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Priority Groundwater Management Areas and Groundwater Conservation Districts, Report to the 82nd Texas Legislature

Prepared by
Texas Commission on Environmental Quality
Texas Water Development Board

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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 or Commission) and the Texas Water Development Board (TWDB). The report fulfills the requirements of Texas Water Code (TWC), Section 35.018.

Priority Groundwater Management Areas. Seven PGMAs have been designated by the Commission since 1990 – three by TCEQ rules under previous statutory provisions and four by Commission Order. The PGMAs cover all or part of 35 counties and include: (1) parts of Reagan, Upton, and Midland Counties (1990); (2) all of Swisher and parts of Briscoe and Hale Counties (1990); (3) part of Dallam County (1990); (4) part of El Paso County (2000); (5) all of Bandera, Blanco, Gillespie, Kendall, and Kerr and parts of Bexar, Comal, Hays, and Travis Counties (Hill Country area, 1990 & 2001); (6) all of Bosque, Coryell, Hill, McLennan, and Somervell Counties; (Central Texas-Trinity Aquifer, 2008) and, (7) all of Collin, Cooke, Dallas, Denton, Ellis, Fannin, Grayson, Hood, Johnson, Montague, Parker, Tarrant, and Wise Counties (North Central Texas-Trinity and Woodbine Aquifers, 2009). Locally-initiated GCD creation, or addition of territory to an existing GCD, has occurred in six of the seven designated PGMAs. However, GCD creation is still required for the designated parts of Briscoe, Comal, Dallam, Dallas, Midland, Travis, and Upton Counties.

On February 17, 2010, the TCEQ issued an order that found adding three non-GCD areas to the North Plains GCD was the most feasible, economic, and practicable option for protecting and managing groundwater resources in the Dallam County PGMA, and it recommended that the three areas be added to the North Plains GCD. The North Plains GCD board of directors approved the TCEQ order on March 9, 2010 and scheduled a November 2, 2010 election. The proposition to join the North Plains GCD was defeated by the voters of each of the three Dallam County areas by a combined tally of 42 for; 123 against, and TCEQ must repay North Plains GCD for the cost of the election. The 82nd Texas Legislature has the opportunity to establish a groundwater management solution for the Dallam County PGMA by creating a special district or amending an existing district. In the absence of a special law solution, the TCEQ will proceed administratively in accordance with the TWC, Sections 35.013 and 36.0151 to issue an order prior to November 2, 2011, creating a GCD for groundwater management for any remaining non-GCD areas in the Dallam County PGMA.

Regarding the Hill Country PGMA, the executive director of the TCEQ filed a GCD recommendation report with the Commission on July 30, 2010, and requested the matter be referred to the State Office of Administrative Hearings (SOAH). The report concludes and recommends that the most feasible and practicable solution would be for the Commission to issue an order to create a GCD in the Hill Country PGMA with boundaries that include the western Comal County territory, the southwestern Travis County territory, and the portion of the

Hill Country PGMA in Hays County that is presently the Hays Trinity GCD. Adding the western Comal and southwestern Travis territories to two existing GCDs is the alternate recommendation, and options to create a Comal-Travis GCD or two stand-alone GCDs are also offered for consideration. The preliminary SOAH hearing was conducted on October 28, 2010 in San Marcos and the hearing on merits is scheduled for June 22-24, 2011 in San Marcos.

On June 2, 2010, the executive director notified stakeholders in Briscoe and Swisher counties of the intent to petition the Commission for action by preparing a GCD recommendation report for the PGMA. The Commissioners Court of Swisher County petitioned the High Plains Underground Water Conservation District (UWCD) No.1 in June 2010 to add Swisher County and the District's board of directors voted to accept the resolution on June 15, 2010. The District held annexation hearings in Tulia and Lubbock on July 8, 2010 and on August 17, 2010, respectively. The District scheduled an election on the addition of Swisher County on November 2, 2010, and the Swisher County voters approved joining the High Plains UWCD No. 1. by a tally of 814 for; 550 against. The executive director's draft report for the Briscoe, Swisher, and Hale County PGMA will consider options for Briscoe County only and will be completed and released for comments in fiscal year 2011.

A similar effort is underway in the Reagan, Upton, and Midland County PGMA. On June 7, 2010, the executive director notified stakeholders in the PGMA of the intent to petition the Commission for action by preparing a GCD recommendation report. The executive director's draft report for Upton and Midland counties is scheduled to be completed and released for comments in fiscal year 2011.

The Commission designated the 13-county North Central Texas – Trinity and Woodbine Aquifers PGMA on February 18, 2009. Dallas County is within the PGMA and is presently the only county within the PGMA that is not within a GCD. Chapter 1248, Acts of the 81st Legislature, R.S., 2009 (SB 2513) provides that the Commission shall not, before September 1, 2011, create a GCD in this PGMA or the Central Texas Trinity Aquifer PGMA to the south. The five-county Central Texas Trinity Aquifer PGMA was designated by the Commission on October 31, 2008. At present, all counties in the PGMA have created or joined existing GCDs. Special Districts Local Laws Code (SDLLC), Chapter 8821 requires the Southern Trinity GCD (McLennan County) to add at least one other county by September 1, 2011. After this date, the TCEQ must determine if the District has complied with this addition of territory. If the TCEQ finds that the District has not complied, the TCEQ must dissolve the District in accordance with TWC, Sections 36.304, 36.305, 36.307, 36.309, and 36.310.

Groundwater Conservation Districts. Five GCDs created by the 81st Legislature and one GCD created by the 79th Legislature were confirmed in the biennium, one GCD created by the 81st Legislature was defeated by the voters, one GCD is created but remains unconfirmed by the voters, and one GCD, the Southern Trinity GCD described above, is required to add territory to continue existence.

The Brush Country GCD (Chapter 1396, Acts of the 81st Legislature, R.S., 2009; SB 2456) was confirmed by the voters in Jim Hogg and parts of Brooks, Jim

Wells, and Hidalgo counties on November 3, 2009 by a vote of 1,038 for; 965 against, and authorized to levy an ad valorem tax at a rate not to exceed \$0.03 per \$100 assessed valuation of taxable property. The voters within the city limits of the City of Alice chose not to be part of the District.

The Duval County GCD (Chapter 450, Acts of the 79th Legislature, R.S., 2005; SB 1847) was confirmed by the voters in Duval County on July 25, 2009 by a vote of 359 for; 127 against, and authorized to levy an ad valorem tax at a rate not to exceed \$0.01 per \$100 assessed valuation of taxable property.

The North Texas GCD was created in Collin, Cooke, and Denton counties by Chapter 248, Acts of the 81st Legislature, R.S., 2009 (SB 2497), and the Act was codified as SDLLC, Chapter 8856. The Act requires commissioners court hearings and resolutions prior to December 31, 2009 in at least two of the counties to create the district. On December 15, 2009 the District submitted to the TCEQ copies of the resolutions by the commissioners courts of Collin, Cooke, and Denton counties confirming each county's inclusion in the North Texas GCD.

The Prairielands GCD was created, effective September 1, 2009, in Ellis, Hill, Johnson and Somervell counties by Chapter 1208, Acts of the 81st Legislature, R.S., 2009 (SB 726), and this law was codified as SDLLC, Chapter 8855. The Act provided that an election to confirm the District's creation was not required and that Navarro County, if designated as a PGMA, will be included in the District.

The Red River GCD was created, effective September 1, 2009, in Grayson and Fannin counties by Chapter 884, Acts of the 81st Legislature, R.S., 2009 (SB 2529), and this law was codified as SDLLC, Chapter 8859. The Act provided that a confirmation election was not required to create the District.

The Harrison County GCD was created by Chapter 1208, Acts of the 81st Legislature, R.S., 2009 (SB 726), and this law was codified as SDLLC, Chapter 8850. The District was defeated by voters on May 8, 2010 by a tally of 2,014 for; and 4,470 against. The Act does not give the District authority to conduct subsequent elections.

The Lavaca County GCD was created by Chapter 951, Acts of the 80th Legislature, R.S., 2007 (HB 4029; SDLLC, Chapter 8822). The District was defeated by voters in Lavaca County on May 10, 2008 by a vote of 1,262 for; 1,696 against. SDLLC, Chapter 8822 provides the District may hold subsequent confirmation elections until the Act expires on September 1, 2013.

During 2009 – 2010, parts of Brooks, Lamb, Hidalgo, Hockley, and Willacy counties and all of Bosque, Coryell, Motley, and Swisher counties were added to existing GCDs through the petition and administrative processes provided by state law. As of November 2010, a total of 99 GCDs have been created in the state. The total includes 98 established districts and one unconfirmed district. The 98 established districts cover all or part of 175 of the state's 254 counties.

TWDB Management Plan Approval. Between January 2009 and the end of 2010, seven new GCDs were required to submit their first management plan after their confirmation election. As of November 2010, the TWDB approved five of the seven GCD management plans as administratively complete. In addition to

the management plans received from new GCDs, the TWDB also received 37 plans for re-approval. The executive administrator of the TWDB approved a total of 44 plans as administratively complete during the 2009–2010 biennium. Future management plan due dates include four districts that have management plans due for approval in 2011, 12 districts in 2012, and 23 districts in 2013. These management plan counts include both first-time approvals and re-approvals.

TCEQ Noncompliance Review. During the biennium, the Brewster County GCD entered into a compliance agreement with the TCEQ on February 4, 2009 for the readoption of the District’s management plan. The TWDB approved the District’s management plan on June 11, 2009. Upon receipt of the District’s documentation, TCEQ concluded its noncompliance review case on July 28, 2009. Twelve GCDs are out of compliance with the statutory adoption or readoption deadlines as of November 1, 2010. The TCEQ is investigating the facts and circumstances for the violations, has engaged the GCDs, and has entered into compliance agreements with two of the GCDs. The Middle Pecos GCD and Texana GCD are under compliance agreements with the TCEQ. The Middle Pecos GCD adopted a new management plan on October 19, 2010 and has submitted the plan to the TWDB for approval consideration. The Texana GCD adopted a draft management plan on October 14, 2010 and submitted it to the TWDB for preliminary review. The Clear Fork GCD, Lost Pines GCD, Live Oak UWCD, and Trinity Glen Rose GCD have also adopted management plans and submitted them to TWDB for approval consideration. The remaining GCDs that are presently out of compliance include the Edwards Aquifer Authority, Evergreen UWCD, San Patricio County GCD, Gateway GCD, Medina County GCD, and Uvalde County UWCD.

In 2009 – 2010, TCEQ has taken action on two nonoperational GCDs. After a multi-year effort, TCEQ dissolved the Salt Fork UWCD in Kent County in May 2009 for violating the management plan adoption and implementation provisions. In February 2010, the State Auditor’s Office (SAO) found Kinney County GCD not operational in achieving the objectives of its management plan. The SAO also found deficiencies in the financial and operational practices of the District and that the District had failed to fully implement 31 of the 32 financial and operational recommendations made by the SAO in 2006. The Commission considered the matter on August 11, 2010 and directed staff to enter into a compliance agreement with the District to address management plan implementation, document permitting procedures, and develop a debt-reduction plan. The District entered a compliance agreement with the TCEQ on September 9, 2010.

The SAO also reviewed 13 other GCDs during the biennium and released a report in August 2010. Nine of the 13 GCDs fully or partially achieved all four of the specific groundwater management plan goals audited by SAO; three of the 13 GCDs fully or partially achieved two to three of the four goals audited; and one of the 13 GCDs partially achieved one of the four goals audited. Twelve of the 13 districts were in full or partial compliance with seven or more of the 10 TWC’s statutory requirements audited by SAO. The remaining district complied with three of the five requirements that were applicable to it.

On September 17, 2010, Mesa Water, L.P. filed a petition requesting an inquiry relating to joint groundwater management planning in Groundwater Management Area 1 (GMA 1). The Petitioner asserts the planning process failed to result in adequate planning because the adopted desired future conditions (DFCs) for the Ogallala aquifer are not reasonable because they are based on political boundaries and the GCDs in GMA 1 have failed to adopt rules to achieve DFCs. The Commission is scheduled to take action on the Petition on December 14, 2011.

Joint Planning in Groundwater Management Areas. Since September 1, 2008, there have been a total of 92 groundwater management area meetings and ten related meetings such as public workshops and/or technical work group meetings. As of September 1, 2010, all of the groundwater management areas with groundwater conservation districts have adopted desired future conditions for all of their relevant aquifers. A total of 71 desired future conditions were adopted, and one was legislatively mandated (Edwards Aquifer, San Antonio Segment within the boundaries of the Edwards Aquifer Authority). TWDB staff has reviewed all of the submitted desired future conditions and all submittals have been determined to be administratively complete.

From September 2009 through October 2010, the Groundwater Availability Modeling Section of TWDB completed more than 55 model runs requested by GCDs in groundwater management areas with another four pending completion. In addition, the Groundwater Technical Assistance Section of TWDB completed ten aquifer assessments by September 2010 with five pending completion.

Technical Assistance. On an ongoing basis, 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, training for water level and water quality data gathering, equipment for automated water level monitoring, conducting field studies of groundwater, aquifer pumping tests, groundwater availability modeling, and development of groundwater management plans.

Groundwater Management Issues and Recommendations. During the 2009- 2010 biennium, the Office of the Attorney General (OAG) clarified issues related to overlapping GCD jurisdiction in Brewster, Jeff Davis, Hemphill, and Presidio counties (GA-0792), but was not able to clarify the issue in Caldwell County because of significantly different and judicially-untested circumstances (GA-0795). The OAG also issued an opinion for an Uvalde County UWCD matter related to disclosure of conflict of interest (GA-0796). One opinion request relevant to the Kinney County GCD (RQ-0790-GA) was closed due to ongoing litigation regarding the matter.

Over the interim, the Senate Committee on Natural Resources and the House Committee on Natural Resources have held hearings in Austin 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 82nd Legislature, 2011. The TCEQ and the TWDB respectfully defer recommendations regarding the management of groundwater resources to the work and findings of the Committees. 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.

Introduction

This report has been prepared for the 82nd 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 TWC. 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 TWC 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 TWC. 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 81st Legislature, Regular Session, 2009, 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 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 seventh edition of a series that is prepared jointly by the TCEQ and the TWDB. The first six reports were presented to the 81st Legislature in 2009 (TCEQ, 2009), the 80th Legislature in 2007 (TCEQ, 2007), 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).

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. These reports, spanning the years 1985 to 1997, were presented to the 70th (1987) through 75th (1997) legislatures (Texas Water Commission, 1987, 1989, 1991 and 1993; TNRCC, 1995 and 1997). These reports were prepared under Chapter 133 (General and Special Laws), Regular Session, and 69th Legislature, 1985, which was repealed and replaced with Section 35.018 of the TWC in 1997.

Interagency Coordination and Implementation

Several state agencies have responsibilities for and are involved in implementing the groundwater management plan requirements of the TWC. 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 TWC, and for providing technical assistance to GCDs, when requested.

The **Texas Water Development Board** provides technical and administrative support to GCDs 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 AgriLife Extension Service** in the PGMA process is to provide educational opportunities to the public. The TAES is charged with conducting educational programs in designated PGMAs on the area's water resources and the management options available for these resources. TAES 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 consists of board members, managers, and staff of the groundwater conservation districts in Texas that are responsible for the management of groundwater, as defined in TWC, Chapter 36. TAGD membership also includes non-voting associates from the professional engineering, geoscientific, and legal communities. Members of the TAGD serve

on various local, state, and federal advisory groups and routinely assist the TAES 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, and amended in August 2007. The purpose of the second MOA was to clarify agency communications regarding the creation of new GCDs, the administrative approval of management plans for GCDs by the TWDB, and TCEQ noncompliance review and enforcement actions if a district failed to submit or receive approval of its management plan. This MOA remains in effect.

Acts of the 81st Legislature Affecting Groundwater Conservation Districts

The Acts of the 81st Legislature, Regular Session, 2009, 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

One Act passed by the 81st Legislature made changes to the TWC, Chapter 36. This change was generally related to enforcement of rules by a groundwater conservation district.

Table 1. Acts of the 81st Legislature Amending the Texas Water Code, Chapter 36

Act	Description
HB 2063 (Chap. 425)	Amends TWC, Section 36.102 related to the enforcement of rules by a groundwater conservation district. The Act clarifies that a groundwater conservation district may enforce its rules and set reasonable civil penalties against any person violating district rules by injunction, mandatory injunction, or other appropriate remedy in a court of competent jurisdiction. [Effective September 1, 2009]

Groundwater Conservation District Creation And Dissolution

Five new GCDs were created by special Acts of the 81st Legislature, 2009. The new GCDs were created in all or part of 14 counties and include Brush Country, Harrison County, North Texas, Prairielands, and Red River GCDs. Creation of two out of five GCDs was subject to voter confirmation. McLennan County GCD was renamed Southern Trinity GCD and the requirement for confirmation election was removed. Table 2 briefly describes creation and dissolution Acts of the 81st Legislature.

Table 2. GCD Creation and Dissolution Acts of the 81st Legislature

Act	Description
SB 726 (Chap. 1208)	The Act creates, subject to a confirmation election, the Harrison County GCD in Harrison County and provides for the powers, duties, administration, operations and financing of the District. The Act also creates the Prairielands GCD in Ellis, Hill, Johnson, and Somervell counties and provides for the powers, duties, administration, operations and financing of the District. The Act provides that Navarro County would be added to the Prairielands GCD if all or part of Navarro County is

Act	Description
	designated at a later date by the Commission as a PGMA. The Act authorizes the two districts with special powers and duties and with TWC, Chapter 36, related to general law for GCDs. [Special District Local Laws Code, Chapter 8850, Effective 06/19/2009; and Chapter 8855, Effective 09/01/2009.]
SB 2456 (Chap. 1396)	Creates, subject to a confirmation election, the Brush Country GCD in all of Jim Hogg County, portions of Brooks and Jim Wells counties not within the Kenedy County GCD, and part of Hidalgo County. The Act provides for the powers, duties, administration, operations and financing of the District. The Act also authorizes the District with special powers and duties and with TWC, Chapter 36, related to general law for GCDs. [Special District Local Laws Code, Chapter 8852; Effective 06/19/2009]
SB 2497 (Chap. 248)	Creates the North Texas GCD in Collin, Cooke, and Denton counties and provides for the powers, duties, administration, operations and financing of the District. The Act requires commissioners court of the counties to confirm creation of the District. The Act also authorizes the District with special powers and duties and with TWC, Chapter 36, related to general law for GCDs. [Special District Local Laws Code, Chapter 8856; Effective 05/27/2009]
SB 2529 (Chap. 884)	Creates the Red River GCD in Fannin and Grayson counties and provides for the powers, duties, administration, operations and financing of the District. The Act authorizes the District with special powers and duties and with TWC, Chapter 36, related to general law for GCDs. [Special District Local Laws Code, Chapter 8859 Effective 09/01/2009]
SB 2513 (Chap. 1248)	Creates the Southern Trinity GCD in McLennan County and provides for the powers, duties, administration, operations and financing of the District. The pre-existing McLennan County GCD was renamed the Southern Trinity GCD and the requirement for confirmation election was removed. The Act authorizes the District with special powers and duties and with TWC, Chapter 36, related to general law for GCDs. [Special District Local Laws Code, Chapter 8821; Effective 06/19/2009]

Amendments for Specific Groundwater Conservation Districts

Seventeen Acts of the 81st Legislature made changes to authorities and responsibilities of existing groundwater conservation districts. These Acts amended the enabling legislation of each of the 18 GCDs that were changed in some manner. Table 3 provides a brief description of these Acts.

Table 3. Acts of the 81st Legislature Amending Specific GCDs

Act	Summary
HB 753 (Chap. 12)	Amends the enabling legislation of the Goliad County GCD to change the directors' election date and validate district actions taken before the effective date of the Act. The validation does not apply to matters that on the effective date of the Act have been or could be held invalid by a final court judgment. [Amends Chapter 1359, Acts of the 77 th Legislature, Regular Session, 2001; Effective 05/12/2009]
HB 1518 (Chap. 381)	Amends the enabling legislation of the Trinity Glen Rose GCD in Bexar, Comal, and Kendall counties. The Act provides addition of territory to and well production fee caps imposed by the District. [Amends Chapter 1312, Acts of the 77 th Legislature, Regular Session, 2001; Effective 06/19/2009]
HB 1664 (Chap. 390)	Amends the Special District Local Laws Code of the Upper Trinity GCD relating to an exemption, for groundwater used for emergency purposes, from production fees assessed by the District. [Special District Local Laws Code , Chapter 8830; Effective 06/19/2009]
HB 1923 (Chap. 113)	Amends the enabling legislation of the Irion County WCD by clarifying District boundaries, provides for equitable board member representation if the District annexes territory or consolidates with another district, authorizes the District to change its name, changes the date for the election of directors, provides terms for existing directors, provides that directors will serve staggered four-year terms, and provides that directors may receive a fee of office that is consistent with TWC, Chapter 36. [Amends Chapter 65, Acts of the 69 th Legislature, Regular Session, 1985; Effective 05/23/2009]
HB 1947 (Chap. 410)	Amends the enabling legislation of the Guadalupe County GCD relating to the election and terms of office of directors. [Amends Chapter 1066, Acts of the 75 th Legislature, Regular Session, 1997; Effective 06/19/2009]
HB 4713 (Chap. 1064)	Amends the enabling legislation of the Cow Creek GCD by clarifying the language relating to permissive District authority to adopt rules to grant ad valorem tax exemptions for property on which a water conservation initiative has been implemented under the requirements of the Tax Code. [Amends Chapter 966, Acts of the 77 th Legislature, Regular Session, 2001; Effective 06/19/2009]

Act	Summary
HB 4762 (Chap. 1080)	Amends the enabling legislation for the Edwards Aquifer Authority (Authority). The Act adds and includes approximately 1,025 acres of Atascosa County into the Authority's boundary. The Act also validates Authority acts and proceedings relating to three initial regular permits unless a matter, on the effective date of the Act, is involved in litigation that results in the matter being held invalid by a final court judgment or the matter has been held invalid by a final court judgment. The Act finds that the three regular permits were issued January 01, 2005, and the withdrawals authorized by the permits are included within the 572,000 acre-feet of available water per calendar year as established by Chapter 626, Acts of the 73 rd Legislature, Regular Session, 1993. [Amends Chapter 626, Acts of the 73 rd Legislature, Regular Session, 1993; Effective 06/19/2009]
HB 4785 (Chap. 1088)	Amends the enabling legislation of the Brazoria County GCD and clarifies that District directors are elected on the May uniform election date each subsequent second year. The Act sets service terms for the directors serving on the effective date of the Act with service terms set to expire in November 2010 and November 2012. The Act also clarifies that District production fees may be based on the amount of groundwater authorized by permit to be withdrawn from a well or the amount of water actually withdrawn. The Act provides that District production fees may not exceed 17 cents per 1,000 gallons. [Amends Chapter 772, Acts of the 78 th Legislature, Regular Session, 2003; Effective 06/19/2009]
SB 663 (Chap. 277)	The Act repeals the Special District Local Laws Code for the Tablerock GCD and dissolves the District. [Special District Local Laws Code, Chapter 8823; Effective 05/30/2009]
SB 848 (Chap. 54)	The Act amends the enabling legislation of the Anderson County UWCD to clarify the directors' election date and validate district actions taken before the effective date of the Act. [Amends Chapter 992, Acts of the 70 th Legislature, Regular Session, 1987; Effective 05/19/2009]
SB 1209 (Chap. 521)	Amends the enabling legislation of the Middle Trinity GCD and adds provisions for the appointment and terms of three initial directors for each county and the election and terms of three permanent directors for each county if one or two counties are added to the District. The Act also provides director representation procedures if the District adds a fifth county. In this case, the Act provides for the appointment of two initial directors for the fifth county, the election of two permanent directors for the fifth county, and the abolition of one director position for the other four counties. The Act allows the board to change the number of directors from a county in the District by a board resolution to provide residents an equal representation in the District. The bill adds definitions for the terms Board, Director, and District; clarifies the date for election of directors; and adds language to clarify the District's rule and enforcement authority. [Amends Chapter 1362, Acts of the 77 th Legislature, Regular Session, 2001; Effective 06/19/2009]

Act	Summary
SB 1755 (Chap. 64)	Amends the enabling legislation of the Clearwater UWCD and changes the directors' election date, provides service terms for present directors, and validates District actions taken before the effective date of the Act. The validation does not apply to matters that on the effective date of the Act have been or could be held invalid by a final court judgment. [Amends Chapter 524, Acts of the 71 st Legislature, Regular Session, 1989; Effective 05/19/2009]
SB 2495 (Chap. 864)	Amends the Special District Local Laws Code of the Bee GCD relating to eligibility requirements that a person elected to serve as a director of the District must own land in the single-member district the person is elected to represent. The Act provides the qualifications for directors elected before the effective date is governed by the law in effect on the date the director was elected.[Special District Local Laws Code, Chapter 8804; Effective 06/19/2009]
SB 2513 (Chap.1248)	Amends Special District Local Laws Code of the McLennan County GCD and changes the name of the District to the Southern Trinity GCD . The Act repeals provisions requiring confirmation of the District by the voters and establishes the initial directors and staggered director terms ending December 31, 2011 and December 31, 2013. The Act sets District well production fee caps at \$1 per acre-foot annually for agricultural use and 30 cents per 1,000 gallons annually for all other uses. The Act authorizes the District to apply production fees to exempt wells permitted under TWC, Section 36.117 except domestic wells or livestock wells producing no more than 25,000 per day on a tract of land ten acres or larger. The Act acknowledges the District is located in a PGMA designated by the TCEQ, and adds a prohibition for TCEQ to create a GCD in the PGMA on the adjacent PGMA before September 1, 2011. [Special District Local Laws Code, Chapter 8821; Effective 06/19/2009]
SB 2520 (Chap. 879)	Amends the enabling legislation of the Santa Rita UWCD and clarifies that a District director must be a resident and that District directors are elected on the May uniform election date in odd-numbered years. The Act provides that Election Code, Section 141.001 (a) (5), and TWC, Section 36.059(b), do not apply to the District. [Amends Chapter 653, Acts of the 71 st Legislature, Regular Session, 1989; Effective 06/19/2009]

Act	Summary
SB 2543 (Chap. 1249)	Amends Special District Local Laws Code for the Harris-Galveston Subsidence District and the enabling legislation for the Fort Bend Subsidence District to clarify that the districts may enforce rules in a district court and assess a civil penalty against any person. The Act provides that the districts may assess against a political subdivision a civil penalty of an amount equal to or greater than 120 percent of the sum of the fees assessed against the person and the amount the person would have paid to an alternative water supplier or \$5,000 for each violation and for each day of a continuing violation. The Act provides that the changes made by the Act apply only to a violation occurring on or after the effective date and continues the former law for violations that occurred before the effective date. [Special District Local Laws Code, Chapter 8801, and Chapter 1045, Acts of the 71 st Legislature, Regular Session, 1989; Effective 06/19/2009]
SB 2570 (Chap. 893)	Amends the enabling legislation for the Kenedy County GCD . The Act requires that the board divide the district into five single member districts, assign the existing board positions to one of the single-member districts, draw the single-member districts to mirror the existing district lines as closely as possible, and account for the board position representing the voters of the Santa Gertrudis Independent School District. Future annexed territory will be added to one or more of the single-member districts as determined by the board. Directors must be a registered voter in the single-member district they wish to represent. Following each federal decennial census, or as needed, the board may redraw the single-member district boundaries reflecting population changes. Re-drawing of single-member district boundaries will not affect the presiding director should the change in boundaries exclude the directors' residence. The Act repeals provisions for the enabling legislation relating to the previous methods for director elections. [Amends Chapter 1152, Acts of the 78 th Legislature, Regular Session, 2003; Effective 06/19/2009]

Carrizo-Wilcox Aquifer Study

Senate Bill 1, 81st Legislature, Article VI, Item 36, directed the TCEQ to conduct a study of the characteristics and impacts on groundwater planning in the Carrizo-Wilcox Aquifer. The TCEQ entered into a research contract with the Bureau of Economic Geology at The University of Texas at Austin (UTBEG) to collect and review a wide variety of information, develop datasets and conduct a series of analyses regarding current activities related to groundwater management of the Carrizo-Wilcox Aquifer in Texas. The UTBEG study covers Groundwater Management Areas 11, 12, and 13. Sixteen of 21 GCDs with jurisdiction over the Carrizo-Wilcox Aquifer have participated in surveys that are part of the examination of district management plans, rules, and desired future conditions and how the plans, rules and desired future conditions for each district relate to other districts, aquifer science, and state and regional water planning. The draft UTBEG report is expected to be complete by December 31, 2010, with the final UTBEG report ready by February 15, 2011.

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 82nd 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), Section 293.19 and Sections 294.41 - 293.44.

Background

Between 1987 and 2001, 17 PGMA study areas covering 117 counties were evaluated by the Commission and the Texas Water Development Board. Six of these study areas, covering all or part of 17 counties, were designated as PGMAs by the Commission.

- Hill Country PGMA in all or part of eight counties (1990)
- Reagan, Upton and Midland County PGMA in part of each county (1990)
- Briscoe, Swisher and Hale County PGMA in all or part of each county (1990)
- Dallam County PGMA in part of county (1990)
- El Paso County PGMA in part of county (1998)
- Northern Bexar County (added to Hill Country PGMA in 2001)

From 2002 to 2010, one new PGMA study area covering one county was evaluated, and five previously studied areas covering all or part of 46 counties were reevaluated. Of these, the Commission designated the Central Texas Trinity Aquifer PGMA in five counties and North Central Texas Trinity and Woodbine Aquifers PGMA in 13 counties.

- Designated October 2008 – Central Texas Trinity Aquifer PGMA in Bosque, Coryell, Hill, McLennan, and Somervell counties.
- Designated February 2009 – North Central Texas Trinity and Woodbine Aquifers PGMA in Collin, Cooke, Dallas, Denton, Ellis, Fannin, Grayson, Hood, Johnson, Montague, Parker, Tarrant, and Wise counties.

Table 4 provides information for each of the PGMA studies and agency PGMA study reports are listed in Appendix 1. Figures 1 and 2 show the PGMAs and study areas in relationship to the area of the state located within the major and minor aquifers as delineated by the TWDB. The areas of the state that are designated as PGMAs are shown in Figure 1. Figure 2 illustrates all of the areas of the state that have been evaluated through the PGMA process to date. Figure 2 shows the designated PGMAs, and the areas that were determined not to be PGMAs. Colored maps showing the major and minor aquifers in the state are provided in Appendix 2.

Groundwater conservation district creation activity has occurred in six of the seven designated PGMAs. Figure 3 shows the PGMAs and where GCDs have been established within the state. Areas where GCD creation is needed remain in five PGMAs. Figure 4 is included to illustrate that most of the state has been evaluated for groundwater management needs by a groundwater conservation district, either by local initiative to create or defeat a GCD, or by the TCEQ in the PGMA process.

Table 4. Priority Groundwater Management Area Studies

PGMA Study Area	Major Aquifer(s)	Date Study Started	TCEQ or Executive Director Action
Study Areas Determined to be PGMAs and Designated by the TCEQ			
Hill Country Area	Trinity	04/01/87	Designated on 06/06/90
Northern Bexar County Area		07/26/99	Designated on 01/24/01 Added to Hill Country PGMA
Reagan, Upton and Midland County Area	Edwards-Trinity	10/01/87	Designated on 06/13/90
Briscoe, Hale and Swisher County Area	Ogallala	01/01/88	Designated on 06/06/90
Dallam County Area	Ogallala	09/01/89	Designated on 06/06/90
El Paso County Area	Hueco Bolson	01/29/98	Designated on 12/02/98
Central Texas (Waco) Area	Trinity	07/08/05	Designated on 10/31/08
North-Central Texas Area	Trinity – Woodbine	08/04/05	Designated on 02/18/2009
Study Areas Determined Not to be PGMAs; No Further Evaluation Required			
Lower Rio Grande Valley Area	Gulf Coast	09/01/89	Decision made 09/19/90 (Commission)
Fort Bend County Area	Gulf Coast	09/01/89	Decision made 09/19/90 (Commission)
Orange-Jefferson Counties Area	Gulf Coast	09/01/89	Decision made 09/19/90 (Commission)
Wintergarden Area	Carrizo-Wilcox	10/04/90	Decision made 05/06/91 (Exe. Director)
Southernmost High Plains Area	Ogallala	01/07/91	Decision made 08/05/91 (Exe. Director)
N. TX Alluvium and Paleozoic Outcrop Area	Seymour, Blaine and Dockum	10/06/97	Decision made 08/31/98 (Exe. Director)
East Texas Area	Carrizo-Wilcox	12/23/98	Decision made 08/04/04 (Exe. Director)
Trans-Pecos Area	Cenozoic Pecos Alluvium	12/23/98	Decision made 05/01/05 (Exe. Director)
Hudspeth County Area	Hueco and West TX Bolsons	06/30/04	Decision made 06/17/05 (Exe. Director)
Williamson, Burnet and Northern Travis Counties	Edwards (BFZ) and Trinity	08/23/04	Decision made 01/09/06 (Exe. Director)

Figure 1. Priority Groundwater Management Areas (PGMAs)

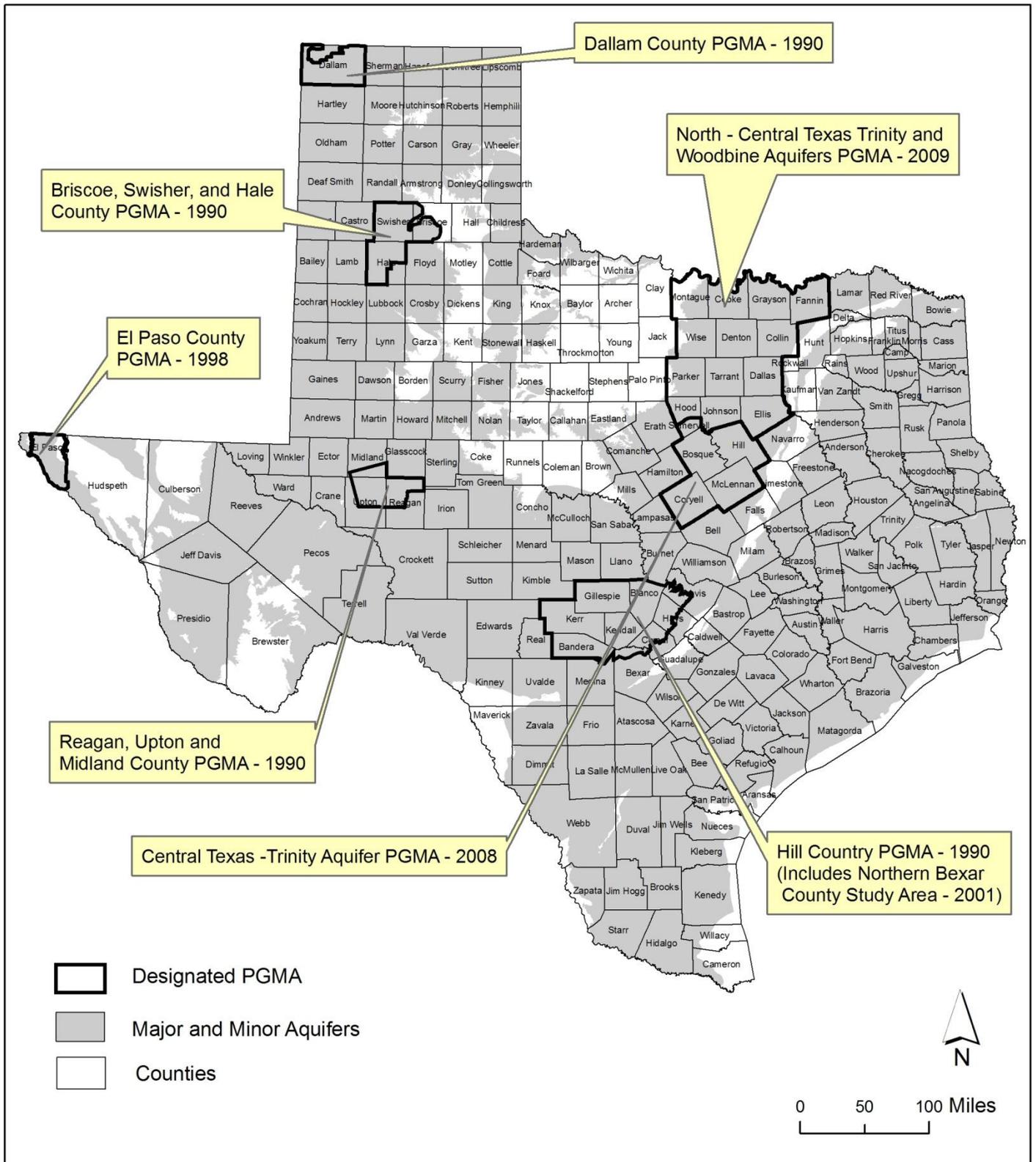


Figure 2. Areas Evaluated in the PGMA Program

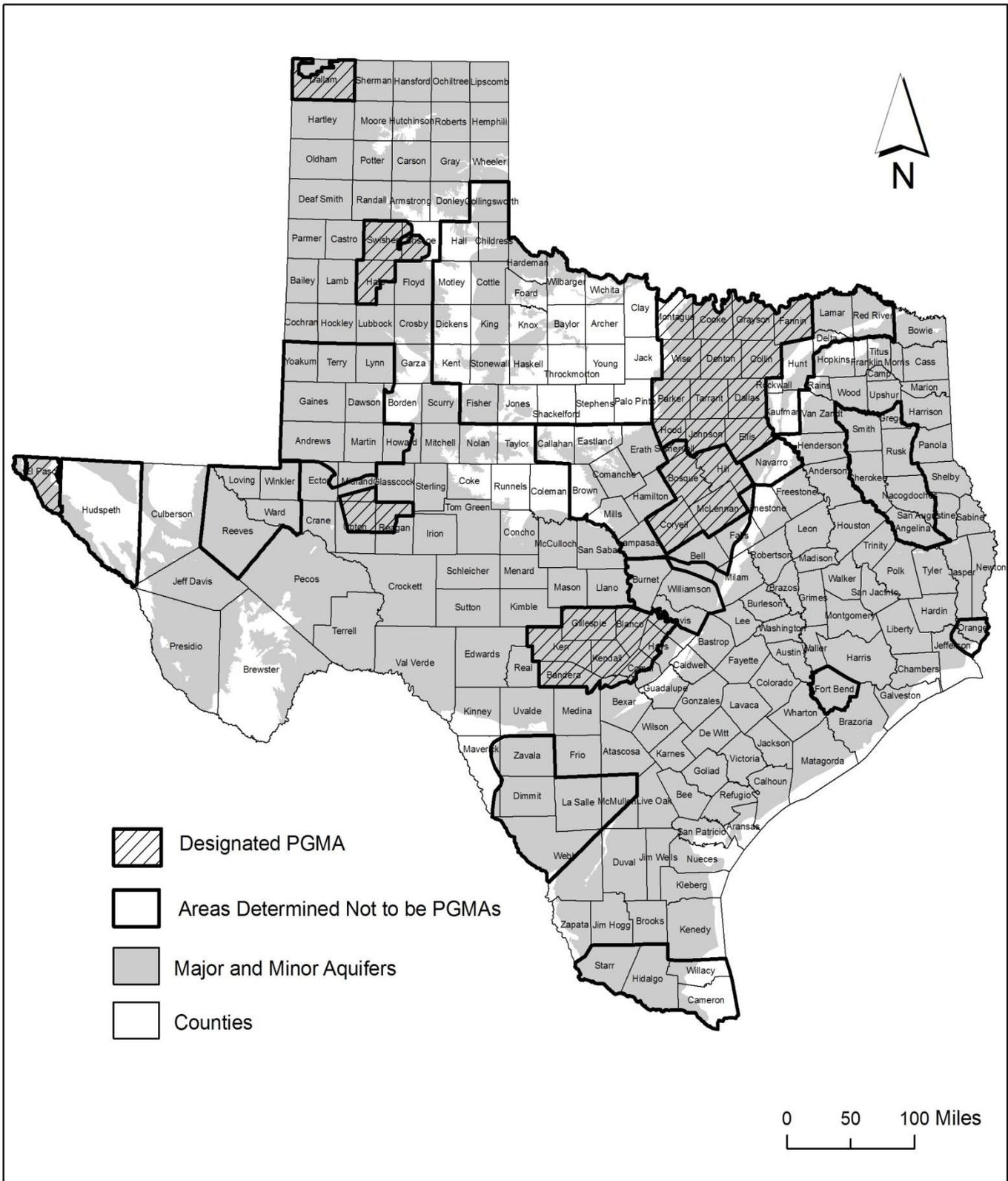


Figure 3. PGMA and GCDs

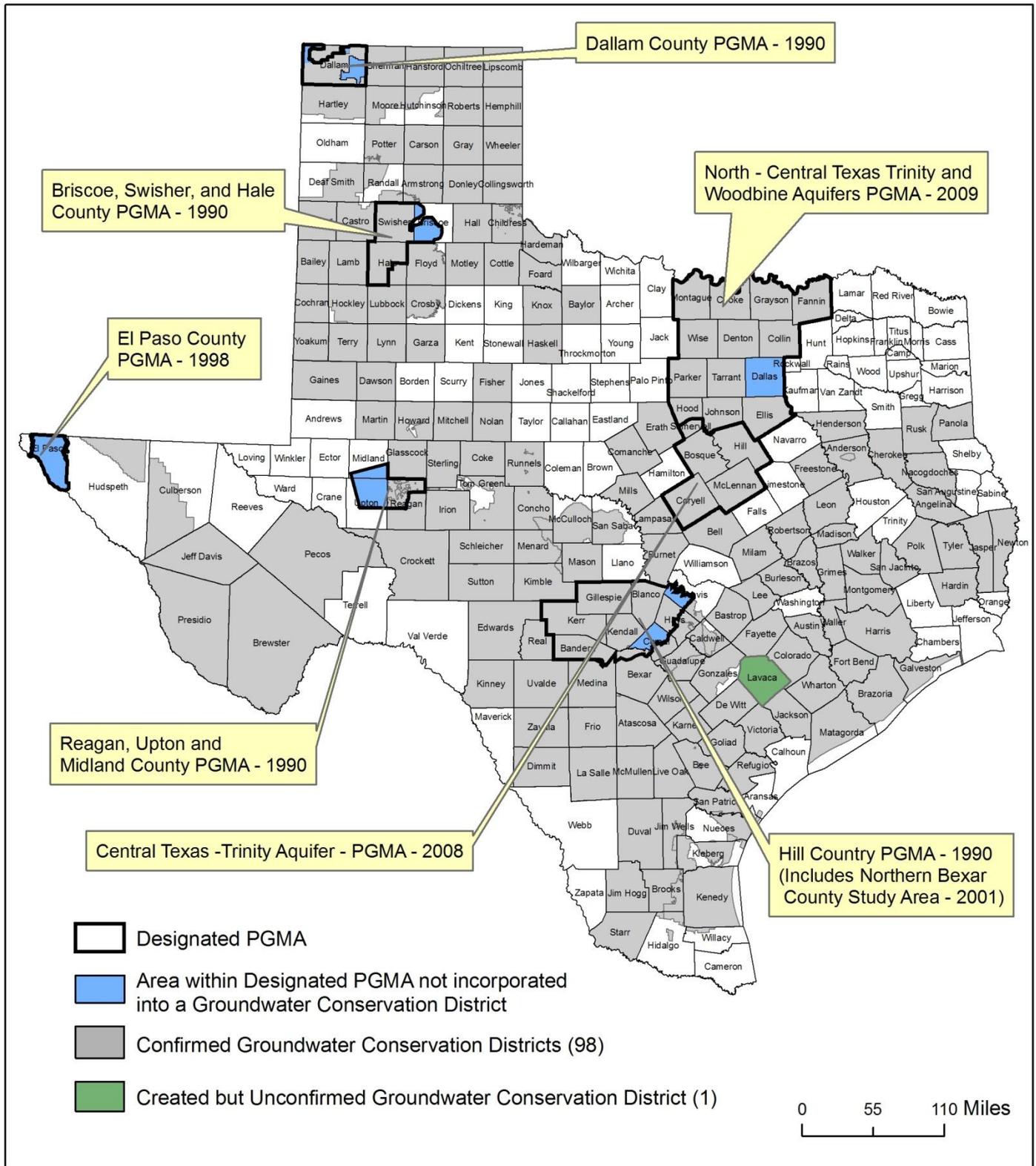
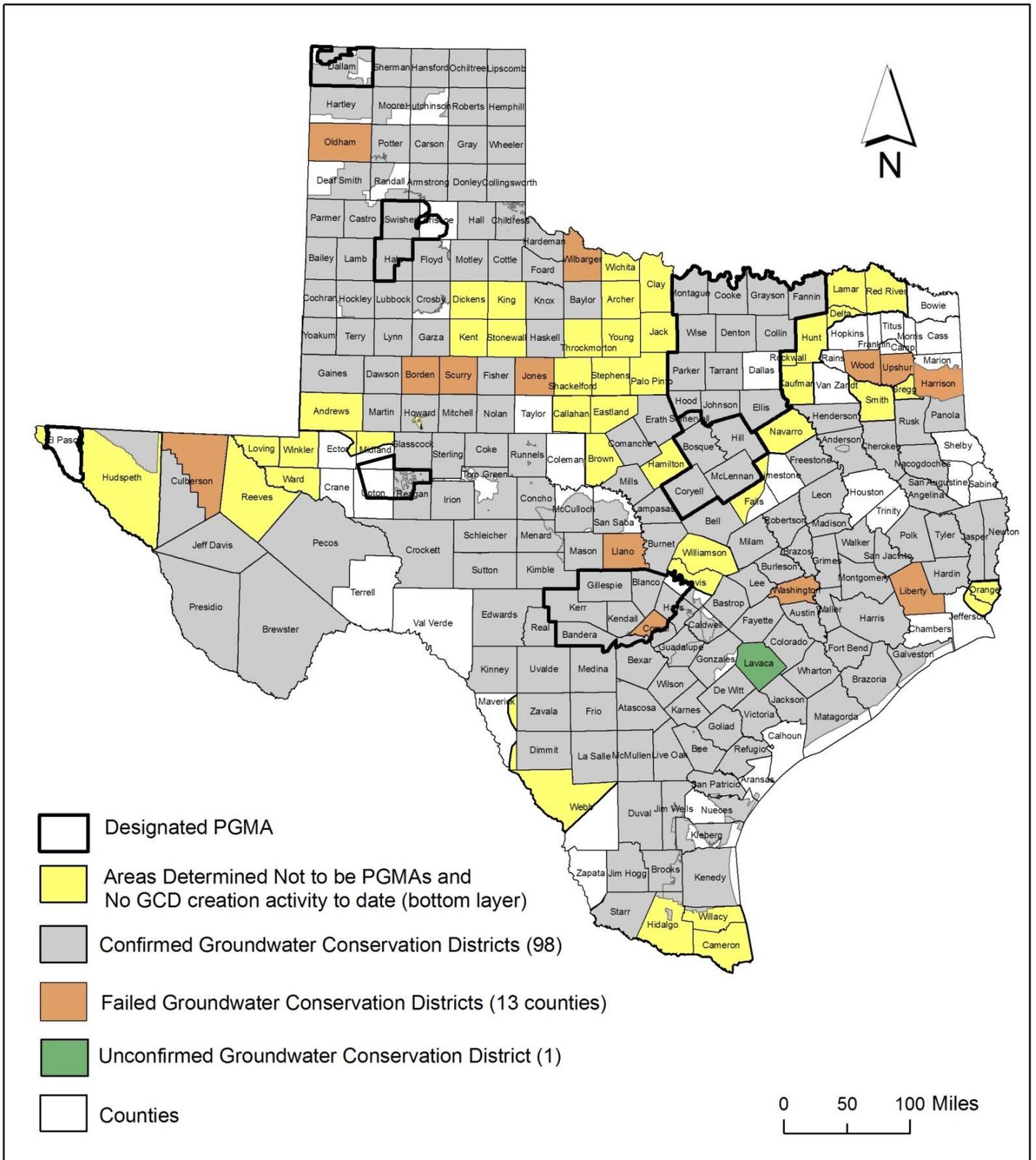


Figure 4. PGMA Program and GCD Initiatives



PGMA Studies and Designations

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 2009-2010 biennium, the TCEQ completed designation actions for the final update study.

North Central Texas Trinity and Woodbine Aquifers PGMA

The Commission designated the North Central Texas-Trinity and Woodbine Aquifers PGMA in Collin, Cooke, Dallas, Denton, Ellis, Fannin, Grayson, Hood, Johnson, Montague, Parker, Tarrant and Wise counties by order on February 18, 2009. The TCEQ designation order recommends that a regional GCD in the PGMA is the most feasible, practicable, and economic option for protection and management of the groundwater resources, or that five GCDs based on local actions conducted in a timely manner is also a feasible and practicable solution.

Copies of the TCEQ designation order were mailed in June 2009 to the commissioners courts of the affected counties, the GCDs within and adjacent to the PGMA, and to TAES. An education program by TAES, facilitated by county steering committees appointed by the commissioners courts, was requested.

During and after the PGMA designation, five GCDs were created in this area during the 80th Legislature, 2007 and 81st Legislature, 2009. The Northern Trinity GCD was created in Tarrant County effective June 15, 2007, and did not require voter confirmation. The Upper Trinity GCD was created effective September 1, 2007, and was confirmed on November 6, 2007 in Hood, Montague, Parker, and Wise counties. The Red River GCD was created in Grayson and Fannin counties effective September 1, 2009, and did not require voter confirmation. The Prairielands GCD was created in Ellis, Hill, Johnson, and Somervell counties effective September 1, 2009, and did not require voter confirmation. The North Texas GCD was created in Cooke, Collin and Denton counties effective May 27, 2009, and was confirmed by commissioner courts resolutions on all counties in accordance with the District's Act.

Status and TCEQ Actions in Designated PGMA's

State law requires the TCEQ to identify areas within a PGMA which have not been incorporated into a GCD through local initiatives and to initiate procedures to create GCDs or have area join an existing GCD if local efforts have not succeeded or occurred. Four critical areas were designated in 1990 by the Texas Water Commission (TCEQ's predecessor agency) under prior statutory processes, and state law confirmed the designation of these areas as PGMA in 1997. For the creation of GCDs in the PGMA's designated before 2001, the TCEQ rules provide for an executive director report and recommendation, stakeholder notice and input, and a contested case hearing before a SOAH administrative law judge on which option for establishing a GCD is the most feasible, practicable, and economical.

Locally initiated GCD creation or additions of territory to an existing district has occurred in six of the previously designated PGMA's; however, areas remain in five PGMA's that have not yet established a GCD. Successful district creation has

not occurred in the designated parts of Briscoe, Comal, Dallam, Dallas, Midland, Travis, and Upton counties. Where authorized, the executive director has started the process to petition the TCEQ for the establishment of GCDs in the areas where GCD creation activity has not occurred.

Dallam County PGMA

On August 11, 2008, the executive director released a draft report titled *Groundwater Conservation District Recommendation for Dallam County Priority Groundwater Management Area*. A notice of the draft report and request for comment was mailed to stakeholders on August 11, 2008. The comment period ended on September 25, 2008 with four comments received.

The report and petition recommending that three identified areas of the Dallam County PGMA be added to the North Plains GCD was filed with TCEQ on January 22, 2009 and the matter was referred to SOAH to conduct a contested case hearing. The SOAH preliminary hearing was held at the Dallam County Courthouse on March 16, 2009 to take jurisdiction, name parties, and consider pretrial matters. The SOAH hearing on merits was held on August 26, 2009 at the Dallam County Courthouse. The SOAH proposal for decision was filed with the TCEQ on December 14, 2009. On February 17, 2010, the Commission issued an Order that found adding the three areas to the North Plains GCD was the most feasible, economic, and practicable option for protection and management of the groundwater resources and recommending that the three areas not included in a GCD in the Dallam County PGMA be added to the North Plains GCD. The Order directs the North Plains GCD to vote to add the areas and then call and hold an election within each of the areas in accordance with TWC, Section 35.013.

The North Plains GCD board of directors approved the Commission order recommending the addition of the three areas on March 9, 2010, and scheduled a November 2, 2010 election. Texas AgriLife Extension Service conducted an education program in the PGMA and TCEQ and TWDB staff participated in the October 2010 educational outreach meetings in Texline and Dalhart. In addition to the public meeting, TAES mailed a packet containing educational information to all registered voters in the three areas.

On November 2, 2010, the proposition to join the North Plains GCD was defeated by the voters of the three Dallam County areas as follows: Area A (Texline area) – 37 for; 88 against, Area B – 0 for; 1 against, and Area C (eastern part of PGMA) – 5 for; 34 against. In accordance with state law, the TCEQ must repay North Plains GCD for the cost of the election.

The 82nd Texas Legislature has the opportunity to establish a groundwater management solution for the Dallam County PGMA by creating a special district or amending an existing district. In the absence of a special law solution, the TCEQ will proceed administratively in accordance with the TWC, Sections 35.013 and 36.0151 to issue an order prior to November 2, 2011, creating a GCD for groundwater management for any remaining non-GCD areas in the Dallam County PGMA. The order will provide for the purpose of the GCD, the GCD's boundary, and the estimated minimum maintenance tax or production fee necessary to support the GCD. The TCEQ order will also provide for the appointment of temporary directors by the Commissioners Court of Dallam

County. A confirmation election for the new GCD will not be required. However, the temporary directors will be required to call and schedule an election to select permanent directors and to offer a proposition to the voters for district authorization to assess taxes. The new GCD will be responsible for the cost of the election and for all operation and maintenance costs of the district through any means available under TWC, Chapter 36.

Hill Country PGMA

In September 2009, the executive director completed a draft report (*Groundwater Conservation District Recommendation for Hill Country Priority Groundwater Management Area – Western Comal and Southwestern Travis Counties*) to address groundwater management in the Hill Country PGMA. The purpose of this report was to identify and evaluate the areas in the Hill Country PGMA not included in a GCD and evaluate and recommend whether one or more GCDs be created, whether the identified areas be added to an existing GCD, or whether a combination of these actions be taken.

The TCEQ draft report identified two areas in the Hill Country PGMA that are not currently part of a GCD. The two areas are the western Comal and southwestern Travis territories. Notice of the draft report was mailed to stakeholders. The draft report was provided to the stakeholders for the opportunity to review and comment and the relevant stakeholders provided comments. There was little to no support for the draft report's primary recommendation to add the western Comal territory to the Trinity Glen Rose GCD of northern Bexar County and to add the southwestern Travis territory to the Barton Springs/Edwards Aquifer Conservation District. However, there was significant support by the primary stakeholders for the draft report's alternate recommendation to create a new GCD for the Comal, Hays, and Travis county portions of the Hill Country PGMA.

On July 30, 2010, the executive director filed the *Groundwater Conservation District Recommendation for Hill Country Priority Groundwater Management Area – Western Comal and Southwestern Travis Counties* report with the Chief Clerk of the TCEQ, mailed copies of the report to county clerks and public libraries in Comal and Travis counties, and requested the matter be referred to SOAH to conduct a contested case hearing. The report concludes and recommends that the most feasible and practicable solution would be for the Commission to issue an order to create a GCD in the Hill Country PGMA with boundaries that include the western Comal County territory, the southwestern Travis County territory, and the portion of the Hill Country PGMA in Hays County that is presently the Hays Trinity GCD. Adding the two areas to the two existing GCDs is the alternate recommendation. The report was made available to the public in August 2010. The executive director prepared summary of report findings and recommendations, noted report availability, and posted the report on the agency's Internet homepage. The summary was mailed to the stakeholders on August 12, 2010 and published in the *Texas Register* on August 27, 2010.

The preliminary SOAH hearing was conducted on October 28, 2010 in San Marcos. The SOAH hearing on merits is schedule for June 22-24, 2011 in San Marcos. After the contested case 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.

Briscoe, Swisher and Hale County PGMA

The executive director of the TCEQ has identified that the Swisher and Briscoe county portions of the Briscoe, Swisher and Hale County PGMA have not established a GCD. On June 2, 2010, the executive director notified stakeholders in Briscoe and Swisher counties of intent to petition the Commission for action by preparing a report and recommendations for groundwater management in the PGMA. The purpose of the report will be to evaluate and recommend whether one or more GCDs should be created, whether the identified areas should be added to existing GCDs, or whether a combination of these actions should be taken. The report will convey the executive director's petition to the Commission for actions to establish groundwater management in the identified areas in the Briscoe, Hale, and Swisher County PGMA.

The High Plains UWCD No. 1 provided information about an ongoing effort to add Swisher County and TCEQ provided information that assures that the preparation of the report will not interfere with the ongoing effort. The Swisher County Commissioners Court petitioned High Plains UWCD No.1 in June 2010 requesting Swisher County be added to the District. The District's Board of Directors voted to accept the resolution on June 15, 2010. The District held annexation hearings in Tulia and Lubbock on July 8, 2010 and on August 17, 2010, respectively. TCEQ staff participated in one educational outreach meeting in Tulia on October 12, 2010. The High Plains UWCD No. 1 scheduled an election on the addition of Swisher County on November 2, 2010. The Swisher County voters approved joining the High Plains UWCD No. 1 by a tally of 814 for; 550 against.

The executive director's draft report for the Briscoe, Swisher, and Hale County PGMA will consider options for Briscoe County only and will be completed and released for comment in early FY 2011. Stakeholders will be provided an opportunity to review and comment on the executive director's report and recommendations before they are finalized and a contested case hearing is scheduled.

Reagan, Upton and Midland County PGMA

The Executive Director of the TCEQ has identified that the Upton and Midland county portions of the Reagan, Upton and Midland County PGMA have not established a GCD. On June 7, 2010, the executive director notified stakeholders in these counties of intent to petition the Commission for action by preparing the report and recommendations for groundwater management in the PGMA.

The purpose of this report will be to evaluate and recommend whether one or more GCDs should be created, whether the identified areas should be added to existing GCDs, or whether a combination of these actions should be taken. The report will convey the Executive Director's petition to the Commission for actions to establish groundwater management in the identified areas in the Upton and Midland counties.

The executive director's draft report will be completed and released in early FY 2011. Stakeholders will be provided an opportunity to review and comment on the executive director's report and recommendations before they are finalized and a contested case hearing is scheduled.

Central Texas Trinity Aquifer PGMA

At the present, all counties in the PGMA have created or joined existing GCDs. Bosque and Coryell counties joined the Middle Trinity GCD in May 9, 2009, and November 3, 2009, respectively. The 81st Legislature also created the Prairielands GCD in Hill and Somervell counties together with Johnson and Ellis counties effective September 1, 2009. Special Districts Local Laws Code, Chapter 8821 requires the Southern Trinity GCD (McLennan County) to add at least one other county by September 1, 2011. After this date, the TCEQ must determine if the District has complied with this addition of territory. If the TCEQ finds that the District has not complied, the TCEQ must dissolve the District in accordance with TWC, Sections 36.304, 36.305, 36.307, 36.309, and 36.310.

El Paso County PGMA

The Commission designated the El Paso County PGMA on December 2, 1998. The Commission order found that a multi-national, multi-state regional approach would be needed to address Hueco Bolson freshwater-depletion problems. The TCEQ creation of a GCD under the constraints of TWC, Chapter 36 was not recommended based on evaluation of existing statutory provisions, funding mechanisms, governing board representation, and City of El Paso comments. Instead, a regional approach was recommended to focus management of groundwater resources in the Hueco Bolson and Rio Grande Alluvium aquifers to address specifically the reduction of pumpage, the minimization of further groundwater quality degradation, and the mitigation of subsidence

Over the past 20 years, the City of El Paso's Water Utilities Public Service Board has aggressively developed surface water supplies, and implemented water conservation and reuse programs that have resulted in a significant reduction in groundwater pumping from the Hueco Bolson. In addition, groundwater quality degradation issues have been addressed with the completion of the Kay Bailey Hutchison Desalination Plant, which has the dual function of protection existing fresh groundwater supplies and pumping and treating brackish groundwater for municipal use. Finally, as a result of improvements in surface water treatment facilities and groundwater pumping capacity (including the desalination plant); El Paso has implemented a conjunctive use strategy for the use of surface water and groundwater. These programs have been fully implemented or matured after the 1998 designation of the El Paso County PGMA, and have resulted in the stabilization of groundwater levels in most areas and a recovery of groundwater levels in some areas of the Hueco Bolson.

Much of what the Commission's 1998 order recognized and recommended has been implemented and the fresh groundwater depletion problem has been reversed. Consequently, a GCD, under the TWC, Chapter 36, is still not appropriate for or needed in the El Paso County PGMA.

PGMA Program Planning

There are significant amounts of planning data that are presently being developed that should be used to help the agencies determine if any new PGMA studies are warranted or needed. Information that should be closely evaluated includes GCD, groundwater management area, regional water plan, state water plan data, and groundwater availability models. Desired future conditions and managed available groundwater values can be used and compared to regional water planning strategies.

The executive director of TCEQ and executive administrator of TWDB met on October 6, 2010 to consider and discuss PGMA program activities. They concluded that ongoing TCEQ actions to create GCDs in the PGMAs should continue in FYs 2011-2012. The coordination and collaboration between the two agencies should also continue, and staff should consider and vet planning data in FYs 2012-2013.

Groundwater Conservation District Creation

A description of the GCDs that were created by the 81st Legislature and the status of confirmation elections during the 2009–2010 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 5.

Confirmation of New Districts During the 2009–2010 Biennium

Five GCDs created by the 81st Legislature and one GCD created by the 79th Legislature were confirmed in the biennium. The **Brush Country GCD** was confirmed by the voters in Jim Hogg and parts of Brooks, Jim Wells, and Hidalgo counties on November 3, 2009 by a vote of 1,038 for; 965 against, and authorized to levy an ad valorem tax at a rate not to exceed \$0.03 per \$100 assessed valuation of taxable property. The voters within the city limits of the City of Alice chose not to be part of the District. The District was created by Chapter 1396, Acts of the 81st Legislature, Regular Session, 2009 (SB 2456), and this law is codified as Special District Local Laws Code (SDLLC), Chapter 8852. SDLLC, Chapter 8852 provides for the powers, duties, administration, operations and financing of the District. Unlike general law GCDs, the Act divided the District into six areas for the confirmation election. The District is composed of the areas that voted to confirm creation of the District, and the area that voted against the measure was removed from the District. The District's initial boundaries would include all of Jim Hogg County, all of Brooks and Jim Wells counties except for territory in the Kenedy County GCD on January 1, 2009, and about 11,000 acres in Hidalgo County. TWC, Section 36.121, relating to limitations on rulemaking power of GCDs over wells in certain counties does not apply to the District. The terms domestic use and livestock use are specifically defined for the District relating to exemptions from permitting. The District is provided specific authority to consider impacts of groundwater transfer and impose additional limitations and fees on these transfers. The District may not exercise the power of eminent domain. After September 1, 2016, the District may be dissolved in response to a voter petition and subsequent election.

The **Duval County GCD** was confirmed by the voters in Duval County on July 25, 2009 by a vote of 359 for; 127 against, and authorized to levy an ad valorem tax at a rate not to exceed \$0.01 per \$100 assessed valuation of taxable property. The District was created by Chapter 450, Acts of the 79th Legislature, Regular Session, 2005 (SB 1847), and amended by Chapter 701, Acts of the 80th Legislature, Regular Session to extend the date the statute would expire if the District was not confirmed to September 1, 2012. The Act authorizes the District with specific power to contract with municipal utility districts and other water-related entities.

The **North Texas GCD** was created in Collin, Cooke, and Denton counties by Chapter 248, Acts of the 81st Legislature, Regular Session, 2009 (SB 2497), and this law is codified as SDLLC, Chapter 8856. The Act requires commissioners court hearings and resolutions prior to December 31, 2009 in at least two of the counties to create the district. On December 15, 2009 the District submitted to the TCEQ copies of the resolutions by the commissioners courts of Collin, Cooke, and Denton counties confirming each county's inclusion in the North Texas GCD as required by the District's enabling legislation. The Act authorizes the District with the powers and duties provided by general law for GCDs. Existing water wells are exempt from District well spacing requirements. The District may require any existing well that is modified to increase capacity, new well, or class of wells exempt from permitting to register the wells and comply with District spacing requirements. The District may adopt rules requiring the owner or operator or a well or class of wells exempt from permitting to report groundwater usage with reasonable and appropriate reporting methods and frequency. The District is provided authority to assess disincentive fees, not to exceed 10 times the amount of production fees. The District may not impose a tax to pay for operation and maintenance purposes. District well production fees for non-agricultural use are capped at \$0.30 per 1,000 gallons and \$1.00 per acre-foot annually for agricultural purposes. The District may not charge an export fee to a producer of groundwater withdrawn from a well in the District and distributed to any part of the territory under the provider's certificate of public convenience and necessity, even if the territory is outside of the District's boundary.

The **Prairielands GCD** was created, effective September 1, 2009, in Ellis, Hill, Johnson and Somervell counties by Chapter 1208, Acts of the 81st Legislature, Regular Session, 2009 (SB 726), and this law is codified as SDLLC, Chapter 8855. The Act provided that an election to confirm the District's creation was not required. The District's boundaries are coextensive with the boundaries of Ellis, Hill, Johnson and Somervell counties and form a closure. The Act authorizes the District with the powers and duties provided by general law for GCDs. The Act also provides that Navarro County would be added to the District if all or part of Navarro County is designated at a later date by the Commission as a priority groundwater management area. The District may not impose a tax to pay for operation and maintenance purposes. District well production fees for non-agricultural use are capped at \$0.30 per 1,000 gallons and \$1.00 per acre-foot annually for agricultural purposes.

The **Red River GCD** was created, effective September 1, 2009, in Grayson and Fannin counties by Chapter 884, Acts of the 81st Legislature, Regular Session, 2009 (SB 2529), and this law is codified as SDLLC, Chapter 8859. Unlike general law GCDs, a confirmation election is not required to create the District. The Act provides that TWC, Chapter 36, Subchapter B, relating to Creation of District does not apply. The District's boundaries are coextensive with the boundaries of Fannin and Grayson counties and form a closure. The Act authorizes the District with the powers and duties provided by general law for GCDs. Existing water wells are exempt from District well spacing requirements. The District may require any new well or class of wells exempt from permitting to register the wells and comply with District spacing requirements. By rule, the District may require the owner or operator or a well or class of wells exempt from permitting to report groundwater usage, except for private domestic, livestock, or poultry water wells

producing less than 25,000 gallons per day on a tract of land larger than ten acres. The District is provided authority to assess a disincentive fee for enforcement remedy purposes. The District may not impose a tax to pay for operation and maintenance purposes. District well production fees for non-agricultural use is capped at \$0.30 per 1,000 gallons and agricultural use is capped at \$1.00 per acre-foot. The District is authorized to establish, adopt, and enforce the collection of fees and establish and enforce metering and reporting requirements before the adoption of the District's management plan.

McLennan County GCD was renamed **Southern Trinity GCD** and the requirement for confirmation election was removed. Chapter 1248, Acts of the 81st Legislature, Regular Session, 2009 (SB 2513) amended SDLLC, Chapter 8821; effective June 19, 2009. SDLLC, Chapter 8821 requires the Southern Trinity GCD (McLennan County) to add at least one other county by September 1, 2011. After this date, the TCEQ must determine if the District has complied with this addition of territory. If the TCEQ finds that the District has not complied, the TCEQ must dissolve the District in accordance with TWC, Sections 36.304, 36.305, 36.307, 36.309, and 36.310.

A confirmation election for one GCD created by the 80th Legislature remains pending. The **Lavaca County GCD** was created by Chapter 951, Acts of the 80th Legislature, Regular Session, 2007 (HB 4029; SDLLC, Chapter 8822). The District was defeated by voters in Lavaca County on May 10, 2008 by a vote of 1,262 for; 1,696 against. SDLLC, Chapter 8822 provides the District may hold subsequent confirmation elections until the Act expires on September 1, 2013. The District is prohibited from requiring meters on wells that are exempt from permitting or regulation and from exercising the power of eminent domain. The District may adopt rules to require the owners or operators of exempt wells, other than exempt domestic or livestock wells, to report groundwater usage. Existing wells are exempt from District well spacing requirements and the District, by rule, may require exempt wells to comply with spacing requirements. The District is required to expand and add territory by May 31, 2012, and TCEQ must dissolve the District if TCEQ finds that the territory has not been added. The District may not levy a tax that exceeds \$0.05 per \$100 assessed valuation. The District would be dissolved on September 1, 2013, if it is not confirmed by the voters.

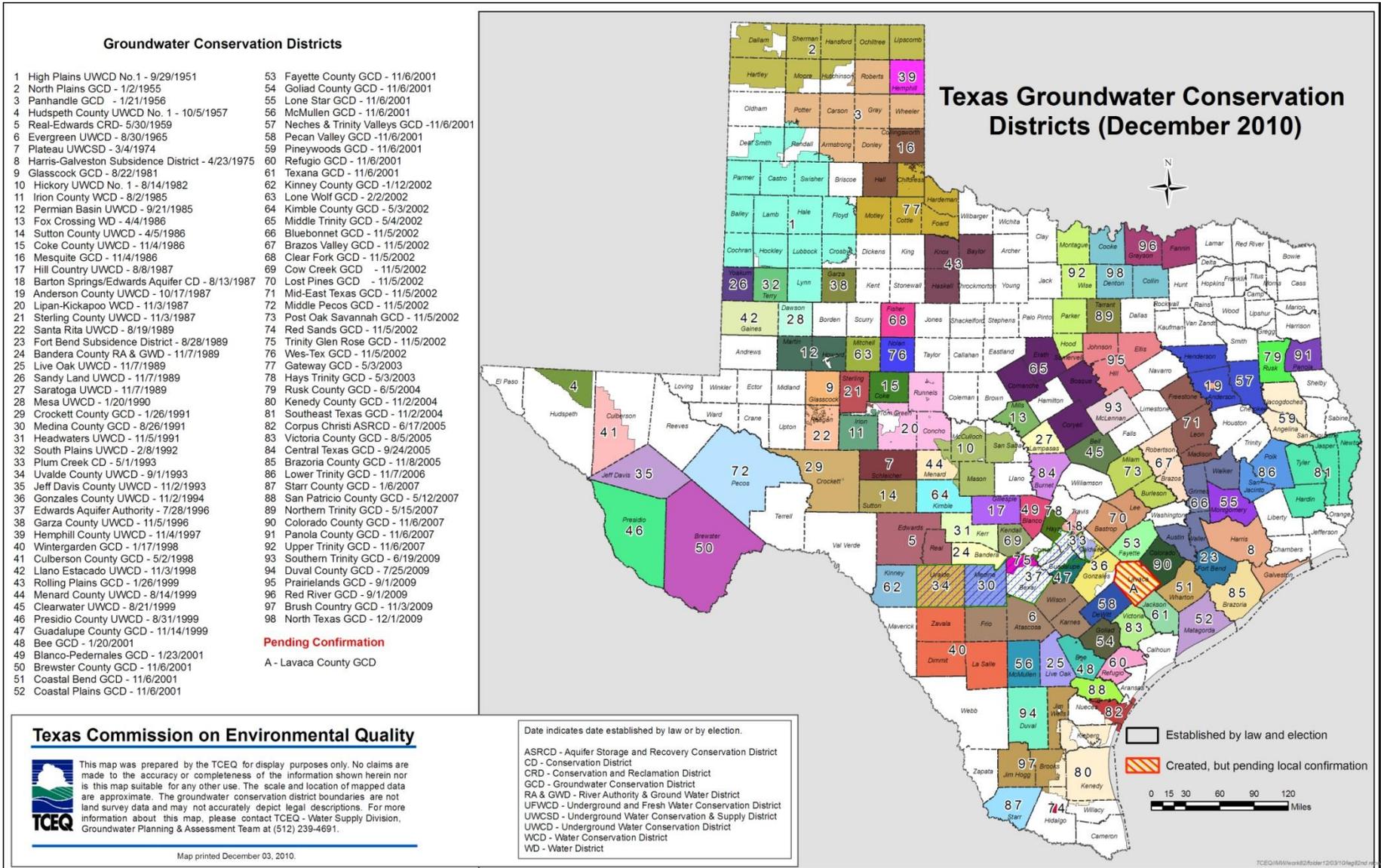
Table 5. Status of GCD Elections During the 2009-2010 Biennium

Enabling Legislation (Chapter Listed) ¹	District Name	County (s)	Confirmation Election			Board of Directors ²	Special District Local Laws Code (SDLLC)
			Date	Vote For/Against	Status		
SB 2456, 81 st , Leg. (1396)	Brush Country GCD	Jim Hogg, Parts of Brooks, Jim Wells and Hidalgo	11/03/09	1,038/ 965	Confirmed	Appointed; Temporary	Chapter 8852
SB 1847, 79 th Leg. (450)	Duval County GCD	Duval	07/25/09	359/127	Confirmed	Elected; Temporary	Chapter 8808
SB 0726, 81 st Leg. (1208)	Harrison County GCD	Harrison	05/08/10	2,014/4,470	Dissolved	Appointed; Temporary	Chapter 8850
HB 4029, 80 th Leg. (951)	Lavaca County GCD ³	Lavaca	05/10/08	1,262/1,696	Unconfirmed	Elected; Temporary	Chapter 8822
SB 2497, 81 st Leg. (248)	North Texas GCD ⁴	Collin, Cooke, and Denton	Not required	NA	Confirmed	Appointed; Temporary	Chapter 8856
SB 0726, 81 st Leg. (1208)	Prairielands GCD	Ellis, Hill, Johnson and Somervell	Not required	NA	Confirmed	Appointed; Temporary	Chapter 8855
SB 2529, 81 st Leg. (884)	Red River GCD	Grayson and Fannin	Not required	NA	Confirmed	Appointed; Temporary	Chapter 8859
SB 2513, 81 st Leg. (1248)	Southern Trinity GCD	McLennan	Not required	NA	Confirmed	Appointed; Temporary	Chapter 8821

Notes:

1. Chapter citation in Laws of Named Legislature, Regular Session.
2. Indicates method of director selection and board status.
3. District is authorized by special law to hold subsequent confirmation elections until its Act expire on September 01, 2013.
4. Act requires commissioners court hearings and resolutions prior to December 31, 2009 in at least two of the counties to confirm the district.

Figure 5. Map of Existing GCDs (December 2010)



Addition of Territory to Existing Districts

On February 23, 2010, the McGrill Ranch, Ltd. submitted a notarized petition to the **Brush Country GCD** requesting that approximately 5,575.85 acres of land in Hidalgo County be annexed into the District. The board of directors of the District provided notice of the hearing on March 29, 2010 to the county clerks in Jim Hogg, Jim Wells, Brooks, and Hidalgo counties. The Board of Directors of the District accepted the petition and added the land by a resolution on April 27, 2010. The added land is contiguous to the District.

The enabling legislation of the **Trinity Glen Rose GCD** was amended by Chapter 381, Acts of the 81st Legislature, Regular Session, 2009 (HB 1518). The Act provides that land is added to the District when a municipality whose residents have voted to join the District annexes land. Such land that is added to the District is disannexed from any other GCD. During the biennium, the City of Fair Oaks Ranch added land in Kendall and Comal counties. According to the Cow Creek GCD board of directors' resolution on February 8, 2010, the added land in Kendall County was removed from the Cow Creek GCD and was added to the Trinity Glen Rose GCD. The current boundary of the Trinity Glen Rose GCD covers areas in Bexar, Comal, and Kendal counties.

The Motley County Commissioners Court filed a petition to add the Motley County into the **Gateway GCD** on August 5, 2009. The board of directors of the District accepted the petition on September 1, 2009 and conducted public hearings on the benefit of adding Motley County to the District. Motley County voters confirmed the addition of their territory on November 3, 2009 by a tally of 160 for; 3 against.

The Coryell and Bosque County Commissioners Courts filed petitions to add Coryell and Bosque counties to the **Middle Trinity GCD**. The board of directors of the District provided notice to the public and conducted public hearings on the petition. Voters in Bosque County confirmed the addition of Bosque County to the District on May 9, 2009 by a tally of 2,482 for; 239 against. The voters in Coryell County added Coryell County to the District on November 3, 2009 by a tally of 1,454 for; 812 against.

On October 8, 2008 and October 21, 2009, the board of directors of the **Kenedy County GCD** voted to add additional petitioned properties in Brooks, Hidalgo and Willacy counties. The current District boundary covers territories in Brooks, Jim Wells, Nueces, Hidalgo, Willacy, Kleberg, and Kenedy counties.

The **Edwards Aquifer Authority** (Authority) boundary was amended by Chapter 1080, Acts of the 81st Legislature, Regular Session, 2009 (HB 4762). The Act amends the enabling legislation for the Authority by adding and including approximately 1,025 acres of Atascosa County into the Authority's boundary.

During May and June 2010, the **High Plains UWCD No. 1** received petitions requesting addition of territory consisting of portions of northwestern Hockley County, southwestern Lamb County, central and northeastern Randall County, and all of Swisher County. The District Board of Directors voted to accept the petitions on June 15, 2010 and held the necessary hearings in July and August

2010. The District elections for the subject areas/counties were held on November 2, 2010. Areas added to the District included northwestern Hockley County by a vote of 26 for; 8 against, southwestern Lamb County by a vote of 252 for; 150 against, and all of Swisher County by a vote of 814 for; 550 against. The central and northeastern Randall County voters chose not to join the District by a tally of 2,892 for; 3,139 against.

Failed District Creations

Between 1989 and 2008, eleven 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, one GCD failed confirmation election and one previously failed GCD remain unconfirmed. The **Harrison County GCD** was created by Chapter 1208, Acts of the 81st Legislature, Regular Session, 2009(SB 726), and this law is codified as SDLLC, Chapter 8850. The District boundary was coextensive with the boundary of Harrison County and forms a closure. The District was defeated by voters on May 8, 2010 by a tally of 2,014 for; and 4,470 against. The Act does not give the District authority to conduct subsequent elections.

The **Lavaca County GCD** has been previously created by the Texas Legislature but remains unconfirmed by the voters. Confirmation of the Lavaca County GCD was defeated in a May 10, 2008 election; however, the District is authorized by SDLLC, Chapter 8822 to hold subsequent confirmation elections until September 1, 2013. The District has not set a confirmation election to date.

Table 6. Failed GCDs (Since 1989)

District	Method of Creation				County(s)	Confirmation Election	
	Bill	Legislature	Year	Chapter Listed		Date	Vote % For/Against
Harrison County GCD	SB 726	81 st	2009	1208	Harrison	05/08/10	2,014/4,470
Lavaca County GCD ¹	HB 3652 HB 4029	77 th 80 th	2001 2007	1360 951	Lavaca	11/06/01 05/10/08	46/54 42/48
Failed Prior to 2009–2010 Biennium							
Culberson County GCD ²	SB 3	80 th	2007	1430	Rest of Culberson County	11/06/07	27/73
Upshur County GCD	HB 3635	78 th	2003	1161	Upshur	05/15/04	25 / 75
Crossroads GCD ³	HB 2643 SB 2	77 th 77 th	2001 2001	1332 966	Victoria	11/06/2001	45/55
Lower Seymour GCD	HB 3642	77 th	2001	1471	Jones	Act repealed 06/17/05 for failure to conduct election	
Southeast Trinity GCD ⁴	HB 2348	78 th	2003	666	Portion of Comal County within the Hill Country PGMA	Act repealed previous enabling Acts effective 06/20/03	
	HB 2855 SB 2	77 th 77 th	2001 2001	1335 966	Portion of Comal County within the Hill Country PGMA	11/06/01	33 / 67
Lake Country GCD	Landowner Petition Under TWC, Chapter 36 Created by Commission Order, 2002				Wood	02/01/03	13 / 87
Post Oak GCD ⁵	HB 1136	77 th	2001	303	Colorado	11/06/01 11/05/02	48 / 52 44 / 56
San Patricio GCD	HB 3590	75 th	1997	1451	San Patricio	01/17/98	34 / 66
Oldham County UWCD	SB 1714	74 th	1995	720	Oldham	Act repealed 09/01/99 for failure to conduct election	
Comal County UWCD	Landowner Petition Under TWC, Chapter 36. Created by Commission Order, 1994.				Portion of Comal County within the Hill Country PGMA	05/06/95	8 / 92
Rolling Plains UWCD	HB 2820	73 rd	1993	1027	Borden, Mitchell, Scurry	06/07/94	25 / 75

District	Method of Creation				County(s)	Confirmation Election	
	Bill	Legislature	Year	Chapter Listed		Date	Vote % For/Against
Llano Uplift UWCD	HB 1491	73 rd	1993	301	Llano	05/14/94	15 / 85
Central Texas UWCD	HB 3099	71 st	1989	514	Burnet	01/20/90	12 / 88

Notes:

1. *District was authorized by special law to hold subsequent confirmation elections until its Act expired on September 1, 2013.*
2. *Addition of territory in Culberson County not presently included in Culberson County GCD.*
3. *District was dissolved by House Bill 3423 of the 79th Legislature, 2005, and created the Victoria County GCD in the same County.*
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.*

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.

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

District Name	Water Quality Monitoring and Protection	Aquifer Storage Monitoring	Water Well Inventory	Well Spacing Permitting and Construction	Education / Public Outreach	Water Conservation	Waste Oil Recycling	Cooperative Surface Water Program	Groundwater Export Rules	Grants and Loan Applications	Special Projects and Research
Anderson County UWCD	X		X	X	X	X		X	X		X
Bandera County RA & GWD	X	X	X	X	X	X		X		X	X
Barton Springs/Edwards Aquifer CD	X	X	X	X	X	X		X	X	X	X
Bee GCD	X	X	X	X	X	X		X	X	X	
Blanco-Pedernales GCD	X	X	X	X	X	X		X		X	X
Bluebonnet GCD			X	X	X	X		X	X	X	
Brazoria County GCD	X	X	X	X	X	X		X	X		X
Brazos Valley GCD	X	X	X	X	X	X		X	X	X	X
Brewster County GCD			X	X					X		
Brush Country GCD											
Central Texas GCD	X	X	X	X	X	X		X	X		
Clear Fork GCD		X	X	X	X	X			X		X
Clearwater UWCD	X	X	X	X	X	X		X			X
Coastal Bend GCD	X	X	X	X	X	X		X	X		X
Coastal Plains GCD	X	X	X	X	X	X		X	X		X
Coke County UWCD	X	X	X	X	X	X		X	X	X	
Colorado County GCD	X	X	X	X	X	X		X	X		
Corpus Christi ASRCD	X	X	X	X	X	X		X	X		X
Cow Creek GCD	X	X	X	X	X	X		X			X
Crockett County GCD	X	X	X	X	X	X			X	X	X
Culberson County GCD	X	X	X	X	X	X			X		X
Duval County GCD											
Edwards Aquifer Authority	X	X	X	X	X	X		X	X	X	X
Evergreen UWCD	X	X	X	X	X	X			X	X	X
Fayette County GCD	X	X	X	X	X	X		X	X	X	X

District Name	Water Quality Monitoring and Protection	Aquifer Storage Monitoring	Water Well Inventory	Well Spacing Permitting and Construction	Education / Public Outreach	Water Conservation	Waste Oil Recycling	Cooperative Surface Water Program	Groundwater Export Rules	Grants and Loan Applications	Special Projects and Research
Fox Crossing Water District		X	X	X	X	X	X	X	X		
Garza County UWCD		X	X	X	X	X				X	
Gateway GCD	X	X	X	X	X	X		X	X		X
Glasscock GCD	X	X	X	X	X	X			X	X	X
Goliad County GCD	X	X	X	X	X	X		X			
Gonzales County UWCD	X	X	X	X	X	X		X	X		X
Guadalupe County GCD	X	X	X	X	X	X		X	X		
Hays Trinity GCD	X	X	X	X	X	X		X	X		X
Headwaters GCD	X	X	X	X	X	X		X	X		X
Hemphill County UWCD	X	X	X	X	X	X		X	X		X
Hickory UWCD No.1	X	X	X	X	X	X		X	X	X	X
High Plains UWCD No.1	X	X	X	X	X	X		X		X	X
Hill Country UWCD	X	X	X	X	X	X		X	X	X	X
Hudspeth County UWCD No.1	X	X	X	X	X	X			X	X	X
Irion County WCD	X	X	X	X	X	X		X		X	X
Jeff Davis UWCD	X	X	X	X	X	X		X	X		
Kenedy County GCD	X	X	X	X	X	X		X			
Kimble County GCD	X	X	X	X	X	X		X	X		
Kinney County GCD		X	X	X	X	X		X	X		X
Lipan-Kickapoo WCD	X	X	X	X	X	X		X	X	X	X
Live Oak UWCD	X	X	X	X	X	X		X			X
Llano Estacado UWCD	X	X	X	X	X	X				X	X
Lone Star GCD	X	X	X	X	X	X		X	X		
Lone Wolf GCD		X	X	X	X	X		X	X	X	X
Lost Pines GCD	X	X	X	X	X						X
Lower Trinity GCD			X	X	X	X		X	X		

District Name	Water Quality Monitoring and Protection	Aquifer Storage Monitoring	Water Well Inventory	Well Spacing Permitting and Construction	Education / Public Outreach	Water Conservation	Waste Oil Recycling	Cooperative Surface Water Program	Groundwater Export Rules	Grants and Loan Applications	Special Projects and Research
McMullen GCD	X	X	X	X	X	X		X	X		X
Medina County GCD	X	X	X	X	X	X		X	X	X	X
Menard County UWD	X	X	X	X	X	X		X			
Mesa UWCD		X	X	X	X	X	X		X	X	X
Mesquite GCD	X	X	X	X	X	X			X	X	X
Mid-East Texas GCD	X	X	X	X	X	X		X	X		
Middle Pecos GCD	X	X	X	X	X	X		X			
Middle Trinity GCD		X	X	X	X	X		X	X		
Neches & Trinity Valleys GCD	X	X	X	X	X	X		X			
North Plains GCD	X	X	X	X	X	X		X	X	X	X
North Texas GCD											
Northern Trinity GCD		X	X	X	X	X		X			
Panhandle GCD	X	X	X	X	X	X		X	X	X	X
Panola County GCD		X	X	X	X	X		X	X		
Pecan Valley GCD	X	X	X	X	X	X		X	X		
Permian Basin UWCD	X	X	X	X	X	X		X		X	X
Pineywoods GCD	X	X	X	X	X	X			X		
Plateau UWCD	X	X	X	X	X	X		X	X		
Plum Creek CD	X	X	X	X	X	X		X	X		
Post Oak Savannah GCD			X	X	X	X		X			X
Prairielands GCD											
Presidio County UWCD		X	X	X	X	X			X		
Real-Edwards CRD	X	X	X	X	X	X		X	X		
Red River GCD											
Red Sands GCD		X	X	X	X	X		X	X		
Refugio GCD	X	X	X	X	X	X		X	X		
Rolling Plains GCD	X	X	X	X	X	X			X		

District Name	Water Quality Monitoring and Protection	Aquifer Storage Monitoring	Water Well Inventory	Well Spacing Permitting and Construction	Education / Public Outreach	Water Conservation	Waste Oil Recycling	Cooperative Surface Water Program	Groundwater Export Rules	Grants and Loan Applications	Special Projects and Research
Rusk County GCD		X	X	X	X	X		X			X
San Patricio County GCD	X	X	X	X	X	X		X	X		
Sandy Land UWCD	X	X	X	X	X	X			X	X	X
Santa Rita UWCD	X	X	X	X	X	X					X
Saratoga UWCD	X	X	X	X	X	X		X	X		X
South Plains UWCD	X	X	X	X	X	X		X		X	X
Southeast Texas GCD		X	X	X	X	X		X	X		
Southern Trinity GCD											
Starr County GCD											
Sterling County UWCD	X	X	X	X	X	X			X	X	X
Sutton County UWCD	X	X	X	X	X	X					X
Texana GCD	X	X	X	X	X	X		X			
Trinity Glen Rose GCD	X	X	X	X	X	X		X	X		X
Upper Trinity GCD											
Uvalde County UWCD	X	X	X	X	X	X		X	X	X	X
Victoria County GCD	X	X	X	X	X	X		X	X		
Wes-Tex GCD	X	X	X	X	X	X		X	X		X
Wintergarden GCD		X		X	X	X			X		X

Notes:

Shading indicates that a groundwater management plan has not been adopted/certified by October 1, 2010.

Tabulated activity analysis is based on certified or approved management plans.

Districts that have not been confirmed are not included in the table.

ASRCD – Aquifer Storage & Recovery Conservation District

CD – Conservation District

CRD – Conservation and Reclamation District

GCD – Groundwater Conservation District

RA & GWD – River Authority & Ground Water District

UWCD – Underground Water Conservation District

UWCSD – Underground Water Conservation and Supply District

WCD – Water Conservation District

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, Section 36.1071 lists the required content of a groundwater management plan and the associated approval process by the TWDB. In 2005, HB 1763, 79th Legislature, R.S, expanded the conservation management goals and added developing and 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, Section 36.1071, a district must address, as applicable, the following groundwater management goals in its management plan:

- 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,
- addressing drought conditions,
- addressing conservation, recharge enhancement, rainwater harvesting, precipitation enhancement, or brush control, where appropriate and cost-effective, and
- addressing, 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, Section 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, 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, e-mail, and referral to the TWDB web site. If additional help is necessary and requested, a TWDB staff member will either go out to the district office or meet with a district representative at the TWDB office.

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. This process may be repeated one or more times until deficiencies are addressed. 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 in cases where TWDB approval of those data is statutorily required. The TWDB is also required to verify that the district considered water management strategies for water supply needs from the adopted state water plan.

Staff logs plans received for the TWDB administrative review in a database 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. The TWDB's executive administrator, after consideration of staff recommendations and additional review of the plan, considers approving the plan as administratively complete. 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 provides that GCD management plans are subject to TWDB approval and authorizes the SAO to determine if a GCD is actively engaged in achieving the objectives of its management plan. Furthermore, Chapter 36 establishes 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 2009-2010 biennium are described below.

TWDB Plan Approval During the 2009-2010 Biennium

As of November 2010, there were 96 confirmed districts subject to groundwater management plan requirements and one unconfirmed district. Between January 2009 and November 2010, seven districts were required to have submitted their first management plan after their confirmation election, and all but two districts had done so. A first plan was approved for a district that submitted their plan prior to their due date year of 2012 (Southern Trinity GCD), and an additional first plan was approved for a district that had its plan due in the previous biennium (Brazoria County GCD). Seven districts had first plans approved by the TWDB as administratively complete. Table 8 lists groundwater conservation district management plan approvals and re-approvals during the 2009–2010 biennium.

In addition to the management plans received from new districts, the TWDB received 37 plans for re-approval. Twenty-seven of these plans were due for re-approval during the 2009–2010 biennium and 10 plans were due during the 2007–2008 biennium. TWDB’s executive administrator approved a total of 44 plans as administratively complete during the 2009–2010 biennium (Table 8).

Based on their original management plan approval dates, 14 additional districts had management plans due either for initial approval or for re-approval during the 2009-2010 biennium, but had not completed the review process by mid-November 2010. Four of the 14 districts submitted management plans for administrative completeness review by mid-November 2010, while the remaining ten districts were working towards their plan submittals and were in various stages of preliminary review.

Future management plan due dates include four districts that have management plans due for approval in 2011, 12 districts in 2012, and 23 districts in 2013. These management plan counts include both first-time approvals and re-approvals and are listed in Table 9. The one unconfirmed GCD will have its plan due three years after the election date if voters confirm the District.

Table 8. Status of Management Plan Approval, January 2009 through December 2010

First Management Plans			
District Name	Plan Due Date	Date Received by TWDB	Approval Date
Brazoria County GCD	11/08/2008	01/22/2009	02/13/2009
Colorado County GCD	11/06/2010	12/01/2009	12/17/2009
Lower Trinity GCD	11/07/2009	12/21/2009	01/11/2010
Northern Trinity GCD	06/15/2010	06/24/2010	07/09/2010
Panola County GCD	11/06/2010	02/23/2009	03/09/2009
San Patricio County GCD	05/12/2010	not yet received	NA
Southern Trinity GCD	06/19/2012	06/29/2010	07/07/2010
Starr County GCD	11/06/2010	not yet received	NA
Upper Trinity GCD	11/06/2010	09/07/2010	10/27/2010
Re-approved Management Plans			
District Name	Plan Due Date	Date Received by TWDB	Re-approval Date
Bandera County RA & GWD	07/01/2009	05/13/2010	06/21/2010
Blanco-Pedernales GCD	06/19/2008	12/17/2008	01/07/2009
Bluebonnet GCD	11/18/2009	03/08/2010	04/07/2010
Brazos Valley GCD	07/22/2009	05/06/2010	06/07/2010
Brewster County GCD	04/16/2007	05/20/2009	06/11/2009
Clear Fork GCD	07/06/2010	09/16/2010	10/25/2010
Coastal Bend GCD	09/28/2009	10/06/2009	11/04/2009
Coastal Plains GCD	09/10/2009	11/17/2009	12/11/2009
Cow Creek GCD	11/23/2009	12/17/2009	01/11/2010
Fayette County GCD	12/17/2008	12/05/2008	01/07/2009
Fox Crossing WD	03/30/2009	04/19/2010	05/20/2010
Garza County UWCD	04/27/2009	04/22/2009	07/07/2009
Gonzales County UWCD	09/15/2008	04/17/2009	05/14/2009
Hickory UWCD No.1	12/04/2008	04/14/2009	04/29/2009
High Plains UWCD No.1	06/16/2009	03/22/2010	04/07/2010
Kimble County GCD	08/18/2009	07/13/2009	08/10/2009
Live Oak UWCD	09/21/2010	10/01/2010	11/10/2010
Llano Estacado UWCD	09/14/2010	07/17/2010	08/10/2010
Lone Star GCD	12/17/2008	02/23/2009	03/25/2009
Lone Wolf GCD	02/20/2009	10/13/2009	11/04/2009
Lost Pines GCD	02/15/2010	9/24/2010	10/25/2010

Re-approved Management Plans (cont.)			
District Name	Plan Due Date	Date Received by TWDB	Re-approval Date
Mesa UWCD	02/25/2009	01/28/2009	02/13/2009
Mesquite GCD	01/16/2009	04/20/2009	05/11/2009
Middle Trinity GCD	07/01/2009	04/16/2009	05/05/2009
Mid-East Texas GCD	09/10/2009	08/25/2009	09/29/2009
Neches & Trinity Valleys GCD	09/10/2009	09/28/2009	10/14/2009
Pecan Valley GCD	12/29/2008	03/09/2009	04/03/2009
Permian Basin UWCD	11/25/2008	11/20/2008	01/23/2009
Pineywoods GCD	02/25/2009	12/30/2008	02/06/2009
Plateau UWCSD	03/05/2009	04/09/2009	04/24/2009
Presidio County UWCD	09/28/2009	12/17/2009	01/12/2010
Real-Edwards CRD	10/27/2009	06/22/2009	08/10/2009
Refugio GCD	12/29/2008	03/03/2009	03/25/2009
Sandy Land UWCD	02/25/2009	06/16/2009	07/13/2009
Saratoga UWCD	12/29/2008	11/03/2009	11/30/2009
Sutton County UWCD	03/05/2009	02/09/2009	02/18/2009
Wes-Tex GCD	02/15/2010	03/12/2010	04/07/2010
<p>Notes:</p> <p>NA – not applicable</p> <p>CRD – Conservation and Reclamation District GCD – Groundwater Conservation District RA & GWD – River Authority & Ground Water District UWCD – Underground Water Conservation District UWCSD – Underground Water Conservation and Supply District WD – Water District</p>			

Table 9. Status of Management Plan Due Dates from 2011 through 2013

Management Plans Due After December 2010			
District Name	Plan Due Date	Date Received by TWDB	Plan
Clearwater UWCD	03/06/2011	NA	Re-approval
Post Oak Savannah GCD	07/24/2011	NA	Re-approval
Sterling County UWCD	01/25/2011	NA	Re-approval
Wintergarden GCD	01/25/2011	NA	Re-approval
Anderson County UWCD	09/11/2012	NA	Re-approval
Brush Country GCD	11/03/2012	NA	First plan
Central Texas GCD	07/03/2012	NA	Re-approval
Duval County GCD	07/25/2012	NA	First plan
Hemphill County UWCD	09/17/2012	NA	Re-approval
Kenedy County GCD	09/11/2012	NA	Re-approval
North Texas GCD	12/31/2012	NA	First plan
Prairielands GCD	09/01/2012	NA	First plan
Red River GCD	09/01/2012	NA	First plan
Red Sands GCD	07/03/2012	NA	Re-approval
Santa Rita UWCD	08/10/2012	NA	Re-approval
Southern Trinity GCD	06/19/2012	06/29/2010	First plan
Barton Springs/Edwards Aquifer CD	09/15/2013	NA	Re-approval
Bee GCD	09/25/2013	NA	Re-approval
Coke County UWCD	12/04/2013	NA	Re-approval
Corpus Christi ASRCD	10/16/2013	NA	Re-approval
Crockett County GCD	09/05/2013	NA	Re-approval
Culberson County GCD	01/29/2013	NA	Re-approval
Glasscock GCD	12/04/2013	NA	Re-approval
Goliad County GCD	11/14/2013	NA	Re-approval
Guadalupe County GCD	01/16/2013	NA	Re-approval
Headwaters GCD	12/04/2013	NA	Re-approval
Hill Country UWCD	09/25/2013	NA	Re-approval
Hudspeth County UWCD No.1	01/08/2013	NA	Re-approval
Irion County WCD	10/17/2013	NA	Re-approval
Jeff Davis County UWCD	12/16/2013	NA	Re-approval
Kinney County GCD	06/19/2013	NA	Re-approval
Lipan-Kickapoo WCD	09/25/2013	NA	Re-approval
McMullen GCD	09/25/2013	NA	Re-approval

Management Plans Due After December 2010 (cont.)			
District Name	Plan Due Date	Date Received by TWDB	Plan
North Plains GCD	07/14/2013	NA	Re-approval
Panhandle GCD	11/13/2013	NA	Re-approval
Plum Creek CD	01/29/2013	NA	Re-approval
South Plains UWCD	11/10/2013	NA	Re-approval
Southeast Texas GCD	01/08/2013	NA	Re-approval
Victoria County GCD	12/04/2013	NA	Re-approval
Notes: NA – not applicable ASRCD – Aquifer Storage & Recovery Conservation District CD – Conservation District GCD – Groundwater Conservation District UWCD – Underground Water Conservation District WCD – Water Conservation District			

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, Sections 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, Sections 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 address compliance or 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, 65 GCDs have come under TCEQ's purview since the management plan compliance provisions were added to the TWC in 1997. These cases are described here and in previous reports to the Legislature.

Since September 1, 2005, 54 GCDs did not comply with the statutory deadlines to adopt or readopt a management plan and submit the plan to the TWDB for approval consideration within statutory deadlines. As of November 1, 2010, 42 of the 54 GCDs have achieved compliance with each having a TWDB-approved management plan in place. Only minor TCEQ intervention to compel compliance was necessary for most of the GCD noncompliance cases. Compliance agreements were necessary to compel compliance for two of the GCDs prior to 2009–2010. During the biennium, the **Brewster County GCD** entered a compliance agreement on February 4, 2009 for the readoption of the District's management plan. The TWDB approved the District's management plan on June 11, 2009. Upon receipt of the District's documentation, TCEQ concluded its noncompliance review case on July 28, 2009.

Twelve GCDs are out of compliance with the statutory adoption or readoption deadlines as of November 1, 2010. The TCEQ is investigating the facts and circumstances for the violations, has engaged the GCDs, and has entered into compliance agreements with two of the GCDs. The **Texana GCD** and **Middle Pecos GCD** are under compliance agreements with the TCEQ. The Middle Pecos GCD adopted a new management plan on October 19, 2010 and has submitted the plan to the TWDB for approval consideration. The Texana GCD adopted a draft management plan on October 14, 2010 and submitted it to the TWDB for preliminary review. The **Clear Fork GCD**, **Lost Pines GCD**, **Live Oak UWCD**, and **Trinity Glen Rose GCD** have also adopted management plans and submitted the plans to TWDB for approval consideration. The remaining

GCDs that are presently out of compliance include the **Edwards Aquifer Authority, Evergreen UWCD, San Patricio County GCD, Gateway GCD, Medina County GCD,** and **Uvalde County UWCD.**

Prior the 2009–2010 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. Six of the GCDs demonstrated compliance with the objectives of their management plans, one GCD consolidated with a neighboring GCD, and one GCD was dissolved by the TCEQ. In February 2010, the SAO found one previously audited GCD not operational in achieving its management plan objectives.

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. However, the District could not demonstrate compliance in achieving its management plan objectives. TCEQ notified the District in May 2008 that enforcement action had begun and that the executive director would petition the Commission to dissolve the district. The case was referred to SOAH, and the preliminary hearings were held on October 9 and December 9, 2008. The Commission dissolved the District on May 14, 2009 for failure to comply or achieve its management plan objectives.

In 2006, the SAO performed an audit of the **Kinney County GCD** and found the District operational in achieving 75% of the objectives of its 2004 management plan in fiscal year 2004 and 78% of the objectives of its management plan in fiscal year 2005. The SAO also found that the District had not fully complied with mandatory provisions of the TWC and District rules regarding financial and operational management and made 32 recommendations to address these deficiencies. In response, the District revised its management plan. The new plan included ten specific objectives which were approved by the TWDB in June 2008.

On February 26, 2010 the SAO released a report to follow up on the District's operational status wherein the agency concluded that the District was not operational because it had failed to meet 80% of the objectives of its 2008 management plan (*A Follow-up Audit Report on the Kinney County Groundwater Conservation District, State Auditor's Office Report No 10-023, February 2010*). The SAO also found deficiencies in the financial and operational practices of the District and that the District had failed to fully implement 31 of the 32 financial and operational recommendations made by the SAO in its 2006 report.

Subsequent to the release of the February 2010 report, the District provided updates to the Governor's Office in April, May and June, 2010 to report on its progress towards meeting the SAO recommendations and to implement the objectives of its 2008 management plan. The District also provided financial audits for the fiscal years ending September 30, 2006, 2007, 2008, and 2009. The Commission considered the matter on August 11, 2010 and directed the staff to enter a compliance agreement with the District to address management plan implementation, address SAO's recommendation, document permitting procedures, and develop a debt-reduction plan. The District entered a compliance agreement with the TCEQ on September 9, 2010. The compliance agreement provision deliverable milestones cover from November 24, 2010 to March 15, 2012. On January 26, 2011, the District will appear before the Commission to present an accounting of completed and scheduled compliance agreement actions.

The SAO also reviewed 13 GCDs in August 2010 (*State Auditor's Office, 2010; An Audit Report on Groundwater Conservation District, State Auditor's Office Report No. 10-036, August 2010*). According to the report nine of the 13 GCDs fully or partially achieved all four of the specific groundwater management plan goals audited; three of the 13 GCDs audited fully or partially achieved two to three of the four goals audited; and one of the 13 GCDs audited partially achieved one of the four goals audited. Twelve of the 13 districts audited were in full or partial compliance with seven or more of the ten TWC statutory requirements audited. The remaining district complied with three of the five requirements that were applicable to it. Based on the SAO report findings, TCEQ actions were not required.

On September 17, 2010, Mesa Water, L.P., filed a request for inquiry relating to joint groundwater management planning in Groundwater Management Area 1 (GMA 1). Mesa Water, L.P., asserted that the GMA 1 planning process failed to result in adequate planning because the adopted desired future conditions are not reasonable because they are based on political boundaries, and the GCDs in GMA 1 have failed to adopt and enforce rules to achieve the desired future conditions. Mesa Water, L.P., provided documentation to TCEQ on September 30, 2010, that copies of the petition had been provided to the Hemphill County UWCD, High Plains UWCD No. 1, North Plains GCD, and Panhandle GCD. All four GCDs provided responses to the petition by October 22, 2010. TCEQ staff posted review panel nomination information and a nomination form on the agency's website and solicited assistance from the Texas Alliance of Groundwater Districts to disseminate the information on October 26, 2010. Review panel nominations were accepted until November 8, 2010. The Commission will consider the petition on December 14, 2010.

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 to the Texas Board of Water Engineers for designating “underground water reservoirs,” the predecessor to groundwater management areas, 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 77th Legislature moved the responsibility of creating groundwater management area delineations from the TCEQ 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. In November 2002, the TWDB adopted boundaries for 16 groundwater management areas that cover the entire state (Figure 6). 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.

Status of Groundwater Joint Planning

Senate Bill 2 required GCDs to 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.

Desired Future Conditions. A desired future condition is essentially a management goal that defines the philosophy and policy of groundwater management in a defined area. More specifically, a desired future condition is the desired, quantified condition of a relevant aquifer (such as groundwater level, groundwater storage volume, or spring flow) at a specified time or times in the future.

As required by HB 1763, GCDs in each groundwater management area were required to adopt desired future conditions for relevant aquifers within the management area by September 1, 2010. Desired future conditions must also be reviewed and readopted at least once every five years thereafter. Once adopted, desired future conditions are then submitted to the TWDB, which is responsible for providing estimates of managed available groundwater based on the submitted desired future conditions.

As of September 1, 2010, all of the groundwater management areas with groundwater conservation districts have adopted desired future conditions for all of their relevant aquifers. A total of 71 desired future conditions were adopted, and one was legislatively mandated (Edwards Aquifer, San Antonio Segment within the boundaries of the Edwards Aquifer Authority). TWDB staff has reviewed all of the submitted desired future conditions and all submittals have been determined to be administratively complete.

Managed Available Groundwater. For desired future conditions that were submitted prior to 2009, managed available groundwater values were equal to the total pumping that would achieve the desired future condition. Total pumping to achieve the desired future condition is developed based on groundwater models (including groundwater availability models), water budget analyses, and district-provided data.

The TWDB changed its policy concerning this approach on June 16, 2010. The policy now requires TWDB staff to subtract the estimated exempt use from the total pumping to achieve the desired future condition. This result is the managed available groundwater. Exempt uses, such as rural domestic and livestock uses, are groundwater uses that are exempt from permitting requirements. GCDs are allowed to provide district estimates of exempt use before finalization of the managed available groundwater report.

After the managed available groundwater has been reviewed by GCDs, TWDB staff reports the numbers to the TWDB Board for review and comparison with the state water plan and estimated historical water use. TWDB then issues the managed available groundwater to the individual GCDs and total pumping amounts to the regional water planning groups.

Groundwater conservation districts are required to report the managed available groundwater value in their management plan. Furthermore, GCDs must ensure that their management plans contain goals and objectives consistent with achieving the desired future conditions. Finally, GCDs are required to permit, to the extent possible, up to the managed available groundwater value. Regional water planning groups are required to include information on the amount of managed available groundwater in their regional water plans, in accordance with TWDB rules.

Joint Planning Meetings. Since September 1, 2005, there have been a total of 183 groundwater management area meetings and another 18 related meetings such as public workshops or technical work group meetings. Table 10 shows the number of meetings for each groundwater management area. Approximately half of the meetings have occurred since September 1, 2008 (Table 10).

Table 10. Number of Meetings Held for Joint Planning in Groundwater Management Areas

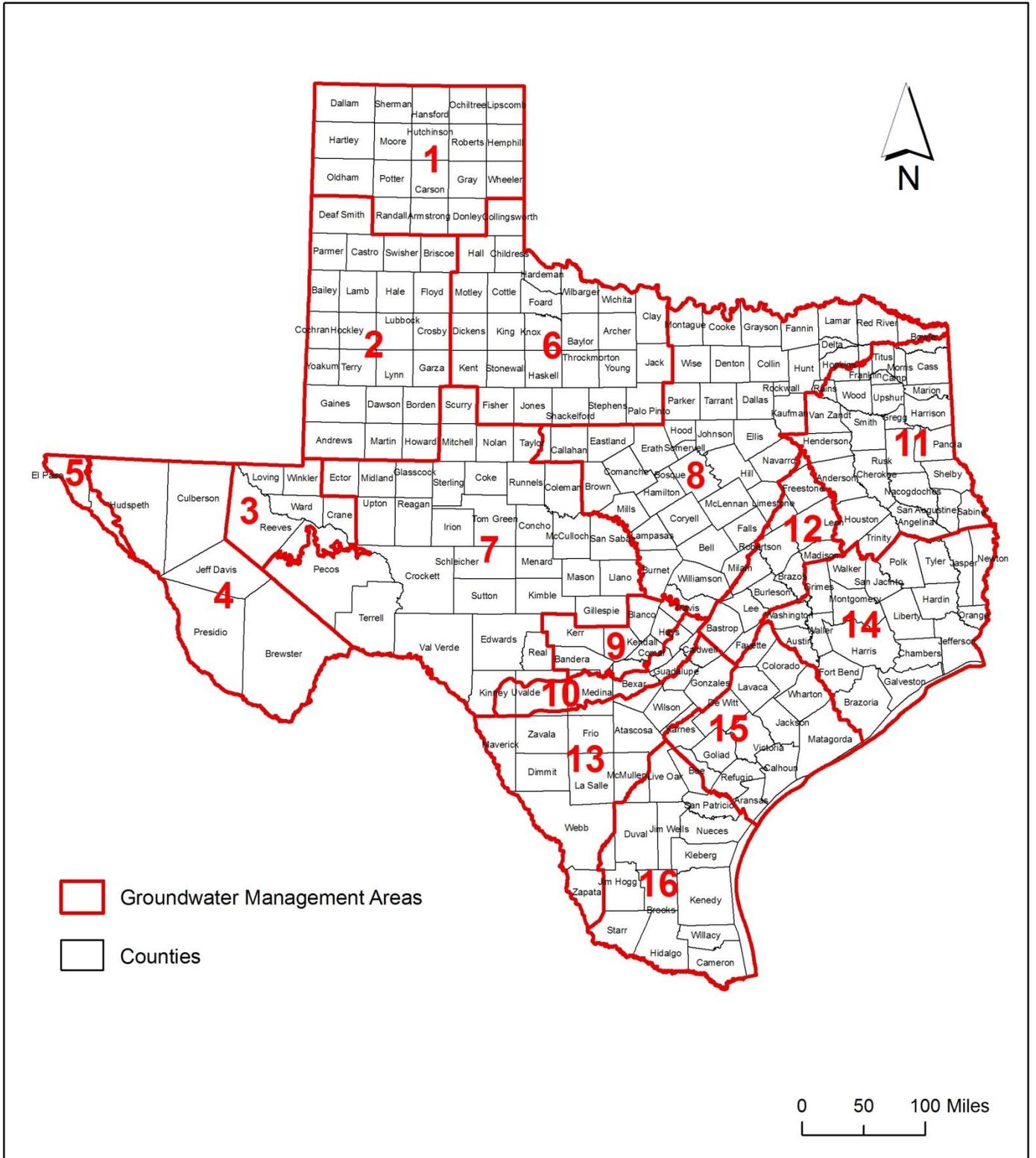
Groundwater management area	September 1, 2005 to August 31, 2010		September 1, 2008 to August 31, 2010	
	Groundwater management area meetings	Other related meetings	Groundwater management area meetings	Other related meetings
1	24	-	11	-
2	13	-	7	-
3	3	2	3	2
4	10	-	6	-
5	-	-	-	-
6	6	-	5	-
7	10	1	7	1
8	16	-	3	-
9	28	8	11	4
10	19	3	13	2
11	14	-	9	-
12	17	1	9	1
13	15	3	8	-
14	23	-	10	-
15	17	-	9	-
16	18	-	8	-
Total	183	18	92	10

Note: GMA 5 has no GCDs

TWDB staff has supported the joint planning process by outlining the overall process for developing desired future conditions and managed available groundwater. TWDB staff attended groundwater management area meetings,

presented information, and answered questions from the groundwater management area member districts. From September 2009 through October 2010, the Groundwater Availability Modeling Section of TWDB completed more than 55 model runs requested by GCDs in groundwater management areas with another four pending completion. In addition, the Groundwater Technical Assistance Section of TWDB completed ten aquifer assessments by September 2010 with another five pending completion.

Figure 6. Groundwater Management Areas in Texas



State Assistance and Educational Programming

The TCEQ, TWDB, TPWD, TDA, and TAES are responsible for providing assistance to the public under Chapters 35 and 36 of the TWC. The TAES is specifically charged with providing educational assistance to residents in designated PGMA's 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, training for water level and water quality data gathering, 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.

Groundwater Monitoring: The TWDB is actively involved in supporting GCDs with basic data collection activities. Primarily, the TWDB offers technical training to districts to provide instruction on water level collection techniques and aquifer testing; agency representatives also demonstrate their water quality sampling procedures. TWDB offers technical training to districts 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 groundwater data collection. In the last biennium, TWDB contacted nearly 80 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 TWDB's data collection programs. More than 50 districts have participated in these efforts and most 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 continuously 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 and funds become available, either the district or the TWDB will purchase monitoring and data transmission equipment. The TWDB installs and facilitates operation and maintenance of the equipment to enable data transfer to the TWDB website. The water level information collected from this program benefits both the TWDB and the districts. A total of 46 districts participated in this program in the last biennium, and this number is expected to continue to grow in the next biennium.

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 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.

As required by law, the TWDB developed or obtained initial versions of 17 groundwater availability models to cover the state's nine major aquifers before October 1, 2004. Some of the larger or more complex aquifers required more than one model, while some of the models incorporated a combination of the major and minor aquifers in Texas. The nine major aquifers currently supply approximately 95 percent of the groundwater produced in the state.

Currently, there are 23 models that have been developed with stakeholder participation and an additional six alternative or customized models to address specific needs or objectives that were directly related to the joint planning process for desired future conditions of aquifers. The completed models include: 1) Rita Blanca and northern part of the Ogallala aquifers; 2) southern part of the Ogallala Aquifer and Edwards-Trinity (High Plains) 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 Pecos Valley aquifers; 16) Mesilla portion of the Hueco-Mesilla Bolson Aquifer; 17) Hueco portion of the Hueco-Mesilla Bolson Aquifer; 18) Lipan Aquifer; 19) Igneous Aquifer and Wildhorse Flat, Michigan Flat, Ryan Flat,

and Lobo Flat portions of the West Texas Bolsons Aquifer; 20) Red Light, Eagle Flat, and Green Valley portions of the West Texas Bolsons Aquifer; 21) Dockum Aquifer; 22) Nacatoch Aquifer; and 23) Yegua Jackson Aquifer. The alternative and customized models include: 1) re-calibration of the existing model for the Barton Springs segment of the Edwards (Balcones Fault Zone) to better represent the 1950s drought of record and lower than average spring discharge at Barton Springs, 2) new model for Kinney County to provide a better tool to evaluate flows between the county and groundwater management areas 7 and 10, 3) a one-layer model for the Edwards-Trinity (Plateau) and Pecos Valley aquifers that used an expanded number of targets for calibration resulting in an improved predictive tool, 4) adjustments to the model for the Dockum Aquifer to allow the influence of pumping in the Ogallala to be reflected in water levels in the Dockum, 5) development of a model for Groundwater Management Area 16 to address overlap issues with the existing models for the Gulf Coast Aquifer, and 6) pre-existing model (GWSIM) developed for the San Antonio segment of the Edwards (Balcones Fault Zone).

TWDB was also mandated to complete models for the minor aquifers; however no deadline was given for completing this task. To date, TWDB has developed models that include all or parts of 12 of the 21 identified minor aquifers in Texas. Of the nine minor aquifers remaining to be modeled, research needed to develop models has been completed for six of the aquifers: 1) Blossom Aquifer; 2) Brazos River Alluvium Aquifer; 3) Capitan Reef Complex Aquifer; 4-6) Ellenburger-San Saba, Hickory, and Marble Falls aquifers, also referred to as the Llano Uplift aquifers. A model is currently under contract for the 7) Rustler Aquifer and TWDB is considering adopting an existing model for the 8) Bone Spring-Victorio Peak Aquifer (model completed by El Paso Water Utilities). This leaves the 9) Marathon Aquifer for future research and then model development. In addition, TWDB is internally working on completing a model for the Presidio-Redford Bolsons of the West Texas Bolsons Aquifer, which will complete the needed models for this aquifer

It should be noted that since the passage of HB 1763, the focus of the Groundwater Availability-Modeling Program is shifting from developing models based on individual aquifers to developing comprehensive numerical groundwater flow models for groundwater management areas that include all associated aquifers. A prototype of this modeling concept was developed in 2010 for Groundwater Management Area 16. This preliminary model included layers representing the Gulf Coast, Yegua-Jackson, and Carrizo-Wilcox aquifers. By combining the aquifers into a single more comprehensive model, the relationship of groundwater flow between aquifers can be established and evaluated under different pumping scenarios and climatic conditions. TWDB is planning on developing comprehensive models for all 16 groundwater management areas, using the existing models as foundations, by the end of 2015 to include all associated aquifers within each of the groundwater management area, as applicable.

The existing groundwater availability models have already been used extensively in support of GCDs, mainly associated with the development and updates to groundwater conservation district management plans, with a total of 42 model run reports completed since January 1, 2009. Over 55 model simulation reports and related projects have been completed since January 1, 2009, in support of

joint planning in groundwater management areas to assist groundwater conservation districts with the evaluation of desired future conditions of their aquifers.

To view modeling reports, request a copy of 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 over \$500,000 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, 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 FY 2010, six grants totaling \$346,000 were awarded to GCDs and other previous grants 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 a total of 79 loans to GCDs, totaling \$50,934,900 in funds. In the last biennium, Sandy Land Underground Water Conservation District (UWCD) was awarded a new loan in the amount of \$2,000,000. Two GCDs (Panhandle GCD and Sandy Land UWCD) currently have nine active loans with TWDB.

Irrigation Metering Program: The TWDB's Irrigation Metering Program is a joint effort between TWDB and GCDs 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 expects to provide a progress report on the program in 2011.

For fiscal years 2004-2010, TWDB has 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 multi-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, TAES, and TAGD have coordinated extensively to discuss and plan groundwater management educational programming strategies. Educational outreach activities were continued during the 2009–2010 biennium.

The TAES 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 TAES 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 TAES and its predecessor, the Texas Cooperative Extension (TCE), have developed 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 TAES 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, TAES and TWDB groundwater management educational programs continue to be delivered at local meetings. The TCEQ, TAES and TWDB cooperate with local groups to deliver educational programs. Several educational events to share information on groundwater management have been held in different parts of the state.

With regard to the Priority Groundwater Management Areas, TAES 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 TAES made several demonstrations during the 2009-2010 biennium on abandoned well closure and plugging. TAES held two well plugging demonstrations in one county with an attendance of almost 50 people. In addition, the TAES coordinated with the Texas Groundwater Protection Committee to both revise its *Plugging Abandoned Water Wells* brochure and to develop and publish educational material on benzene contamination for private well owners. The latter fact sheet contains information on the occurrences, health effects, testing options, and treatment options for this constituent.

In November 2009, the TWDB held its third annual Groundwater 101 Workshop at Texas A&M in College Station. The workshop is intended primarily for groundwater conservation district managers, staff, and board members. Participation for the workshop has grown to include legislative staff and various interested stakeholders. Covering the basics of groundwater resources and their management, session topics included: an introduction to aquifers, groundwater law, desired future conditions, an introduction to groundwater modeling, an introduction to management plans, TWDB data resources, and an introduction to water level and water quality monitoring. Based on stakeholder interest, recently added topics include drought contingency planning and developing managed available groundwater numbers. The fourth annual Groundwater 101 Workshop was held on November 8, 2010 in Austin.

The state agencies and TAGD worked with and provided assistance to the TAES during the development of these educational materials and the presentation of educational programs. The TAES, the Texas A&M University System, the Texas Water Resources Institute, and the Texas AgriLife Research 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 2009–2010 biennium the TAES, 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 2009 – 2010 biennium, four GCD related opinion requests were made to the Office of the Attorney General (OAG).

The Honorable Kip Averitt, Chairman of the Senate Committee on Natural Resources, submitted an OAG opinion request on behalf of Senator Carlos Uresti related to jurisdiction of groundwater conservation districts in Brewster, Hemphill, Jeff Davis, and Presidio counties (RQ-0817-GA). The request asked for an opinion on the status of particular tracts of land annexed into one GCD and subsequently included in special legislation creating a different GCD. On August 26, 2010, the OAG responded to The Honorable Troy Fraser, Chairman of the Senate Committee on Natural Resources (Opinion No. GA-0792). The OAG responded that two different political subdivisions may not exercise jurisdiction over the same territory at the same time and for the same purpose. For purposes of statutory law, the 1995 special law creating the Hemphill County UWCD prevails over the prior annexation of territory by the Panhandle GCD pursuant to general law. A disputed tract of land claimed both by the Jeff Davis County UWCD and the Presidio County UWCD is exclusively within the territory of the Presidio County GCD. A disputed tract of land claimed both by the Jeff Davis County UWCD and the Middle Pecos GCD is exclusively within the territory of the Middle Pecos GCD. A disputed tract of land claimed both by the Jeff Davis County UWCD and the Brewster County GCD is exclusively within the territory of the Brewster County GCD. The OAG also found that in any of the above scenarios, there may exist constitutional considerations that would require a different result. TCEQ contacted the subject GCDs and they have responded that they will consent with the OAG opinion.

The Honorable Patrick Rose, Chairman of the House Committee on Human Services, also requested a similar OAG opinion relating to the jurisdiction over land in Caldwell County that has been annexed by the Gonzales County UWCD and the Plum Creek CD (RQ-0812-GA). On August 27, 2010 the OAG responded that whether a GCD--that adds territory pursuant to individual petitions of separate landowners, in compliance with TWC, Sections 36.321–36.324, before annexation of the same territory by another GCD is ratified at an election under TWC, Section 36.328--acquires jurisdiction over the subject territory depends on whether a court would apply the first-in-time rule to competing Chapter 36 annexation claims. The OAG summarized that in applying the first-in-time rule, a court could find that the first district to initiate annexation procedures acquires jurisdiction. Further, a court could also find that the first district to finalize the annexation acquires jurisdiction. The OAG could not definitively answer the request, and could not predict, in the apparent absence of judicial precedent, how a Texas court would resolve this issue (Opinion No. GA-0795).

The Honorable Allan Ritter, Chairman of the House Committee on Natural Resources, requested an OAG opinion on whether the conflict of interest provision of Chapter 171, Texas Local Government Code, required two board members of the Uvalde County UWCD to disclose their respective interests and abstain from voting on a District rule (RQ-0853-GA). On September 13, 2010, the

OAG responded that the board of directors of the Uvalde County UWCD voted to approve a District rule permitting withdrawal of groundwater for agricultural use without certain limitations previously proposed. Based on the facts presented, the OAG summarized that a court could find that the March 2009 action had a special economic effect on an applicant for a water permit in which a board member has a substantial interest and on the value of real property owned by another board member, which was reasonably foreseeable. Given the inherently factual nature of the inquiry and absence of judicial precedent, the OAG could not conclude that a court would find that the March 2009 action had a special economic effect, or that it was reasonably foreseeable that the action would have such an effect as to require the two board members to file affidavits disclosing their interests and abstain from participating in the March 2009 vote (Opinion No. GA-0796).

The Honorable Frank Corte, Jr., Chairman of the House Committee on Defense and Veterans' Affairs, asked for an OAG opinion (RQ-0790-GA) about the allowable conditions of permit applications submitted to and permits issued by Kinney County GCD. This request was closed due to ongoing litigation regarding the matter.

Detail OAG summaries for these districts are archived at the Attorney General of Texas home page (www.oag.state.tx.us/oag). The agencies are not aware of any other recent OAG opinion requests specific to groundwater conservation districts or groundwater management as outlined by TWC, Chapters 35 and 36.

In January 2010, the Honorable Lieutenant Governor David Dewhurst charged the Senate Committee on Natural Resources to analyze and compare the differences in cost between immediate implementation of the State Water Plan compared to staged development over time. The Committee was also charged to review the joint planning process for management of groundwater resources and monitor the progress of groundwater conservation districts' efforts to establish, before the statutory deadline, desired future conditions for aquifers.

In November 2009, the Honorable Joe Straus, Speaker of the House of Representatives, issued an interim charge to the House Committee on Natural Resources. Speaker Straus charged this standing Committee to evaluate groundwater regulations and permitting processes throughout the state; monitor the effects of current and proposed federal initiatives that could impact the implementation of the State Water Plan; monitor ongoing drought conditions and initiatives to promote water conservation; evaluate the regulatory model for investor-owned water and sewer utilities; and monitor the agencies and programs under the committee's jurisdiction.

Over the interim, the Senate Committee on Natural Resources and the House Committee on Natural Resources have held hearings in Austin 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 82nd Legislature, 2011. The Committees heard testimony on the implementation of state agency programs described in this report and on GCD programs to manage and protect groundwater resources.

Recommendations to the 82nd Legislature

The state agencies respectfully defer recommendations regarding the management of groundwater supplies to the work and findings of the Senate Committee on Natural Resources and the House Committee on Natural Resources.

The TCEQ and TWDB have submitted their appropriation requests to the Legislature that would provide funds necessary to carry out 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.

Appendix 1. Priority Groundwater Management Area Studies and Reports

Briscoe, Swisher, and Hale County Area

Hart, Margaret, 1990, *Briscoe, Hale, and Swisher Counties, Texas: A Critical Area Ground Water Study*; Texas Water Commission file report, February 1990, 34 pp.

Nordstrom, Phil L. and J.A.T. Fallin, 1989, *Evaluation of Ground-Water Resources in Briscoe, Hale, and Swisher Counties, Texas*; Texas Water Development Board Report 313, February 1989, 33 pp.

Central Texas (Waco) Area

Nelson, Katherine H., and S.P. Musick, 1990, *Ground Water Protection and Management Strategies for the Central Texas (Waco) Area*; Texas Water Commission file report, March 1990, 39 pp.

Baker, Bernard, Duffin, G., Flores, R., and T. Lynch, 1990, *Evaluation of Water Resources in Part of Central Texas*; Texas Water Development Board Report 319, January 1990, 67 pp.

El-Hage, Albert and D. W. Moulton, 1999, *Evaluation of Selected Natural Resources in Part of the Central Texas (Waco) Area*; Texas Parks and Wildlife Department file report, February 1999, 34 pp.

Bradley, Robert, 1999, *Updated Evaluation of Water Resources within the Trinity Aquifer Area, Central Texas*; Texas Water Development Board Open-File Report 99-03, November 1999, 51 pp.

Byrd, C. Leon., 2007, *Updated Evaluation for the Central Texas (Trinity Aquifer) Priority Groundwater Management Area*, Texas Commission on Environmental Quality PGMA file report, December 2007, 154 pp.

Dallam County Area

Hart, Margaret A., 1990, *Dallam County: A Critical Area Ground Water Study*; Texas Water Commission file report, February 1990, 35 pp.

Christian, Prescott, 1989, *Evaluation of Ground-Water Resources in Dallam County, Texas*; Texas Water Development Board Report 315, March 1989, 27 pp.

Hunka, Peggy G., 2008, *Groundwater Conservation District Recommendation for Dallam County Priority Groundwater Management Area*, Texas Commission on Environmental Quality PGMA file report, December 2008, 24 pp.

East Texas Area

Weegar, Mark A., 1990, *Ground Water Protection and Management Strategies for East Texas*; Texas Water Commission file report, March 1990, 34 pp.

Preston, Richard, and S. Moore, 1991, *Evaluation of Ground-Water Resources in the Vicinity of the Cities of Henderson, Jacksonville, Kilgore, Lufkin, Nacogdoches, Rusk, and Tyler in East Texas*; Texas Water Development Board Report 327, February 1991, 51 pp.

El-Hage, Albert and D. W. Moulton, 1998, *Evaluation of Selected Natural Resources in Angelina, Cherokee, Gregg, Nacogdoches, Rusk, and Smith Counties, Texas*; Texas Parks and Wildlife Department file report, November 1998, 48 pp.

Cullhane, Tom, 1998, *Updated Evaluation of Groundwater Resources in the Vicinity of the Cities of Henderson, Jacksonville, Kilgore, Lufkin, Nacogdoches, Rusk, and Tyler in East Texas*; Texas Water Development Board Open-File Report 98-04, December 1998, 31 pp.

Sloan, James C., 2004, *Updated Evaluation for the East Texas Priority Groundwater Management Study Area*; Texas Commission on Environmental Quality PGMA file report, June 2004, 104 pp.

El Paso County Area

Estepp, John D., 1990, *Ground Water Protection and Management Strategies for El Paso County: A Critical Area Ground Water Study*; Texas Water Commission file report, February 1990, 32 pp.

Ashworth, John B., 1990, *Evaluation of Ground-Water Resources in El Paso County, Texas*; Texas Water Development Board Report 324, March 1990, 25 pp.

El-Hage, Albert and Daniel W. Moulton, 1998, *Evaluation of Selected Natural Resources in El Paso County, Texas*; Texas Parks and Wildlife Department file report, May 1998, 24 pp.

Musick, Steven P., 1998, *El Paso County Priority Groundwater Management Area Report*; Texas Natural Resource Conservation Commission PGMA file report, August 1998, 46 pp.

Preston, Richard D., Coker, Douglas, Mathews, Jr., Raymond C., April 1998, *Changes in Groundwater Conditions in El Paso County, Texas 1988-1998*; Texas Water Development Board, Open-File Report 98-02, 19 pp.

Fort Bend County Area

Williamson, John A., 1990, *Ground Water Protection and Management Strategies for Fort Bend County*; Texas Water Commission file report, March 1990, 54 pp.

Thorkildsen, David, 1990, *Evaluation of Water Resources of Fort Bend County, Texas*; Texas Water Development Board Report 321, January 1990, 21 pp.

Hill Country Area

Cross, Brad L., and B. Bluntzer, 1990, *Ground Water Protection and Management Strategies for the Hill Country Area: A Critical Area Ground Water Study*; Texas Water Commission and Texas Water Development Board joint file report, February 1990, 18 pp.

Bluntzer, Robert L., 1992, *Evaluation of the Ground-Water Resources of the Paleozoic and Cretaceous Aquifers in the Hill Country of Central Texas*; Texas Water Development Board Report 339, 130 pp.

Byrd, C. Leon., Mills, Kelly W., and Underwood, L. Scott, 2010, *Groundwater Conservation District Recommendation for Hill Country Priority Groundwater Management Area – Western Comal and Southwestern Travis counties*, Texas Commission on Environmental Quality PGMA file report, July 2010, 36 pp.

Hudspeth County Area

El-Hage, Albert, 2004, Texas Parks and Wildlife Department, Water Resources Branch, *Evaluation of Natural Resources within Hudspeth County, Texas*, Texas Parks and Wildlife Department, Water Resources Branch, PGMA Study: Hudspeth County, December 2004, p. 21.

George, Peter, Mace, Robert E., and Mullican, III, William F., 2005, *The Hydrogeology of Hudspeth County, Texas*; Texas Water Development Board, Open File Report 05-01, 100 p.

Sloan, James C., 2005, *Updated Evaluation for the Hudspeth County Priority Groundwater Management Study Area*; Texas Commission on Environmental Quality PGMA file report, March 2005, 77 pp.

Lower Rio Grande Area

Russell, Jimmie N., 1990, *Ground Water Protection and Management Strategies for Cameron, Hidalgo, Starr, and Willacy Counties: A Critical Area Ground Water Study*; Texas Water Commission file report, March 1990, 32 pp.

McCoy, T. Wesley, 1990, *Evaluation of Ground-Water Resources in the Lower Rio Grande Valley, Texas*; Texas Water Development Board Report 316, January 1990, 48 pp.

North Texas Alluvium and Paleozoic Outcrop Area

Bradley, R.G. and Petrini, H., 1998; *Priority Groundwater Management Area Update on Area 16, Rolling Prairies Region of North Central Texas*; Texas Water Development Board Open File Report 98-03, April 1998, 20 pp.

Duffin, Gail L., and Barbara E. Beynon, 1992, *Evaluation of Water Resources in Parts of the Rolling Prairies Region of North Central Texas*; Texas Water Development Report 337, March 1992, 93 pp.

El-Hage, Albert and Daniel W. Moulton, 1998, *Evaluation of Selected Natural Resources in Parts of the Rolling Plains Region of North-Central Texas*; Texas Parks and Wildlife Department file report, April 1998, 65 pp.

Mills, Kelly W., 1998, *North Texas Alluvium and Paleozoic Outcrop Priority Groundwater Management Area Report*; Texas Natural Resource Conservation Commission PGMA file report, August 1998, 95 pp.

North-Central Texas Area

Ambrose, Mary L., 1990, *Ground-Water Protection and Management Strategies for North-Central Texas: A Critical Area Ground-Water Study*; Texas Water Commission file report, March 1990, 45 pp.

Baker, Bernard, Duffin, G., Flores, R., and T. Lynch, 1990, *Evaluation of Water Resources in Part of North Central Texas*; Texas Water Development Board Report 318, January 1990, 67 pp.

El-Hage, Albert, D. W. Moulton, and P. D. Sorensen, 1999, *Evaluation of Selected Natural Resources in Part of the North-Central Texas Area*; Texas Parks and Wildlife Department file report, February 1999, 37 pp.

Langley, Lon, 1999, *Updated Evaluation of Water Resources in Part of North-Central Texas, 1990 - 1999*; Texas Water Development Board Report 349, November 1999, 69 pp.

Mills, Kelly W., 2007, *Updated Evaluation for the North-Central Texas (Trinity and Woodbine Aquifers) Priority Groundwater Management Area*; Texas Commission on Environmental Quality PGMA file report, June 2007, 176 pp.

Northern Bexar County Area

Kalaswad, Sanjeev and K.W. Mills, 2000, *Evaluation of Northern Bexar County for Inclusion in the Hill Country Priority Groundwater Management Area*; Texas Natural Resource Conservation Commission PGMA file report, May 2000, 82 pp.

Orange-Jefferson Counties Area

Weegar, Mark, 1990, *Ground Water Protection and Management Strategies for Orange and Jefferson Counties*; Texas Water Commission file report, March 1990, 27 pp.

Thorkildsen, David and R. Quincy, 1990, *Evaluation of Water Resources of Orange and Eastern Jefferson Counties, Texas*; Texas Water Development Board Report 320, January 1990, 34 pp.

Reagan, Upton, and Midland County Area

Kohler, Dale P., 1990, *Ground Water Protection and Management Strategies for Reagan, Upton, and Midland Counties*; Texas Water Commission file report, March 1990, 28 pp.

Ashworth, J.B. and P.C. Christian, 1989, *Evaluation of Ground-Water Resources in Parts of Midland, Reagan, and Upton Counties, Texas*; Texas Water Development Board Report 312, February 1989, 52 pp.

Kalaswad, Sanjeev, 2000, *Options for the Creation of a Groundwater Conservation District in the Reagan, Upton and Midland County Priority Groundwater Management Area*; Texas Natural Resource Conservation Commission file report, July 2000, 22 pp.

Southernmost High Plains Area

Oswalt, Jack, 1991, *Ground Water Protection and Management Strategies for the Southernmost High Plains Area, Texas*; Texas Water Commission file report, August 1991, 55 pp.

Ashworth, J.B., Christian, P.C., and T.C. Waterreus, 1991, *Evaluation of Ground-Water Resources in the Southernmost High Plains of Texas*; Texas Water Development Board Report 330, July 1991, 39 pp.

Trans-Pecos Area

Williamson, John A., 1990, *Ground Water Protection and Management Strategies for the Trans-Pecos Area*; Texas Water Commission file report, March 1990, 65 pp.

Ashworth, John B., 1990, *Evaluation of Ground-Water Resources in Parts of Loving, Pecos, Reeves, Ward, and Winkler Counties, Texas*; Texas Water Development Board Report 317, January 1990, 51 pp.

El-Hage, Albert and D. W. Moulton, 1998, *Evaluation of Selected Natural Resources in Parts of Loving, Pecos, Reeves, Ward, and Winkler Counties, Texas*; Texas Parks and Wildlife Department file report, October 1998, 40 pp.

Boghici, Radu, D. Coker, and M. Guevara, 1999, *Changes in Groundwater Conditions in Parts of Trans-Pecos, Texas, 1988 - 1998*; Texas Water Development Board Report 348, November 1999, 29 pp.

Mills, Kelly W., 2005, *Updated Evaluation for the Trans-Pecos Priority Groundwater Management Area*; Texas Commission on Environmental Quality PGMA file report, March 2005, 81 pp.

Williamson and Parts of Adjacent Counties

Duffin, Gail L., and S.P. Musick, 1989, *Critical Area 1, Part 1: Evaluation of Ground-Water Resources Within Bell, Burnet, Travis, Williamson and Parts of Adjacent Counties, Texas*; Texas Water Development Board and Texas Water Commission joint file report, August 1989, 57 pp.

Duffin, G. and S. Musick, 1991, *Evaluation of Ground-Water Resources in Bell, Burnet, Travis, Williamson and Parts of Adjacent Counties, Texas*; Texas Water Development Board Report 326, January 1991, 105 pp.

El-Hage, Albert and D. W. Moulton, 1999, *Evaluation of Selected Natural Resources within Williamson and Parts of Adjacent Counties, Texas*; Texas Parks and Wildlife Department file report, January 1999, 23 pp.

Ridgeway, Cindy and H. Petrini, 1999, *Changes in Groundwater Conditions in the Edwards and Trinity Aquifers, 1987 - 1997, for Portions of Bastrop, Bell, Burnet, Lee, Milam, Travis, and Williamson Counties, Texas*; Texas Water Development Board Report 350, November 1999, 38 pp.

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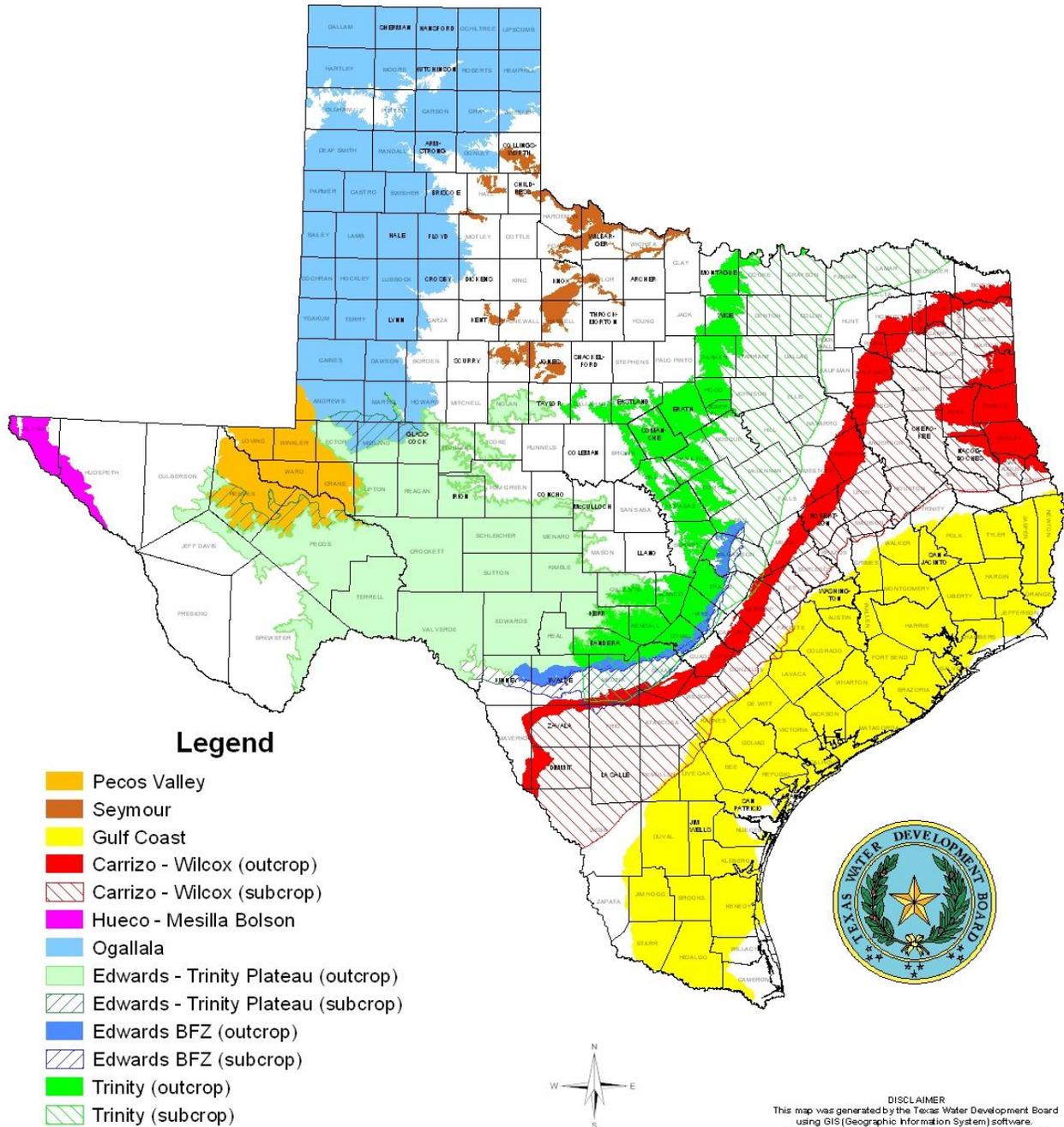
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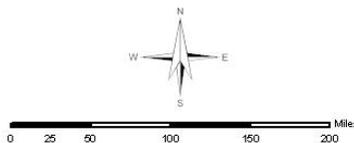
Appendix 2. Major and Minor Aquifer Maps

Major Aquifers of Texas



NOTE: Chronology by Geologic age.

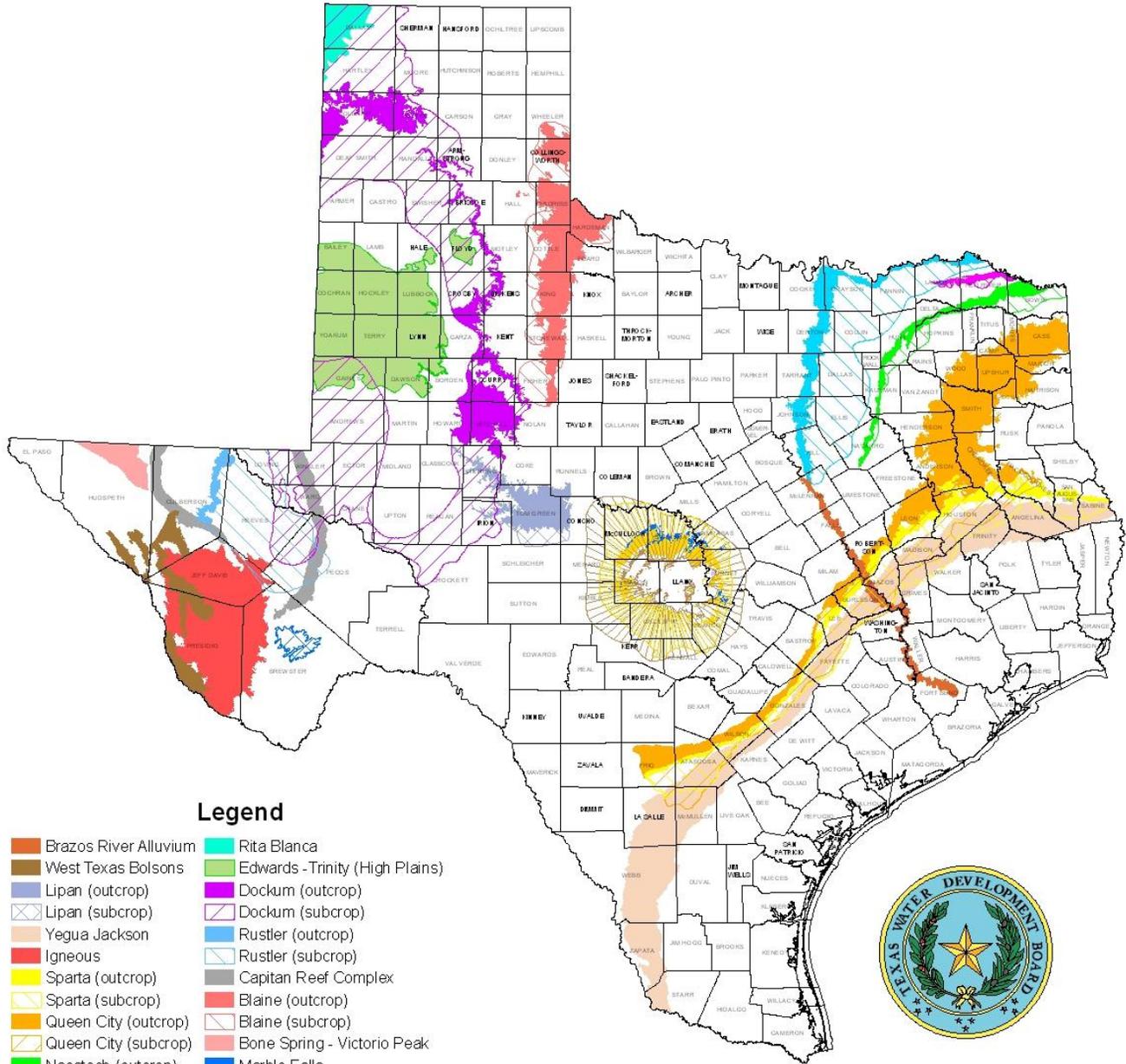
OUTCROP (portion of a water-bearing rock unit exposed at the land surface)
 SUBCROP (portion of a water-bearing rock unit existing below other rock units)



DISCLAIMER
 This map was generated by the Texas Water Development Board using GIS (Geographic 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 updated December 2006 by Mark Hayes, GISP

Minor Aquifers of Texas



Legend

- | | |
|-------------------------|------------------------------------|
| ■ Brazos River Alluvium | ■ Rita Blanca |
| ■ West Texas Bolsons | ■ Edwards - Trinity (High Plains) |
| ■ Lipan (outcrop) | ■ Dockum (outcrop) |
| ▨ Lipan (subcrop) | ▨ Dockum (subcrop) |
| ■ Yegua Jackson | ■ Rustler (outcrop) |
| ■ Igneous | ▨ Rustler (subcrop) |
| ■ Sparta (outcrop) | ■ Capitan Reef Complex |
| ▨ Sparta (subcrop) | ■ Blaine (outcrop) |
| ■ Queen City (outcrop) | ▨ Blaine (subcrop) |
| ▨ Queen City (subcrop) | ■ Bone Spring - Victorio Peak |
| ■ Nacatoch (outcrop) | ■ Marble Falls |
| ▨ Nacatoch (subcrop) | ▨ Marathon |
| ■ Blossom (outcrop) | ■ Ellenburger - San Saba (outcrop) |
| ▨ Blossom (subcrop) | ▨ Ellenburger - San Saba (subcrop) |
| ■ Woodbine (outcrop) | ■ Hickory (outcrop) |
| ▨ Woodbine (subcrop) | ▨ Hickory (subcrop) |

NOTE: Chronology by Geologic age.

OUTCROP (portion of a water-bearing rock unit exposed at the land surface)
 SUBCROP (portion of a water-bearing rock unit existing below other rock units)



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 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 updated December 2006 by Mark Hayes, GISP

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UNCONFIRMED DISTRICTS

Lavaca County Groundwater Conservation District

*Created by 77th Legislature, 2001, in Lavaca County
Failed November 6, 2001 election*

*Created again by 80th Legislature, 2007
Failed May 10, 2008*

*District has authorized by special law to hold
subsequent confirmation elections until its Act expire on
September 01, 2013.*

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).*

Harrison County Groundwater Conservation District

*Created by 81st Legislature, 2009, in Harrison County
Failed May 8, 2010 election*

Lake Country Groundwater Conservation District

*Created in Wood County by September 25, 2002 Texas
Commission on Environmental Quality Order.
Failed February 1, 2003 election.*

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.
Enabling Act Expires September 1, 2003.*

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

*Created by 76th Legislature, 1997 in northwestern part of Comal County. Enabling Act Ratified by 77th Legislature, 1999. Failed November 6, 2001 confirmation election.
Enabling Act repealed and District dissolved by 78th Legislature, 2001.*

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.*

