



NEVADA DIVISION OF
**ENVIRONMENTAL
PROTECTION**

A division of the
Nevada Department of Conservation & Natural Resources

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NEVADA DIVISION OF ENVIRONMENTAL PROTECTION
FACT SHEET
(Pursuant to NAC 445A.874)

Permittee Name: **Carson City Public Works**
Permittee Address: **3505 Butti Way, Carson City NV 89701**
Project Name: **North West Carson City Aquifer Storage and Recovery (ASR) Project**
Permit Number: **UNEV2010204**
Injection Wells (#): **Three (3)**
Permit Action: **Draft UIC Permit - Renewal** Date drafted: **September 2026**

Type of Project: **Aquifer Storage & Recovery**

A. Description of Injection well

Location: Three (3) injection wells, Carson City, Nevada.

Well	Well Address	Sec T & R
10B	2200 W. College Parkway	SE SE Sec 1 T.15N., R19E.
51	1900 W. Winnie Lane	NW SW Sec 7 T.15N., R20E.
55	2057 W. College Parkway	NE NE Sec 12 T.15N., R19E.

Injectate Characteristics: Injectate will be surface water treated through CCPW's Quill drinking water treatment plant and distributed municipal water distribution system, some pumped ground water may be in distribution system during the injection cycle. Proposed rates will be 65 - 600 gpm depending on the well. Wells shall receive a maximum of 75% of the wells pumping and an average of 65% of the wells pumping capacity. The TDS of the injectate is 78 mg/l, pH = 7.9, chloride = 3 mg/l, sodium = 7-11 mg/l, sulfate = 0.8 mg/l, magnesium = 1.6 mg/l, arsenic = 1 mg/l, iron = 0.17 mg/l; and meets all drinking water standards for the constituents tested. Chloroform has ranged from 5-41 ug/l in 2008-2009. Residual chlorine values have ranged from 0.2 - 1.27 mg/l over past 3 years.

Receiving Water Characteristics: The quality of the receiving ground water aquifer meets all drinking water standards and has a TDS values up to 150 mg/l and pH of 7.9. Other values include arsenic = 2-6 mg/l, sulfate = 3-5 mg/l, Chloride = 2-10 mg/l, fluoride = 0.10 mg/l, sodium = 5-12 mg/l, iron = 0.1 mg/l, and nitrate as NO₃ = 0.5 - 3.7 mg/l. Chloroform has been detected at values up to 69 ug/l in well 48.

Wellhead Protection Areas

Y Injection well/Facility within a 2-, 5-, or 10-year ground water protection area

Y Injection well/Facility within 7000-foot buffer zone for any public water supply well

B. Synopsis of Project

The Carson City Public Work Dept proposes to inject excess treated domestic water into the Eagle Valley hydrologic basin on the west side of the community. The water will be injected via three (3) wells number 10b, 51 and 55. These wells were constructed as Aquifer Storage and Recovery (ASR) wells between 2000-2005. An ASR well has dual capabilities; it was constructed to pump a ground water aquifer and also inject water into the aquifer. These wells have been used since construction to pump ground water into the City's domestic water system.

During the winter months, Carson City has adequate surface water volume to meet most of the community's water needs. The raw surface water is treated at the Quill Water Treatment facility. As of 2026, the treatment process uses diatomaceous earth and chlorination and is in the process of transferring to a UV for primary and chlorination for secondary disinfection treatment system. During the summer months, additional ground water is pumped into the system to address the increase demands required for lawns, gardens and landscape areas. Each well provides chlorination of the ground water. The treated surface water and ground water is transported in the City's domestic water system and subsequently mixed together. During the winter months, ARS wells 10b, 51 and 55 are not needed to supply ground water to the domestic system and are shut down. During this period, these wells will be used to inject excess treated domestic water into the Eagle Valley hydrologic basin. Each well's injection rate will be limited to an average of 65% of the well's existing pumping capacity.

The wells shall be pumped in the summer months. Sampling will occur during pumping period to monitor chemical activity within the aquifer.

High TTHM values have been provide to the UIC Program for distribution systems sample points near the ASR wells, so the frequency of sampling on injectate has been changed to "day 1 and monthly during injection cycle." HAA monitoring has been removed from injectate requirements due to low system values.

C. Timeline and Project Summary

2026 Permit renewal - no changes to operations, water quality, monitoring parameters or wells. Minor modifications were made to the permit to update language and formatting to maintain congruity with other UIC permits. New/modified sections include II.A.2 Submission of contents, II.B.2 Noncompliance Notifications, II.B.3 Spills, II.C.2, and II.C.5 Plugging and Abandonment.

2016 Renew permit - currently using three (3) wells for injection, changed from four in original application, injection occurred in 2011-13. No injection in 2015-16 season.

2011 Well 48 removed from permit, monitoring related to Well 48 was removed.

2010 Original UIC Application received - UNEV2010204 - Four (4) injection wells

2005 Wells 10B, 51 & 55 were completed.

2000 Well 48 was completed.

D. Proposed Effluent Limitations and Special Conditions

Refer to **Part I.A** of the permit.

Water levels within each ASR well will be limited by the Permittee and the UIC permit to 25 feet below ground surface.

E. Rationale for Permit Requirements

The permit conditions will help to ensure that the injectate does not adversely affect the existing water quality or hydrologic regime. Verification will be performed to ensure that injected fluid

quality remains constant and meets drinking water standards. In particular, NDEP is concerned that recharge projects do not create chlorinated organics in the ground water due to the chlorination treatment of injected water.

F. Proposed Determination

The Division has made the tentative determination to renew the permit.

G. Procedures for Public Comment

Anyone wishing to comment on the proposed permit modification can do so in writing for a period of 30 days following the posting date of public notice. All written comments received during the comment period will be retained and considered in the final determination. 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 or any interested agency, person or group of persons.

Opportunity for a public workshop shall be provided with 30-day advance notice pursuant to NAC 445A.890. 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 determines to be appropriate. All public hearings will be conducted in accordance with NAC 445A.238.

Prepared by: Lisa Aleman

Date: August 27, 2026