



FACTSHEET
(pursuant to NAC 445A.236)

Permittee Name: QUARRY 187 LLC
1045 PALMS AIRPORT DRIVE
LAS VEGAS, NV 89119

Permit Number: NS0093013

Permit Type: GROUNDWATER DISCHARGE

Designation: GROUNDWATER

New/Existing: EXISTING

Location: BOULDER RANCH QUARRY, CLARK
14555 S. OLD HWY 95, UNINCORPORATED CLARK COUNTY, NV 891240000
LATITUDE: 35.93852910, LONGITUDE: -114.927923
TOWNSHIP: T23S, RANGE: R63E, SECTION: 22

Outfall / Well Num	Outfall / Well Name	Location Type	Well Log Num	Latitude	Longitude	Receiving Water
001	REUSE WATER	Land Application Site		35.93852910	-114.927923	GROUNDWATER

Permit History/Description of Proposed Action

The Permittee, Quarry 187 LLC has applied for the renewal of groundwater discharge permit NS0093013 for the Boulder Ranch Quarry, located at 14555 S. Old Highway 95, in (unincorporated) Clark County, Nevada. The Permittee proposes to continue to use reclaimed water for dust control and the washing of mining materials within the quarry’s boundary.

This permit was first issued on February 2, 1995. The most recent permit was issued on March 15, 2017, and expired on March 14, 2022; the permit has been administratively continued since.

Facility Overview

The Boulder Ranch Quarry (BRQ) is one of four sand and aggregate quarries operated by Impact Sand and Gravel in Clark County. BRQ is supplied with reclaimed water from the Boulder City Wastewater Treatment Plant (BCWWTP Permit NS0097022) for dust control and use at the sand and aggregate wash plant.

The reclaimed water is delivered from the BCWWTP through a pipeline, into two earthen lined supply ponds, at the Boulder Ranch Quarry’s pit, where it is piped into fill stands to furnish water to the non-potable, dust control trucks for application onto dirt roadway surfaces. The ponds also furnish the pit’s wash plant where the water sprays are operated. A mud clarifier settles out dirt and fines so the wash water can be recycled. The wash water is then returned to the supply pond for re-use with the mud going out onto ponding areas to dry out. The quarry water is treated to meet Category C reclaimed water per Nevada Administrative Code (NAC) 445A.276. The daily maximum flow rate for this facility is 0.80 million gallons per day (MGD) from the BCWWTP.

The site’s Reclaimed Water Management Plan (RWMP) (formerly known as an Effluent Management Plan) was last reviewed and approved by the Division in April 2010. The Technical, Compliance, and

Enforcement (TCE) Branch of the Bureau of Water Pollution Control requires RWMPs be updated every two (2) permit cycles which equates to every ten (10) years; therefore, an updated RWMP will need to be submitted to the Division for review and approval by February 1, 2025. The RWMP shall follow guidance document, WTS1B General Design Criteria for Preparing a Reclaimed Water Management Plan.

Outfall Summary

Outfall 001 – This outfall is for the discharge of reclaimed water for dust control and washing of mining materials.

Effluent Characterization

Nevada State Network Discharge Monitoring Report (NetDMR) data, as reported from the years June 2019 to June 2024, was reviewed as part of this permit renewal process. The long-term average discharge flow rate for Outfall 001 was 0.17 million gallons per day (MGD). The daily maximum discharge flow rate for Outfall 001 is limited to 0.80 MGD. There were no reported exceedances for this limit.

The BCWWTP provides tertiary treated, denitrified, and disinfected reclaimed water which meets Category C bacteriological quality per NAC 445A.276 to the BRQ; therefore, the reclaimed water should meet, at a minimum, a maximum 30-day geometric mean for fecal coliform of 23 colony forming units (CFU) / 100 mL and a daily maximum of 240 CFU / 100 mL. The long-term average for the daily maximum fecal coliform reported was 16 CFU / 100 mL.

The averaged monthly maximum discharge characteristics were as follows, along with levels reported for BOD-5, Coliform, pH (minimum and maximum), and Total Suspended Solids (TSS):

BOD, 5-day (mg/L): 8.5

Coliform (Colony Forming Units per 100 mL): 16

pH Maximum (SU): 8

pH Minimum (SU): 7.6

Total Solids, Suspended (Mg/L): 27

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. A common pollutant of concern for denitrified reclaimed water is BOD-5, fecal coliform, pH (minimum and maximum), and TSS levels.

Receiving Water

Receiving water is groundwater of the State. Depth to groundwater at the site is approximately 149 feet below ground surface (bgs).

Compliance History

The facility was in compliance during the June 2019 to June 2024 reporting period.

Proposed Effluent Limitations

The discharge shall be limited and monitored by the Permittee as specified below

Re-use Discharge Limitations Table for Sample Location 001 (Land Application Site) To Be Reported Monthly^[1]

Discharge Limitations				Monitoring Requirements			
Parameter	Base	Quantity	Concentration	Monitoring Loc	Sample Loc	Measurement Frequency	Sample Type
Coliform, fecal general ^[1]	Daily Maximum		<= 240 Colony Forming Units per 100ml T (CFU/100mL) ^[2]	Prior to Reuse	001	Weekly	DISCRT
Coliform, fecal general ^[1]	30 Day Geometric Mean		<= 23 Colony Forming Units per 100ml T (CFU/100mL) ^[2]	Prior to Reuse	001	Weekly	DISCRT
Flow rate	30 Day Average	<= 0.8 Million Gallons per Day (Mgal/d)		Prior to Reuse	001	Continuous	METER
Flow rate	Daily Maximum	<= 0.8 Million Gallons per Day (Mgal/d)		Prior to Reuse	001	Continuous	METER
Nitrogen, total	Daily Maximum		M&R Milligrams per Liter (mg/L)	Prior to Reuse	001	Weekly	COMPOS

Notes (Re-use Discharge Limitations Table):

1. Reclaimed quality data may be submitted as obtained from the supplier, Boulder City Wastewater Treatment Plant. (NS0097022).
2. CFU or MPN/100 mL.

Summary of Changes From Previous Permit

An updated RWMP will need to be submitted to the Division for review and approval by February 1, 2025. The RWMP shall follow guidance document, WTS1B General Design Criteria for Preparing a Reclaimed Water Management Plan.

The reporting requirements for pH, total suspended solids (TSS), and the 5-day biochemical oxygen demand (BOD5) have been removed (refer to the Anti-backsliding statement for further explanation).

Technology Based Effluent Limitations

Technology based effluent limitations are not applicable to this permit.

Water Quality Based Effluent Limitations

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

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

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

Basis for Effluent Limitations

Fecal coliform is required to be monitored to assess the quality of reclaimed water being applied for the protection of human health and the environment.

Anti-backsliding

To prevent backsliding, effluent limitations in reissued permits are required to be as stringent as those in the previous permit, with some exceptions.

The previous permit included a monthly maximum limit of 9.0 standard units (S.U.) for pH, 90 mg/L for TSS, and 45 mg/L for BOD5. The permit also included a monthly minimum limit of 6.0 S.U. for pH and a 30-day average limit of 45 mg/L for TSS and 30 mg/L for BOD5. These limits are derived from technology based effluent limitations (TBELs) for publicly owned treatment works (POTWs). Furthermore, the POTW, the Boulder City WWTP, supplying the reclaimed water to the Permittee, is required to sample the reclaimed water for pH, TSS, and BOD5 per their permit, NS0097016, as the point of compliance is after treatment but prior to discharge. Therefore, as this permit is for the use of reclaimed water at a sand and gravel plant, and not for the treatment of wastewater through a POTW, the requirement to report pH, TSS, and BOD5 has been removed.

Antidegradation

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

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

Special Conditions

There are no Special Approval/Condition Items associated with this permit.

SA – Special Approvals / Conditions Table

There are no Special Approval / Condition items

Discharges From Future Outfalls/ Planned Facility Changes

The Permittee does not anticipate any discharges from any future outfalls or any other changes to the facility.

Corrective Action Sites

There are no Bureau of Corrective Actions (BCA) remediation sites located within a one-mile radius of the permitted facility.

Wellhead Protection Program

The nearest Public Water Supply (PWS) well is located approximately 10 miles to the north of the Boulder Ranch Quarry. There are more PWS wells located to the west and east of the quarry. The Boulder Ranch Quarry is not located within a Drinking Water Protection Area, which is defined by a 3,000-foot radius around a PWS well, or a Wellhead Protection Area, which represents an approximate 10-year capture zone of a PWS well. The discharges of reclaimed water at the quarry are not anticipated to affect any PWS wells based on the distance to the nearest well.

Schedule of Compliance:

SOC – Schedule of Compliance Table

Item #	Description	Due Date
1	The Permittee shall submit two copies (one electronic and one hard copy) of an updated Reclaimed Water Management Plan (RWMP), formerly known as an Effluent Management Plan, for review and approval by the Division. The RWMP shall follow guidance document WTS-1B: General Design Criteria of Preparing a Reclaimed Water Management Plan.	2/1/2025

Deliverable Schedule:

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

Item #	Description	Interval	First Scheduled Due Date
1	Quarterly DMRs	Quarterly	1/28/2025
2	Annual Report	Annually	1/28/2025

Procedures for Public Comment:

The Notice of the Division's intent to issue a permit authorizing the facility to discharge to groundwater of the State of Nevada subject to the conditions contained within the permit, is being mailed to interested persons on our mailing list and will be posted on our website at <https://ndep.nv.gov/posts>. Anyone wishing to comment on the proposed permit can do so in writing until 5:00 P.M. **10/18/2024**, 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 Marr**
 Date: **9/16/2024**
 Title: **Staff II Engineer**