



FACT SHEET

(Pursuant to NAC 445A.874)

Permittee Name: Truckee Meadows Water Authority
Permittee Address: 1355 Capital Blvd. Reno, Nevada 89520
Project Name: Spanish Springs ASR Program
Permit Number: UNEV2009202
Injection Wells (#): Nine (9)
Well Subclass: 5R33

Type of Project: Aquifer Storage & Recovery

Permit Action: Permit Modification

A. Description of Injection well

Location: Section 3 T20N, R20E, Sections 6 and 7 T20N R21E and Section 34 T21N R 20E MDB&M Washoe County, Nevada.

Well Construction:

Well Name/No.	Total Depth	Screen Interval	Water Level
Hawkings Court	604'	180' -260', 280' -420', 440' -580'	62'
Desert Springs 1 (Erin)	200'	122' - 192'	62'
Desert Springs 2 (Dolores)	815'	238' - 812'	67'
Desert Springs 3 (Milke)	272'	58' - 288'	34'
Desert Springs 4 (David James)	400'	140 - 260', 300' - 390'	16'
Spring Creek 4 (Wave)	500'	210' - 290', 300' - 480'	71'
Spring Creek 5 (Hubble)	620'	300' - 480', 500' - 620'	85'
Spring Creek 6 (Early Dawn)	797'	459' - 797'	69'
Spring Creek 7 (Desert Fox)	710'	390' - 530', 550' - 710'	167'

Injectate Characteristics: All injectate will be surface water treated through TMWA's drinking water treatment plants and municipal water distribution system; some pumped ground water may be in distribution system during the injection cycle. Proposed rates will be 400 - 800 gpm. The TDS of the injectate ranges from 140 mg/l, chloride = 11 mg/l, sulfate = 23 mg/l, magnesium = 4.9 mg/l, sodium = 20 mg/l; and meets all drinking water standards for the constituents tested.

Receiving Water Characteristics: For Hawkings well, the quality of the receiving groundwater aquifer meets all drinking water standards and has a TDS of 180 mg/l and pH of 8.4. Other values include bicarbonate = 92 mg/l, arsenic = 0.003 mg/l, sulfate = 17 mg/l, Chloride = 10 mg/l, fluoride = 0.20 mg/l, sodium = 36 mg/l, iron < 0.05 mg/l, and nitrate as NO₃ = 7.0 mg/l. The most recent data from HC well is 7/10/08 under Attachment 4 in the permit application.

Wellhead Protection Areas

All wells are municipal water well is a water supply well, thus this well has its own protection area.

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

2015 Update: The permit was renewed in the January 2015 for the Hawkings well. In June, TMWA requested to modify the permit to add additional TMWA wells (1 to 9) to the permit for recharge purposes to support drought-condition activities. In January 2015, TMWA and Washoe Co Department of Water Resources merged. This allowed NDEP combine UIC permits UNEV2009202 and UNEV2013200 into UNEV2009202. The wells covered under UNEV2009202 are listed in the table above.

There appears to be no changes in water quality from recharge into Hawkings well since 2009.

Based on historical and recent data provided, groundwater quality it is not expected to be impacted.

The project area is located in the Wingfield Springs area of Spanish Springs (see map). The purpose of TMWA's aquifer storage and recovery (ASR) program is to store water that is extracted from the Truckee River, treated at the drinking water treatment plant, and conveyed via the distribution system. Injection periods will vary depending on system demand and weather, but will usually operate from October through April. Assuming only treated surface water is injected, the closest chlorine treatment point would be at the Chalk Bluff Treatment Facility.

The HC well was drilled in 2005 as a production well with a potential long-term yield of 3,000 gpm. TMWA conducted an extensive testing on the well back in late 2005. The highest production/injection zones are found at 400', 450', and 550'.

The Tucker well is a shallow well 30 feet west of the HC well, and will be used for monitoring. This well hit volcanic rock from 42 feet to 165 feet, similar to the HC well.

A summary of TMWA's artificial recharge program is given below:

Aug 2015	Permit major modification
Jan 2015	Permit Renewed
Dec 2009	Permit Issue
Dec 2008	Issue Temp permit UNEV2009202T
Nov 2005	aquifer testing program, spinner flow survey, downhole video
July 2005	drill production well - completed Nov 5, 2005
May 2005	drilling of geologic test borehole

C. Proposed Effluent Limitations and Special Conditions

Refer to Part I.A of the permit.

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.

E. Proposed Determination

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

F. Procedures for Public Comment

The Notice of the Division's intent to renew the permit authorizing the facility to discharge to the ground water of the State of Nevada subject to the conditions contained within the permit, was sent to the Reno Gazette Journal newspaper for publication no later than September 21, 2015. The notice is being sent to interested persons on our mailing list. Anyone wishing to comment on the proposed permit can do so in writing for a period of 30 days following the date of the public notice.

The comment period can be extended at the discretion of the Administrator. 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 or any interested agency, person or group of persons. 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. The final determination of the Administrator may be appealed to the State Environmental Commission pursuant to NRS 445A.605.

Prepared by: Russ Land
Date: August 28, 2015