

Texas Water Development Board
Water-Level Recorder Data in Every Texas County
SEP No. 2014-05

Project Description

This Project will extend the Texas Water Development Board's ("TWDB") existing groundwater level monitoring network by funding the installation and maintenance of automatic real-time groundwater level recorders in every Texas county. The data generated from the extended network will be made available to the public to provide awareness of the effects of drought on Texas' minor and major aquifers and assist in groundwater management planning at the local and statewide level.

TWDB's existing groundwater level monitoring network consists of one hundred eighty-four automatic water-level recorder wells in eighty Texas counties, with plans to install recorders in eight additional counties by Spring 2015. An automatic groundwater level recorder well is an unused water well that has been installed with water level recording equipment and a data logger. TWDB provides the real-time data generated by the existing network to the public via a website created by its Water Science and Conservation group, Water Data for Texas. In addition, TWDB publishes an annual report, Technical Note, which summarizes the groundwater conditions and changes based upon the data provided by the network. The data and reports are available; at <http://waterdatafortexas.org/groundwater/>. Currently, thirty-nine Texas cities and/or groundwater conservation districts rely upon the real-time data provided by TWDB's groundwater level monitoring network to assist in drought monitoring and groundwater management at a local level.

TWDB shall use SEP Funds to purchase, install, and maintain automatic water-level recorders in unused wells in the remaining one hundred sixty-six Texas counties. TWDB has identified nine counties where it would be beneficial to have two water-level recorders per county due to documented water-level declines and increased groundwater use. These counties include Brazos, Burleson, Collin, Collingsworth, Denton, Ector, Fort Bend, Midland, and Moore. Therefore, the total number of water-level recorders to be purchased, installed, and maintained for this Project shall be one hundred seventy-five. TWDB shall give preference to installing water-level recorders initially in counties in which there are (1) no existing automatic water-level recorder wells, (2) no groundwater conservation districts, or (3) groundwater conservation districts that do not have the staff and/or the financial ability to install an automatic water-level recorder. Upon installation of water-level recorders in all counties that meet those conditions, TWDB shall begin installing water-level recorders in the remaining counties until there is an automatic water-level recorder well in every Texas county.

TWDB shall not begin installation of water-level recorder equipment at an unused well for the purpose of implementing this Project until it has received permission from the owner(s) of the well to conduct water-level monitoring activities. All of the data generated in furtherance of this Project shall be transmitted through TWDB's Geostationary Operational Environmental Satellite system and made available to the public via the Water Data for Texas Website.

Environmental Benefit

The groundwater stored within Texas' minor and major aquifers is an important natural resource that is relied upon to meet the water supply demands of Texans across the state. Many factors affect the availability of this resource including drought and increased demand. This Project will provide statewide comprehensive real-time groundwater level data to Texas counties, cities, groundwater conservation districts, water supply companies, and individual well owners. The availability of this comprehensive data will promote awareness of the effects of drought on Texas' aquifers and assist in groundwater management planning and use throughout the state.

Eligible Areas and Counties

Statewide

Minimum Contribution Amount

\$500

Total Project Budget

\$997,500