

#### 1) Project Title:

Research Railroad Commission Records for Data Pertaining to Aquifer Exemptions

#### 2) Applicant Information:

Applicant Name: Railroad Commission of Texas

Address: Railroad Commission of Texas, 1701 N. Congress, P. O. Box 12967,  
Austin, Texas 78711-2967

Phone: 512-463-3011

Fax: 512-463-6780

Contact Name: David Hill, Manager, Injection-Storage Permits and Support

Email: [david.hill@rrc.texas.gov](mailto:david.hill@rrc.texas.gov)

Website: [www.rrc.texas.gov](http://www.rrc.texas.gov)

DUNS Number: 028619182

#### 3) Proposed Funding Amount:

\$39,000 for state identified priorities related to the state's UIC activities funded by the underground water source protection (section 1443(b)) of the Safe Drinking Water Act.

#### 4) Project Overview

The Railroad Commission of Texas seeks to improve the efficiency and effectiveness of its Class II Underground Injection Control (UIC) program through a research project to review historical data from approximately 10,000 Class II injection well permits granted from the date of primacy (April 23, 1982) to the present to identify and verify records for injection wells permitted to inject into zones that are both productive of hydrocarbons and possible Underground Sources of Drinking Water.

#### 5) Roles and Responsibilities

The Commission proposes to hire a geologist for 6 months with funding from the grant. The geologist will use the Commission's mainframe database, online well records, Groundwater Advisory Unit log library and water quality data, and historical hearings files. The geologist will be supervised by Railroad Commission staff in the Injection-Storage Permits and Support section.

#### 6) State Identified Priorities

The Railroad Commission administers that portion of the federal UIC program under the Safe Drinking Water Act relating to injection and disposal wells used for disposal of oil and gas wastes and enhanced recovery of oil and gas (Class II injection wells).

The Commission processes approximately 3,000 Class II injection well permits each year, and monitors the status and operations of over 56,000 permitted injection wells.

The national Class II inventory includes approximately 172,000 permitted injection wells. With approximately 33 percent of the national inventory of permitted injection wells and nearly 75 percent of EPA Region 6's permitted injection wells, the Railroad Commission's Class II program is by far the largest in the nation.

## Railroad Commission of Texas Multi-Purpose Grant Work Plan

At the time of EPA's approval of the Commission's Class II program on April 23, 1982, EPA granted aquifer exemptions for all existing zones into which injection was occurring prior to that date. Since that time, the Commission has issued Class II permits for injection wells in a handful of zones for which the injection interval and the producing interval is the same and contains water with a total dissolved solids concentration of less than 10,000 mg/l. The permits include fluid source limits to ensure that only water from that producing interval will be re-injected into the interval. This project will assist the Commission to verify that Class II injection well permits issued after April 23, 1982, do not authorize injection into underground sources of drinking water in zones that were not approved by the EPA on April 23, 1982.

The Commission proposes hiring a Geoscientist I for six months to perform this research project. The Commission will focus its recruiting efforts on recent geology graduates. The Commission anticipates a 6-month project will have a cost of \$39,000, as shown in the table below. This project will complement a separate project funded with UIC Special Project funds for FY 17 that will review historical information to evaluate reservoir and bottom-hole pressure data in certain areas where reservoir pressure may be of concern, such as certain areas in East Texas.

### 7) Timeline and Milestones:

At the conclusion of the grant period, the Commission will have an internally searchable dataset with information for injection wells for which the injection interval may be an Underground Source of Drinking Water. Research from this project will be used to update and enhance the Commission's data systems. Data compiled as a result of this project will be used internally as reference material when reviewing new and amended permit applications, and monitoring existing permitted injection wells. Updated datasets will also provide the general public with more accurate, detailed information through the Railroad Commission's online query system.

### 8) Project Locations:

The proposed project will primarily take place at the Commission's offices in Austin, Texas; however, the project will affect oil and gas producing areas across the entire state of Texas.

### 9) Anticipated Environmental Results and Outcomes:

The primary outcome of the proposed projects is to improve the information available for review when evaluating proposed Class II injection well applications and when monitoring existing Class II injection wells to enhance the Commission's ability to protect underground sources of drinking water. The proposed project will make available additional data related to injection wells for which the injection interval may be an Underground Source of Drinking Water. The development of an internally searchable dataset based on the research funded with this grant will provide an effective tool for future regulatory actions.

### 10) Reporting Requirements:

The Commission anticipates that its project will be complete within the grant year.

## Railroad Commission of Texas Multi-Purpose Grant Work Plan

The Commission will submit its final report to the EPA Project Officer within 90 calendar days of the completion of the project end date as identified on the award document. The final report will include a summary of the project, the problems, successes, and lessons learned from the project or activity, and any program income generated.

### 11) Budget Narrative and Details:

The Commission proposes hiring a Geoscientist I for six months to perform this research project (0.50 FTE). The Commission uses a rate 33.88 percent to calculate its fringe benefits, and has an approved negotiated indirect cost rate of 57.08 percent. The Commission's cognizant agency is the U.S. Department of the Interior.

**Table 1: Proposed Budget**

<b>FY 2017 Multi-Purpose Grant</b>	
<b>Salary</b>	<b>\$18,545</b>
<b>Fringe (33.88%)</b>	<b>\$6,283</b>
<b>Indirect (57.08%)</b>	<b>\$14,172</b>
<b>Total</b>	<b>\$39,000</b>