



District Management Plan

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Revision One – Adopted May 21, 2012

Central Texas Groundwater Conservation District
District Management Plan

REVISION RECORD

<u>Date</u> <u>Adopted</u>	<u>Effective</u> <u>Date</u>	<u>Affected Sections or General Comments</u>
4/16/07	4/16/07	Original Adoption
5/21/12	5/21/12	Revision 1: 5 year Statutory Review, General Revisions, and New Chapter 36 Requirements Including DFC's

TABLE OF CONTENTS

I.	DISTRICT MISSION	4
II.	PURPOSE OF THE MANAGEMENT PLAN	4
III.	DISTRICT INFORMATION.....	5
IV.	STATEMENT OF GUIDING PRINCIPLES	18
V.	CRITERIA FOR PLAN CERTIFICATION.....	18
VI.	ESTIMATES OF TECHNICAL INFORMATION REQUIRED BY TWC §36.1071 / 31TAC 356.5.....	19
VII.	CONSIDER THE WATER SUPPLY NEEDS AND WATER MANAGEMENT STRATEGIES INCLUDED IN THE ADOPTED STATE WATER PLAN-TWC §36.1071(E)(4).....	24
VIII.	DETAILS ON THE DISTRICT MANAGEMENT OF GROUNDWATER	25
IX.	ACTIONS, PROCEDURES, PERFORMANCE AND AVOIDANCE FOR PLAN IMPLEMENTATION	26
X.	METHODOLOGY FOR TRACKING DISTRICT PROGRESS IN ACHIEVING MANAGEMENT GOALS–31 TAC 356.5(a)(6).....	26
XI.	GOALS, MANAGEMENT OBJECTIVES and PERFORMANCE STANDARDS.....	27
XII.	MANAGEMENT GOALS DETERMINED NOT-APPLICABLE TO THE DISTRICT .	30
BIBLIOGRAPHY		31
APPENDIX A		32
APPENDIX B		39
APPENDIX C		41
APPENDIX D.....		43
APPENDIX E.....		44
APPENDIX F.....		45
APPENDIX G		46
APPENDIX H		47
APPENDIX I.....		49
APPENDIX J		51
APPENDIX K		52
APPENDIX L.....		53
Figure 1 Location and Boundaries of the Central Texas Groundwater Conservation District.....		7
Figure 2 Occurrence of the Trinity Aquifer in Burnet County.....		9
Figure 3 Occurrence of the Marble Falls Aquifer in Burnet County		11
Figure 4 Occurrence of the Ellenburger-San Saba Aquifer in Burnet County.....		12
Figure 5 Occurrence of the Hickory Aquifer in Burnet County.....		13
Figure 6 Occurrence of Granite Gravel Aquifer in Burnet County.....		15
Figure 7 Occurrence of Granite Aquifer in Burnet County.....		16
Table 1 Geologic and hydrogeologic units of Burnet County (after Preston and others, 1996)		17

I. DISTRICT MISSION

The mission of the Central Texas Groundwater Conservation District (District) is to protect and enhance the groundwater resources of Burnet County while protecting groundwater users and maintaining the economic vitality of the communities it serves, by adopting and enforcing rules consistent with State law.

II. PURPOSE OF THE MANAGEMENT PLAN

Senate Bill 1 (SB 1), enacted by the 75th Texas Legislature in 1997, and Senate Bill 2 (SB 2), enacted by the 77th Texas Legislature in 2001, established a comprehensive statewide planning process and the actions necessary for districts to manage and conserve the groundwater resources of the state of Texas. These bills required all underground water conservation districts to develop a management plan which defines the water needs and supply within each district and the goals each district will use to manage the underground water in order to meet its needs. In addition, the 79th Texas Legislature enacted HB 1763 in 2005 that requires joint planning among districts that are in the same Groundwater Management Area (GMA). These districts must establish the desired future conditions of the aquifers within their respective GMAs. Through this process, the districts will submit the desired future conditions to the executive administrator of the Texas Water Development Board (TWDB) who will provide each district with the estimates concerning the modeled available groundwater in the management area based on the desired future conditions of the aquifers in the area. Technical information, such as the desired future conditions of the aquifers within the District's jurisdiction and the amount of modeled available groundwater from such aquifers is required by statute to be included in the District's management plan and will guide the District's regulatory and management policies. This management plan is intended to satisfy the requirements of SB 1, SB 2, HB 1763, the statutory requirements of Texas Water Code (TWC) Chapter 36, and the rules and requirements of the TWDB.

This plan is required by the TWC and developed in accordance with instruction from the TWDB. The TWC and the TWDB require use of certain data provided by the TWDB. The projections of future water demands, surface water availability, water management strategies, and groundwater use in Burnet County were all provided to the District by TWDB. This document should be considered as a PLAN and will be used to identify activities or programs that the District will develop. The District considers the collection and development of site-specific data on groundwater use in Burnet County and the groundwater sources of Burnet County to be a high priority. This Plan will be updated as the District develops the site-specific data on the local groundwater use and aquifer conditions. The District is not restricted by the TWC or TWDB as to the frequency with which the Plan may be updated if considered it is appropriate by the District.

III. DISTRICT INFORMATION

A. Creation

The 79th Texas Legislature (Regular Session) created the District in 2005 by passage of SB 967. (Appendix A) The citizens of Burnet County confirmed creation of the District by an election held on September 24, 2005. The District was formed to protect the underground water resources for the citizens of Burnet County. To manage the groundwater resources under its jurisdiction the District is charged with the rights and responsibilities specified in its enabling legislation; the provisions of Chapter 36 of the Texas Water Code; this Management Plan, and the District Rules.

B. Directors

The Board of Directors consists of five members. These five directors are elected by the voters of Burnet County and serve a four-year term. The District observes the same four precincts as the Burnet County Commissioners with one at-large position. Director terms are staggered on a two-year interval. Elections are held in even numbered years. A director may serve consecutive terms.

C. Authority

The District has the rights and responsibilities provided for in TWC Chapter 36 and 31 Texas Administrative Code (TAC) Chapter 356. The District is charged with undertaking hydrogeological studies, adopting a management plan, providing for the permitting of certain water wells and implementing programs to achieve statutory mandates. The District has rule-making authority to implement the policies and procedures needed to manage the groundwater resources of Burnet County.

D. Location and Extent

The boundaries of the District are the same as Burnet County. (Figure 1) This area encompasses approximately 1,019 square miles (approximately 652,160 acres). The District is bounded by Lampasas County to the north, Bell and Williamson Counties to the east, Travis and Blanco Counties to the south, and Llano and San Saba Counties to the west. Burnet County has a vibrant economy.

E. Topography and Drainage

Burnet County is located on the margin of two geographic regions. The eastern portion of the County is located in the Hill Country Region of the Balcones Escarpment. The western portion of the County is located in the Llano Uplift Region. The Colorado River and its tributaries drain the western and southern portions of the County. The tributaries of the Brazos River drain the northern and eastern portions the County.

F. Groundwater Resources of Burnet County

Burnet County enjoys a variety of groundwater resources. TWDB recognizes one major and three minor aquifers in the County. In addition to the aquifers defined by TWDB, there also exist two local water bearing formations that are important sources of water in Burnet County. The TWDB classifies groundwater sources as major or minor aquifers. Major aquifers are defined by TWDB as aquifers that are capable of producing large yields to wells or that produce groundwater over a large area. TWDB has established no definition for a large area, but a large yield may be considered as greater than 500 gallons per minute. Minor aquifers are defined by TWDB as aquifers that may be capable of producing only limited yields to wells or that produce groundwater over a limited area. TWDB has established no definition for a limited area, but a limited yield may be less than 100 gallons per minute. Many localized sources of groundwater may not be listed as a major or minor aquifer by TWDB. However, TWDB recognizes that these classifications, or lack thereof, have no bearing on the local importance of a particular source of groundwater. The District is committed to better defining the extent and character of the complex groundwater resources of Burnet County. The geologic layers and hydrogeologic units of Burnet County can be found in Table 1.

CENTRAL TEXAS GROUNDWATER CONSERVATION DISTRICT BOUNDARY

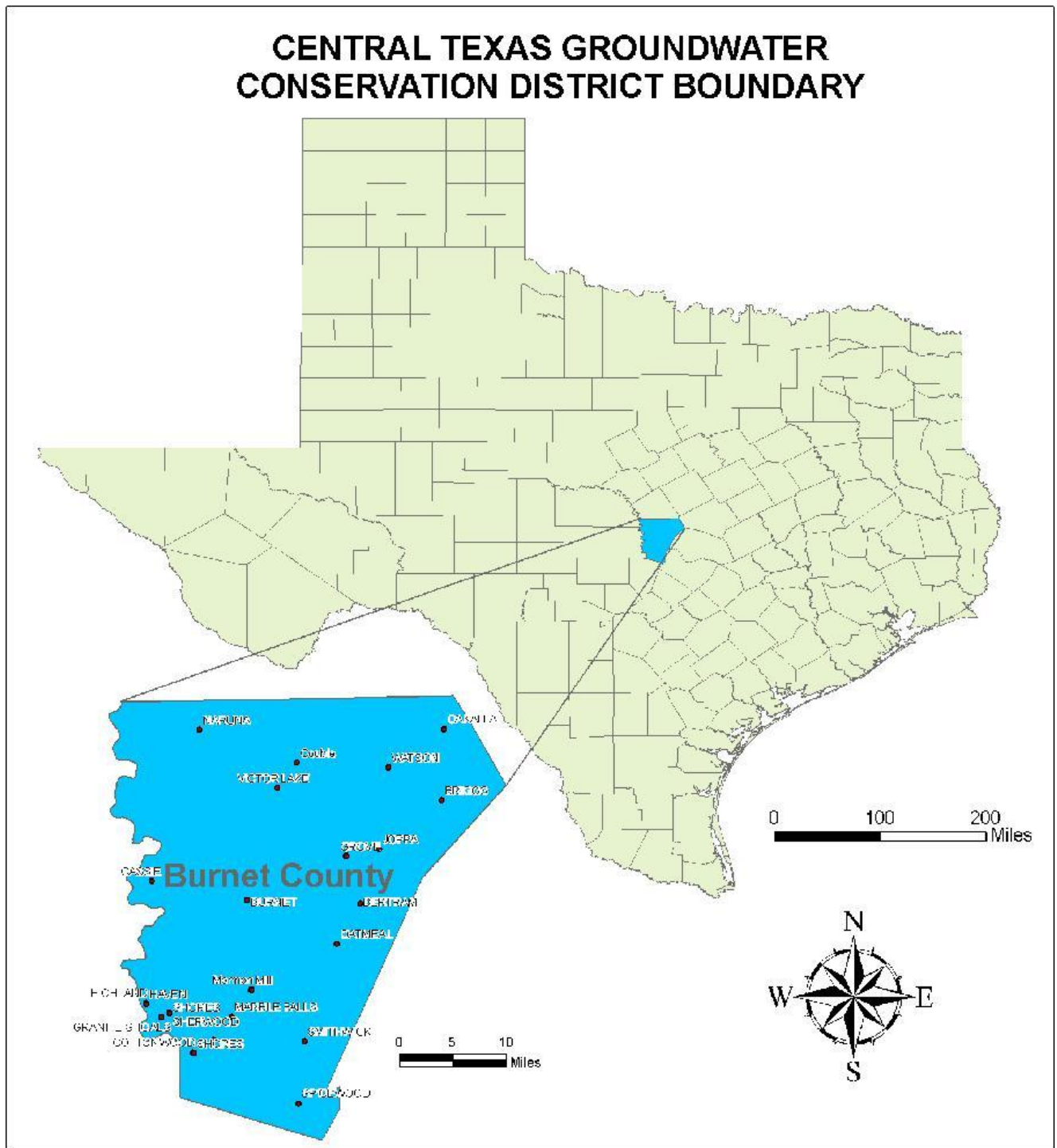


Figure 1, Location and Boundaries of the Central Texas Groundwater Conservation District

Major Aquifer

The only major aquifer located in Burnet County is the Trinity aquifer. (Figure 2)

Trinity Aquifer

The Trinity aquifer is composed of three subdivisions; the Upper Trinity; the Middle Trinity and the Lower Trinity aquifers. The Upper Trinity aquifer is composed of the Paluxy Sand and Glen Rose Formation; the Middle Trinity aquifer is composed of the Hensell Sand and Cow Creek Limestone; and the Lower Trinity aquifer is composed of the Sligo Limestone and Hosston Sand.

The following descriptions are taken from the District's report *Trinity Aquifer Characterization and Groundwater Availability Assessment Burnet County, 2011*.

Hosston

The Hosston is present in the extreme eastern and southeastern part of Burnet County. The outcrop equivalent of the Hosston is the Sycamore Sand, which outcrops along the Colorado River. Well yields are often small, generally less than 20 gallons per minute (gpm). The unit is generally non-water bearing, except beneath the surface of Lake Travis where more permeable facies exist. Well data from southeastern Burnet County appear to support this conclusion. The Hosston, some distance north of Lake Travis, is generally thin and not a significant source of groundwater. The Hosston has not been found in the western or northwestern part of the Trinity aquifer area of the District. The Hosston is not considered a significant source of groundwater in the District.

Cow Creek Limestone Member

The Cow Creek ranges in thickness from 35 feet in the west to about 140 feet in the east. The Cow Creek is defined as the interval from the base of the Hensell Sand to the Hosston or the Ellenburger/Smithwick. The Cow Creek, being below the Hensell sand is saturated, but yielded no significant groundwater during drilling of the District monitor wells. The Cow Creek is not considered a significant source of groundwater in the District.

Hensell Sand Member

The Hensell Sand is the primary source of groundwater in the Trinity aquifer of the District. Except for wells completed in the Ellenburger below the Trinity in the western part of the Trinity area, the vast majority of wells are completed in the Hensell. Well yields in the Hensell are generally in the range of 10-40 gpm. However, along Hwy. SH-29, well yields are frequently estimated to be greater than 50 gpm, and even up to 100+ gpm. A City of Burnet well was operated at 250 gpm for short periods.

Glen Rose Limestone

The Glen Rose overlies the Hensell Sand and is a limited source of groundwater in the District. The primary limitation is saturated thickness. Thus, the Glen Rose is a source of groundwater in the District, but is dependent upon location.

Paluxy Formation

The Paluxy overlies the Glen Rose and is present in the upland inter-stream areas. The formation is thin and unrecognizable during drilling. The Paluxy is not a source of groundwater in the District.

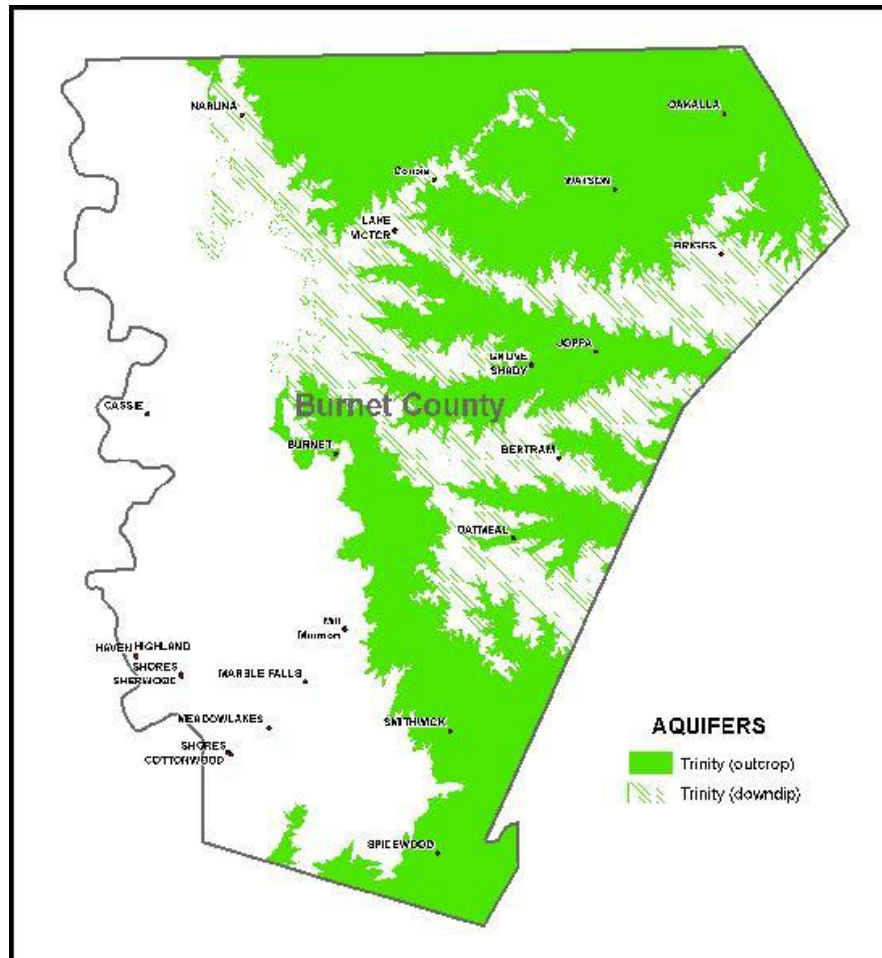


Figure 2, Occurrence of the Trinity Aquifer in Burnet County

Minor Aquifers

The groundwater sources that are not recognized as major aquifers by TWDB are particularly important to Burnet County. There are three aquifers recognized as minor aquifers by TWDB that occur in Burnet County. Minor aquifers are defined by TWDB as aquifers that may be capable of producing only limited yields to wells or that produce groundwater over a limited area. TWDB has established no definition for a limited area, but a limited yield may be less than 100 gallons per minute. In many areas wells produce water from formations which are not recognized as major or minor aquifers and may not have a large area of occurrence but which are vitally important local sources of groundwater. The information available on the characteristics of each of these minor aquifers and unrecognized formations is limited, particularly when compared to the data currently existing on major aquifers like the Trinity Aquifer. Even though TWDB recognizes the potential local importance of unrecognized sources of groundwater little or no research may have been devoted to defining the extent or characterizing these resources. This is particularly true where local groundwater management agencies did not exist.

Marble Falls Aquifer

The Marble Falls aquifer occurs in several separated outcrops. Water occurs in fractures and solution cavities in the limestone of the Marble Falls Formation of the Pennsylvanian Bend Group. Maximum thickness of the formation is 600 feet, but the thickness in Burnet County is unclear. The quality of water produced from the aquifer is suitable for most purposes. The Marble Falls aquifer is not known to have a down-dip extent in Burnet County and may occur only in the several outcrop areas. (Ashworth and Hopkins, 1995) The recharge zone of the aquifer in Burnet County is approximately 15,790 acres. (Figure 3)

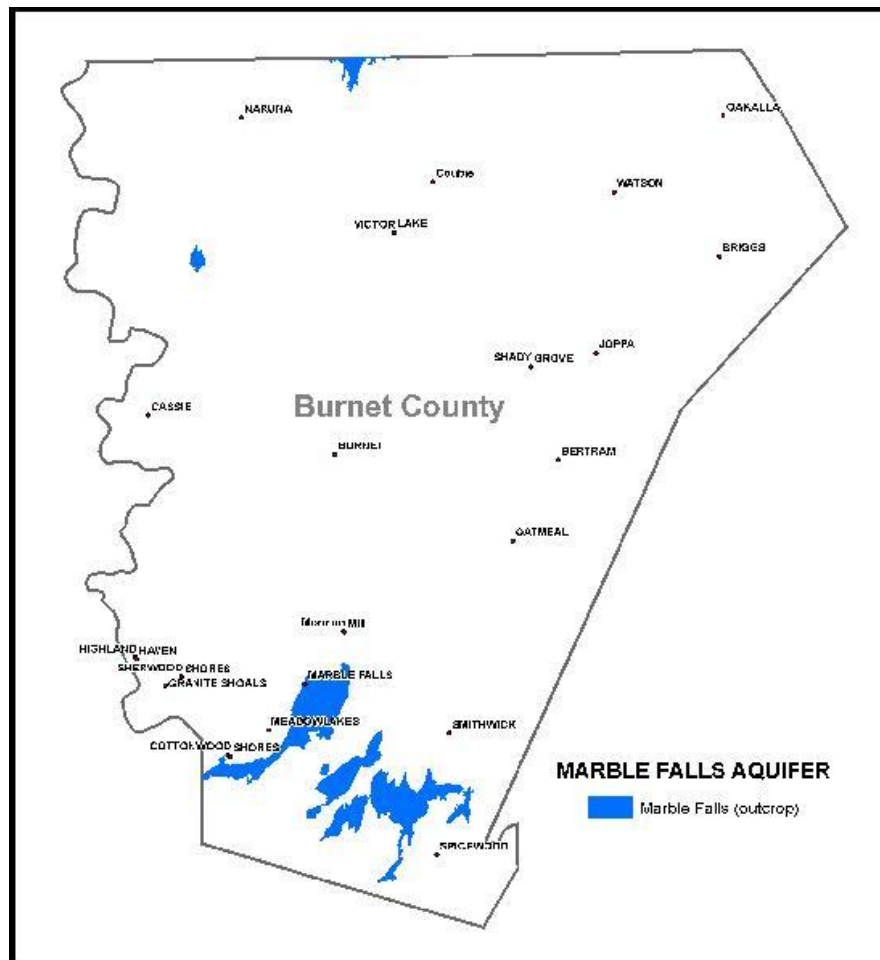


Figure 3, Occurrence of the Marble Falls Aquifer in Burnet County

Ellenburger-San Saba Aquifer

The Ellenburger-San Saba aquifer occurs along the margin of the Llano Uplift in Central Texas. Discontinuous outcrops of the aquifer surround older rocks of the uplift, and the remaining downdip portion may extend to depths of up to 3,000 feet below land surface. It is unknown if the aquifer reaches this depth in Burnet County. The aquifer is compartmentalized by block faulting. The aquifer is composed of the limestone and dolomite of the San Saba Member of the Wilberns Formation of late Cambrian age, and the Honeycut, Gorman, and Tanyard formations of the Ellenburger Group of early Ordovician age. Water occurs in solution cavities formed along faults and related fractures. Water produced from the aquifer may be hard but have less than 1,000 mg/l dissolved solids. (Ashworth and Hopkins, 1995) The recharge zone for the aquifer in Burnet County is approximately 110,413 acres. (Figure 4)

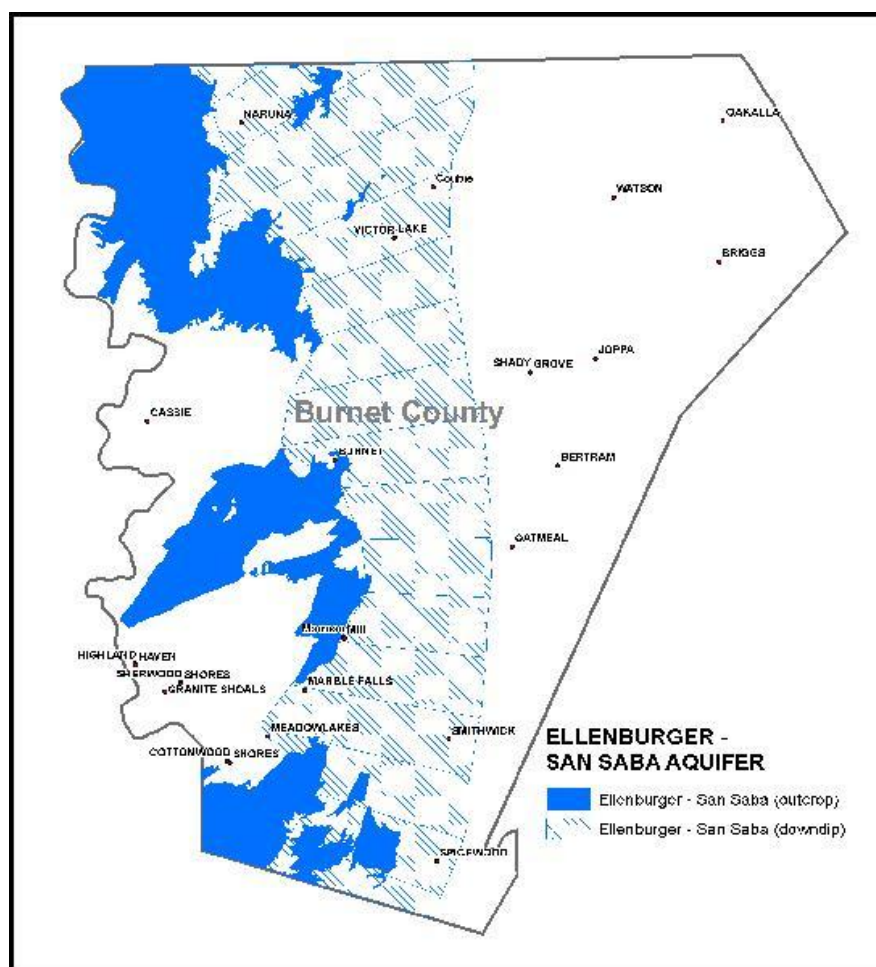


Figure 4, Occurrence of the Ellenburger- San Saba Aquifer in Burnet County

Hickory Aquifer

The Hickory aquifer occurs in the Llano Uplift region of Central Texas. Non-continuous Hickory Sandstone outcrops may overlie or flank exposed Precambrian rocks forming the central uplift core. The downdip (artesian) portion of the aquifer surrounds the uplift and may extend to depths approaching 4,500 feet. It is unknown if the aquifer occurs at this depth in Burnet County. The Hickory Sandstone Member of the Cambrian Riley Formation is one of the oldest sedimentary rock formations in Texas. In the southern and eastern extents of the aquifer, the Hickory consists of two units. The flow of the Hickory aquifer is restricted due to block faulting. Water from the aquifer is generally fresh, but locally may have alpha particle and radium concentrations in excess of drinking water standards. The water may contain radon gas. The Hickory may produce water with iron concentrations exceeding drinking water standards. (Ashworth and Hopkins, 1995) Water which exceeds a drinking water standard must be treated to meet or exceed the drinking water standard established by the United States Environmental Protection Agency before it may be distributed by a public water supply system. The recharge zone of the aquifer in Burnet County is approximately 8,590 acres. (Figure 5)

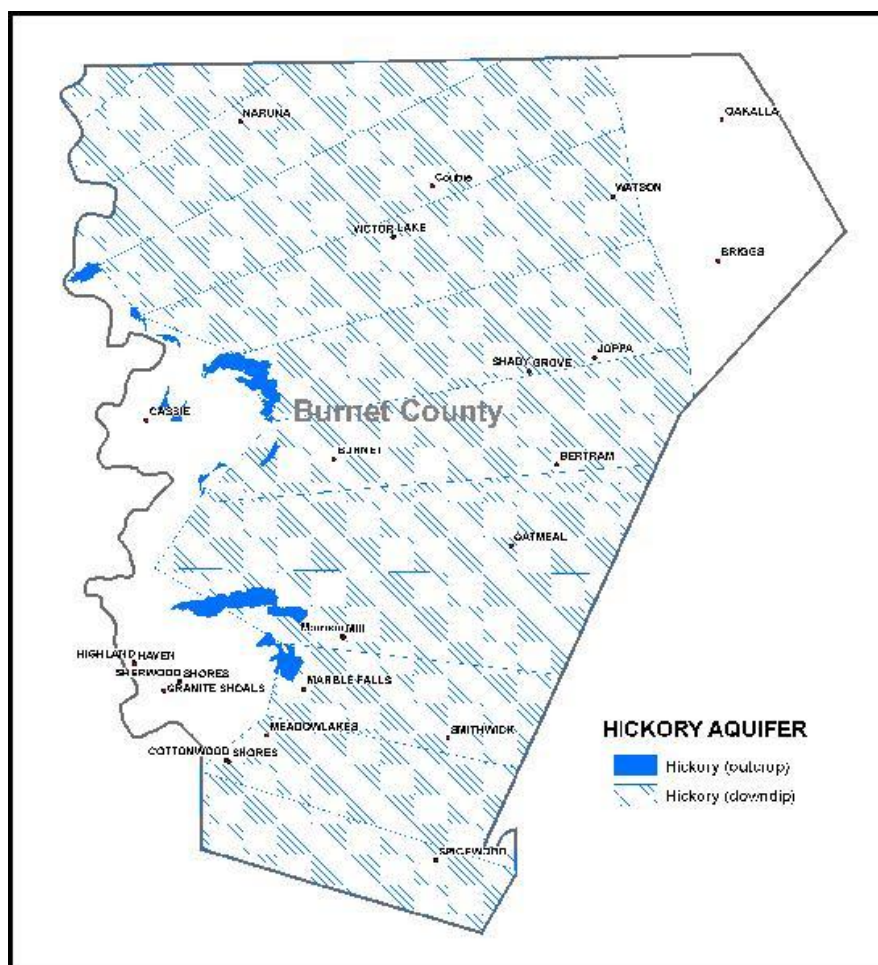


Figure 5, Occurrence of the Hickory Aquifer in Burnet County

Local Water Bearing Formations

In addition to the aquifers that TWDB has identified, there also exist two local water bearing formations within Burnet County. The District recognizes these as the Granite and Granite Gravel aquifers. Although these aquifers are localized and not identified by TWDB, they are extremely vital to the local area. The District has been committed to developing characteristics and hydrologic data for these aquifers, and will continue to do so in the future.

Granite Gravel Aquifer

The following descriptions come from the District's report *Hydrogeologic Assessment of the Granite Gravel Aquifer in Burnet County, Texas, 2011*.

The Granite Gravel Aquifer is a local water bearing formation located in the southwest portion of Burnet County (Figure 6). It is located in what is known as the Llano Uplift area of Central Texas. The Llano Uplift is a structural anomaly that has exposed ancient Precambrian rock in the midst of the younger Cretaceous aged Edwards Plateau. The Precambrian Town Mountain Granite is part of the core of the Llano uplift and is the formation that forms the Granite Gravel Aquifer. The Town Mountain Granite is described as being coarse-grained, pink, quartz-plagioclase-microcline rock. In Burnet County much of the formation is decomposed and weathered on the surface and down to the bedrock.

The Granite Gravel Aquifer is composed of weathered or decomposed Town Mountain Granite. A solid bedrock of granite forms the base of the aquifer and its depth below surface can vary greatly. The saturated thickness of the aquifer is dependent on the depth to the bedrock which can range from a few feet in some locations, and up toward 100 ft in others. There exist locations in which the granite bedrock is exposed to the surface or just beneath it, therefore these areas contain little to no granite gravel. Flow in the Granite Gravel Aquifer is controlled by the depth to the top of the granite bedrock and presence of adjacent geologic formations that have been juxtaposed to the granite in some instances. The variations in the depth to the granite bedrock cause well yields to vary widely throughout the aquifer. Estimated well yields for the aquifer can range from as little as 5 gpm up to 100+ gpm.

Occurrence of Granite Gravel Aquifer in Burnet County

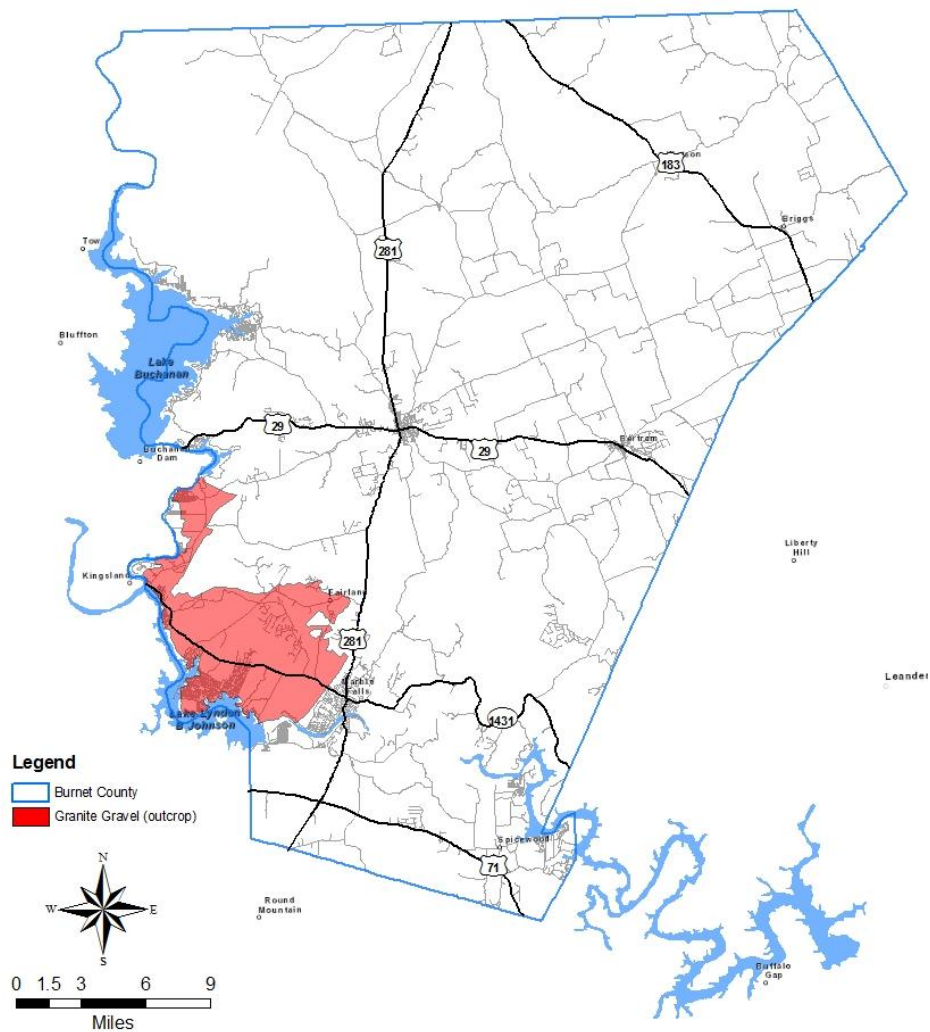


Figure 6: Occurrence of Granite Gravel Aquifer in Burnet County

Granite Aquifer

The Granite Aquifer is a general name for the water bearing formation that is composed of various Precambrian formations, which consist mostly of Town Mountain Granite and Valley Spring Gneiss among others. In Burnet County the Granite Aquifer outcrops in the western part of the county mainly along the highland lakes west of HWY 281 (Figure 7). The downdip portion surrounds the Llano Uplift and generally dips to the east. The Granite Aquifer is a fractured aquifer system that is highly diversified in nature. Wells completed in the Granite Aquifer are generally suitable only for domestic use because well yields are typically low (less than 25 gpm) and many cannot sustain continuous pumping (Partridge, 2011).

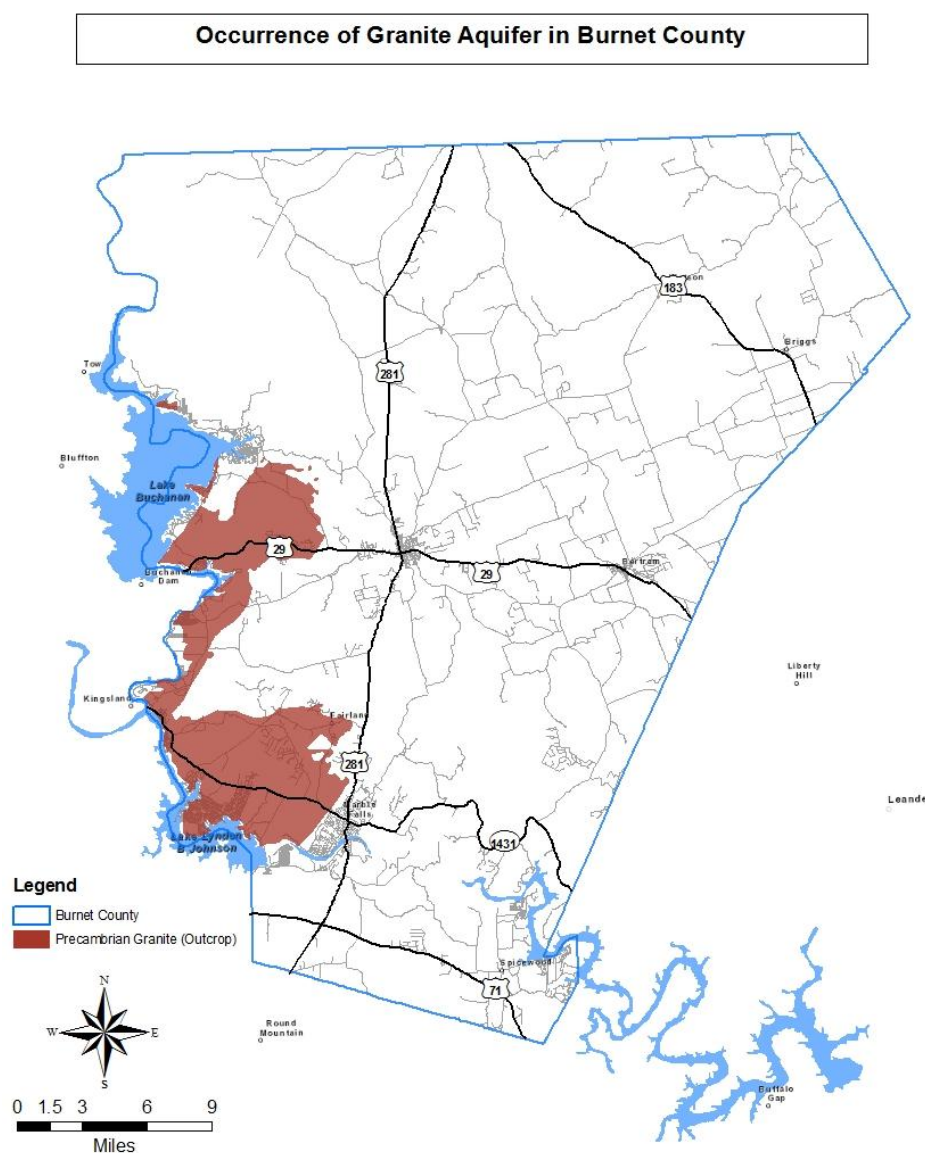


Figure 7: Occurrence of Granite Aquifer in Burnet County

Geologic Units								
Era	System	Group	Formation	Member or Unit	Hydrogeologic Units			
Cenozoic	Quaternary	Pleistocene to Recent floodplain (alluvium and fluvial terrace deposits)			localized alluvial aquifers			
Mesozoic	Cretaceous	Edwards Group	Segovia Formation		Edwards Plateau Aquifer	Edwards Trinity aquifer		
			Fort Terrett Formation	Kirchburg evaporite Mbr.				
				Dolomite Member				
				Burrowed Member				
				Basal Nodular Bed Member			confining bed	
		Trinity Group	Glen Rose Limestone		Upper Member		Upper and Middle Trinity Aquifer	
			Travis Peak equivalent	Hensell Sand	Bexar			Lower Member
				Cow Creek Limestone				
				Hammett Shale				
				Sligo				
Sycamore Sand				Hosston				
				confining bed				
				Lower Trinity aquifer				
Paleozoic	Pennsylvanian	Canyon Group	undivided		confining beds			
		Strawn Group	undivided					
		Bend Group	Smithwick			undivided		
			Marble Falls Limestone					
	Mississippian and Devonian	Composed of youngest to oldest -- Barnett Formation(Miss.), Chappel Limestone(Miss) Houy Formation(Dev) and the Stribling Formation (Dev)			Usually confining beds			
	Ordovician	Ellenberger Group	Honeycut Formation		undivided	Ellenburger-San Saba aquifer		
			Gorman Formation		undivided			
			Tanyard Formation	Staendebach Member				
				Threadgill Member				
					San Saba Member			
					Point Peak Member			
	Cambrian	Moore Hollow Group	Wilbems Formation		confining beds			
					Morgan Creek Limestone Mbr			
					Weiße Sandstone Member			
			Riley Formation		Lion Mountain Sandstone Mbr		Mid-Cambrian aquifer	
Cap Mountain Limestone Mbr					confining beds			
Hickory Sandstone Member					Hickory aquifer			
Precambrian	Llanite Oat Creek Granite Six Mile Granite Pegmatite and quartz veins Town Mountain Granite Melaryolite dikes Red Mountain Gneiss Coal Creek Serpentine Mafic igneous rocks Packsaddle Schist Lost Creek Gneiss Valley Springs Gneiss			Usually confining beds				

Table 1, Geologic and hydrogeologic units of Burnet County (after Preston and others, 1996).

IV. STATEMENT OF GUIDING PRINCIPLES

The District recognizes that the groundwater resources of Burnet County and the Central Texas region are of vital importance to the many users who are dependent on these valuable resources. The District will strive to manage and conserve this most valuable resource in a prudent and cost effective manner through education, cooperation and development of a comprehensive understanding of the aquifers. The District's management plan is intended to serve as a tool to focus the thoughts and actions of those given the responsibility for the execution of the District's activities.

V. CRITERIA FOR PLAN CERTIFICATION

A. Planning Horizon

The time period for this plan is 10 years from the date of approval by the TWDB. This plan will be reviewed as required and necessary. The District will consider the necessity to amend the plan and re-adopt the plan with or without amendments as required by TWC 36.1072(e)

This management plan will remain in effect until replaced by a revised management plan approved by the TWDB.

B. Board Resolution

A certified copy of the Central Texas Groundwater Conservation District resolution adopting the plan is located in Appendix B - District Resolution.

C. Plan Adoption

Public notices documenting that the plan was adopted following appropriate public meetings and hearings are located in Appendix C – Notice of Meetings.

D. Coordination with Surface Water Management Entities

Letters transmitting copies of this plan to the Lower Colorado River Authority and the Brazos River Authority are located in Appendix D – Letters to Surface Water Management Entities.

VI. ESTIMATES OF TECHNICAL INFORMATION REQUIRED BY TWC § 36.1071 / 31TAC 356.5

A. Modeled available groundwater in the district based on the desired future condition established under TWC 36.108—TWC § 36.10701(e)(3)(A)

Modeled available groundwater is defined in TWC §36.001 as “the amount of water that the executive administrator determines may be produced on an average annual basis to achieve a desired future condition.” The desired future condition of the aquifer may only be determined through joint planning with other groundwater conservation districts (GCDs) in the same groundwater management area (GMA) as required by the 79th Legislature with the passage of HB 1763 into law. The District is located in GMA 8. The GCDs of GMA 8 first adopted desired future conditions in 2007 and 2008. The first desired future conditions were adopted for the Trinity aquifer on September 17, 2008 and for the Ellenburger-San Saba, Hickory, and Marble Falls aquifers on May 19, 2008. GMA 8 passed a resolution to readopt desired future conditions for all aquifers in GMA 8 on April 27, 2011. The desired future conditions shall continue in effect until amended, superseded, or repealed.

The desired future conditions of each aquifer are for a 50 year outlook. The modeled available groundwater for the District is derived from the adopted desired future conditions of each aquifer. For the Trinity aquifer within the District, the TWDB used the Northern Trinity/Woodbine Groundwater Availability Model (GAM) to evaluate the modeled available groundwater numbers. A GAM does not exist for the Ellenburger-San Saba, Hickory, and Marble Falls aquifers, however the TWDB has aquifer assessment reports developed for all three aquifers. The modeled available groundwater values for the three minor aquifers come from the following TWDB aquifer assessments: Ellenburger-San Saba-AA 10-15 MAG, Hickory- AA 10-16 MAG, Marble Falls- AA 10-17 MAG.

The District recognizes that there are several localized sources of groundwater in Burnet County which have not been recognized as major or minor aquifers but which are of vital local importance as a source of water supply. The TWDB or other State agencies have not researched or characterized these groundwater sources. The District has and will continue to expand the knowledge of these important local resources so that management of these aquifers may be established in the future.

Trinity Aquifer

a. Selected Management Conditions

The District has devoted a large amount of time, money, and effort to developing sound hydrogeologic data for the Trinity aquifer. The District has developed a hydrogeologic study titled “Trinity Aquifer Characterization and Groundwater Availability Assessment for Burnet County”. The results of the information gained from this study and continuing science indicate significant discrepancies from the current Northern Trinity/Woodbine Groundwater Availability Model. The hydrostratigraphy in the current model is the main concern and cause of the discrepancies. The TWDB and GMA 8 both have been informed of this issue and both recognize it as a problem needing correcting.

At the present time there is major update of the Northern Trinity/Woodbine Model that is being done by an outside consulting firm with the approval of the TWDB. It is much anticipated by GMA 8 and the District that the updated model will provide much more accurate results and therefore better MAG numbers for planning purposes.

In the interim period between now and when the updated model is complete, the District will be using the current MAG numbers for managing the Trinity by treating the aquifer as one unit and distributing the MAG throughout. When the new GAM is complete this plan will be updated to reflect the new data.

The desired future conditions of the Trinity aquifer are:

Paluxy: The average drawdown of the Paluxy aquifer should not exceed approximately 1 foot after 50 years.

Glen Rose: The average drawdown of the Glen Rose aquifer should not exceed approximately 1 foot after 50 years.

Hensell: The average drawdown of the Hensell aquifer should not exceed approximately 11 feet after 50 years.

Hosston: The average drawdown of the Hosston aquifer should not exceed approximately 29 feet after 50 years.

b. Groundwater Availability

The total estimated modeled available groundwater for the Trinity aquifer in Burnet County is 3,546 acre-feet per year which is based on the amounts of groundwater that could be pumped while maintaining the selected management conditions in each aquifer subdivision discussed above. The MAG is broken down for each subdivision within the Trinity aquifer. The following MAG values come from TWDB report GAM Run 10-063 MAG:

Paluxy: 182 ac-ft/yr

Glen Rose: 205 ac-ft/yr

Hensell: 690 ac-ft/yr

Hosston: 2,469 ac-ft/yr

Total: 3,546 ac-ft/yr.

As mentioned above, there are significant discrepancies between the model and the actual aquifer conditions. During this interim period while the model is being updated, the District will use the Trinity MAG for the entire Trinity aquifer and treat it as one unit.

Minor Aquifers

As of the date of this plan there are currently no TWDB GAMs available for the Marble Falls, Ellenburger-San Saba or the Hickory aquifers. To assess the groundwater availability of these aquifers the District made iterative calculations of the potential effects of increasing amounts of pumping to determine if the preferred management conditions could be upheld. The calculations employed a methodology that considered the estimated annual aquifer recharge, the area of the unconfined portion of the aquifer, the average aquifer thickness and the effective aquifer porosity (coefficient of storage) to assess the effects of pumping over a 50-year period. As previously discussed, there is relatively little data currently available on the minor aquifers and unrecognized groundwater-bearing formations in Burnet County. To account for this scarcity of data, conservative assumptions were employed for the average aquifer thickness and effective porosity (or coefficient of storage) to complete the calculations of availability for each aquifer. The details of the minor aquifer availability calculations are in given in Appendix G.

a. Selected Management Conditions

The District selected the maintenance of the saturated thickness in the unconfined portions of the aquifers over a 50-year horizon as the preferred management condition to define the desired future condition of the aquifers and the sustainable amount of groundwater use for each aquifer. Again, due to the relatively low amount of information currently available on the minor aquifers in the District, the District exercised caution in selecting the management criterion for each aquifer. The following 50-year criteria were applied to the individual minor aquifers to assess the amounts of sustainable use:

Marble Falls aquifer – Maintain approximately 100 percent of the saturated thickness after 50 years by using approximately 80 percent of the estimated recharge.

Ellenburger-San Saba aquifer – Maintain approximately 100 percent of the saturated thickness after 50 years by using approximately 80 percent of the estimated recharge.

Hickory aquifer – Maintain approximately 100 percent of the saturated thickness after 50 years by using approximately 80 percent of the estimated recharge.

b. Groundwater Availability

The total estimated modeled available groundwater values for the three minor aquifers come from TWDB aquifer assessments: Marble Falls aquifer AA 10-17 MAG, Ellenburger- San Saba AA10-15 MAG, and Hickory AA 10-16 MAG.

Marble Falls aquifer –The total estimated modeled available groundwater for the Marble Falls aquifer in Burnet County is 1,978 acre-feet per year.

Ellenburger-San Saba aquifer – The total estimated modeled available groundwater for the Ellenburger-San Saba aquifer in Burnet County is 5,526 acre-feet per year.

Hickory aquifer – The total estimated modeled available groundwater for the Hickory aquifer in Burnet County is 2,148 acre-feet per year.

**B. Amount of groundwater being used within the district on an annual basis—
31TAC356.5 (a)(5)(B) (Implementing TWC §36.1071(e)(3)(B))**

The amount of groundwater being used within the District on an annual basis is provide by the TWDB and is listed in Appendix I.

**C. Annual amount of recharge from precipitation to the groundwater resources within
the district—31TAC356.5 (a)(5)(C) (Implementing TWC §36.1071 (e)(3)(C))**

The estimate of the annual amount of recharge to the Trinity aquifer in the District is based on the TWDB Northern Trinity/Woodbine aquifer GAM simulations conducted to assess the amount of available groundwater in the aquifer within Burnet County. The TWDB GAM Run 10-066 contains the recharge from precipitation amounts for the Trinity aquifer. The District estimated the amount of annual recharge to the minor aquifers in the District based on the recharge rates for each aquifer given in TWDB Report 238, the average annual precipitation for Burnet County from the National Oceanic and Atmospheric Administration (NOAA) and the area of the aquifer outcrop area in Burnet based on the TWDB GIS coverage.

1. Trinity Aquifer Recharge = 44,685 acre-feet per year

Trinity aquifer recharge estimate source: TWDB GAM Run 10-066

2. Marble Falls Aquifer Recharge = 1,974 acre-feet per year

Recharge Rate is 5 percent of the annual rainfall of 30 inches over 15,790 acres

3. Ellenburger-San Saba Aquifer = 5,521 acre-feet per year

Recharge Rate is 2 percent of the annual rainfall of 30 inches over 110,413 acres

4. Hickory Aquifer = 2,148 acre-feet per year

Recharge Rate is 10 percent of the annual rainfall of 30 inches over 8,590 acres

D. For each aquifer, annual volume of water that discharges from the aquifer to springs and any surface water bodies, including lakes, streams, and rivers—TWC §36.1071(e)(3)(D)

The estimate of the annual amount of water discharged to surface water systems by Trinity aquifer is based on the Northern Trinity/Woodbine GAM to assess the amount of available groundwater in the Trinity aquifer within Burnet County. The values presented for the Trinity aquifer are the sum of the Stream Leakage and Drains values from GAM Run 10-066.

1. Trinity Aquifer = 7,692 acre feet per year

In order to fulfill the statutory requirements for groundwater management plans, the District estimated the amount of the annual discharge to surface water systems by the minor aquifers in the District. The estimates given below for minor aquifer discharges to surface water systems in Burnet County are based entirely on previously published estimates of spring discharges. The previously published estimates of minor aquifer discharges to surface water systems in Burnet County are extremely limited. The minor aquifers for which estimates are presented are limited to the aquifers for which previously published information was located by the District. There are several springs identified in the available publications for which no data on flow rates is given. There are several springs identified for which flow rates have been published but for which the source of water is not identified. Additional springs that may exist within the District but which have not been identified in the available publications nor have estimates of discharge been published are not included in the estimates given in this plan. Due to the limited information available at the time this plan was prepared, the District does not warrant the completeness of these estimates of minor aquifer discharges to surface water systems in Burnet County. The District will in the future undertake studies to identify the quantity of water discharged by springs and to quantify other discharges of water from the aquifers to surface water systems.

To present estimates of minor aquifer discharge to the surface water systems of Burnet County, the available information on flow rates from the various springs issuing from an aquifer were converted to an annualized rate in acre-feet per year. Because the annualized discharge rates are based on single measurement, it is possible that the annualized discharge rates do not reflect seasonal or climatically influenced variations. Most data on spring flow rates are given with the date of measurement. The discharge rates of some springs for which data is available indicate that flow rates appear to have diminished over time. It is possible that the flow rates of the springs for which information is presented in this plan may have diminished since the time of measurement. The values presented for the minor aquifer discharges to surface water systems are the sum of the available information for each aquifer.

2. Ellenburger-San Saba Aquifer = 3,734.53 acre-feet per year

3. Marble Falls Aquifer = 485.77 acre-feet per year

4. Springs of Unknown Origin = 144.78 acre-feet per year

Estimate source: (USGS, 2003 & Brune, 1981)

For a list of springs and discharge rates, see Appendix H.

E. Annual volume of flow into and out of the district within each aquifer and between aquifers in the district, if a groundwater availability model is available — TWC §36.1071 (e)(3)(E)

The Trinity aquifer is the only aquifer in the District for which a TWDB GAM (Northern Trinity/Woodbine aquifer GAM) is available. The estimates of the amount of water flowing into and out of the District within each aquifer and between aquifers in the District are based on the GAM simulations performed to assess the availability of Trinity aquifer groundwater. The following values for the Trinity aquifer are from GAM Run 10-066:

Trinity Aquifer

Flow into the aquifer within the District = 1,318 acre feet per year

Flow out of the District within the aquifer = 6,599 acre feet per year

Movement between aquifer subdivisions in the District = Not Applicable

F. Projected surface water supply in the district, according to the most recently adopted state water plan— TWC §36.1071(e)(3)(F)

SEE APPENDIX J: Projected Surface Water Supplies TWDB 2012 State Water Plan Data

G. Projected total demand for water in the district according to the most recently adopted state water plan— TWC §36.1071(e)(3)(G)

SEE APPENDIX K: TWDB 2012 State Water Plan Data Projected Water Demands

VII. CONSIDER THE WATER SUPPLY NEEDS AND WATER MANAGEMENT STRATEGIES INCLUDED IN THE ADOPTED STATE WATER PLAN— TWC §36.1071(E)(4)

SEE APPENDIX L and M: TWDB 2012 State Water Plan Data Projected Water Supply Needs and Projected Water Management Strategies

VIII. DETAILS ON THE DISTRICT MANAGEMENT OF GROUNDWATER

The District will manage the use of groundwater within the District in order to conserve the resource while seeking to maintain the economic viability of all resource user groups, public and private. The District seeks to manage the groundwater resources of the District as practicably as possible as defined in the plan by the management goals established for each aquifer or aquifer subdivision. The Texas Legislature established that groundwater conservation districts are the preferred method of groundwater management in Section 36.0015 of the Texas Water Code. In consideration of the economic and cultural activities occurring within the District, the District will identify and engage in such activities and practices, that if implemented may result in the conservation of groundwater in the District. The District will manage groundwater resources through rules developed and implemented in accordance with Chapter 36 of the Texas Water Code and the provisions of the District Act.

An extensive monitor well network has been established and maintained in order to monitor changing storage conditions of groundwater supplies within the District. The District will make a regular assessment of water supply and groundwater storage conditions and will report those conditions to the District Board of Directors and to the public. The District may undertake, as necessary, investigations of the groundwater resources within the District and will make the results of investigations available to the public. The District will co-operate with investigations of the groundwater resources of the District undertaken by other local political subdivisions or agencies of the State of Texas.

In order to better manage groundwater resources the District may establish management zones for; and adopt different rules for: (1) each aquifer, subdivision of an aquifer, or geologic strata located in whole or in part within the boundaries of the District; or (2) each geographic area overlying an aquifer or subdivision of an aquifer located in whole or in part within the boundaries of the district.

For the purpose of managing the use of groundwater within the District, the District may define sustainable use as the use of an amount of groundwater in the District as a whole or any management zone established by the District that does not exceed:

- a) The desired future conditions of aquifers in the District established by the District prior to the establishment of the desired future condition of aquifers in a groundwater management area in which the District is located or
- b) The desired future conditions of aquifers within the District established by a groundwater management area in which the District is participating or
- c) The amount of modeled available groundwater resulting from the establishment of a desired future aquifer condition established by the District or a groundwater management area in which the District is located or
- d) The amount of annual recharge of the aquifer or aquifer subdivision in which the use occurs as recognized by the District or
- e) Any other criteria established by the District as being a threshold of use beyond which further use of the aquifer or aquifer subdivision may result in a specified undesirable or injurious condition

The District has adopted rules that protect existing or historic use of groundwater in the District prior to the effective date of the rules to the maximum extent practical consistent with this plan and the goals and objectives set forth herein. The District may impose more restrictive permit conditions on new permit applications and permit amendment applications to increase use by historic users if the limitations:

- a) Apply to all subsequent new permit applications and permit amendment applications to increase use by historic users, regardless of the type or location of use;
- b) Bear a reasonable relationship to the District's existing management plan; and
- c) Are reasonably necessary to protect existing use

The District has adopted rules to regulate groundwater withdrawals by means of spacing and/or production limits. The relevant factors to be considered in making a determination to grant or deny a permit or limit groundwater withdrawals shall include those set forth in the District Act, Chapter 36 of the Texas Water Code, and the rules of the District. The District has and will continue to employ technical resources, as needed, to evaluate the groundwater resources available within the District and to determine the effectiveness of regulatory or conservation measures. In consideration of particular individual, localized or District-wide conditions, including without limitation climactic conditions, the District may by rule allow an increase or impose a decrease in the total production in a management zone above or below the sustainable amount for a period of time considered necessary by the District in order to accomplish the purposes set forth in Chapter 36, Water Code, or the District Act. The exercise of said discretion by the Board shall not be construed as limiting the power of the Board.

IX. ACTIONS, PROCEDURES, PERFORMANCE AND AVOIDANCE FOR PLAN IMPLEMENTATION

The District will implement the provisions of this plan and will utilize the provisions of this plan as a guidepost for determining the direction or priority for all District activities. All operations of the District, all agreements entered into by the District, and any additional planning efforts in which the District may participate will be consistent with the provisions of this plan.

Rules adopted by the District for the permitting of wells and the use of groundwater shall comply with TWC Chapter 36, including §36.113, and the provisions of this management plan. All rules will be adhered to and enforced. The promulgation and enforcement of the rules will be based on the best technical evidence available to the District. The District's rules can be found at http://www.centraltexasgcd.org/index_files/Rules.htm.

X. METHODOLOGY FOR TRACKING DISTRICT PROGRESS IN ACHIEVING MANAGEMENT GOALS – 31 TAC 356.5(a)(6)

The District will prepare and present an Annual Report to the Board of Directors on District performance in regards to achieving management goals and objectives for the fiscal year. The report will be presented within 120 days following the completion of the District's fiscal year, beginning with FY2007. The Board will maintain the report on file, for public inspection at the District's offices upon adoption in a regular noticed meeting of the Board.

XI. GOALS, MANAGEMENT OBJECTIVES and PERFORMANCE STANDARDS

The management goals, objectives, and performance standards of the District in the areas specified in 31TAC§356.5 are addressed below.

Management Goals

A. Providing the Most Efficient Use of Groundwater –31TAC 356.5(a)(1)(A) (Implementing TWC §36.1071 (a)(1))

1. Objective: Each year, beginning in 2007, the District will require the registration of all wells within the District's jurisdiction.

Performance Standard: Each year, the number of new and existing wells registered with the District will be presented in the District's annual report.

2. Objective: Each year, beginning in FY2008 the District will require permits for all non-exempt use of groundwater in the District as defined in the District's rules, in accordance with adopted procedures.

Performance Standard: Each year, a summary of the number applications for the drilling of non-exempt wells, the number of applications for the permitted use of groundwater and the disposition of the applications will be presented in the District's annual report.

B. Controlling and Preventing Waste of Groundwater –31TAC 356.5(a)(1)(B) (Implementing TWC §36.107 1 (a)(2))

Objective: Each year, the District will provide information on eliminating and reducing the waste of groundwater and focusing on water quality protection. This may be accomplished annually by one of the following methods:

- a. compile literature packets for distribution to schools in Burnet County;
- b. conduct classroom presentations;
- c. sponsor an educational program/curriculum;
- d. post information on the District's web site;
- e. submit newspaper articles for publication;
- f. conduct public presentations;
- g. set up displays at public events;
- h. distribute brochures/literature.

Performance Standard: The annual report will include a summary of the District activities during the year to disseminate educational information on eliminating and reducing the wasteful use of groundwater focusing on water quality protection.

C. Addressing Conjunctive Surface Water Management Issues – 31TAC356.5 (a)(1)(D) (Implementing TWC §36.107 1 (a)(4))

Objective: Senate Bill 660 passed by the 82nd Texas Legislature requires that each Regional Water Planning Group (RWPG) will have a representative from each groundwater management area (GMA). Currently the District is the only GCD in GMA 8 that is also in the Lower Colorado Regional Water Planning Group (Region K). Each year, the District will participate in the regional planning process by attending Region K meetings.

Performance Standard: Each year, attendance at Region K meetings by a representative of the District will be reflected in the District's annual report and will include the number of meetings attended and the dates.

D. Addressing Natural Resource Issues which Impact the Use and Availability of Groundwater, and which are Impacted by the Use of Groundwater – 31TAC§356.5 (a)(1)(E) (Implementing TWC §36.1071(a)(5))

Objective: Each year the District will monitor a minimum of 20 monitor wells to measure the compliance of the desired future conditions of the aquifers. The hydrographs of the monitor wells will be made available on the District's website and available to the public at request.

Performance Standard: Each year, the District's Annual Report will provide a status report on the number of wells measured and the monitoring results.

Objective: Each year the District will be responsible for protecting the quality of the groundwater by addressing abandoned and/or deteriorated wells that have the potential to contaminate the groundwater supply. The District's Rules address abandoned and deteriorated wells and require well owners to follow TDLR rules on capping and plugging wells.

Performance Standard: Each year the District's Annual Report will provide a report on the number of wells that the district has taken action on to require owners to plug or cap abandoned and/or deteriorated wells.

E. Addressing Drought Conditions – 31TAC356.5 (a)(1)(F) (Implementing TWC §36.1071(a)(6))

Objective: The District has a Drought Management Plan that addresses drought conditions locally. The Drought Management Plan lists several stages of conservation depending on the severity of the present drought conditions. Issuing a drought stage requires Board action.

Performance Standard: At each regular Board Meeting a report of the current drought will be given and action can be taken on the drought stage. Each year the District's Annual Report will provide the minutes of each board meeting pertaining to the drought management plan. Additional drought information is also available from TWDB at <http://www.twdb.state.tx.us/DATA/drought/>

F. Addressing Conservation, Recharge Enhancement, Rainwater Harvesting, Precipitation Enhancement, or Brush Control, Where Appropriate and Cost-Effective – 31TAC356.5 (a)(1)(G) (Implementing TWC §36.1071 (a)(7))

Precipitation enhancement is not an appropriate or cost-effective program for the District at this time because there is not an existing precipitation enhancement program operating in nearby counties in which the District could participate and share costs. The cost of operating a single-county precipitation enhancement program is prohibitive and would require the District to increase taxes in Burnet County.

1. Objective: Each year, the District will promote rainwater harvesting by posting information on rainwater harvesting on the District web site.

Performance Standard: Each year, the annual report will include a copy of the information on rainwater harvesting that is provided on the District web site.

2. Objective: Each year, the District will provide information relating to recharge enhancement and brush control on the District web site.

Performance Standard: Each year, the District annual report will include a copy of the information that has been provided on the District web site relating to recharge enhancement and brush control.

3. Objective: Each year, the District will promote conservation by one of the following methods:

- a. conduct an annual contest on water conservation;
- b. distribute conservation literature packets to schools in Burnet County;
- c. conduct classroom conservation presentations;
- d. sponsor an educational conservation program/curriculum;
- e. post conservation information on the District's web site;
- f. provide a newspaper article on conservation for publication;
- g. publish an article on conservation in the District newsletter;
- h. conduct a public conservation presentation;
- i. set up a conservation display at a public event or;
- j. distributing conservation brochures/literature to the public.

Performance Standard: Each year, the annual report will include a summary of the District activity during the year to promote conservation.

G. Addressing the Desired Future Conditions of the Groundwater Resources – 31TAC (a)(1)(H) (Implementing TWC §36.1071(a)(8))

Objective: For each aquifer that has approved desired future conditions (DFCs) and has assigned MAG numbers from the TWDB, the District will assess if they are sufficient and are being met accordingly.

Performance Standard: Each year the District will use its monitor well program to make assessments of the drawdowns of the various aquifers. The drawdowns will be compared to historical averages and trends to monitor the Districts compliance of the desired future conditions. A report of the drawdowns will be included in the Districts annual report.

XII. MANAGEMENT GOALS DETERMINED NOT-APPLICABLE TO THE DISTRICT

A. Controlling and Preventing Subsidence – 31TAC§356.5 (a)(1)(C)

This category of management goal is not applicable to the District because the major water producing formations in the District are composed primarily of competent limestone. The structural competency of the aquifer materials significantly limits the potential for the occurrence of land surface subsidence in the District.

B. Addressing Precipitation Enhancement-31TAC356.5 (a)(1)(G)

Precipitation enhancement is not an appropriate or cost-effective program for the District at this time because there is not an existing precipitation enhancement program operating in nearby counties in which the District could participate and share costs. The cost of operating a single-county precipitation enhancement program is prohibitive and would require the District to increase taxes in Burnet County. Therefore, this category of management goal is not applicable to the District.

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APPENDIX A

S.B. No. 967

AN ACT

relating to the creation of the Central Texas Groundwater Conservation District; providing authority to impose a tax and issue bonds.

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF TEXAS:

SECTION 1. Subtitle H, Title 6, Special District Local Laws Code, is amended by adding Chapter 8810 to read as follows:

CHAPTER 8810. CENTRAL TEXAS GROUNDWATER

CONSERVATION DISTRICT

SUBCHAPTER A. GENERAL PROVISIONS

Sec. 88 10.001. DEFINITIONS. In this chapter:

- (1) "Board" means the board of directors of the district.
- (2) "Director" means a member of the board. (3)

"District" means the Central Texas Groundwater Conservation District.

Sec. 88 10.002. NATURE OF DISTRICT. The district is a groundwater conservation district in Burnet County created under and essential to accomplish the purposes of Section 59, Article XVI, Texas Constitution.

Sec. 88 10.003. CONFIRMATION ELECTION REQUIRED. If the creation of the district is not confirmed at a confirmation election held before September 1, 2007:

(1) the district is dissolved on September 1, 2007, except that:

- (A) any debts incurred shall be paid;
- (B) any assets that remain after the payment of debts shall be transferred to Burnet County; and
- (C) the organization of the district shall be maintained until all debts are paid and remaining assets are transferred; and

(2) this chapter expires on September 1, 2010.

Sec. 88 10.004. INITIAL DISTRICT TERRITORY. The initial boundaries of the district are coextensive with the boundaries of Burnet County, Texas.

Sec. 88 10.005. CONSTRUCTION OF CHAPTER. This chapter shall be liberally construed to achieve the legislative intent and purposes of Chapter 36, Water Code. A power granted by Chapter 36,

Water Code, or this chapter shall be broadly interpreted to achieve that intent and those purposes.

Sec. 88 10.006. APPLICABILITY OF OTHER GROUNDWATER CONSERVATION DISTRICT LAW. Except as otherwise provided by this chapter, Chapter 36, Water Code, applies to the district.

[Sections 8810.007-8810.020 reserved for expansion]

SUBCHAPTER A-1. TEMPORARY PROVISIONS

Sec. 8810.021. APPOINTMENT OF TEMPORARY DIRECTORS.

(a) Not later than the 45th day after the effective date of this chapter, five temporary directors shall be appointed as follows:

(1) the Burnet County Commissioners Court shall appoint one temporary director from each of the four commissioners precincts in the county to represent the precincts in which the temporary directors reside; and

(2) the county judge of Burnet County shall appoint one temporary director who resides in the district to represent the district at large.

(b) If there is a vacancy on the temporary board of directors of the district, the authority who appointed the temporary director whose position is vacant shall appoint a person to fill the vacancy.

(c) Temporary directors serve until the earlier of:

(1) the time the temporary directors become initial directors as provided by Section 8810.024; or

(2) the date this chapter expires under Section 8810.003.

Sec. 88 10.022. ORGANIZATIONAL MEETING OF TEMPORARY DIRECTORS. As soon as practicable after all the temporary directors have qualified under Section 36.055, Water Code, a majority of the temporary directors shall convene the organizational meeting of the district at a location within the district agreeable to a majority of the directors. If an agreement on location cannot be reached, the organizational meeting shall be at the Burnet County Courthouse.

Sec. 88 10.023. CONFIRMATION ELECTION. (a) The temporary directors shall hold an election to confirm the creation of the district.

(b) Section 41.001(a), Election Code, does not apply to a confirmation election held as provided by this section.

(c) Except as provided by this section, a confirmation election must be conducted as provided by Sections 36.017(b)-(i), Water Code, and the Election Code. Section 36.017(d), Water Code, does not

apply to a confirmation election under this section.

(d) The ballot for the election must be printed to provide for voting for or against the proposition: "The creation of the Central Texas Groundwater Conservation District and the imposition of a maintenance tax at an initial rate not to exceed two cents for each \$100 of assessed valuation."

(e) If a majority of the votes cast at the election are not in favor of the creation of the district, the temporary directors may call and hold a subsequent confirmation election. The subsequent election may not be held before the first anniversary of the date on which the previous election was held.

(f) The district may not impose a maintenance tax unless the tax is confirmed under this section.

Sec. 88 10.024. INITIAL DIRECTORS. (a) If creation of the district is confirmed at an election held under Section 8810.023, the temporary directors of the district become the initial directors of the district and serve on the board of directors until permanent directors are elected under Section 8810.025.

(b) The initial directors representing commissioners precincts 2 and 4 shall serve a term expiring June 1 following the first regularly scheduled election of directors under Section 8810.025, and the initial directors representing commissioners precincts 1 and 3 shall serve a term expiring June 1 following the second regularly scheduled election of directors. The at-large director shall serve a term expiring June 1 following the second regularly scheduled election of directors.

Sec. 88 10.025. INITIAL ELECTION OF PERMANENT DIRECTORS. On the uniform election date prescribed by Section 41.001, Election Code, in May of the first even-numbered year after the year in which the district is authorized to be created at a confirmation election, an election shall be held in the district for the election of two directors to replace the initial directors who, under Section 88 10.024(b), serve a term expiring June 1 following that election.

Sec. 88 10.026. EXPIRATION OF SUBCHAPTER. This subchapter expires September 1, 2010.

[Sections 8810.027-8810.050 reserved for expansion]

SUBCHAPTER B. BOARD OF DIRECTORS

Sec. 8810.051. DIRECTORS; TERMS. (a) The district is governed by a board of five directors.

(b) Directors serve staggered four-year terms, with two or three directors' terms expiring June 1 of each even-numbered year.

(c) A director may serve consecutive terms.

Sec. 88 10.052. METHOD OF ELECTING DIRECTORS: COMMISSIONERS PRECINCTS. (a) The directors of the district shall be elected according to the commissioners precinct method as provided by this section.

(b) One director shall be elected by the voters of the entire district, and one director shall be elected from each county commissioners precinct by the voters of that precinct.

(c) Except as provided by Subsection (e), to be eligible to be a candidate for or to serve as director at large, a person must be a registered voter in the district. To be a candidate for or to serve as director from a county commissioners precinct, a person must be a registered voter of that precinct.

(d) A person shall indicate on the application for a place on the ballot:

- (1) the precinct that the person seeks to represent; or
- (2) that the person seeks to represent the district at

large.

(e) When the boundaries of the county commissioners precincts are redrawn after each federal decennial census to reflect population changes, a director in office on the effective date of the change, or a director elected or appointed before the effective date of the change whose term of office begins on or after the effective date of the change, shall serve in the precinct to which elected or appointed even though the change in boundaries places the person's residence outside the precinct for which the person was elected or appointed.

Sec. 8810.053. ELECTION DATE. The district shall hold an election to elect the appropriate number of directors on the uniform election date prescribed by Section 41.001, Election Code, in May of each even-numbered year.

Sec. 88 10.054. DIVISION OF MUNICIPALITY. The provision in Section 3 6.059(b), Water Code, concerning the division of a municipal corporation among precincts does not apply to an election under this chapter.

[Sections 8810.055-8810.100 reserved for expansion]

SUBCHAPTER C. POWERS AND DUTIES

Sec. 8810.101. PERMIT CONSIDERATION. Before granting or denying a permit under Section 36.113, Water Code, the district shall consider if the proposed use of water unreasonably affects surrounding landowners.

Sec. 8810.102. PERMITS FOR CERTAIN ACTIVITIES; APPLICABLE RULES. (a) The district may require a permit for any activity that extracts groundwater or allows more than 25,000 gallons of groundwater a day to escape.

(b) If a permit is required under Subsection (a), the permit holder is subject to rules adopted by the district to:

(1) conserve, preserve, protect, and recharge the groundwater or a groundwater reservoir or its subdivisions to control subsidence, prevent degradation of groundwater quality, and prevent waste of groundwater; and

(2) carry out any other power or duty under Chapter 36, Water Code.

(c) To the extent of a conflict, this section controls over Section 36.117(b), Water Code.

Sec. 88 10.103. IMPACT OF TRANSFER. (a) If the district finds that a transfer of groundwater out of the district negatively impacts any of the factors described by Section 36.122(f), Water Code, the district may impose additional requirements or limitations on the permit that are designed to minimize those impacts.

(b) Sections 36.122(c), (e), (i), and (j), Water Code, do not apply to a requirement or limitation imposed under this section.

Sec. 8810.104. CONTRACTS WITH OTHER GOVERNMENTAL ENTITIES. The district and another governmental entity, including a river authority located in the district, may enter into a contract for the performance by that entity of a district function.

Sec. 8810.105. REVENUE. (a) To pay the maintenance and operating costs of the district and to pay any bonds or notes issued by the district, the district may:

(1) impose ad valorem taxes at a rate not to exceed five cents on each \$100 of assessed valuation of taxable property;

(2) assess fees for services or for water withdrawn from nonexempt wells; or

(3) solicit and accept grants from any private or public source.

(b) The district may not impose ad valorem taxes to pay the maintenance and operating costs of the district at a rate that exceeds the maximum rate approved by a majority of the voters of the district voting at an election in the district held for that purpose.

Sec. 8810.106. PROHIBITION ON DISTRICT USE OF EMINENT

DOMAIN POWERS. The district may not exercise the power of eminent domain.

[Sections 8810.107-8810.150 reserved for expansion]

SUBCHAPTER D. DISSOLUTION

Sec. 8810.151. ELECTION FOR DISSOLUTION. (a) If the district has no outstanding bond or other long-term indebtedness, the district may be dissolved by a favorable vote of a majority of the registered voters of the district at an election called for that purpose.

(b) The board shall call a dissolution election if the board receives a petition for dissolution signed by at least 50 percent of the registered voters in the district as computed by using the list of registered voters for Burnet County.

(c) If the district is dissolved under this section, the board shall:

(1) notify the Texas Commission on Environmental Quality and the secretary of state of the dissolution; and

(2) transfer title to any assets of the district to Burnet County.

SECTION 2. (a) The legal notice of the intention to introduce this Act, setting forth the general substance of this Act, has been published as provided by law, and the notice and a copy of this Act have been furnished to all persons, agencies, officials, or entities to which they are required to be furnished under Section 59, Article XVI, Texas Constitution, and Chapter 313, Government Code.

(b) The governor has submitted the notice and Act to the Texas Commission on Environmental Quality.

(c) The Texas Commission on Environmental Quality has filed its recommendations relating to this Act with the governor, lieutenant governor, and speaker of the house of representatives within the required time.

(d) All requirements of the constitution and laws of this state and the rules and procedures of the legislature with respect to the notice, introduction, and passage of this Act are fulfilled and accomplished.

SECTION 3. This Act takes effect immediately if it receives a vote of two-thirds of all the members elected to each house, as provided by Section 39, Article III, Texas Constitution. If this Act does not receive the vote necessary for immediate effect, this Act takes effect September 1, 2005.

President of the Senate Speaker of the House

I hereby certify that S.B. No. 967 passed the Senate on April 28, 2005, by the following vote: Yeas 31, Nays 0.

Secretary of the Senate

I hereby certify that S.B. No. 967 passed the House on May 25, 2005, by the following vote: Yeas 144, Nays 0, two present not voting.

Chief Clerk of the House

Approved:

Date

Governor

APPENDIX B

**RESOLUTION 2012 - 03
RESOLUTION RE-ADOPTING DISTRICT MANAGEMENT PLAN**

THE STATE OF TEXAS	§
	§
CENTRAL TEXAS GROUNDWATER	§
CONSERVATION DISTRICT	§

WHEREAS, the Central Texas Groundwater Conservation District (the “District”) is a political subdivision of the State of Texas organized and existing under and by virtue of Article XVI, Section 59, of the Texas Constitution as a groundwater conservation district, acting pursuant to and in conformity with Chapter 36, Texas Water Code and Act of May 25, 2005, 79th Leg., R.S., ch. 855, 2005 Tex. Gen. Laws 2899 *codified at* Chapter 8810 of the Texas Special District Local Laws Code (the “District Enabling Act”);

WHEREAS, the original Management Plan of the District was adopted by the Board of Directors of the District (the “Board”), which was subsequently approved by the Texas Water Development Board (“TWDB”) on July 3, 2007;

WHEREAS, the District Board is statutorily required to readopt its Management Plan every five years as required by Section 36.1072(e) of the Texas Water Code;

WHEREAS, under the direction of the Board, and in accordance with Sections 36.1071, 36.1072, and 36.108 of the Texas Water Code, and 31 Texas Administrative Code Chapter 356, the District has undertaken revisions to its Management Plan;

WHEREAS, Section 36.1085 of the Texas Water Code requires the District to ensure that its Management Plan contains the goals and objectives consistent with achieving the Desired Future Conditions (“DFCs”) adopted through the joint planning process set forth in Chapter 36 of the Texas Water Code;

WHEREAS, as part of the process of readopting its Management Plan, the District requested and received the assistance of the TWDB and worked closely with the TWDB staff to obtain staff’s input and comments on the revisions to its Management Plan and its technical and legal sufficiency;

WHEREAS, the Board, District staff, and the District’s geoscientist have reviewed and analyzed the District’s best available data, groundwater availability modeling information, and other information and data required by the TWDB;

WHEREAS, the District issued the notice in the manner required by state law and the District’s rules and held a public hearing on May 21, 2012, at 9:00 a.m. in Burnet, Texas to receive public and written comments on the revised Management Plan;

WHEREAS, the District coordinated its planning efforts on a regional basis with the appropriate surface water management entities during the preparation of the revised Management Plan;

WHEREAS, the Board finds that the revised Management Plan meets all of the requirements of Chapter 36, Water Code, and 31 Texas Administrative Code Chapter 356; and

WHEREAS, at the public hearing, the Board of Directors considered readoption of its Management Plan as revised

and approval of this resolution after due consideration of all comments received.

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF DIRECTORS OF THE CENTRAL TEXAS GROUNDWATER CONSERVATION DISTRICT AS FOLLOWS:

1. The above recitals are true and correct;
2. The Board of Directors of the District hereby readopts its Management Plan as revised as the Management Plan for the District, subject to the changes directed by the Board of Directors based on comments received at the public hearing;
3. The Board President and the General Manager of the District are further authorized to take all steps necessary to implement this resolution and submit the readopted Management Plan to the TWDB for its approval; and
4. The Board President and General Manager of the District are further authorized to take any and all action necessary to coordinate with the TWDB as may be required in furtherance of TWDB's approval pursuant to the provisions of Section 36.1072 of the Texas Water Code.

AND IT IS SO ORDERED.

PASSED AND ADOPTED on this 21st day of May, 2012.

CENTRAL TEXAS GROUNDWATER CONSERVATION DISTRICT

By: _____
President

Secretary

APPENDIX C

NOTICE OF HEARING ON PROPOSED RE-ADOPTION OF DISTRICT MANAGEMENT PLAN AND SPECIAL MEETING OF THE CENTRAL TEXAS GROUNDWATER CONSERVATION DISTRICT

Notice is hereby given that the Board of Directors of the Central Texas Groundwater Conservation District (“District”) will hold a Public Hearing on the Proposed Re-Adoption of the District Management Plan on Monday, May 21, 2012 at 9:00 a.m. in the District office located at 225 S. Pierce Street, Suite 104, Burnet, Texas.

AGENDA

1. Call hearing to order and establish a quorum.
2. Receive General Manager and District Hydrologist’s recommendation on revisions to the District Management Plan.
3. Receive public comments on proposed re-adoption of the District Management Plan.
4. Consider and/or action on approval of resolution re-adopting the District Management Plan (the plan may be adopted as presented or as amended based upon comments received).
5. Adjourn the hearing.

Notice is hereby given that the Board of Directors of the Central Texas Groundwater Conservation District (“District”) will hold a Special Board Meeting on Monday, May 21, 2012 immediately following the 9:00 a.m. Hearing On Proposed Re-Adoption Of the District Management Plan in the District office located at 225 S. Pierce Street, Suite 104, Burnet, Texas.

The following items of business will be discussed, considered, and potentially acted upon by the Board of Directors: (see footnote 1)

AGENDA

1. Call meeting to order and establish a quorum.
2. Public Comment (See footnote 2)
3. Canvass Election Results of Election held May 12, 2012 For Director Precincts 1, 3, & At-Large; Issue Certificates of Election and Statement of Elected Directors.
4. Consider and/or act on Resolution Approving the Change of Date of the Regular Directors Election and Extending Directors Terms of Office.
5. Consider and/or act on Resolution Adopting a Policy for the Election of Unopposed Candidates.

6. Consider and/or action to Authorize Legal Counsel to Request Preclearance for Change in Election Date and the Policy on the Election of Unopposed Candidates from the U.S. Department of Justice as required by the Voting Rights Act of 1965.

7. Consider and/or action on Line Item Budget Transfers.

The Central Texas Groundwater Conservation District is committed to compliance with the Americans with Disabilities Act (ADA). Reasonable accommodations and equal opportunity for effective communications will be provided upon request. Please contact the District office at 512-756-4900 at least 24 hours in advance if accommodation is needed.

Footnotes:

1. At any time during the meeting and in compliance with the Texas Open Meetings Act, Chapter 551, Government Code, Vernon's Texas Codes, Annotated, the Central Texas Groundwater Conservation District Board may meet in executive session on any of the above agenda items for consultation concerning attorney- client matters (§551.071); deliberation regarding real property (§551.072); deliberation regarding prospective gift (§551.073); personnel matters (§551.074); and deliberation regarding security devices (§551.076), Any subject discussed in executive session may be subject to action during any open meeting.
2. Citizens who desire to address the Board on any matter may sign up to do so prior to the meeting. Public comments will be received during this portion of the meeting. Please limit comments to 3 minutes. No discussion or final action will be taken by the Board.
3. Comments will include activities and issues pertinent to the organization of the District and management of groundwater within the District, including, but not limited to, current events in the District involving groundwater, wells, and state or regional developments related to water management.

Certification: I, the undersigned authority, do hereby certify that on May 17, 2012, at or before 5:00 p.m., I posted and filed the above notice of meeting with the Burnet County Clerk's office and posted a copy in the hallway of the Burnet County Courthouse in a place convenient and readily accessible to the general public at all times. I also certify that a copy of the notice was posted on the door and on an outside window of the District office and that they will remain so posted continuously for at least 72 hours preceding the scheduled time of said meeting in accordance with the Texas Government Code, Chapter 551.

Charles Shell, General Manager
Central Texas Groundwater Conservation District

APPENDIX D

The attached letter was sent to the following entities:

Rebecca S. Motal, General Manager
Lower Colorado River Authority
P.O. Box 220
Austin, Texas 78767

LCRA
Attn: Region K
Mailstop R325
P.O. Box 220
Austin TX, 78767-0220

GMA 8
North Texas Groundwater Conservation District
PO Box 508
Gainesville, Texas 76241

Phil Ford, General Manager/CEO
Brazos River Authority
P. O. Box 7555
Waco, Texas 76714

City Manager
City of Burnet
P.O. Box 1369
Burnet, Texas 78611

Texas Parks & Wildlife Dept.
4200 Smith School Rd.
Austin, TX 78744-3218
Attn: Janelle Taylor
TPWD Inks State Park

Buena Vista Water System
P.O. Box 1629
Spring, TX 77383-1629

Windermere Oaks WSC
424 Coventry Road
Spicewood, TX 78669-3119
Attn: Dorothy Taylor

City of Bertram
P.O. Box 1604
Bertram, Texas 78605

City of Cottonwood Shores
3808 Cottonwood Dr
Cottonwood Shores, Texas 78657

City Manager
City of Marble Falls
800 Third Street
Marble Falls, Texas 78654

City Manager
City of Granite Shoals
P.O. Box 2580
Granite Shoals, Texas 78654

City Manager
City of Meadowlakes
177 Broadmoor, Suite A
Meadowlakes, Texas 78654

Bill Sparks
Kingsland Water Supply Corporation
P.O. Box 73
Kingsland, Texas 78639

APPENDIX E



May 28, 2012

SEE ATTACHED LIST:

Enclosed is a copy of the Revisions to the District Management Plan adopted by the Board of Directors at a Public Hearing held on May 21, 2012. The Management Plan will be used to manage the groundwater resources of Burnet County.

If you have comments on the plan please contact the District at:

P.O. Box 870
225 S. Pierce, Suite 104
Burnet, Texas 78611

Phone: 512-756-4900
Fax: 512-756-4997
or
cshell@centraltexasgcd.org.

Sincerely,

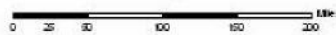
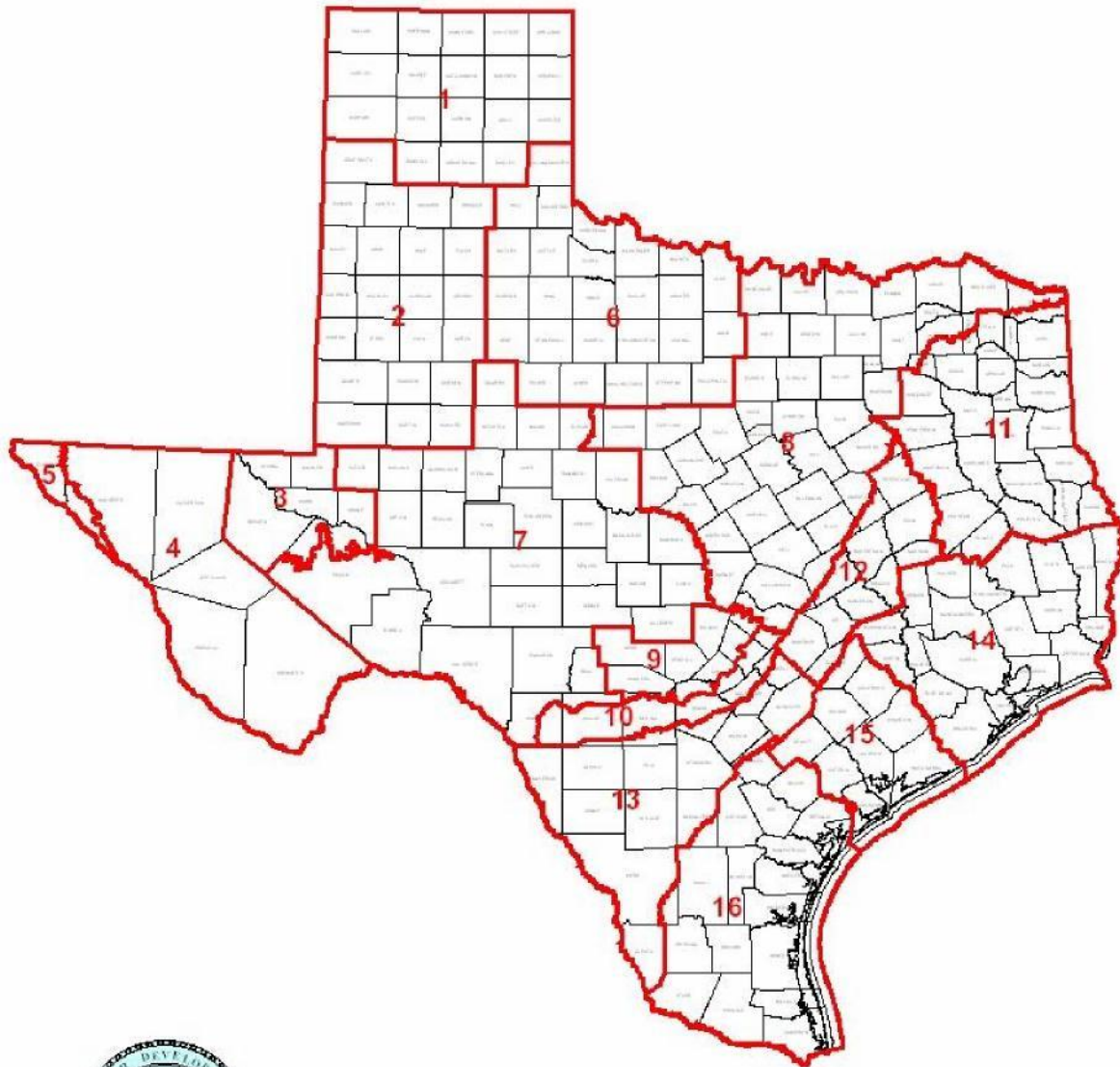
Charles Shell
General Manager

P.O. Box 870 • 225 S. Pierce, Suite 104 • Burnet, Texas 78611 • Phone: 512-756-4900 • Fax: 512-756-4997

www.centraltexasgcd.org

APPENDIX F

Groundwater Management Areas In Texas



DISCLAIMER
This material prepared by the State of Texas is provided for informational purposes only. It is not intended to constitute an offer of insurance or any other financial product. The insurance agent or broker is the only source for information regarding the terms, coverages, conditions, exclusions, and limitations of any policy. The insurance agent or broker is the only source for information regarding the terms, coverages, conditions, exclusions, and limitations of any policy.

APPENDIX G

Springs and Spring Discharge Rates in Burnet County

Spring	Aquifer	Discharge (acre-feet/year)
BT-57-22-202 ¹	San Saba Ls. of Ellenburger-San Saba aquifer	8.07
Delaware Springs ¹	San Saba Ls. of Ellenburger-San Saba aquifer	500.03
BT-57-14-902 ¹	San Saba Ls. of Ellenburger-San Saba aquifer	64.52
Big Spring ¹	San Saba Ls. of Ellenburger-San Saba aquifer	701.66
	Total=	1,274.28
Holland & Sand Springs ¹	Ellenburger Gp of Ellenburger-San Saba aquifer	3.06
BT_57-14-903 ¹	Ellenburger Gp of Ellenburger-San Saba aquifer	8.07
Patterson Springs ¹	Ellenburger Gp of Ellenburger-San Saba aquifer	4.74
Ebeling Springs ²	Ellenburger Gp of Ellenburger-San Saba aquifer	690.30
Tanyard Springs ²	Ellenburger Gp of Ellenburger-San Saba aquifer	5.11
Persimmon Springs ²	Ellenburger Gp of Ellenburger-San Saba aquifer	89.49
Mud Springs ²	Ellenburger Gp of Ellenburger-San Saba aquifer	69.04
Boiling Springs ²	Ellenburger Gp of Ellenburger-San Saba aquifer	43.47
Soldier Spring ²	Ellenburger Gp of Ellenburger-San Saba aquifer	24.29
Greenwood Springs ³	Ellenburger Gp of Ellenburger-San Saba aquifer	-
Wolf Springs ³	Ellenburger Gp of Ellenburger-San Saba aquifer	-
Williams Springs ³	Ellenburger Gp of Ellenburger-San Saba aquifer	-
Sulphur Springs ⁴	Ellenburger Gp of Ellenburger-San Saba aquifer	-
	Total=	937.57
Krause Springs ²	Marble Falls aquifer	485.77
	Total=	485.77
Buzzard Roost Spring ¹	Tanyard Fm. of Ellenburger-San Saba aquifer	16.13
BT-57-15-709 ¹	Tanyard Fm. of Ellenburger-San Saba aquifer	1.61
Lemons South Spring ¹	Tanyard Fm. of Ellenburger-San Saba aquifer	20.97
Lemons Middle Spring ¹	Tanyard Fm. of Ellenburger-San Saba aquifer	35.49
Lemons Park Office Spring ¹	Tanyard Fm. of Ellenburger-San Saba aquifer	140.33
	Total=	214.53
BT-57-30-801 ¹	Honeycut Fm. of Ellenburger-San Saba aquifer	322.60
Boil Springs ¹	Honeycut Fm. of Ellenburger-San Saba aquifer	241.95
Horseshoe Springs ¹	Honeycut Fm. of Ellenburger-San Saba aquifer	96.78
Felps Spring ¹	Honeycut Fm. of Ellenburger-San Saba aquifer	646.82
	Total=	1,308.15
Pecan Spring ¹	Unknown origin	14.48
Flatrock Springs ¹	Unknown origin	130.30
	Total=	144.78
	Burnet County Total=	4,365.08

1 - Data from USGS, 2003.

2 - Data from Brune, 1981.

3 - These springs were mentioned in Brune, 1981; however, no discharge values were given.

4 - No discharge values were given for these springs because they are currently under seven meters of water due to the creation of the Marble Falls Reservoir.

APPENDIX H

Estimated Historical Water Use TWDB Historical Water Use Survey (WUS) Data

Groundwater and surface water use estimates are currently unavailable for 2005, 2009 and 2010.
TWDB staff anticipates the calculation and posting of such estimates during the first half of 2012.

BURNET COUNTY

All values are in acre-feet/year

Year	Source	Municipal	Manufacturing	Steam Electric	Irrigation	Mining	Livestock	Total
1974	GW	1,360	37	0	136	1,622	190	3,345
	SW	366	0	0	382	688	683	2,119
1980	GW	1,675	26	0	100	0	322	2,123
	SW	1,213	69	0	536	1,018	303	3,139
1984	GW	1,790	23	0	291	116	435	2,655
	SW	2,168	49	0	0	133	435	2,785
1985	GW	1,854	23	0	600	17	450	2,944
	SW	1,805	0	0	0	623	450	2,878
1986	GW	1,927	25	0	300	19	417	2,688
	SW	1,675	56	0	0	1,035	417	3,183
1987	GW	1,889	3	0	300	14	392	2,598
	SW	1,377	65	0	0	1,024	392	2,858
1988	GW	1,155	4	0	300	15	421	1,895
	SW	2,150	66	0	0	983	421	3,620
1989	GW	1,134	9	0	100	174	415	1,832
	SW	2,252	1,142	0	165	762	415	4,736
1990	GW	1,240	8	0	114	174	410	1,946
	SW	2,286	1,108	0	186	762	410	4,752
1991	GW	1,165	222	0	114	98	421	2,020
	SW	2,103	373	0	186	775	421	3,858
1992	GW	1,155	6	0	114	240	397	1,912
	SW	1,937	451	0	186	779	397	3,750
1993	GW	1,602	8	0	65	240	396	2,311
	SW	2,101	293	0	98	779	396	3,667
1994	GW	1,385	4	0	100	295	419	2,203
	SW	2,485	366	0	90	816	419	4,176
1995	GW	1,483	4	0	74	330	429	2,320
	SW	2,757	574	0	111	816	429	4,687
1996	GW	1,583	4	0	85	330	326	2,328
	SW	3,718	538	0	128	1,029	326	5,739
1997	GW	1,969	4	0	85	330	351	2,739
	SW	2,948	542	0	128	1,085	351	5,054
1998	GW	2,088	10	0	85	92	408	2,683

*Estimated Historical Water Use and 2012 State Water Plan Dataset:
Central Texas Groundwater Conservation District
March 27, 2012*

Estimated Historical Water Use TWDB Historical Water Use Survey (WUS) Data

Groundwater and surface water use estimates are currently unavailable for 2005, 2009 and 2010.
TWDB staff anticipates the calculation and posting of such estimates during the first half of 2012.

Year	Source	Municipal	Manufacturing	Steam Electric	Irrigation	Mining	Livestock	Total
1998	SW	3,103	1,268	0	128	1,085	408	5,992
1999	GW	1,860	10	0	85	92	442	2,489
	SW	4,482	1,753	0	128	1,085	442	7,890
2000	GW	1,798	23	0	78	641	417	2,957
	SW	3,709	720	0	25	1,084	417	5,955
2001	GW	1,721	33	0	114	368	204	2,440
	SW	4,043	644	0	36	1,347	610	6,680
2002	GW	1,919	0	0	114	487	194	2,714
	SW	4,567	568	0	36	1,786	580	7,537
2003	GW	2,091	16	0	145	487	190	2,929
	SW	2,928	545	0	730	1,786	570	6,559
2004	GW	1,748	3	0	101	485	194	2,531
	SW	3,096	463	0	1,591	1,780	582	7,512
2006	GW	1,294	12	0	440	119	416	2,281
	SW	4,390	455	0	693	0	340	5,878
2007	GW	1,379	19	0	88	93	489	2,068
	SW	3,872	221	0	1,329	0	401	5,823
2008	GW	2,352	19	0	109	93	330	2,903
	SW	4,828	254	0	2,063	0	270	7,415

*Estimated Historical Water Use and 2012 State Water Plan Dataset:
Central Texas Groundwater Conservation District
March 27, 2012*

APPENDIX I

Projected Surface Water Supplies
TWDB 2012 State Water Plan Data

BURNET COUNTY

All values are in acre-feet/year

RWPG	WUG	WUG Basin	Source Name	2010	2020	2030	2040	2050	2060
K	BURNET	COLORADO	HIGHLAND LAKES LAKE/RESERVOIR SYSTEM	4,100	4,100	4,100	4,100	4,100	4,100
K	CHISHOLM TRAIL SUD	BRAZOS	BRAZOS RIVER AUTHORITY LITTLE RIVER LAKE/RESERVOIR SYSTEM	20	32	45	58	71	86
K	COTTONWOOD SHORES	COLORADO	HIGHLAND LAKES LAKE/RESERVOIR SYSTEM	138	138	138	138	138	138
K	COUNTY-OTHER	COLORADO	HIGHLAND LAKES LAKE/RESERVOIR SYSTEM	3,265	3,265	3,265	3,265	3,265	3,265
K	GRANITE SHOALS	COLORADO	HIGHLAND LAKES LAKE/RESERVOIR SYSTEM	830	830	830	830	830	830
K	IRRIGATION	COLORADO	COLORADO RIVER COMBINED RUN-OF-RIVER IRRIGATION	276	276	276	276	276	276
K	KEMPNER WSC	BRAZOS	BRAZOS RIVER AUTHORITY LITTLE RIVER LAKE/RESERVOIR SYSTEM	298	381	466	548	636	741
K	KINGSLAND WSC	COLORADO	HIGHLAND LAKES LAKE/RESERVOIR SYSTEM	78	78	78	78	78	78
K	LAKE LBJ MUD	COLORADO	HIGHLAND LAKES LAKE/RESERVOIR SYSTEM	259	294	327	358	389	425
K	LIVESTOCK	BRAZOS	LIVESTOCK LOCAL SUPPLY	341	341	341	341	341	341
K	LIVESTOCK	COLORADO	LIVESTOCK LOCAL SUPPLY	210	210	210	210	210	210
K	MANUFACTURING	COLORADO	COLORADO RIVER RUN-OF-RIVER	1,367	1,503	1,643	1,761	1,933	1,933
K	MANUFACTURING	COLORADO	HIGHLAND LAKES LAKE/RESERVOIR SYSTEM	500	500	500	500	500	500
K	MARBLE FALLS	COLORADO	HIGHLAND LAKES LAKE/RESERVOIR SYSTEM	3,000	3,000	3,000	3,000	3,000	3,000
K	MEADOWLAKES	COLORADO	COLORADO RIVER RUN-OF-RIVER	486	486	486	486	486	486

*Estimated Historical Water Use and 2012 State Water Plan Dataset:
Central Texas Groundwater Conservation District
March 27, 2012*

Projected Surface Water Supplies TWDB 2012 State Water Plan Data

RWPG	WUG	WUG Basin	Source Name	2010	2020	2030	2040	2050	2060
K	MEADOWLAKES	COLORADO	HIGHLAND LAKES LAKE/RESERVOIR SYSTEM	75	75	75	75	75	75
K	MINING	COLORADO	COLORADO RIVER RUN-OF-RIVER	747	762	778	801	826	826
Sum of Projected Surface Water Supplies (acre-feet/year)				15,990	16,271	16,558	16,825	17,154	17,310

APPENDIX J

Projected Water Demands TWDB 2012 State Water Plan Data

Please note that the demand numbers presented here include the plumbing code savings found in the Regional and State Water Plans.

BURNET COUNTY

All values are in acre-feet/year

RWPG	WUG	WUG Basin	2010	2020	2030	2040	2050	2060
K	BERTRAM	BRAZOS	282	360	445	527	574	630
K	BURNET	COLORADO	1,111	1,416	1,738	2,063	2,246	2,463
K	CHISHOLM TRAIL SUD	BRAZOS	28	40	53	66	79	94
K	COTTONWOOD SHORES	COLORADO	164	336	524	739	978	1,268
K	COUNTY-OTHER	BRAZOS	496	610	761	908	976	1,031
K	COUNTY-OTHER	COLORADO	2,529	3,087	3,764	4,430	4,842	5,217
K	GRANITE SHOALS	COLORADO	424	535	658	775	844	925
K	IRRIGATION	COLORADO	101	100	98	96	95	93
K	KEMPNER WSC	BRAZOS	298	381	466	548	636	741
K	KINGSLAND WSC	COLORADO	55	63	70	77	85	95
K	LAKE LBJ MUD	COLORADO	227	261	293	324	359	402
K	LIVESTOCK	BRAZOS	409	409	409	409	409	409
K	LIVESTOCK	COLORADO	426	426	426	426	426	426
K	MANUFACTURING	COLORADO	963	1,109	1,248	1,384	1,502	1,636
K	MARBLE FALLS	COLORADO	2,497	3,211	3,976	4,719	5,154	5,653
K	MEADOWLAKES	COLORADO	879	1,137	1,418	1,691	1,853	2,031
K	MINING	BRAZOS	61	64	66	67	69	70
K	MINING	COLORADO	1,895	1,985	2,032	2,078	2,121	2,165
Sum of Projected Water Demands (acre-feet/year)			12,845	15,530	18,445	21,327	23,248	25,349

APPENDIX K

Projected Water Supply Needs TWDB 2012 State Water Plan Data

Negative values (in red) reflect a projected water supply need, positive values a surplus.

BURNET COUNTY			All values are in acre-feet/year					
RWPG	WUG	WUG Basin	2010	2020	2030	2040	2050	2060
K	BERTRAM	BRAZOS	218	140	55	-27	-74	-130
K	BURNET	COLORADO	4,851	4,546	4,224	3,899	3,716	3,499
K	CHISHOLM TRAIL SUD	BRAZOS	0	0	0	0	0	0
K	COTTONWOOD SHORES	COLORADO	-26	-198	-386	-601	-840	-1,130
K	COUNTY-OTHER	BRAZOS	476	350	186	26	0	0
K	COUNTY-OTHER	COLORADO	1,048	482	-232	-898	-1,345	-1,720
K	GRANITE SHOALS	COLORADO	406	295	172	55	-14	-95
K	IRRIGATION	COLORADO	2,377	2,378	2,364	2,366	2,351	2,353
K	KEMPNER WSC	BRAZOS	0	0	0	0	0	0
K	KINGSLAND WSC	COLORADO	23	15	8	1	-7	-17
K	LAKE LBJ MUD	COLORADO	32	33	34	34	30	23
K	LIVESTOCK	BRAZOS	-23	-23	-23	-23	-23	-23
K	LIVESTOCK	COLORADO	1,277	1,277	1,266	1,266	1,256	1,256
K	MANUFACTURING	COLORADO	929	919	920	902	956	822
K	MARBLE FALLS	COLORADO	503	-211	-976	-1,719	-2,154	-2,653
K	MEADOWLAKES	COLORADO	-318	-576	-857	-1,130	-1,292	-1,470
K	MINING	BRAZOS	-7	-10	-12	-22	-24	-25
K	MINING	COLORADO	-681	-756	-788	-811	-829	-873
Sum of Projected Water Supply Needs (acre-feet/year)			-1,055	-1,774	-3,274	-5,231	-6,602	-8,136

APPENDIX L

Projected Water Management Strategies TWDB 2012 State Water Plan Data

BURNET COUNTY

WUG, Basin (RWPG)

All values are in acre-feet/year

Water Management Strategy	Source Name [Origin]	2010	2020	2030	2040	2050	2060
BERTRAM, BRAZOS (K)							
EXPANSION OF ELLENBURGER-SAN SABA AQUIFER	ELLENBURGER-SAN SABA AQUIFER [BURNET]	0	0	0	0	0	24
MUNICIPAL CONSERVATION	CONSERVATION [BURNET]	22	54	80	91	96	106
COTTONWOOD SHORES, COLORADO (K)							
AMEND LCRA CONTRACT	COLORADO RIVER COMBINED RUN-OF-RIVER - LCRA SUPPLY REALLOCATION [TRAVIS]	26	198	386	601	840	1,130
COUNTY-OTHER, COLORADO (K)							
EXPANSION OF ELLENBURGER-SAN SABA AQUIFER	ELLENBURGER-SAN SABA AQUIFER [BURNET]	0	0	0	418	804	1,179
EXPANSION OF TRINITY AQUIFER	TRINITY AQUIFER [BURNET]	0	0	480	480	541	541
GRANITE SHOALS, COLORADO (K)							
AMEND LCRA CONTRACT	COLORADO RIVER COMBINED RUN-OF-RIVER - LCRA SUPPLY REALLOCATION [TRAVIS]	0	0	0	0	14	95
KINGSLAND WSC, COLORADO (K)							
AMEND LCRA CONTRACT	COLORADO RIVER COMBINED RUN-OF-RIVER - LCRA SUPPLY REALLOCATION [TRAVIS]	10	11	12	13	14	17
LIVESTOCK, BRAZOS (K)							
EXPANSION OF TRINITY AQUIFER	TRINITY AQUIFER [BURNET]	23	23	23	23	23	23
MARBLE FALLS, COLORADO (K)							
AMEND LCRA CONTRACT	COLORADO RIVER COMBINED RUN-OF-RIVER - LCRA SUPPLY REALLOCATION [TRAVIS]	0	0	56	304	275	248
MUNICIPAL CONSERVATION	CONSERVATION [BURNET]	199	510	920	1,415	1,879	2,405

*Estimated Historical Water Use and 2012 State Water Plan Dataset:
Central Texas Groundwater Conservation District
March 27, 2012*

Projected Water Management Strategies TWDB 2012 State Water Plan Data

WUG, Basin (RWPG)		All values are in acre-feet/year					
Water Management Strategy	Source Name [Origin]	2010	2020	2030	2040	2050	2060
MEADOWLAKES, COLORADO (K)							
AMEND LCRA CONTRACT	COLORADO RIVER COMBINED RUN-OF- RIVER - LCRA SUPPLY REALLOCATION [TRAVIS]	241	382	506	593	593	593
MUNICIPAL CONSERVATION	CONSERVATION [BURNET]	77	194	351	537	710	897
MINING, BRAZOS (K)							
EXPANSION OF TRINITY AQUIFER	TRINITY AQUIFER [BURNET]	7	10	12	22	24	25
MINING, COLORADO (K)							
EXPANSION OF ELLENBURGER-SAN SABA AQUIFER	ELLENBURGER-SAN SABA AQUIFER [BURNET]	681	756	788	811	829	873
Sum of Projected Water Management Strategies (acre-feet/year)		1,286	2,138	3,614	5,308	6,642	8,156

*Estimated Historical Water Use and 2012 State Water Plan Dataset:
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