSHEET
(pursuant to NAC 445A.236)

Permittee Name: CITY OF BOULDER CITY

401 CALIFORNIA AVE
BOULDER CITY, NV 89005

Permit Number: NS0097022

Permit Type: GROUNDWATER DISCHARGE

Designation: GROUNDWATER

New/Existing: EXISTING

Location: BOULDER CITY WASTEWATER TREATMENT PLANT, CLARK
1400 QUAIL ROAD, BOULDER CITY, NV 89005
LATITUDE: 35.940720, LONGITUDE: -114.8524
TOWNSHIP: 23 S, RANGE: 64 E, SECTION: 19 &20

Outfall / Well Num	Outfall / Well Name	Location Type	Well Log Num	Latitude	Longitude	Receiving Water
001	INFLUENT	Influent Structure		35.941060	-114.8559	GROUNDWATER
002	EFFLUENT	External Outfall		35.936210	-114.8564	GROUNDWATER
003	DISPOSAL CHANNELS	External Outfall		35.933980	-114.8587	GROUNDWATER
004	QUARRY 187, LLC REUSE	External Outfall		35.930840	-114.9243	GROUNDWATER

Permit History/Description of Proposed Action

The Permittee, City of Boulder City, has applied for the renewal of Permit NS0097022 for the Boulder City Wastewater Treatment Plant (WWTP), located at 1400 Quail Road, in Boulder City, within Clark County, Nevada. The Permittee proposes to continue discharging secondary treated, Category C bacteriological quality, per Nevada Administrative Code (NAC) 445A.276, wastewater to either two earthen disposal channels located onsite that extend to the Boulder City Conservation Easement to allow for percolation into the ground, or to Quarry 187 LLC for their sand and gravel operation water (permit NS0093013).

This permit was first issued June 24, 1998. The most recent permit was issued on July 1, 2016, and expired on June 30, 2021; the permit has been administratively continued since.

Facility Overview

Boulder City's WWTP serves approximately 15,400 Boulder City residents. The influent is generated from approximately 5,500 domestic and commercial connections. There are no reported industrial facilities in Boulder City, which exempts this plant from industrial pre-treatment requirements.

Influent is collected at three lift stations and is delivered to the plant by the east and west interceptor lines. The flow in each 18-inch concrete interceptor line is measured with an ultrasonic flow meter. The plant's

headworks consist of a comminutor channel with a manually cleaned barscreen installed in the bypass channel. Influent is split between two parallel treatment trains utilizing aerated treatment lagoons. Each train consists of a complete mix lagoon, aerated by four surface aerators, and followed by five partially-mixed lagoons (PML) in series. Each PML is aerated by two surface aerators. Four of the five PMLs are in use at any time, with the fifth removed from service for sludge removal. These basins are designed to operate at 8.5 feet of depth and not accumulate more than a 20% sludge depth (approximately 1.7 feet). Sludge will be managed by drying in asphalt-lined basins previously used as part of the treatment plant, and will ultimately be disposed of at a landfill. Prior to disposal, the effluent is disinfected with sodium hypochlorite in a chlorine contact basin, being treated to a Category C bacteriological quality (per NAC 445A.276) for applied reuse.

Treated effluent can either be discharged to two earthen disposal channels or used for a local sand and gravel operation. The channels originate on the WWTP site, but extend onto the Boulder City Conservation Easement, with each earthen disposal channel being approximately five feet in width, and extending along the unfenced area of the WWTP and over into the desert for approximately 1.7 miles. The other user is Quarry 187, LLC (Permit NS0093013) who uses the reclaimed water for their sand and gravel operation. Effluent flow to each outfall is measured via flow meter.

The reclaimed water management plan (RWMP) is filed under Permit NS0093013.

Outfall Summary
Outfall 001 - This internal outfall is for the measuring and monitoring of incoming domestic sewage (influent) entering the WWTP.

Outfall 002 - This external outfall is for the measuring and monitoring of the treated effluent being discharged to the partial mix lagoons.

Outfall 003 - This external outfall is for measuring the flow rate of the treated effluent entering the earthen disposal channels.

Outfall 004 - This external outfall is for measuring the flow rate of the reuse water being piped to the Quarry 187, LLC site (permit NS0093013).

Outfall 005 - REMOVED per Permittee's request. This external outfall was for measuring the flow rate for the now completed I-11 Boulder City Bypass Project (under now terminated permit NS2015507).

Outfall 006 - REMOVED per Permittee's request. This external outfall was for measuring the flow rate of reuse being piped to the completed Techren Solar project (under now terminated permit NS2019507).

Facility Upgrades since last issued permit
There was a new screen installed at the headworks.

Solids Handling
Waste solids from the secondary lagoons are spread and dried in the asphalt-lined, decommissioned Lemna (duckweed) harvesting lagoon and locally landfilled in Boulder City.

Effluent Management and Reuse
Treated effluent can be discharged to two earthen disposal channels, with each channel being approximately five feet in width and extending along an unfenced area of the WWTP property, continuing into the desert for approximately 2 miles, and flowing into the Boulder City Conservation Easement, or through re-use at Quarry 187, LLC (Permit NS0093013) for their sand and gravel operation.

Design Flow (and basis) and Measurement & Current Capacity
The Boulder City WWTP was permitted for a 30-day average flow rate of 2.50 million gallons per day (Mgal/d).

The reported long-term average flow rate for Outfall 002 (Effluent) was 1.05 Mgal/d. There were no reported exceedances to this limit. Based on the averaged flow rates, the WWTP is estimated to be at approximately 42% capacity.

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

Operations & Maintenance (O&M) Manual status
The Boulder City WWTP's O&M Manual was last reviewed and approved on February 6, 2017. The Technical, Compliance, and Enforcement Branch of the Bureau of Water Pollution Control requires O&M Manuals to be updated every ten (10) years, with an updated O&M Manual due on February 6, 2027.

Effluent Characterization
Nevada State Network Discharge Monitoring Report (NetDMR) data, as reported from January 2020 to December 2025, was reviewed as part of this permit renewal process.

The Boulder City WWTP discharges secondary treated, disinfected reclaimed water, treated to Category C bacteriological quality, based on NAC 445.276 for reuse applications; therefore, the reclaimed water should meet, at a minimum, a daily maximum fecal coliform of 240 colony forming units (CFU) / 100 mL and a 30-day geometric mean of 23 CFU / 100 mL. The long-term average for the daily maximum fecal coliform reported was 13.46 CFU / 100 mL. There were no exceedances reported during the period reviewed.

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

Abbreviations:
CBOD5 – Carboneous Biochemical Oxygen Demand, 5-day
TDS – Total Dissolved Solids
TSS – Total Suspended Solids
mg/L – Milligrams per Liter
Mgal/d – Million Gallons per Day
S.U. – Standard Unit

Outfall 001 (Influent):
CBOD5: 212.88 mg/L
Flow Rate: 1.35 Mgal/d
TSS: 285 mg/L

Outfall 002 (Effluent):
Antimony: 0.05 mg/L - 1 instance reported.
Arsenic: 0.13 mg/L
Beryllium: 0.01 mg/L
Cadmium: 0.01 mg/L
Chromium: 0.54 mg/L
Copper: 12.06 mg/L
CBOD5: 13.17 mg/L
Flow Rate: 1.05 Mgal/d
Lead: 0.03 mg/L
Mercury: 0.32 mg/L - 1 instance reported.
Nickel: 0.88 mg/L
pH: 8.07 S.U.
Selenium: 0.33 mg/L
Thallium: Non-detect
TSS: 25.97 mg/L
Zinc: 12.42 mg/L

Outfall 003 (Effluent Discharged to Disposal Channels):
Flow Rate: 0.79 Mgal/d

Outfall 004 (Quarry 187, LLC – Reuse Site):
Flow Rate: 0.17 Mgal/d

Outfall 005 (To be removed - previously the I-11 Boulder City Bypass Project – Reuse Site):
Flow Rate: 0.99 Mgal/d - 1 instance of reuse water being diverted to site reported.

Outfall 006 (To be removed - previously the Techren Solar Project – Reuse Site):
Flow Rate: 0.07 Mgal/d - 10 instances of reuse water being diverted to site reported.

Based on the reported concentrations for CBOD5 and TSS, the average removal rate achieved for CBOD5 was 94%, while the average removal rate achieved for TSS was 91%.

Pollutants of Concern
Pollutants of concern are any pollutants or parameters that are believed to be present in the discharge and could affect or alter the physical, chemical, or biological condition of the receiving water. Common pollutants of concern for wastewater treatment plants are CBOD5, Chloride, General Fecal Coliform, Nitrogen, pH, along with potential inorganic chemicals and analytes.

Receiving Water
The receiving water is groundwater of the State via percolation.

Compliance History
The WWTP has been in compliance during the period reviewed (January 2020 - December 2025).

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

WWTP Discharge Limitations Table for Sample Location 001 (Influent 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	M&R 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, carbonaceous, 05 day, 20 C[1]	Daily Maximum		M&R Milligrams per Liter (mg/L)	Raw Sewage Influent	001	Weekly	COMPOS
BOD, carbonaceous, 05 day, 20 C[1]	30 Day Average		M&R Milligrams per Liter (mg/L)	Raw Sewage Influent	001	Weekly	COMPOS
Solids, total suspended[1]	Daily Maximum		M&R Milligrams per Liter (mg/L)	Raw Sewage Influent	001	Weekly	COMPOS
Solids, total suspended[1]	30 Day Average		M&R Milligrams per Liter (mg/L)	Raw Sewage Influent	001	Weekly	COMPOS

Notes (WWTP Discharge Limitations Table):

1. Sampling should be done concurrently with the effluent (Outfall 002) sampling to determine actual removal rates achieved for Carbonaceous Biochemical Oxygen Demand, 5-day (CBOD5) and Total Suspended Solids (TSS).

WWTP Discharge Limitations Table for Sample Location 002 (Effluent-External Outfall) To Be Reported Monthly

Discharge Limitations				Monitoring Requirements			
Parameter	**Base**	**Quantity**	**Concentration**	**Monitoring Loc**	**Sample Loc**	**Measurement Frequency**	**Sample Type**
Flow rate	Daily Maximum	<= 3.5 Million Gallons per Day (Mgal/d)		Effluent Gross	002	Continuous	METER
Flow rate	30 Day Average	<= 2.5 Million Gallons per Day (Mgal/d)		Effluent Gross	002	Continuous	METER
BOD, carbonaceous, 05 day, 20 C[2]	Daily Maximum		<= 40 Milligrams per Liter (mg/L)	Effluent Gross	002	Weekly	COMPOS
BOD, carbonaceous, 05 day, 20 C[2]	30 Day Average		<= 25 Milligrams per Liter (mg/L)	Effluent Gross	002	Weekly	COMPOS
Coliform, fecal general	30 Day Geometric Mean		<= 23 Colony Forming Units per 100ml T (CFU/100mL)[1]	Effluent Gross	002	Weekly	DISCRT
Coliform, fecal general	Daily Maximum		<= 240 Colony Forming Units per 100ml T (CFU/100mL)[1]	Effluent Gross	002	Weekly	DISCRT
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 suspended[2]	Daily Maximum		<= 135 Milligrams per Liter (mg/L)	Effluent Gross	002	Weekly	COMPOS
Solids, total suspended[2]	30 Day Average		<= 90 Milligrams per Liter (mg/L)	Effluent Gross	002	Weekly	COMPOS
BOD, carb-5 day, 20 deg C, percent removal	Monthly Average Minimum		>= 85 Percent (%)	Effluent Gross	002	Weekly	CALCTD

WWTP Discharge Limitations Table for Sample Location 002 (Effluent-External Outfall) To Be Reported Monthly

Discharge Limitations				Monitoring Requirements			
Parameter	**Base**	**Quantity**	**Concentration**	**Monitoring Loc**	**Sample Loc**	**Measurement Frequency**	**Sample Type**
Solids, suspended percent removal	Monthly Average Minimum		>= 85 Percent (%)	Effluent Gross	002	Weekly	CALCTD

Notes (WWTP Discharge Limitations Table):

1. CFU or MPN/100 ml.
2. Sampling should be done concurrently with the influent (Outfall 001) sampling to determine actual removal rates achieved for Carbonaceous Biochemical Oxygen Demand, 5-day (CBOD5) and Total Suspended Solids (TSS).

WWTP Discharge Limitations Table for Sample Location 002 (Effluent-External Outfall) To Be Reported Annually[1][2]

Discharge Limitations				Monitoring Requirements			
Parameter	**Base**	**Quantity**	**Concentration**	**Monitoring Loc**	**Sample Loc**	**Measurement Frequency**	**Sample Type**
Alkalinity, bicarbonate (as CaCO3)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	002	Annual	DISCRT
Alkalinity, total (as CaCO3)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	002	Annual	DISCRT
Aluminum, dissolved (as Al)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	002	Annual	DISCRT
Antimony, dissolved (as Sb)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	002	Annual	DISCRT
Arsenic, dissolved (as As)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	002	Annual	DISCRT
Barium, dissolved (as Ba)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	002	Annual	DISCRT
Beryllium, dissolved (as Be)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	002	Annual	DISCRT
Cadmium, dissolved (as Cd)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	002	Annual	DISCRT
Calcium, dissolved (as Ca)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	002	Annual	DISCRT
Chloride (as Cl)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	002	Annual	DISCRT
Chromium, dissolved (as Cr)	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-External Outfall) To Be Reported Annually[1][2]

Discharge Limitations				Monitoring Requirements			
Parameter	Base	Quantity	Concentration	Monitoring Loc	Sample Loc	Measurement Frequency	Sample Type
Copper, dissolved (as Cu)	Daily Maximum		Milligrams per Liter (mg/L)	Effluent Gross	002	Annual	DISCRT
Cyanide, weak acid, dissociable	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	002	Annual	DISCRT
Fluoride, total (as F)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	002	Annual	DISCRT
Iron, dissolved (as Fe)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	002	Annual	DISCRT
Lead, dissolved (as Pb)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	002	Annual	DISCRT
Magnesium, dissolved (as Mg)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	002	Annual	DISCRT
Manganese, dissolved (as Mn)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	002	Annual	DISCRT
Mercury, dissolved (as Hg)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	002	Annual	DISCRT
Nitrite plus nitrate total 1 det. (as N)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	002	Annual	DISCRT
Potassium, dissolved (as K)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	002	Annual	DISCRT
Selenium, dissolved [as Se]	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-External Outfall) To Be Reported Annually[1][2]

Discharge Limitations				Monitoring Requirements			
Parameter	**Base**	**Quantity**	**Concentration**	**Monitoring Loc**	**Sample Loc**	**Measurement Frequency**	**Sample Type**
Silver, dissolved (as Ag)	Daily Maximum		Milligrams per Liter (mg/L)	Effluent Gross	002	Annual	DISCRT
Sodium, dissolved (as Na)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	002	Annual	DISCRT
Sulfate, total (as SO4)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	002	Annual	DISCRT
Thallium, dissolved (as Tl)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	002	Annual	DISCRT
Solids, total dissolved	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	002	Annual	DISCRT
Uranium, natural, total	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	002	Annual	DISCRT
Zinc, dissolved (as Zn)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	002	Annual	DISCRT

Notes (WWTP Discharge Limitations Table):

1. Priority Pollutant Metals
2. The priority pollutant metals shall be sampled in the 4th quarter of each year of the permit and the results submitted with the 4th quarter DMRs.

WWTP Discharge Limitations Table for Sample Location 003 (Disposal Channels Outfall) 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)		End of Chlorine Contact Chamber	003	Monthly	METER
Flow rate	30 Day Average	M&R Million Gallons per Day (Mgal/d)		End of Chlorine Contact Chamber	003	Monthly	METER

Re-use Discharge Limitations Table for Sample Location 004 (Quarry 187, LIc Outfall) 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)		Prior to Reuse	004	Continuous	METER
Flow rate	30 Day Average	M&R Million Gallons per Day (Mgal/d)		Prior to Reuse	004	Continuous	METER

Summary of Changes From Previous Permit
Under Outfall 001 (Influent), To be Reported Monthly, the following additions or changes were made:

ADDED – Footnote 2.

2. Sampling should be done concurrently with the effluent (Outfall 002) sampling to determine actual removal rates achieved for Carbonaceous Biochemical Oxygen Demand, 5-day (CBOD5) and Total Suspended Solids (TSS).

Under Outfall 002 (Effluent) To Be Reported Monthly, the following parameters were added:

ADDED – Nitrogen, total, with a “Daily Maximum” Base, a “<=10 Milligrams per Liter (mg/L)” Concentration, an “Effluent Gross” Monitoring Location, an “002” Sample Location, an “Weekly” Measurement Frequency, and a “DISCRT” Sample Type.

ADDED - BOD, 5-Day, percent removal, with a “Monthly Minimum Average” Base, a “>85 Percent (%)” Concentration, an “Effluent Gross” Monitoring Location, a “002” Sample Location, an “Weekly” Measurement Frequency, and a “Calctd” Sample Type.

ADDED - Solids, total suspended, percent removal, with a “Monthly Minimum Average” Base, a “>85 Percent (%)” Concentration, an “Effluent Gross” Monitoring Location, a “002” Sample Location, an “Weekly” Measurement Frequency, and a “Calctd” Sample Type.

ADDED – Footnote 2.

2. Sampling should be done concurrently with the influent (Outfall 001) to determine actual removal rates achieved for Carbonaceous Biochemical Oxygen Demand, 5-day (BOD5) and Total Suspended Solids (TSS).

Under Outfall 002 (Effluent) To Be Reported Annually the following parameters were either added or deleted:

ADDED - Profile 1 Parameters, with a “M&R Milligrams per Liter (mg/L)” Concentration, an “Effluent Gross” Monitoring Location, a “002” Sample Location, an “Annual” Measurement Frequency, and a “Discrt” Sample Type.

DELETED – The Priority Metals list with a “Annual Maximum” Base.

REMOVED Outfalls 005 and 006, along with associated Flow Rate parameters, at Permittee's request. Reuse projects associated with the outfalls have been completed.

Under SOC – Schedule of Compliance Table, deleted the following item:

DELETED - Item 2. All Discharge Monitoring Reports (DMR) shall be submitted electronically through the Nevada NetDMR website:
https://netdmr.ndep.nv.gov/netdmr/public/home.htm.

Technology Based Effluent Limitations
Technology based effluent limitations (TBELs) are required as promulgated by the United States (U.S.) EPA for Publicly Owned Treatment Works (POTWs). The following limits are based on secondary treatment standards as allowed by the Code of Federal Regulation (CFR) Title 40, Section 133, and which has been adopted by the State of Nevada. U.S. EPA published federal secondary treatment standards at 40 CFR 133 based on an evaluation of performance data for POTWs practicing a combination of physical and biological treatment. Performance is measured by monitoring biodegradable organics, suspended solids in the effluent, and ensuring pH remains within regulatory limits. Federal secondary treatment standards are defined under 40 CFR 133 for maximum CCBOD5 as a 30-day average of 25 mg/L and a 7-day average of 40 mg/L and for maximum TSS as a 30-day average of 30 mg/L and a 7-day average of 45 mg/L. In addition to describing the minimum levels of effluent quality attainable by secondary treatment, 40 CFR 133.102 states that the 30-day average percent removal of CCBOD5 and TSS shall not be less than 85%. The Division has adopted these standards for discharges from treatment facilities, and has applied the same 7-day average thresholds as daily maximum effluent limits for CBOD5 and TSS.

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

CBOD5: 30-day average limit: <= 25 mg/L; Daily maximum limit: <= 40 mg/L.

pH: Daily Maximum: <= 9.0 Standard Units

pH: Daily Minimum >= 6.0 Standard Units

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

Limits Based on Secondary Treatment Standards:

CCBOD5 Percent removal: >= 85 percent.

TSS: Percent removal: >= 85 percent.

Limits Based on Facility's Design Criteria Review:

Permitted 30-day average flow rate for effluent is limited to <=2.5 Mgal/d.

Permitted daily maximum flow rate for effluent is limited <=3.5 Mgal/d.

Water Quality Based Effluent Limitations
Water quality based effluent limitations are not applicable to this permit.

Proposed Water Quality Based Effluent Limits (monthly/weekly/daily)
Proposed water quality based effluent limits are not applicable to this permit.

Basis for Effluent Limitations
There are currently no specific water quality standards that have been formally adopted by the State for groundwater. However, the Division has the discretion to implement effluent limitations outside water quality standards per NAC 445A.243, which states, "In establishing an effluent limitation to carry out the policy of this State set forth in Nevada Revised Statutes (NRS) 445A.305, consideration must be given to, but is not limited by the following: ... (2) the need for standards that specify by chemical, physical, biological or other characteristics the extent to which pollution by various substances will not be tolerated."

The requirement to monitor the effluent for pollutants of concern annually is included to evaluate the quality of the effluent and determine whether the effluent has potential to impact the receiving water. Although cyanide is not expected to be present in the effluent, the permit requires the Permittee to sample these constituents annually because they are included in the pollutants of concern list, with some not having been previously tested.

The constituents listed have been vetted by the Division and have been included in groundwater discharge permits for many years as a means of regulating groundwater quality. Per NRS 445A.490, "No permit may be issued which authorizes any discharge or injection of fluids through a well into any waters of the State: ... (3) which would result in the degradation of existing or potential underground sources of drinking water."

Influent and Effluent Monitoring Requirements:

Weekly influent and effluent monitoring for CBOD5 and TSS are included to assess the treatment performance of the Boulder City WWTP. A weekly sampling frequency for CBOD5 and TSS is sufficient for determining compliance with the applicable effluent limitations. Percent removal requirements for CBOD5 and TSS are established in the permit as monthly minimum averages of 85%, based on secondary treatment standards.

Some wastewater treatment processes can increase or decrease wastewater pH; therefore, monthly monitoring for pH is included in assessing compliance with effluent limits of 6.0 S.U. as a daily minimum and 9.0 S.U. as a daily maximum.

Monitoring is required to ensure that the treatment plant capacity is not exceeded, to assess the level of treatment being provided, and to monitor groundwater quality.

Treatment plant parameters for CBOD5, TSS, total nitrogen and pH are typically required to be monitored by all wastewater treatment facilities. Limits are based on Secondary Treatment standards and used to assess the performance of the publicly owned treatment works.

Other Required Water Quality Monitoring:

The requirement to sample the effluent for fecal coliform prior to reuse at the quarry or the Boulder City Conservation Easement is for the protection of the environment and human health.

Anti-backsliding
None of the proposed permit limits were changed to a less restrictive limit compared to those in the previous permit with the exception of flow rate reporting for reclaimed water to the quarry. The quarry submits monthly meter readings to the WWTP with the previous five year average being 0.17 million gallons per day (Mgal/d).

Antidegradation
The Division has developed an antidegradation regulation that is applied on a statewide basis, and which meets the statutory requirements of Nevada's water pollution control law found at NRS 445A.520 and NRS 445A.565 and is consistent with the federal antidegradation policy found at 40 CFR § 131.12. The objective of the Division's antidegradation regulation is to prevent degradation of Nevada's surface waters and maintain the unique attributes and special characteristics and water quality associated with high-quality

waters.

As this permit is for discharges to groundwater, and not surface water, the new antidegradation rule is not applicable. There are currently no specific water quality standards that have been formally adopted by the State for groundwater, however, data reviewed during the renewal process does not indicate the potential for degradation of the groundwater from the treated wastewater discharged within the compliance limits of the proposed permit.

Special Conditions
There are no applicable Special Approvals/Conditions for the proposed permit.

SA – Special Approvals / Conditions Table

There are no Special Approval / Condition items

Discharges From Future Outfalls/ Planned Facility Changes
There are no planned discharges from future outfalls or plant facility changes.

Corrective Action Sites
There are no active Bureau of Corrective Actions (BCA) remediation sites within a one-mile radius of the Boulder City WWTP.

Wellhead Protection Program
The outfalls are not located within a Wellhead Protection Area, which represents an approximate 10-year capture zone of a well, or within a Drinking Water Protection Area, which is defined by a 3,000-foot radius around a public water supply (PWS) well.

Schedule of Compliance:

SOC – Schedule of Compliance Table

Item #	Description	Due Date
1	The Permittee shall submit two copies (one hard copy and one electronic copy) of an updated Operations and Maintenance (O&M) Manual for review and approval by the Division. The O&M Manual shall follow Division's guidance document, WTS-2 Minimum Information Required for an Operation and Maintenance Manual and be prepared and wet stamped by a licensed, qualified Nevada engineer (P.E.).	2/6/2027

Deliverable Schedule:

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

Item #	Description	Interval	First Scheduled Due Date
1	Quarterly DMRs	Quarterly	10/28/2026
2	Annual Report	Annually	1/28/2027

Procedures for Public Comment:

The Notice of the Division's intent to issue a permit authorizing the facility to discharge to groundwater of the State of Nevada subject to the conditions contained within the permit, is being mailed to interested persons on our mailing list and will be posted on our website at https://ndep.nv.gov/posts. Anyone wishing to comment on the proposed permit can do so in writing until 5:00 P.M. **6/9/2026**, a period of 30 days following the date of the public notice. The comment period can be extended at the discretion of the Administrator.

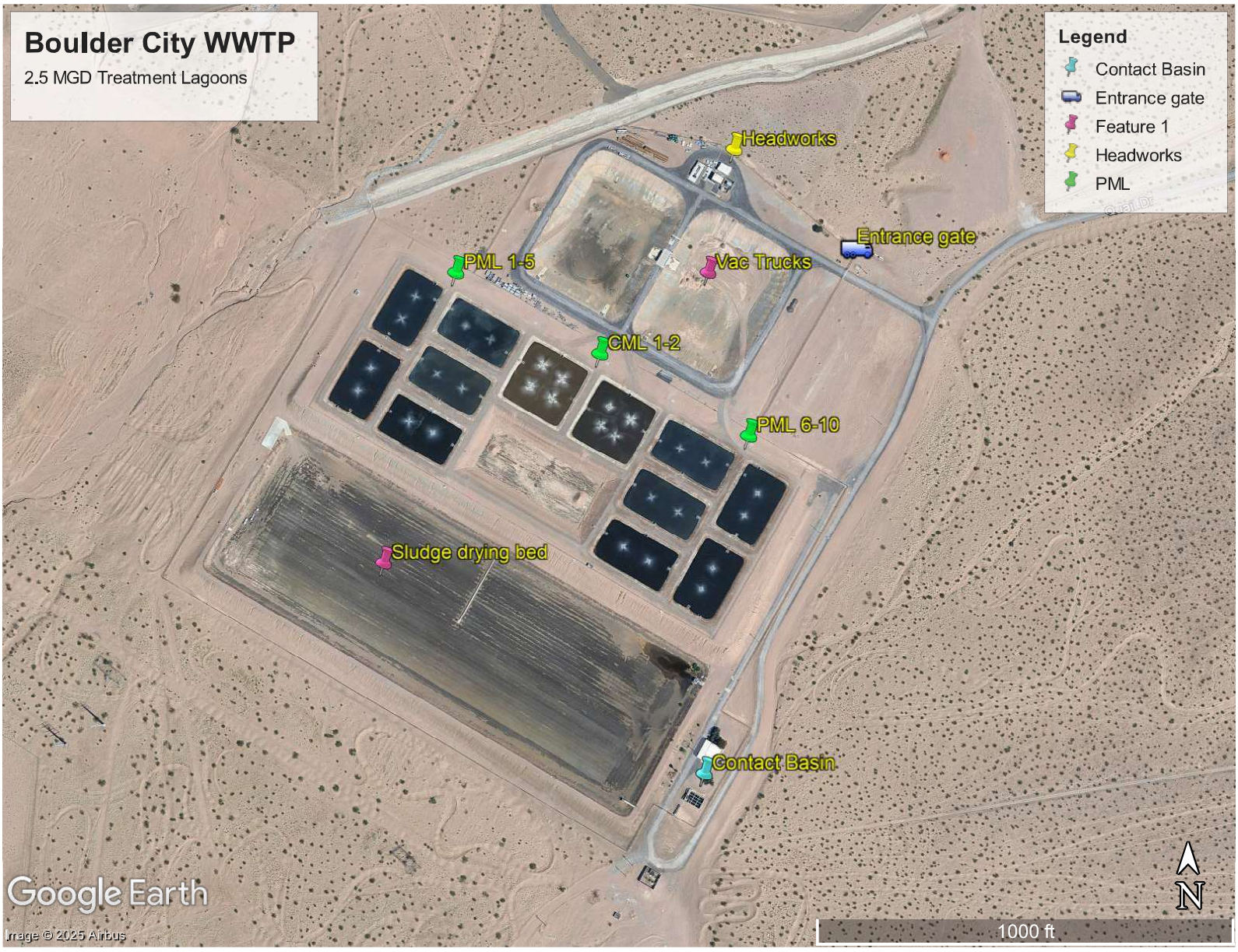
A public hearing on the proposed determination can be requested by the applicant, any affected State, any affected interstate agency, the Regional Administrator of EPA Region IX or any interested agency, person or group of persons. The request must be filed within the comment period and must indicate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

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

Proposed Determination:

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

Prepared by: **Melissa Hanson**
Date: **5/5/2026**
Title: **Staff II Engineer**


Boulder City WWTP
2.5 MGD Treatment Lagoons
Legend
Contact Basin
Entrance gate
Feature 1
Headworks
PML
Headworks
Entrance gate
PML 1-5
Vac Trucks
CML 1-2
PML 6-10
Sludge drying bed
Contact Basin
Google Earth
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