AQUIFER STORAGE and RECOVERY (ASR) LIMITED LICENSE #011

The Oregon Water Resources Commission issues this limited license for ASR TESTING to:

City of Dallas
c/o Roger Jordan
187 SE Court St.
Dallas, OR 97338

Telephone: 503.831.3502

For municipal use, the licensee may divert up to 1,300 gpm from Rickreall Creek, Applegate Creek, and Rockhouse Creek, tributaries of the Willamette River, using authorization of Certificate 68474. This diversion may occur when the resulting stored water is recovered to the City's distribution system.

For municipal use, the licensee may store up to 273 million gallons in the Siletz River Volcanics aquifer using four injection wells. The maximum injection rate is 1300 gpm, being up to 200 gpm at each of ASR Wells #1, #2, #3 and up to 700 gpm at ASR Well #4. The licensee may recover up to 1900 gpm of stored water through the same four wells, being up to 300 gpm at each of ASR Wells #1, #2, #3 and up to 1000 gpm at ASR Well #4. The maximum storage duration is 120 days.

For non-municipal use, the licensee may divert up to 175 gpm from Rickreall Creek, Applegate Creek, and Rockhouse Creek, tributaries of the Willamette River, using authorization of this ASR limited license for aquifer storage and recovery testing as a non-municipal use. This diversion occurs when the resulting stored water is not recovered to the City's distribution system. (Limitations on this diversion are noted in condition 2.)

For non-municipal use, the licensee may store up to 0.76 million gallons in the Siletz River Volcanics Aquifer using each injection well. The maximum injection rate is 175 gpm. The licensee may recover up to 300 gpm of stored water through the same well. The maximum storage duration is 120 day.

The point of diversion on Rickreall Creek is located at T7S/R6W, Section 35, SW1/4 SE1/4.

This is a final order in other than contested case. Pursuant to ORS 536.075 and OAR 137-004-080 and OAR 690-01-005 you may either petition the Director for reconsideration of this order or petition for judicial review of this order. As provided in ORS 536.075, this order is subject to judicial review under ORS 183.484. Any petition for judicial review of the order must be filed within the 60 day time period specified by ORS 183.484(2).

With the authorization of individual ASR well test plans, up to FOUR ASR wells are potentially allowed at a combined rate up to 1300 gpm for injection and up to 1900 gpm for recovery. These wells consist of the following:

Well Name	*Well Location within T2S/R1W WM.*
ASR #1	T7S/R6W - Section 36, SE1/4 NE1/4
ASR #2	T7S/R6W - Section 36, NW1/4 NE1/4
ASR #3	T7S/R6W - Section 36, SW1/4 NE1/4
ASR #4	T8S/R5W - Section 5, NE1/4 NE1/4

The duration of this limited license is five years. This time was the requested limited license duration. This limited license expires on the fifth anniversary of issuance.

Except as it conflicts with other provisions of this limited license, the licensee is authorized to pursue the project schedule, monitoring, and other features noted in the ASR pilot test work plan for ASR Well #1. That plan may be amended and approved pursuant to condition (4)(A)(iii). The project schedule in the ASR test plan may be reasonably adjusted by the licensee to reflect the license issuance date or other delays. Features of that ASR testing plan are provided in the application documents entitled:

Aquifer Storage and Recovery
Pilot Test Work Plan
City of Dallas, Oregon
Prepared by
Golder Associates, Inc.
December, 2005

This limited license is issued with the following conditions:

1) License Renewal. The limited license may be renewed if the licensee demonstrates to the Director's satisfaction that further testing is necessary and that the licensee complied with the terms of the limited license.

2) Notice Prior to Injection and Recovery. The licensee shall give notice, in writing, to the watermaster not less than 15 days in advance of either initiating any injection under the limited license or recovering stored water. The injection notice shall include the limited license number, the location of the injection source water diversion, the quantity of water to be diverted from that source, the time of injection, and the place of injection. The recovery notice shall include the limited license number, the location of the recovery well(s), the time of recovery, and the quantity of water to be recovered.

For non-municipal diversion during July, August, and September, the licensee shall confirm with the District 16 Watermaster, prior to any testing, that there is enough flow to meet all needs. No later than one week before July 1, the licensee shall contact the District 16 Watermaster to confirm that there is adequate flow to allow diversion for ASR testing.

3) Record of Use. The licensee shall maintain a record of injection and recovery, including the total number of hours of injection and recovery and the total metered quantity injected and recovered. The record of use may be reviewed by Department staff upon request.

4) Modification/Revocation. The Department shall notify the licensee in writing and allow the licensee to respond when considering the following actions:

(A) The Director may modify the ASR limited license for any of the following reasons:
(i) to reflect changes in Oregon Department of Human Services (ODHS) and Oregon Department of Environmental Quality (DEQ) water quality or treatment standards;
(ii) to address needed technological changes as requested by DEQ or ODHS to minimize constituents regulated under OAR 333-61-030 (ORS 448.131 and .273) or OAR 340-40 (ORS 468B.165);
(iii) upon written request from the applicant for minor adjustments to the authorization in the limited license. (For purposes of this license, a well location change to an adjacent 1/4 1/4 section is a minor adjustment.)

(B) The Director may revoke or modify the ASR limited license for any of the following reasons:
(i) to prevent or mitigate injury to other water rights, minimum perennial streamflows or aquifer water quality;
(ii) to address any other unintended, injurious effects of the ASR activity; or
(iii) failure to maintain compliance with all conditions of this limited license.

(C) The Department may offer an additional public comment opportunity consistent with the notice and comment provisions of OAR 690-350-020 prior to modifying the limited license.

5) Priority/Protection. This limited license does not receive a priority date and is not protected under ORS 540.045

6) Compliance with Other Laws. The injection of acceptable water into the aquifer as well as its storage and recovery under this limited license shall comply with all applicable local, state or federal laws. This shall include but not be limited to compliance with the Oregon Department of Environmental Quality's (DEQ's) Underground Injection Control registration program as authorized under the Safe Drinking Water Act (40 CFR 144.26). Also, all pilot test discharges to waterways must be covered by a DEQ National Pollution Discharge Elimination System (NPDES) permit.

7) Additional Testing Plans. Detailed Testing Plans. The licensee shall submit a detailed plan of testing for each injection well as the project develops. The licensee shall obtain Department approval of a detailed plan before injection testing at a well may begin. The Department may approve, condition, or reject a detailed plan.

8) Water Quality Conditions and Limits:

(A) The licensee shall minimize, to the extent technically feasible, practical and cost-effective, the concentration of constituents in the injection source water that are not naturally present in the aquifer;

(B) Except as otherwise provided in (C) of this condition, if the injection source water contains constituents regulated under OAR 333-61-030 (ORS 448.131 and .273) or OAR 340-40 (ORS 468B.165) that are detected at greater than 50 percent of the established levels (MCLs or MMLs in the cited rules), the licensee shall employ technically feasible, practical and cost-effective methods to minimize concentrations of such constituents in the injection source water;

(C) Constituents that have a secondary contaminant level or constituents that are associated with disinfection of the injection source water may be injected into the aquifer up to the standards established under OAR 333-61-030 (ORS 448.131 and .273);

(D) The Department may, based upon valid scientific data, further limit certain constituents in the injection source water if the Department finds that those constituents will interfere with or pose a threat to the maintenance of the water resources of the state for present or future beneficial uses;

(E) If during the course of ASR testing, a constituent which is regulated under OAR 333-61-030 (ORS 448.131 and .273) or OAR 340-40 (ORS 468B.165) is detected above the 50% level prescribed in condition (8)(B) or the 100% level prescribed in condition (8)(C), the licensee shall immediately stop injection activities upon receipt of lab data and notify the Department within five days;

9) Water Quality Sampling.

(A) Injection Water. The licensee shall sample and analyze injection water for the constituents regulated under OAR 333-61-030 (ORS 448.131 and .273) or OAR 340-40 (ORS 468B.165) as well as other constituents as described in the pilot test plan dated December 2005.

(B) Wells. The licensee shall sample receiving aquifer water at the well prior to any storage at the well. The licensee shall sample for the constituents regulated under OAR 333-61-030 (ORS 448.131 and .273) or OAR 340-40 (ORS 468B.165) as well as other constituents as described for wells in the pilot test plan dated December 2005.

(C) Withdrawal of Stored Water. The licensee shall analyze water withdrawn from storage for the constituents regulated under OAR 333-61-030 (ORS 448.131 and .273) or OAR 340-40 (ORS 468B.165) as well as other constituents as described in the pilot test plan December 2005 and OAR 690-350-020(3)(b)(F)(iv).

10) Water Level Monitoring. The licensee shall monitor water levels in wells in the manner described in the pilot test plan dated December 2005. The licensee shall submit a detailed water level monitoring plan for testing at each subsequent injection well.

11) Recovery. The availability of stored water for recovery is based on the following factors:

(A) Available stored water is determined on a well-by-well basis. The licensee may recover up to 95% of the quantity injected under this limited license during the water year that the water was injected. After that water year, the availability of stored water shall be further diminished each water year such that the licensee may only recover up to 95% of any water year-to-water year storage carryover. (For example, water year 2006 lasts from October 1, 2005 through September 30, 2006.) (Data collected by the licensee may be useful in consideration of modifications to this recovery provision under the limited license.)

(B) Any water withdrawn from an ASR well identified in this limited license shall first be debited against the quantity available in the aquifer by virtue of ASR storage. When the ASR storage is depleted at an ASR well, any water withdrawn from an ASR well shall be considered a draft of natural ground water, requiring separate or additional authorization. This limited license does not authorize withdrawal of more water than was available from injection.

(C) The availability of stored water is a running account that is subject to determination at any time.

12) Reporting. Except as otherwise noted, the licensee shall provide the Department a written report of the results of ASR testing for each water year by February 15th of the following water year. The first report shall be due in 2007 and include results from water year 2006. The report shall detail the several kinds of data collected during the water year (including the water quality results in condition 9), analyze those data to show the ASR project impacts on the aquifer, indicate the testing/development progress made under the terms of the limited license, and account for the injection of stored water, withdrawals of stored and natural water, and the new-year carryover storage at each well.

13) Protection for Existing Users. In the event of conflicts with existing appropriators, the licensee shall conduct all testing so as to mitigate the injurious effects. In addition, the licensee shall cooperate with the efforts of the Department to protect existing water rights and the water quality of existing users that rely upon the receiving aquifer and the injection source water.

14) Use of Recovered Water. The licensee shall use any recovered water for the use allowed in the diversion authorization. Specifically, the licensee shall use any recovered water for the purposes described in the appropriate diversion authorization.

15) Periodic Meetings. The licensee shall alert the Ground Water/Hydrology Section of the Department of the meetings of the licensee's technical review group of the ASR project in order that Department staff may attend and track the periodic progress of the testing project.

16) Additional Conditions on an Informal Basis. The Department may suggest additional conditions to the licensee. Provided that those conditions are agreed to and undertaken by the licensee, the Department may forego formal changes to this license. This informal process does not extend to condition reductions. These additional conditions may be part of any license renewal or permit.

17) Publicity. The licensee shall maintain a public information program about the ASR project, which may include press releases, neighborhood meetings, brochures, or other activities. This program shall include information on potential project impacts and how to report possible impacts to the licensee. The licensee shall share such reports with the watermaster within five days of receipt.

18) Other Measures. The licensee shall take any additional measures appropriate to address the ASR-related issues of landslide activation, seepage, streamflow increases, aquifer boundary determination, aquifer storage efficiency, and water quality protection so that these issues can be addressed during review of the ASR permit application.

19) Carryover Storage. At the end of testing under this limited license, the licensee shall provide an accounting to the Department of the residual stored water based on the methods of determination given in this license. The Department shall consider this residual for carryover to a permanent ASR permit based on information which discloses the aquifer's ability to retain stored water.

This license is issued with proper conditions upon finding that:

i) The proposed ASR testing will not impair or be detrimental to the public interest;

ii) The proposed ASR testing will produce information that will adequately describe the water quality and quantity response in the aquifer and at nearby wells and springs due to ASR activities; and

iii) The proposed use will not expand use under an existing water right.

This license shall be in effect beginning April 28, 2006, and shall expire April 28, 2011.

WITNESS my hand this 28th day of April, 2006.

Water Resources Department
for Phillip C. Ward
Director