

Oregon Water Resources Department
Water Conservation, Reuse and Storage Grant Program
Evaluation for September 2, 2008 Applications

APPLICANT:	Pacific Hydro-Geology, Inc.		
STUDY TYPE:	Storage Other Than Above-Ground (including Aquifer Storage and Recovery [ASR])		
APPLICATION NO.:	GB0033 09		
STUDY NAME:	Mt. Angel Area Aquifer Storage and Recovery Feasibility Study		
BASIN:	Willamette	WRD DISTRICT:	16
WRD FUNDS REQUESTED:	\$46,616	TOTAL COST:	\$93,232

APPLICATION DESCRIPTION:

In response to the declining groundwater levels in the Mt. Angel area, Dickman Farms, Kraemer Farms, Kraemer's Nursery, and Fessler Nursery have implemented conservation to save water and stabilize the aquifer so that their 5-year renewable water right permits may be renewed. Their conservation efforts have not been adequate to stabilize the water levels within the Mt. Angel Ground Water Limited Area.

This planning study focuses on evaluating the feasibility of using Aquifer Storage and Recovery (ASR) as an alternate source of water along Zollner Creek, Abiqua Creek and Butte Creek, which will use infiltration galleries constructed next to the streams to pre-treat water to meet drinking water standards. A shallow alluvial aquifer as also been identified as a source of water for one of the associated projects.

This study is designed to provide information that will meet the requirements for ASR limited licenses, and will adequately describe the response of the aquifer system during the testing phase. The study has been divided into five tasks that include a hydrogeology report, water quality testing, water compatibility analysis, water level monitoring and two annual reports.

APPLICATION REVIEW TEAM EVALUATION:

The Application Review Team discussed whether this study was a pure study rather than a feasibility analysis. The team concluded that it was a feasibility study because it is difficult to know if Aquifer Storage and Recovery will work until doing a pilot test, and a pilot test could be part of a feasibility study. The study proposes to evaluate the feasibility of using bank filtration for treating water for ASR. This approach has successfully been used in areas outside of Oregon, but has not been used here.

The team would have liked more details about how the study would be conducted. There were also some technical assumptions with which the team was not entirely comfortable. For example, the assumption that the aquifer parameters at one irrigation well could be assumed to apply to the three others wells in the proposed study. Nonetheless, the team recognized that if the pilot test proved successful it would demonstrate a low cost, effective water treatment method for agricultural underground storage.

The study is a priority for funding under SB 1069 because it is identified on the Department's statewide water assessment and inventory of potential conservation opportunities. The study could begin immediately and be completed by December 2010.

Application Review Team Funding Recommendation: Do Fund: Contingent on Adequate Funding. If funds are available, fund at \$46,616.

COMMENTS:

None received.

RECOMMENDATION:

Do Not Fund.