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January 2001
SFR-053/01

Priority Groundwater Management Areas and Groundwater Conservation Districts, Report to the 77th Legislature

Jointly Prepared by the

Texas Natural Resource Conservation Commission
Texas Water Development Board

Technical Analysis Division

printed on
recycled paper

TEXAS NATURAL RESOURCE CONSERVATION COMMISSION

Priority Groundwater Management Areas and Groundwater Conservation Districts, Report to the 77th Legislature

Prepared by

Texas Natural Resource Conservation Commission
Texas Water Development Board

SFR-053/01
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Published and distributed
by the
Texas Natural Resource Conservation Commission
Post Office Box 13087
Austin, Texas 78711-3087

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ERRATA

The following events occurred during the printing of this report. This information is not presented in the report as prepared and is offered here to supplement specific discussions contained in the report.

- By January 24, 2001 order, the Texas Natural Resource Conservation Commission (TNRCC) designated the portion of northern Bexar County overlying the Trinity aquifer as a Priority Groundwater Management Area, added the newly designated area to the Hill Country Priority Groundwater Management Area, and found that a groundwater conservation district should be created to cover the northern Bexar County area. This issue is discussed on pages 35 through 37.
- The temporary board of the Blanco-Pedernales Groundwater Conservation District in Blanco County has reported that the district was confirmed by election on January 23, 2001. The temporary board reported that the confirmation of the district was passed by a vote of 495 (57 percent) for; 372 (43 percent) against. The temporary directors also reported that initial directors were elected and the voters approved a tax rate not to exceed \$0.05 per \$100 of assessed valuation. This issue is discussed on pages 32, 53, and 54.
- On January 20, 2001, Swisher County residents voted not to join the High Plains Underground Water Conservation District No. 1. The annexation proposition failed by a vote of 379 (58 percent) against; 272 (42 percent) for. The district reported that opponents cited additional property taxes, involvement in the precipitation enhancement program, and district rules as reasons to vote against joining. This issue is discussed on pages 28 and 61.
- The temporary board of the Bee Groundwater Conservation District in Bee County has reported that the district was confirmed by election on January 20, 2001. The temporary directors also reported that initial directors were elected and the voters approved a tax rate not to exceed \$0.05 per \$100 of assessed valuation. This issue is discussed on page 62.

Executive Summary

This report provides information to the legislative leadership on activities undertaken during the preceding two years relating to the designation of priority groundwater management areas (PGMAs), the creation of groundwater conservation districts, and the operation of districts. The report also identifies and addresses groundwater management issues and recommends changes to Chapters 35 and 36 of the Water Code. This report has been prepared by the Texas Natural Resource Conservation Commission (TNRCC) and the Texas Water Development Board (TWDB) with assistance from the Texas Parks and Wildlife Department (TPWD), the Texas Agricultural Extension Service (TAEX), and the State Auditor's Office (SAO) to fulfill the requirements of §35.018 of the Water Code.

Priority Groundwater Management Area Program: Fourteen PGMA studies were completed between 1987 and 1991 and four of the study areas were designated as PGMAs by the Texas Water Commission (TWC) in 1990. These four designated areas include the Reagan, Upton, and Midland County PGMA; the Briscoe, Hale, and Swisher County PGMA; the Dallam County PGMA; and the Hill Country PGMA. In 1997, two previously initiated PGMA studies were finalized. One of these two study areas, the El Paso County area, was designated a PGMA by the TNRCC in 1998.

Locally initiated district creation or annexation activities have occurred in the four PGMAs designated in 1990; however, there presently remain areas in each PGMA that have not yet been added to a groundwater conservation district. During the 1999 - 2000 biennium, the TNRCC's Executive Director initiated district creation action in the Upton and Midland county portions of the Reagan, Upton, and Midland County PGMA and the Briscoe and Swisher county portions of the Briscoe, Hale, and Swisher County PGMA. The TNRCC also monitored district creation activity by the 76th Legislature in the Hill Country PGMA in Comal, Hays, and Kendall counties. TAEX and TWDB conducted similar education activities in this area. District creation or annexation action remains pending for the Travis County portion of the Hill Country PGMA and for portions of the Dallam County PGMA. The agencies are not aware of any locally initiated action to create a regional entity in the El Paso County PGMA to address issues as identified by the TNRCC.

During the biennium, the TNRCC's Executive Director conducted a 17th PGMA study and recommended that the area in Northern Bexar County overlying the Trinity aquifer should be designated as such. Assistance was provided by TWDB

and TPWD. An evidentiary hearing was held and the matter is scheduled for TNRCC consideration in early 2001.

The agencies have undertaken other activities during the 1999 - 2000 biennium to coordinate and implement the PGMA program. Five study areas were determined not to be PGMA's by the TWC in 1990; however, it was determined that updated studies were needed to reassess these areas at a future date. The TNRCC's Executive Director requested updated groundwater studies for these areas from the TWDB and natural resource evaluation studies from the TPWD in 1998. The TWDB and TPWD completed the requested studies in late 1998 and early 1999. TNRCC evaluation of this information will continue into 2001 and possibly beyond if information supports that PGMA designation should be recommended for any of these areas.

Groundwater Conservation District Creation: During the 1999 - 2000 biennium, 13 new, temporary districts were created by the 76th Legislature. One new district was created by the TNRCC through the petition process. Also, five other previously created special-law districts were confirmed by election. No new districts were created by the TNRCC through the PGMA district creation process. Two district annexations also occurred during the biennium. As a result of these actions, there are now a total of 65 groundwater conservation districts which have been created in the state. These 65 districts include 50 established districts, 13 temporary districts, and 2 unconfirmed districts. The 65 districts cover all or part of 105 of the state's 254 counties.

Senate Bill 1911 (76th Legislature, 1999) created 13 temporary groundwater districts in all or part of 17 counties. The Act grants the temporary directors, appointed by county commissioners courts, of these districts the same permitting and general management powers as those granted to initial and permanent directors under Chapter 36 of the Water Code. However, the temporary directors are specifically prohibited from exercising other powers and duties of Chapter 36 related to elections, eminent domain, management plans, bonds, taxes, adding territory, and district consolidation. SB 1911 also provides that if the creation of these districts is not ratified by the 77th Legislature in 2001, the districts will be dissolved on September 1, 2001.

The legislatively created Guadalupe County, Haskell/Knox County, Menard County, Clearwater (Bell County), and Presidio County districts were confirmed by elections in 1999 and 2000. The Blanco-Pedernales Groundwater Conservation District was created by the TNRCC in 2000 and an election has been scheduled

for early 2001. Two annexations of territory were effected in 2000. All of the territory in Baylor County was added to the Haskell/Knox Underground Water Conservation District and all of the territory in Potter County that was outside of a district was added to the Panhandle Groundwater Conservation District.

SB 1 in 1997 specified that the enabling legislation for groundwater conservation districts created during the 71st through 74th legislative sessions (1989 - 1995) would be automatically repealed unless the districts were confirmed by election before September 1, 1999. During the biennium, four of the five districts subject to this SB 1 provision were confirmed. The enabling act for the Oldham County Underground Water Conservation District, created by the 74th Legislature in 1995, was repealed on September 1, 1999 for failure to conduct an election. The Bee Groundwater Conservation District, created by the 75th Legislature in 1997, was not made subject to the SB 1 confirmation election deadline. However, the temporary directors of the district have scheduled a confirmation election for early 2001.

Educational Activities: Educational programming and assistance are vitally important in the effective management of the state's water resources and the voter's decisions on district creation. Primarily under the lead of TAEX, the agencies were actively involved in organizing and providing educational assistance to residents of areas interested in establishing new groundwater conservation districts or attempting to confirm existing districts. During the 1999 - 2000 biennium, at the request of local citizens and officials, educational meetings were held by representatives of the various state agencies in a significant number of counties. Information on Texas water law, the PGMA process, methods of forming groundwater conservation districts and other related issues were presented and discussed at these meetings. The TAEX has developed educational brochures and fact sheets on groundwater management and methods of groundwater district creation and has created audio-visual material for use in educational programming in the designated PGMA's.

Groundwater District Management Planning and Implementation: Groundwater conservation districts are required by Chapter 36 of the Water Code to develop and submit a groundwater management plan to the TWDB for certification of administrative completeness. Each district develops its own management plan in accordance with requirements specified in the Water Code and the TWDB's management plan certification rules. The TWDB has facilitated training with the groundwater districts on certification rules and requirements. Forty-five district management plans have been certified by the TWDB to date and one district's plan (Plum Creek Conservation District) is presently being evaluated. Four

additional district management plans will become due for TWDB certification in 2001.

District implementation of their certified management plans are subject to SAO audit under Chapter 36 of the Water Code. The SAO audited the Gonzales County Underground Water Conservation District's plan, the first plan certified by the TWDB, in a pilot project in the spring of 1999. The SAO determined the district was operational under its plan and in compliance with basic statutory requirements. In 2000, the SAO conducted a phase one audit for nine additional districts and issued a report. The SAO determined that six of the districts (Barton Springs/Edwards Aquifer, Headwaters, High Plains, Irion County, Lipan-Kickapoo, and Mesa) were operational under their plans and two of the districts (Hudspeth County and Live Oak) were not operational. The operational status of the remaining district (Sterling County) could not be determined because of the nature of management plan objectives. The SAO also determined that six of the districts were in full to partial compliance with basic statutory requirements and three of the districts (Hudspeth County, Live Oak, and Sterling County) did not comply with one or more basic statutory requirements.

Under Chapter 36 of the Water Code, the TNRCC is required to take action if a groundwater conservation district fails to submit a management plan, fails to receive certification of its plan from the TWDB, or is determined to be not operational by the SAO. In general, the TNRCC performance review and enforcement protocol consists of initial interagency coordination actions, a cooperative attempt to reach resolution with noncompliant districts, and agency enforcement action for resolution with non-cooperative districts. The TNRCC initiated cooperative efforts in December 2000 to reach resolution with the Hudspeth County and Live Oak districts, the two districts SAO has determined to be non-operational.

Groundwater Management Issues: TNRCC outlines a few procedural issues remaining in Chapter 35 that could be clarified to more fully accomplish and facilitate groundwater management within designated PGMA's. These issues include: TNRCC-initiated district creation authority and procedure in designated PGMA's; time frames for landowner action in designated PGMA's; the timing of educational programming within the PGMA designation process; and, PGMA designation evidentiary hearing procedures including the scope of issues and obtaining and responding to public comments.

Similarly, streamlining the groundwater management area designation process could improve the process and facilitate groundwater district creation and joint

planning by districts. Exemptions from district well permitting requirements and confirmation elections for multi-county districts are also groundwater management issues. District specific issues include ratification consideration for the 13 temporary (SB 1911) districts and addressing challenges that individual special law districts have encountered while attempting to add petitioning territory.

TNRCC Recommended Changes to Texas Water Code, Chapters 35 and 36:

The following priority groundwater management area recommendations are respectfully submitted for legislative consideration:

- ! for district creation in a PGMA in the current statute, replace the reference to Subchapter B, Chapter 36 with specific references for Commission-initiated district creation authority and procedure in a designated PGMA,
- ! separate and clarify procedures for landowner-initiated district creation in designated PGMAs and the timing of TNRCC action when local action is not taken, and
- ! streamline and clarify PGMA designation evidentiary hearing procedures.

Also presented for consideration are the following recommendations related to groundwater management:

- ! streamline the groundwater management area designation process to facilitate district creation and joint planning, and
- ! clarify confirmation election provisions for multi-county districts.

Introduction

This report has been prepared for the 77th Legislature by the Texas Natural Resource Conservation Commission (hereinafter TNRCC or Commission) and the Texas Water Development Board (hereinafter TWDB) as required by §35.018 of the Texas Water Code (hereinafter the Water Code). The introduction describes the purpose and scope of the legislative report, presents a brief history of the evolution of groundwater district and groundwater management law, and describes the interagency roles and coordination by which the mandates of Chapters 35 and 36 of the Water Code are implemented.

Purpose and Scope

The purpose of the report is to provide updated information on the designation of priority groundwater management areas (PGMAs) and the creation and status of new groundwater conservation districts (hereinafter GCDs or districts). The report describes state agency efforts to implement the groundwater management and PGMA education provisions of Chapter 35 of the Water Code. The report provides information on the implementation of the state's PGMA program, describes PGMA studies and designations that were conducted during the biennium, and discusses state agency and local activities that have occurred in the previously designated PGMAs. The report presents information on state activity in other PGMA study areas and on educational programming that has been conducted in designated PGMAs and in other areas where landowners have requested groundwater conservation district creation education.

The report describes recently created groundwater conservation districts and additions of territory into existing districts. Information is presented on elections held for the confirmation of new groundwater districts and describes new district activities. The report identifies areas that have annexed into an existing groundwater district and identifies significant issues for existing districts. State agency efforts to implement groundwater management planning requirements are described along with the status of district management plans for all groundwater districts. Additionally, the report identifies and discusses groundwater management issues and recommends changes to Chapters 35 and 36 of the Water Code for legislative consideration.

The 77th legislative report is the second of this series that has been prepared jointly by the TNRCC and TWDB. The first such report was presented to the 76th

Legislature in 1999 (TNRCC, 1999). The report has been prepared in accordance with §35.018 of the Water Code, as established by Senate Bill (SB) 1 in 1997. The Texas Parks and Wildlife Department (hereinafter TPWD) and the Texas Agricultural Extension Service (hereinafter TAEX) also assisted in the preparation of this report. Six previous reports on groundwater conservation districts and groundwater management issues have been prepared by the TNRCC and its predecessor agency, the Texas Water Commission (hereinafter TWC). These reports, spanning the years 1985 to 1997, were presented to the 70th (1987) through 75th (1997) legislatures (TWC, 1987, 1989, 1991 and 1993; TNRCC, 1995 and 1997). The previous reports were prepared under Chapter 133 (General and Special Laws), Regular Session, 69th Legislature, 1985, which was repealed by SB 1 and replaced with §35.018, Water Code.

Background and Historical Perspective

State law pertaining to the creation of groundwater conservation districts and the management of groundwater resources has been amended many times over the past 50 years. Table 1 presents a summary of the evolution of groundwater districts and groundwater management law. The creation of groundwater conservation districts and the designation of underground reservoirs for the purpose of groundwater management were first made possible by House Bill (HB) 162 (51st Legislature, 1949), codified as Article 7880-3c, Vernon's Civil Statutes. The Act provided the petition process for management area designation and authorized district creation. It also defined the powers, duties, and responsibilities for operating a district, outlined procedures for confirmation elections and defined the duties of the boards of directors of districts. The Act established procedures for adding territory, consolidation and dissolution of districts. Amendments in 1955 authorized the Texas Board of Water Engineers (TNRCC predecessor agency) to designate underground reservoirs and subdivisions on its own motion or on landowner petition. In 1971, this law was incorporated into the Water Code as Chapter 52 (Underground Water Conservation Districts).

With the enactment of HB 2 in 1985, the 69th Legislature made substantial changes to Chapter 52. The concept of an underground reservoir was changed to that of a management area. HB 2 allowed the Commission to consider boundaries of political subdivisions, in addition to aquifer boundaries, in delineating management areas. Prior to 1985, Chapter 52 required the boundaries of groundwater conservation districts to be coterminous with a designated underground reservoir.

Table 1. Groundwater District and Groundwater Management Legislative History

Legislative Act	Legislature	Major Provisions or Changes
HB 162	51 st , 1949	<p>Authorized the petition process for designating underground water reservoirs and creating underground water conservation districts.</p> <p>Amended in 1955 to authorize the Texas Board of Water Engineers to designate underground water reservoirs on its own motion.</p> <p>Codified as Chapter 52, Water Code in 1971.</p>
HB 2	69 th , 1985	<p>Changed underground water reservoirs to management areas.</p> <p>Required that boundaries of groundwater districts be coterminous with a management area and allowed the TWC to consider using political boundaries to delineate management areas.</p> <p>Established the critical area process.</p>
SB 1212	71 st , 1989	<p>Changed management areas to underground water management areas.</p> <p>Required the TWC to designate underground water management areas by agency-rulemaking procedures.</p> <p>Clarified agency roles, time-schedules and procedures for conducting critical area studies.</p> <p>Repealed underground water management area delineation requirements for legislatively-created districts.</p> <p>Required groundwater districts to develop comprehensive management plans.</p>
HB 1744	72 nd , 1991	<p>Provided local opportunity for landowners in designated critical areas to establish underground water conservation districts.</p>
HB 2294	74 th , 1995	<p>Replaced references to underground water conservation districts, underground water management areas, and underground water reservoirs with groundwater conservation district, groundwater management areas, and groundwater reservoirs, respectively.</p> <p>Recodified sections specific to groundwater management areas and critical areas into Chapter 35, Water Code.</p> <p>Recodified sections specific to groundwater conservation districts into Chapter 36, Water Code.</p> <p>Repealed Chapter 52 (Water Code) and provisions requiring groundwater district actions under Chapter 50 (now Chapter 49, Water Code).</p>
SB 1	75 th , 1997	<p>Provided contents for groundwater district comprehensive management plans and required consistency with regional water plans.</p> <p>Provided for the TWDB to certify management plans if administratively complete, the State Auditor to determine if districts were actively implementing management plans, and the TNRCC to ensure district compliance.</p> <p>Replaced the concept of a critical area with a priority groundwater management area (PGMA) as designated by TNRCC order; extended PGMA study evaluation period from 20 to 25 years.</p> <p>Involved the TPWD in the PGMA study process and the TAEX in the PGMA district creation educational process.</p> <p>Removed denial of state assistance for areas within PGMA which have failed to establish a groundwater district.</p> <p>Required initial public notification and evaluation of comments in the PGMA study process.</p>

The critical-area program was also established by HB 2 in 1985. The 69th Legislature recognized that certain areas of the state were experiencing, or may experience in the future, critical groundwater problems. HB 2 defined critical areas as being those areas that are experiencing or are likely to experience significant groundwater problems such as water shortages, land subsidence, significant water level declines, groundwater contamination (including saltwater intrusion), or wastage of groundwater supplies. HB 2 authorized the state's water agencies to study, identify and delineate critical areas and initiate the creation of groundwater conservation districts within these areas.

SB 1212, passed by the 71st Legislature in 1989, further modified management area provisions. The law changed the term "management area" to "underground water management area" and required the Commission to use procedures in accordance with agency rulemaking when designating underground water management areas. SB 1212 required that the boundaries of groundwater districts created by the Commission through the petition process provided in Chapter 52 be coterminous with or within the boundaries of a designated underground water management area or critical area. The requirement for delineation of an underground water management area for district creation was not extended to legislatively created districts as in prior law. SB 1212 made significant changes to the critical area process by clarifying the critical area process in light of water agency reorganizations. The amendments clarified the roles of the TWDB and the Commission, placed time constraints on the agencies for developing and submitting critical-area reports, and defined procedures for conducting critical-area studies, designating critical areas and creating districts in critical areas. The act also provided for the consolidation of existing districts.

HB 1744, passed in 1991 by the 72nd Texas Legislature, further amended and clarified the critical-area provisions of Chapter 52 by encouraging local action to create groundwater conservation districts within designated critical areas. These provisions allowed landowners in designated critical areas to create one or more districts through the petition or legislative process or have the area annexed into an existing district. An area failing to establish a district either through the petition or legislative process, or through annexation, would then become subject to inclusion in a proposed delineation of a district for Commission consideration.

HB 2294, passed by the 74th Legislature in 1995, recodified Chapter 52 into new Chapters 35 and 36. It replaced the terms "underground water conservation district," "underground water reservoir," and "underground water management area" with "groundwater conservation district," "groundwater reservoir," and

“groundwater management area,” respectively. It also repealed provisions requiring groundwater district actions under Chapter 50 of the Water Code (Provisions Generally Applicable to Districts) and repealed Chapter 52. The bill recodified portions of Chapter 52 that addressed groundwater management areas and critical areas into new Chapter 35 (Groundwater Studies). Some language in the critical area process was amended by HB 2294, but no major changes were made. The act also recodified much of Chapter 52 dealing specifically with district powers, authorities, and administration into new Chapter 36 (Groundwater Conservation Districts).

SB 1, the omnibus water bill passed by the 75th Legislature in 1997, renamed “critical areas” as “priority groundwater management areas” (PGMA), significantly amended the PGMA process in Chapter 35, and placed a renewed emphasis on the PGMA program. It also changed the TNRCC designation of a PGMA from an agency-rulemaking procedure to a TNRCC order, and added the involvement of local stakeholders in a notification and comment process. SB 1 further required that the TNRCC’s PGMA report include an evaluation and consideration of the comments provided by the stakeholders in the decision-making process.

In addition, SB 1 extended the PGMA planning horizon from 20 to 25 years and formally included the TPWD in the study process to evaluate the potential effects of the designation of a PGMA on an area’s natural resources. It also amended the schedules for the agency studies and directed the TAEX to develop and implement a water education program to aid in the district-creation process. Furthermore, SB 1 removed the provision that denied state financial assistance to areas within designated PGMA that failed to confirm a TNRCC-initiated district. The act requires the TNRCC to recommend legislative action for future management of the PGMA if voters in the area fail to confirm the creation of a district or the addition of the area to an existing district as initiated by the TNRCC. These recommended legislative actions could include creation of a district or addition of the area to an existing district or providing for the management of the PGMA by the TNRCC’s nearest regional office. It also added a provision in Chapter 35 allowing county commissioners courts within a designated PGMA to adopt certain water availability requirements in an area where platting is required.

SB 1 made numerous changes to groundwater district law in Chapter 36 of the Water Code. Groundwater conservation districts were recognized as the state’s preferred method of determining, controlling, and managing groundwater resources. The bill clarified groundwater management planning requirements for districts and required accountability for the implementation of these plans. It

established procedures for the TWDB to administratively certify district management plans and required districts to notify the TWDB of any modifications made to the management plans. Furthermore, SB 1 authorized the State Auditor's Office (SAO) to determine if a district was actively engaged in implementing its management plan, and established procedures for the TNRCC to take action to ensure districts implemented these plans. SB 1 also empowered districts to permit the transfer of groundwater out of the district, outlined procedures for the appointment of temporary directors in TNRCC-created districts in designated PGMA, and authorized the TWDB to allocate funds to groundwater districts for collecting data and developing management and regional plans.

SB 1310, passed by the 76th Legislature in 1999, amended Chapter 35 of the Water Code. SB 1310 provides an opportunity for the Texas Department of Agriculture (TDA) to participate in the PGMA study and evaluation and in groundwater conservation district educational outreach processes.

Interagency Coordination and Implementation

Several state agencies have responsibilities for and are involved in implementing the groundwater management plan requirements of the Water Code. The TNRCC is responsible for delineating and designating groundwater management areas and PGMA and creating groundwater conservation districts by petition or through the PGMA process. It is also responsible for addressing non-compliant or dormant/inactive districts, and for providing technical assistance to groundwater districts when requested.

The TWDB provides technical and administrative support to groundwater districts in the development of their groundwater management plans, reviews and certifies district management plans, and performs PGMA water-availability and water-use studies at the request of the TNRCC. It also provides financial assistance to groundwater conservation districts to gather groundwater data, develop and implement long-term management plans, and participate in regional water-planning efforts.

The TPWD 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 TNRCC in the PGMA process and provides follow-up assistance as needed. The TPWD may allocate funds to districts to carry out the objectives of Chapters 35 and 36 of the Water Code. For example, the TPWD may allocate funds for the purpose of assessing fish and wildlife

resource habitat needs as they apply to overall management plan goals and objectives of the district.

The role of the TAEX in the PGMA process is to provide educational opportunities to the public. The TAEX is charged with conducting educational programs in designated PGMA's on the area's water resources and the management options available for these resources. TAEX has developed several groundwater management educational brochures and fact-sheets and has expanded the educational programming to all areas of the state.

The SAO is required to review district activities (with the assistance of the TNRCC, TWDB and TPWD), to determine if a district has been implementing its management plan. The first review is required to be conducted after the first anniversary of the plan's certification by the TWDB with subsequent reviews on a five-year basis. The SAO reports its findings to the TNRCC and the Legislative Audit Committee.

The Texas Alliance of Groundwater Districts (TAGD) is a non-profit organization established to provide groundwater conservation districts the opportunity to exchange ideas and to develop or influence programs for the management, conservation, protection, and development of groundwater in the state. Although not required by statute, members of the TAGD routinely assist state agencies through their participation in educational programming efforts.

A memorandum of agreement (MOA) was signed by the TNRCC, TWDB, and the TPWD in September 1997 to implement the changes to Chapters 35 and 36 of the Water Code as mandated by SB 1. The MOA addressed four areas: water planning, data collection and dissemination, state water bank, and groundwater. Chapter 35 provides the TNRCC's Executive Director and the TWDB's Executive Administrator to meet annually to identify areas that may need to be studied further under the priority groundwater management area process. The MOA provided for the development of the procedures and time lines for conducting this annual agency executive meeting. These procedures were developed in December 1997.

Chapter 35 also provides that no later than January 31 of each odd-numbered year, the TNRCC in conjunction with the TWDB, prepare and deliver to the Governor, Lieutenant Governor, and the Speaker of the House of Representatives a comprehensive report detailing activities (related to the designation of PGMA's by the TNRCC and the creation and operation of groundwater conservation

districts) undertaken during the preceding two years. The MOA procedures and time lines for the preparation and submission of this joint agency report were developed in December, 1997.

The MOA further provides for the coordination of the TWDB and the TNRCC in providing technical assistance to groundwater conservation districts in the development of their groundwater management plans. Rules for certifying the groundwater management plans were developed and adopted by the TWDB, in coordination with the TNRCC, in December, 1997. Performance reviews of groundwater conservation districts would be conducted by the SAO with assistance from the TWDB, TNRCC and TPWD.

The development of a second MOA was initiated in Fiscal Year 2000 by the TNRCC and TWDB. The purpose of this MOA is to clarify agency communications regarding creation of new groundwater conservation districts, the administrative certification of groundwater conservation district management plans by the TWDB, and TNRCC enforcement actions if a district fails to submit or receive certification of its management plan. Upon concurrence from each of the agency executives, the availability of the proposed MOA would be published in the *Texas Register* and distributed to stakeholders for comments. After evaluation of comments, it is anticipated the MOA will be signed and approved by the two agency executives.

Priority Groundwater Management Area Program

This chapter describes the PGMA process and PGMA activities that have been undertaken since the last legislative session (76th Legislature, 1999). Initially, a brief overview is presented on the PGMA process and the status of PGMA studies at the commencement of the 77th legislative session. Detailed descriptions of TNRCC action in designated PGMAs, other current and future PGMA activities, and information about other delineated and designated groundwater management areas are presented in the sections that follow.

Priority Groundwater Management Area Process

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 TNRCC, TWDB, TPWD, and the TDA to study, identify and delineate PGMAs, and initiate the creation of groundwater conservation districts 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. The following is a description of the PGMA process and the steps involved in the TNRCC-initiated formation of a groundwater conservation district.

The process of identifying, delineating, and designating a PGMA begins at an annual meeting of the TNRCC and TWDB executives. At this meeting, the executives review available data and identify, for detailed study, areas of the state which face or will face "critical groundwater problems" within the next 25 years. Once such areas have been identified, PGMA studies may then be initiated by the TNRCC's Executive Director and supporting studies requested from the TWDB, TPWD, and the TDA.

Prior to initiating a PGMA study, the TNRCC must notify county governments, municipalities, river authorities, adjacent groundwater conservation districts, regional water planning groups, water districts, and entities that supply public drinking water. The aim of the notice is to solicit comments from the area's water stakeholders and to request data on and information about existing studies related to water supply, groundwater availability, groundwater level trends, and groundwater quality. Stakeholders who receive such a notice are allowed 45 days to provide comments to the TNRCC's Executive Director.

The Executive Director's PGMA report evaluates the authorities and management practices of existing groundwater management entities within and adjacent to the study area and makes recommendations on appropriate strategies necessary to conserve and protect groundwater resources in the area. The report evaluates comments and information provided by water stakeholders in the area and data and information provided by the TWDB, the TPWD, and gathered from independent research and provides a recommendation as to whether the Commission should or should not designate an area as a PGMA. If an area is not recommended for designation as a PGMA, no further action is required by the Executive Director or the Commission. The Executive Director notifies the area's stakeholders of the completion and availability of the report and lists the reasons for the non-designation determination. Any stakeholder may request that the recommendation be reconsidered.

In areas recommended for PGMA designation, the Commission is required to conduct an evidentiary hearing before determining if critical groundwater problems exist or will exist in the next 25 years, the delineation and designation of the area, and if the area would benefit from district creation or annexation. After considering all available information, including that obtained during the hearing, the Commission issues an order stating its findings and conclusions on the designation of the area and its recommendations on the benefit of district creation. The order may determine that landowners in an area would not benefit from the creation of a district (no further action needed by the Commission), or recommend that one or more districts need to be created in the area or that the area would most benefit by being added to an existing district.

If the Commission's designation order recommends district creation or annexation, there is an opportunity for local action to establish a district either through legislative, petition, or annexation processes. Whether through district creation or addition of the area to an existing district, voters in the area must confirm the district at an election. At the election, residents vote on propositions to confirm the creation of the district, approve taxing authority for the district, and elect members to serve on the district's board of directors.

After the opportunity for locally initiated action has lapsed, the Executive Director must identify areas in the PGMA that are still not part of any existing district and delineate the proposed boundaries of a district. Following an evidentiary hearing in the area and consideration of the evidence at public hearing, the Commission then issues an order that either creates one or more districts in the area or proposes adding the area to an adjacent district. Upon the Commission order to create a

district, the TAEX begins an educational program in the area to inform the residents of the management options available to them. Upon the Commission order to add an area to an existing district, the order is filed with the board of the district. The board votes on the addition of the area and advises the Commission of the outcome.

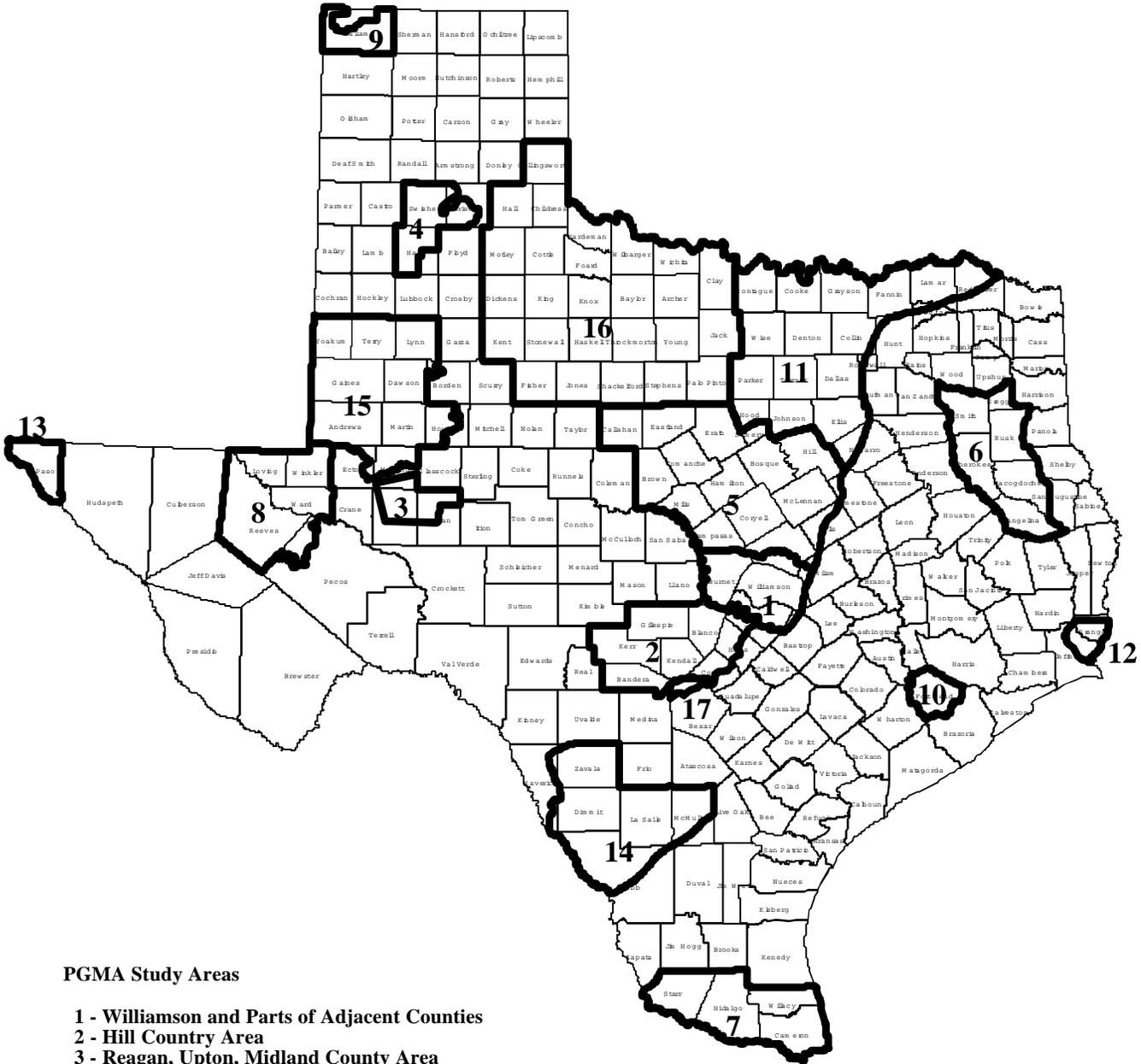
Just as in a locally-initiated district creation or annexation, landowners in the area are provided the opportunity through a voter-election process to confirm the district, approve taxing authority for the area, and elect members to serve on the district's board of directors. If the voters elect to not create a Commission-initiated district or annexation into an adjoining district, the Commission is required to include this information in the biennial legislative report and also provide recommendation for future management of the area. Management options for legislative consideration could include district creation or annexation or management of the PGMA by one of the TNRCC's regional offices.

State law is implemented by TNRCC rules that address issues related to the creation of groundwater conservation districts in areas which have been designated as PGMAs, and outline procedures for creating a district, appointing temporary directors and for Commission action if a district does not submit or implement a management plan. In addition, the rules outline procedures for the designation of PGMAs by the TNRCC. The rules also describe procedures for a Commission-created groundwater conservation district to expand its management authority within its territory.

Background

The PGMA program was active from 1987 to 1991 during which time 16 critical area (now PGMA) studies (Figure 1) were initiated of which 14 were completed. Of the completed studies, four areas: in Reagan, Upton, and Midland counties; Briscoe, Hale, and Swisher counties; Dallam County; and in the Hill Country (Figure 2) were designated as PGMAs by the TWC. Five study areas were determined not to be PGMAs. These include the Lower Rio Grande Valley Area, Fort Bend County Area, Orange-Jefferson Counties Area, Wintergarden Area, and the Southernmost High Plains Area (Figure 1). Five other areas also were determined not to be PGMAs, but were deemed to require groundwater monitoring for a period of five years to further assess the severity of groundwater problems.

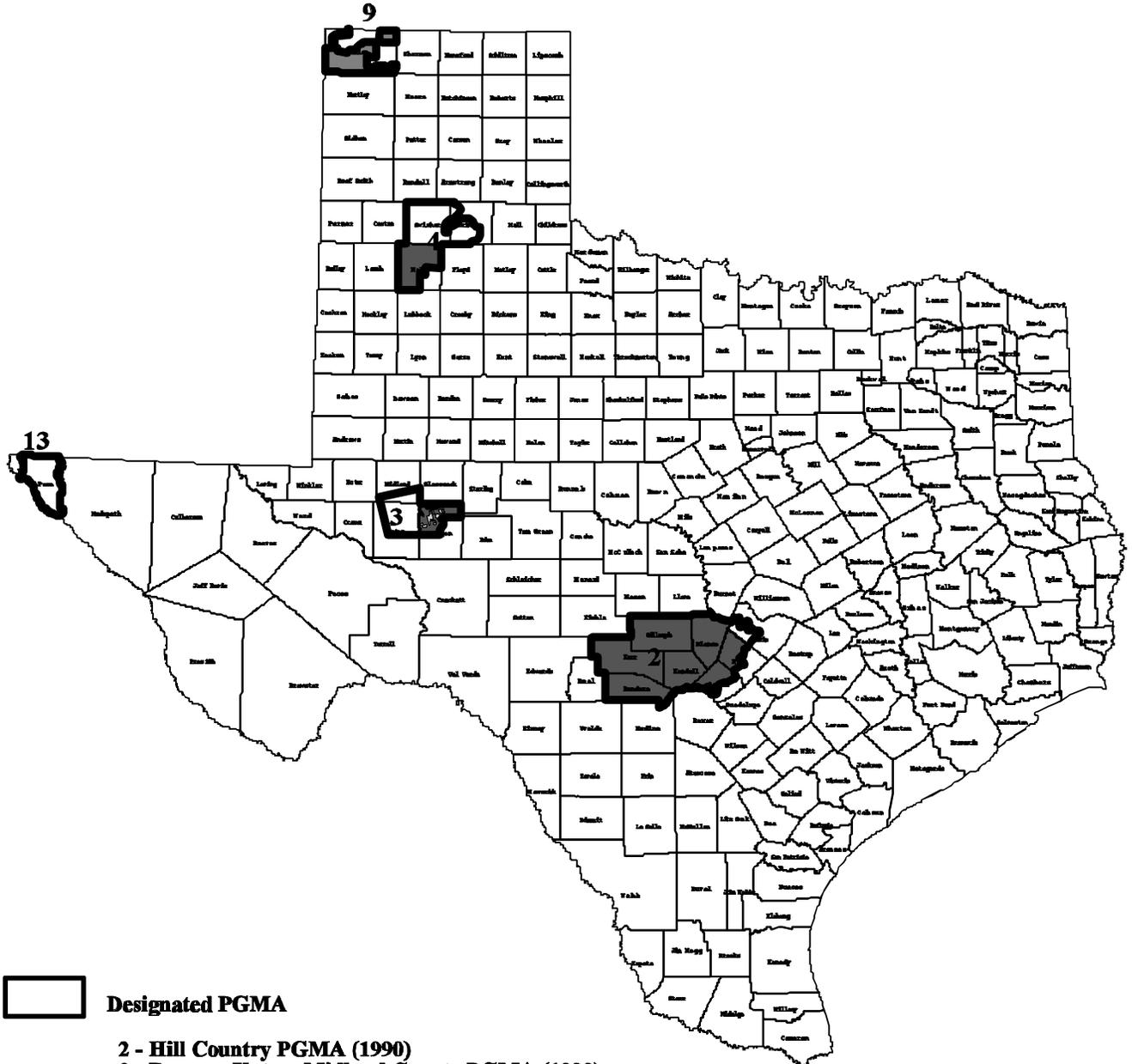
Figure 1. Priority Groundwater Management Area Studies



PGMA Study Areas

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

Figure 2. Designated Priority Groundwater Management Areas



- Designated PGMA
 - 2 - Hill Country PGMA (1990)
 - 3 - Reagan, Upton, Midland County PGMA (1990)
 - 4 - Briscoe, Hale, Swisher County PGMA (1990)
 - 9 - Dallam County Area PGMA (1990)
 - 13 - El Paso County Area PGMA (1998)
-
- Area within designated PGMA incorporated into a groundwater district (Blanco-Pedernales Groundwater Conservation District, in Blanco County, has not been confirmed by voters.)

These areas, shown in Figure 1, include Williamson and Parts of Adjacent Areas, Central Texas (Waco) Area, East Texas Area, Trans-Pecos Area, and the North-Central Texas Area.

The two study areas for which Commission action were not initially completed were the El Paso County Area and the North Texas Alluvium and Paleozoic Outcrop Area (Figure 1). An updated El Paso County Area report and the North Texas Alluvium and Paleozoic Outcrop Area report were completed and filed with the TNRCC's Chief Clerk in August 1998. It was determined that the North Texas Alluvium and Paleozoic Outcrop Area was not a PGMA. The El Paso County Area was recommended for Commission-designation as a PGMA and was so designated by the Commission on December 2, 1998.

During the 1999 - 2000 biennium, the area of Northern Bexar County overlying the Trinity aquifer was evaluated by the TNRCC. The Executive Director recommended that the area should be designated as a PGMA, added to the existing Hill Country PGMA for the Trinity aquifer, and that a groundwater conservation district would be beneficial for the area. The Executive Director's report was filed with the TNRCC's Chief Clerk on May 12, 2000, and an evidentiary hearing was conducted on September 25 - 27, 2000. The Commission is tentatively scheduled to consider designation of this area in January 2001.

Information for each of the 17 PGMA study areas is presented in Table 2. Maps showing the major and minor aquifers within the state, as referenced in Table 2, are provided in Appendix 1. Agency PGMA studies are listed by study area in Appendix 2. Detailed information for each of the designated PGMAs, for the update PGMA studies, and for the presently ongoing PGMA evaluation for Northern Bexar County are included in the following sections of this chapter.

Table 2. Priority Groundwater Management Area Studies

PGMA Study Area (Figure 1 Reference No.)	Major Aquifer(s)	Date Study Started	TNRCC or Executive Director Action
Areas Determined to be PGMA's and Designated by the TNRCC			
Hill Country Area (Area 2)	Trinity	04/01/87	Designated on 06/06/90
Reagan, Upton and Midland County Area (Area 3)	Edwards-Trinity	10/01/87	Designated on 06/13/90
Briscoe, Hale and Swisher County Area (Area 4)	Ogallala	01/01/88	Designated on 06/06/90
Dallam County Area (Area 9)	Ogallala	09/01/89	Designated on 06/06/90
El Paso County Area (Area 13)	Hueco Bolson	09/01/89	Decision deferred on 06/20/90
		01/29/98	Designated on 12/2/98
Areas Determined Not to be PGMA's; Update Evaluation Required by TNRCC (Presently Ongoing Updates Initiated on 12/22/98)			
Williamson and Parts of Adjacent Counties (Area 1)	Edwards (BFZ) and Trinity	04/01/87	Decision made on 10/17/90
Central Texas (Waco) Area (Area 5)	Trinity	09/01/89	Decision made on 10/17/90
East Texas Area (Area 6)	Carrizo-Wilcox	09/01/89	Decision made on 10/17/90
Trans-Pecos Area (Area 8)	Cenozoic Pecos Alluvium	09/01/90	Decision made on 10/17/90
North-Central Texas Area (Area 11)	Trinity	09/01/89	Decision made on 10/17/90
Areas Determined Not to be PGMA's; No Further Evaluation Required			
Lower Rio Grande Valley Area (Area 7)	Gulf Coast	09/01/89	Decision made on 09/19/90 (Commission)
Fort Bend County Area (Area 10)	Gulf Coast	09/01/89	Decision made on 09/19/90 (Commission)
Orange-Jefferson Counties Area (Area 12)	Gulf Coast	09/01/89	Decision made on 09/19/90 (Commission)
Wintergarden Area (Area 14)	Carrizo-Wilcox	10/04/90	Decision made on 05/06/91 (Exe. Director)
Southernmost High Plains Area (Area 15)	Ogallala	01/07/91	Decision made on 08/05/91 (Exe. Director)
North Texas Alluvium and Paleozoic Outcrop Area (Area 16)	Seymour, Blaine and Dockum	10/16/91	----
		10/6/97	Decision made on 08/31/98 (Exe. Director)
Presently Ongoing PGMA Evaluation; Designation Recommended by Executive Director			
Northern Bexar County Area (Area 17)	Trinity	07/26/99	Decision scheduled for 01/24/01

PGMA Program Planning

Staff from the TNRCC and the TWDB met on May 24, 1999 as a precursor to the Executive Director/Executive Administrator PGMA meeting required by Chapter 35 of the Water Code. Staff conducted the meeting to discuss pending and projected PGMA activities, possible future PGMA study areas, and other PGMA implementation issues. TNRCC staff, with concurrence from TWDB and TPWD staff, identified present and pending PGMA issues and developed recommendations for management consideration. A final TNRCC/TWDB staff summary report and recommendations pertaining to PGMA planning was provided to the management of the two agencies on November 8, 1999.

The annual meeting of the agency executives was held on January 6, 2000. The executives agreed that no new PGMA studies be initiated until regional water plans were completed and evaluated to identify regional groundwater availability issues. They also agreed that PGMA program efforts initiated in Fiscal Year 1999 be continued. These efforts including activity in five update PGMA study areas, district creation by TNRCC initiative in the designated PGMA, a PGMA evaluation for northern Bexar County, and educational programming (as requested). The executives agreed that new Fiscal Year 2000 PGMA activities would include providing technical assistance related to the temporary groundwater conservation districts (created by SB 1911, 76th Legislature, 1999) and providing technical support for the interim studies of the House and Senate Natural Resources Committees.

Status and TNRCC Action in Designated PGMA

Senate Bill 1 (1997) specified that an area designated as a critical area under Chapter 35, Water Code, or under other prior law, would be known and referred to as a PGMA on or after September 1, 1997. Four areas: in Reagan, Upton, and Midland counties; Briscoe, Hale, and Swisher counties; Dallam County; and in the Hill Country (Figure 2) were designated as PGMA by TWC rules in 1990 under previous statutory provisions of Chapter 52, Water Code. These four designated PGMA and their delineations are contained in Title 30, Texas Administrative Code (hereinafter 30 TAC), Chapter 294. A fifth area, the El Paso County Area (Figure 2), was designated as a PGMA by TNRCC order in 1998. The five designated PGMA are discussed in detail in the following sections.

Groundwater conservation district creation activity has occurred in four of the five designated PGMA. No district creation activity has yet been undertaken in the El Paso County PGMA. Between 1987 and 1998, four new districts were created through local initiative by the legislature and confirmed through election in two of the designated PGMA. A fifth district that was created by the TNRCC in 1994 through the local-initiative petition process provided in Chapter 36, Water Code, failed to be confirmed. Landowners within the other two designated PGMA have petitioned for joining adjacent districts and large portions of these areas have been annexed into existing districts. In 1999, three new temporary districts were created through local initiative by the legislature and in 2000, one new district was created by the TNRCC through the landowner petition process in one of the designated PGMA. District creation and annexation status in the designated PGMA is illustrated in Figure 2 and described further in the following PGMA-specific sections.

At the April 1998 annual PGMA meeting, the agency executives prioritized the initiation of TNRCC action for district creation or annexation in the designated PGMA as a Fiscal Year 1999 work effort. In October 1998, the Executive Director's staff identified areas within the four PGMA that had not been incorporated into a district, and proposed a general process for TNRCC action to initiate district creation in these areas. The Executive Director approved a process to address such areas. The process includes initial stakeholder input, public meetings conducted by the Executive Director, and the preparation of an Executive Director's report and recommendations for each area. Final Commission action in each area will depend on the conclusions arrived at and recommendations made in the Executive Director's report.

As guided by Chapter 35, Water Code, the Executive Director will review each designated PGMA and evaluate the district-creation options that would be feasible, practicable, and beneficial to accomplish groundwater management within each designated PGMA. This process will generally involve the solicitation of information or comments from water-stakeholders in the areas that will be evaluated along with other available information, and input from the TWDB and TPWD. This evaluation will be presented at a public meeting in each area for further comment and stakeholder input. The Executive Director will provide notice for the public meeting.

After evaluating the public comments, the Executive Director will prepare a report based on the available information. The report will include recommendations to the Commission on appropriate strategies to manage groundwater resources in the

PGMA. After the report is filed with the TNRCC's Chief Clerk, copies will be made available for public inspection through county clerks, public libraries, regional water planning groups and TNRCC Regional Offices within each area. If the Executive Director recommends creating a district or adding the PGMA to an existing district, an evidentiary hearing will be held in the PGMA. The Commission will then consider evidence from the hearing, information contained in the Executive Director's reports and supporting information, and will determine the final management action needed in the area.

The Executive Director's staff provided the implementation plan to the legislative leadership and to PGMA area legislative delegations in January 1999 and provided briefings as requested. During the 1999 - 2000 biennium, the TNRCC took significant action in the Reagan, Upton, and Midland County PGMA and initiated action in the Briscoe, Hale, and Swisher County PGMA. TNRCC action is pending in the Dallam County PGMA. TNRCC has monitored three temporary districts created by the 76th Legislature and created a fourth district in response to a landowner petition in the Hill Country PGMA. TNRCC's implementation of its plan for each designated PGMA is discussed in the following sections.

Reagan, Upton, and Midland County PGMA

In initial work, the Reagan, Upton, and Midland County area (Figures 2 and 3) was identified and nominated for study by the TWC and the TWDB in January 1987. The TWC requested a study from the TWDB in October 1987 and received it in February 1989. In May 1988, the TWC established a seven-member advisory committee to provide local input into the study process and to review and comment on the Executive Director's PGMA report and recommendations. The Executive Director's PGMA report was filed with the TWC's Chief Clerk in February 1990. The TWC's rules delineating and designating the Reagan, Upton, and Midland County PGMA were adopted on June 13, 1990 and published in the June 29, 1990 *Texas Register* (15 TexReg 3741). The rules became effective on July 16, 1990 and are contained in 30 TAC §294.35.

Some local/landowner district creation activity occurred in the Reagan, Upton and Midland County PGMA prior to, during, and after designation of the PGMA. A portion of the PGMA in Reagan County joined the Glasscock County UWCD and the remaining portion of the PGMA in that county was included in the legislatively created Santa Rita UWCD. In November 1991, there was an unsuccessful attempt by landowners in the Midland County portion of the PGMA to join the Permian

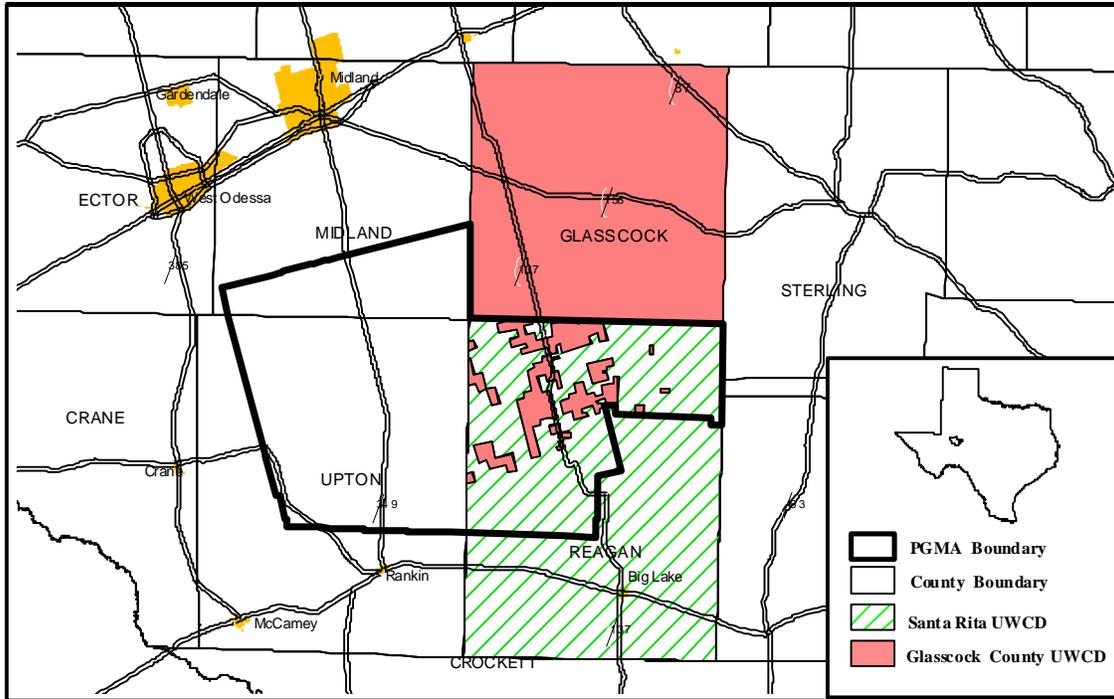


Figure 3. Reagan, Upton and Midland County PGMA

Basin UWCD in Martin and Howard counties. Voters defeated the proposal by a 3 to 2 margin. The TNRCC is unaware of any other formal, locally-initiated district creation or annexation efforts within Midland County since the unsuccessful 1991 effort. Presently, there are areas of the PGMA in Midland and Upton counties that have not been incorporated into any district.

Prior to the formal initiation of district creation efforts in the area, TNRCC and TAEX staff met with Upton and Midland county officials. At these meetings, staff apprised county officials of the status of the PGMA and of TNRCC's mandate to initiate the creation of a groundwater conservation district in the area. TNRCC and TAEX staff also met with the management of the Glasscock County UWCD and the Santa Rita UWCD to discuss issues associated with adding areas of the PGMA in Midland and Upton counties to the districts. In December 1999, TNRCC and TAEX staff held an educational meeting in Midkiff at the request of area landowners. Information on the district creation process, options available to

landowners, and the benefits of a district were some of the issues discussed at the meeting.

The district creation process in Midland and Upton counties was formally initiated by the TNRCC in the biennium. Notice was sent to approximately 130 area stakeholders on December 9, 1999. The notice requested information on ground-water conditions in the area and comments on the creation of a groundwater conservation district in the area. The stakeholder comment period ended January 23, 2000 and 20 responses to the notice were received. The responses varied greatly. Some respondents clearly favored district creation while others favored local control through an existing entity and opposed any new taxing entity.

An options paper discussing pros and cons of the various alternatives available for the formation of a groundwater conservation district in Midland and Upton counties was completed by the TNRCC and mailed to stakeholders in July 2000. The options paper was presented at a public meeting in Midkiff on August 17, 2000. One of the goals of the public meeting was to receive comments and concerns from area residents on the district creation options identified in the July 2000 report.

While no verbal testimony was offered at the public meeting, five written responses were submitted. These respondents either supported a number of different groundwater management options or opposed any district creation attempt that was not locally initiated from the area. Staff is currently preparing the Executive Director's report which will contain recommendations to the Commission for the most feasible type of groundwater conservation district in the area.

Briscoe, Hale, and Swisher County PGMA

In initial work, the Briscoe, Hale, and Swisher County area (Figures 2 and 4) was identified and nominated for study by the TWC and the TWDB in January 1987. The TWC requested a study from the TWDB in January 1988 and received it in February 1989. In January 1989, the TWC established a nine-member advisory committee to provide local input into the study process and to review and comment on the Executive Director's PGMA report. The Executive Director's PGMA report was filed with the TWC's Chief Clerk in February 1990. The TWC's rules delineating and designating the Briscoe, Hale, and Swisher County PGMA were adopted on June 6, 1990 and published in the June 29, 1990 *Texas Register* (15 TexReg 3741). The rules became effective on July 16, 1990 and are contained in 30 TAC §294.31.

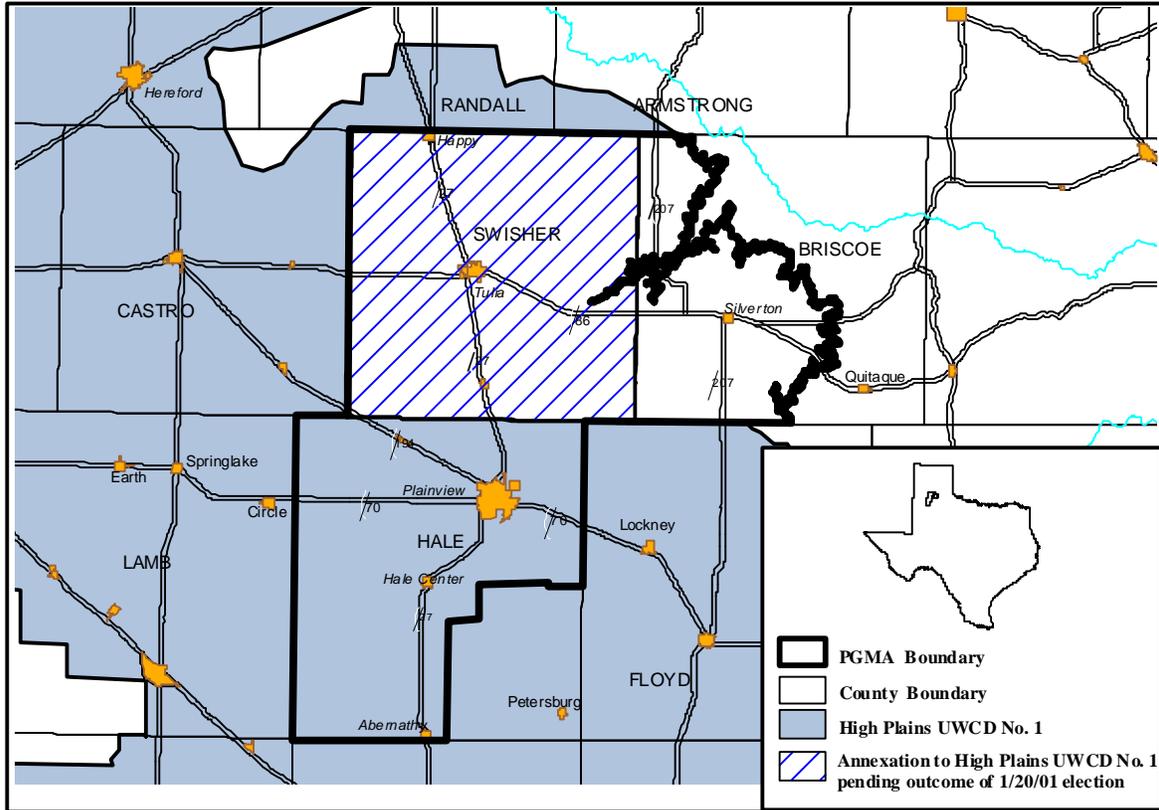


Figure 4. Briscoe, Hale and Swisher County PGMA

Some locally-initiated groundwater management efforts occurred in the Briscoe, Hale, and Swisher County PGMA both during and after the designation of the area. In 1988, landowners in Swisher County and portions of Briscoe and Hale counties petitioned the High Plains UWCD No. 1 for annexation into the district. After hearings in November 1988, the board of the High Plains UWCD No. 1 declined to call an election based on the low attendance and negative comments at the hearings. The board also noted that on three other occasions (prior to PGMA designation), residents of Swisher County had petitioned the district for annexation and an election was called by the district. At each of these elections, the annexation failed at substantial monetary cost to the district. A portion of the PGMA in Hale County was, however, annexed into the High Plains UWCD No. 1 following a landowner petition, board acceptance, and an August 14, 1993 confirmation election. Presently, there are areas of the PGMA in Briscoe and Swisher counties that have not been incorporated into any district.

Prior to formally initiating the district creation process in the area, staff met informally with Swisher County officials and with one Briscoe County commissioner in Tulia in June 2000. A similar invitation extended to Briscoe County officials was declined. The purpose of the June meeting was to apprise local officials of the status of the PGMA and of TNRCC's mandate and plan to initiate groundwater conservation district creation in the area. Swisher County officials and residents demonstrated a high level of interest in locally taking action to have the county added to the High Plains UWCD No. 1 and discussed a June 13, 2000 meeting between county officials and residents and the board of the district.

During the biennium, the TNRCC formally initiated district creation activity in Briscoe and Swisher counties by sending notice to about 150 stakeholders on August 28, 2000. The notice requested information from stakeholders on groundwater conditions and comments on creating a district in the area. The comment period ended October 12, 2000 and two comments were received. Staff is currently in the process of evaluating these comments and preparing an options paper for the creation of a groundwater conservation district in the area.

On September 11, 2000, the Swisher County Commissioners Court petitioned the High Plains UWCD No. 1 to have the county added to the district and on October 10, 2000, the county and the district executed an interlocal agreement. The agreement stipulates that the county will pay the cost of the annexation election if the district board adopts a resolution to add the county. If the resolution is passed at the election and the county added to the district, the agreement stipulates that the county will pay the district about \$115,000 over a three-year period for costs associated with remedial and data collection efforts to ensure an equitable level of service with the rest of the district.

The High Plains UWCD No. 1 conducted a hearing on the annexation in Tulia on October 17, 2000. A second hearing was conducted in Lubbock on November 14, 2000. At the second hearing, the district's board voted to accept the petition and a confirmation election in Swisher County was scheduled for January 20, 2001. Because of this locally-initiated activity, the TNRCC will delay taking any action in Swisher County until this annexation effort has been finalized.

TNRCC staff will incorporate and evaluate the ongoing annexation efforts of Swisher County in the Executive Director's groundwater management option paper for the area. Staff foresees that meetings with the Briscoe County Commissioners Court and the High Plains UWCD No. 1 will need to be conducted before staff completion of the option paper and presentation of the options at a public

meeting. The present activity in Swisher County will necessitate this work effort be continued into 2001.

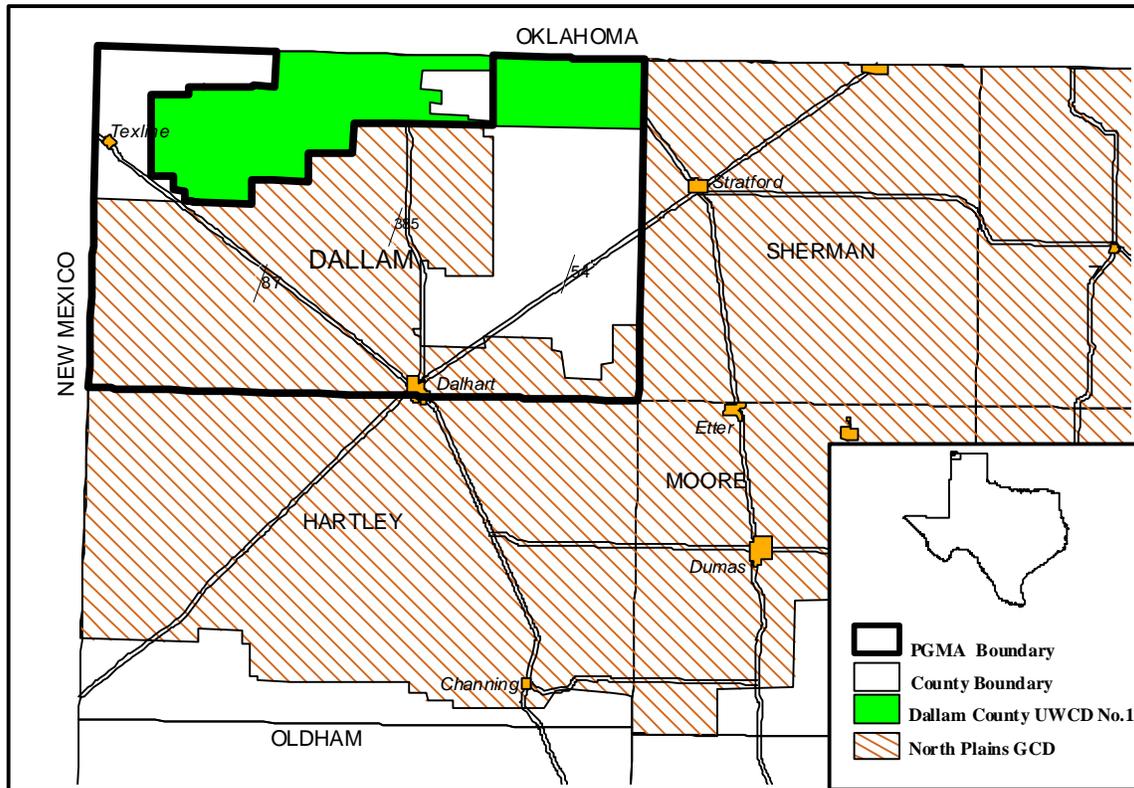
Dallam County PGMA

In previous work, the Dallam County area (Figures 2 and 5) was identified and nominated for study by the TWC and the TWDB in January 1987. In May 1989, the TWC established a ten-member advisory committee to provide local input into the study process and to review and comment on the Executive Director's PGMA report. The TWC requested a study from the TWDB in September 1989 and received it in November 1989. The Executive Director's PGMA report was filed with the TWC's Chief Clerk in February 1990. The TWC's rules delineating and designating the Dallam County PGMA were adopted on June 6, 1990 and were published in the June 29, 1990 *Texas Register* (15 TexReg 3741). The rules became effective on July 16, 1990 and are contained in 30 TAC §294.32.

A significant portion of the Dallam County PGMA has been added to adjacent districts since the designation of the area. The northeastern portion of the county was annexed into Dallam County UWCD No. 1 on September 19, 1992 following landowner petition, board acceptance and confirmation election. Similarly, another significant portion of Dallam County within the PGMA was annexed into the North Plains GCD on May 1, 1993 following landowner petition, board acceptance and confirmation election.

The TNRCC is unaware of any other landowner-initiated annexation effort since 1993. A portion of the PGMA in the northwestern part of Dallam County and another in the eastern part of the county still remain to be incorporated into a district. TNRCC action to create a groundwater conservation district(s) in these areas or recommending these areas to be added to an existing district(s) has not yet been initiated; however, this activity is expected to be initiated in 2001.

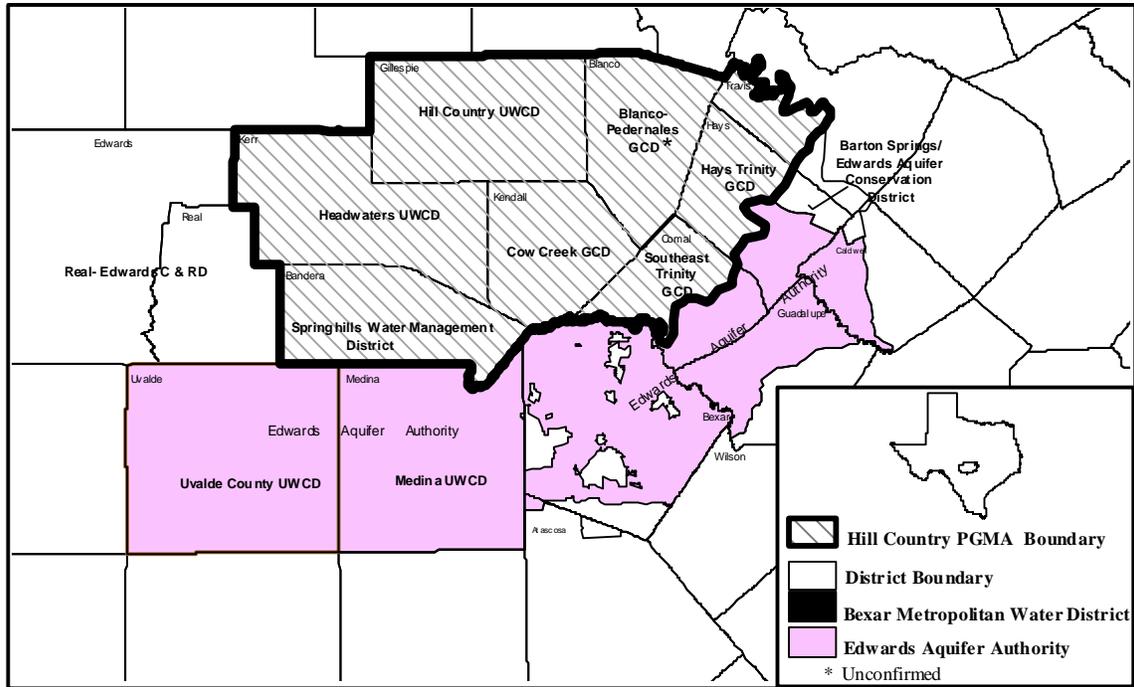
Figure 5. Dallam County PGMA



Hill Country PGMA

In earlier work, the Hill Country area (Figures 2 and 6) was identified and nominated for study by the TWC and the TWDB in January 1987. In April 1987, the TWC formed a 15-member advisory committee to provide local input into the study process and to review and comment on the Executive Director’s PGMA report and recommendations. The TWDB’s participation in developing a joint-agency report was requested by the TWC in April 1987 and an interim joint-agency report was completed in November 1989. After conferring with the advisory committee, the final joint-agency PGMA report was completed and filed with the TWC’s Chief Clerk by the Executive Director in February 1990. The TWC’s rules delineating and designating the Hill Country PGMA were adopted on June 6, 1990 and published in the June 29, 1990 *Texas Register* (15 TexReg 3741). The rules became effective on July 16, 1990 and are contained in 30 TAC §294.34.

Figure 6. Hill Country PGMA



Locally-initiated district creation efforts occurred in the Hill Country PGMA both during and after the designation of the area. In Gillespie County, the legislative creation of the Hill Country UWCD (Chapter 865, Acts of the 70th Legislature) was confirmed by voters at an August 8, 1987 election. The authority of the Springhills Water Management District in Bandera County was amended by Chapter 654, Acts of the 71st Legislature to include groundwater conservation district powers. This amended authority was confirmed by voters at a November 7, 1989 election. In Kerr County, the legislative creation of the Headwaters UWCD (Chapter 693, Acts of the 72nd Legislature) was confirmed by voters on November 5, 1991. Utilizing the landowner petition process provided in Chapter 36, Water Code, the Comal County UWCD was created by TWC order on November 30, 1994. However, voters defeated the attempt by a vote of 8 percent for to 92 percent against (Table 5).

Following the January 1999 briefings of legislative staff on the TNRCC implementation plan for the designated PGMA, TNRCC staff was requested in the early months of 1999 (primarily by county commissioners courts) to attend and participate in several meetings in Hill Country PGMA counties that remained to be incorporated into a groundwater conservation district. The subject of these meetings was the benefit of and need for these counties to create groundwater

conservation districts during the 76th Legislature (1999). TNRCC also presented information about its designated PGMA implementation plan. Soon thereafter, several district creation bills and companion bills were filed in the 76th Legislature. Noting this locally-initiated district creation action, the TNRCC deferred from taking any further action until these locally-initiated efforts had run their course.

In 1999, the 76th Legislature created three additional groundwater conservation districts in the Hill Country PGMA. These districts include the Cow Creek Groundwater Conservation District (GCD) in Kendall County, and the Southeast Trinity GCD and Hays Trinity GCD in the PGMA portions of Comal and Hays counties, respectively. These are three temporary districts as established by SB 1911 (Chapter 1330, Acts of the 76th Legislature, Regular Session, 1999) and are discussed in detail in the following chapter. Each of the three temporary district must be ratified by 77th Legislature to remain operational.

In April 2000, landowners in Blanco County petitioned the TNRCC for the creation of the Blanco-Pedernales GCD to include all of the county. Under Chapter 36 of the Water Code, the TNRCC by October 4, 2000 order created the Blanco-Pedernales GCD and appointed temporary directors to schedule and conduct the confirmation election. To date, the district has not been confirmed through election. More detailed information on the creation of the Blanco-Pedernales GCD is presented in the following chapter.

Presently, only a small portion of the PGMA in Travis County remains to be incorporated into a groundwater conservation district. TNRCC staff presented groundwater conservation district creation information to the Capital Area Planning Council's (CAPCO) Executive Committee on July 7, 2000 and discussed the mandate for a district to be established in the PGMA portion of Travis County. TWDB and TAEX staff also presented information at the July 7 meeting on the groundwater resources of the CAPCO area and on the powers and authorities of groundwater districts, respectively.

As discussed in detail later in this chapter, the Executive Director has evaluated and recommended that the part of northern Bexar County overlying the Trinity aquifer should be designated as a PGMA and added to the existing Hill Country PGMA. The Executive Director has also concluded that a groundwater conservation district for the Trinity aquifer in northern Bexar County would be beneficial to the land and to the public and recommended that a district be created.

El Paso County PGMA

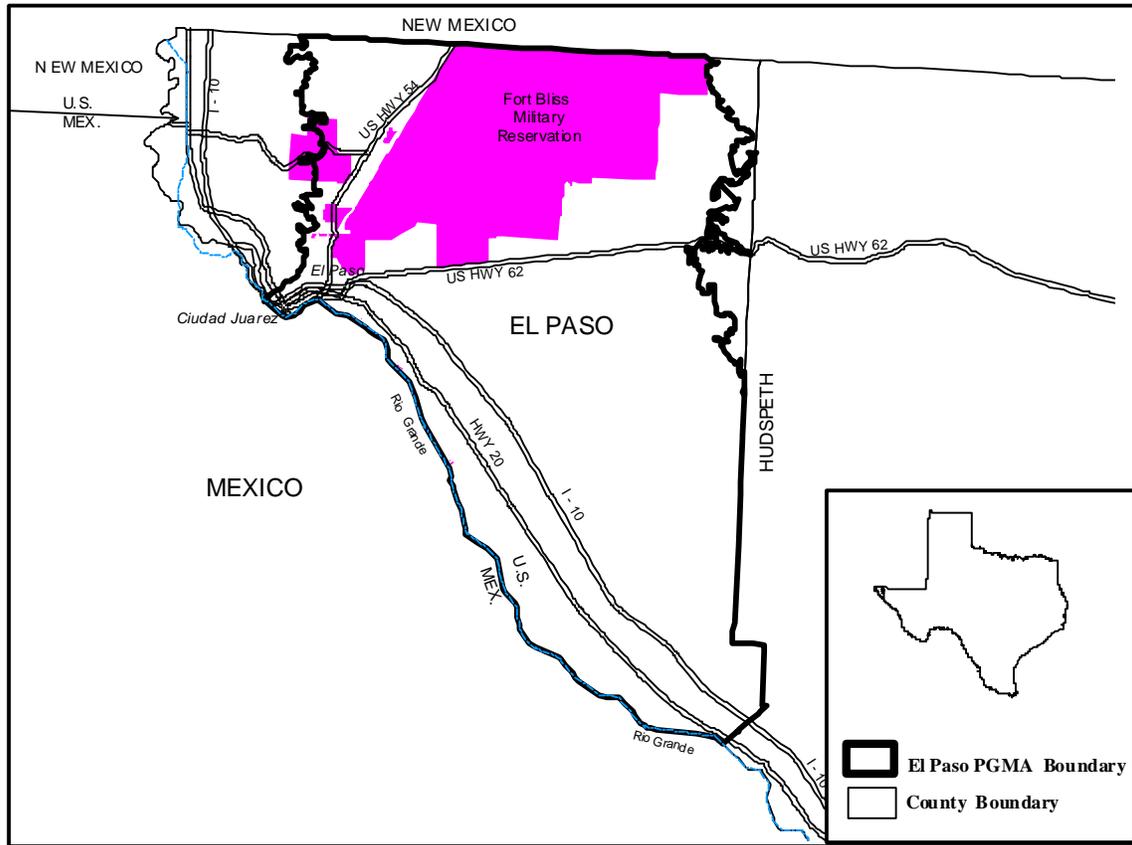
The El Paso County area (Figures 2 and 7) was identified for a PGMA study in October 1987. The study was initiated in February 1989 and the required reports were completed by the TWDB and the TWC in 1990. The Executive Director's 1990 report recommended that the area be designated as a PGMA. After public hearings on June 13 and 20, 1990, the TWC postponed final decision on the designation until a regional water supply study, then underway in the El Paso area, was completed.

The PGMA designation effort was resumed in 1998 to meet the requirement of SB 1 which mandated that two remaining PGMA studies be completed before September 1, 1998. The Executive Director's PGMA report and recommendations for the study area were filed with the TNRCC's Chief Clerk on August 25, 1998. On August 26, 1998, the Executive Director requested that the Commission refer the evidentiary hearing for the designation of the El Paso County PGMA to the State Office of Administrative Hearings (SOAH). The evidentiary hearing was conducted by SOAH on October 5, 1998. On December 2, 1998, the Commission approved the Administrative Law Judge's recommendation with minor changes, issued an order designating the El Paso County PGMA, and deferred district creation to the legislative process.

The Commission's December 2, 1998 order designating the El Paso County PGMA found that a multi-national, multi-state regional approach would be needed to address the Hueco Bolson freshwater-depletion problem. While a 50-Year Water Plan and significant efforts at regional cooperation and actions to reduce pumpage of the Hueco Bolson and address future supply needs have been accomplished, critical groundwater conditions remain and additional and continuing efforts are needed.

The TNRCC creation of a district under the constraints of Chapter 36 of the Water Code was not recommended based on evaluation of existing statutory provisions, funding mechanisms, governing board representation, and El Paso's comments. A regional approach is needed 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. This regional approach should include the development of a governmental organization or entity responsible for coordinating management strategies with entities outside of the PGMA and

Figure 7. El Paso County PGMA



implementing those strategies within the PGMA. It was recommended that sufficient time be allowed for completion of ongoing modeling and data collection efforts so appropriate management requirements and authorities may be established for use in the region.

Other Current and Future PGMA Study Activity

At the January 2000 meeting, the TNRCC and TWDB executives agreed that PGMA program activities initiated in Fiscal Year 1999 should be continued into Fiscal Year 2000 and beyond. The agency executives agreed that a PGMA study evaluating northern Bexar County overlying the Trinity aquifer and agency activities related to updating five previously studied areas should be completed. The agency executives also agreed new PGMA studies should be identified based on the assessment of groundwater problems or needs identified through the regional water plans. The following section outlines the other PGMA activities that are presently ongoing.

Northern Bexar County PGMA Study

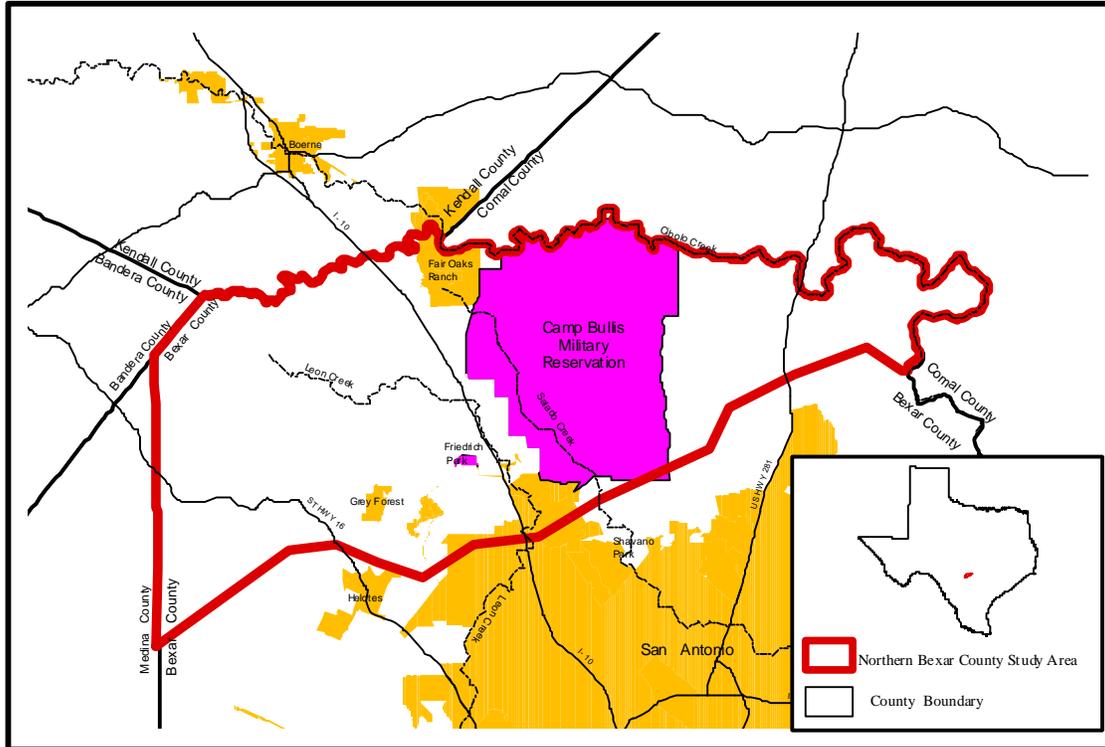
On September 23, 1998, the Executive Director of the TNRCC received a petition from the City of Grey Forest, Bexar County, to amend the boundaries of the Hill Country PGMA to include the portion of Bexar County overlying the outcrop area of the Trinity aquifer. The petition specifically sought such action to allow the county commissioners court to exercise groundwater availability authority in the platting process under §35.019 of the Water Code. The Executive Director subsequently received four other petitions signed by a total of 80 landowners for the same action. These petitions were dated November 2, 1998, November 10, 1998, January 5, 1999, and January 15, 1999. The Executive Director responded to the City of Grey Forest's petition on November 12, 1998, indicating that their petition would be the primary petition and would be processed as a motion to amend the TWC action that had designated the Hill Country PGMA in 1990.

Because the study area (Figure 8) is located entirely within the boundary of the Edwards Aquifer Authority (EAA), the TNRCC's Executive Director requested that the City of Grey Forest provide a copy of its September 23, 1998 petition to the EAA. By letter dated February 18, 1999 to the City of Grey Forest, the EAA noted that it supported Grey Forest's attempt to be included in the Hill Country PGMA, and its efforts to manage the Trinity aquifer as long as there was no jurisdictional conflict with its own authority. In March 1999, the City of Grey Forest provided additional information to the TNRCC related to local Trinity aquifer quantity and quality issues.

The TNRCC's study was formally initiated on July 9, 1999 when notice soliciting water-related information was sent to county officials, municipalities, river authorities, adjacent groundwater conservation districts, water districts, and other entities supplying public drinking water. The stakeholder comment period ended on August 23, 1999. Reports and data for the study area which were requested from the TWDB and TPWD on July 26, 1999 and July 27, 1999, respectively, were received by the TNRCC on September 1, 1999 (TPWD) and December 6, 1999 (TWDB).

The information provided by the area's stakeholders, TWDB, TPWD, and TNRCC staff research formed the basis for the Executive Director's report and recommendations that were filed with the TNRCC's Chief Clerk on May 12, 2000. Copies of the report *Evaluation of Northern Bexar County for Inclusion in*

Figure 8. Northern Bexar County PGMA Study Area



the Hill Country Priority Groundwater Management Area were provided to the City of Grey Forest, the Bexar County Clerk, public libraries, and the TNRCC’s San Antonio Regional Office for public review on May 15, 2000. Notice of the report’s completion and availability was also provided to the stakeholders on May 15, 2000 and published in the *Texas Register* on June 9, 2000.

The Executive Director found that the almost-exclusive dependence of the study area on groundwater in the Trinity aquifer, identified present and future water supply concerns, and potential water level declines resulting from increased demand based on a projected growth in population, constitute a “critical” water problem and recommended that the study area be designated as a PGMA. Furthermore, since the Trinity aquifer in the study area is hydrologically and geologically a continuation of the same aquifer designated in the Hill Country PGMA to the north and the two areas have similar groundwater concerns, the Executive Director recommended that the study area be added to the Hill Country PGMA by amending the boundary of the Hill Country PGMA. Such action would establish the study area as part of the regional groundwater management area for the Trinity

aquifer in the Hill Country, facilitate local and regional groundwater management, and ultimately enable area landowners to manage the groundwater resource.

The Executive Director requested the SOAH to conduct the evidentiary hearing and the TNRCC posted notice of the hearing in two newspapers with general circulation in the area, the *San Antonio Express News* on June 25, 2000 and the *Hill Country Recorder* on June 28, 2000. The SOAH conducted a preliminary hearing at the University of Texas at San Antonio (UTSA) on July 25, 2000 to set the procedural schedule and designate parties to the case. The SOAH conducted the evidentiary hearing on September 25, 26, and 27, 2000. TNRCC, TWDB, and TPWD staff all presented testimony and evidence at the hearing supporting the Executive Director's case. The SOAH ALJ's proposal for decision is scheduled to be filed with the TNRCC's Chief Clerk on December 28, 2000 and the issue is tentatively scheduled to go before the Commission for decision at the January 24, 2001 agenda.

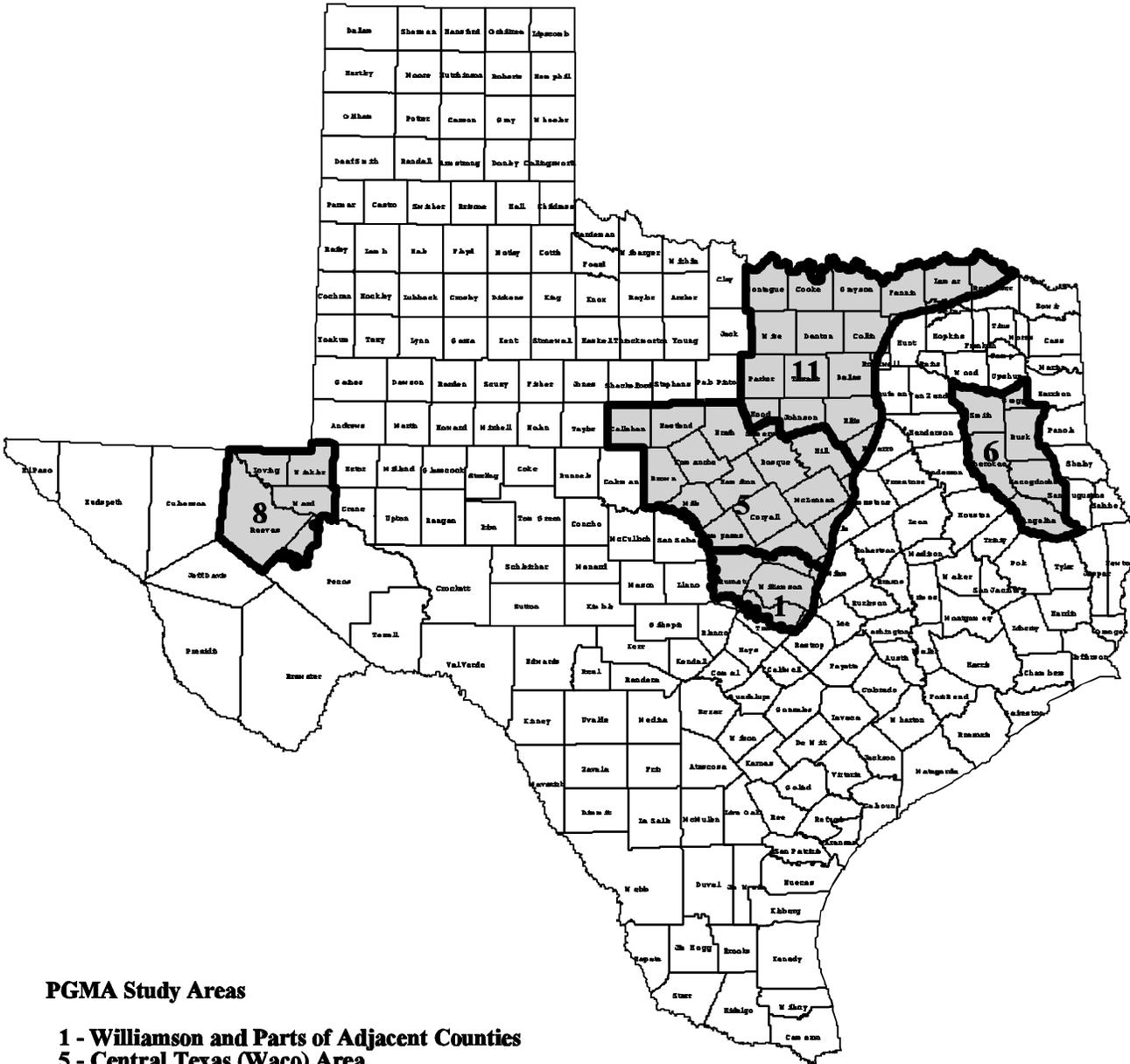
Further action to create a groundwater conservation district will be required if the TNRCC designates the Northern Bexar County study area as a PGMA and determines that it would benefit from the creation of a groundwater conservation district. State law provides landowners within the PGMA the opportunity to create a groundwater conservation through either the petition or legislative process or by having the area added to an existing district that adjoins the area. If local efforts to create a district or join an existing district are not undertaken, statute requires the TNRCC to identify areas within the PGMA that have not been incorporated into a district through local initiative, and to initiate procedures in this area either to create a district or have it added to an existing district.

Update PGMA Study Areas

Five previous PGMA study areas (Williamson and Parts of Adjacent Counties, Central Texas (Waco) Area, East Texas Area, Trans-Pecos Area, and North-Central Texas Area; Figure 9 and Table 2) were determined by the TWC in June 1990 not to be PGMA's. However, the TWC requested that it be updated on the status of these areas in five years. At the April 1998 annual TNRCC/TWDB meeting, the agency executives prioritized initiation of this task as a Fiscal Year 1999 work effort.

At the January 2000 meeting, the agency executives agreed that this effort should be continued and completed. Staff of the TNRCC, TWDB, and TPWD were

Figure 9. PGMA Update Study Areas



PGMA Study Areas

- 1 - Williamson and Parts of Adjacent Counties**
- 5 - Central Texas (Waco) Area**
- 6 - East Texas Area**
- 8 - Trans-Pecos Area**
- 11 - North Central Texas Area**

 **PGMA Study Update Areas**

Texas Natural Resource Conservation Commission
November 2000

to cooperatively review current status and information on water supply, groundwater levels, natural resources, and local management activities in each of the five areas and prepare memorandum reports. These reports will serve as a basis for assessing future action in these areas.

The TNRCC's Executive Director requested updated information for these five areas from the Executive Administrator of the TWBD and the Executive Director of the TPWD on December 22, 1998. The TWBD's Executive Administrator provided updated studies for: the Trans Pecos Area on December 4, 1998, the East Texas Area on January 21, 1999, the Williamson and Parts of Adjacent Counties Area on July 27, 1999, the North-Central Texas Area on September 14, 1999, and the Central-Texas (Waco) Area on November 30, 1999. The TPWD's Executive Director provided studies for: the Trans Pecos Area and the East Texas Area on December 31, 1998, the Williamson and Parts of Adjacent Counties Area on February 2, 1999, the Central-Texas (Waco) Area on March 4, 1999, and the North-Central Texas Area on April 6, 1999. TNRCC is in the process of completing its evaluation of updated information for the Trans-Pecos and East Texas study areas. This work, and efforts in the other three update areas, will continue into 2001. If data warrants, PGMA designations will be considered.

Groundwater Management Areas

As discussed in the introductory section of this report, the terms, definitions, and procedures for delineating and designating groundwater management areas have been changed many times over the past 50 years. A groundwater management area is a formal delineation of an aquifer or a segment of an aquifer that has ascertainable boundaries, will not be appreciably affected by the withdrawal of groundwater from any other aquifer or segment of an aquifer, and is suitable for management by a groundwater conservation district. Groundwater management areas include groundwater reservoirs, or subdivisions of reservoirs, as delineated and designated by the Texas Board of Water Engineers (TNRCC predecessor agency), and management areas and PGMAs as delineated and designated by the TNRCC and its predecessor agencies.

The Texas Board of Water Engineers designated and delineated the first groundwater reservoir in 1950. Between 1950 and 1985, the Texas Board of Water Engineers and its successor agencies, designated 14 more groundwater reservoirs, or subdivisions thereof. Since 1985, the TNRCC or its predecessor agencies have designated four groundwater management areas and five PGMAs under the Water Code. Groundwater management areas designated since 1985 are described in 30

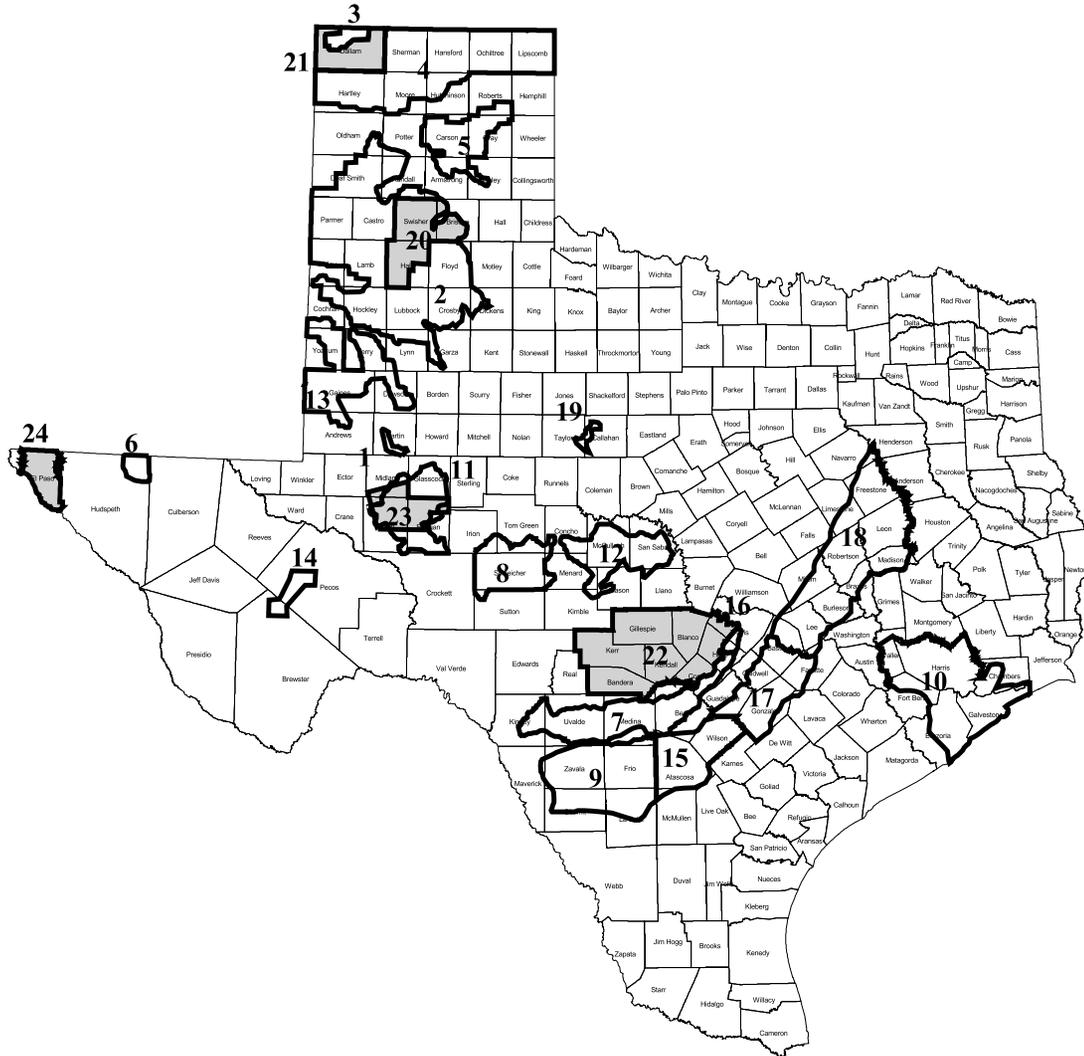
TAC, Chapter 294 and are shown in Figure 10. The TNRCC has not designated any new, or modified any existing, groundwater management areas during the 1999 - 2000 biennium. However, the designation of the Northern Bexar County study area as a PGMA is presently being considered.

TNRCC rules (30 TAC, §§294.21 through 294.25) outline the process for designating groundwater management areas. In accordance with §35.004 of the Water Code, the TNRCC on its own motion or on receiving a petition, determines whether or not to designate a groundwater management area. The TNRCC determines the boundaries of management areas with the aim of delineating the most suitable area for managing groundwater resources in the part of the state where a groundwater conservation district is located, or may be located in the future. The TNRCC cannot create a groundwater conservation district through the petition process outlined in Chapter 36 of the Water Code unless a groundwater management area has first been designated for that area.

To the extent possible, management areas are delineated such that their boundaries coincide with the boundaries of an aquifer or a hydrologic subdivision of an aquifer. However, state law allows the TNRCC to use the boundaries of political subdivisions to delineate a management area where deemed appropriate. Management areas can and have only been designated in areas of the state where groundwater quantity is sufficient for management by a groundwater conservation district; that is water wells in the area must generally be capable of producing more than 25,000 gallons per day.

At the request of the Commission or any person interested in submitting a petition to designate a groundwater management area, the Executive Director gathers available evidence (including information about the presence and characteristics of any groundwater reservoir or a hydrologic subdivision of a reservoir) relating to the configuration of the management area. Through agency rulemaking, the Executive Director's evidence is prepared and presented to the Commission. The Commission then considers this evidence and all other evidence admitted in the proceeding to decide whether or not to designate a groundwater management area and the boundaries of such a management area. The designation of a groundwater management area is a separate process from that of the creation of a groundwater conservation district.

Figure 10. Groundwater Reservoir, Groundwater Management Area and Priority Groundwater Management Area (PGMA) Delineations



Groundwater Reservoir Delineations

- 1 - Subdivision No. 2 of the Underground Water Reservoir in the Ogallala Formation, South of the Canadian River (1950)
- 2 - Subdivision No. 1 of the Underground Water Reservoir, High Plains Area, in the Ogallala Formation, South of the Canadian River (1950)
- 3 - Subdivision No. 1 of the Underground Water Reservoir in the Ogallala Formation, North of the Canadian River (1950)
- 4 - Subdivision No. 2 of the Underground Water Reservoir in the Ogallala Formation, North of the Canadian River (1954)
- 5 - Subdivision No. 3 of the Underground Water Reservoir, High Plains Area, in the Ogallala Formation, South of the Canadian River (1955)
- 6 - Subdivision No. 1 of the Underground Water Reservoir in Hudspeth County (1955)
- 7 - Subdivision No. 1 of the Underground Water Reservoir in the Edwards Limestone, Balcones Escarpment Area (1957)
- 8 - Plateau Underground Water Reservoir (1974)
- 9 - Subdivision No. 1 of the Underground Water Reservoir in the Carrizo-Wilcox Sands (1957)
- 10 - Subdivision No. 1 of the Gulf Coast Underground Water Reservoir (1975)
- 11 - Subdivision No. 1 of the Underground Water Reservoir in the Edwards-Trinity Formation (1970)
- 12 - Subdivision of the Hickory Aquifer Underground Reservoir (1975)
- 13 - Subdivision No. 4 of the Underground Water Reservoir in the Ogallala Formation, South of the Canadian River (1956)
- 14 - Subdivision No. 1 of the Pecos Underground Water Reservoir (1950)
- 15 - Subdivision No. 2 of the Underground Water Reservoir in the Carrizo-Wilcox Sands (1957)

Groundwater Management Areas

- 16 - Barton Springs/Edwards Aquifer Management Area (1986)
- 17 - Management Area 3 of the Carrizo-Wilcox Aquifer (1987)
- 18 - Management Area 4 of the Carrizo-Wilcox Aquifer (1987)
- 19 - Union Hill Underground Water Management Area of the Antlers Sand Aquifer (1989)

PGMA Designations

- 20 - Briscoe, Swisher, and Hale County PGMA (1990)
- 21 - Dallam County PGMA (1990)
- 22 - Hill Country PGMA (1990)
- 23 - Reagan, Upton, and Midland County PGMA (1990)
- 24 - El Paso County PGMA (1998)

District Management of Multiple Aquifers

During the 1997 - 1998 biennium, the TNRCC was approached by two Commission-created groundwater districts seeking to expand the authority that had been granted in their enabling orders. The districts sought the authority to manage additional aquifers not specifically identified in their creation orders, but within their geographic boundaries. The general reasons given by the districts for the need to manage other aquifers were related to changes in pumping practices and water quality conditions and the hydrologic connection of the other aquifers directly affecting water levels in the primary managed aquifer. In response to the district requests, the TNRCC adopted rules (30 TAC §293.16) in January 1999 to provide a process to allow a district created by the Commission to amend its order to provide for the expansion of authority to manage other aquifers which have not been explicitly referenced.

The Hickory UWCD No. 1 was created by order of the TWC dated June 9, 1982 and confirmed by voters on August 14, 1982. Under TNRCC rules, the Hickory Underground Water Conservation District No. 1 petitioned the Executive Director on August 16, 1999 requesting amendment of the district's creation order to expand the jurisdiction of the district to manage other aquifers in the district in addition to the Hickory aquifer. The district posted notice of the petition and the opportunity to request a contested case hearing in the *San Angelo Standard Times* on July 13 and 20, 2000 and posted notice at six county courthouses on July 19 and 20, 2000. No comments or requests for a contested case hearing were received. By order dated October 18, 2000, the Commission amended the Hickory UWCD No. 1 creation order to authorize the district to conserve, preserve, protect, and recharge all aquifers within the district's boundaries.

During the 76th Legislative session (1999), the legislature made similar amendments to the legislation of two groundwater conservation districts. HB 2199 (Chapter 345, Acts of the 76th Legislature, Regular Session, 1999) amended the validating legislation of the Panhandle Ground Water Conservation District No. 3. HB 2199 changed the name of the district to the Panhandle Groundwater Conservation District and provided authority for the district to manage all of the aquifers within its boundary. HB 3849 (Chapter 1152, Acts of the 76th Legislature, Regular Session, 1999) amended the validating legislation of the North Plains Ground Water Conservation District No. 2. HB 3849 changed the name of the district to the North Plains Groundwater Conservation District and also provided authority for the district to manage all aquifers within its boundary. Both the Panhandle and North Plains districts were created by Texas Board of Water

Engineers (TNRCC predecessor agency) orders to conserve and manage the Ogallala aquifer and were subsequently validated by acts of the legislature.

Coordinated Groundwater Management Planning

Groundwater management planning can be carried out at various scales of oversight and authority. On a regional scale, a groundwater conservation district can have groundwater management and planning authority over an entire groundwater management area. In such cases, the regional district would have the authority and mandate to uniformly manage the full regional extent of the groundwater resource (e.g., High Plains UWCD No. 1). Groundwater conservation districts can also exercise management and planning authority on a local scale. Generally under this scenario, multiple single-county scale groundwater conservation districts created within the same groundwater management area (or PGMA) operate under their own rules and regulations to manage a common groundwater resource, but coordinate through shared management plans and management strategies.

Under §36.108 of the Water Code, groundwater conservation districts within a common designated groundwater management area are required to share their certified groundwater management plans with the other districts that are present within the management area. Such districts are encouraged (under §36.108) to conduct joint public meetings to review management plans and plan-accomplishments for the management area. The districts are further advised under §36.108 to consider the goals and effectiveness of each management plan and each management plan's impact on planning throughout the management area. Through these cooperative efforts, local groundwater conservation districts effect coordinated management of a shared groundwater resource.

Section 36.108 further provides that a district within a common or shared management area may initiate a review of the adequacy of another district's rules in protecting groundwater resources within the same management area. The process provides for a district in the management area to file a petition with the TNRCC regarding another district's failure to adopt or adequately enforce rules or adequately protect groundwater within the management area. After review of the petition, the TNRCC either dismisses the petition or appoints a panel to review it. The review panel is charged to review the petition, gather any additional evidence (e.g., public hearing) as needed, and prepare a report to the TNRCC. The review panel's report is to include a summary of collected evidence, a list of findings and recommendations appropriate for TNRCC action, and the reasons the

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recommended actions are considered appropriate. To date, the TNRCC has not received such a petition.

During the 1999 - 2000 biennium, a number of district with shared aquifers have established regional alliances to provide for coordinated groundwater management planning and others have entered into interlocal agreements for managerial or administrative services. Much of this activity has been done to assist groundwater conservation districts to provide coordinated management planning for a shared aquifer. All of these districts have the common purpose to conserve, preserve, protect, recharge, and prevent waste of groundwater within their boundaries. However, the districts have a common objective to bring about conservation, preservation, and the efficient, beneficial, and wise use of a shared groundwater resource. To provide for uniformity of district rules within the region, each individual district has agreed to adopt certain rules. These include rules related to water well registration and permitting, well construction, waste prevention, filing of well logs, capping or plugging of abandoned wells, and well drilling and groundwater production record-keeping.

The alliances and interlocal agreements have been established because of the need for the coordination of activities between the districts and to provide for the maximum beneficial use of local tax dollars within the districts. The TNRCC is presently aware of the regional groundwater management alliances and interlocal agreements listed below (TNRCC Technical Analysis Division, 2000).

<u>Regional Groundwater Management Alliance</u>	<u>Participating Groundwater Conservation Districts</u>
Western Carrizo Aquifer Alliance (Carrizo-Wilcox aquifer)	Evergreen UWCD (Atascosa, Frio, Karnes & Wilson Cos.) Guadalupe County GCD (part of) Gonzales County UWCD (part of) Medina County UWCD Wintergarden GCD (Dimmitt, La Salle & Zavala Cos.)
Hill Country Groundwater Conservation District Alliance (Trinity aquifer)	Blanco-Pedernales GCD* (Blanco Co.) Cow Creek GCD** (Kendall Co.) Hays Trinity GCD** (part of Hays Co.) Headwaters UWCD (Kerr Co.) Hill Country UWCD (Gillespie Co.) Medina County UWCD Southeast Trinity GCD** (part of Comal Co.) Springhills WMD (Bandera Co.)

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West Texas Regional Groundwater Alliance (Edwards-Trinity Plateau aquifer)	Coke County UWCD Emerald UWCD (Crockett Co.) Glasscock County UWCD (Glasscock Co. & parts of Reagan Co.) Hickory UWCD No. 1 (parts of Concho, Mason, Menard, McCulloch, Menard & San Saba Cos.) Irion County WCD Lipan-Kickapoo UWCD (parts of Concho & Tom Green Cos.) Menard County UWCD Plateau UWCD (Schleicher Co.) Santa Rita UWCD (part of Reagan Co.) Sterling County UWCD Sutton County UWCD
Interlocal Agreement (Gulf Coast aquifer)	Fort Bend Subsidence District Harris-Galveston Coastal Subsidence District

* District is unconfirmed at present but has participated and will join upon confirmation.

** Temporary districts created by SB 1911 (76th Legislature, 1999); require ratification by 77th Legislature in 2001.

District Creation and Activities

A description of the groundwater conservation districts created by the 76th Legislature and the status of unconfirmed and failed districts is presented below. During the 1999 - 2000 biennium, 13 new districts were created by the Legislature and one new district was created by the TNRCC through the petition process. Also, five other previously created special-law districts were confirmed by election. No new districts were created by the TNRCC through the PGMA district creation process. The activities of existing districts, district management planning efforts, and other legislative acts affecting districts are discussed. Districts created by the 76th Legislature as well as the other existing groundwater conservation districts are shown on Figure 11. Contact information for the state's groundwater conservation districts is included as Appendix 3.

New Districts Created and Validated by the 76th Legislature

Thirty-six bills for the creation of 23 groundwater conservation districts were introduced during the Regular Session of the 76th Legislature in 1999. These introduced bills proposed to create districts in all or part of 31 counties. Only one omnibus district creation bill (SB 1911) was passed by the Legislature. The Act created 13 new temporary districts in all or part of 17 counties. Unless ratified by the 77th Legislature in 2001, these 13 districts will be dissolved on September 1, 2001. Six additional bills were introduced to amend enabling legislation of existing groundwater districts, and three of these bills were passed by the Legislature. In addition, one bill was introduced to provide groundwater conservation district authority to an existing water supply district; however, this bill did not pass.

Senate Bill 1911 Districts

The unusually large number of groundwater conservation district creation bills introduced during the 76th Legislature raised concerns with the Senate Natural Resources Committee (SNRC) that many of the proposed districts were based on political boundaries rather than aquifer boundaries and that the districts' proposed management activities might interfere with ongoing regional water-planning efforts under SB 1. The SNRC was concerned that the many districts' plans might conflict with recommendations from the 16 regional water planning groups that become due on January 5, 2001 and the state's water plan due on January 5, 2002

(House Research Organization, 2000; Texas House Committee on Natural Resources, 2000; and Texas Senate Natural Resources Committee, 2000).

The Legislature passed a compromise omnibus groundwater district creation bill, SB 1911 (Chapter 1330, Acts of the 76th Legislature, Regular Session, 1999). As introduced, SB 1911 proposed to create 22 temporary groundwater districts in all or part of 31 counties. For various reasons, such as failure to meet adequate notice requirements and lack of local support for the proposed temporary district status, nine of the proposed districts were removed from the bill. Upon passage, SB 1911 created 13 temporary groundwater districts in all or part of 17 counties. The temporary districts created by SB 1911 are listed in Table 3 and shown on Figure 11.

SB 1911 grants the temporary directors (appointed by county commissioners courts) of the 13 newly created districts the same permitting and general management powers as those granted to initial and permanent directors under Chapter 36 of the Water Code. SB1911 granted Chapter 36 powers that include the authority to establish groundwater quantity and quality monitoring programs, establish a water well permitting program, and regulate well spacing and production. However, the temporary districts are prohibited from exercising other powers and duties of Chapter 36 relating to elections, eminent domain, management plans, bonds, taxes, adding territory, and district consolidation. Specifically, the districts are prohibited from holding elections before September 1, 2001 to confirm the district and its board of directors, and to approve taxes. Furthermore, the districts are not allowed to adopt management plans before September 1, 2001. SB 1911 also provides that if the creation of these districts is not ratified by the 77th Legislature in 2001, the districts will be dissolved on September 1, 2001.

TNRCC staff contacted each of the 13 temporary groundwater conservation districts beginning in October 2000 to ascertain the status and activities of each district. The temporary directors of the districts have been appointed by county commissioners courts. Seven of the districts (Brazos Valley, Cow Creek, Lone Wolf, Lost Pines, McMullen, Southeast Trinity, and Tri-County) had temporary directors appointed within three months of the effective date of SB 1911 (September 1, 1999). The temporary directors for five more of the districts were appointed during the first four months of 2000 (Refugio in January, Hays Trinity in February, Middle Pecos in March, and Crossroads and Red Sands in April) and for one additional district (Texana) during August 2000. All of the districts reported

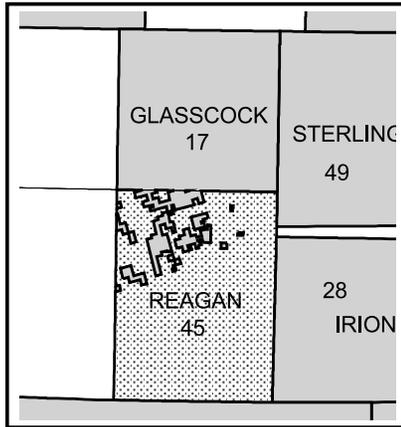
Figure 11. Groundwater Conservation Districts

Groundwater Conservation Districts

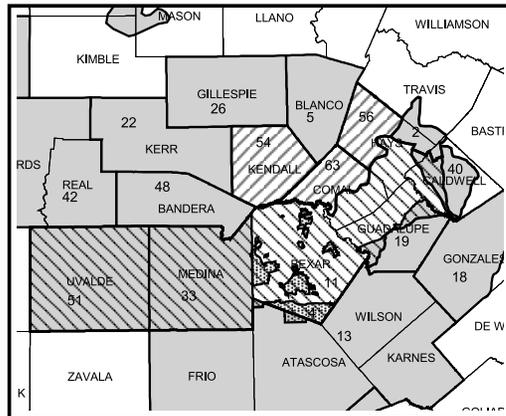
- 1 Anderson County UWCD
- 2 Barton Springs/Edwards Aquifer CD
- 3 Bee GCD *
- 4 Bexar Metropolitan Water District
- 5 Blanco-Pedernales GCD *
- 6 Clearwater UWCD
- 7 Coke County UWCD
- 8 Collingsworth County UWCD
- 9 Culberson County GCD
- 10 Dallam County UWCD No. 1
- 11 Edwards Aquifer Authority
- 12 Emerald UWCD
- 13 Evergreen UWCD
- 14 Fort Bend Subsidence District
- 15 Fox Crossing Water District
- 16 Garza County Underground and Fresh WCD
- 17 Glasscock County UWCD
- 18 Gonzales County UWCD
- 19 Guadalupe County GCD
- 20 Harris-Galveston Coastal Subsidence District
- 21 Haskell/Knox UWCD
- 22 Headwaters UWCD
- 23 Hemphill County UWCD
- 24 Hickory UWCD No.1
- 25 High Plains UWCD No.1
- 26 Hill Country UWCD
- 27 Hudspeth County UWCD No.1
- 28 Irion County WCD
- 29 Jeff Davis County UWCD
- 30 Lipan-Kickapoo WCD
- 31 Live Oak UWCD
- 32 Llano Estacado UWCD
- 33 Medina GCD
- 34 Menard County UWCD
- 35 Mesa UWCD
- 36 North Plains GCD
- 37 Panhandle GCD
- 38 Permian Basin UWCD
- 39 Plateau UWC and Supply District
- 40 Plum Creek Conservation District
- 41 Presidio County UWCD
- 42 Rea-Edwards Conservation and Reclamation District
- 43 Salt Fork UWCD
- 44 Sandy Land UWCD
- 45 Santa Rita UWCD
- 46 Saratoga UWCD
- 47 South Plains UWCD
- 48 SpringHills Water Management District
- 49 Sterling County UWCD
- 50 Sutton County UWCD
- 51 Uvalde County UWCD
- 52 Wintergarden GCD

* Districts not confirmed as of November 10, 2000.
 Other confirmed districts adapted from the TNRCC Report SFR-13.
 "Underground Water Conservation Districts, Report to the 74th Legislature"

Glasscock & Reagan Counties - Detail



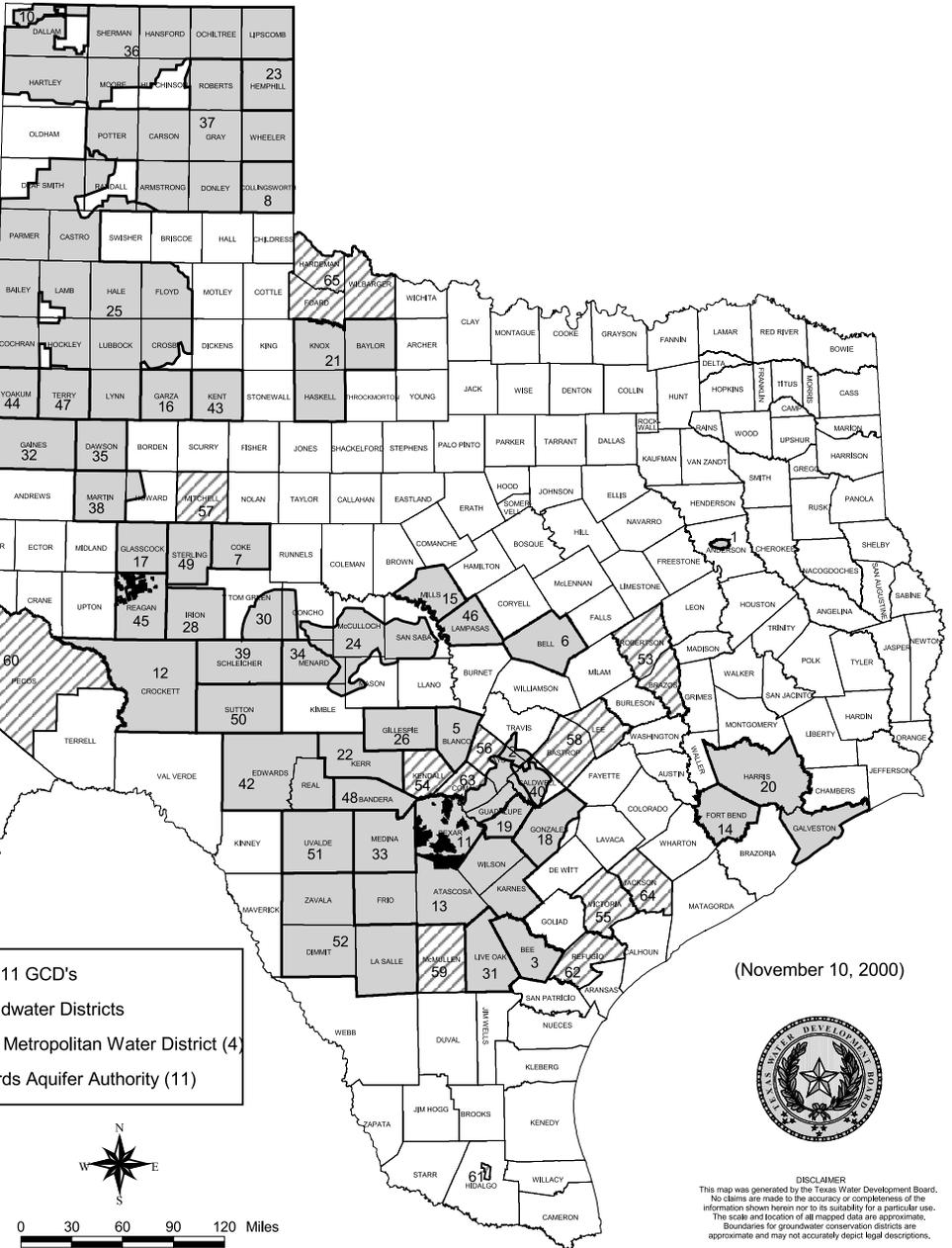
Central Texas Districts - Detail



Groundwater Conservation Districts Authorized by the 76th Texas Legislature (SB 1911)

- 53 Brazos Valley GCD
- 54 Cow Creek GCD
- 55 Crossroads GCD
- 56 Hays Trinity GCD
- 57 Lone Wolf GCD
- 58 Lost Pines GCD
- 59 McMullen GCD
- 60 Middle Pecos GCD
- 61 Red Sands GCD
- 62 Refugio GCD
- 63 Southeast Trinity GCD
- 64 Texana GCD
- 65 Tri-County GCD

- SB 1911 GCD's
- Groundwater Districts
- Bexar Metropolitan Water District (4)
- Edwards Aquifer Authority (11)



(November 10, 2000)

DISCLAIMER
 This map was generated by the Texas Water Development Board. 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. Boundaries for groundwater conservation districts are approximate and may not accurately depict legal descriptions.

Table 3.
Groundwater Conservation Districts Created By Senate Bill 1911, 76th Legislature, 1999

District Name	County(s)	Directors Appointed¹	Activity/Comments²
Brazos Valley GCD ³	Brazos & Robertson	Yes (November 1999)	Meeting monthly; rules adopted in September 2000.
Cow Creek GCD	Kendall (in Hill Country PGMA)	Yes (September 1999)	Meeting monthly, rules adopted in October 1999.
Crossroads GCD	Victoria	Yes (April 2000)	Meeting every 2-3 months; transfer permit rules adopted.
Hays Trinity GCD	Hays (in Hill Country PGMA)	Yes (February 2000)	Meeting monthly; rules approved in August 2000.
Lone Wolf GCD	Mitchell	Yes (September 1999)	Meeting every 2 months; rules adopted in November 1999.
Lost Pines GCD	Bastrop & Lee	Yes (September 1999)	Meeting monthly; rules adopted in April 2000.
McMullen GCD	McMullen	Yes (September 1999)	Meeting as necessary; rules adopted in January 2000.
Middle Pecos GCD	Pecos	Yes (March 2000)	Meeting monthly; by-laws adopted in November 2000.
Red Sands GCD	Hidalgo (part of)	Yes (April 2000)	Meeting as necessary.
Refugio GCD	Refugio	Yes (January 2000)	Meeting monthly; by-laws approved in September 2000.
Southeast Trinity GCD	Comal (in Hill Country PGMA)	Yes (November 1999)	Meeting monthly; rules adopted in June 2000 & modified in August 2000.
Texana GCD	Jackson	Yes (August 2000)	Meeting bi-weekly; by-laws being developed in October 2000.
Tri-County GCD	Foard, Hardeman, & Wilbarger	Yes (October 1999)	Meeting bi-weekly (prior to summer); rules being developed.

- NOTES:
1. By county commissioners court(s).
 2. Information from TNRCC District Supervision Files and TNRCC Technical Analysis Division personal communication.
 3. GCD - Groundwater Conservation District.

that the board of directors were meeting regularly, with most boards meeting either twice a month or monthly. The Crossroads and Lone Wolf districts reported they were meeting every other month and the McMullen and Red Sands districts reported they were meeting as necessary.

During October - November 2000, all of the contacted SB 1911 districts reported activity related to the development of rules and by-laws. Eight of the districts (Brazos Valley, Cow Creek, Crossroads, Lone Wolf, Lost Pines, McMullen, Middle Pecos, and Southeast Trinity) reported that rules and by-laws had been adopted. The Hays Trinity and Refugio districts reported that rules had been approved and released for public comment. The Texana and Tri-County districts reported that rules and by-laws were being developed. The Red Sands district reported in January 2001 that rules had not been developed.

Five of the districts had either hired a manager or made other arrangements for management of district activities. The Lost Pines and Southeast Trinity district had hired a general manager and the Lone Wolf district had retained the executive director of the Mitchell County Economic Development Board for managerial services. The Brazos Valley district had contracted with the City of College Station and the Cow Creek district had entered into an interlocal agreement with Kendall County for administrative services.

Guadalupe County Groundwater Conservation District

The Guadalupe County Groundwater Conservation District was created by SB 1582 (Chapter 1066, Acts of the 75th Legislature, Regular Session, 1997) covering all of Guadalupe County. The Act authorized the district with the powers and duties of Chapters 36 and 49, Water Code, provided for the appointment of a temporary board of five directors and provided for the confirmation of the district through a voter election and the election of initial and subsequent permanent board members. The Act specifically denied the district the authority to impose ad valorem taxes or fees. SB 1582 became effective on September 1, 1997.

The northern half of the Guadalupe County GCD overlying the Edwards aquifer is included in the Edwards Aquifer Authority's (EAA) jurisdiction. The EAA's enabling legislation (Chapter 626, Acts of the 73rd Legislature, Regular Session, 1993) clearly establishes the EAA as the regional planning and management authority for the Edwards aquifer. The EAA's enabling legislation also authorizes the EAA to establish relationships with local or county groundwater districts within its jurisdiction.

HB 3817 (Chapter 1141, Acts of the 76th Legislature, Regular Session, 1999) amended the enabling legislation of the Guadalupe County GCD. HB 3817 redefined the boundaries of the district to cover the southern half of the county and eliminated most of the overlap with the EAA. The Act also amended the power of the district to prevent the imposition of a fee on a well used exclusively for domestic or livestock use, changed the number of permanent directors from five to seven, limited the term of a director to no more than two consecutive four-year terms, and required a director to be a registered voter in the single-member district that the person represents.

The Guadalupe County GCD was confirmed by election on November 4, 1999 by a vote of 1,558 (72 percent) for; 606 (28 percent) against and seven initial directors were elected. The district adopted rules in September 2000 and is levying a well fee of \$0.17 per 1,000 gallons of use. The public hearing to consider the district's rules is pending and the district is presently developing its comprehensive management plan. The district's management plan will be due for certification in November 2001.

Blanco-Pedernales Groundwater Conservation District Creation Petition

On April 11, 2000, the TNRCC received a petition signed by 54 landowners from Blanco County for the creation of the Blanco-Pedernales Groundwater Conservation District. The proposed boundaries for the Blanco-Pedernales Groundwater Conservation District were coterminous with those of Blanco County and were entirely within the designated Hill Country PGMA.

The TNRCC's Executive Director found the petition and application to be administratively complete on May 10, 2000 and accordingly notified the petitioners. The petitioners had notice of the application published on June 14 and 21, 2000 in the *Blanco County News* and on June 29 and July 6, 2000 in the *Johnson City Record Courier*, and posted at the Blanco County Courthouse on June 12, 2000. No comments or requests for a contested case hearing were received by the TNRCC during the comment period which ended on August 7, 2000. The Executive Director filed the technical review of the petition with the Chief Clerk on August 23, 2000 and requested that the issue be placed on the TNRCC's agenda. On September 12, 2000, the Executive Director provided notice of the issue on the TNRCC's agenda.

On October 4, 2000, the TNRCC concluded that all of the land and property proposed could properly be included within the district; all statutory and regulatory requirements for creation of the district had been fulfilled in accordance with Chapter 36 of the Water Code and 30 TAC §§293.11-293.13; and the district was feasible and practicable, would be a benefit to the land, and would be a public benefit or utility. The TNRCC granted the petition creating the Blanco-Pedernales Groundwater Conservation District, authorized the district with the full authority of Chapter 36 of the Water Code, and appointed the temporary board of directors.

The temporary directors are required to schedule and hold an election for confirmation of the district and election of initial directors. The temporary board is continuing the educational efforts initiated by Citizens for Groundwater Conservation, Inc. in Blanco County, and has scheduled an election on January 23, 2001 (TNRCC Technical Analysis Division, 2000d). Creation information for the Blanco-Pedernales Groundwater Conservation District is included in Table 4.

Districts Confirmed During the 1999 - 2000 Biennium

This section provides information on groundwater conservation districts that were created prior to the 76th Legislature in 1999, but confirmed by voter election during the 1999 - 2000 biennium. SB 1 (1997) specified that the enabling legislation for groundwater conservation districts created during the 71st through 74th legislative sessions (1989 to 1995) would be automatically repealed unless the districts were confirmed by election before September 1, 1999. During the past biennium, four of the five districts subject to this SB 1 provision were confirmed. These districts are described below. Summarized information for these districts is given in Table 4 and the districts are listed and shown on Figure 11.

Table 4.
Groundwater Conservation Districts Validated, Confirmed, or Created by Petition During the 1999-2000 Biennium

Enabling Legislation (Chapter Listed) ¹	District	County ²	Confirmation Election			Tax Rate (per \$100)	Board of Directors
			Date	Vote (%) For/Against	Confirmed		
HB 3817, 76 th Legislature (1141)	Guadalupe County GCD	Guadalupe	11/04/99	72/28	Yes	N/A	Initial (elected)
HB 3172, 71 st Legislature (524)	Clearwater UWCD	Bell	08/21/99	65/35	Yes	< \$0.01 (\$0.0059)	Initial (elected)
HB 2862, 73 rd Legislature (1028)	Haskell/Knox UWCD	Haskell & Knox	01/26/99	67/33	Yes	< \$0.05 (\$0.03)	Initial (appointed)
SB 1465, 72 nd Legislature (180)	Menard UWCD	Menard	08/14/99	94/6	Yes	< \$0.15 (\$0.0775)	Initial (elected)
HB 2817, 73 rd Legislature (453)	Presidio County UWCD	Presidio	08/31/99	67/33	Yes	< \$0.05 (not approved)	Permanent (appointed)
04/11/00 Landowner Petition 10/04/00 TNRCC Order	Blanco-Pedernales GCD	Blanco	01/23/01	N/A	No	< \$0.50 (Chap. 36 cap)	Temporary (appointed)

- NOTES:**
1. Chapter citation in Laws of Named Legislature, Regular Session.
 2. The district may or may not cover an entire county, or may cover more than one county.
- GCD Groundwater Conservation District
UWCD Underground Water Conservation District
N/A Not Applicable

Clearwater Underground Water Conservation District

The Clearwater Underground Water Conservation District in Bell County was created in 1989 by HB 3172 (Chapter 524, Acts of the 71st Legislature, Regular Session, 1989). The Act did not name temporary directors but authorized the Bell County Commissioners Court to appoint temporary directors to schedule and conduct the district's confirmation election. The legislation creating this district did not, however, establish time limits for the appointment of a temporary board or a confirmation election. The County Commissioners Court appointed a temporary board of directors in early 1999 and the temporary board worked extensively with TAEX to present district educational programming at several public meetings during the year.

The Clearwater UWCD was confirmed by election on August 21, 1999 by a vote of 2,272 (65 percent) for; 1,206 (35 percent) against and five initial directors were elected. The voters also approved, for operation and maintenance of the district, an ad valorem tax at a rate not to exceed \$0.01 per \$100 of assessed valuation. The district is presently levying a tax of \$0.0059 per \$100 and contracting with the Central Texas Council of Governments for administrative services. In October 2000, the initial board of directors approved the district's comprehensive management plan for submission to the TWDB (the plan is due for TWDB certification prior to August 2001) and is presently developing rules to implement the management plan.

Menard County Underground Water District

The Menard County Underground Water District was created in 1991 by SB 1465 (Chapter 180, Acts of the 72nd Legislature, Regular Session, 1991). The district includes all of Menard County with the exception of the portion of the county that lies within the boundaries of the Hickory UWCD No. 1. The Menard County UWD was confirmed by election on August 14, 1999 by the vote of 119 (94 percent) for; 7 (6 percent) against and five initial directors were elected. The voters also approved (97 votes for; 17 votes against) the levy of an ad valorem tax at a rate not to exceed \$0.15 per \$100 of assessed valuation for operation and maintenance of the district. The district's initial and subsequent permanent directors also serve as the directors for the Menard County Water Control and Improvement District No. 1.

The Menard County UWD has hired a manager and is presently levying an ad valorem tax at the rate of \$0.0775 per \$100 assessed valuation. The Act also

provided that the district's initial board adopted a comprehensive management plan in September 2000 and presented the plan for public comment in November 2000. After evaluation of public comments, the district's plan will be submitted to the TWDB for certification (the plan is due before August 14, 2001). The district also reports that rules will be adopted in November 2000 to implement the management plan.

Haskell/Knox County Underground Water Conservation District

The enabling legislation for the Haskell/Knox County Underground Water Conservation District (Chapter 1028, Acts of the 73rd Legislature, 1993) named the existing county commissioners court from each county as the temporary board of directors for the district. The Act also provided subsequent procedures for the replacement of directors by appointment from each of the county commissioners courts. In September 1998, each county commissioners court appointed five temporary directors to the district's board and drew lots to determine which court would appoint the temporary board's president. The temporary board, with assistance from TAEX, TNRCC, and the Texas Alliance of Groundwater Districts (TAGD), conducted three public education meetings in September and October 1998.

The Haskell-Knox County UWCD was confirmed by election on January 26, 1999 by a vote of 537 (67 percent) for; 267 (33 percent) against. The majority of voters in each county approved the creation of the district and the levy of an ad valorem tax at a rate not to exceed \$0.05 for each \$100 of assessed valuation to finance district operation and maintenance. In accordance with the district's enabling legislation, the county commissioners courts appointed the initial board of directors soon after the election and the initial directors have drawn lots to determine an equal number of two- and four-year terms. Permanent directors will be appointed when the terms of the initial directors expire. The district adopted its comprehensive management plan in June 2000 and the plan was certified by the TWDB in September 2000. The district has hired an interim manager, established an office in Munday, and is presently developing rules to implement its management plan. The district is levying an ad valorem tax at a rate of \$0.03 per \$100 assessed valuation.

Presidio County Underground Water Conservation District

The Presidio County Underground Water Conservation District was created in 1993 by HB 2817 (Chapter 453, Acts of the 73rd Legislature, Regular Session,

1993). The district is governed by a board of five initial directors appointed by the Presidio County Commissioners Court. The court will appoint permanent directors as the two- and four-year terms of the initial directors expire. The Act provides that the district may not levy or collect taxes on property in the district at a rate greater than \$0.05 per \$100 assessed valuation and tax revenue shall only be used to pay for the maintenance and operation of the district. State agency staff and the TAGD presented information on groundwater district authorities and responsibilities at a groundwater seminar in Alpine in August 1998. Members of the TAGD described the process of groundwater district creation and operation at a public meeting in Alpine in September 1998.

The Presidio County UWCD was confirmed by election on August 31, 1999 by a vote of 223 (67 percent) for; 111 (33 percent) against. However, a proposition to authorize the district's taxing authority was not presented to the voters for approval. The district reports that draft rules have been developed and a draft comprehensive management plan was provided to the TWDB for preliminary review in October 2000. The district anticipates that both the rules and the management plan will be adopted in the near future. The district's comprehensive management plan is due for TWDB certification in August 2001.

Addition of Territory to Districts

There were several additions of territory to existing districts during the years 1999 - 2000. The annexation efforts are discussed as follows and shown on Table 5. The TNRCC is not aware of any district consolidation activities or the removal or withdrawal of territory from a district during the previous two-year period.

Two counties, Baylor and Potter, joined adjacent groundwater conservation districts during the biennium. Activity is ongoing in two more districts, High Plains UWCD No. 1 and Lipan-Kickapoo WCD, to add territory. All of the territory in Baylor County was added to the Haskell/Knox County Underground Water Conservation District. Over 150 residents of Baylor County had petitioned the Haskell/Knox County district for annexation in accordance with §36.328 of the Water Code. The Haskell/Knox County district conducted a public hearing in Seymour (Baylor County) on June 20, 2000 and the district's board accepted the petition for the inclusion of Baylor County at its June 22, 2000 meeting. The addition of territory was approved by the voters in Baylor County at an August 12, 2000 election by a margin of 662 (91 percent) for; 65 (9 percent) against.

Table 5.
Annexations to Existing Groundwater Conservation Districts - Activity During 1999 and 2000

District	County(s) to be Added	Petition Date	Board Approval (Date)	Confirmation Election (Date)	Vote For/Against (%)	Comments
Haskell/Knox County UWCD	Baylor	05/11/00	07/22/00	08/12/00	91/9	Requires statutory changes to district's enabling legislation to provide board member representation for Baylor County.
Panhandle GCD	Potter ¹	07/14/00	07/28/00	08/12/00	82/18	Board member for Potter County appointed on 09/06/00.
Lipan-Kickapoo WCD	Concho, Tom Green, & Runnels ²	05/16/00	05/16/00	---	---	Board voted to delay action on 07/28/00 to provide educational outreach opportunity. Will require statutory changes to district's enabling legislation to provide board member representation for three counties.
High Plains UWCD No. 1	Swisher	09/11/00	11/14/00	01/20/01	---	Confirmation election scheduled for January 20, 2001.

- Notes: 1. Includes all of Potter County outside of area presently within either the Panhandle GCD or the High Plains UWCD No. 1.
2. Includes all of the three counties not presently within either the Lipan-Kickapoo WCD or the Hickory UWCD; excludes incorporated cities.
- UWCD Underground Water Conservation District
GCD Groundwater Conservation District
WCD Water Conservation District

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The Baylor County voters also approved an ad valorem tax not to exceed \$0.05 per \$100 assessed valuation to pay for the operation and maintenance of the district.

The Haskell/Knox County UWCD's board consists of appointed directors, five from each county. The district's enabling legislation (Chapter 1028, Acts of the 73rd Legislature, Regular Session, 1993) does not allow for the directors to change the make-up or membership of the board. Therefore presently, the taxpayers of Baylor County do not have representation of the district's board of directors. However, the district's board intends to have an equal number of directors from each of the three counties and has indicated that it will pursue amendment of the district's enabling legislation to provide representation for Baylor County and any other area that may be added in the future.

On June 14, 2000, 84 validated landowners in Potter County petitioned the Panhandle Groundwater Conservation District to have areas of the county that were outside of a district to be added into the district. At the time of the petition, the Panhandle district included 87 square miles of eastern Potter County and the High Plains Underground Water Conservation District No. 1 included about 35 square miles on the south/southwestern-eastern edge of the county.

The Panhandle district conducted public hearings in Amarillo and White Deer on June 21 and June 28, 2000, respectively. After the hearing in White Deer, the district's board accepted the petition for the inclusion of the territory in Potter County and called for an election to be held. The addition of territory was approved by the voters in Potter County at an August 12, 2000 election by a margin of 444 (82 percent) for; 97 (18 percent) against. The Potter County voters also approved the levying of the district's ad valorem tax to pay the proportional share for the operation and maintenance of the district. The Panhandle district is presently levying a tax of \$0.0172 per \$100 assessed valuation. On September 6, 2000, the Panhandle district's board appointed a director to represent Potter County.

The board of directors of the Lipan-Kickapoo Water Conservation District received a petition on May 16, 2000 to add additional territory to the district. The petition was signed by over 100 landowners in Concho, Tom Green, and Runnels counties. After review, the board voted to accept the petition. The territory included in the petition is the portions of Concho and Tom Green counties not presently within a groundwater conservation district (the southeastern portion of Concho County is included within the Hickory UWCD No. 1), and all of Runnels

County. The petition specifically excluded the incorporated cities of San Angelo, Miles, Paint Rock, Ballinger, and Winters. Following five information meetings held within the three counties, the Lipan-Kickapoo WCD held public hearings in Vancourt (within the district) and at the Texas A&M Experiment Station north of San Angelo. These hearings were held on June 8 and June 22, 2000, respectively, to gather public comments from interested landowners and residents on the possible annexation of the territory.

At a June 28, 2000 special meeting, the board of directors of the Lipan-Kickapoo WCD voted to delay the annexation of territory into the district. Based on the comments received at the public hearings, the board determined that the residents in the territory included in the petition needed more time to learn about groundwater conservation districts and have their concerns addressed. The board agreed to review the annexation petition in February or March 2001. The Lipan-Kickapoo Water Conservation District's enabling legislation (Chapter 439, Acts of the 70th Legislature, Regular Session, 1987) will need to be amended to provide adequate board member representation for any areas outside of Concho and Tom Green counties that may be added to the district in the future.

Another county that is seeking to join an adjacent district is Swisher County. As discussed in the preceding chapter under the heading "Briscoe, Hale, and Swisher County PGMA," on November 14, 2000 the High Plains Underground Water Conservation District No. 1 accepted the Swisher County Commissioners Court petition to add all of Swisher County to the district. A confirmation election has been scheduled for January 20, 2001.

Unconfirmed Districts and Failed District Creations (Since 1989)

SB 1 (1997) specified that the enabling legislation for groundwater conservation districts created during the 71st through 74th legislative sessions (1989 to 1995) would be automatically repealed unless the districts were confirmed by election before September 1, 1999. At that time, there were five districts created during the 71st through 74th legislative sessions that had not held confirmation elections. The five districts were Clearwater (Bell County), Menard County, Haskell/Knox County, Presidio County, and Oldham County. The TNRCC sent letters in May 1998 to the temporary board members named in the enabling legislation of each of the five districts informing the directors of the statutory confirmation election

deadline. Four of the five districts held elections and were confirmed (as previously discussed) prior to the SB 1 deadline.

The only district that did not conduct an election was the Oldham County Underground Water Conservation District. The Oldham County district was created in 1995 by SB 1714 (Chapter 720, Acts of the 74th Legislature, Regular Session, 1995). The district was governed by a board of five temporary directors. The district's board reported in 1999 that there were no plans to hold a confirmation election. With no confirmation election conducted prior to the September 1, 1999 deadline, the enabling legislation for the creation of the Oldham County UWCD was effectively repealed on that date.

Districts created by the 75th Legislature were not subject to the SB 1 confirmation deadline and one such district remains to be confirmed. SB 16 (Chapter 678, Acts of the 75th Legislature, Regular Session, 1997) created the Bee Groundwater Conservation District covering much of Bee County. The City of Beeville and the service areas of the Pettus Municipal Utility District and the Tynan Water Corporation were excluded from the district. The Act authorized the district with the powers and duties of Chapters 36 and 49, Water Code, named a temporary board of directors and provided for the confirmation of the district through a voter election and the election of initial and subsequent permanent board members. The ad valorem tax rate of the district was limited to \$0.05 per \$100 valuation of taxable property. SB 16 became effective on September 1, 1997. To date, a confirmation election has not been held in the district. However, the district's temporary board reported that it has scheduled a January 20, 2001 election for the district.

Four legislatively created groundwater conservation districts (Central Texas, Llano Uplift, Rolling Plains, and San Patricio) and one Commission-created district (Comal County) have failed confirmation elections since 1989. Additionally, the Oldham County district created by the 74th Legislature was repealed for failure of the temporary board to schedule and hold a confirmation election. The most common reasons for the failure of the voters to confirm these districts have been the reluctance to pay more taxes and the unwillingness to add an additional layer of governmental involvement in their affairs. Another reason could be the failure to adequately inform the voters of the benefit of a groundwater conservation district. Voters who have not had the opportunity to evaluate accurate information regarding the value of locally managing groundwater resources and the benefit of supporting a district have nearly always voted against district creation. The failed groundwater districts are described in Table 6.

**Table 6.
Failed Groundwater Conservation Districts (Since 1989)**

District	Method of Creation				County ¹	Confirmation Election	
	Bill	Legislature	Year	Chapter Listed		Date	Vote % For/Against
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	Per SB 1, enabling Act repealed 09/01/99 for failure to conduct election	
Comal County UWCD	Landowner Petition Process Provided in Chapter 36, Water Code. Created by Commission Order, 1994.				Northwestern 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
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 The district may or may not cover an entire county, or may cover more than one county.
GCD Groundwater Conservation District
UWCD Underground Water Conservation District

Activities of Existing Districts

Chapter 36 of the Water Code requires that each groundwater conservation district 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 groundwater district plans its activities according to rules and goals developed and adopted by the locally governed board. Table 7 summarizes general district activities. An “X” in the activities column indicates that the district is performing at least one of the activities described in the following descriptions. The information presented in Table 7 is a summary of activities listed in a district’s groundwater management plan, in the Texas Alliance of Groundwater Districts, Membership Directory and District Activities (TAGD, 1999), and data obtained from a phone survey conducted by the TWDB.

Water Quality Monitoring and Protection. The district implements a program for analyzing water quality or other projects for water well protection. The projects may include providing sample collection and laboratory services for water analyses.

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 is 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 often refer to regulations established by the Texas Department of Licensing and Regulations Water Well Drillers Program.

Education/Public Outreach. The district may provide pamphlets, newsletters, videos, newspaper articles, scholarships, workshops, public meetings and

**Table 7.
Groundwater Management/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	Transporting Groundwater	Grants and Loan Applications	Special Projects and Research	Management Plan Approval
Anderson County UWCD	X		X	X	X	X	X	X	X		X	11/02/99
Barton Springs/Edwards Aquifer Conservation District	X	X	X	Yes	X	X	X	X	X	X	X	09/17/98
Bexar Metropolitan Water District												08/27/99
Clearwater UWCD												Plan Due 08/21/01
Coke County UWCD	X	X	X	X	X	X		X		X	X	09/04/98
Collingsworth County UWCD	X	X	X	X	X	X			X	X	X	11/05/98
Culberson County GCD												05/11/00
Dallam County UWCD No. 1	X		X	X	X	X						06/10/99
Edwards Aquifer Authority	X	X	X	X	X	X		X	X	X	X	09/17/98
Emerald UWCD	X	X	X	X	X	X			X	X	X	09/17/98
Evergreen UWCD	X	X	X	X	X	X			X	X	X	09/04/98
Fort Bend Subsidence District	X	X	X	X	X	X		X	X		X	08/24/98
Fox Crossing Water District	X	X	X	X	X	X	X	X				09/15/98
Garza County Underground and Fresh Water Conservation District		X	X	X	X	X				X		10/14/98
Glasscock County UWCD	X	X	X	X	X	X			X	X	X	09/04/98
Gonzales County UWCD	X	X	X	X	X	X		X	X		X	02/19/98
Guadalupe County GCD												Plan Due 11/4/01
Harris-Galveston Coastal Subsidence District	X	X	X	X	X	X		X		X	X	08/14/98
Haskell/Knox UWCD												Plan Due 1/26/01
Headwaters UWCD	X	X	X	X	X	X		X	X		X	09/17/98
Hemphill County UWCD												01/07/00
Hickory UWCD No. 1	X	X	X	X	X	X		X		X	X	08/24/98
High Plains UWCD No. 1	X	X	X	X	X	X		X		X	X	08/24/98
Hill Country UWCD	X	X	X	X	X	X		X		X	X	08/24/98
Hudspeth County UWCD No. 1		X	X	X	X	X						10/14/98
Irion County Water Conservation District	X	X	X	X	X	X		X		X	X	09/04/98
Jeff Davis County UWCD	X	X	X	X	X	X		X				07/16/98
Lipan-Kickapoo Water Conservation District	X	X	X	X	X	X				X	X	09/04/98
Live Oak UWCD	X	X	X	X	X	X		X				10/14/98

**Table 7.
Groundwater Management/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	Transporting Groundwater	Grants and Loan Applications	Special Projects and Research	Management Plan Approval
Llano Estacado UWCD	X	X	X	X	X	X	X	X		X	X	07/21/00
Medina County GCD	X	X	X	X	X	X		X	X	X	X	08/14/98
Menard County UWCD												Plan Due 08/14/01
Mesa UWCD	X	X	X	X	X	X	X		X	X	X	08/14/98
North Plains GCD	X	X	X	X	X	X		X		X	X	09/17/98
Panhandle GCD	X	X	X	X	X	X		X	X	X	X	07/16/98
Permian Basin UWCD	X	X	X	X	X	X		X		X	X	10/14/98
Plateau Underground Water Conservation and Supply District	X	X	X	X	X	X			X	X	X	09/04/98
Plum Creek Conservation District												Plan Due 09/1/98
Presidio County UWCD												Plan Due 08/31/01
Real-Edwards Conservation and Reclamation District												09/24/99
Salt Fork UWCD												10/14/99
Sandy Land UWCD	X	X	X	X	X	X	X		X	X	X	09/04/98
Santa Rita Land UWCD	X	X	X	X	X	X					X	09/04/98
Saratoga UWCD	X	X	X	X	X	X	X	X			X	11/05/98
South Plains UWCD	X	X	X	X	X	X		X		X	X	09/04/98
Springhills Water Management District	X	X	X	X	X	X		X		X	X	09/17/98
Sterling County UWCD	X	X	X	X	X	X			X	X	X	09/04/98
Sutton County UWCD	X	X	X	X	X	X					X	09/04/98
Uvalde County UWCD		X	X	X	X	X		X	X	X	X	10/14/98
Wintergarden GCD				X	X	X		X	X		X	07/23/99

hearings, reports, and classes emphasizing water conservation principles and encouraging efficient groundwater use. The districts may also maintain an informational booth at local or regional agricultural events promoting irrigation 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 tests, and providing mapping and leveling equipment. Districts 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, drought management 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. Any district can apply for TWDB funding for grants. The grants program provides 75 percent matching funds to districts to purchase equipment and promote, demonstrate, or evaluate water conservation practices. Another program provides low interest loans to districts, which in turn provide low interest loans to irrigators to purchase and install more efficient irrigation systems.

Special Projects and Research. Special projects and research include groundwater modeling, groundwater recharge through infiltration or injection, area subsidence measurements, production of groundwater level maps, and recharge enhancement through weather modification programs. Projects may involve cooperative funding through federal and state or local agencies.

Groundwater District Management Planning

In 1997, SB 1 prioritized the importance of a district's management plan to guide district operations and activities and made major changes to district management plan requirements. By amending Chapter 36, the statute now outlines the general contents of a district management plan and requires coordination with surface water entities on a regional basis. Chapter 35 also requires that district management plans be submitted to the TWDB for administrative certification and outlines procedures for the TWDB's certification of the plans.

Water Code §36.1071 requires that a groundwater conservation district, in coordination with surface water management entities, develop a comprehensive management plan that addresses groundwater management goals for the district. These goals include: providing the most efficient use of groundwater; controlling and preventing waste of groundwater; controlling and preventing subsidence; addressing conjunctive surface water management issues; and, addressing natural resource issues that impact the use and influence the availability of groundwater.

Water Code §36.1072 requires that the Executive Administrator of the TWDB certify groundwater conservation district management plans as being administratively complete when the plans have met certain statutory requirements. The TWDB adopted Title 31 TAC Chapter 356 in November 1997, concerning procedures and requirements for TWDB certification of the administrative completeness of groundwater management plans. Title 31 TAC Chapter 356 includes the following sections: Scope of Chapter; Definition of Terms; Required Management Plan; Consistency with Regional Water Plans; Required Content of Management Plan; Plan Submittal; Certification; Appeal of Denied Certification; and Certification of Amendments. Each section is briefly described here.

Scope of Chapter. An introductory section indicating that it is to be used for reviewing and certifying management plans as administratively complete.

Definition of Terms. This section defines the terms used in Chapter 356 and explains the terms necessary to understand and comply with the requirements for completing a management plan.

Required Management Plan. This section discusses submission deadlines for the management plans for both the district and the TWDB. Exceptions to the deadlines are detailed in this section as are plan review and readoption.

Consistency with Regional Water Plans. This section indicates that district management plans developed after TWDB approval of regional water plans must not be in conflict with the approved regional water plan.

Required Content of Management Plan. The required content of a management plan, necessary for certification, includes:

- ! The time period of 10 years for the plan
- ! Actions, procedures, performance, and avoidance necessary to effectuate the plan
- ! Estimates of
 1. Existing total usable amount of groundwater within the district
 2. Amount of groundwater being used within the district annually
 3. Annual amount of groundwater recharge, and annual amount of additional natural or artificial recharge that could result from implementation of feasible methods for increasing natural or artificial recharge
 4. Projected water supply and demand
 5. Details of how the district will manage its groundwater including the methodology indicating how the district tracks its progress towards achieving management goals
- ! District-established management goals, objectives, and performance standards; district-chosen information and data
- ! The plan shall be consistent with an approved regional water plan for each region that the district covers

Plan Submittal. This section lists the requirements of districts submitting plans for review. Documents required for certification of administrative completeness include:

- ! A copy of the adopted management plan
- ! A certified copy of the district's resolution adopting the plan
- ! Evidence that the plan was adopted after notice and hearing
- ! Evidence that, following notice and hearing, the district coordinated in the development of its management plan with surface water management entities
- ! Evidence of consistency with and of any conflict between the management plan and an approved regional water plan for any part of the area that the district may be located in

Certification. The requirements for the Executive Administrator regarding certification deadlines, notification procedures, and denial of certification for noncompliance with requirements as defined in §36.1072 of the Water Code and

§356.5 of the Administrative Code are discussed in this section. The review and certification of a revised plan are also addressed in this section.

Appeal of Denial of Certification. The necessary procedures for appealing the denial of certification and specifications regarding the written and oral appeal are outlined in this section.

Certification of Amendments. Procedures for districts to follow concerning plan amendments are discussed as are deadlines, procedures, and applicability.

Development and Certification of Plans

Each groundwater district develops its management plan according to requirements specified in §36.1071 of the Water Code and the TWDB's groundwater management plan certification rules (Title 31, Texas Administrative Code, Chapter 356). Based on the statutory requirements for groundwater district management plans, staff of the TWDB developed a hypothetical management plan that included all the required elements for certification of administrative completeness. This hypothetical management plan was distributed to all groundwater conservation districts in November 1997. In addition, TWDB staff reviewed the groundwater management plan certification rules and developed a checklist for required plan content. The checklist was also submitted to the groundwater conservation districts for their use. Included with the checklist was a letter indicating the availability of TWDB staff to assist in the development of plans. Seminars on the required content of management plans and plan development were conducted by TWDB in Manchaca, Castroville, and San Angelo in association with the TAGD and the West Texas Alliance of Groundwater Districts (WTAGD).

Individual districts can receive assistance for the development of the plan by contacting TWDB. TWDB staff have assisted in plan development by providing the following:

- ! explanations of management plan content requirements;
- ! education in planning concepts;
- ! supporting data for estimates required in the plan; and
- ! technical assistance in developing required estimated values, and assistance in developing plan language.

In an effort to provide the greatest efficiency of service to the districts, TWDB provided much of the assistance by telephone. If personal contact was desired or warranted by the district, TWDB staff either visited the district or met with the district at the TWDB offices.

Districts were offered the opportunity to submit draft management plans for an informal review by TWDB staff prior to adoption of the plan by the district board of directors. When such drafts were received, TWDB staff reviewed the documents, noted deficiencies with respect to administrative completeness, and transmitted it back to the district. Follow-up contacts were initiated by TWDB staff to provide the appropriate assistance required for plan certification.

During the preparation of management plans in the district's adoption process and after notice and public hearing, districts were required to consult with appropriate surface water management entities on the development of the plan. Following this consultation, district boards of directors adopted their management plan. The adopted plan was then submitted to TWDB for administrative completeness certification.

Plans received by the TWDB were logged to ensure that an administrative review would be completed within the 60-day statutory review period. All plans received to date have been reviewed within the prescribed period. Each submitted plan was reviewed by at least three staff members for their recommendations. The Executive Administrator, after consideration of staff recommendations and additional review of the plan, determined the administrative completeness of the plan. Although a process for appeal of the denial of certification is provided in Chapter 36 and TWDB rules, all plans submitted to date have met certification requirements, and no plan has been denied administrative completeness certification.

Current Status

Table 7 shows the certification status of all groundwater conservation district management plans as of December 31, 2000. There were a total of 50 established districts as of that date. Plans for 45 of those districts have been submitted and certified. For four of the districts, Clearwater, Guadalupe County, Menard County, and Presidio County plans will be due during August and November, 2001. These four districts are actively working with the TWDB on certification of their management plans.

The management plan of one district, the Plum Creek Conservation District, was due by September 1, 1998. The district's management plan has not been finalized and certified by the TWDB; however, the district is presently working on revisions of a preliminary plan. The preliminary plan was submitted by the district and was commented upon and returned back by the TWDB for further amendment.

The 13 temporary districts created by SB1911 (Chapter 1330, Acts of the 76th Legislature, Regular Session, 1999) are presently prohibited from adopting management plans. These districts, if ratified by the Legislature in 2001, will have two years after their respective confirmation elections to have management plans submitted and certified by the TWDB.

District Management Plan Implementation

Chapter 36 of the Water Code requires the State Auditor's Office (SAO) to determine if a groundwater conservation district is actively engaged in implementing its management plan. Furthermore, Chapter 36 establishes procedures for the TNRCC to respond when SAO identifies problems when districts implement their management plans. District management plan implementation activities accomplished during the 1999 - 2000 biennium are described below.

Status of State Auditor's Office Review

Section 36.302 of the Water Code requires the SAO to audit groundwater conservation districts to determine whether they are actively engaged in achieving the objectives of their individual management plans. The primary objective of the required audit is for SAO to determine whether a district is presently operational based on the district's efforts to achieve its unique management plan. In some cases, SAO has determined that it is acceptable if a district does not achieve all of its stated planning goals and objectives each year. The SAO's assessment of an individual district is based on the district having made a good-faith effort to implement its management plan. An additional objective of the SAO audit is to determine whether the district complies with basic statutory requirements for groundwater conservation districts under Chapter 36 of the Water Code. A district's statutory compliance, however, does not affect the SAO assessment about whether the district is operational or not. "Operational" or "not operational" determinations are based strictly on a district's activities as outlined in its management plan.

SAO's audit methodology consists of gaining an understanding of each district that is audited. In most cases, the audits are performed by reviewing documents submitted by the district such as management plans, annual progress reports, meeting minutes, rules and by-laws and through phone interviews with district staff and board members. SAO performs fieldwork visits when necessary to understand the activities of a district or when the nature of certain district objectives make a visit necessary. Analytical audit techniques include comparing actual district activities with targets set in the district's management plan; analyzing district budgets and financial statements, rules, and policies and procedures to determine compliance with statutory requirements; and querying databases obtained from the district to confirm numbers reported in its annual reports. Audit criteria include statutory requirements, unique management plan goals and objectives, and internal district policies and procedures. Audits are conducted in accordance with applicable professional standards, including generally accepted auditing standards and government auditing standards.

One year from the date the TWDB certifies a district's management plan as "administratively complete," a district becomes eligible for SAO audit. The Gonzales County UWCD was the first district to submit its management plan. The TWDB certified the Gonzales County UWCD's plan in February 1998 and the SAO audited the district in a pilot project for groundwater conservation districts in the spring of 1999. The SAO determined that the Gonzales County UWCD is operational based on satisfactory district performance under its management plan and compliance with basic statutory requirements. The SAO found the district to be fully operational and actively engaged in achieving the objectives of its management plan (SAO, 1999).

After the pilot project audit of the Gonzales County UWCD was completed, SAO developed a five-year cycle to audit groundwater district management plan implementation. SAO plans to conduct approximately ten groundwater district audits each year and produce a single, annual report. Each year, SAO will select both large and small districts, old and new districts, and districts with various resources for audits.

The SAO selected nine groundwater conservation districts for the first phase of audits completed in August 2000. The SAO reviewed individual districts' efforts to achieve goals and objectives of their unique management plans. As much as possible, audit objectives were selected that would allow SAO to review for each district: at least one objective for each goals, 50 percent of total goals, objectives associated with greater resource commitment (i.e., where a district spent more time

or money), and objectives associated with issues reported to be of primary importance. When the initial review of selected objectives left doubt about whether a district was making good-faith efforts, SAO added objectives to the phase one audit in order to be certain of the assessment. The SAO audited the most recent complete year, 1999, for each district. For districts with management plans that parallel their fiscal rather than calendar year, SAO audited fiscal year 1999 and fiscal year 2000 through December 1999 or January 2000 (SAO, 2000).

The primary objective of the phase one audit was for SAO to determine whether the nine groundwater conservation districts were operational based on their good-faith efforts to achieve the goals and objectives of their management plan. A second objective was to determine whether the districts were in compliance with certain statutory requirement established in Chapter 36 of the Water Code. The nine audited districts and SAO findings are listed and described in Table 8.

Table 8. State Auditor’s Office Phase One Audit Findings

Audited District	Determination of Operational Status	Compliance with Basic Statutory Requirements
Barton Springs/Edwards Aquifer CD	Operational	Full compliance
Headwaters UWCD	Operational	Full or partial compliance
High Plains UWCD No. 1	Operational	Full compliance
Hudspeth County UWCD No. 1	Not operational	Did not comply with one or more
Irion County WCD	Operational	Full or partial compliance
Lipan-Kickapoo WCD	Operational	Full or partial compliance
Live Oak UWCD	Not operational	Did not comply with one or more
Mesa UWCD	Operational	Full or partial compliance
Sterling County UWCD	Could not determine	Did not comply with one or more

In the phase one audit, the SAO determined that six of the nine districts were operational (Table 8). The SAO found in the time since the TWDB’s certification of the districts’ management plans, they have either achieved all of their objectives or were making good-faith efforts to achieve them. The SAO determined that two of the nine districts, Hudspeth County and Live Oak, were not operational. The SAO found that both of these districts had fully or partially achieved some of their objectives; however, the districts did not achieve other objectives. Overall, SAO found that both districts had not made good-faith efforts to achieve all of the

objectives of their management plans. The SAO could not determine if the last of the nine districts, Sterling County UWCD, was operational. The district could not be audited for achievement of its management plan objectives because of the nature of the objectives. For this reason, SAO determined that the district may be subject to a repeat audit within the next five years.

The SAO also determined in the phase one audit that two of the six operational districts, Barton Springs/Edwards Aquifer and High Plains, had fully complied with all audited statutory requirements. The other four operational districts were in full compliance with some and in partial compliance with all other statutory requirements audited (Table 8). The two non-operational districts and the district whose status could not be determined did not comply with one or more of the statutory requirements audited (Table 8).

For two of the six statutory requirements audited, development and use of a budget and development of policies and procedures, fewer than half of the districts were in full compliance. Only the Barton Springs/Edwards Aquifer and High Plains districts were in full compliance for developing an annual budget that contains certain components. The Headwaters, Irion County, Lipan-Kickapoo, Live Oak, Mesa, and Sterling County districts had developed annual budgets, but the budgets did not contain all of the required statutory components. The Barton Springs/Edwards Aquifer, High Plains, Lipan-Kickapoo, and Mesa districts had developed all required policies and procedures and the Headwaters and Irion County districts had developed some, but not all of the required policies and procedures. The Live and Sterling County districts had not developed any of the required policies and the Hudspeth County district had not developed or used a budget or developed any of the required policies.

TNRCC Oversight/Noncompliance Review

Subchapter I, Chapter 36, Water Code, requires the TNRCC to take action if a groundwater conservation district fails to submit a management plan to the TWDB or fails to receive certification of its management plan from the TWDB. If the SAO determines that a district is not operational, the TNRCC is also required under Subchapter I to take enforcement action. The TNRCC adopted rules (30 TAC §293.137) on January 20, 1999 to implement Subchapter I provisions.

TNRCC noncompliance review actions are initiated upon review of information from the TWDB regarding districts which did not meet management plan submission and certification requirements. Noncompliance review actions are also

initiated based on information and determination from SAO annual audit reports regarding insufficient district management plan implementation. In general, the TNRCC performance review and enforcement protocol consists of initial inter-agency coordination actions, a cooperative attempt to reach resolution with noncompliant districts, and agency enforcement action for resolution with non-cooperative districts.

After interagency coordination efforts are completed, the Executive Director submits a letter identifying the district's noncompliance issues and attempts to reach a cooperative compliance agreement with the district. If a signed compliance agreement with the district can be negotiated, the district will have a time-certain schedule to address the noncompliance issues. The Executive Director will monitor district actions under the compliance agreement and will respond to the district, Commission, SAO, and TWDB when all compliance issues have been addressed within the agreed schedule. At this point in the process, a cooperative district come into compliance.

If a district fails to respond, or will not cooperate to reach a signed compliance agreement, formal enforcement action will be initiated by Executive Director. Dependant on the district's level of cooperation at this point, formal enforcement may either be through an agreed order process or through direct litigation. If an agreed order cannot be achieved or if action is directly through litigation, the TNRCC may remove a district's board of directors, remove a district's taxing authority, or dissolve the district. If the TNRCC dissolves a district's board of directors or dissolves the district, other follow-up activities will be required. These activities may 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.

All due groundwater district management plans have been certified except for one. The Plum Creek Conservation District's management plan was due on September 1, 1998 for administrative review and certification by the TWDB. The Plum Creek district adopted a management plan on July 18, 2000 and submitted the plan to the Executive Administrator of the TWDB on August 22, 2000. TNRCC enforcement action will be initiated if the district does not receive TWDB certification of its plan within the statutory time frames.

In its August 2000 phase one audit report, the SAO determined that two districts, the Hudspeth County UWCD No. 1 and the Live Oak UWCD, were not operational and had not achieved nor made good-faith efforts to achieve implementation

of their management plans. The Executive Director's staff issued letters to each of the two districts in December 2000 outlining SAO determinations and findings and requesting information the districts were taking to achieve full compliance. Requested responses from the districts were received within 30 days. After evaluating the district responses, staff will contact the districts to negotiate a compliance agreement and schedule for each district to reach compliance. If the districts are non-cooperative, formal enforcement action may be required.

State Assistance and Educational Programming

The TNRCC, TWDB, TPWD, TDA, and TAEX are responsible for providing assistance to the public under Chapters 35 and 36 of the Water Code. Other entities such as the state's institutions of higher education and the Texas Alliance of Groundwater Districts (TAGD) also play pivotal roles in providing these services.

Technical Assistance

In 1997, the 75th Legislature charged the TWDB with guiding the development of a statewide water resources data collection and dissemination network. The goal of this initiative was to insure that water data is effectively and efficiently collected, maintained, and made available for all users. To accomplish this, the TWDB initiated the statewide Water Information Network Optimization Program. The primary objective of this program is to identify potential program cooperators presently involved in data collection and dissemination activities throughout Texas and build and maintain partnerships with the cooperators for the data network. The Evergreen, Hickory, Hill Country, Irion County, Lipan-Kickapoo, Gonzales County, Mesa, Panhandle, High Plains, and Sterling County districts are presently participating in the program.

The TWDB has also assisted groundwater conservation districts with special requests such:

- ! database design and development;
- ! demonstration and use of software applications;
- ! creation of illustrations and images;
- ! processing and delivery of water information data;
- ! assistance with Website design and development;
- ! purchase of computer hardware and software for use by districts that cooperate in the network optimization program; and

- ! technical assistance with solving problems concerning drought-induced water shortages.

A water research study for the development of a model “Water Management Plan” was conducted by the TAGD and funded by a contract with the TWDB. The model management plan software was developed by the Barton Springs/Edwards Aquifer Conservation District. This study resulted in the preparation of a CD ROM disk and user’s manual for a graphical user interface to be used by groundwater districts in the preparation of their management plans. Districts requesting information on deadlines, submittal of management plans, numbers of copies required, and other administrative details were appropriately assisted by TWDB staff.

In 1999, the 76th Legislature approved funding for the Groundwater Availability Modeling (GAM) program. The purpose of GAM is to provide reliable and timely information on groundwater availability to the citizens of Texas to ensure adequate supplies or recognize inadequate supplies over a 50-year planning period. Numerical groundwater flow models of the major aquifers in Texas will be used to make this assessment. The expectation is that GAM will (1) include substantial stakeholder input; (2) result in standardized, thoroughly-documented, and publicly available numerical groundwater flow models and support data; and (3) provide predictions of groundwater availability through 2050 based on current projections of groundwater usage and future demands during normal and drought-of-record conditions. GAM will provide tools to evaluate water management strategies in regional water plans and groundwater conservation district management plans. The models, source data, and final report will be provided to the TWDB for posting and distribution on the Internet.

To date, four GAM models have been completed and include (1) the Trinity aquifer in the Hill Country, (2) the Hueco Bolson aquifer (by the U.S. Geological Survey), (3) the northern part of the Ogallala aquifer (as part of SB 1 water planning), and (4) the Barton Springs segment of the Edwards aquifer (as part of SB 1 water planning). At present, work is proceeding on eight additional GAM models for the (1) Lower Rio Grande Valley, (2) Edwards-Trinity Plateau, (3) eastern Gulf Coast, (4) central Gulf Coast, (5) northern Carrizo-Wilcox, (6) central Carrizo-Wilcox, (7) southern Carrizo-Wilcox, and (8) southern Ogallala aquifers. Future modeling work is planned for the Seymour, Cenozoic Pecos Alluvium, and northern Trinity aquifers. Groundwater districts are an integral part of the GAM process in providing information and guidance. Groundwater district

managers are invited to be part of Technical Advisory Groups for each model to review the progress and direction of each modeling project.

During the 1999 - 2000 biennium, the TWDB and TNRCC worked to develop a groundwater conservation district administrative information database. The purpose of this database is to provide for a comprehensive single source of data for each of the state's groundwater conservation districts. The TWDB provided the district-specific TWDB-TNRCC entries to each groundwater district in January 2000 and the district responses were incorporated into the database. Database development was completed in March 2000 and the TWDB is presently serving as the database administrator. The two agencies have agreed to staff procedures to incorporate new groundwater district data as it becomes available.

Educational Outreach

Education is a vital component in the effective management of the state's water resources. In early 1998, representatives from the TNRCC, TWDB, TAEX, TPWD and the TAGD met to discuss groundwater management educational programming strategies. Participants agreed that the development of a new publication explaining the process of creating a groundwater conservation district was of utmost importance and assigned a high priority for its preparation. The participants felt that the publication would help districts that had pending confirmation elections, the public in areas interested in forming a district, and the public and local officials in designated PGMAs.

An existing TAEX groundwater conservation district publication was updated to reflect legislative changes made by SB 1. In November 1998, TAEX published *Managing Texas' Groundwater Resources Through Groundwater Conservation Districts* (TAEX, 1998). This fact sheet has been widely distributed throughout the state and 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 an overview of issues related to groundwater conservation districts. In February 1999, TAEX published *Groundwater Conservation Districts* (TAEX, 1999b), a brochure giving an abbreviated description of the same information. TAEX published *Groundwater Conservation Districts: Success Stories* (TAEX, 1999a) in August 1999. This fact sheet outlines successful district programs that are presently being implemented to promote and achieve groundwater conservation in the state.

In July of 1999, the TAGD published the *Groundwater Conservation District Operations Manual* (TAGD, 1999a). The operations manual was originally published in 1989 by the Water Resources Center of Texas Tech University and the High Plains UWCD No. 1; however, it had not been updated in many years. The purpose of the operations manual is to help the board of directors and staff of newly created districts to become effective as quickly as possible. It provides the most recently available information regarding the operation of Texas groundwater conservation districts and provides guidance for district creation, initial operations, legal requirements, voting, district finances and revenues, legal notices, open meetings and open records, records management, and district programs and activities. The operations manual also includes extensive appendices on applicable state laws and agency rules and district rules and management plans, forms, director and employee policies and forms, and contacts. The operations manual was made possible by grant funds from TWDB, cash contributions from TAGD, and publishing funds from the TNRCC. The TAGD published the document in three-ring binder form to allow for the document to be updated as necessary and also published the document on compact diskette.

The TAEX is specifically charged with providing educational assistance to residents in designated PGMAs on issues related to groundwater management. In this regard, the TAEX has been active in providing educational programming in PGMAs, in areas planning to hold confirmation elections, and in other areas that recognize and are considering the need to manage their groundwater resources. In 1998 and 1999, TAEX sponsored a water conflict training seminar for county agents to help them acquire skills in the facilitation and mediation of water conflict issues.

A comprehensive program is necessary to provide education on water-related issues. The TAEX approach to this educational effort has been to utilize its network of local county agents to cooperate with local stakeholders and state agencies to hold local meetings, distribute fact sheets, deliver presentations on local water resources, publish news releases in local papers, and present information on local radio shows. This ensures effective, factual delivery of vital water management information to the local clientele.

During the 1999 - 2000 biennium the TAEX, TWDB, TNRCC, TPWD, and TAGD were very 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

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education sponsored, multi-day conferences. Educational meetings have been conducted for county commissioners courts, county water planning committees, councils of governments, local soil and water conservation districts, interested landowners, and others. During the biennium, the state agencies have provided educational programming related to groundwater management for residents or local officials of the counties listed in Table 9.

Table 9. Counties That Have Participated in Educational Programs, 1999 - 2000

Anderson	Angelina	Bastrop	Baylor	Bell
Bexar	Blanco	Bosque	Brazos	Brown
Burleson	Camp	Cherokee	Comal	Commanche
Crane	Denton	Eastland	Erath	Freestone
Garza	Gillespie	Gregg	Hamilton	Harrison
Hays	Henderson	Hood	Houston	Jones
Kinney	Lavaca	Lee	Liberty	Marion
Midland	Milam	Montgomery	Nacogdoches	Panola
Pecos	Rains	Robertson	Rusk	Sabine
San Augustine	Shelby	Smith	Somervell	Swisher
Travis	Trinity	Upshur	Upton	Van Zandt
Ward	Wharton	Williamson	Wood	

Other Legislative Acts Affecting Groundwater Districts

In addition to acts related to district creation, the 76th Legislature passed four bills that affect groundwater conservation districts in general and three bills that amend the enabling legislation of specific groundwater conservation districts. In addition, one bill was passed to allow municipal and county platting authorities to require a demonstration of groundwater availability in the plat application process.

Legislation Related to Groundwater Conservation Districts

HB 340 (Chapter 239, Acts of the 76th Legislature, Regular Session, 1999) amended §36.117 of the Water Code. The Act removed jet wells used for domestic needs from the listing of water wells that are exempt from district permitting requirements.

HB 846 (Chapter 1354, Acts of the 76th Legislature, Regular Session, 1999) amended provisions of Chapter 36 related to the administration, management, operation, and authority of groundwater districts. The Act amended §36.060 of the Water Code related to fees of office and reimbursement to provide for statutory interpretation in case of conflict with a special law governing a specific district. The Act also amended §36.068 of the Water Code to authorize districts to establish a sick leave pool for employees and §36.123 of the Water Code to authorize district personnel to enter private land.

HB 1031 (Chapter 249, Acts of the 76th Legislature, Regular Session, 1999) amended §36.055 of the Water Code. The Act clarified the filing of sworn statements as prescribed by the constitution for public office and made by the directors of groundwater conservation districts.

HB 2926 (Chapter 1025, Acts of the 76th Legislature, Regular Session, 1999) amended §§36.351 and 36.354 of the Water Code relating to elections to approve consolidation of groundwater conservation districts. Section 36.351 was amended to clarify the procedure for districts to initiate consolidation and §36.354 was amended to clarify that election is required in each district that initiates consolidation.

SB 1755 (Chapter 163, Acts of the 76th Legislature, Regular Session, 1999) amended the enabling legislation for the Edwards Aquifer Authority and provided that the board of directors may modify single-member district lines after each federal decennial census or as needed. The board may not modify the district lines

to divide a county election precinct except as necessary to follow the EAA's jurisdictional boundaries.

HB 3849 (Chapter 1152, Acts of the 76th Legislature, Regular Session, 1999) amended the enabling act of the North Plains Ground Water Conservation District No. 2 by changing the name and powers of the district and validating certain actions of the district. The Act validated and recognized the addition of Dallam County, adjusted the number of directors to seven, and made conforming language changes (i.e., generally replacing the term "underground water" with "groundwater" and replacing references from Chapter 52, Water Code to Chapter 36, Water Code). HB 3849 renamed the district as the North Plains Groundwater Conservation District, moved the director's election date to the uniform election date in May in each even-numbered year, and authorized the district to manage all of the groundwater resources within its boundaries. The Act placed an ad valorem tax cap of \$0.05 per \$100 assessed valuation on property for financing maintenance and operation expenses.

HB 2199 (Chapter 345, Acts of the 76th Legislature, Regular Session, 1999) amended the enabling act of the Panhandle Ground Water Conservation District No. 3 by changing the name of the district and authorizing the district to manage all of the groundwater resources within its boundaries. The district is now named the Panhandle Groundwater Conservation District.

Related Legislation: Groundwater Availability and Platting

In 1997, SB 1 (75th Legislature) added §35.019 to the Water Code. Section 35.019 allows the commissioners court of a county in a designated PGMA to adopt water availability requirements in an area where platting is required if the commissioners court determines that the requirements are necessary to prevent current or projected water use in the county from exceeding the safe, sustainable yield of the county's water supply. During the 1999 - 2000 biennium, several counties in the Hill Country PGMA (Bandera, Comal, Hays, and Kendall) adopted water availability regulations under §35.019. Through an interlocal agreement, the Bandera County regulations require groundwater availability information be filed with the Springhills Water Management District. The Springhills district is responsible for providing comments and recommendations on the proposed platted area's ability to provide adequate water. The district's recommendations are provided to the commissioners court for their consideration regarding the plat approval.

SB 1323 (Chapter 460, Acts of the 76th Legislature, 1999) added §212.0101 and §232.0031 to the Local Government Code. New §212.0101(a) provides that if a person submits a plat to a municipality for the subdivision of a tract of land for which the intended source of water supply is groundwater under that land, the municipal authority responsible for approving plats by ordinance may require the plat application to have attached a statement that is prepared by a Texas licensed professional engineer that certifies that adequate groundwater is available for the subdivision. New §232.0031(a), Local Government Code provides that if a person submits a plat to a county for the subdivision of a tract of land for which the intended source of water supply is groundwater under that land, the commissioners court of a county by order may require the plat application to have attached a statement that is prepared by a Texas licensed professional engineer that certifies that adequate groundwater is available for the subdivision.

Under SB 1323, the TNRCC was required to establish by rule the appropriate form and content of a certification to be attached to plat applications. The TNRCC adopted the rules and form in 30 TAC Chapter 230 in June 2000 and the rules became effective in July 2000. The form and rules will be used and implemented only by the municipal and county authorities which choose to require groundwater availability certification. The rules provide the necessary guidance and requirements to certify that adequate groundwater is available for a proposed subdivision if groundwater under the land is to be the source of water supply. The rules also provide the form that is required to be attached to a plat application, and the information required by the rules is indicated on the form. The TNRCC is unaware of how many, if any, platting authorities are presently implementing this new authority under the Local Government Code.

Groundwater Management Issues

Both Legislative Chambers have recognized the importance of groundwater management and the challenges facing the state. Following the Regular Session of 76th Legislature, the Speaker of the House charged the Interim House Committee on Natural Resources to: “Study all issues related to groundwater availability, including the roles and needs of groundwater conservation districts to ensure effective management of the resource. Consider the effectiveness and feasibility of aquifer-based management, and the adequacy of data and modeling for regional water planning efforts. Assess the implementation of SB 1911, enacted by the 76th Legislature.”

Likewise, the Lieutenant Governor charged the Interim Senate Committee on Natural Resources to: “Develop a comprehensive study of the state’s groundwater resources, keeping a strong focus on the need for conservation. The Committee shall examine a regional approach to groundwater management, inventory the availability of groundwater, and consider the future regulation of groundwater and the role of groundwater districts.”

In this chapter, the TNRCC recognizes some of the issues which the state still faces regarding the management of groundwater resources. The issues are categorized under general headings pertaining to PGMA process implementation, groundwater management, and groundwater district special law.

PGMA Process Issues

With the passage of SB 1 in 1997, the 75th Legislature significantly modified the PGMA process in Chapter 35 of the Water Code. A few procedural issues remain, however, that could be clarified to more fully accomplish and facilitate groundwater management within designated PGMAAs.

Groundwater Conservation District Creation in PGMAAs

The PGMA process provided in Chapter 35 of the Water Code should be a seamless process, continuing from PGMA study through PGMA designation to district creation. In practice, the process moves as intended up to the point of a TNRCC PGMA designation order. After this point the procedure is vague and implementation of the process halts for potential landowner actions. Statutory guidance is not clear on issues regarding the allowable opportunity for local action

to establish the needed management actions in the PGMA, the appropriate timing of educational programming, and the process whereby the TNRCC initiates and creates districts when local efforts have failed or not been taken. Further streamlining of TNRCC authority and the process to create groundwater conservation districts in designated PGMA's would benefit both state agencies charged with implementing these processes and landowners and local governments who need information about groundwater management options and required processes.

Chapter 35 provides a split in the PGMA process based upon the TNRCC's designation order. If the TNRCC's order finds that the PGMA should be added into an existing district, a definite procedure is given. However, if the TNRCC's designation order finds that groundwater district creation is needed in the PGMA, a vague district creation path is set forth. Under this path: 1) landowners are provided an unspecified period of time to create a district; 2) if local action is not taken, the TNRCC is required to identify the areas within the PGMA which have not created a district and "propose the creation of one or more districts;" 3) the TAEX educational program is initiated; and 4) the TNRCC district creation proceeding is initiated according to Subchapter B, Chapter 36 of the Water Code.

The time period allowed in §35.012 (c) for landowner-initiated actions in a designated PGMA is not clear. Clarification of an allowable time period for local action would provide clear guidance to local governments and landowners in a designated PGMA so that actions may be considered and initiated. Too long a time frame, however, impedes the establishment of needed management actions and limits the TNRCC's flexibility for action. Clarifying this time period would benefit both landowner and TNRCC district-creation efforts.

Under current statute, the authority, type of action, and triggers to initiate TNRCC district creation action are unclear. The provisions in §35.012 (d) for triggering the identification of areas not incorporated into districts, for TNRCC proposal of district boundaries, and for TNRCC proposal of district creation are not sufficiently outlined for the TNRCC to take appropriate actions. Subchapter B of Chapter 36 of the Water Code provides a landowner petition process which is not appropriate for TNRCC-initiated district creation actions. Specifically, the reference for TNRCC action to Subchapter B of Chapter 36 for district creation procedures can be interpreted to require a landowner petition and does not clearly indicate authority for TNRCC-initiated district creations. Addressing these issues with clear statutory guidance would streamline district creation in designated PGMA's.

The TAEX educational program occurs too late in the PGMA process to be of value for locally-initiated district creation actions. As required in §35.012 (d), the educational program conducted by the TAEX, in conjunction with other state agencies, is initiated prior to TNRCC-initiated action to create a groundwater district in a designated PGMA or upon request from an existing district if annexation of the designated PGMA is being pursued. The section can be read to provide that the educational program be initiated late in the designated PGMA district creation process with implementation not occurring until after the time frame allowed for local initiative to create a groundwater district in the designated PGMA. Initiating educational programming upon PGMA designation would benefit area landowners as well as close a gap in the process through continued communication with stakeholders.

PGMA Designation

Several problems are associated with conducting evidentiary or contested case hearings in the PGMA designation process. The level of resource commitment, procedural burden of becoming a party, and presentation of evidence through expert witness testimony associated with evidentiary hearings are major burdens to landowners, small businesses, and small organizations. Similar burdens are experienced by the participating state agencies. Chapter 35 of the Water Code does not provide guidance to the TNRCC or the State Office of Administrative Hearings related to the criteria for obtaining public comments on the TNRCC Executive Director's report and recommendations and demonstrating party status for the evidentiary hearing. The hearing process adds considerable time delays to an already lengthy PGMA designation schedule as a result of discovery requests and filing of legal motions, especially if more than a few parties seek and are designated as participants. A time frame placed on the hearing would streamline the process and thereby expedite the designation.

The evidentiary hearing in the PGMA designation process does not encourage meaningful stakeholder participation. Clarifying evidentiary hearing procedures for obtaining and responding to public comments and demonstrating party status would be beneficial to both the state agencies and the stakeholders. The process could be streamlined by identifying the issues to be examined during the hearing. Often, the concerns of stakeholders are associated with narrowly defined water use and availability issues or with individual parcels of property and not with the regional demonstrations needed in a PGMA designation. The issues could be limited to regional PGMA designation concerns.

Groundwater Management Issues

Designated groundwater management areas are essential to Chapter 36 provisions related to district creation and supporting coordinated groundwater management planning. Issues discussed under this heading pertain to the designation of groundwater management areas and other issues which the agencies believe affect or may affect the ability of groundwater conservation districts to manage groundwater resources within their jurisdictions.

Simplification of Groundwater Management Area Designation

The designation of a management area is required prior to a Commission district creation action but has not been a part of the legislative creation process since 1989. Its purpose is to define a physically manageable area of an aquifer to facilitate district management activities. Generally, management area boundaries are delineated to coincide with aquifer boundaries; however, the TNRCC may also consider the boundaries of political subdivisions. A designated groundwater management area must exist prior to or be developed simultaneously with TNRCC district creation.

The designation of groundwater management areas is often viewed as unnecessarily burdensome and complex. Groundwater management areas are delineated and designated by TNRCC in response to landowner petition. The TNRCC may designate management areas on its own motion. The designation of a management area is a separate action from the district creation proceeding, and is accomplished through a rule making proceeding. A management area designation requires resource-intensive research prior to developing a rule, which in itself is lengthy because of agency rulemaking processes.

Upon petition in the district creation process, it is burdensome for the TNRCC to conduct the management area rule development and the district creation process and order concurrently. The petitioners have largely assumed the burden of proof in a district creation petition and TNRCC's role is largely administrative. The burden of proof for designation of a management area lies with the TNRCC. The time frames and process milestones to develop an agency rule and to process a district creation petition are inconsistent. The complex process and lengthy time completion may deter some who are interested from pursuing district creation through the petition process.

In addition, Section 36.108 of the Water Code requires coordination of district management plans within designated groundwater management areas to address the concerns of aquifer-wide management. However, not all of the state's major and minor aquifers have been fully delineated or designated as groundwater management areas. Existing and future districts may be impeded in cooperative planning efforts facilitating regional aquifer management due to a lack of information or understanding of aquifer boundaries.

Exemptions for Groundwater District Permitting

Water Code, §36.117 provides exemptions, exceptions, and limitations related to groundwater conservation district water well permitting authority. This section of the Water Code has been repeatedly amended over numerous sessions as the powers and duties of groundwater conservation districts have evolved. The resulting language is confusing and difficult to interpret.

Most groundwater districts are created by local citizens with the expectation that the district will manage the groundwater resources for the benefit of all within its jurisdiction. Fulfilling this expectation may fall short in any given district because of the exemptions that are provided in §36.117. Currently allowed exemptions from district permitting include wells incapable of producing more than 25,000 gallons per day; domestic wells supplying 10 or fewer households; livestock wells; and wells supplying water for exploration, production, and other activities permitted by the Railroad Commission of Texas. A number of aquifers within the state are not capable of producing 25,000 gallons per day and the pumpage limit often prevents the protective measures for which local districts have been created. These aquifers, because of low productivity, are susceptible to drought conditions and to heavy or dense land development. This "floor of regulation" has also discouraged the creation of groundwater conservation districts in some parts of the state, as most of the wells would be outside of a potential district's authority to protect, conserve, and preserve the groundwater resource.

District Confirmation Elections

Language in Chapter 36 may place confirmation election impediments for the creation of multi-county districts. As provided in §36.017 (g), if a majority of the votes cast at a groundwater conservation district confirmation election are against the creation of the district, the temporary board shall declare the district defeated. However, two other sections of Chapter 36 deal more specifically with multi-county district confirmation elections. Section 36.012 (b) provides that a district

may not include territory located in more than one county except on a majority vote of the voters residing in each county. Further, §36.019 states that “a district, the major portion of which is located in one county, may not be organized to include land in another county unless the election held in the other county to confirm and ratify the creation of the district is approved by a majority of the voters of the county voting in an election called for that purpose.”

It is clear that for a county to be included in a district, the voters in that county must approve the district. Since §§36.012 and 36.019 are more specific than the general election provision in §36.017, it appears that the approving county or counties would still be in the district. However, it could be argued that in an election for a district in more than one county, both a majority of the voters in the entire area and a majority of voters in each county must approve the district. For example, if a two-county district is taken to the voters and one county approves the district and one does not, and the majority of voters in both counties together do not approve the district, there would be no district. Under the same scenario, if a majority of the voters in both counties together approve the district, the approving county would be the district. This issue could likely keep small-population counties from becoming districts if these counties are included with larger-population counties that disapprove the district.

Special Law Issues

Issues discussed under this heading concern specific, existing groundwater conservation districts. These issues include districts that require ratification for continued existence, problems encountered by districts during the addition of territory, and lack of confirmation of a district.

Ratification of Senate Bill 1911 Districts

Each of the 13 temporary districts created by SB 1911 (Chapter 1330, Acts of the 76th Legislature, Regular Session, 1999) require ratification in 2001. Any of these districts that are not ratified by the 77th Legislature will be dissolved on September 1, 2001 and will have no further authority except to maintain the district’s organization until any incurred debts are paid.

Section 13 of the Act also provides that these districts may be modified by subsequent special law including modifications in response to recommendations from interim studies or committees. Such recommendations listed by the Act include the possibility of adding additional area to the districts or merging the

districts with other districts for the purpose of efficient and effective management of common groundwater resources.

Addition of Territory to Districts

During the 1999 - 2000 biennium, three special-law groundwater conservation districts encountered problems while adding territory or attempting or contemplating the addition of territory. The general problem for the districts was inconsistency between their enabling legislation and general law relating to the addition of territory when in each case, the enabling legislation controlled.

The Haskell/Knox County Underground Water Conservation District added Baylor County by election of the county's voter on August 12, 2000. However, the district's enabling legislation (Chapter 1028, Acts of the 73rd Legislature, Regular Session, 1993) does not allow the directors to change the make-up or membership of the board of directors. Therefore, the residents of Baylor County do not presently have representation on the district's board. The district's board intends to have an equal number of directors from each of the three counties and has indicated that it will pursue amendment of the district's enabling legislation to provide representation to Baylor County and any other area that may be added in the future.

On May 16, 2000, the Lipan-Kickapoo Water Conservation District was petitioned by landowners in Concho, Tom Green, and Runnels counties to be added to the district. On June 28, 2000, the board of directors of the Lipan-Kickapoo WCD voted to delay the annexation of territory into the district for continued educational programming. The district has noted that its enabling legislation (Chapter 439, Acts of the 70th Legislature, Regular Session, 1987) will need to be amended to provide adequate board member representation for any areas outside of Concho and Tom Green counties that may be added to the district in the future.

Similar constraints were found by TNRCC staff while researching groundwater management options for the Midland and Upton county portions of the Reagan, Upton, and Midland County PGMA. One of the viable options for groundwater management in the PGMA would be adding the Midland and Upton county portions of the PGMA to the Glasscock County Underground Water Conservation District. However, the district's enabling legislation (Chapter 489, Acts of the 67th Legislature, Regular Session, 1981) caps the number of board members to five and effectively prevents the district from providing added areas their own representation on the board of directors.

Recommended Changes to Texas Water Code, Chapters 35 and 36

TNRCC respectfully submits the following recommendations regarding changes to Chapter 35, Groundwater Studies and Chapter 36, Groundwater Conservation Districts based on agency experiences with current procedures. The recommendations are categorized under issue headings related to PGMA process clarification and groundwater management.

The Interim Senate Committee on Natural Resources and the Interim House Committee on Natural Resources have recently issued reports that examine and address groundwater management. The Committee reports were completed after conducting hearings and studies during the interim since the last legislative session. Each Committee's report provides findings and recommendations to facilitate groundwater management in the state (Texas Senate Natural Resources Committee, 2000 and Texas House Committee on Natural Resources, 2000).

In the spring of 2000, the Texas Water Development Board funded a study to work with stakeholders to build consensus recommendations for improving future groundwater management in Texas. Over 200 interested parties were asked to select specific participants to represent the various interests involved in the issues. Ultimately, 32 participants were selected of which 28 actively participated. The TWDB facilitated three meetings of the group. An initial meeting was held on May 23 and 24, 2000 to identify issues, lay ground rules, and assign participants to issue-specific subgroups. An interim meeting was held on July 24, 2000 to further identify issues where consensus recommendations were considered plausible and assign more contentious issues to negotiation teams. A final meeting was held on August 30 and 31, 2000 to vote on and finalize the group's consensus recommendations (TWDB, 2000).

The group developed consensus recommendations on seven issues: science, management areas and priority groundwater management areas, joint planning by districts managing a common resource, exemptions from district well-permitting authority, district funding, water marketing and exports, and conservation and drought conditions planning. Dissenting opinions were allowed and are included in the group's final report. The group provided its consensus recommendations on these issues to the House and Senate Natural Resource Committees for their consideration in September 2000.

PGMA Process Clarification Recommendations

The Commission creation of a groundwater district in a designated PGMA, after the opportunity for local action, should be clarified. The provisions in §35.012(d) for triggering the identification of areas not incorporated into districts, for Commission proposal of district boundaries, and for Commission proposal of district creation are not sufficiently outlined for specific Commission actions. The reference in §35.012(d) to Subchapter B, Chapter 36 for Commission district creation procedure is problematic. **It is recommended that the reference should be replaced with specific references for Commission-initiated district creation authority and procedure.**

The time period allowed for landowner-initiated actions in a designated PGMA is not clear. **It is recommended that the opportunities for landowner actions in a designated PGMA should be separated as a specific section in Chapter 35 in order to clarify the procedure. It is suggested that language should be added to provide that if local action is not taken, the Commission must initiate groundwater district creation in a designated PGMA within a specified period of time.**

The requirement for an evidentiary hearing in the PGMA designation process does not encourage meaningful stakeholder participation, adds significant time delays in a contested case, and is resource intensive for both the participating parties and affected state agencies. The procedure for evidentiary hearings should be expedited and should be clarified specifically related to obtaining and responding to public comments, limiting hearing scope, and to identifying criteria for demonstrating party status. **It is recommended that the PGMA designation evidentiary hearing process in Chapter 35 be amended to streamline and clarify the process.**

Groundwater Management Recommendations

The designation of groundwater management areas is often viewed as unnecessarily burdensome and complex. A designated groundwater management area must exist prior to or be developed simultaneously with Commission district creation. The designation of a management area is a separate action from the district creation proceeding, and is accomplished through a rule making proceeding. The time frames and process milestones to develop an agency rule and to process a

district creation petition are inconsistent. The complex and lengthy process may deter interested landowners from pursuing district creation through the petition process if the designation of a management area is also required. **It is recommended that the groundwater management area designation process in Chapter 35 be streamlined.**

The district confirmation provisions of Chapter 36 are not clear and may, in certain cases, appear to be in conflict. It is clear that to be included in a district, the voters in a county must approve creation of the district. Under the general confirmation election provision, §36.017 (g), if the majority of the votes cast are for the creation of a district, the district is created. If the majority of the votes cast are against the creation of a district, the district is failed. However, under §§36.012 (b) and 36.019 (the more specific provisions for confirming multi-county districts), it is unclear if a majority of votes is needed in both, the entire area and in each county for the district to be created. This issue could potentially be damaging to the creation of multi-county districts if larger-population counties defeat a confirmation election at the expense of adjoining smaller-population counties that have voted in favor of such district creation. **It is recommended that the confirmation election provisions of Chapter 36 relating to multi-county districts be clarified and that a district should be created in each county that votes in favor of such.**

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TNRCC/TWDB Report to the 77th Legislature

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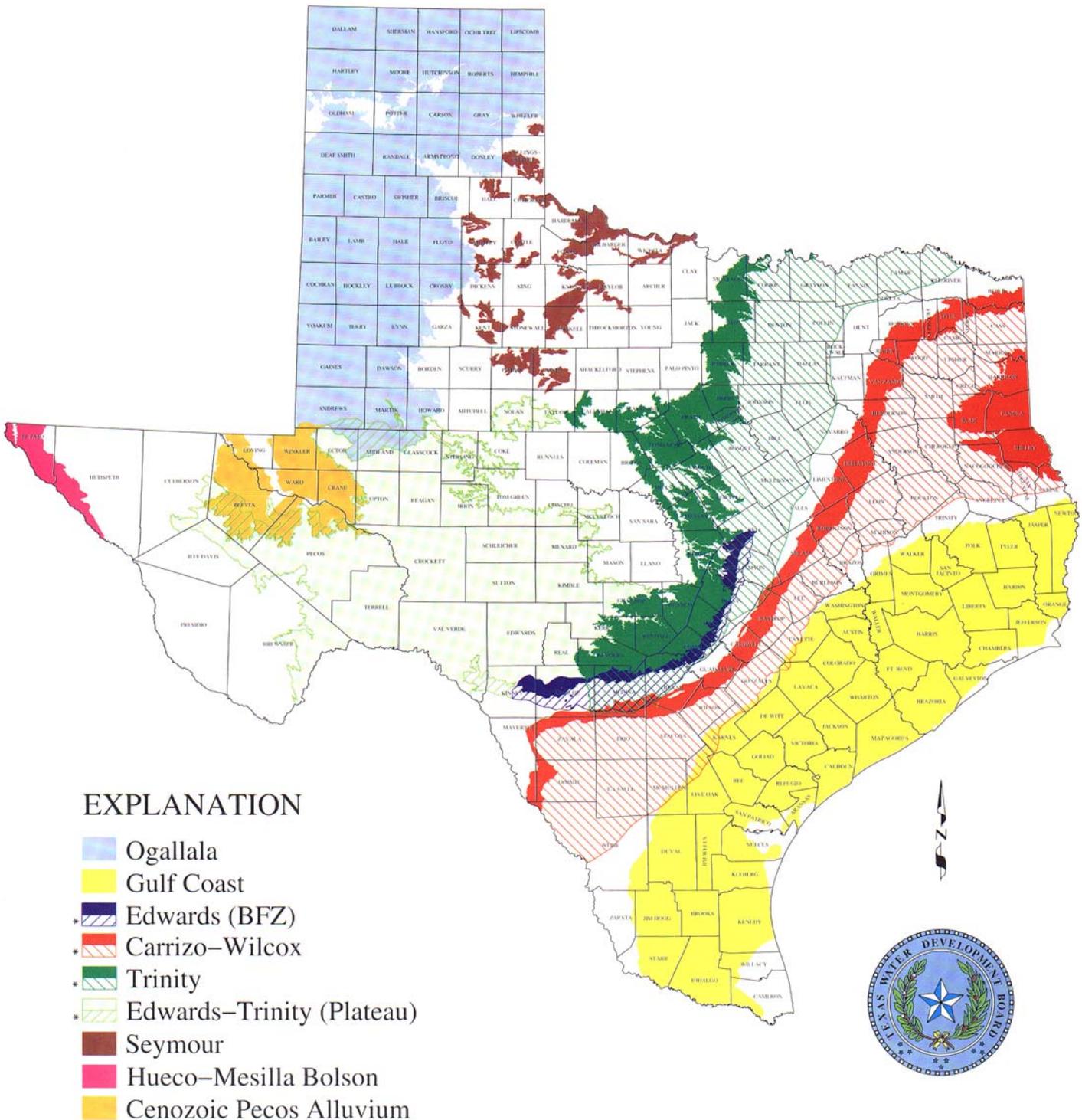
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APPENDIX 1. Major and Minor Aquifer Maps

MAJOR AQUIFERS OF TEXAS

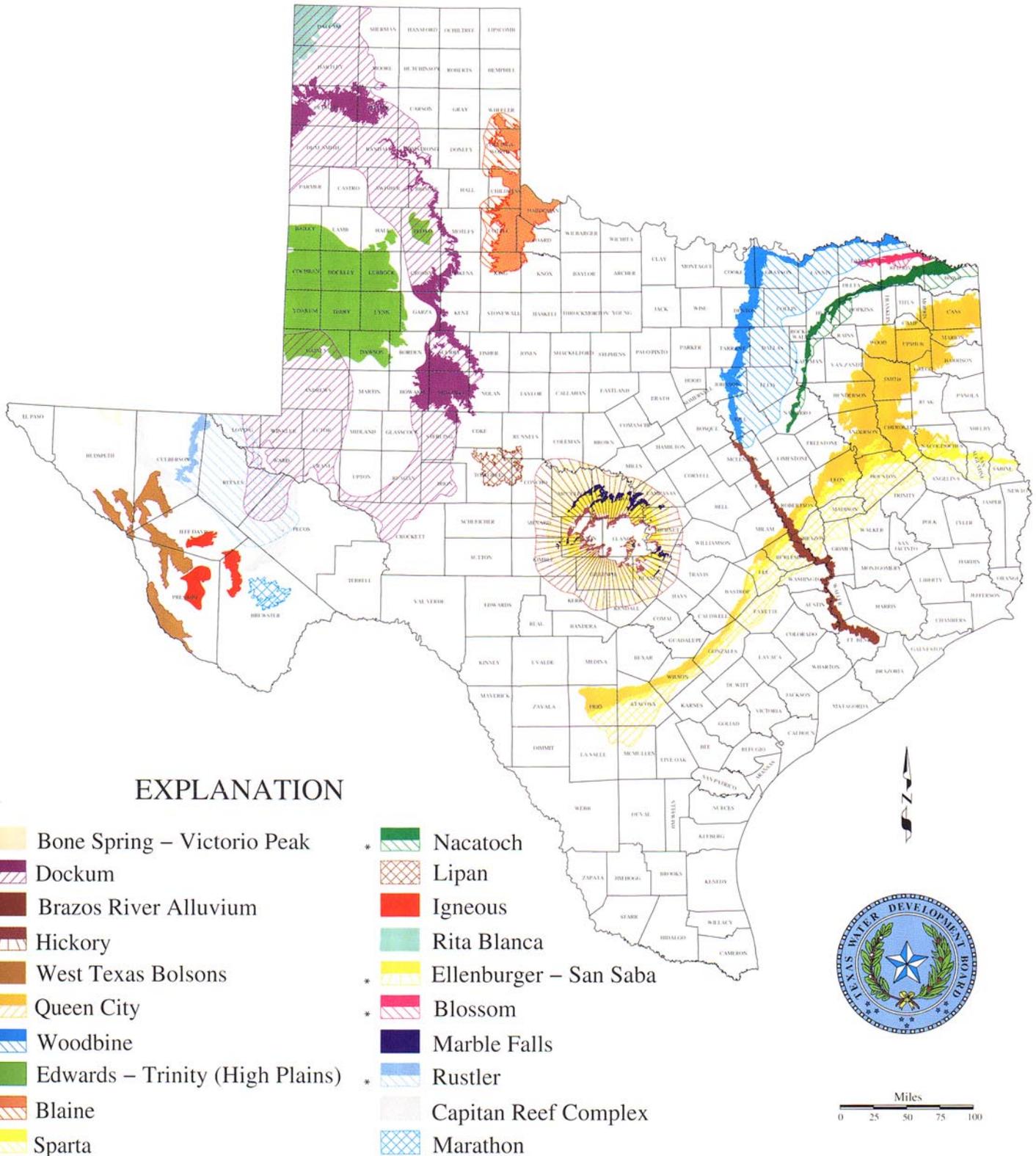


OUTCROP (That part of a water-bearing rock layer which appears at the land surface.)

* DOWNDIP (That part of a water-bearing rock layer which dips below other rock layers.)



MINOR AQUIFERS OF TEXAS



January 1994

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

APPENDIX 2. Priority Groundwater Management Area Studies and Reports

Area 1; 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.

Area 2; 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.

Area 3; 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.

Kalaszad, 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.

Area 4; 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.

Area 5; 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.

Area 6; 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.

Area 7; 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.

Area 8; 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.

Area 9; 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.

Area 10; 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.

Area 11; 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.

Area 12; 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.

Area 13; 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.

Area 14; Wintergarden Area

Stengl, Burgess, 1991, *Ground Water Protection and Management Strategies for the Wintergarden Area*; Texas Water Commission file report, May 1991, 56 pp.

McCoy, T. Wesley, 1991, *Evaluation of the Ground-Water Resources of the Western Portion of the Winter Garden Area, Texas*; Texas Water Development Board Report 334, October 1991, 64 pp.

Area 15; 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.

Area 16; 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.

Area 17; 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.

APPENDIX 3. Groundwater Conservation District Contacts

CREATED DISTRICTS

Mr. Oren Williams, President
**Anderson County Underground Water
Conservation District**

Route 3, Box 3885
Palestine, Texas 75081
Phone No. (903) 729-6375

Mr. Stovy Bolin, Manager
**Barton Springs/Edwards Aquifer Conservation
District**

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Austin, Texas 78748
Phone No. (512) 282-8441
FAX No. (512) 282-7016
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(Parl. - Texas Alliance of Groundwater Districts)

Mr. Thomas C. Moreno, General Manager
Bexar Metropolitan Water District

2047 West Malone
San Antonio, Texas 78223
Phone No. (210) 354-6500
FAX No. (210) 922-5152

Mr. Donald J. Mackie, President
**Clearwater Underground Water Conservation
District**

P.O. Box 729
Belton, Texas 76513
Phone No. (254) 933-0120
Fax No. (254) 939-0885

Mr. Winton Milliff, Manager
**Coke County Underground Water Conservation
District**

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Robert Lee, Texas 76945
Phone No. (915) 453-2232
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Email: ccuwcd@gte.net
(Member - Texas Alliance of Groundwater Districts)

Mr. Neil Davis, Manager
**Collingsworth County Underground Water
Conservation District**

802 Ninth Street
Wellington, Texas 79095
Phone No. (806) 447-5341

Ms. Katy Hoskins, Secretary
**Culberson County Groundwater Conservation
District**

P.O. Box 1295
Van Horn, Texas 79855
Phone No. (915) 283-8182
FAX No. (915) 283-1148
Email: 102236.2071@compuserve.com
(Member - Texas Alliance of Groundwater Districts)

Mr. Glen Olson, Manager
**Dallam County Underground Water Conservation
District No. 1**

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(Pres. - Texas Alliance of Groundwater Districts)

Mr. Russell C. Jones, Chairman
Fort Bend Subsidence District
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Mr. Dale Henry, Chairman
Fox Crossing Water District
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(Member - Texas Alliance of Groundwater Districts)

Mr. Ferrell Wheeler, Chairman
Garza County Underground and Fresh Water Conservation District
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Mr. Rick Harston, Manager
Glasscock County Underground Water Conservation District
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Mr. Stanley Reinhard, Manager
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Mr. John D. Meetze, President
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Mr. Scott Holland, Manager
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Ms. Janet Adams, Manager
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Mr. Jason Coleman, Manager
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Ms. Luana Buckner, Manager
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Mr. Harvey Everheart, Manager
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(VP - Texas Alliance of Groundwater Districts)

Mr. Richard S. Bowers, Manager
North Plains Groundwater Conservation District
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FAX No. (806) 935-6633
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(Member - Texas Alliance of Groundwater Districts)

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Mr. Frank Acosta, Jr., Lab/Field Technician
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(Member - Texas Alliance of Groundwater Districts)

Ms. Cindy Cawley, Manager
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(Member - Texas Alliance of Groundwater Districts)

Mr. James A. Holt, Jr., President
Plum Creek Conservation District

P.O. Box 328
Lockhart, Texas 78644
Phone No. (512) 398-2383

Mr. Kerr Mitchell, President
Presidio County Underground Water Conservation District

P.O. Box 86
Marfa, Texas 79843
Phone No. (915) 358-4611
FAX No. (915) 358-4611

The Honorable W. B. Sansom
Real County Judge
Real-Edwards Conservation and Reclamation District

P.O. Box 446
Leakey, Texas 78873
Phone No. (830) 232-5304
FAX No. (830) 232-6040

Mr. Buddy Baldrige, President
Salt Fork Underground Water Conservation District

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Phone No. (806) 237-9125

Mr. Gary Walker, Independent Contractor
Sandy Land Underground Water Conservation District

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(Kathy Jones, Secretary - Texas Alliance of Groundwater Districts)

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Mr. Jason Coleman, Manager
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INTERIM DISTRICTS BY 76TH LEGISLATURE

Mr. Marcus Greaves, President

Brazos Valley Groundwater Conservation District

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The Honorable James W. (Bill) Gooden, President

Cow Creek Groundwater Conservation District

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S.F. Ruschhaupt, President

Crossroads Groundwater Conservation District

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Victoria, Texas 77905

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Phone No. (361) 572-9775 - Home

FAX No. (361) 573-2627

Mr. Jack Hollon, President

Hays Trinity Groundwater Conservation District

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Wimberley, Texas 78676

Phone No. (512) 847-2708

Ms. Wendi Fuller, Manager

Lone Wolf Groundwater Conservation District

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Colorado City, Texas 79512

Phone No. (915) 728-2298

FAX No. (915) 728-3046

Mr. John Burke, President

Lost Pines Groundwater Conservation District

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Phone No. (512) 581-9056

FAX No. (512) 303-4881

Mr. Clifford McTee, Chairman

McMullen Groundwater Conservation District

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Tilden, Texas 78072

Phone No. (210) 479-7060 (Home; fax no. same)

Phone No. (361) 274-3365 (Ranch; fax no. same)

Phone No. (361) 274-3341 (Courthouse)

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email: L7ranch@vstanet.com (Ranch)

Mr. Glenn Honaker, Chairman

Middle Pecos Groundwater Conservation District

Rt. 1 Box 140

Fort Stockton, Texas 79735

Phone No. (915) 395-2460 (Business)

Phone No. (915) 336-5932 (Home)

Mr. A.R. (Felo) Guerra, Temporary Director

Red Sands Groundwater Conservation District

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Linn, Texas 78563

Phone No. (956) 383-2602

Mr. Christopher Bush, Chairman

Refugio Groundwater Conservation District

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Refugio, Texas 78377

Phone No. (361) 526-5373

Mr. Chris Dullnig, President

Southeast Trinity Groundwater Conservation District

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email: southeasttrinity@yahoo.com

Mr. A.A. Rodgers, Chairman

Texana Groundwater Conservation District

8051 Co. Rd. 283

Edna, Texas 77957

Phone No. (361) 782-2663

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

CREATED/UNCONFIRMED

Tryne Mengers, Temporary Director
Bee Groundwater Conservation District
Rt. 1, Box 116
Tynan, Texas 78391
Phone No. (361) 547-9729
Mobile No. (361) 319-0229
FAX No. (361) 547-2777
(Created during the 75th Legislature, 1997)

Ms. Shirley S. Beck, Member
Blanco-Pedernales Groundwater Conservation District
641 White Springs Ranch Road
Blanco, Texas 78606-5213
Phone No. (830) 833-4868
email: sbeck@moment.net
(Created by October 4, 2000 TNRCC Order)

CREATED/FAILED CONFIRMATION

Central Texas Underground Water Conservation District
(Failed August 28, 1989 election)

Llano-Uplift Underground Water Conservation District
(Failed August 30, 1993 election)

Rolling Plains Underground Water Conservation District
(Failed June 19, 1994 election)

San Patricio Groundwater Conservation District
(Failed January 17, 1997 election)

DISSOLVED

Martin County Underground Water Conservation District No. 1
(Dissolved by Legislature in 1985)

REPEALED

Mr. Richard Brainard, Temporary Director
Oldham County Underground Water Conservation District
Phone No. (806) 267-2478

(Created during the 74th Legislature, 1995)
(Subject to SB 1 dissolution; September 1, 1999)
(Did not conduct election; enabling act repealed September 1, 1999)

ABOLISHED

Edwards Underground Water District
(June 28, 1996)

APPENDIX 4. Internet Links

House Research Organization

<http://www.capitol.state.tx.us/hrofr/hrofr.htm>

Texas Administrative Code (State Agency Rules)

<http://204.65.105.13/tac/>

Texas Agricultural Extension Service

<http://agextension.tamu.edu>

Texas Alliance of Groundwater Districts

<http://www.texasgroundwater.org/>

Texas Department of Agriculture

<http://www.agr.state.tx.us/>

Texas Legislature

<http://www.capitol.state.tx.us/>

Texas Natural Resource Conservation Commission

<http://www.tnrcc.state.tx.us/>

Texas Parks and Wildlife Department

<http://www.tpwd.state.tx.us/>

Texas Statutes

<http://www.capitol.state.tx.us/statutes/statutes.html>

Texas Water Development Board

<http://www.twdb.state.tx.us/>

Senate Research Center

<http://www.senate.state.tx.us/SRC/index.htm>

State Auditor's Office

<http://www.sao.state.tx.us/>