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Priority Groundwater Management Areas and Groundwater Conservation Districts, Report to the 80th Texas Legislature

Jointly Prepared by the

Texas Commission on Environmental Quality
Texas Water Development Board
Priority Groundwater Management Areas and Groundwater Conservation Districts, Report to the 80th Texas Legislature

Prepared by
Texas Commission on Environmental Quality
Texas Water Development Board

SFR-053/05
January 2007
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Published and distributed
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Texas Commission on Environmental Quality
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Executive Summary

This report provides information to the legislative leadership on activities undertaken during the preceding two years relating to the study and designation of priority groundwater management areas (PGMAs), the creation of groundwater conservation districts (GCDs), and the operation of districts. This report has been prepared by the Texas Commission on Environmental Quality (TCEQ) and the Texas Water Development Board (TWDB), with assistance from the Texas Parks and Wildlife Department (TPWD), the State Auditor's Office (SAO), and the Texas Cooperative Extension (TCE). The report fulfills the requirements of Texas Water Code, Section 35.018.

Priority Groundwater Management Area Program. Eighteen PGMA studies and three PGMA update studies have been completed to date. Two PGMA update studies are presently ongoing. Five PGMAs have been designated—three by TCEQ rules under previous statutory provisions, and two by TCEQ order. The study areas that have been designated as PGMAs include: (1) parts of Reagan, Upton, and Midland counties; (2) all of Swisher and parts of Briscoe and Hale counties; (3) part of Dallam County; (4) part of El Paso County; and, (5) all of Bandera, Blanco, Gillespie, Kendall, and Kerr and parts of Bexar, Comal, Hays, and Travis counties (Hill Country area). The TCEQ has determined that 10 of the PGMA study areas do not meet the criteria for designation and no further evaluation is planned.

Locally initiated district creation or additions of territory to existing district activities has occurred in four of the five previously designated PGMAs; however, areas remain in each PGMA that have not yet established a GCD. Successful district creation has not occurred in parts of Briscoe, Comal, Dallam, Midland, Swisher, Travis and Upton counties.

Actions have been completed for the new PGMA evaluation for the Hudspeth County Area. The executive director’s report and recommendations, Evaluation for the Hudspeth County Priority Groundwater Management Study Area, was completed and filed with the commission on June 17, 2005. In addition, two PGMA update studies were completed for the Cenozoic Pecos Alluvium aquifer in Loving, Reeves, Ward, and Winkler counties and the Edwards and Trinity aquifers in Burnet, Williamson, and northern part of Travis counties. The executive director’s reports and recommendations were completed and filed with the commission during the 2005-2006 biennium. Critical groundwater problems do not exist in these study areas at this time so PGMA designation is not warranted. TCEQ PGMA update studies are presently concluding to evaluate the Trinity aquifer in Central Texas and the Trinity and Woodbine aquifers in North-Central Texas. Both update studies are anticipated to be completed at the end of 2006.

Groundwater Conservation District Creation, Dissolution, and Consolidation. Seven new GCDs were created by special Acts of the 79th Legislature, 2005. These districts included the Corpus Christi Aquifer Storage and Recovery Conservation District (ASRCD), and the Central Texas, Duval County, Lower Trinity, San Patricio County, Starr County and Victoria County
GCDs. Creation of six of the seven GCDs is subject to voter confirmation. Out of these districts, three GCDs were confirmed during the biennium. One district, the Crossroads GCD, was dissolved in 2005 by the repeal of its enabling Acts and replaced with the Victoria County GCD with the same boundaries. With regard to district consolidation, the Dallam County Undergroundwater Conservation District No.1 was consolidated into the North Plains GCD in November 2004. No new districts were created by the TCEQ through either the landowner petition process or the PGMA process during the 2005–2006 biennium. As a result of these actions, a total of 90 GCDs have been created in the state. The total includes 87 established (confirmed) districts and three unconfirmed districts. The 87 established districts cover all or part of 132 of the state's 254 counties. Of the 87 established districts, 49 have been confirmed by the voters since the passage of Senate Bill 1 by the 75th Legislature, 1997.

The legislatively created Central Texas GCD in Burnet County was confirmed in September 2005. Also, in November 2005 the voters in Victoria County confirmed the Victoria County GCD. The Lower Trinity GCD was confirmed in November 2006 in both Polk and San Jacinto counties and defeated in Liberty County. One previously created GCD, the Brazoria County GCD, was also confirmed by the voters in Brazoria County.

Confirmation elections have not been held to determine creation of the Duval County, San Patricio County, or Starr County GCD. If the districts are not confirmed by the voters before September 1, 2007, the districts will be dissolved on September 1, 2007. Confirmation of the Lavaca County GCD in Lavaca County was defeated by voters in November 2001. Even though the District was authorized to conduct subsequent confirmation elections, the District did not hold or schedule subsequent elections and the Act creating the District expired on September 1, 2006. Also, a confirmation election was never scheduled or held for Lower Seymour GCD in Jones County to confirm the District and the Act expired on June 17, 2005.

**Groundwater District Management Planning and Implementation.** Texas Water Code, §36.1071, provides that each GCD must develop and adopt, in coordination with surface-water management entities, a groundwater management plan to address district goals. Once adopted, the plan must be approved for statutory completeness by the executive administrator of the TWDB. District implementation of the plan is subject to review by the SAO after one year. In addition, the TCEQ is required to take certain enforcement actions if a district does not adopt its plan within statutory deadlines, or if a district is determined by the SAO to be not operational in achieving the objectives of its approved plan.

Between January 2005 and November 2006, the TWDB approved seven new GCD management plans. Also during this time, the TWDB received and approved 11 GCD management plans that had been readopted by existing districts. The TWDB did not receive management plans from six districts whose plans were due for readoption during the biennium.

During the 2005–2006 biennium, only the Red Sands GCD did not comply with statutory deadlines to adopt a management plan and to submit the plan to the
TWDB for approval consideration. In the last and ongoing case, the District entered into a compliance agreement in November 2006 with management plan development, coordination, adoption, and submittal milestones. The District is scheduled to achieve compliance in early 2007.

During the 2005-2006 biennium, the SAO audited the Kinney County GCD. In January 2006, the SAO reported that the District achieved a majority of its groundwater management plan goals and was operational under the plan. To date, the SAO has reviewed plan implementation for 46 GCDs and has determined that 36 of the districts were operational in achieving the objectives of their management plans, nine districts were not operational, and one district plan could not be evaluated because of unclear objectives.

Since January 1999, 10 GCDs were referred to the TCEQ for noncompliance review based on the nonoperational findings contained in the SAO phase one through phase four reports. Two GCDs independently addressed compliance issues in response to the SAO nonoperational findings with only minor TCEQ intervention. Compliance agreements and various levels of TCEQ involvement were required to compel management plan implementation for the remaining eight referred GCDs. To date, seven of the GCDs have demonstrated compliance with the objectives of their management plans.

The Salt Fork Undergroundwater Conservation District did not meet the schedule and objectives of a May 2004 compliance agreement to implement its approved management plan. To date, the District has not demonstrated compliance in achieving its management plan objectives and the case is ongoing. In the 2005-2006 biennium, TCEQ closed the noncompliance review for the Dallam County UWCD No. 1 when the district consolidated with and became part of the North Plains GCD.

**Groundwater Management Issues.** During the biennium, the Office of the Attorney General (OAG) responded to requests for opinions for Bandera County River Authority and Groundwater District (Opinion Nos. GA-0337 and GA-0392), Clearwater UWCD (Opinion No. GA-0334), and Kinney County GCD (OR2005-10683). The agencies are not aware of any other recent OAG opinion requests specific to groundwater conservation districts or groundwater management as outlined and authorized under Texas Water Code, Chapters 35 and 36.

Over the interim, the Legislature Interim Committees held numerous hearings around the state to invite testimony and public input to identify the water management issues that should be addressed and to develop the appropriate recommendations for consideration by the 80th Legislature, 2007. The TCEQ and the TWDB respectfully defer recommendations regarding the management of groundwater supplies to the work of the Legislature Interim Committees.
Introduction

This report has been prepared for the 80th Legislature by the Texas Commission on Environmental Quality (TCEQ or Commission) and the Texas Water Development Board (TWDB), as required by Section 35.018 of the Texas Water Code. The introduction describes the purpose and scope of the legislative report and describes the interagency roles and coordination by which the provisions of Chapters 35 and 36 of the Texas Water Code are implemented.

Purpose and Scope

The purpose of the report is to provide updated information on the designation of priority groundwater management areas (PGMAs) and the creation and status of new groundwater conservation districts (GCDs or districts). The report describes state agency efforts to implement the groundwater management provisions of Chapters 35 and 36 of the Water Code. The report provides information on the implementation of the state's PGMA program and discusses state agency and local activities that have occurred in the designated PGMAs.

The report summarizes the Acts of the 79th Legislature, Regular Session, 2005, that generally and specifically affect the state’s GCDs. The report describes elections held for the confirmation of recently created groundwater conservation districts and the additions of territory into existing districts. The report provides information on district activities, including district adoption and TWDB approval of comprehensive groundwater management plans. The report describes State Auditor’s Office (SAO) management plan implementation reviews and TCEQ noncompliance review actions related to district management plan adoption or implementation. The report presents information on groundwater management areas (GMAs) and the new joint planning requirements in the GMAs. The report also presents information on educational programming that has been initiated by the state agencies and other entities, and in other areas where local governments or landowners have requested education on groundwater management and groundwater conservation district creation.

This legislative report is the fifth edition of a series that is prepared jointly by the TCEQ and the TWDB. The first four reports were presented to the 79th Legislature in 2005 (TCEQ, 2005), the 78th Legislature in 2003 (TCEQ, 2003), the 77th Legislature in 2001 (TNRCC, 2001), and the 76th Legislature in 1999 (TNRCC, 1999). The Texas Parks and Wildlife Department (TPWD), the Texas Cooperative Extension (TCE), and the SAO provided assistance in preparing these reports.

In addition, six previous reports on groundwater conservation districts and groundwater management issues have been prepared by the TCEQ’s predecessor agencies, the Texas Natural Resource Conservation Commission (TNRCC) and the Texas Water Commission (TWC). These reports, spanning the years 1985 to 1997, were presented to the 70th (1987) through 75th (1997) legislatures (TWC, 1987, 1989, 1991 and 1993; TNRCC, 1995 and 1997). These reports were prepared under Chapter 133 (General and Special Laws), Regular Session, 69th
Legislature, 1985, which was repealed and replaced with Section 35.018 of the Texas Water Code in 1997.

Interagency Coordination and Implementation

Several state agencies have responsibilities for and are involved in implementing the groundwater management plan requirements of the Water Code. The Texas Commission on Environmental Quality is responsible for delineating and designating PGMAs and creating groundwater conservation districts in response to landowner petitions or through the PGMA process. The TCEQ is also responsible for enforcing the GCD management plan adoption, approval, and implementation requirements of Chapter 36 of the Texas Water Code, and for providing technical assistance to groundwater districts, when requested.

The Texas Water Development Board provides technical and administrative support to groundwater districts in the development of their groundwater management plans, reviews and approves district management plans, performs PGMA water-availability and water-use studies at the request of the TCEQ, and is responsible for the delineation and designation of GMAs. For planning purposes, the TWDB determines values for managed available groundwater based on desired aquifer conditions developed by GCDs in common GMAs. The TWDB also provides financial assistance to GCDs for activities, including groundwater data collection, development and implementation of long-term management plans, and participation in regional water-planning efforts.

The Texas Parks and Wildlife Department is the state agency with primary responsibility for protecting the state’s fish and wildlife resources. The TPWD also conducts natural resource evaluations when requested by the TCEQ in the PGMA process and provides follow-up assistance as needed. The Texas Department of Agriculture may also provide input to the TCEQ for the purposes of PGMA evaluation.

The role of the Texas Cooperative Extension in the PGMA process is to provide educational opportunities to the public. The TCE is charged with conducting educational programs in designated PGMAs on the area’s water resources and the management options available for these resources. TCE has developed numerous groundwater management educational brochures, fact sheets, and videos, and has expanded the educational programming to all areas of the state in response to the needs of local governments and landowners.

The State Auditor’s Office is authorized to review district activities (with the assistance of the TCEQ, TWDB, and TPWD), to determine if a district is actively engaged in achieving the objectives of its management plan. The first review may be conducted after the first anniversary of the plan’s approval by the TWDB. Subsequent reviews may occur on a seven-year cycle after the initial approval of the plan, subject to risk-assessment basis. The SAO reports its findings to the TCEQ and the Legislative Audit Committee.
The Texas Alliance of Groundwater Districts (TAGD) is a nonprofit organization formed to further the purposes of groundwater conservation and protection activities. The TAGD’s membership is restricted to groundwater conservation districts in Texas that are responsible for the management of groundwater, as defined in Texas Water Code, Chapter 36. Members of TAGD serve on various local, state, and federal advisory groups and routinely assist the TCE and the state agencies through their participation in groundwater educational programming efforts.

A memorandum of agreement (MOA) was signed by the TCEQ, the TWDB, and the TPWD in September 1997 to implement changes mandated by Senate Bill 1 (SB 1, 77th Legislature, 1997). Regarding PGMA program planning and groundwater conservation district management planning, the purpose of the 1997 MOA was to develop time lines and procedures for required interagency meetings, reports, and rule development. These agreed actions were completed by the agencies in December 1997.

A second MOA regarding responsibilities of state agency groundwater management programs was signed in April 2001 by the TCEQ and TWDB. The purpose of the second MOA was to clarify agency communications regarding the creation of new groundwater conservation districts, the administrative approval of management plans for groundwater conservation districts by the TWDB, and TCEQ noncompliance review and enforcement actions if a district failed to submit or receive approval of its management plan.
Acts of the 79th Legislature Affecting Groundwater Conservation Districts

The Acts of the 79th Legislature, Regular Session, 2005, affecting groundwater conservation districts (GCDs) are described and tabulated in this chapter. These Acts include both special legislation creating new or amending existing GCDs, and legislation that affects the general law authority and therefore all GCDs.

Groundwater Conservation District Authority

Two Acts passed by the 79th Legislature made changes or additions to Texas Water Code (TWC), Chapter 36. Among the changes were related to GCD notice, hearing, rulemaking and permitting procedures and considerations, and management planning and joint management planning requirements for GCDs. The 2005 changes to GCD administrative procedures in Chapter 36 are briefly described in Table 1.

Table 1. Acts of the 79th Legislature Amending Texas Water Code, Chapter 36

<table>
<thead>
<tr>
<th>Act</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>HB 1763 (Chap. 970)</td>
<td>Amends the general law of the state relating to notice, hearing, rulemaking, and permitting procedures for GCDs and, management planning and joint management planning requirements for GCDs.</td>
</tr>
<tr>
<td>HB 2423 (Chap. 1116)</td>
<td>Amends general law to provide that GCD rules and permits may not discriminate between land that is irrigated for production and land that was irrigated for production and enrolled or participating in a federal conservation program; provides that any GCD permitting decision that makes this discrimination is void; and, provides the changes in law apply only to a rule adopted by a GCD or a permit issued or to an application filed pursuant to a rule adopted on or after the effective date of the Act.</td>
</tr>
</tbody>
</table>

District Procedural Changes

Chapter 970, 79th Legislature, Regular Session, 2005 (HB 1763) made several important changes to TWC, Chapter 36, to provide for consistent administrative procedures for GCDs. The Act added new Subchapter M, Permit and Permit Applications; Notice and Hearing Process. These new provisions, Sections 36.401 through 36.419, provide procedures for permit and permit amendment hearings, hearing notice, hearing registration, recording, continuance, reporting, and board and appeal actions. The Act also amended GCD rule adoption procedures in Section 36.101, added emergency rulemaking authority in Section 36.1011, clarified permit and permit amendment authority and procedures in Sections 36.113 and 36.114, and requires permits based on managed available groundwater in new Section 36.1132.
Plan Coordination

HB 1763 also made significant change to district coordination in GMAs. The presiding officers of GCDs in a GMA are now required to meet as a group and develop a goal for joint management planning on an annual basis. By September 1, 2010, and then every five years thereafter, the presiding officers of the GCDs in the GMA must consider Groundwater Availability Models (GAMs) and other data and establish the desired future conditions for relevant aquifers within the GMA. Different desired future conditions may be established for each aquifer, subdivision of an aquifer, or geologic strata; or each geographic area overlying an aquifer or subdivision of an aquifer. Each GCD must ensure that its management plan contains goals and objectives consistent with achieving the desired future conditions of the relevant aquifers as adopted in this joint planning process. The presiding officers must review GCD management plans in the GMA to consider the degree to which each plan achieves the desired future conditions for the common resources.

Groundwater Conservation District Creation And Dissolution

Seven new GCDs were created by special Acts of the 79th Legislature, 2005. The new GCDs were created in all or part of eleven counties and include the Corpus Christi Aquifer Storage and Recovery Conservation District (ASRCD), and Central Texas Duval County, Lower Trinity, San Patricio County, Starr County and Victoria County GCDs. Creation of six of the seven GCDs is subject to voter confirmation. The Act that creates the Victoria County GCD also repeals the special law for the Crossroads GCD with the same boundaries. Table 2 briefly describes creation and dissolution Acts of the 79th Legislature.

Table 2.  GCD Creation and Dissolution Acts of the 79th Legislature

<table>
<thead>
<tr>
<th>Act</th>
<th>Description</th>
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<tbody>
<tr>
<td>SB 0967</td>
<td>Creates, subject to a confirmation election, the Central Texas GCD in Burnet County and provides for the powers, duties, administration, operations</td>
</tr>
<tr>
<td>(Chap. 855)</td>
<td>and financing of the District. The Act authorizes the District with specific powers and duties and with the TWC, Chapter 36, related to the general law for Groundwater Conservation Districts. [Special District Local Laws Code, Chapter 8810.]</td>
</tr>
<tr>
<td>HB 3513</td>
<td>Creates the Corpus Christi Aquifer Storage and Recovery Conservation District in parts of Nueces, Kleberg, and San Patricio counties and provides for the</td>
</tr>
<tr>
<td>(Chap. 1324)</td>
<td>powers, duties, administration, operations and financing of the District. The Act authorizes the District with the powers and duties of TWC, Chapter 36, related to the general law for GCDs. The Act specifically provides that the District is created to develop and protect municipal aquifer storage areas created by the City of Corpus Christi. [Special District Local Laws Code, Chapter 8811.]</td>
</tr>
<tr>
<td>SB 1847</td>
<td>Creates, subject to a confirmation election, the Duval County GCD in Duval County providing for the powers, duties, administration, operations and financing</td>
</tr>
<tr>
<td>(Chap. 450)</td>
<td>of the District. The Act authorizes the District with specific powers and duties and with the TWC, Chapter 36, related to the general law for GCDs. [Special District Local Laws Code, Chapter 8808.]</td>
</tr>
<tr>
<td>Act</td>
<td>Description</td>
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</tr>
<tr>
<td>SB 1017</td>
<td>Creates, subject to a confirmation election, the Lower Trinity GCD in Liberty, Polk, and San Jacinto counties providing for the powers, duties, administration, operations and financing of the District. The Act authorizes the District with specific powers and duties and with TWC, Chapter 36, related to the general law for GCDs. [Special District Local Laws Code, Chapter 8807.]</td>
</tr>
<tr>
<td>HB 3568</td>
<td>Creates, subject to a confirmation election, the San Patricio County GCD in San Patricio County and provides for the powers, duties, administration, operations and financing of the District. The Act authorizes the District with specific powers and duties and with the TWC, Chapter 36, related to the general law for GCDs. [Special District Local Laws Code, Chapter 8817.]</td>
</tr>
<tr>
<td>SB 1848</td>
<td>Creates, subject to a confirmation election, the Starr County GCD providing for the powers, duties, administration, operations and financing of the District. The Act authorizes the District with specific powers and duties and with the TWC, Chapter 36, related to the general law for GCDs. [Special District Local Laws Code, Chapter 8803.]</td>
</tr>
<tr>
<td>HB 3423</td>
<td>Creates, subject to a confirmation election, the Victoria County GCD in Victoria County providing for the powers, duties, administration, operations and financing of the District. The Act authorizes the District with specific powers and duties and with the TWC, Chapter 36, related to GCDs. The Act repeals the special law for the Crossroads GCD in Victoria County. [Adds Special District Local Laws Code, Chapter 8812 and repeals Chapter 1332, 77th Legislature, R.S., 2001.]</td>
</tr>
</tbody>
</table>

**Amendments for Specific Groundwater Conservation Districts**

Thirteen Acts of the 79th Legislature made changes to authorities and responsibilities of existing groundwater conservation districts. Twelve Acts amended the enabling legislation for thirteen GCDs that were changed in some manner, and one Act required specific considerations by the GCD. Table 3 provides a brief description of these Acts.

**Table 3. Acts of the 79th Legislature Amending Specific GCDs**

<table>
<thead>
<tr>
<th>Act</th>
<th>Description</th>
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<tbody>
<tr>
<td>HB 0365</td>
<td>Amends the enabling legislation for the Coastal Bend GCD in Wharton County to change the biennial election day for directors from the first Saturday in May to the first Tuesday after the first Monday in November, and to provide the service terms for the present directors. [Amends Chapter 1294, 77th Legislature, R.S., 2001; Effective 09/01/05]</td>
</tr>
<tr>
<td>HB 1229</td>
<td>Amends the enabling legislation for the Menard County UWCD and the Menard County Water Control and Improvement District No. 1 to update references to general law authorities, to clarify that certain water wells are subject to permitting requirements, and to clarify incompatibility issues for the board of directors that serves both districts. [Amends Chapter 180, 72nd Legislature, R.S., 1991 and Chapter 31, Section 1A, 55th Legislature, 1st C.S., 1957; Effective 05/30/05]</td>
</tr>
<tr>
<td>Act</td>
<td>Description</td>
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<tr>
<td>------------</td>
<td>----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>HB 1981</td>
<td>Amends the enabling legislation for the Pineywoods GCD in Angelina and Nacogdoches counties to change the maximum fee rate for the amount of groundwater to be withdrawn from nonexempt wells from $0.01 to $0.025 per thousand gallons of water. The fee change would only apply to fees imposed after the effective date of the Act. [Amends Chapter 1330, 77th Legislature, R.S., 2001; Effective 06/18/05]</td>
</tr>
<tr>
<td>HB 1996</td>
<td>Amends the enabling legislation for the Wes-Tex GCD in Nolan County to clarify continued director service after census adjustment procedures, to move director elections from the uniform election date in May to the uniform election date in November of each even-numbered year, and to provide the terms for existing directors and the directors to be elected in November 2006 and November 2008. [Amends Chapter 1473, 77th Legislature, R.S., 2001; Effective 06/18/05]</td>
</tr>
<tr>
<td>HB 2423</td>
<td>Provides specific requirement for the Hudspeth County UWCD No.1 to amend its rules to not discriminate between land that is irrigated for production and land that was irrigated for production and enrolled or participating in a federal conservation program; provides that changes made to TWC, §36.002 and 36.101 apply to an application filed, but pending, or a permit decision that is not final with the district on the effective date of the Act.</td>
</tr>
<tr>
<td>HB 3478</td>
<td>Amends the enabling legislation for the Trinity Glen Rose GCD in Bexar County to provide that a municipality and municipally owned utility, as well as the residents of a municipality where greater than fifty percent of the water supply comes from a source other than the Trinity Group aquifer are not subject to District fees or taxes. [Amends Chapter 1312, 77th Legislature, R.S., 1989; Effective 09/01/05]</td>
</tr>
<tr>
<td>HB 3539</td>
<td>Amends the enabling legislation for the Saratoga UWCD in Lampasas County changing the board of directors to a board of five directors to be elected by the commissioners precinct method; providing for the terms of office, election dates, and candidate eligibility. The Act requires the commissioners court to appoint temporary directors and provides the terms of office for the temporary directors. [Amends Chapter 519, 71st Legislature, R.S., 1989; Effective 09/01/05]</td>
</tr>
<tr>
<td>SB 0839</td>
<td>Amends the enabling legislation for the Cow Creek GCD in Kendall County to authorize the District to assess annual, reasonable fees on certain domestic, livestock, or poultry use wells that are exempt from District permitting. [Amends Chapters 966 and 1349, 77th Legislature, R.S., 2001; Effective 06/18/05]</td>
</tr>
<tr>
<td>SB 0986</td>
<td>Amends the enabling legislation for the Wes-Tex GCD in Nolan County to clarify continued director service after census adjustment procedures, to move director elections from the uniform election date in May to the uniform election date in November of each even-numbered year, and to provide the terms for existing directors and the directors to be elected in November 2006 and November 2008. [Amends Chapter 1473, 77th Legislature, R.S., 2001; Effective 06/17/05]</td>
</tr>
<tr>
<td>SB 1537</td>
<td>Act amends the Special law for Harris-Galveston Subsidence District to fully provide the powers, authorities and duties of the District and removes all references for authority to TWC, Chapter 36. Sections 1 through 22 of the Act amends the enabling legislation for the District by renaming the district and by making changes to general provisions, district administration, powers and duties, regulatory provisions, and appeal and enforcement provisions. Sections 23 through 50 of the Act amends special law for the Fort Bend Subsidence District by making changes to general provisions, district administration, powers and duties, regulatory provisions, and appeal and enforcement provisions. [Amends Special District Local Laws Code, Chapter 8801 and Chapter 1045, 71st Legislature, R.S., 1989; Effective 05/27/05]</td>
</tr>
<tr>
<td>Act</td>
<td>Description</td>
</tr>
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<td>---------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>SB 1604</td>
<td>Amends the enabling legislation for the Neches and Trinity Valleys GCD to prohibit District fees on wells used for domestic, agricultural, or wildlife purposes and to provide that each appointed director serves at the pleasure of the political subdivision that made the appointment. [Amends Chapter 1387, 77th Legislature, R.S., 2001; Effective 09/01/05]</td>
</tr>
<tr>
<td>SB 1799</td>
<td>Amends the enabling legislation for the Bee GCD to remove the authorities, powers and duties of Texas Water Code, Chapter 49. [Amends Chapter 678, 75th Legislature, R.S., 1997; Effective 06/17/05]</td>
</tr>
<tr>
<td>SB 1870</td>
<td>Amends the enabling legislation for the Permian Basin UWCD in Martin and Howard counties to: provide that the board of directors will consist of no less than five and no more than nine directors; allow the number of board members to change when territory is added; provide that the board must consist of an equal number of directors from each counties and one director elected at large; validate certain actions; and provide the service terms for the board members. [Amends Chapter 408, 69th Legislature, R.S., 1985; Effective 06/17/05]</td>
</tr>
</tbody>
</table>
Priority Groundwater Management Area Program

To enable effective management of the state’s groundwater resources in areas where critical groundwater problems exist or may exist in the future, the Legislature has authorized the TCEQ, the TWDB, and the TPWD to study, identify and delineate priority groundwater management areas (PGMAs), and initiate the creation of GCDs within those areas, if necessary. “Critical groundwater problems” are defined as shortages of surface water or groundwater, land subsidence resulting from withdrawal of groundwater, or contamination of groundwater.

This chapter provides a brief overview of PGMA program activities that have been completed to date. The chapter also describes the status of GCD creation action in designated PGMAs and other present and pending PGMA activities to the 80th legislative session.

The PGMA process provided in Chapter 35 of the TWC is implemented by TCEQ rules that outline procedures for the designation of PGMAs and address issues related to the creation of GCDs in areas which have been designated as PGMAs. These TCEQ rules are contained in Title 30, Texas Administrative Code (TAC), §293.19 and §§294.41 - 293.44.

Background

Between 1987 and 1991, 16 PGMA studies (then known as “critical area” studies) were initiated and 14 were completed. The two unfinished PGMA studies were then completed in 1998, and an additional two new studies were initiated in 1999 and 2004 and completed in 2001 and 2005 respectively. These 18 PGMA study areas are shown in Figure 1 and information for each of the completed PGMA studies is presented in Table 4. The numbers referenced in parenthesis in the following text refer to each study area as labeled on Figure 1.

After evaluation, ten study areas were determined not to be PGMAs. These study areas included:

- Lower Rio Grande Valley Area (#7),
- Fort Bend County Area (#10),
- Orange-Jefferson Counties Area (#12),
- Wintergarden Area (#14),
- Southernmost High Plains Area (#15), and
- North Texas Alluvium and Paleozoic Outcrop Area (#16)
- East Texas Area (#6)
- Trans-Pecos Area (#8)
- Hudspeth County Area (#18)
- Williamson, Burnet and Northern Travis Counties (#1).
Figure 1. Priority Groundwater Management Study Areas

1. Williamson and Parts of Adjacent Counties
2. Hill Country Area
3. Reagan, Upton, Midland County Area
4. Briscoe, Swisher, Hale County Area
5. Central Texas Area
6. East Texas Areas
7. Lower Rio Grande Area
8. Trans-Pecos Area
9. Dallam County Area
10. Fort Bend County Area
11. North-Central Texas Area
12. Orange-Jefferson County Area
13. El Paso County Area
14. Wintergarden Area
15. Southernmost High Plains Area
16. North Texas Alluvium and Paleozoic Outcrop Area
17. Northern Bexar County Area
18. Hudspeth County Area
Table 4. Priority Groundwater Management Area Studies

<table>
<thead>
<tr>
<th>PGMA Study Area</th>
<th>(Figure reference location)</th>
<th>Major Aquifer(s)</th>
<th>Date Study Started</th>
<th>TCEQ or Executive Director Action</th>
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</thead>
<tbody>
<tr>
<td><strong>Study Areas Determined to be PGMAs and Designated by the TCEQ</strong></td>
<td></td>
<td></td>
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<tr>
<td>Hill Country Area</td>
<td>(Fig. 1 &amp; 2, Area 2)</td>
<td>Trinity</td>
<td>04/01/87</td>
<td>Designated on 06/06/90</td>
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<tr>
<td>Northern Bexar County Area</td>
<td>(Fig. 1, Area 17)</td>
<td></td>
<td>07/26/99</td>
<td>Designated on 01/24/01</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Added to Hill Country PGMA</td>
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<tr>
<td>Reagan, Upton and Midland County Area</td>
<td>(Fig. 1 &amp; 2, Area 3)</td>
<td>Edwards-Trinity</td>
<td>10/01/87</td>
<td>Designated on 06/13/90</td>
</tr>
<tr>
<td>Briscoe, Hale and Swisher County Area</td>
<td>(Fig. 1 &amp; 2, Area 4)</td>
<td>Ogallala</td>
<td>01/01/88</td>
<td>Designated on 06/06/90</td>
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<tr>
<td>Dallam County Area</td>
<td>(Fig. 1 &amp; 2, Area 9)</td>
<td>Ogallala</td>
<td>09/01/89</td>
<td>Designated on 06/06/90</td>
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<tr>
<td>El Paso County Area</td>
<td>(Fig. 1 &amp; 2, Area 13)</td>
<td>Hueco Bolson</td>
<td>01/29/98</td>
<td>Designated on 12/02/98</td>
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<tr>
<td><strong>Study Areas Determined Not to be PGMAs; No Further Evaluation Required</strong></td>
<td></td>
<td></td>
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<tr>
<td>Lower Rio Grande Valley Area</td>
<td>(Fig. 1, Area 7)</td>
<td>Gulf Coast</td>
<td>09/01/89</td>
<td>Decision made 09/19/90 (Commission)</td>
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<tr>
<td>Fort Bend County Area</td>
<td>(Fig. 1, Area 10)</td>
<td>Gulf Coast</td>
<td>09/01/89</td>
<td>Decision made 09/19/90 (Commission)</td>
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<tr>
<td>Orange-Jefferson Counties Area</td>
<td>(Fig. 1, Area 12)</td>
<td>Gulf Coast</td>
<td>09/01/89</td>
<td>Decision made 09/19/90 (Commission)</td>
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<tr>
<td>Wintergarden Area</td>
<td>(Fig. 1, Area 14)</td>
<td>Carrizo-Wilcox</td>
<td>10/04/90</td>
<td>Decision made 05/06/91 (Exe. Director)</td>
</tr>
<tr>
<td>Southernmost High Plains Area</td>
<td>(Fig. 1, Area 15)</td>
<td>Ogallala</td>
<td>01/07/91</td>
<td>Decision made 08/05/91 (Exe. Director)</td>
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<tr>
<td>N. TX Alluvium and Paleozoic Outcrop Area</td>
<td>(Fig. 1, Area 16)</td>
<td>Seymour, Blaine and Dockum</td>
<td>10/06/97</td>
<td>Decision made 08/31/98 (Exe. Director)</td>
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<tr>
<td>East Texas Area</td>
<td>(Fig. 1, Area 6)</td>
<td>Carrizo-Wilcox</td>
<td>12/23/98</td>
<td>Decision made 08/04/04 (Exe. Director)</td>
</tr>
<tr>
<td>Trans-Pecos Area</td>
<td>(Fig. 1, Area 8)</td>
<td>Cenozoic Pecos Alluvium</td>
<td>12/23/98</td>
<td>Decision made 05/01/05 (Exe. Director)</td>
</tr>
<tr>
<td>Hudspeth County Area</td>
<td>(Fig. 1, Area 18)</td>
<td>Hueco and West TX Bolsons</td>
<td>06/30/04</td>
<td>Decision made 06/17/05 (Exe. Director)</td>
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<tr>
<td>Williamson, Burnet and Northern Travis Counties</td>
<td>(Fig. 1, Area 1)</td>
<td>Edwards (BFZ) and Trinity</td>
<td>08/23/04</td>
<td>Decision made 01/09/06 (Exe. Director)</td>
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<tr>
<td><strong>Update Evaluations</strong></td>
<td></td>
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<tr>
<td>Central Texas (Waco) Area</td>
<td>(Fig. 1 &amp; 3, Area 5)</td>
<td>Trinity</td>
<td>07/08/05</td>
<td>Presently ongoing</td>
</tr>
<tr>
<td>North-Central Texas Area</td>
<td>(Fig. 1 &amp; 3, Area 11)</td>
<td>Trinity – Woodbine</td>
<td>08/04/05</td>
<td>Presently ongoing</td>
</tr>
</tbody>
</table>
Six study areas were determined to have, or were expected to have, critical groundwater problems and were designated as PGMAs. The designated PGMAs are shown alone in Figure 2 and include:

- Hill Country PGMA (#2),
- Reagan, Upton, and Midland Counties PGMA (#3),
- Briscoe, Hale, and Swisher Counties PGMA (#4),
- Dallam County PGMA (#9),
- El Paso County PGMA (#13), and
- Northern Bexar County Area (#17; added to Hill Country PGMA).

Two study areas were determined not to be PGMAs in the 1990s, but were identified as requiring monitoring and further assessment of the severity of identified groundwater problems during this time. These areas, shown in Figure 3, include:

- Central Texas (Waco) Area (#5),
- North-Central Texas Area (#11).

Agency PGMA study reports are listed by study area in Appendix 1. Maps showing the major and minor aquifers within the state, as referenced in Table 4, are provided in Appendix 2.

Groundwater conservation district creation activity has occurred in four of the five designated PGMAs. Between 1987 and 2004, eight districts were created through local initiative and confirmed by the voters in two of the designated PGMAs. Seven of the districts were created by legislative action and one was created by the TCEQ through the landowner petition process. Landowners within two of the other designated PGMAs have petitioned to join adjacent districts and large portions of these areas have been added into existing districts. Other locally-initiated efforts to establish GCDs in two of the designated PGMAs have been defeated by the voters on multiple occasions. During the 2005–2006 biennium, no GCDs were created or areas added to existing districts in any of the designated PGMAs. District creation status in the designated PGMAs is shown in Figure 2.
Figure 2. Designated Priority Groundwater Management Areas

- Designated Priority Groundwater Management Areas (PGMA)
- Hill Country PGMA (Includes Northern Bexar County Study Area)
- Reagan, Upton and Midland County PGMA
- Briscoe, Swisher, and Hale County PGMA
- Dallam County PGMA
- El Paso County PGMA

Area Within Designated PGMA Incorporated Into a Groundwater Conservation District
Update and New PGMA Studies

In 2002 and 2004, the executive director (TCEQ) and executive administrator (TWDB) agreed to evaluate and complete five update PGMA studies and one new PGMA study. During the 2005-2006 biennium, two update studies and the new study were completed. The executive director is nearing completion on the other two update studies at present.

Actions have been completed for the new PGMA evaluation for the Hudspeth County Area. The executive director’s report and recommendations, *Evaluation for the Hudspeth County Priority Groundwater Management Study Area*, was completed and filed with the commission on June 17, 2005. In the report, the executive director concluded that the Hudspeth County study area should not be designated as a PGMA at this time. Evaluation of available data indicated the problems identified in the area are not critical problems or region-wide in nature. Based on the available information, the study area has adequate water resources of sufficient quality to meet water demands for the next 25-year period. The executive director also concluded the identified water problems can be addressed by water suppliers and water users and development of alternative supplies, or through local initiative to establish a groundwater conservation district or districts. Notice of the report's completion and the executive director's recommendations was published on the June 17, 2005 issue of the *Texas Register*, and mailed to 74 study area water stakeholders. No motions to overturn the executive director's decision were received and TCEQ action regarding this study was finalized in July 2005.

Actions were completed for the update PGMA evaluation for the Trans-Pecos Area including Loving, Reeves, Ward, and Winkler counties. The executive director’s report and recommendations, *Updated Evaluation for the Trans-Pecos Priority Groundwater Management Study Area*, was completed and filed with the commission on March 21, 2005. In the report, the executive director concluded the Trans-Pecos study area should not be designated as a PGMA at this time. The report concluded that the available data indicated water is of sufficient quality in the study area to meet intended uses. Based on the criteria adopted by the Region F Water Planning Group, the report also concluded surface and groundwater supplies are sufficient to meet the present needs, and are projected to be sufficient to meet 25-year demands except for some irrigated agriculture and livestock watering. The water supply problems identified in the report are localized and are not study-wide problems. Notice of the report's completion and the executive director's recommendations was mailed to the study area stakeholders and published in the April 15, 2005 issue of the *Texas Register*. No motions to overturn the executive director's decision were received and TCEQ action regarding this study was finalized in May 2005.

Actions were completed for the update PGMA evaluation for Williamson, Burnet and Northern Travis counties. The executive director’s report and recommendations, *Updated Evaluation for the Williamson, Burnet and Northern Travis Counties Priority Groundwater Management Study Area*, was completed and filed with the commission on January 9, 2006. The report concluded that the study area water supplies are sufficient to meet intended and projected uses. The study area water purveyors have secured adequate water resources or are
presently working to secure adequate water resources to meet water demands for the next 25-year period. Most water supply concerns in the study area are addressed with surface water contract renewal, ongoing and continued water supply infrastructure expansion, and Carrizo-Wilcox aquifer development. Further, the report concluded that the study area is not experiencing and is not expected to experience within the next 25-year planning horizon critical groundwater problems. During the preparation of the executive director’s report, the Burnet County stakeholders commented that they greatly preferred a Burnet County-only GCD. A Burnet County-only GCD was created by the 79th legislature and Burnet County citizens voted to confirm the creation of the Central Texas Groundwater Conservation District on September 24, 2005. Notice of the report's completion and the executive director's recommendations was mailed to the study area stakeholders and published in the January 13, 2006 issue of the Texas Register. No motions to overturn the executive director's decision were received and TCEQ action regarding this study was finalized in February 2006.

In 1990, the Texas Water Commission (predecessor agency of the present TCEQ) completed water resource studies for the aquifers in the North-Central Texas (Dallas-Fort Worth) and Central Texas (Waco) areas (Figure 1), determined the areas did not meet the criteria to be designated as a PGMA, and requested the areas and the issues be studied and reconsidered again in the future. TCEQ efforts to reevaluate the two areas were started in 1998 and Texas Water Development Board (TWDB) and Texas Parks and Wildlife Department (TPWD) reports were completed in 1999. Shortly thereafter, the TCEQ chose to postpone the update efforts until the 2001 Regional Water Plans and the 2002 State Water Plan were completed. State law was subsequently amended in 2003 for TCEQ to complete the update PGMA studies.

Notice of the TCEQ North-Central Texas area update study was mailed to approximately 1,200 water stakeholders in the area in July 2005 to solicit input and water supply and management data. The draft report entitled Updated Evaluation for the North-Central Texas – Trinity and Woodbine Aquifers – Priority Groundwater Management Study Area addresses the requirements of state law and evaluates water quantity, quality, and management issues for the 20-county area (Figure 3). This report evaluates regional water resource issues and summarizes and evaluates data and information that has been developed over the past 15 years to determine if the area is experiencing, or is expected to experience within the next 25-year period, critical groundwater problems. For this study, TCEQ staff have considered data and information provided by the TWDB and the 2002 State Water Plan; stakeholders in the study area; the 2001 and 2006 Region B, C, Brazos G, and North East Texas Regional Water Plans; the TPWD; and, from independent research. The draft report for the North-Central Texas area update study was released for public consideration and comment in December 2006.

The TCEQ draft report concludes that past and continued overdevelopment of the Trinity and Woodbine aquifers from the continued urbanization of the area and new water demands threaten water supplies for rural domestic, municipal, and small water providers who depend on groundwater resources, and recommends that Collin, Cooke, Dallas, Denton, Ellis, Fannin, Grayson, Hood, Johnson, Montague, Parker, Tarrant and Wise counties should be designated as a PGMA.
The draft report concludes that critical groundwater problems are not occurring or projected to occur in Delta, Hunt, Kaufman, Lamar, Navarro, Red River or Rockwall counties, and recommends that these counties should not be designated as a PGMA. The draft report concludes that one or more GCDs created within Collin, Cooke, Dallas, Denton, Ellis, Fannin, Grayson, Hood, Johnson, Montague, Parker, Tarrant and Wise counties would have the necessary authority to address groundwater problems identified in the area. The draft report released for public comment recommends a regional, fee funded GCD for the preservation of the Trinity and Woodbine aquifers represents the most feasible, economic, and practicable option for the protection and management of the groundwater resources, and provides recommendations regarding the management and protection of groundwater resources within the area.

Notice of the TCEQ Central Texas area update study was mailed to approximately 532 water stakeholders in the area in October 2004 to solicit input and water supply and management data. For this study, TCEQ staff have considered data and information provided by the TWDB and the 2002 State Water Plan; stakeholders in the study area; the 2001 and 2006 Region F, Brazos G, and Lower Colorado River Region K Regional Water Plans; the TPWD; and from independent research. The study has been completed and TCEQ staff is presently developing recommendations for the draft report entitled Updated Evaluation for the Central Texas – Trinity Aquifer – Priority Groundwater Management Study Area.

The report will address the requirements of state law and evaluate water quantity, quality, and management issues for the 16-county Central Texas area (Figure 3). Water-level declines and associated reduction of artesian pressure caused by the historic and continued removal of water from aquifer storage are regional groundwater problems predominant in the area along the Interstate 35 growth corridor. The present use of groundwater exceeds or is near the water planning estimates of long-term reliable groundwater supply in several counties in the study area and the overdevelopment of aquifers and resulting water-level declines pose a potential threat to small water suppliers and domestic well users in rural areas. The draft report for the Central Texas area update study will be released for public consideration and comment.

Subsequent Actions. When the final reports are completed for the North-Central Texas and Central Texas update areas, the Executive Director will file the reports with the Chief Clerk of the TCEQ, mail copies of the reports to county clerks and public libraries in each county, and post the reports on the agency’s Internet homepage (http://www.tceq.state.tx.us/permitting/water_supply/groundwater/pmga.html). Within 30 days of filing the reports, the Executive Director will prepare a summary of report findings and recommendations, and note report availability. The summary will be mailed to the stakeholders and published in the Texas Register. TCEQ rules provide for the reports and recommendations to be referred to the State Office of Administrative Hearings (SOAH) to request a contested case hearing be conducted in both study areas. Notice of the SOAH hearing will be published in at least one newspaper with general circulation in the area and mailed to stakeholders at least 30 days before the date chosen for the hearing.
After the hearing, the SOAH administrative law judge will file a proposal for decision with the Chief Clerk of the TCEQ, and the Chief Clerk will set the issue for the three-member Commission of TCEQ to consider at a regularly scheduled public agenda hearing in Austin. If the TCEQ designates the recommended areas as a PGMA, the TCEQ will issue an Order and provide the Order to the commissioners courts of the affected counties, the Texas Cooperative Extension (TCE), and the adjacent GCDs. The Executive Director will then request an educational outreach program regarding groundwater management and GCD creation be initiated by the TCE and facilitated by the commissioners courts.

Following the issuance of a commission order under TWC, §35.008 designating a PGMA and recommending the creation of one or more districts, or the addition of land to an existing district, the landowners in the PGMA may: (1) create one or more districts by a landowner petition process; (2) have the area added to a district that adjoins the area; or (3) create one or more districts through the legislative process. If local action fails to create a district within two years in the designated PGMA, the TCEQ can take action to create a GCD pursuant to the PGMA Order.
Figure 3. Update and New PGMA Study Areas

Update PGMA Study Areas

1. Williamson and Parts Adjacent Counties
2. Central Texas Area
3. East Texas Areas
4. Trans-Pecos Area
5. North-Central Texas Area

New PGMA Study Area

6. Hudspeth County Area
Groundwater Conservation District Creation

A description of the GCDs that were created by the 79th Legislature and the status of confirmation elections during the 2005–2006 biennium are presented below and summarized in Table 5. Landowner efforts to add territory to existing districts are also discussed. The existing groundwater conservation districts are shown on Figure 4.

Confirmation of New Districts During the 2005–2006 Biennium

One previously created GCD, the **Brazoria County GCD**, was confirmed by the voters in Brazoria County on November 8, 2005. The district was created by Chapter 772, Acts of 78th Legislature, Regular Session, 2003 (HB 3602). The district was confirmed by a vote of 15,963 for; 2,350 against. Chapter 772 provides that the District may not impose a property tax, exercise eminent domain, acquire land, issue or sell bonds, or purchase, sell, transport, or distribute surface water or groundwater. Further, the Act provides the District may not impose a tax or fee of any type or require a meter on a water well on private property that is used only for personal or agricultural purposes or to otherwise benefit the land on which the well is located.

The **Central Texas GCD** with the boundaries including all of the Burnet County was created by Chapter 855, Acts of the 79th Legislature, Regular Session, 2005 (SB 967). Burnet County voters confirmed the District’s creation on September 24, 2005 by a vote of 2,258 for; 214 against, and authorized the directors to levy an ad valorem tax at a rate not to exceed $0.02 per $100 valuation. Currently, three initial and two permanent directors govern the district. According to the election date set by the legislature, an election will be held in May 2008 to replace the three initial directors with permanent directors who will serve four-year terms. Chapter 855 authorizes the District with specific powers and duties and with the Texas Water Code, Chapter 36. The District is prohibited from exercising the power of eminent domain.

The **Corpus Christi Aquifer Storage and Recovery Conservation (ASR) District** was created by Chapter 1324, Acts of the 79th Legislature, Regular Session, 2005 (HB 3513), and was not subject to a voter confirmation election. The Act creates the District in parts of Nueces, Kleberg, and San Patricio counties and provides for the powers, duties, administration, operations and financing of the District. The Act authorizes the District with the powers and duties of Texas Water Code, Chapter 36, related to the general law for GCDs. The Act specifically provides that the District is created to develop and protect municipal aquifer storage areas created by the City of Corpus Christi. The Act prohibits the District from imposing a tax, issuing bonds, or exercising the power of eminent domain. The Act provides the Corpus Christi City Council to appoint the board of directors of the District.

The **Victoria County GCD** in Victoria County was created by Chapter 661, Acts of the 79th Legislature, Regular Session, 2005 (HB 3423) and effectively replaces the enabling legislation for the **Crossroads GCD**. Unlike the Crossroads GCD, Victoria County GCD has an elected board of directors. The **Victoria County GCD** was confirmed by a vote of 7,362 for; 2,761 against on November 8, 2005.
The Commissioners Court of Victoria County appointed four temporary directors to represent each of the four commissioner precincts and one temporary director to represent the county at-large. The five temporary directors became the initial directors on the date the District was confirmed. According to the election date set by the legislature, an election should be held in November 2008 to replace the initial directors with permanent directors who will serve staggered four-year terms. Chapter 661 provides the District may not exercise the power of eminent domain, and also provides the District may not impose an ad valorem tax at a rate that exceeds $0.02 per $100 valuation of taxable property. The enabling legislation provides for the repeal of Chapter 1332, Acts of the 77th Legislature, Regular Session, 2001, the special law previously creating the Crossroads GCD in Victoria County.

The Lower Trinity GCD in Liberty, Polk, and San Jacinto counties was created, subject to a confirmation election, by Chapter 863, Acts of the 79th Legislature, Regular Session, 2005 (SB 1017). The District was confirmed on November 7, 2006 in both Polk and San Jacinto counties and defeated in Liberty County. Since the District was confirmed in two counties, two directors from each county shall be appointed by each county commissioner courts and one shall be appointed jointly by the two commissioner courts. Directors serve staggered three-year terms. Chapter 863 prohibits the district from imposing a tax, issuing any bonds or other obligations that pledge revenue derived from district taxation, or exercising the power of eminent domain. However, the Act authorizes the district to assess reasonable fees on each well in the district that is not explicitly exempted from regulation.

The Duval County GCD in Duval County was created, subject to a confirmation election, by Chapter 450, Acts of the 79th Legislature, Regular Session, 2005 (SB 1847). The Commissioners Court of Duval County appointed four temporary directors to represent each of the four commissioner precincts and one temporary director was appointed by the County Judge of Duval County to represent the county at-large. The Act authorizes the District with specific power to contract with municipal utility districts and other water-related entities. A confirmation election has not been held to date. If the creation of the district is not confirmed at a confirmation election held before September 1, 2007, the District is dissolved on September 1, 2007. The Act will expire on September 1, 2010 if the District is not approved by the voters by that time.

The San Patricio County GCD in San Patricio County was created, subject to a confirmation election, by Chapter 1178, Acts of the 79th Legislature, Regular Session, 2005 (HB 3568). The enabling legislation provides for the Commissioners Court of the San Patricio County to appoint five temporary directors to hold an election to confirm the creation of the district and elect seven initial directors. The District is authorized to levy an ad valorem tax at a rate not to exceed $0.05 per $100 assessed valuation of taxable property. A confirmation election is presently scheduled in May 2007. If the creation of the district is not confirmed at a confirmation election held before September 1, 2007, the District is dissolved on September 1, 2007. The Act will expire on September 1, 2010 if the District is not approved by the voters by that time.

The Starr County GCD in Starr County was created, subject to a confirmation election, by Chapter 451, Acts of the 79th Legislature, Regular Session, 2005
(1848). The Commissioners Court of Starr County appointed four temporary directors to represent each of the four commissioner precincts and one temporary director was appointed by the County Judge of Starr County to represent the county at-large. Chapter 451 authorizes the District with specific power to contract with municipal utility districts and other water-related entities, and to enter into a merger agreement with water supply or sewer service corporations. A confirmation election has not been held to date. If the creation of the district is not confirmed at a confirmation election held before September 1, 2007, the District is dissolved on September 1, 2007. The Act will expire on September 1, 2010 if the District is not approved by the voters by that time.
<table>
<thead>
<tr>
<th>Enabling Legislation (Chapter Listed)</th>
<th>District Name</th>
<th>County (s)</th>
<th>Confirmation Election</th>
<th>Board of Directors</th>
<th>District Comments</th>
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<tr>
<td>SB 0967, 79th Leg. (855)</td>
<td>Central Texas GCD</td>
<td>Burnet</td>
<td>9/24/2005 2,259/214 Confirmed</td>
<td>Initial; Permanent</td>
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<td>HB 3513, 79th Leg. (1324)</td>
<td>Corpus Christi ASR CD</td>
<td>Nueces, Kleberg, and San Patricio</td>
<td>NOT required NOT required Created</td>
<td>Appointed; Initial</td>
<td>District confirmation was not required by the Act.</td>
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<td>SB 1831, 79th Leg. (897)</td>
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<td>SB 1847, 79th Leg. (450)</td>
<td>Duval County GCD</td>
<td>Duval</td>
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<td>Appointed; Temporary</td>
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<tr>
<td>SB 1017, 79th Leg. (863)</td>
<td>Lower Trinity GCD</td>
<td>Polk and San Jacinto</td>
<td>11/07/06 Confirmed</td>
<td>Appointed; Temporary</td>
<td>Confirmation election failed in Liberty County</td>
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<td>HB 3568, 79th Leg. (1178)</td>
<td>San Patricio County GCD</td>
<td>San Patricio</td>
<td>05/12/07 NA NA</td>
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<td>SB 1848, 79th Leg. (451)</td>
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<td>HB 3423, 79th Leg. (661)</td>
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Notes:
1. Chapter citation in Laws of Named Legislature, Regular Session.
2. Indicates method of director selection and board status.
3. Boundaries of district include Corpus Christi City limit and any other land owned or leased.
4. District will be dissolved on September 1, 2007, if the district is not confirmed by the voters.
Addition of Territory to Existing Districts

On November 12, 2004, landowners in Tom Green County petitioned the board of directors of the Irion County Water Conservation District (WCD) to add their land to the District. The board of directors approved the petition on November 15, 2004 and a total of 16,000 acres added to the District.

A petition was made to add territories in Hardin and Tyler counties to the Southeast Texas GCD. An election was held on November 8, 2005 in Hardin and Tyler counties. The board of directors of the District canvassed the election results and declared the result on November 17, 2005. Tyler County was added to the District by a vote of 1,429 for; 709 against. Also, Hardin County citizens voted to add the territory to the District by a vote of 3,507 for; 1,317 against.

On May 8, 2006, landowners in Colorado County petitioned the board of directors of the Coastal Bend GCD to add their property to the District. A total of 819 contiguous acres of land was added to the District. The board of directors approved the petition and voted to add the land to the District on May 9, 2006.

The King Ranch, Inc. petitioned the Kenedy County GCD on August 23, 2006 to add tracts of land in Brooks and Willacy counties. The board of directors of the District accepted the petition on August 24, 2006, and the tracts of land will be added to the District when final documentation is filed. The tract of land containing 9,450 acre in Willacy County, and the tract of land containing 77,329 acre in Brooks County are both contiguous to the District.

District Consolidation

District consolidation took place in the biennium for the first time since the consolidation provisions were added to the general law.

The Dallam County UWCD No.1 held an election for the consolidation of their District on November 2, 2004. The board of directors of the North Plains GCD then canvassed the election results and declared the result on November 12, 2004 to consolidate the Dallam County UWCD No.1 into the North Plains GCD. A public hearing was held in the North Plains GCD on November 23, 2004 on the terms and conditions of consolidation of the districts. On November 23, 2004 the Dallam County UWCD No.1 was consolidated into the North Plains GCD.

Failed District Creations

Between 1989 and 2004, seven legislatively created groundwater conservation districts and two commission-created districts failed confirmation elections. Additionally, the Act creating one district was repealed for failure to conduct a confirmation election within a specified time frame. All of the GCDs that have failed confirmation elections since 1989 are described in Table 6.

In the biennium, three GCDs failed confirmation of their district creation. The Crossroads GCD in Victoria County held a confirmation election that was defeated by voters in November 2001. Under its enabling Act, the District was authorized to conduct subsequent confirmation elections. The District was
dissolved on September 1, 2006 by Chapter 661, Acts of the 79th Legislature, Regular Session, 2005 (HB 3423). This Act repealed Chapter 1332, Acts of the 77th Legislature, Regular Session, 2001, the special law ratifying and governing the Crossroads GCD in Victoria County, and created the Victoria County GCD.

The Lavaca County GCD in Lavaca County held a confirmation election and was defeated by the voters in November 2001. Under its enabling Act, Chapter 1360, Acts of the 77th Legislature, Regular Session, 2001 (HB 3652), the District was authorized to conduct subsequent confirmation elections. No subsequent elections were scheduled or held and the Act creating the District expired on September 1, 2006.

The Lower Seymour GCD in Jones County was created, subject to a confirmation election, by Chapter 1471, Acts of the 77th Legislature, Regular Session, 2001 (HB 3642). The Act named the temporary directors who were responsible for scheduling and conducting the District's confirmation and initial director's election. The Act provided initial and permanent directors would be elected according to the commissioner's precinct method. A confirmation and initial director's election was never scheduled or held and the Act expired on June 17, 2005.
Table 6. Failed GCDs (Since 1989)

<table>
<thead>
<tr>
<th>District</th>
<th>Method of Creation</th>
<th>Confirmation Election</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Bill, Legislature, Year, Chapter Listed</td>
<td>County(s)</td>
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<tr>
<td>Lavaca County GCD¹</td>
<td>HB 3652 77th 2001, 1360</td>
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<tr>
<td>Crossroads GCD²</td>
<td>HB 2643 77th 2001, 1332 966</td>
<td>Victoria</td>
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<tr>
<td>Lower Seymour GCD³</td>
<td>HB 3642 77th 2001, 1471</td>
<td>Jones</td>
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**Failed Prior to 2005–2006 Biennium**

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<td>Bill, Legislature, Year, Chapter Listed</td>
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<td>Upshur County GCD</td>
<td>HB 3635 78th 2003, 1161</td>
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<td>Southeast Trinity GCD⁴</td>
<td>HB 2855 77th 2001, 1335 966</td>
<td>Portion of Comal County within the Hill Country PGMA</td>
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<tr>
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<td>HB 2348 78th 2003, 666</td>
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<td>Landowner Petition Under Water Code, Chapter 36 Created by Commission Order, 2002</td>
<td>Wood</td>
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<td>Post Oak GCD⁵</td>
<td>HB 1136 77th 2001, 303</td>
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<td>HB 3590 75th 1997, 1451</td>
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<td>Oldham County UWCD</td>
<td>SB 1714 74th 1995, 720</td>
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<td>Portion of Comal County within the Hill Country PGMA</td>
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<td>Rolling Plains UWCD</td>
<td>HB 2820 73rd 1993, 1027</td>
<td>Borden, Mitchell, Scurry</td>
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<td>Llano Uplift UWCD</td>
<td>HB 1491 73rd 1993, 301</td>
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<td>Central Texas UWCD</td>
<td>HB 3099 71st 1989, 514</td>
<td>Burnet</td>
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</table>

Notes:
1. District was authorized by special law to hold subsequent confirmation elections until its Act expired on September 1, 2006.
2. District was dissolved by House Bill 3423 of the 79th Legislature, 2005, and created the Victoria County GCD in the same County.
3. **District did not hold a confirmation election within its allotted time frame, and the opportunity to create the district expired on June 17, 2005.**

4. **District was authorized by Chapters 966 and 1335, Acts of the 77th Legislature, Regular Session, 2001, to hold subsequent elections after a one-year period if initial confirmation was defeated by the voters. Chapter 666, Acts of the 78th Legislature, Regular Session, 2003, repealed the enabling Acts thus dissolving the District.**

5. **District was authorized by Chapter 303, Acts of the 77th Legislature, Regular Session, 2001, to hold subsequent election after a one-year period if initial confirmation was defeated by the voters. The November 2001 and 2002 elections were defeated, and Chapter 303 and the District expired on September 1, 2003.**
District Activities and Planning

This chapter outlines the activities and management planning activities of existing GCDs and in groundwater management areas. State agency activities related to GCDs and groundwater management areas including management plan development and approval, implementation, and compliance with planning requirements are discussed. An update on groundwater management areas is included along with technical assistance to GCDs and educational programming efforts.

Activities of Existing Districts

Chapter 36 of the TWC requires that each GCD develop and implement a management plan for effective management of its groundwater resources. The management plan identifies the programs and activities to be implemented or accomplished by the district. Each GCD plans its activities according to rules and goals developed and adopted by the locally governed board. The information presented in Table 7 is a summary of activities listed in a district’s groundwater management plan or from the district rules. An “X” in the table indicates that the district describes in their management plan some component of the following activities:

Water Quality Monitoring and Protection. The district implements a program for analyzing water quality or other parameters for protecting groundwater. The programs may include providing water sample collection, field analyses, and laboratory services.

Aquifer Storage Monitoring. The district has established a network of observation wells to monitor changes in groundwater storage in an aquifer. The water levels in individual wells in the network are measured on a regular basis.

Water Well Inventory. The district maintains an inventory of water wells within its boundaries. This inventory may be used to create a database to monitor the development of the aquifer and to provide information for future aquifer investigations.

Well Spacing, Permitting, and Construction. Through adoption of rules, the district may require permits for new wells or regulation of wells. Requirements may include well location and spacing restrictions, permit requirements, well construction standards, and production regulations. Authority for well location and spacing, permit requirements, and production regulations rest solely with the district. Well construction standards may be established by each district, but the districts often refer to regulations established by the Texas Department of Licensing and Regulation’s (TDLR) Water Well Drillers Program.

Education/Public Outreach. The district may provide pamphlets, newsletters, videos, newspaper articles, scholarships, workshops, reports, public meetings and hearings, and classes emphasizing water conservation principles and encouraging efficient groundwater use. The districts may also maintain an information booth at local or regional agricultural events promoting irrigation programs and domestic efficiency programs. In districts with weather modification programs, local tours demonstrating project equipment may be provided to the public.

Water Conservation. The district may address improving irrigation efficiency by funding loans, encouraging conservation practices through educational programs,
performing irrigation efficiency evaluations, conducting pivot flow test, and providing mapping and leveling equipment. The district may provide guidance and rules for identifying and regulating wasteful practices regarding groundwater use. Many districts rely on public input and cooperation to identify potential wasteful practices and resolve incidents of groundwater waste. Possible projects may include water metering, developing drought management and conservation plans, and establishing triggers for implementing drought and conservation plans.

**Waste Oil Recycling.** The district organizes and/or operates and monitors used oil and oil filter collection centers.

**Cooperative Surface Water Programs.** Surface-water programs may include surface-water quality monitoring, coordination with surface-water management entities, and creation of maps showing surface-water quality. Some districts attend public meetings of the surface-water entity in their district.

**Transporting Groundwater.** District rules may impose limitations on or outline requirements for the transport of groundwater extracted from wells within the district to out-of-district users.

**Grants and Loan Applications.** TWDB provides districts with the opportunity to take advantage of three-year loans to be used for initial expenses, funded from the Groundwater District Loan Program. TWDB provides low-interest agricultural water conservation loans to GCDs that in turn provide small loans to individual irrigators who purchase efficient or water conserving irrigation equipment with the funds. TWDB also awards grants for projects that will help implement strategies in the regional and state water plans. In addition, there is a joint effort between TWDB and GCDs, funded partially by the TWDB, to meter irrigation water use.

**Special Projects and Research.** Special projects and research include modeling groundwater, recharging aquifers through infiltration or injection, measuring land subsidence, producing groundwater level maps, and enhancing recharge through weather modification programs. Projects may involve cooperative funding through federal, state, or local entities.
Table 7. District Activities

<table>
<thead>
<tr>
<th>District Name</th>
<th>Water Quality Monitoring and Protection</th>
<th>Aquifer Storage Monitoring</th>
<th>Water Well Inventory</th>
<th>Well Spacing Permitting and Construction</th>
<th>Education / Public Outreach</th>
<th>Water Conservation</th>
<th>Waste Oil Recycling</th>
<th>Cooperative Surface Water Program</th>
<th>Groundwater Export Rules</th>
<th>Grants and Loan Applications</th>
<th>Special Projects and Research</th>
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Notes:

Shading indicates district management plan has not been adopted/certified by October 6, 2006. Tabulated activity analysis from certified management plans.

Districts that have not been confirmed by election are not included in table.
Groundwater Management Plans

Texas law requires each GCD to develop, in coordination with surface water management entities, a comprehensive management plan addressing the groundwater management goals, management philosophy, and rules of the district. TWC, §36.1071 delineates the required content of a groundwater management plan and the associated approval process by the TWDB. In 2005, HB 1763 expanded the conservation management goals and added addressing the desired future condition of an aquifer and resulting managed available groundwater quantitatively for a management plan to be considered administratively complete.

As provided in TWC, §36.1071, groundwater management goals that must be addressed by a district in its management plan include:

• providing the most efficient use of groundwater,
• controlling and preventing waste of groundwater,
• controlling and preventing subsidence,
• addressing conjunctive surface water management issues,
• addressing natural resource issues that impact the use and availability of groundwater and which are impacted by the use of groundwater,
• addressing drought conditions,
• considering conservation, recharge enhancement, rainwater harvesting, precipitation enhancement, brush control, where appropriate and cost-effective, and
• defining, in a quantitative manner, the desired future conditions of the groundwater resources in the district.

Development and Adoption of Plans

Each GCD develops its management plan according to requirements specified in TWC, §36.1071 and TWDB’s groundwater management plan approval rules (Title 31, TAC, Chapter 356). Districts may receive assistance for the development of the plan by contacting TWDB. The TWDB assists in plan development by providing:

• explanations of management plan content requirements,
• information on planning concepts,
• supporting data for groundwater and surface water estimates required in the plan, and
• technical assistance in developing required estimated recharge and groundwater flow values and plan language.

In an effort to provide the greatest efficiency of service to the districts, the TWDB provides much of the assistance by telephone, fax, and e-mail. If additional help is necessary and requested, TWDB staff either visit the district or meet with the district at TWDB offices.

Districts are offered the opportunity to submit draft management plans for an informal review by TWDB staff prior to adoption of the plan by the district’s board of directors. When these drafts are received, TWDB staff review the documents, note deficiencies with respect to administrative completeness, and send a completed checklist back to the
district. TWDB staff then contact the district to provide any additional assistance required for plan approval.

After the public adoption hearing, the district may submit the plan to the TWDB for administrative completeness approval. The district must provide TWDB a copy of any site-specific supporting data from the plan if requested. The TWDB is also required to review how the plan considers water management strategies for water supply needs from the adopted state water plan.

Plans received by the TWDB are logged in to ensure that an administrative review is completed within the 60-day statutory review period. Each submitted plan is reviewed by at least three staff members for their recommendations. The TWDB’s Executive Administrator, after consideration of staff recommendations and additional review of the plan, determines the administrative completeness of the plan. A process for appeal of the denial of approval is provided in Chapter 36 of the TWC and the TWDB rules.

**District Coordination**

During the preparation of management plans and after notice and public hearing, districts are required to coordinate with appropriate surface water management entities on the development of the plan. After adoption of the management plan by the district’s Board of Directors, the districts are also requested to send the plan to the chair(s) of regional water planning area(s) that include the district.
Groundwater Management Plan Approval and Implementation

TWC, Chapter 36 authorizes the SAO to determine if a GCD is actively engaged in achieving the objectives of its management plan. Furthermore, Chapter 36 established procedures for the TCEQ to respond when the SAO identifies districts that are not implementing their management plans. District management plan implementation review and compliance activities accomplished during the 2005-2006 biennium and previous reporting periods are described below.

TWDB Plan Approval During the 2005-2006 Biennium

As of November 2006, there were 85 confirmed districts subject to groundwater management plan requirement and three unconfirmed districts in Texas. Table 8 lists the status of management plans for all groundwater conservation districts. Between January 2005 and November 2006, there were three districts that were required to submit their first management plan after their confirmation election. All three districts submitted their plans during this period, and the TWDB approved all three plans. Additionally, in 2005 the TWDB approved four district first plans that were due by November 5, 2004 and were submitted by the districts between November 8, 2004 and August 11, 2005.

In addition to the plans received from the new districts, the TWDB also received 11 plans for re-approval. Seven of these management plans were due for re-approval during the January 2005 - November 2006 period, while three plans were due during the 2003 - 2004 period. One plan, for the Post Oak Savannah GCD, was not due for re-approval until 2010, but they changed, readopted, and submitted their plan for review in May 2006. TWDB’s Executive Administrator approved a total of 18 plans submitted for review during the 2005–2006 biennium.

Based on their original plan approval dates, three districts had plans due for re-adoption during the January 2005 - November 2006 period. Three additional districts had plans due for re-approval prior to this period. The TWDB had not received management plans from these districts as of October 2006 but had worked with all but one district in order to prepare their plans for submittal.

Currently, four districts have management plans due for approval in 2007, 27 districts in 2008, and 27 districts in 2009. These districts, listed in order of plan due date, are at the end of Table 9. The unconfirmed groundwater conservation districts will have their plans due three years after the date of their confirmation elections.
### Table 8. Status of Management Plan Approval, January 2005 through November 2006

#### First Management Plans

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#### Reapproved Management Plans

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### Table 9. Status of Management Plan Due Dates from 2007 through 2009

#### Management Plans Due After December 2006

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Notes:  
* Date on which all missing items were received.  
NA - Not Applicable

### State Auditor’s Office District Review

TWC, §36.302 authorizes the SAO to determine if a GCD is actively engaged in achieving the objectives of its management plan based on an analysis of the GCD’s activities. The primary objective of the review is for the SAO to determine whether a district is presently operational based on the district's efforts to achieve its unique management plan. In some cases, the SAO has determined that it is acceptable if a district does not achieve all of its stated planning goals and objectives each year. The SAO's assessment of an individual district is based on the district having made a good-faith effort to implement its management plan. A district first becomes eligible for SAO review one year after the date the TWDB approves the district's management plan. Subsequent SAO reviews are then performed at least once every seven years. SAO audit scheduling is based on risk assessment and subject to legislative audit committee approval.
Since these provisions were added to Chapter 36 in 1997, the SAO has completed a pilot GCD management plan implementation audit and four phases of subsequent GCD management plan implementation audits. In the pilot, phase one, and phase two audits (SAO, 1999, 2000 and 2001), the SAO evaluated management plan implementation and basic statutory compliance requirements for a total of 23 districts. For these reviews, the SAO determined 15 of these 23 GCDs were operational, seven were not operational, and one could not be evaluated because its plan objectives were unclear.

For the phase three audit (SAO, 2002) and later reviews, the SAO chose to only evaluate management plan implementation. During phase three, the SAO determined eight of the nine audited GCDs were operational and one was not operational. The phase four audit was completed in April 2003 (SAO, 2003) and the SAO determined that 11 of the 12 audited GCDs were operational, and one GCD was not operational.

During the 2005-2006 biennium, the SAO audited the Kinney County GCD (SAO, 2006). In January 2006, the SAO reported that the District achieved a majority of its groundwater management plan goals and was operational under the plan. However, the SAO also found that significant deficiencies in the District’s financial operations prevent the District from ensuring that it (1) has timely, complete, and accurate financial information for decision making; (2) is able to meet its financial obligations; or (3) protects against violations, abuse, and fraud. An Audit Report on the Kinney County Groundwater Conservation District (SAO Report No. 06-021, January 2006) can be accessed online at www.sao.state.tx.us/reports/main/06-021.html. Appendix 3 provides overall conclusions of SAO findings regarding GCD management plan implementation reviews to date.

TCEQ Noncompliance Review

The TCEQ is responsible for noncompliance enforcement if groundwater conservation districts do not implement their adopted and TWDB approved groundwater management plans. The TCEQ noncompliance review actions are initiated when GCDs do not meet statutory management plan submission and approval requirements, or when the SAO determines that a GCD is not operational in achieving the objectives of its management plan.

Under TWC, §36.108 and §§36.301 - 36.303, TCEQ management plan noncompliance review and enforcement are required if a district fails to:

- submit a groundwater management plan to the TWDB within three years of the date the GCD was confirmed;
- achieve approval of a groundwater management plan, readopted management plan, or amended plan from the executive administrator of the TWDB within specified time frames;
- be actively engaged and operational in achieving the objectives of its groundwater management plan based on the State Auditor's Office review of the GCD’s performance under its plan; or
- comply with the statutory requirements for joint management planning.

The TCEQ rules applicable to agency noncompliance review and enforcement procedures regarding district management plans and joint management planning by groundwater districts are contained in 30 TAC, §293.22 and §293.23. The rules provide
the applicable processes and procedures to be exercised by the TCEQ and the districts. In general, the TCEQ noncompliance review and enforcement protocol begins with a cooperative attempt to reach a voluntary resolution with a noncompliant district. The basis for voluntary compliance is a signed compliance agreement that includes a schedule for achieving all compliance milestones. TCEQ staff monitors the district's achievement to the compliance agreement. The district would be considered in compliance, and no enforcement action would be necessary if milestone objectives are met on schedule.

If a district fails to respond, is not capable to respond, or will not cooperate to reach a voluntary compliance agreement, formal enforcement action would be initiated by the executive director. Depending on the district's level of cooperation, formal enforcement may be achieved through either an agreed order process or through TCEQ-ordered actions. If an agreed order cannot be achieved or if enforcement is required through ordered actions, statute provides that the TCEQ may remove a district's board of directors, request the State Attorney General to bring suit for the appointment of a receiver to collect the assets and carry on the business of the district, or dissolve the district. If the TCEQ dissolves a district's board of directors or dissolves the district, other follow-up activities will be required. These activities could include such actions as the appointment of new temporary directors for a district if the board has been removed or the disposition of district assets if a district has been dissolved.

Either through failure to meet plan adoption and approval deadlines, or from failure to achieve the majority of the objectives of their plans, 19 GCDs have come under TCEQ's purview since the management plan compliance provisions were added to the TWC in 1997. Brief overviews of these 19 cases are provided in Appendix 4 – Status of TCEQ District Management Plan Noncompliance Review.

To date, the TCEQ has taken action when nine GCDs did not comply with the statutory deadlines to adopt a management plan and to submit the plan to the TWDB for approval consideration. Only minor TCEQ intervention to compel compliance was necessary for six of the GCD noncompliance cases. Compliance agreements were necessary to compel compliance for two of the GCDs. These eight GCDs achieved compliance and each district had an approved management plan in place prior to the 2005–2006 biennium. In the last and ongoing case, the Red Sands GCD entered into a compliance agreement on October 26, 2006 with management plan development, coordination, adoption, and submittal milestones. The Red Sands GCD is scheduled to achieve compliance in early 2007.

Prior the 2005–2006 biennium, ten GCDs were referred to the TCEQ for noncompliance review based on the nonoperational findings contained in the SAO phase one through phase four reports. Two GCDs independently addressed compliance issues in response to the SAO nonoperational findings with only minor TCEQ intervention. Compliance agreements and various levels of TCEQ involvement were required to compel management plan implementation for the remaining eight referred GCDs. To date, six of the GCDs have demonstrated compliance with the objectives of their management plans.

The Dallam County UWCD No. 1 did not meet the schedule and objectives of a July 2003 compliance agreement to demonstrate management plan implementation and TCEQ initiated formal enforcement action in April 2004. After further communication with the District, the TCEQ deferred enforcement action to allow the District to pursue consolidation with the North Plains GCD. The two districts were consolidated by
election in November 2004, and TCEQ closed the noncompliance review case when the district consolidation documentation had been filed with the agency.

The Salt Fork UWCD (Kent County) did not meet the schedule and objectives of a May 2004 compliance agreement to implement its approved management plan. The TCEQ initiated formal enforcement action in December 2004 and was notified by the District of its intent to develop a new, more appropriate management plan. The TCEQ deferred enforcement action and the District’s new management plan was approved by the Executive Administrator of the TWDB in May 2005. In May 2006, TCEQ requested documentation from the District to demonstrate implementation of the new management plan. To date, the District has not demonstrated compliance in achieving its management plan objectives and the case is ongoing.

In response to the findings of the SAO Audit Report on Kinney County GCD, the TCEQ initiated a noncompliance review in June 2006 to determine the District’s compliance with the financial management provisions of TWC, Chapter 36, and to determine if the District has implemented operational changes. The District provided documentation to TCEQ in July 2006 and has shown a willingness to work with the agency to voluntarily address noncompliance issues.

On October 19, 2006, Grass Valley Water, L.P. (GVW) filed a formal complaint against the Kinney County GCD with the Executive Director of TCEQ related to technical, financial, and permitting issues. The complaint frames numerous allegations of misconduct against District and requests TCEQ to institute an investigation under TWC, Section 12.081 into the substance of the allegations. The complaint requests TCEQ to: (1) conduct an audit of the District’s finances, (2) review the legal and technical basis for District groundwater availability determinations, (3) appoint a receiver to conduct the business of the District, (4) remove biased staff or board members, and (5) direct remaining board members to timely review and approve GVW permit applications.

The SAO report also contained findings on statutory noncompliance with TWC requirements for financial oversight and permitting actions. The TCEQ evaluation of District documents is currently underway and will address these findings. The evaluation will be provided to the District and will detail additional District actions or documentation needed to demonstrate compliance and to address the SAO findings.
Groundwater Management Areas

A groundwater management area is defined as an area suitable for the management of groundwater resources. Although groundwater management areas have recently become important in groundwater management, groundwater management areas have been around more than 50 years. Until September 2001, the primary purpose of delineating groundwater management areas was the creation of GCDs by petition. After September 2001, the primary purpose of groundwater management areas was to facilitate joint planning by GCDs managing the same aquifer.

In 1949, the Legislature authorized a petition process for designating “underground water reservoirs,” the predecessor to groundwater management areas, by the Texas Board of Water Engineers and for creating GCDs. To create a GCD, an underground water reservoir needed to first be delineated. In 1955, the Legislature authorized the Texas Board of Water Engineers to designate underground water reservoirs on its own without an external petition. In 1985, the Legislature changed “underground water reservoirs” to “management areas” and required that the boundaries of a GCD be coterminous with a management area, although political boundaries could be considered. The Legislature changed the name again in 1989 from “management areas” to “underground water management areas” and removed the requirement for delineating a management area for legislatively created GCDs. Underground water management areas became “groundwater management areas” in 1995.

In 2001, as part of Senate Bill 2, the Legislature moved the responsibility of creating groundwater management area delineations to the TWDB and directed the TWDB to develop groundwater management areas that covered all of the major and minor aquifers of the state. The statute directed the TWDB to use aquifer boundaries or subdivisions of aquifer boundaries for the groundwater management area boundaries, although other factors, including political boundaries, could be considered. The TWDB adopted boundaries for groundwater management areas that covered the entire state in November 2002 (Figure 5). TWDB staff used aquifers and other hydrologic boundaries to guide the delineation of groundwater management areas. The boundaries primarily honored the boundaries of the major aquifers of Texas as identified in various TWDB publications. In areas with multiple major aquifers, TWDB staff generally placed a preference on the shallowest aquifer. The TWDB divided several of the major aquifers into multiple groundwater management areas. These divisions were based on hydrogeology and current water-use patterns and coincided with natural features where possible. Where possible, the TWDB aligned boundaries with county and existing GCD boundaries.

Senate Bill 2 also required that GCDs share their groundwater management plans with each other within a groundwater management area and participate in joint planning, but only if a district in the management area called for it. However, in 2005, HB 1763 required joint planning among GCDs within groundwater management areas. The presiding officers, or their designees, of GCDs are required to meet at least annually to conduct joint planning and to review groundwater management plans and accomplishments in the groundwater management area. A key part of joint planning is determining “desired future conditions,” conditions that are used to calculate “managed available groundwater” volumes. These conditions and volumes will be used for regional water plans, groundwater management plans, and permitting.
Texas Water Development Board Rule Changes

After the 79th legislative session adjourned, the TWDB proposed and adopted new rules in Title 31 TAC, §356 to implement HB 1763. These new rules require new information to be included in groundwater management plans and new processes for GCDs to follow through joint planning within a groundwater management area. The rules also included definitions of desired future conditions and managed available groundwater. In addition, the rule preamble included examples of desired future conditions. The amended rules were proposed in the September 2, 2005, Texas Register. The public submitted numerous comments at the September 13, 2005, public hearing. Most comments addressed changing or clarifying definitions and clarifying data and procedural requirements. The TWDB considered the comments, approved the final rules, and filed the final rules on November 23, 2005, for inclusion in the December 9, 2005, Texas Register. The rules became effective December 13, 2005.

Texas Commission on Environmental Quality Rule Changes

TCEQ adopted amendments to 30 TAC §§293.20, 293.22 and 293.23 to implement HB 1763. The proposed rules were published for comment on the April 14, 2006 issue of the Texas Register. TCEQ received comments on the proposed rules and made the appropriate changes in response to the submitted comments. The new rules clarified the time frame requirement for management plan approval and reapproval of the plan every five years. The new rules streamlined TCEQ procedures on noncompliance review for GCD failure to readopt a management plan within the five-year statutory time frame. The new rule language recognizes that the presiding officers of GCDs are now required to conduct joint management planning for their shared GMA. The new rule also recognizes that a person with a legally defined interest in groundwater in the GMA can now petition for an inquiry related to joint groundwater management planning. The commission adopted the final rule on October 4, 2006. The adopted rule was published on October 20, 2006 issue of the Texas Register. The rule became effective October 26, 2006.

Implementation of HB 1763 Joint Planning

GCDs have the responsibility of joint planning within each groundwater management area. The presiding officer, or the presiding officer’s designee, of each district located in a management area is required to meet at least annually to conduct joint planning with the other districts in the management area. The members are required to review the management plans and accomplishments for the management area. In addition, the members are charged with establishing desired future conditions for the relevant aquifers. The desired future conditions are due to the TWDB no later than September 1, 2010, and every five years thereafter.

The TWDB is responsible for calculating or verifying the managed available groundwater, based on the submitted desired future conditions. The TWDB will then provide the managed available groundwater to the individual GCDs and the regional water planning groups.

As of September 1, 2005, GCDs within a groundwater management area are responsible for scheduling the required annual joint planning meetings. As of October 1, 2006, thirteen groundwater management areas have had at least one meeting, with ten
groundwater management areas meeting three or more times (Areas 1, 8, 9, 10, 11, 12, 13, 14, 15, and 16). In advance of September 1, 2005, three groundwater management areas (7, 13, and 16) held organizational meetings to discuss the joint planning process.

Five groundwater management areas (1, 8, 9, 13, and 16) have completed inter-local agreements between the member districts. The agreements are not required but allow the groundwater management areas to set up an administrative and fiscal organization to conduct business.

The TWDB has suggested if the groundwater management areas wish to include the managed available groundwater in the next round of regional water planning, the groundwater management areas need to submit their desired future conditions to the TWDB before the end of 2007. Seven groundwater management areas anticipate turning in their desired future conditions before the end of 2007 to the TWDB. As of October 2006, there have not been any desired future conditions submitted to the TWDB.

TWDB staff supported the process by outlining the overall process for developing desired future conditions and managed available groundwater. In addition, TWDB staff attended groundwater management area meetings, presented information, and answered questions from the groundwater management area member districts. Based on questions from the groundwater management areas, the TWDB staff created a set of frequently asked questions. This is to aid in the groundwater management area process. They are posted on the TWDB website for distribution at http://www.twdb.state.tx.us/GwRD/GMA/faqmain.htm. The administrative process of submitting desired future conditions is also posted on the website at http://www.twdb.state.tx.us/GwRD/pdfdocs/HSDFC.pdf. Additionally, the TWDB outlined the desired future condition application into TWDB groundwater availability modeling to determine the managed available groundwater.
Figure 5. Groundwater Management Areas in Texas

DISCLAIMER
This map was generated by the Texas Water Development Board using GIS (Geographical Information System) software. No claims are made to the accuracy or completeness of the information shown herein nor to its suitability for a particular use. The scale and location of all mapped data are approximate.

Map prepared by Mark Hayes
Mapping Coordinator, TWDB
(Mark.Hayes@twdb.state.tx.us)
512-936-0828
updated July 2006
State Assistance and Educational Programming

The TCEQ, TWDB, TPWD, TDA, and TCE are responsible for providing assistance to the public under Chapters 35 and 36 of the Water Code. The TCE is specifically charged with providing educational assistance to residents in designated PGMAs on issues related to groundwater management. The TWDB has multiple responsibilities under state law to facilitate and provide technical assistance. Other entities such as the state’s institutions of higher education and the Texas Alliance of Groundwater Districts (TAGD) also play important roles in providing these services.

Technical Assistance

The TWDB provides a wide range of technical assistance to GCDs through both regular programmed activities and by request. TWDB assistance is available for groundwater and planning data, database management, training for water level and water quality data gathering, computer hardware and software recommendation and training, equipment for automated water level monitoring, conducting field studies of groundwater, aquifer pumping tests, groundwater availability modeling, and development of groundwater management plans.

The 75th Texas Legislature passed Senate Bill 1 in 1997. This legislation and subsequent updates and additions change parts of the TWC to update and expand water resources data collection. Section 16.012 specifically directed the TWDB Executive Administrator to, “…collect, receive, analyze, process, and facilitate access to basic data and summary information concerning water resources of the state and provide guidance regarding data formats and descriptions required to access and understand Texas water resource data.” Some of the programs associated with this directive are highlighted below. A related directive was to “…develop a network for collecting and disseminating water resource-related information that is sufficient to support assessment of ambient water conditions statewide” (Texas Water Code, Chapter 16.012(8)). To accomplish this, TWDB supports and maintains the statewide Water Information Network Optimization Program. This program identifies potential program cooperators presently involved in data collection and dissemination activities throughout Texas to build and maintain partnerships for the network.

Through this program, GCDs are aided with technical assistance on water resources and information technology issues. Agreements with the TWDB allow for the loan of computers, software, and related equipment for data collection and dissemination. A total of 34 districts participate in this program. The program also provides 19 districts with web-hosting at no cost. TWDB staff also provides 28 districts with desktop databases to access the Texas Department of Licensing and Regulation’s Well Record Submission and Retrieval System.

Groundwater Monitoring: The TWDB is actively involved in supporting GCDs with basic data collection activities. The TWDB offers technical training to districts to increase their ability to collect water-level and water quality data and to perform aquifer pumping tests. The objectives of offering technical training to districts are to strengthen the ability of districts to collect basic groundwater data, to build on the relationship between districts and the TWDB, and to leverage the statewide network of field groundwater data collection. In the last biennium, TWDB contacted 65 districts in advance of water-level measuring and water quality sampling trips in each district’s area.
to offer one-on-one training and education about the TWDBs data collection programs. A total of 35 districts have participated in these efforts and many have participated in multiple categories of training.

Many GCDs have limited resources to devote to the regular collection of water level data to track changing storage conditions of the aquifers under their management. The TWDB maintains a program to offer installation and support of continuous recording monitoring equipment to districts. This program helps provide districts with the ability to gather continuous data with minimal labor. Once districts have secured wells that are suitable for monitoring, the TWDB will provide monitoring equipment, when funds are available, which may include remote data transmission capability, operation, and maintenance support. The data collected from this program benefit both the TWDB and the districts. A total of 28 districts participated in this program in the last biennium.

In February 2006, TWDB hosted a workshop as part of the Aquifers of the Gulf Coast conference, held in Corpus Christi, and participated in a workshop as part of the National Ground Water Association’s 2006 Groundwater Summit, held in San Antonio. Information presented at the Aquifers of the Gulf Coast conference included material specifically geared to helping GCDs understand TWDB data collection programs - water level, automatic recorder, and water quality sampling programs - as well as information on how to use the TWDB’s on-line database. Goals of the Groundwater Summit workshop were to provide attendees with an understanding of fundamental groundwater issues as they relate to comprehensive groundwater management, information on tools and technology available for groundwater management, and guidelines for the development and implementation of groundwater management plans that meet new state requirements. TWDB presentations included an overview of naturally occurring groundwater quality problems in Texas, an explanation of TWDB’s groundwater availability modeling program, and a discussion of HB 1763 and new requirements of management plans.

**Groundwater Availability Models:** Groundwater availability models were an immediate outgrowth of the regional water planning process created by Senate Bill 1, 75th Legislative Session. They are developed or obtained by the TWDB in response to GCD and regional water planning group needs for better scientific tools to assist them in their management and planning efforts. Because of the demonstrated value of these models, statute now requires that GCDs use these models, when available, in developing their groundwater management plans. When HB 1763 became effective on September 1, 2005, groundwater availability models became an even more important tool in managing the state's groundwater resources. This new law mandates that GCDs and planning groups use values of managed available groundwater, based on the desired future conditions of aquifers determined for the 16 groundwater management areas, in their management plans and regional water plans. As the groundwater management areas evaluate the desired future conditions of their aquifers, groundwater availability models will be used to estimate the managed available groundwater for each aquifer.

To adequately cover the state's aquifers, at least 31 models will be needed for the 30 major and minor aquifers in Texas. Some of the larger or more complex aquifers require more than one model, while some models incorporate a combination of aquifers. As required by law, the TWDB developed or obtained the initial versions of 17 groundwater availability models for the state's nine major aquifers before October 1, 2004. These nine aquifers currently supply approximately 95 percent of the groundwater produced in the state. Since October 2004, the TWDB has developed or obtained initial versions of two
additional models, as well as a number of additions and enhancements to existing models. Some of the initial models came from external cooperators, including El Paso Water Utilities, the Edwards Aquifer Authority, and the U.S. Geological Survey. One of the models, the model for northern part of the Gulf Coast Aquifer, was supported jointly by the TWDB, the U.S. Geological Survey, the Harris-Galveston Coastal Subsidence District, and the Fort Bend Subsidence District. The completed models include 1) Rita Blanca and northern part of the Ogallala aquifers; 2) southern part of the Ogallala aquifer; 3) Seymour and Blaine aquifers; 4) Woodbine and northern part of the Trinity aquifers; 5) Hill Country part of the Trinity aquifer; 6) northern segment of the Edwards (Balcones Fault Zone) aquifer; 7) Barton Springs segment of the Edwards (Balcones Fault Zone) aquifer; 8) San Antonio segment of the Edwards (Balcones Fault Zone) aquifer; 9) northern part of the Carrizo-Wilcox, Queen City, and Sparta aquifers; 10) central part of the Carrizo-Wilcox, Queen City, and Sparta aquifers; 11) southern part of the Carrizo-Wilcox, Queen City, and Sparta aquifers; 12) northern part of the Gulf Coast aquifer; 13) central part of the Gulf Coast aquifer; 14) southern part of the Gulf Coast aquifer; 15) Edwards-Trinity (Plateau) and Cenozoic Pecos Alluvium aquifers; 16) Mesilla portion of the Hueco-Mesilla Bolson aquifer; 17) Hueco portion of the Hueco-Mesilla Bolson aquifer; 18) Lipan aquifer; and 19) Igneous and Wildhorse Flat, Michigan Flat, Ryan Flat, and Lobo Flat portions of the West Texas Bolsons aquifer.

Currently, the TWDB is working on obtaining or developing initial versions of models for the remaining minor aquifers in Texas. Thus far, seven of the minor aquifers and parts of another minor aquifer are included in existing groundwater availability models. The remaining 13 minor aquifers and parts of the West Texas Bolsons Aquifer not yet modeled will require 12 additional groundwater availability models. The Edwards-Trinity (High Plains) Aquifer will be added as a layer to the existing model for the southern part of the Ogallala Aquifer and, as a result, not require its own model. The models currently under development or to be developed include 1) Presidio-Redford Bolson part of the West Texas Bolsons aquifer (currently under development by TWDB staff); 2) Blossom aquifer (currently under development by TWDB staff); 3) Edwards-Trinity (High Plains) aquifer as a layer in the southern part of the Ogallala aquifer model (currently under development through a contract); 4) Dockum aquifer (currently under development through a contract); 5) Nacatoch aquifer (currently under development through a contract); 6) Red Light, Green River, and Eagle Flat portions of the West Texas Bolsons aquifer (currently under development through a contract); 7) Bone Spring-Victorio Peak aquifer (model to be submitted by El Paso Water Utilities to the TWDB for consideration as a groundwater availability model); 8) Ellenburger-San Saba, Hickory, and Marble Falls aquifers, also referred to as the Llano Uplift aquifers; 9) Brazos River Alluvium aquifer; 10) Yegua-Jackson aquifer; 11) Marathon aquifer; 12) Capitan Reef aquifer; and 13) Rustler aquifer.

Updating and improving these initial models is a vital component of the groundwater availability modeling program. To accommodate the ongoing needs of the GCDs, regional water planning groups, regional water suppliers, and other model users, the TWDB has already begun the process of updating and adjusting several existing groundwater availability models. For example, the TWDB updated the three groundwater availability models of the Carrizo-Wilcox Aquifer and is currently updating the models of the Hill Country portion of the Trinity Aquifer and the southern part of the Ogallala Aquifer. The TWDB currently plans to review the completed models every five years for possible updates or enhancements. To view modeling reports, request a model, or check the status of the program, please visit the TWDB Web site at www.twdb.state.tx.us/gam.
**Agricultural Water Conservation Financial Assistance:** Since 1985 and the passage of House Bill 2, which established the Agricultural Water Conservation Trust Fund and the TWDB water conservation program, the TWDB has been providing financial assistance to political subdivisions, including groundwater conservation districts, and state agencies for agricultural water conservation projects and programs. With the passage of Senate Bill 1053 in 2003, which terminated the Trust Fund and established an Agricultural Water Conservation Fund, TWDB agricultural water conservation loan and grant programs were expanded to provide additional methods of assistance. From 1986 to 2003, the TWDB provided small grants to districts for the purchase of water conservation and/or water quality testing equipment. During that period, the TWDB provided $509,341 to groundwater conservation districts throughout the state. Since 2004, TWDB has solicited grant proposals for a broader range of water conservation projects including water conservation technical assistance, demonstration, technology transfer, research, education, and metering projects. TWDB awards up to $600,000 per year to projects that will help implement strategies in the regional and state water plans. During the last biennium, grants totaling $350,955 have been awarded to six groundwater conservation districts and are in various stages of implementation. Since 1986, the TWDB has been providing low-interest agricultural water conservation loans to GCDs that in turn provide small loans to individual irrigators who purchase efficient or water conserving irrigation equipment with the funds. Since 1986, TWDB has provided 73 loans to GCDs, totaling $43,100,190 in funds. In the last biennium, one district has been awarded a new loan for $500,000. Four districts currently have 16 active loans with TWDB.

**Irrigation Metering Program:** The TWDB’s Irrigation Metering Program is a joint effort between TWDB and groundwater conservation districts to measure actual irrigation water use to provide data for inclusion in TWDB’s groundwater availability models. A side benefit of the program is that it provides farmers with one of the most valuable tools needed to conserve and manage on-farm water use. From 1998 to 2003, eight groundwater conservation districts were provided with meters that were purchased with Senate Bill 1 regional water planning grant funds or agricultural water conservation capital equipment purchase grant funds. Under ten-year agreements with the TWDB, the districts assist by identifying cooperating irrigation farmers, installing the meters on farmers’ wells, collecting data from the meters, and providing the data to the TWDB. The TWDB is currently completing a full review of program accomplishments and needs and will publish a technical report on the program in 2007.

For fiscal years 2004 and 2005, TWDB provided cost share funds to GCDs and irrigation districts for purchase of flow meters through the Agricultural Water Conservation Grants Program for the purposes of implementing conservation best management practices. Districts in this program enter into five-year contracts to provide estimated water savings and irrigation water use data to TWDB.

**Educational Programming**

Education is a vital component in the effective management of the state’s water resources. Since early 1998, representatives from the TCEQ, TWDB, TPWD, TCE, and TAGD have coordinated extensively to discuss and plan groundwater management educational programming strategies. Educational outreach activities were continued during the 2005–2006 biennium.
The TCE has been active in providing educational programming in PGMAs, in areas planning to hold confirmation elections, and in other areas that are considering the need to manage their groundwater resources. A comprehensive program is necessary to provide this water-related education and the TCE approach has been to utilize its network of local county agents. The county agents cooperate with local stakeholders and state agencies to hold local meetings, distribute fact sheets, deliver and facilitate presentations on local water resources, publish news releases in local papers, and present information on local radio shows. This ensures effective, factual delivery of water management information to the local populations.

To support these educational efforts, the TCE and its predecessor, the Texas Agricultural Extension Service, have updated and developed new and useful reference materials for the public. Noteworthy among these are two brochures that have been widely distributed throughout the state. Managing Texas' Groundwater Resources Through Groundwater Conservation Districts (TCE, 2002c) provides an overview of Texas water law, a summary of the powers and responsibilities of groundwater conservation districts, a review of the processes involved in creating districts, and a brief overview of issues related to groundwater conservation districts. Questions About Groundwater Conservation Districts (TCE, 2002b) answers frequently asked questions about groundwater, aquifers, water laws, and groundwater conservation districts.

The TCE has also developed videos for public education purposes. Foundations: Aquifers of Texas (TCE, 2002a) provides graphic and general information about the aquifers of the state and the occurrence and movement of groundwater in aquifers. The video was developed to help the general public understand the mechanics of groundwater movement. The video Divining the Future: Groundwater Conservation Districts (TCE, 2001) depicts methods of groundwater management by groundwater conservation districts and outlines the responsibilities of groundwater districts.

TCEQ, TCE and TWDB groundwater management educational programs continue to be delivered at local meetings. The TCEQ, TCE and TWDB cooperate with local groups to deliver educational programs. Counties within the Lower Trinity GCD held several educational events to share information on groundwater management. Other parts of the state including East and North Texas areas showed interest in discussing groundwater management.

With regard to the Priority Groundwater Management Areas, TCE published a reference bulletin entitled “Priority Groundwater Management Areas, Overview and Frequently Asked Questions” in August 2006. The bulletin provides the process to identify priority groundwater management areas where the groundwater is at greater risk and to establish management of the groundwater through local governance.

Specific to water quality protection, the TCE made several demonstrations during the 2005-2006 biennium on abandoned well closure and plugging. TCE held 18 well plugging demonstrations in 13 counties with an attendance of almost 233 people. In addition, the TCE coordinated with the Texas Groundwater Protection Committee developed and published an educational materials on arsenic, perchlorate, nitrate, and radionuclide contamination for private well owners in both English and Spanish languages. The fact sheets contain information on the occurrences, health effects, testing options, and treatment options for these constituents.
In February 2006, the TWDB held the third Aquifers of Texas conference at the Texas A&M University campus in Corpus Christi. The conference was targeted for all individuals involved in water resources and water resource management and citizens interested in water resources in the gulf coast area. Titled “Aquifers of the Gulf Coast of Texas” the conference provided the attendees an opportunity to learn about a wide range of subjects covering the gulf coast aquifers, including a series of training sessions on data collection techniques and sample processes. The final product from the conference was Report 365 of the TWDB numbered reports “Aquifers of the Gulf Coast”, which includes a chapter written by each presenter at the conference.

The state agencies and TAGD worked with and provided assistance to the TCE during the development of these educational materials and the presentation of educational programs. The TCE, the Texas A&M University System, the Texas Water Resources Institute, and the Texas Agricultural Experiment Station have made many of the proceedings to the seminars, the educational materials discussed above, and additional groundwater management information available to the public on an Internet Homepage at http://texaswater.tamu.edu.

During the 2005–2006 biennium the TCE, TWDB, TCEQ, TPWD, and TAGD were active in providing groundwater management educational programming, both on their own initiative and upon request from interested persons or entities. Educational outreach has ranged from question and answer discussions with small groups of landowners to agency or institutions of higher education sponsored, multi-day conferences. Educational meetings and presentations have been conducted for county commissioners courts, county water planning committees, councils of governments, local soil and water conservation districts, interested landowners, statewide organizations, and others.
Groundwater Management Issues

During the 2005 – 2006 biennium, the Office of the Attorney General (OAG) responded to three requests for opinions concerning GCDs. In December 2004, the Honorable Troy Fraser, Texas State Senate, asked for the OAG legal opinion with regard to: conflicts of interest involving the members of the Clearwater Underground Water Conservation District (UWCD) board; the meaning of “contemplated litigation” within Government Code, Section 551.071(1) (A); and, the exclusion of a board member who has threatened to sue the District from a District executive session meeting to discuss the threat of litigation. In June 2005, the OAG determined (Opinion No. GA-0334) that the directors of the District are subject to Chapter 171 of the Local Government Code, which regulates conflicts of interest involving local public officials. Chapter 171 requires a local public official with a substantial interest in a business entity or real property on which board action will have a special economic effect to disclose his interest and abstain from further participation in the matter. A violation of this requirement is a Class A misdemeanor. When Section 171.004(a) requires a local public official to abstain from further participation in a matter, it does not prohibit him from attending an executive session of his governmental body held to discuss the matter.

Ms. Darlene Shahan, Manager of the Kinney County GCD asked for an OAG opinion (OR2005-10683) about whether certain information is subject to required public disclosure under the Public Information Act. The OAG responded in November 2005 (Opinion No. OR2005-10683) that the District’s submitted information was related to pending litigation to which the District was a party. Based on the District representation, the submitted documentation, and the OAG review of the information at issue, the OAG concluded that the District could withhold the submitted information at the time of the request.

The Bandera County River Authority and Ground Water District (RA & GWD) asked the OAG for an opinion on the qualifications for the members of its board of directors. In July 2005, the OAG responded (Opinion No. GA-0337) on whether certain directors’ interests constitute conflicts of interest under Chapter 171 of the Local Government Code or other law. The OAG summarized in its response (Opinion No. GA-0337) that Chapter 171 of the Local Government Code does not disqualify individuals from serving on the Bandera County RA & GWD board of directors because they have a substantial interest in real estate, property development, or the construction business. Further, the OAG noted that Chapter 171 requires a director with a substantial interest in a business entity to file with the District’s record keeper “an affidavit stating the nature and extent of the interest” before the governmental entity votes on or decides a matter involving the business entity and to abstain if “the action…will have a special economic effect on the business entity that is distinguishable from the effect on the public”. The OAG concluded that for each vote or decision the District board will make, each director must consider the nature of the specific proposed action and its potential effect on any business entity in which the director has a substantial interest to determine whether he or she must disclose the interest and abstain from participating in the matter. In January 2006, the OAG responded (Opinion No.GA-0392) to a different request from the Bandera County RA & GWD. In this request the OAG determined that, to be qualified to serve as a director of the District, an individual must have resided continuously in the state for 12 months and in the District and the single-member precinct he seeks to represent for six months immediately preceding the applicable date set out in the Election Code.
The agencies are not aware of any other recent OAG opinion requests specific to groundwater conservation districts or groundwater management as outlined by Water Code, Chapters 35 and 36.

In February 2005, the Honorable Lieutenant Governor David Dewhurst charged the Senate Committee on Natural Resources to study all issues related to ground and surface water law, policy, and management. The Committee was charged to study the role and coordination of federal, state, regional and local governments in setting consistent and nondiscriminatory water policies; the statutory, regulatory, and/or economic impediments to implement key water management strategies recommended in the Regional and State Water Plans; and the role of GCDs. Under this charge, the Committee was also instructed to study conjunctive use of groundwater and surface water resources, the rule of capture, historic use standards, water infrastructure and financing, interbasin transfers, junior water rights, the transition of water rights from agricultural to municipal and industrial uses and coordination among transitioning water management authorities, conservation, drought preparedness, and water marketing. The Committee was also charged to identify areas of the state where surface or groundwater has been contaminated by petroleum operations; to determine the appropriate regulatory and technical requirements to remediate the contamination and prevent future contamination; and, to recommend appropriate agency jurisdiction for preventing, responding and remediating such incidents.

With specific regard to the regulation of groundwater pumping in conjunction with drilling and production of oil and gas, the Lieutenant Governor charged the Committee to study the permitting exemptions and water well regulations in Section 36.117, Water Code.

In October 2005, The Honorable Tom Craddik, Speaker of the House of Representatives, issued an interim charge to the House Committee on Natural Resources. Speaker Craddick charged this standing committee to study the benefits and concerns associated with the Municipal Utility Districts, outdoor water savings, wastewater reuse policies, water for environmental flows, and comprehensive water conservation program within the Texas State Soil and Water Conservation Board. No charges were given to the Committee to specifically study groundwater management related issues.

Over the interim, the Senate Committee on Natural Resources and the House Committee on Natural Resources have held numerous hearings around the state to invite testimony and public input to identify the water management issues that should be addressed and to develop the appropriate recommendations for consideration by the 80th Legislature, 2007. The state agencies respectfully defer recommendations regarding the management of groundwater supplies to the work of these Committees.
Recommendations to the 80th Legislature

The TCEQ and TWDB urge the Legislature to consider the legislative appropriations requests of the individual agencies and provide the funds necessary to carry out the existing and recommended groundwater management support programs. State funding may allow an agency to leverage the monies with an additional federal funding from the U.S. Geological Survey, the U.S. Environmental Protection Agency, or other federal agencies to implement these activities.
References


Texas House Committee on Natural Resources, 2000; *House Committee on Natural Resources Interim Report 2000; A Report to the House of Representatives, 77th Texas Legislature*, Texas House of Representatives, December 2000.


Texas Senate Natural Resources Committee, 2000; *The Senate Interim Committee on Natural Resources Interim Report to the 77th Legislature; Texas Groundwater Resources*, Texas Senate, November 2000.


Appendix 1. Priority Groundwater Management Area
Studies and Reports

Area 1; Williamson and Parts of Adjacent Counties


Area 2; Hill Country Area (See Also Area 17)


Area 3; Reagan, Upton, and Midland County Area


Area 4; Briscoe, Swisher, and Hale County Area


Area 5; Central Texas (Waco) Area


Area 6; East Texas Area


Area 7; Lower Rio Grande Area


Area 8; Trans-Pecos Area


**Area 9; Dallam County Area**


**Area 10; Fort Bend County Area**


**Area 11; North-Central Texas Area**


Area 12; Orange-Jefferson Counties Area


Area 13; El Paso County Area


Area 14; Wintergarden Area


Area 15; Southernmost High Plains Area


Area 16; North Texas Alluvium and Paleozoic Outcrop Area


Area 17; Northern Bexar County Area


Area 18; Hudspeth County Area


Appendix 2. Major and Minor Aquifer Maps
Major Aquifers of Texas


Legend
- Cenozoic Pecos Alluvium
- Seymour
- Gulf Coast
- Carrizo - Wilcox (outcrop)
- Carrizo - Wilcox (downdip)
- Hueco - Mesilla Bolson
- Ogallala
- Edwards - Trinity Plateau (outcrop)
- Edwards - Trinity Plateau (downdip)
- Edwards BFZ (outcrop)
- Edwards BFZ (downdip)
- Trinity (outcrop)
- Trinity (downdip)

NOTE: Chronology by Geologic age.

OUTCROP (That part of a water-bearing rock layer which appears at the land surface)
DOWNDIP (That part of a water-bearing rock layer which lies or dips below other rock layers)
Minor Aquifers of Texas


Legend

- Brazos River Alluvium
- West Texas Bolsons
- Lipan
- Yegua Jackson
- Igneous
- Sparta
- Sparta *
- Queen City
- Queen City *
- Nacatoch
- Nacatoch *
- Blossom
- Blossom *
- Woodbine
- Woodbine *
- Hickory
- Hickory *
- Rita Blanca

NOTE: Chronology by Geologic age.

OUTCROP (That part of a water-bearing rock layer which appears at the land surface)
*DOWNDIP (That part of a water-bearing rock layer which lies or dips below other rock layers)

DISCLAIMER
This map was generated by the Texas Water Development Board using GIS (Geographic Information Systems) software. No claims are made to the accuracy or completeness of the information shown herein nor to its suitability for a particular use. The scale and location of all mapped data are approximate.

Map created by Mark Hayes, Mapping Coordinator.
## Appendix 3. State Auditor’s Office Plan Implementation Review Findings

<table>
<thead>
<tr>
<th>Audited District</th>
<th>Determination of Operational Status</th>
<th>Compliance with Basic Statutory Requirements</th>
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1. Identified as an oversight by the auditor.
2. Not applicable.
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*Note: 1. Indicate date SAO provided letter to district noting audit findings.  
2. NA indicates SAO did not evaluate district compliance with basic statutory requirements.*
## Appendix 4. Status of TCEQ District Management Plan Noncompliance Review

<table>
<thead>
<tr>
<th>District</th>
<th>Noncompliance Violation</th>
<th>TCEQ / GCD Resolution Action</th>
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<tbody>
<tr>
<td></td>
<td></td>
<td>Plan Submission and/or Approval</td>
</tr>
<tr>
<td>Plum Creek CD</td>
<td>Plan adopted after statutory deadline</td>
<td>10/18/02 - TCEQ inquiry on issue 01/27/03 - Plan approved by TWDB; end TCEQ review</td>
</tr>
<tr>
<td>Guadalupe County GCD</td>
<td>Plan not approved by statutory deadline</td>
<td>08/21/03 - Compliance Agreement (District Signature) 10/02/03 - Plan approved by TWDB; end TCEQ review</td>
</tr>
<tr>
<td>Bee GCD</td>
<td>Plan adopted after statutory deadline</td>
<td>02/28/03 - TCEQ inquiry on issue 08/21/03 - Compliance Agreement (District Signature) 10/02/03 - Plan approved by TWDB; end TCEQ review</td>
</tr>
<tr>
<td>Coastal Bend GCD</td>
<td>Plan not adopted by statutory deadline</td>
<td>12/30/03 - TCEQ inquiry on issue 09/28/04 - Plan approved by TWDB; end TCEQ review</td>
</tr>
<tr>
<td>Coastal Plains GCD</td>
<td>Plan not adopted by statutory deadline</td>
<td>12/30/03 - TCEQ inquiry on issue 09/10/04 - Plan approved by TWDB; end TCEQ review</td>
</tr>
<tr>
<td>Texana GCD</td>
<td>Plan not adopted by statutory deadline</td>
<td>04/03/04 - Compliance Agreement (District Signature) 09/28/04 - Plan approved by TWDB; end TCEQ review</td>
</tr>
<tr>
<td>Neches &amp; Trinity Valleys GCD</td>
<td>Plan not approved by statutory deadline</td>
<td>06/02/04 - TCEQ inquiry on issue 09/10/04 - Plan approved by TWDB; end TCEQ review</td>
</tr>
<tr>
<td>Kimble County GCD</td>
<td>Plan not approved by statutory deadline</td>
<td>05/26/04 - TCEQ inquiry on issue 08/18/04 - Plan approved by TWDB; end TCEQ review</td>
</tr>
<tr>
<td>Red Sands GCD</td>
<td>Plan not approved by statutory deadline</td>
<td>12/17/04 - TCEQ inquiry on issue 02/14/05 - 2nd inquiry on issue 04/27/05 - Issue sent to enforcement and litigation 10/28/05 - Letter of enforcement action sent 02/28/06 - Acknowledgement letter from District indicating desire to comply with the statute 10/26/06 - Compliance Agreement (District Signature) - Pending TECQ non compliance review</td>
</tr>
</tbody>
</table>

### Not Operational in Achieving Plan

<table>
<thead>
<tr>
<th>District</th>
<th>Noncompliance Violation</th>
<th>TCEQ / GCD Resolution Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hudspeth County UWCD No. 1</td>
<td>Not operational by SAO in 2000</td>
<td>01/22/02 - TCEQ review finalized 02/08/02 - Compliance Agreement (District Signature) 05/14/03 - Plan implementation demonstrated 06/18/03 - Compliance letter issued; end TCEQ review</td>
</tr>
<tr>
<td>Live Oak UWCD</td>
<td>Not operational by SAO in 2000</td>
<td>12/12/00 - TCEQ review finalized 08/21/01 - Plan implementation demonstrated 10/24/01 - Compliance letter issued; end TCEQ review</td>
</tr>
<tr>
<td>Sterling County UWCD</td>
<td>Status could not be determined by SAO in 2000</td>
<td>12/04/00 - District adopted new plan 12/22/00 - Plan approved by TWDB</td>
</tr>
<tr>
<td>Collingsworth County UWCD</td>
<td>Not operational by SAO in 2001</td>
<td>06/27/02 - TCEQ review finalized 10/14/03 - Compliance Agreement (District Signature) 07/12/04 - Plan implementation demonstrated 08/02/04 - Compliance letter issued; end TCEQ review</td>
</tr>
<tr>
<td>District</td>
<td>Noncompliance Violation</td>
<td>TCEQ / GCD Resolution Action</td>
</tr>
<tr>
<td>----------------------------------</td>
<td>-------------------------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
</tbody>
</table>
| Dallam County UWCD No. 1         | Not operational by SAO in 2001 | 06/27/02 - TCEQ review finalized  
07/21/03 - Compliance Agreement (District Signature)  
12/01/03 - End of Compliance Agreement term  
02/18/04 - Plan implementation not demonstrated  
04/13/04 - Case referred for enforcement action  
05/24/04 - Notice of enforcement sent to District  
11/03/04 - District was consolidated with North Plains GCD  
09/29/05 - end TCEQ review, documents received |
| Fox Crossing WD                  | Not operational by SAO in 2001 | 06/28/02 - TCEQ review finalized  
08/25/03 - Compliance Agreement (District Signature)  
05/07/04 - Plan implementation demonstrated  
05/18/04 - Compliance letter issued; end TCEQ review |
| Real-Edwards C&RD                 | Not operational by SAO in 2001 | 06/27/02 - TCEQ review finalized  
06/15/03 - Compliance Agreement (District Signature)  
10/13/03 - Compliance letter issued; end TCEQ review |
| Saratoga UWCD                    | Not operational by SAO in 2001 | 06/27/02 - TCEQ review finalized  
02/20/04 - Compliance Agreement (District Signature)  
07/31/04 - End of Compliance Agreement term  
12/03/04 - Plan implementation documented  
12/10/04 - Compliance letter issued; end TCEQ review |
| Permian Basin UWCD               | Not operational by SAO in 2002 | 02/28/03 - TCEQ review finalized  
06/19/03 - Compliance Agreement (District Signature)  
11/06/03 - Plan implementation demonstrated  
11/17/03 - Compliance letter issued; end TCEQ review |
| Salt Fork UWCD (Phase 4)         | Not operation by SAO in 2003 | 08/15/03 - TCEQ review finalized  
05/11/04 - Compliance Agreement (District Signature)  
08/31/04 - End of Compliance Agreement term  
09/29/04 - Plan implementation not demonstrated  
12/03/04 - Notice enforcement referral to District  
12/03/04 - Case referred for enforcement action  
02/11/05 - Letter from enforcement to SFUWCD  
05/19/05 - New management plan approved by TWDB  
05/01/06 - Request for documentation that new plan has been implemented. (Pending TCEQ non compliance review) |
Appendix 5. Groundwater Conservation District Contacts

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Fax No. (806) 637-4364
Email: spuwcd@spuwcd.org
Internet: www.spuwcd.org
Mr. Larry Sheppard, Manager  
**Southeast Texas Groundwater Conservation District**  
P 0 Box 1407  
Jasper, TX 75951  
Phone No. (409) 383-1577, Fax No. (409) 383-0024  
Email: llenginner@sbcglobal.net

Mr. Scott Holland, Manager  
**Sterling County Underground Water Conservation District**  
P 0 Box 873  
Sterling City, TX 76951  
Phone No. (325) 378-2704, Fax No. (325) 378-2624  
Email: scuwcd@wcc.net

Mr. Greta Ramsdell, Manager  
**Sutton County Underground Water Conservation District**  
301 South Crockett Avenue  
Sonora, TX 76950  
Phone No. (325) 387-2369  
Fax No. (325) 387-5737  
Email: sutuwcd@sonoratx.net

Mr. A.A. (Red) Rodgers, Chairman  
**Texana Groundwater Conservation District**  
8051 Co. Rd. 283  
Edna, TX 77957  
Phone No. (361) 782-2663

Mr. Ronnie Wilson, Chairman  
**Tri-County Groundwater Conservation District**  
12053 FM 91  
Vernon, TX 76384  
Phone No. (940) 887-3239

Mr. Patrick W. Linder, Agent for contact  
**Trinity Glen Rose Groundwater Conservation District**  
7550 West IH-10 Suite 800  
San Antonio, TX 78229  
Phone No. (210) 349-6484  
Internet: www.trinityglenrose.com

Mr. Vic Hilderbran, Manager  
**Uvalde County Underground Water Conservation District**  
P 0 Box 1419  
Uvalde, TX 78802  
Phone No. (830) 278-8242  
Fax No. (830) 278-1904  
Email: ucuwcd@sbcglobal.net

Mr. Garrett Engelking, Manager  
**Victoria County Groundwater Conservation District**  
2805 N. Navarro St., Suite 210  
Victoria, TX 77901  
Phone No. (361) 526-1483  
Fax No. (361) 526-1294

Ms. Katy Hoskins, Manager  
**Wes-Tex Groundwater Conservation District**  
100 E. Third St, Ste 305B  
Sweetwater, TX 79556  
Phone No. (325) 236-6033  
Fax No. (325) 236-6033  
Email: katy@westexgcd.org  
Internet: www.westexgcd.org

Mr. Ed Walker, Manager  
**Wintergarden Groundwater Conservation District**  
P 0 Box 1433  
Carrizo Springs, TX 78834  
Phone No. (830) 876-3801  
Fax No. (830) 876-3782  
Email: wgcd.swtrea@sbcglobal.net
UNCONFIRMED DISTRICTS

NO ELECTION TO DATE (3)

Duval County Groundwater Conservation District
Edmundo B. Garcia, Jr., County Judge
P.O. Box 189, San Diego, TX 78384
Phone: (361) 279-3322 x204

Created by the 79th Legislature, 2005
Enabling Act Expires September 1, 2010 if not confirmed by election.

San Patricio County Groundwater Conservation District
Terry Simpson, County Judge
400 W. Sinton St., Rm. 109, Sinton, TX 78387
Phone: (361) 364-6120

Created by the 79th Legislature, 2005
Enabling Act Expires September 1, 2010 if not confirmed by election.

Starr County Groundwater Conservation District
Eloy Vera, County Judge
County Courthouse, Rm. 203, Rio Grande City, TX 78582
Phone: (956) 487-8015

Created by the 79th Legislature, 2005
Enabling Act Expires September 1, 2010 if not confirmed by election.

FAILED OR OTHERWISE DISSOLVED, REPEALED, ABOLISHED, OR CONSOLIDATED DISTRICTS OR AUTHORITIES

Bexar Metropolitan Water District
Bexar Met's groundwater conservation district authority was removed by SB1494, 78th Legislature, 2003.

Central Texas Underground Water Conservation District
Created by 71st Legislature, 1989, in Burnet County
Failed January 20, 1990 election.

Comal County Underground Water Conservation District
Created in northwestern part of county by November 30, 1994
Texas Natural Resource Conservation Commission Order.
Failed May 6, 1995 election.

Crossroads Groundwater Conservation District
Created by 77th Legislature, 2001, Failed November 6, 2001 election. HB 3423 of the 79th Legislature, 2005, dissolved the Crossroads GCD and created the Victoria County GCD; effective September 1, 2005.

Dallam County Underground Water Conservation District
No. 1
Created in northern part of Dallam County by commissioners court on December 12, 1953; confirmed by voters on February 6, 1954; validated by 56th Legislature in 1959.
Consolidated with North Plains Groundwater Conservation District on November 2, 2004.

Edwards Underground Water District
Created by Legislature in 1959.
Abolished and replaced by Edward Aquifer Authority by 73rd Legislature, 1993.
Effectively abolished and replaced on June 28, 1996 (by court upholding statute).

Lake Country Groundwater Conservation District
Created in Wood County by September 25, 2002 Texas Commission on Environmental Quality Order.
Failed February 1, 2003 election.
Lavaca County Groundwater Conservation District
Created by 77th Legislature, 200, in Lavaca County
Failed November 6, 2001 election
No subsequent elections were scheduled or held and the Act creating the District expired on September 1, 2006.

Llano-Uplift Underground Water Conservation District
Created by 73rd Legislature, 1993, in Llano County
Failed May 14, 1994 election.

Lower Seymour Groundwater Conservation District
Created by 77th Legislature, 2001, in Jones County
Enabling Act expired on June 17, 2005, because confirmation election never held.

Martin County Underground Water Conservation District No. 1
Created in part of Martin County by Commissioners Court in 1951. Dissolved by 69th Legislature, 1985, and replaced with Permian Basin UWCD.

Oldham County Underground Water Conservation District
Created by 74th Legislature, 1995. Enabling Act was repealed on September 1, 1999, subject to provisions of SB 1, 1997. Confirmation election never conducted.

Post Oak Groundwater Conservation District
Created by 77th Legislature, 2001, Colorado County
Failed November 6, 2001 election.
Failed November 5, 2002 election.

Rolling Plains Underground Water Conservation District
Created by 73rd Legislature, 1993, in Borden, Mitchell and Scurry Counties.
Failed June 7, 1994 election.

San Patricio Groundwater Conservation District
Created by 75th Legislature, 1997, in San Patricio Co.
Failed January 17, 1998 election.

Southeast Trinity Groundwater Conservation District

South Plains Underground Water Conservation District No. 4
Created by November 9, 1972 Texas Water Rights Commission Order in parts of Andrews, Cochran, Dawson, Gaines, Lynn, Terry, and Yoakum Cos.
Failed November 6, 1973 election.

Upshur County Groundwater Conservation District
Created by 78th Legislature, 2003, in Upshur County
Failed May 15, 2004 confirmation election