



FACTSHEET
(pursuant to NAC 445A.236)

Permittee Name: NDOC - CARLIN CONSERVATION CAMP

3955 WEST RUSSELL ROAD
LAS VEGAS, NV 89118

Permit Number: NS0087066

Permit Type: GROUNDWATER DISCHARGE

Designation: GROUNDWATER

New/Existing: EXISTING

Location: CARLIN HONOR CAMP, ELKO
124 SUZY CREEK WAY, CARLIN, NV 89822
LATITUDE: 40.7275, LONGITUDE: -116.083333
TOWNSHIP: 33N, RANGE: 52E, SECTION: 24

Outfall / Well Num	Outfall / Well Name	Location Type	Well Log Num	Latitude	Longitude	Receiving Water
001	INFLUENT	Internal Outfall		40.7275	-116.083333	GROUNDWATER
002	SEPTIC TANKS	External Outfall		40.7270	-116.082875	GROUNDWATER
003	EFFLUENT	External Outfall		40.727623	-116.081159	GROUNDWATER
004	MONITORING WELL EAST (MW-E)	Monitoring Well		40.727184	-116.081266	GROUNDWATER
005	MONITORING WELL SOUTH (MW-S)	Monitoring Well		40.726149	-116.082830	GROUNDWATER
006	LEACH FIELD	External Outfall		40.727454	-116.082924	GROUNDWATER

Permit History/Description of Proposed Action

The Permittee, Nevada Department of Corrections, has applied for the renewal of groundwater discharge permit NS0087066 for the Carlin Conservation Camp wastewater treatment facility (WWTF) located at 124 Susie Creek Road, Carlin, NV 89822. The Permittee proposes to continue to discharge treated wastewater to groundwater of the State.

The permit was last issued on 01/16/2009 and expired on 01/15/2014. The permit has been administratively continued since.

Facility Overview

The Permittee owns and operates the WWTF that serves the Carlin Conservation Camp. Influent wastewater first enters the septic tanks (six 4,000-gallon tanks) for primary treatment, then flows to a denitrifying pond for nitrogen removal, then flows to a leach field for disposal.

Outfall Summary

Outfall 001 - Influent

Outfall 002 - Septic Tanks

Outfall 003 - Denitrifying Pond

Outfall 004 - Monitoring Well East

Outfall 005 - Monitoring Well South

Outfall 006 - Leach Field

Facility Upgrades since last issued permit

The denitrifying pond was constructed and implemented since the last permit was issued.

Solids Handling

Solids are pumped from the septic tanks by a licensed septic hauler.

Effluent Management and Reuse

Treated effluent is discharged to a leach field. The treated effluent is not currently reused as reclaimed water.

Design Flow (and basis) and Measurement & Current Capacity

The facility has a design treatment capacity of 0.0240 million gallons per day (MGD). The average flow between 2019 and 2024 was 0.008 MGD, with a maximum 30-day average of 0.014 MGD.

Pretreatment Program

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

Operations & Maintenance (O&M) Manual status

The Permittee will need to submit an updated O&M Manual by April 1, 2025.

Effluent Characterization

Nevada State Network Discharge Monitoring Report (NetDMR) data, as reported from the years 2019 to 2024, was reviewed as part of this permit renewal process. The average flow rate was 0.008 million gallons per day (MGD) with a maximum 30-day average of 0.014 MGD. The average maximum during that time for the 5-day biochemical oxygen demand (BOD5) was 20.15 mg/L, with a maximum of 110 mg/L. Total suspended solids (TSS) averaged 17.1 mg/L and had a maximum of 67 mg/L. Total nitrogen in the effluent averaged 29 mg/L. The pH average was 7.75 standard units (S.U.).

Pollutants of Concern

Pollutants of concern are any pollutant, or parameters, that are believed to be present in the discharge and could affect or alter the physical, chemical, or biological conditions of the receiving water. Common pollutants of concern for wastewater include BOD5, TSS, and pH. Pollutants of concern in the groundwater include chloride, total nitrogen, and total dissolved solids (TDS).

Total Residual Chlorine

N/A.

Receiving Water

The receiving water body for treated effluent is groundwater of the State. There are two monitoring wells installed at this location. Monitoring Well South (MWS) is located 230 ft. south of the disposal area and downgradient of the leach field and exhibits groundwater depth of approximately 36.5 ft. Monitoring Well East (MWE) is located 230 ft. east of the leach fields and exhibits groundwater depth of approximately 35 ft. and is not downgradient of the leach field. Groundwater flows south towards the Humboldt River located 0.8 mile from the camp. The current nitrate limit (10 mg/L) is triggered in MWS, with an average value of 26.4 mg/L. The current nitrate level in MWE is 7.55 mg/L.

Compliance History

The Division conducted a facility inspection in July 2023 and informed the facility that the total nitrogen effluent limit had been exceeded. The Division included the recommendation to fix the mechanical issues

causing the denitrifying pond to be out of commission. The requirement to fix the denitrifying pond has been included in this permit as a special condition.

Proposed Effluent Limitations

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

WWTP Discharge Limitations Table for Sample Location 001 (Influent) To Be Reported Monthly

Discharge Limitations				Monitoring Requirements			
Parameter	Base	Quantity	Concentration	Monitoring Loc	Sample Loc	Measurement Frequency	Sample Type
Flow rate	Daily Maximum	<= 0.024 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

WWTP Discharge Limitations Table for Sample Location 002 (Septic Tanks) To Be Reported Semi Annually

Discharge Limitations				Monitoring Requirements			
Parameter	Base	Quantity	Concentration	Monitoring Loc	Sample Loc	Measurement Frequency	Sample Type
Sludge/Solids, depth ^[2]	Semi-Annual Maximum ^[1]	M&R Feet (ft)		Effluent Gross	002	Semiannual	DISCRT

Notes (WWTP Discharge Limitations Table):

1. Semi-annual sampling period occurs in the second and fourth quarters.
2. Pump septic tanks when scum + sludge level \geq 50% of the compartment's overall operating depth.

WWTP Discharge Limitations Table for Sample Location 003 (Effluent) To Be Reported Quarterly

Discharge Limitations				Monitoring Requirements			
Parameter	Base	Quantity	Concentration	Monitoring Loc	Sample Loc	Measurement Frequency	Sample Type
Nitrogen, total	Daily Maximum		<= 10 Milligrams per Liter (mg/L)	Effluent Gross	003	Quarterly	DISCRT
BOD, 5-day	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	003	Quarterly	DISCRT
Solids, total suspended	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	003	Quarterly	DISCRT
pH, minimum	Daily Minimum		M&R Standard Units (SU)	Effluent Gross	003	Quarterly	DISCRT
pH, maximum	Daily Maximum		M&R Standard Units (SU)	Effluent Gross	003	Quarterly	DISCRT

WWTP Discharge Limitations Table for Sample Location 006 (Leach Field) To Be Reported Quarterly

Discharge Limitations				Monitoring Requirements			
Parameter	Base	Quantity	Concentration	Monitoring Loc	Sample Loc	Measurement Frequency	Sample Type
Outfall observation, visual, y/n response	Positive Results	M&R Pass=0 Fail=1 (pass/fail) ^[1]		Effluent Gross	006	Quarterly	VISUAL

Notes (WWTP Discharge Limitations Table):

1. Report '0' as 'Pass' if surfacing, damages, or leaks were not observed during the visual inspection of the leach field. Report '1' as 'Fail' if surfacing, damages, or leaks were observed during the visual inspection of the leach field.

Groundwater Monitoring Wells Table for Sample Location 004 (Monitoring Well East) To Be Reported Quarterly^[1]

Parameter	Discharge Limitations			Monitoring Requirements			
	Base	Quantity	Concentration	Monitoring Loc	Sample Loc	Measurement Frequency	Sample Type
Nitrogen, total	Quarterly Maximum		<= 10 Milligrams per Liter (mg/L)	Groundwater	004	Quarterly	DISCRT
Nitrogen, nitrate total (as N)	Quarterly Maximum		M&R Milligrams per Liter (mg/L)	Groundwater	004	Quarterly	DISCRT
Chloride (as Cl)	Quarterly Maximum		M&R Milligrams per Liter (mg/L)	Groundwater	004	Quarterly	DISCRT
Solids, total dissolved	Quarterly Maximum		M&R Milligrams per Liter (mg/L)	Groundwater	004	Quarterly	DISCRT
Depth to water level ft below landsurface ^[2]	Quarterly Minimum	M&R Feet (ft)		Groundwater	004	Quarterly	VISUAL ^[3]

Notes (Groundwater Monitoring Wells Table):

1. Groundwater samples shall be taken only after purging at least three (3) well volumes of groundwater from the monitoring well.
2. Depth to groundwater, ft.
3. Field measurement.

Groundwater Monitoring Wells Table for Sample Location 005 (Monitoring Well South) To Be Reported Quarterly^[1]

Parameter	Discharge Limitations			Monitoring Requirements			
	Base	Quantity	Concentration	Monitoring Loc	Sample Loc	Measurement Frequency	Sample Type
Depth to water level ft below landsurface ^[2]	Quarterly Minimum	M&R Feet (ft)		Groundwater	005	Quarterly	VISUAL ^[3]
Nitrogen, total	Quarterly Maximum		<= 10 Milligrams per Liter (mg/L)	Groundwater	005	Quarterly	DISCRT
Nitrogen, nitrate total (as N)	Quarterly Maximum		M&R Milligrams per Liter (mg/L)	Groundwater	005	Quarterly	DISCRT
Chloride (as Cl)	Quarterly Maximum		M&R Milligrams per Liter (mg/L)	Groundwater	005	Quarterly	DISCRT
Solids, total dissolved	Quarterly Maximum		M&R Milligrams per Liter (mg/L)	Groundwater	005	Quarterly	DISCRT

Notes (Groundwater Monitoring Wells Table):

1. Groundwater samples shall be taken only after purging at least three (3) well volumes of groundwater from the monitoring well.
2. Depth to groundwater, ft.
3. Field measurement.

Summary of Changes From Previous Permit

Outfall 006 for the leach field has been added.

TSS, BOD5, and pH limits have been removed from this permit because the facility does not provide secondary treatment.

Technology Based Effluent Limitations

Total nitrogen is limited to 10 mg/L based on the capabilities of the denitrifying pond.

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.

Rationale for Permit Requirements

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 Nevada Administrative Code (NAC) 445A.243, which states, “In establishing an effluent limitation to carry out the policy of this State set forth in NRS 445A.305, consideration must be given to, but is not limited by, the following: ...(2) the need for standards that specify by chemical, physical, biological or other characteristics the extent to which pollution by various substances will not be tolerated.” The constituents listed in Profile I 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 Nevada Revised Statute (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. The requirement to monitor the effluent for all Profile I pollutants (excluding weak acid dissociable cyanide and uranium) once per permit term is included to evaluate the quality of the effluent and determine whether the effluent has potential to impact the receiving water.

Anti-backsliding

To prevent backsliding, effluent limitations in this permit are as stringent as those in the previous permit, except for those that have been changed due to the limitations of the treatment capabilities.

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 Title 40 in the 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 effluent discharged within the compliance limits of the proposed permit.

Special Conditions

See the Special Approvals / Conditions Table below.

SA – Special Approvals / Conditions Table

Item #	Description
1	Once approved, the Permittee shall implement the plan to repair and make operational the denitrifying pond.
2	Septic tank(s) shall be pumped by a licensed septage hauler whenever the combined depth of scum and sludge equals or exceeds 50% of the total liquid depth, or more frequently as necessary to maintain efficient solids removal. Septic tanks shall be pumped at least once every three years for maintenance purposes. The date, tank number, volume of septage removed, and the name of the septage hauler shall be maintained onsite in accordance with Part A.2.8. of the permit. Sludge disposal shall be in accordance with applicable regulations.

Discharges From Future Outfalls/ Planned Facility Changes

There are no discharges from future outfalls or planned facility changes.

Corrective Action Sites

There are no active corrective action sites within 1 mile of the facility.

Wellhead Protection Program

The nearest Public Water System (PWS) well is located approximately 500 feet to the north of the outfalls. The outfalls are not located within a Wellhead Protection Area, which represents an approximate 10-year capture zone of a well. The facility is located within a Drinking Water Protection Area, which is defined as a

3,000-foot radius around a PWS well. During the Vulnerability Assessment evaluations, the system was determined to have low vulnerability to inorganic contaminants, synthetic organic contaminants, volatile organic compounds, asbestos, radionuclides, and microbial contamination.

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 Operation and Maintenance (O&M) Manual to the Division for review and approval. The manual shall be prepared in accordance with the Division's WTS2 guidance document: Minimum Information Required for an Operation and Maintenance Manual.	4/1/2025
2	The Permittee shall submit a plan, for Division review and approval, to repair and make operational the denitrifying pond.	12/31/2029

Deliverable Schedule:

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

Item #	Description	Interval	First Scheduled Due Date
1	Quarterly DMRs	Quarterly	4/28/2025
2	Semi-annual DMRs	Semi Annually	7/28/2025
3	Annual Report	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. **12/20/2024**, 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: **Peter Lassaline**
 Date: **11/14/2024**
 Title: **Environmental Scientist**