

NEVADA DIVISION OF ENVIRONMENTAL PROTECTION

FACT SHEET

(Pursuant to NAC 445A.874)

Permittee Name: **Truckee Meadows Water Authority** Type of Project: **Aquifer Storage and Recovery**

Project Name: **TMWA**

Address: **1155 Corporate**

Permit Action: **Renewal - UIC Permit**

Reno, Nevada 89520-3013

Permit Number: **UNEV92200**

Injection Wells (#): **Twenty-three (23)**

A. Description of Discharge

Location: Twenty-two (22) injection wells, located in Sections 6 and 7, T18N, R20E; Sections 12, 15, 16 and 35, T19N, R19E; and Sections 6, 7, 8, 12, 17, 18, and 31, T19N, R20E., MDB&M, Washoe County, Nevada. The 12 to 18 inch diameter injection wells are 260 to 826 feet below ground surface (bgs) with a screened interval starting from 110 feet bgs and extending to the depth of the wells. Groundwater is present at a depth from 9.5 to 88.5 feet bgs.

Latitude and longitude data have been provided for each well and are attached to this fact sheet.

Injectate Characteristics: All injectate is treated surface water from the Truckee River obtained through Truckee Meadows Water Authority's (TMWA's) Glendale and Chalk Bluff Treatment Plants. The average TDS of the injectate is approximately 130 mg/l and meets all other drinking water standards.

Receiving Water Characteristics: The native groundwater being augmented by the addition of surface water which meets all drinking water standards and has a TDS of 150-350 mg/l and pH range from 6.5 - 8.5. Other values include total alkalinity = 80-125 mg/l, sulfate = 5-60 mg/l, calcium = 10-30 mg/l, sodium = 10-25 mg/l, and nitrate = (less than 0.2) - 3 mg/l.

B. Synopsis

The project area is located in the Truckee Meadows area (see map). TMWA's artificial recharge project was implemented and operates to achieve the following objectives:

- Seasonal storage and recovery of water
- Long-term storage, or water banking.
- Emergency storage
- Restore groundwater levels

TMWA holds Permit R-010 with the Nevada Division of Water Resources for the recharge project.

TMWA has operated the Aquifer Storage and Recovery (ASR) project since Sierra Pacific Power Company (SPPC) divested this water utility in 2001. SPPC operated the ASR project from 1993-2001. The intent of the project is to inject treated surface water (Truckee River water) through wells during periods of low water demand, store the recharged water in the aquifer near the wells, and withdraw the water during periods of high demand.

The ASR project also helps to keep low levels of arsenic in the View Street and Greg Street wells and to decrease the impact of perchloroethene/trichloroethene (PCE/TCE) intrusion on the Poplar #2 and Fourth Street Wells. TMWA is working with the Central Truckee Meadows Remediation District's efforts in PCE remediation near the 4th Street Well.

TMWA has been pilot testing ways to reduce the arsenic concentration at Poplar #1 with injected water. The Poplar #1 well has not been used for injection since 1998. The Peckham Lane well had not been used for injection for many years; historically this well has been **artesian** and was removed as an injection well.

SPPC had requested to remove four wells (Mill Street Well, High Street Well, Morrill Avenue Well, and Kietzke Lane Well) from the permit because of PCE contamination problems. These wells were replaced with the View Street well, Hunter Lake well, Glenn Hare well and Reno High well (aka Idlewild well). Due to high levels of PCE, and because these wells are pumped and treated to contain PCE in the nearby vicinity, the following wells may not be used for recharge under this permit: **Mill, High, Kietzke, Morrill and Corbett**. Written authorization from the UIC Program must be received by the permittee to use these wells for recharge in the future.

The wells on the existing permit have been divided into zones for sampling and monitoring purposes. The recharge wells and zones are identified as:

Zone 1	Zone 2	Zone 3	Zone 4
Glenn Hare	4 th Street	21 st Street	Delucchi Lane
Hunter Lake	El Rancho Dr.	Galletti Way	Holcomb Lane
Reno High (Idlewild)	View Street	Greg Street	Lakeside Dr.
Swope		Pezzi	Longley Lane
		Poplar Street #1	Patriot (Huffaker)
		Poplar Street #2	Sierra Plaza
		Sparks Ave	South Virginia Street
		Terminal Way	

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

- 1990 Project proposal and initiation
- 1991 Basic data collection - spreading basins and well injection
- 1992 Injection applications to Division of Water Resources and Nevada Division of Environmental Protection.
- 1993 Original Permit Issued
- 1996 Permit Issued (Minor Mod)
- 1998 Renewal Application Received
- 1999 Permit Issued (Renewal)
- 2001 Permit Transferred (SPPC to TMWA)
- 2001 Permit Issued (Major Mod)
- 2005 Major Mod Application Received
- 2008 Revised Renewal Application Received

C. 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* for publication. The notice is being mailed 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 published 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.

D. Proposed Determination

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

E. Proposed Effluent Limitations and Special Conditions

Refer to Part I.A of the permit.

F. 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 groundwater due to the chlorination treatment of injected water.

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Revised by: Brian Martinezmoles

Date: July 9, 2008

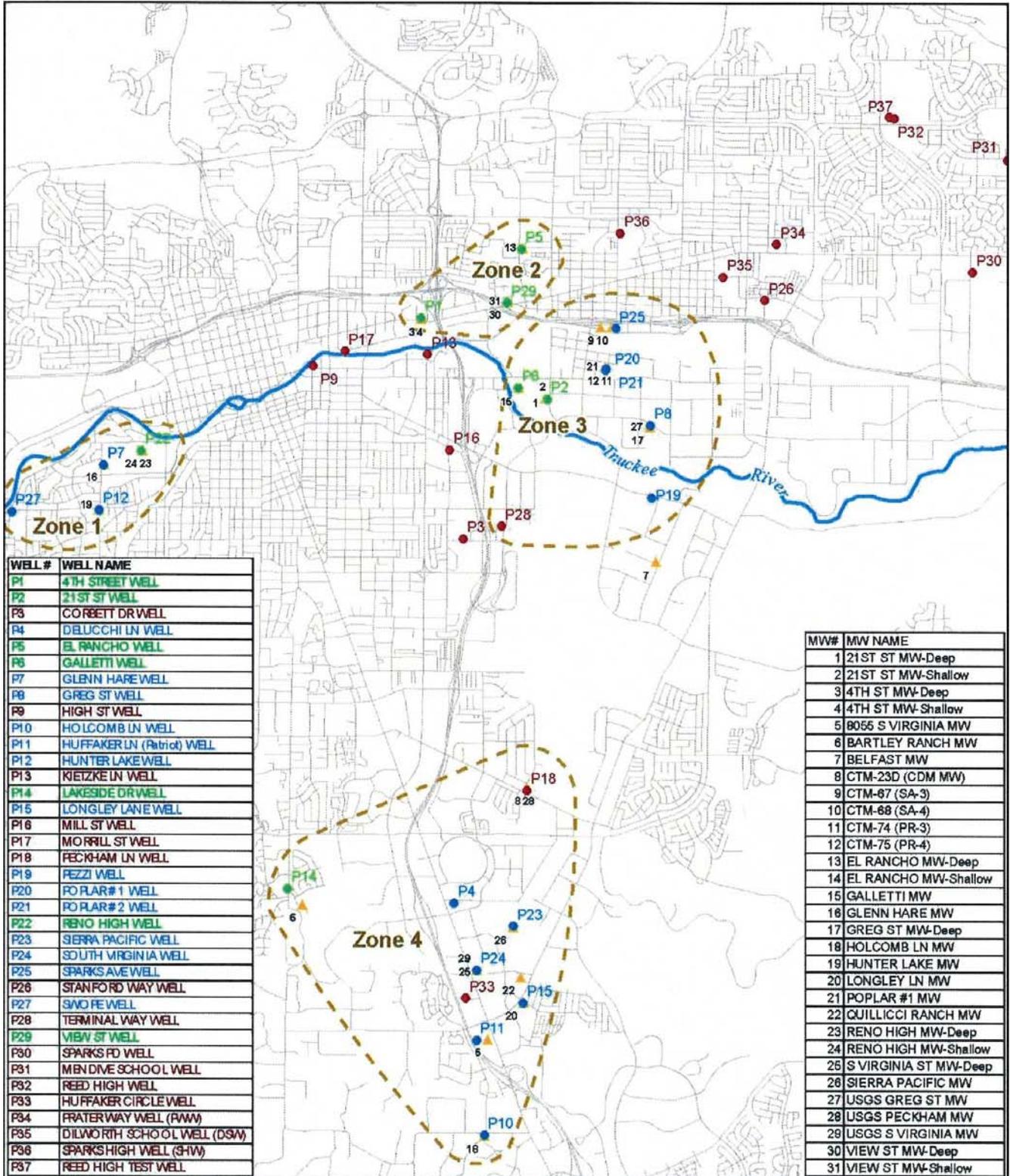


Figure 1 Well Locations - Truckee Meadows Basin

Legend

- Well Recharged 2007
- Well Equipped to Recharge
- Wells
- ▲ Monitoring Well
- System Sampling Zone

