

**BRAZOS VALLEY**  
**Groundwater Conservation District**

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**TWDB**  
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CCTO: KW, BM, RP

May 18, 2004

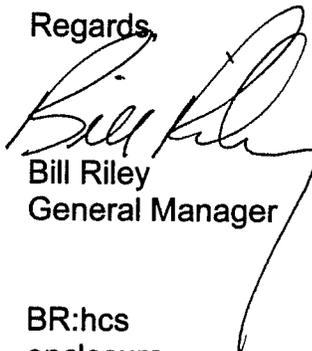
Mr. Kevin Ward  
Executive Administrator  
Texas Water Development Board  
Stephen F. Austin Building  
PO Box 13231  
1700 N. Congress Ave.  
Austin, TX 78711-3231

Dear Mr. Ward:

Pursuant to Chapter 36 of the Texas Water Code, Section 36.1071(a) & (b) and Section 36.1072(a), the Brazos Valley Groundwater Conservation District (District) has developed a comprehensive groundwater management plan and is forwarding the enclosed copy of the plan to the Texas Water Development Board (TWDB) for review and certification. Following public hearing and comment, this Management Plan was adopted by the District Board of Directors on May 6, 2004. A copy of the plan has been forwarded to the Brazos G Regional Water Planning Group for their review and comment.

The District would like to thank the TWDB staff for their assistance in the development of this plan. If you have any questions or concerns in regards to this plan please feel free to call me at 979/279-9350.

Regards,



Bill Riley  
General Manager

BR:hcs  
enclosure

# **Brazos Valley Groundwater Conservation District**



## **Groundwater Management Plan**

# **BRAZOS VALLEY GROUNDWATER CONSERVATION DISTRICT**

## **GROUNDWATER MANAGEMENT PLAN**

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- 1. Controlling and Preventing Subsidence**

**I. MISSION STATEMENT:**

The Brazos Valley Groundwater Conservation District was created by the Texas Legislature to protect and conserve the groundwater resources of Robertson and Brazos counties through local management. The District will direct its efforts toward preventing waste, collecting data, educating people about water conservation, and preventing irreparable harm to the aquifer. The District's rules and management plan will be based on the best available science, the laws and rules in effect, and the area's needs.

**II. TIME PERIOD FOR THIS PLAN:**

This plan becomes effective upon adoption by the BVGCD Board of Directors and subsequent certification by the Texas Water Development Board (TWDB). The management plan is based on a ten-year planning period, however, the plan shall be reviewed annually and may be revised at anytime to insure that it is consistent with the applicable Regional Water Plans, the State Water Plan, and additional science which may be developed. The District's Board of Directors shall re-adopt the management plan, with or without, revisions at least every five years.

**III. STATEMENT OF GUIDING PRINCIPLES:**

The residents of Brazos and Robertson counties rely solely on the local groundwater supplies to meet all of their drinking water needs and the majority of their agricultural and livestock needs. Therefore, the local groundwater resources are vital to the Brazos Valley's growth, health, economy, and environment. The District believes that this valuable resource can be managed in a prudent and cost effective manner

through conservation, education, and regulation. The overall management goal will be to ensure a sustainable supply of water from the local groundwater resources while recognizing the need to balance the protection of rights of private landowners with the responsibility of managing the area's groundwater resources for future generations. A basic understanding of the local aquifers and their hydro-geologic properties, as well as the quantification of available water supplies, is the foundation for development of prudent management strategies. The Carrizo-Wilcox aquifer as well as the minor aquifers in the area, must be conserved and preserved for future generations, to the extent allowed by law and made possible through the development of scientific data. This management document is intended as a tool for the District to provide continuity and develop an understanding of local aquifer conditions and subsequently implement proper groundwater management policies.

The District has a responsibility to continually monitor aquifer conditions. As conditions warrant, this document may be modified to best serve the district in meeting its mandated goals. At a minimum, the Board will review and re-adopt this plan every five years.

#### **IV. DISTRICT INFORMATION -31 TAC 356.5(a)(5)(A)(B)(C)(D)**

##### **A. Creation**

The Brazos Valley Groundwater Conservation District was originally created as a temporary District by the 76<sup>th</sup> Legislature through Senate Bill 1911. The District then operated with all of the powers granted to groundwater conservation districts by Chapter 36 of the Texas Water Code, except the authority to adopt a management plan or levy an

ad-valorem tax. The District was ratified by House Bill 1784 in the 77<sup>th</sup> Legislative Session in 2001, and was subsequently confirmed by the voters of both Brazos and Robertson counties in a general election held on November 5, 2002 and was granted full authorities afforded groundwater conservation districts by Chapter 36 of the Texas Water Code, limited only by provisions of the District's enabling legislation.

The District was created to implement proper management techniques, at the local level to address local groundwater needs that are vital to the Brazos and Robertson counties. The District will direct its efforts toward preventing waste, collecting data, providing education about water conservation, and preventing irreparable harm to the aquifer. This plan provides a template for the District to follow that will help develop an understanding of local aquifer conditions and subsequently implement proper groundwater management policies.

**B. Location and Extent**

The District encompasses Brazos and Robertson counties in Central Texas. The boundaries of the District are coterminous with the counties' boundaries. The District is bordered by Falls and Limestone counties to the North; Grimes and Washington counties to the South; Madison, Leon and Grimes counties to the East; and Milam and Burleson Counties to the West. The District comprises an area of approximately 1,456 square miles or 932,000 acres.

**C. Background**

The District's Board of Directors consists of eight (8) members who are appointed by their respective County Commissioners Courts. Four (4) members represent

Robertson County and four (4) members represent Brazos County. The Board of Directors are appointed to represent the following interests:

Robertson County

1. One must represent municipal interests in the county.
2. One must be a bona fide agricultural producer who derives a substantial portion of his or her income from agriculture in the county.
3. One must be an employee or director of a rural water supply corporation in the county.
4. One must represent active industrial interests in the county.

Brazos County

1. One must be an employee or director of a rural water supply corporation in the county.
2. One must be a bona fide agricultural producer who derives a substantial portion of his or her income from agriculture in the county.
3. The governing body of the City of Bryan, with the approval of the Brazos County Commissioners Court, shall appoint one Director.
4. The governing body of the City of College Station, with the approval of the Brazos County Commissioners Court, shall appoint one Director.

**D. Authority / Regulatory Framework**

In the preparation of its management plan, the District followed all procedures and satisfied all requirements of Chapter 36 of the Texas Water Code and Chapter 356 of the Texas Water Development Board's rules contained in Title 30 of the Texas

Administrative Code. The District exercises the powers that it was granted and authorized to use by and through the special and general laws that govern it, including Chapter 1307, Acts of the 77<sup>th</sup> Legislature, Regular Session, 2001, and Chapter 36 of the Texas Water Code.

**E. Groundwater Resources of the Brazos Valley Groundwater Conservation District**

The five significant aquifers within the District's boundaries are the Carrizo-Wilcox, Queen City, Sparta, Yegua, and Brazos River Alluvium. The Simsboro Sand is the most prolific water-yielding unit and is part of the Carrizo-Wilcox aquifer. The Brazos River Alluvium located near the Brazos River is the next most prolific aquifer in the District. The Queen City, Sparta, and Yegua aquifers provide small to large pumping rates of useable groundwater to wells, as noted in Groundwater Resources of Brazos and Burleson Counties, Texas, Report 185 (Follett, 1974). A large pumping rate is defined as 200 gallons per minute or more. The vertical sequence of the geologic units in descending order is listed in Figure 1. The Carrizo-Wilcox (Simsboro Sand) and Sparta aquifers provide water for large capacity public supply wells. Water from the Yegua aquifer is used for domestic, stock, small irrigation, limited industrial pumping and some minor retail public water supply use. Brazos River Alluvium wells are used mostly for irrigation purposes. The outcrop of the Gulf Coast aquifer occurs in the very southern part of the District and the aquifer provides a small amount of water to wells.

The principle fresh-water aquifers consist of sandy fluvial and deltaic sediments, while marine silts and clays act as aquitards and separate the water-yielding zones. The Wilcox Group, from the shallowest to the deepest, consists of the Calvert Bluff

Formation, Simsboro Sand, and Hooper Formation. No fresh water aquifers are located below the Midway, which is a thick impermeable clay located at the base of the Hooper Formation. The Calvert Bluff Formation is comprised of clay, sandy clay, shale, silt, and sand. The Simsboro Sand is generally composed of sand while the Hooper Formation is made up of sand, silt, clay, and shale. The Simsboro Sand is older in age than the Carrizo, Queen City, Sparta, and Yegua formations. The Carrizo Sand and Queen City Sand are separated by the Reklaw Formation, which is a clay zone. The Cook Mountain Formation is composed of mostly clay and separates the Sparta Sand and Yegua formations. The Catahoula Sandstone or Catahoula Formation of the Gulf Coast aquifer is composed of clay and sand in cross-bedded lenses. The Brazos River Alluvium can be found in a two to six mile wide zone of floodplain alluvial deposits located along the Brazos River on the western boundary of the District. Sand, small gravel, and clay compose the relatively thin Brazos River Alluvium. Figure 2 illustrates a geologic cross section through Brazos and Robertson Counties and depicts the position, depth, thickness and dip of the aquifers and confining units.

System	Series	Geologic Unit	Hydrogeologic Unit
Quaternary	Holocene	Flood-plain alluvium	Brazos River alluvium
	Pleistocene	Terrace deposits	
Tertiary	Miocene	Catahoula Sandstone	
	Eocene	Jackson Group Whitsett Formation Manning Formation Wellborn Formation Caddell Formation	
		Yegua Formation	Yegua aquifer
		Cook Mountain Formation	
		Sparta Sand	Sparta aquifer
		Weches Formation	
		Queen City Sand	Queen City aquifer
		Reklaw Formation	
		Carrizo Sand	Carrizo-Wilcox aquifer
		Wilcox Group Calvert Bluff Simsboro Hooper	

Figure 1: Geologic Units

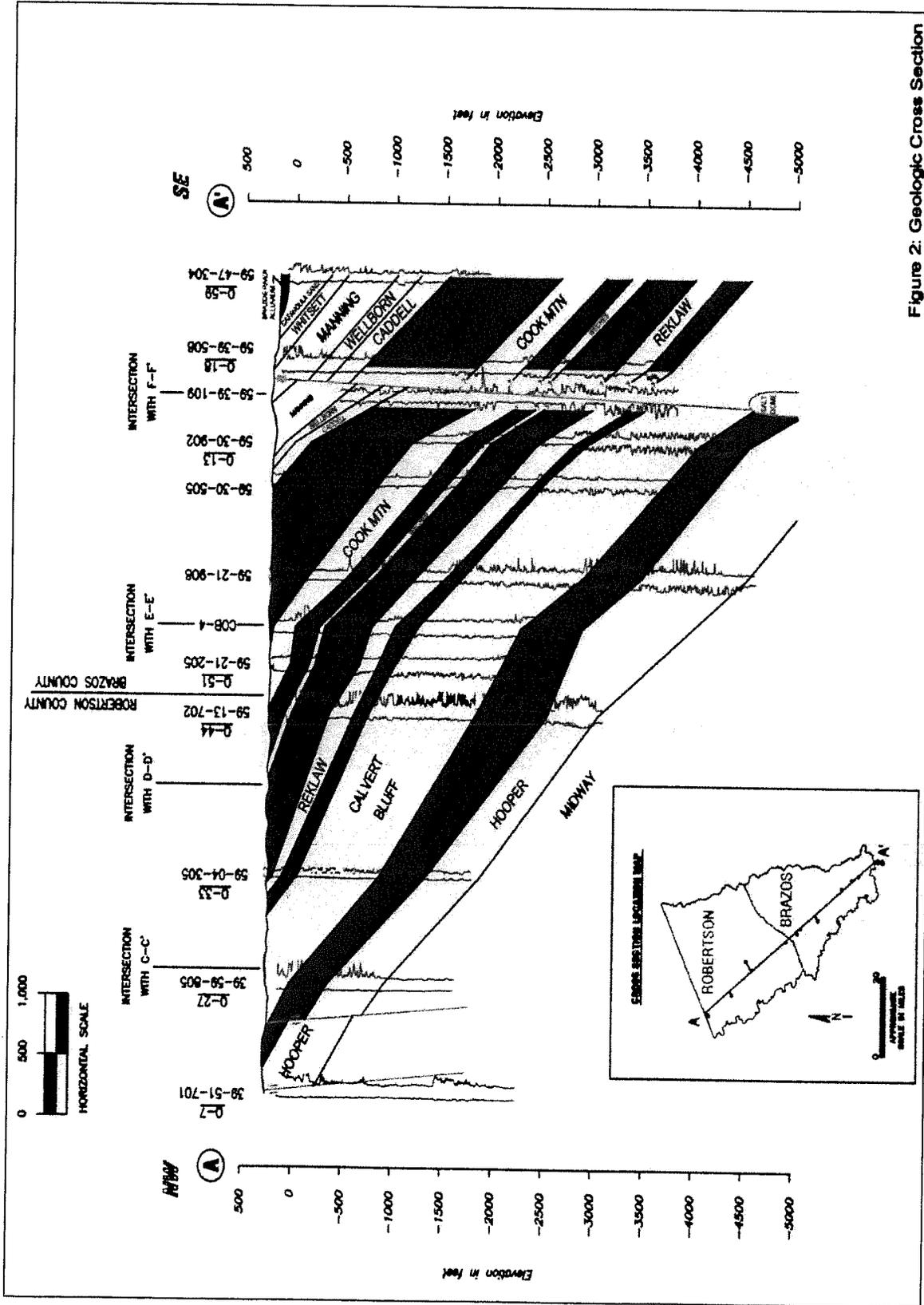
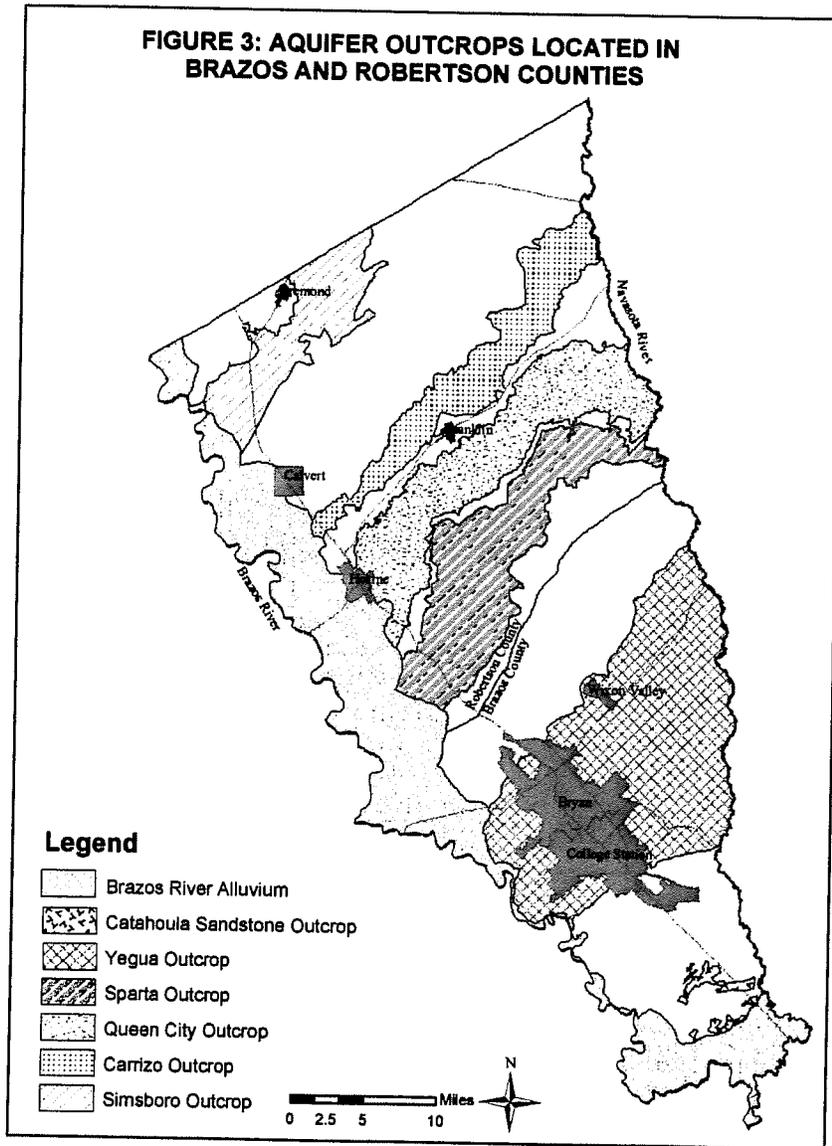


Figure 2: Geologic Cross Section

The Carrizo-Wilcox, Queen City, Sparta, and Yegua aquifers outcrop within the District's boundaries in northeast to southwest trending belts that parallel the Gulf coastline. An aquifer outcrop map is included for Brazos and Robertson Counties in Figure 3. The aquifer outcrops extend outside of the two counties shown on the map.



Younger formations outcrop closest to the coast and older formations outcrop progressively further inland with increased age of the formations. The Catahoula Sandstone, which is the basal sand of the Gulf Coast aquifer, occurs in a very limited area in the southern tip of Brazos County.

The general trend of the aquifers, with exception of the Brazos River Alluvium, is to dip underground southeastward towards the Gulf Coast from their surface exposure. The formations dip at a maximum rate of about 110 feet per mile. Each formation underlies younger formations that have a similar dip toward the coast. A salt dome occurs in the southern part of Brazos County. The top of the salt dome has an elevation of about - 4,600 feet relative to sea level. The thickness and position of the Simsboro Sand is influenced by the salt dome, but the dome occurs significantly down dip of the area where the Simsboro Sand contains usable quality groundwater.

### **Topography and Drainage**

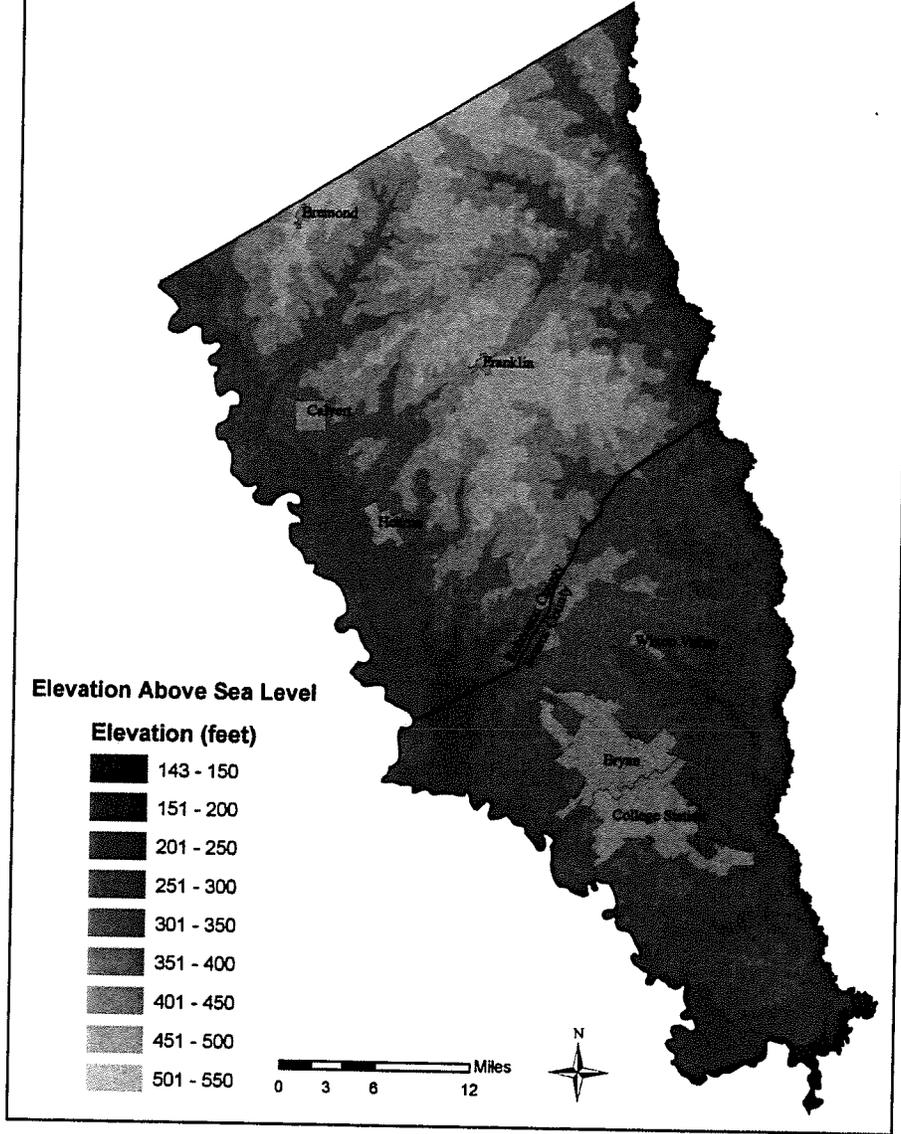
Natural topography in Brazos and Robertson counties range from gently hilly terrain in the center of the counties to relatively flat terrain along the Brazos and Navasota River corridors. The southwest border of the counties is the Brazos River and the eastern border is the Navasota River. The land surface elevation above sea level for Brazos and Robertson counties is shown on Figure 4. Altitudes in the District range from about 140 feet to 550 feet above mean sea level, with higher elevations in the center of the counties.

Numerous creeks drain runoff into the Brazos River west of the surface water drainage divide and into the Navasota River to the east of the surface water drainage divide. At the southern most tip of Brazos County, the Navasota River merges with the Brazos River. Drainages include Carters Creek, Cedar Creek, Duck Creek, Mud Creek,

Peach Creek, Pin Oak Creek, Spring Creek, Thompson Creek, Walnut Creek, Wickson Creek, and the Little Brazos River. The Little Brazos River drains Walnut Creek, Mud Creek, Pin Oak Creek, and Spring Creek into the Brazos River.

Carters Creek has a stream gradient of about 10 feet per mile towards the Navasota River from its origin in central Brazos County. Cedar Creek drains from central Robertson County through Brazos County to the Navasota River and has a stream gradient of about 9 feet per mile. Duck Creek has a stream gradient of about 7 feet per mile and drains northeast Robertson County into the Navasota River. Mud Creek drains central Robertson County into the Little Brazos River and has a stream gradient of about 10 feet per mile. Peach Creek has a stream gradient of about 12 feet per mile and drains southern Brazos County into the Navasota River. Pin Oak Creek drains southern Robertson County into the Little Brazos River and has a stream gradient of about 22 feet per mile. Spring Creek has a stream gradient of about 17 feet per mile and drains southern Robertson County into the Little Brazos River. Thompson Creek drains northwest Brazos County into the Brazos River and has a stream gradient of about 11 feet per mile. Walnut Creek has a stream gradient of about 7 feet per mile and drains northwestern Robertson County into the Little Brazos River. Wickson Creek drains central Brazos County into the Navasota River and has a stream gradient of about 8 feet per mile.

**FIGURE 4: LAND SURFACE ELEVATION ABOVE SEA LEVEL  
IN BRAZOS AND ROBERTSON COUNTIES**



**F. Surface Water Resources of Brazos and Robertson Counties**

Surface water is currently allocated by the TCEQ for the use and benefit of all people of the state. Anyone seeking a new water right must submit an application to the TCEQ. The TCEQ then determines whether or not the permit will be issued and the permit conditions. The water right grants a certain quantity of water to be diverted and/or stored, a priority date, and other conditions, which may include a maximum diversion rate and instream flow restrictions to protect existing water rights and environmental concerns.

The Brazos River Authority (BRA) is the largest water right holder within the District, holding most of the rights to the water within the Brazos River Basin, including the water in Lake Limestone in Northeast Robertson County. There are several smaller water rights within the District consisting primarily of small irrigation rights along the rivers. The BRA contracts raw water to various entities for long and short-term supplies for municipal, industrial, and irrigation uses.

Surface water supplies within the District's boundaries are limited and include the Brazos River, comprising the Western boundary of the District and the Navasota River along the Eastern boundary of the District. The majority of the water in these two rivers is permitted to the Brazos River Authority (BRA) and is available only through contract with the BRA. Currently, only a small portion of the water within these rivers is available.

**G. Estimate of Total Usable Amount of Groundwater in the District**

There are two major aquifers within the District, based on Texas Water Development Board (TWDB) data, which include the Carrizo-Wilcox and the Gulf Coast aquifers. There also are four minor aquifers that include the Brazos River Alluvium, Queen City, Sparta and Yegua. The Carrizo-Wilcox aquifer exists in the subsurface over a large part of the District and the Gulf Coast aquifer occurs at shallow depths only over the very southern end of the District. In that area, the Catahoula Sandstone of the Gulf Coast aquifer outcrops and is in the subsurface and is a minor source of water.

Table 1 below shows the estimated amounts of usable water available from the aquifers in the District.

Table 1 – Estimated Available Usable Water

<b>Estimated Groundwater Availability, ac-ft/yr</b>		
<b>Aquifer</b>	<b>Brazos County</b>	<b>Robertson County</b>
Brazos River Alluvium	12,500 <sup>1</sup>	13,000
Carrizo	3,000 <sup>2</sup>	5,000 <sup>2</sup>
Wilcox (Simsboro)	43,450 <sup>2</sup>	41,450 <sup>2</sup>
Queen City	645 <sup>1</sup>	440 <sup>1</sup>
Sparta	3,500	616 <sup>1</sup>
Yegua	1,100	0
Gulf Coast	1,177 <sup>1</sup>	0

<sup>1</sup> Estimate from Region G Planning Study 2001

<sup>2</sup> Total estimate for Carrizo and Wilcox aquifers from Region G Planning Study 2001

**Brazos River Alluvium**

The Brazos River alluvium has provided water for decades, principally to irrigation wells located in the flood plain of the Brazos River. Groundwater pumping from the Brazos River alluvium in Robertson County has ranged from about 6,300 ac-ft/yr in 1993 to about 18,000 ac-ft/yr in 1996, a year with significantly below normal

precipitation. Pumpage from the Brazos River alluvium in Robertson County over the past approximately 20 years, based on data available from the TWDB has averaged about 13,000 ac-ft/yr. Significant static water-level decline in wells screening the Brazos River alluvium has not been noted during that time period. It is estimated that the availability of water from the Brazos River alluvium is at least about 13,000 ac-ft/yr in Robertson County and approximately 12,500 ac-ft/yr in Brazos County.

### **Carrizo-Wilcox Aquifer**

The estimate of the combined quantity of water available from the Carrizo-Wilcox aquifer is from the Region G planning study of 2001 and represents an initial estimate of overall availability in Brazos and Robertson counties. The Simsboro Sand of the Wilcox aquifer provides the vast majority of water available from the Wilcox aquifer. In Brazos County, the Carrizo aquifer is utilized to a very limited degree because the mineralization of the water increases south of the boundary between Brazos and Robertson counties. Additional data and study are needed to improve the estimate of the amount of ground water available from the Carrizo aquifer. It is estimated that there could be about 5,000 acre-feet per year (ac-ft/yr) of water available from the Carrizo aquifer in Robertson County in the area down dip of the aquifer outcrop shown on Figure 3.

### **Queen City Aquifer**

The Queen City aquifer crops out at land surface in the central part of Robertson County as shown in Figure 3. It is a potential source of water in the areas down dip from outcrop. It is estimated that the quantity of water available from the aquifer is about 645 ac-ft/yr in Brazos County and about 440 ac-ft/yr in Robertson County. The Texas Water Development Board is funding a project to develop a groundwater availability model

(GAM) for the Queen City and Sparta aquifers. Information from that modeling effort along with other data that is developed by the District or through cooperative studies, will be used to refine or revise the estimate of the usable amount of groundwater available from the Queen City aquifer.

### **Sparta Aquifer**

The amount of usable groundwater from the Sparta aquifer is estimated at about 3,500 ac-ft/yr in Brazos County. For approximately the past 10 years, pumping from the aquifer has averaged about 2,300 ac-ft/yr with groundwater quality remaining good, the yields of wells being sustained, and available drawdown remaining in wells through the years. The estimate of availability of usable quality water for the Sparta aquifer in Robertson County is about 616 ac-ft/yr, according to Region G Planning Study of 2001. Additional data will be collected to refine the estimate of availability as the District expands its aquifer monitoring program. Also the Queen City and Sparta aquifer GAM under development and being funded by the TWDB, will be another tool used by the District as it continues to evaluate the groundwater availability in its area.

### **Yegua Aquifer**

This minor aquifer is an important source of water in Brazos County in the area essentially south and southeast of State Highway 21. The aquifer is utilized mainly by domestic and stock wells and also provides some water for irrigation. The estimated amount of usable groundwater available from the Yegua aquifer is approximately 1,100 ac-ft/yr. The estimate of availability will be revised as additional data is collected regarding pumpage and aquifer response to pumpage.

## **Gulf Coast Aquifer**

The Gulf Coast aquifer outcrop occurs in the very south part of Brazos County. The estimate of availability of about 1,177 ac-ft/yr is from the Region G Planning Study of 2001 and from estimates developed previously by the TWDB. The aquifer in the very south part of the District is capable of providing small quantities of water to wells.

In summary, the estimates of the amount of usable groundwater available are based on previous studies, Carrizo Wilcox GAM runs, and on the past response of the aquifers to pumpage. The District will continue to assess the amount of usable groundwater available and the assessment will aid in the long-term management of the water resources available within the District.

### **H. Current Annual Water Use**

The annual groundwater use within the District is currently estimated at 75,129 acre-feet. This data was developed as part of the Brazos G Regional Planning Study, 2006. The estimated usage for each water user group is shown in Table 2 below.

Table 2 – Current Annual Groundwater Use

<b>Water User Group</b>	<b>Use in Acre-feet per year</b>	<b>Source Aquifer</b>
Retail Public Supplies	33,129	Carrizo-Wilcox/Sparta/ Yegua
Manufacturing	309	Carrizo-Wilcox / Sparta
Steam-Electric	15,545	Carrizo-Wilcox
Mining	116	Carrizo-Wilcox
Irrigation	23,490	Carrizo-Wilcox / Brazos Alluvium
Livestock	2,540	Carrizo-Wilcox / Sparta / Yegua / Brazos Alluvium

### **I. Projected Water Demand within the District**

The Brazos G Regional Water Planning Group (BGRWPG) has projected that the total water demands for the District will be 118,892 acre-feet, by the year 2060. This

number includes use from all of the available groundwater sources within the District.

Table 3 below shows the current and projected water demands by user group within each county in the District through the year 2060. As indicated in the Regional water plan, these projections take into account population growth, rainfall, and conservation measures to be taken by each user group.

Table 3 – Projected Water Demand

<b>Robertson County</b>							
<b>Current and Projected Water Demand (acre-feet/year)</b>							
<b>Water User Group</b>	<b>Year</b>						
	<b>2000</b>	<b>2010</b>	<b>2020</b>	<b>2030</b>	<b>2040</b>	<b>2050</b>	<b>2060</b>
Manufacturing	65	85	101	117	134	150	163
Steam-Electric	15,000	28,000	30,000	30,000	35,000	40,000	40,000
Mining	91	82	80	79	78	77	76
Irrigation	16,572	16,175	16,019	15,561	15,115	14,682	14,261
Livestock	1,508	1,508	1,508	1,508	1,508	1,508	1,508
<u>Retail Public Water Supplies</u>							
Bremond	160	157	154	151	148	146	146
Calvert	332	327	323	318	313	310	310
Franklin	324	344	373	389	397	396	395
Hearne	1,145	1,124	1,108	1,093	1,077	1,066	1,066
Robertson County WSC	218	258	315	348	370	368	365
Tri-County WSC	75	77	82	83	84	83	83
Wickson Creek SUD	10	20	30	35	39	39	39
County-Other	548	567	594	609	616	613	611
<b>County Total</b>	<b>36,048</b>	<b>48,724</b>	<b>50,687</b>	<b>50,291</b>	<b>54,879</b>	<b>59,438</b>	<b>59,023</b>

<sup>1</sup> Estimate from Region G Planning Study 2006

<b>Brazos County</b>							
<b>Current and Projected Water Demand (acre-feet/year)</b>							
<b>Water User Group</b>	<b>Year</b>						
	<b>2000</b>	<b>2010</b>	<b>2020</b>	<b>2030</b>	<b>2040</b>	<b>2050</b>	<b>2060</b>
Manufacturing	244	316	365	413	462	506	549
Steam-Electric	545	453	361	422	497	588	698
Mining	25	27	28	29	30	31	31
Irrigation	6,918	6,584	6,267	5,964	5,676	5,403	5,142
Livestock	1,032	1,032	1,032	1,032	1,032	1,032	1,032
<u>Retail Public</u>							

<u>Water Supplies</u>							
Bryan	10,812	11,957	13,179	14,221	15,022	16,096	16,493
College Station	17,110	20,032	22,977	25,779	27,844	30,432	31,342
Wellborn SUD	858	1,069	1,285	1,482	1,637	1,820	1,886
Wickson Creek SUD	624	1,126	1,451	1,701	1,924	2,206	2,301
County-Other	913	808	695	593	510	422	395
<b>County Total</b>	<b>39,081</b>	<b>43,404</b>	<b>47,640</b>	<b>51,636</b>	<b>54,634</b>	<b>58,536</b>	<b>59,869</b>

<sup>1</sup> Estimate from Region G Planning Study 2006

**J. Projected Water Management Strategies to Meet Future Supply Needs**

The demand and supply data developed as part of the Region G planning process indicate that shortages experienced within the District over the 50 year planning period will be a result of the lack of infrastructure, rather than supply. (See table 4 below.) It is, therefore, anticipated that these shortages will be resolved by further development of the groundwater resources within the District. While there seems to be sufficient water resources today to meet the 50-year planning horizon, large scale water development projects, both within the District and neighboring Districts could significantly alter the available water supplies. Hydro-geological studies indicate that as groundwater production approaches the current water availability figures adopted by the Region G Regional Water Plan, a few older production wells in the Simsboro aquifer may need to be replaced due to declining water levels and limited available drawdown. Additional research and scientific data is needed to fully understand the long-term impact of large-scale production from the aquifers. As part of its long-range management strategy, the District will review changes in aquifer utilization and well water level changes to help estimate appropriate future well construction.

Table 4 – Projected Shortages

Water User	Projected Shortages (acft/yr)	
	Year 2030	Year 2050
City of Bryan	0	(3,106)
City of College Station	(6,381)	(12,295)
City of Hearne	(67)	(290)

Estimate from Region G Planning Study, January 2001

**K. Natural or Artificial Recharge of Groundwater Resources**

**1. Estimate of Amount of Recharge to the Groundwater Resources within the District.**

The aquifers within the District receive recharge from the infiltration of precipitation and from the infiltration of water from streams that cross the aquifer outcrops. The estimated locations of aquifer outcrops within the District are shown on Figure 3. Recharge to the aquifers within the District can occur outside the District boundaries as an aquifer outcrop extends to the north into an adjoining county or to the east and west of the District.

Estimates of recharge for the Carrizo and Simsboro aquifers have been in the range of 3 to possible 5 inches per year based on groundwater flow modeling work performed for the Region G planning effort. The Carrizo-Wilcox aquifer GAM project funded by the Texas Water Development Board (TWDB) also provided estimates of recharge to the Carrizo and the Simsboro aquifers. Based on the areas of the aquifer outcrops within Robertson County and an estimate of recharge of about 3 inches per year, the resulting estimate of recharge to the Simsboro aquifer is about 6400 to 8,000 acre-feet per year (ac-ft/yr) and to the Carrizo aquifer about 9,500 to 11,000 ac-ft/yr.

The Queen City aquifer is composed of fine-grained sands with interbedded clay. The outcrop area also can contain alternating areas of sands and other areas of lower

permeability silt or clay. It is estimated that recharge to the Queen City aquifer within the District is at least equal to the estimate of the availability of groundwater within the District of 1,085 ac-ft/yr. The Queen City aquifer crops out at land surface over about 105 square miles in Robertson County.

The Sparta aquifer is composed of quartz sand with a small amount of interbedded clay within the aquifer thickness. Recharge to the aquifer via infiltrated precipitation and stream flow is estimated to be at least as great as the availability of groundwater of about 4,116 ac-ft/yr. The estimated outcrop of the aquifer encompasses about 100 square miles. Information from the GAM being funded by the TWDB for the Queen City and Sparta aquifers will be used to help refine estimates of recharge.

The Yegua aquifer is composed of sandstone, clay, and lignite beds in some areas. The outcrop area is extensive in Brazos County as shown on Figure 3. Estimated recharge to the Yegua aquifer is at least 1,100 ac-ft/yr. Additional data will be collected and information obtained from the GAM being developed for the Queen City and Sparta aquifers to help refine the estimate of recharge to the Yegua aquifer. The aquifer or overlying fluviatile terrace deposits crop out at land surface over about 230 square miles in Brazos County.

The outcrop for the Catahoula sandstone of the Gulf Coast aquifer occurs in the very southern part of the District. In part of the outcrop area, either the Navasota River or Brazos River alluvium has covered or washed away. Most likely, some recharge to the Gulf Coast aquifer occurs via leakage from the Brazos River alluvium to the Catahoula sandstone. It is estimated that recharge to the Gulf Coast aquifer is at least as high as the estimate of availability of 1,117 ac-ft/yr.

The Brazos River alluvium, located in the area of the Brazos River flood plain encompasses about 140 square miles within Brazos and Robertson Counties. Recharge to the Brazos River alluvium is estimated to occur via infiltration of precipitation and stream flow including flow from the Little Brazos River that crosses part of the flood plain of the Brazos River alluvium. Recharge to the Brazos River alluvium is estimated to be at least 25,500 ac-ft/yr. Pumping from the alluvium for the past 20 years has not significantly lowered the water levels in wells screening the alluvium, an indication that pumpage is not exceeding the rate that water is being replenished to the aquifer.

**2. How Natural or Artificial Recharge of Groundwater Within The District Might Be Increased.**

Recharge enhancement may increase the amount of groundwater available from the aquifers within the District. Increasing recharge can be difficult in geologic environments that occur within the District because a large percentage of the potential recharge is rejected due to shallow water levels in the sediments of the aquifer outcrops or to the low permeability of some of the sediments in some of the aquifer outcrops. Recharge might be enhanced by the construction of rainfall runoff retention structures on ephemeral streams. Further study of the surface geology and soil characteristics in the District may result in the identification of areas with porous soils that could provide sites for enhanced recharge or test sites for recharge investigations.

**V. MANAGEMENT OF GROUNDWATER SUPPLIES – 31 TAC 356.5(A)(6)**

Groundwater conservation districts have statutorily been designated as Texas' preferred method of groundwater management, through the rules developed, adopted, and promulgated by individual groundwater district's, as authorized by Chapter 36 of the

Texas Water Code and the individual district's enabling act. Texas Water Code §36.0015. The Brazos Valley Groundwater Conservation District may manage groundwater supplies, in part, by regulating the spacing and production of wells, in order to minimize the drawdown of the water table or the reduction of artesian pressure, to control subsidence, to prevent interference between wells, to prevent degradation of water quality, or to prevent waste. Texas Water Code § 36.116. The method of groundwater production regulation must be based on the hydrogeological conditions of the aquifers in the District. However, the District may preserve historic use. Texas Water Code §36.116(b).

The Brazos Valley Groundwater Conservation District, as authorized by law, has adopted the following groundwater management strategy:

**1 Availability Goal**

The District will adopt an initial Availability Goal for the aquifers within the District utilizing information from hydrogeological studies of the Region G Water Planning Group, the Texas Water Development Board, and the District's hydrologist.

**2 Historic Use**

The District will preserve historic use of groundwater in Brazos and Robertson counties prior to the effective date of the District's Rules, when adopted.

**3 Pumping Rate Limit**

The District will regulate groundwater withdrawal through permitting efforts and by setting a maximum pumping rate limit of 3000 gpm / well.

#### **4 Beneficial Use**

The District will regulate groundwater withdrawal by setting production limits on wells based on evidence of beneficial use; and the District will continue to study various management methods including regulating groundwater production based on surface acreage which may become appropriate for effective management of groundwater withdrawal.

#### **5 Well Spacing**

The District will require well spacing on new water wells as follows:

- a. A new well may not be drilled within 50 feet from the property line of any adjoining landowners:
- b. Spacing of new wells completed in the Simsboro formation shall be spaced two feet per one gallon per minute of production capacity from existing wells; and
- c. Spacing of new wells completed in other formations (other than the Brazos River Alluvium) shall be spaced two feet per one gallon per minute production capacity from existing wells.

The District will incorporate these management strategies into its Rules and will permit wells accordingly.

### **VI. METHODOLOGY TO TRACK DISTRICT PROGRESS IN ACHIEVING MANAGEMENT GOALS 31 TAC 356.5 (a)(6)**

An annual report will be developed by the general manager and staff of the

District and provided to the members of the Board of the District. The Annual Report will cover the activities of the District including information on the District's performance regarding achieving the District's management goals and objectives. The annual Report will be delivered to the Board within 120 days following the completion of the District's fiscal year, beginning with the fiscal year that starts on January 1, 2005. A copy of the Annual Report will be kept on file and available for public inspection at the District's offices upon adoption.

**VII. ACTIONS, PROCEDURES, PERFORMANCE, AND AVOIDANCE FOR DISTRICT IMPLEMENTATION OF MANAGEMENT PLAN 31 TAC 356.5 (a)(4)**

The District will act on the goals and directives established in this management plan. The District will use the objectives and provisions of the management plan as a guideline in its policy implementation and decision-making. In both its daily operations and long term planning efforts, the District will continuously strive to comply with the initiatives and standards created by the management plan for the District.

After receiving public input, the District will adopt rules in accordance with Chapter 36 of the Texas Water Code and all rules will be followed and enforced. The District may amend the District rules as necessary to comply with changes to Chapter 36 of the Texas Water Code and to insure the best management of the groundwater within the District. The development and enforcement of the rules of the District will be based on the best scientific and technical evidence available to the District.

The District will encourage public cooperation and coordination in the implementation of the management plan for the District. All operations and activities of the District will be performed in a manner that best encourages cooperation with the

appropriate state, regional or local water entity. The meetings of the Board of the District will be noticed and conducted at all times in accordance with the Texas Open Meetings Act. The District will also make available for public inspection all official documents, reports, records and minutes of the District pursuant with the Texas Public Information Act.

### **VIII. MANAGEMENT GOALS AND OBJECTIVES 31 TAC 356.5(A)(1)**

Unless indicated otherwise, performance on goals will be measured annually. The plan will be subject to review at least every five years and modification will be made as appropriate. Information describing the programs, policies, and actions taken by the District to meet the goals and objectives established by the District will be included in the annual report prepared by the General Manager and presented to the Board of Directors.

#### **A. Management Goals:**

##### **1. Implement Strategies Providing For the Most Efficient Use of Groundwater:**

**1a. Objective** – Require all existing and new non-exempt wells constructed within the boundaries of the District to be permitted by the District and operated in accordance with District Rules. In addition, the District will encourage all exempt wells constructed within the District boundaries to be registered with the District.

➤ **Performance Standard** – The number of exempt and permitted wells registered within the District will be reported annually in the District's Annual Report submitted to the Board of Directors of the District.

**1b. Objective** – Regulate the production of groundwater by permitting wells within the District’s boundaries based on beneficial use and in accordance with District Rules.

➤ **Performance Standard** – Each year the District will accept and process applications for the permitted use of groundwater in the District, in accordance with the permitting process established by District Rules. The number and type of applications made for the permitted use of groundwater in the District, the number and type of permits issued by the District, and the amount of groundwater permitted, will be included in the Annual Report given to the Board of Directors.

**1c. Objective** – Conduct an investigation to evaluate the aquifers underlying the District and the current groundwater production within the District, and then determine the available groundwater that can be produced from each aquifer within the District on an annual basis. Using this data, the District will establish availability goals and will permit wells in accordance with the appropriate production goals.

➤ **Performance Standard** – The District will conduct the appropriate studies to identify the issues and criteria needed to address groundwater management needs within the District’s boundaries. Groundwater availability goals will be consistent with the Region G Regional Water Plan and based on research of the hydro-geologic and geographic characteristics of the aquifers, which may include, but not necessarily be limited to, the amount of water use, water quality, and water level decline.

Initial studies will be conducted by July 1, 2005, and additional studies will be conducted in future years as necessary.

- **Performance Standard** – A progress report on the work of the District regarding the conduct of appropriate groundwater availability studies will be included in the Annual Report of the District each year, as appropriate.

2. **Implement Strategies to Control and Prevent Waste of Groundwater:**

2.a **Objective** – Apply a water use fee to the permitted use of groundwater in the District to encourage conservation-oriented use of the groundwater resources to eliminate or reduce waste.

- **Performance Standard** – Each year the District will apply a water use fee to the non-exempt permitted use of groundwater produced within the District pursuant to District rules. The amount of fees generated and the amount of water produced for each type of permitted use will be a part of the Annual Report presented to the District Board of Directors.

2b. **Objective** – Evaluate District rules annually to determine whether any amendments are necessary to decrease the amount of waste within the District.

- **Performance Standard** – The District will include a discussion of the annual evaluation of the District rules, and the determination of whether any amendments to the rules are necessary to prevent the waste of groundwater in the Annual Report of the District provided to the Board of Directors.

**2c. Objective** – Provide information to the public and the schools within the District on the wise use of water to eliminate and reduce wasteful practices.

- **Performance Standard** – The District will include a page on the Districts web-site devoted to the wise use of water and providing tips to help eliminate and reduce wasteful use of groundwater. The District will provide information to local school Districts including providing book covers to encourage wise use of water.

**2d. Objective** – Adopt acceptable water availability goal utilizing information develop by the Region G, Regional Water Plan, the Texas Water Development Board and the District’s hydrologist.

- **Performance Standard** – Using the state’s Groundwater Availability Model (GAM) and additional science developed by the District to determine impact on existing wells develop an acceptable initial groundwater availability goal. Permit wells based on beneficial use and subject to availability as determined in the availability goal.

**3. Implement Strategies to Address Conjunctive Surface Water Management**

**Issues:**

**3a. Objective** – Encourage the use of surface water supplies where available, to meet the needs of specific user groups within the District.

- **Performance Standard** – The District will participate in the Region G - Regional Water Planning process and encourage the development of surface water supplies where appropriate. These activities will be noted in the Annual Report presented to the District Board of Directors.

4. **Implement Strategies to Address natural resource issues which impact the use and availability of groundwater, and which are impacted by the use of groundwater**

4a. **Objective** – Determine if there are any natural spring flows within the District that may be impacted by increased groundwater pumping.

- **Performance Standard** - Monitor water levels near natural spring flows for potential impact from groundwater production. Prepare an annual assessment statement and include in annual report to the District Board of Directors.

5. **Implement Strategies to Address Drought Conditions:**

5a. **Objective** – Use the Palmer Drought Severity Index (PDSI) map to monitor drought conditions and notify permit holders of severe drought conditions.

- **Performance Standard** – The District will monitor the Palmer Drought Severity Index (PDSI) maps at least monthly and will notify existing water producers of any severe or expected severe drought conditions. The

District will make an assessment of drought conditions in the District and will prepare an annual briefing to the Board of Directors.

**5b. Objective** – Require all water producers, that are required by the state of Texas to have drought contingency plans, to submit those plans to the District when applying for a permit for well production from the District.

➤ **Performance Standard** – Review all drought contingency plans submitted as a result of permit requirements whenever a severe drought condition is reached as determined by the PDSI.

**5c. Objective** – Develop a District drought contingency plan.

➤ **Performance Standard** – Complete the District drought contingency plan by January 2006.

**6. Implement Strategies to Promote Water Conservation:**

**6a. Objective** - Require all water producers requesting a permit for water production within the District to submit a water conservation plan at the time of permit application.

➤ **Performance Standard** – Review all water conservation plans submitted as a result of permit requirements to ensure compliance with permit conditions.

**6b. Objective** – Develop a system for measurement and evaluation of groundwater supplies.

- **Performance Standard** – Water level monitoring wells will be identified for each aquifer and will be monitored annually to track changes in static water levels. Baseline water levels and a water level monitoring program will be developed by January 2005.

**6c. Objective** – Assist in obtaining grant funds for the implementation of water conservation methods.

- **Performance Standard** – Work with the appropriate state and federal agencies to facilitate bringing grant funds to various groups within the District boundaries to develop and implement water conservation methods.

**7. Implement Strategies to Protect Water Quality:**

**7a. Objective** - Develop baseline water quality data and a system for continued evaluation of groundwater quality.

- **Performance Standard** – Water quality samples will be obtained from wells and will be evaluated on an annual basis to track water quality changes in water supplies. Baseline water quality data will be developed by January 2007.

**7b. Objective** – Require all water producers that are required by the Texas Commission on Environmental Quality to have well vulnerability studies prior to constructing a well, to provide evidence of the study to the District prior to construction of a well within the District.

- **Performance Standard** – Review all vulnerability studies submitted as a result of permit requirements to help ensure water quality protection.

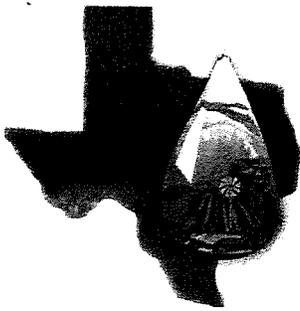
**7c. Objective** – Provide information to the public and the schools within the District on the importance of protecting water quality.

- **Performance Standard** – The District will include a page on the District's web-site devoted to water quality issues and will provide information to water producers on wellhead protection programs.

**B. Management Goals determined not to be applicable to the Brazos Valley Groundwater Conservation District.**

**1. Controlling and preventing Subsidence:**

The geologic formation of the aquifers within the District precludes significant subsidence from occurring due to groundwater pumping.



**The Brazos Valley  
Groundwater Conservation District**

P.O. Box 528 • Hearne, Texas 77859 • PH: 979.279.9350 • FAX: 979.279.0035

**AN ORDER OF THE  
BRAZOS VALLEY GROUNDWATER CONSERVATION DISTRICT  
ADOPTING ITS MANAGEMENT PLAN FOR SUBMITTAL  
TO THE TEXAS WATER DEVELOPMENT BOARD FOR CERTIFICATION**

**WHEREAS**, the Brazos Valley Groundwater Conservation District (“District”) is charged by the Texas Legislature with providing for the conservation, preservation, protection, and prevention of waste of groundwater, and of groundwater resources under §36.0015, Tex. Water Code;

**WHEREAS**, the District is authorized to make and enforce fair and impartial rules to manage groundwater resources as scientifically necessary to conserve and protect groundwater resources in the area under §36.101, Tex. Water Code;

**WHEREAS**, pursuant to §36.1071, Tex. Water Code, following notice and hearing, the District shall develop a comprehensive management plan that addresses the following management goals, as applicable:

- (1) providing the most efficient use of groundwater;
- (2) controlling and preventing waste of groundwater;
- (3) controlling and preventing subsidence;
- (4) addressing conjunctive surface water management issues;
- (5) addressing natural resource issues;
- (6) addressing drought conditions; and
- (7) addressing conservation.

**WHEREAS**, pursuant to §36.1071, Tex. Water Code, the District’s management plan shall:

- (1) identify the performance standards and management objectives under which the district will operate to achieve the management goals identified;
- (2) specify, in as much detail as possible, the actions, procedures, performance, and avoidance that are or may be necessary to effect the plan, including specifications and proposed rules;

- (3) include estimates of the following:
- (A) the existing total usable amount of groundwater in the district;
  - (B) the amount of groundwater being used within the district on an annual basis;
  - (C) the annual amount of recharge, if any, to the groundwater resources within the district and how natural or artificial recharge may be increased; and
  - (D) the projected water supply and demand for water within the district; and
- (4) address water supply needs in a manner that is not in conflict with the appropriate approved regional water plan.

**WHEREAS**, in developing its management plan, the District shall use the groundwater availability modeling information provided by the executive administrator in conjunction with any available site-specific information provided by the District and acceptable to the Texas Water Development Board, under §36.1071, Tex. Water Code;

**WHEREAS**, pursuant to §36.1072, Tex. Water Code, the District shall, not later than two years after the election confirming the District's creation, submit the management plan required under Section 36.1071 to the Texas Water Development Board for review and certification.

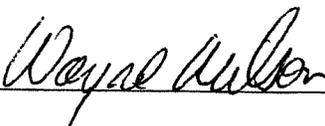
**NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF DIRECTORS OF THE BRAZOS VALLEY GROUNDWATER CONSERVATION DISTRICT THAT**

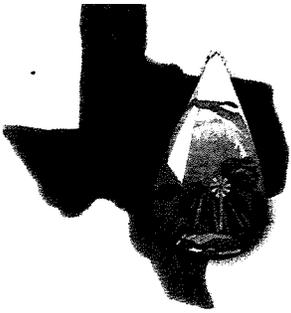
The District adopts the Brazos Valley Groundwater Conservation District Management Plan—2004 and submits it to the Texas Water Development Board for review and certification.

**PASSED AND APPROVED** this the 6th day of May, 2004

**BRAZOS VALLEY GROUNDWATER CONSERVATION DISTRICT**

  
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Agenda  
**BRAZOS VALLEY**  
**GROUNDWATER CONSERVATION DISTRICT**  
Public Hearing  
May 6, 2004 from 5:00 p.m. – 6:30 p.m.  
Brazos Valley Groundwater  
Conservation District Office  
112 W. 3<sup>rd</sup> Street  
Hearne, Texas

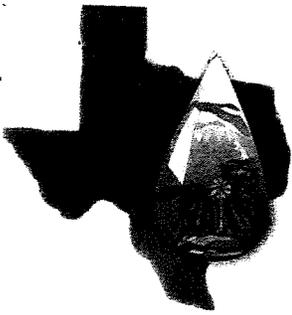
1. Public Hearing on District's Management Plan.

The District Board of Directors will be taking written and oral testimony regarding the District's Management Plan completed in compliance with Chapter 36 of the Texas Water Coder and Chapter 356.5 of the Texas Administrative Code.

Signed this 3<sup>rd</sup> day of May, 2004.

*Heather Skide for Wayne Wilson*  
Wayne Wilson  
President

- The Board of Directors may meet in closed session, pursuant to the Texas Open Meetings Act, Texas Government Code §§ 551.071-551.076, to:
- (1) consult with an attorney to seek advice about pending or contemplated litigation or a settlement offer;
  - (2) deliberate regarding the purchase, exchange, lease, or value of real property if deliberation in an open meeting would have a detrimental effect on the position of the District in negotiations with a third person;
  - (3) deliberate a negotiated contract for a prospective gift or donation to the District if deliberation in an open meeting would have a detrimental effect on the position of the District in negotiations with a third person;
  - (4) to deliberate the appointment, employment, evaluation, reassignment, duties, discipline or dismissal of a Board member or District employee;
  - (5) to receive information from employees or question employees, but not deliberate public business or agency policy that affects public business; and
  - (6) to deliberate the deployment or specific occasions for implementation of security personnel or devices.
- The Board may also meet in open session on these matters as required by the Texas Open Meetings Act, Texas Government Code § 551.102.
- \*\* Agenda items may be taken out of order at the discretion of the Board Chairman**



Agenda  
**BRAZOS VALLEY**  
**GROUNDWATER CONSERVATION DISTRICT**  
Regular Meeting  
May 6, 2004 at 7:00 p.m.  
Brazos Valley Groundwater  
Conservation District Office  
112 W. 3<sup>rd</sup> Street  
Hearne, Texas

1. Discussion and possible action on Minutes from the March 4, 2004, Regular Board meeting.
2. Review and Authorization of payments made for services rendered during March, 2004 and April, 2004.
3. Discussion and possible action on signatory authority for District's Bank Account.
4. Discussion and possible action on Resolution adopting District's Management Plan.
5. General Manager's Report
6. Legal Report
7. Hear visitors
8. Adjourn

Signed this 3<sup>rd</sup> day of May, 2004.

*Heather Skide for Wayne Wilson*  
Wayne Wilson  
President

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- (1) consult with an attorney to seek advice about pending or contemplated litigation or a settlement offer;
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- (5) to receive information from employees or question employees, but not deliberate public business or agency policy that affects public business; and
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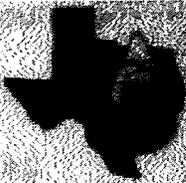
# World War II remembered

## *Bill Palmos protected the U.S. from the air as a blimp pilot*

by Melissa Freeman

The Palmos men were a patriotic bunch. Even before the Japanese attack on Pearl Harbor on December 7, 1941, all five had volunteered to defend the free world. Three of the five were eligible.

The three who joined, Paul, Demetre, and Bill, made an impact. Demetre was on board the U.S.S. Sparye out of Pearl when the Japanese attacked. Paul lost his life when his ship, light cruiser U.S.S. Juno, was sunk by a Japanese submarine in the South Pacific, and Bill, ironically, became a blimp pilot with the task of protecting U.S. conveys from submarine attacks.



### Brazos Valley Groundwater Conservation District

#### PUBLIC HEARING ON THE DISTRICT'S GROUNDWATER MANAGEMENT PLAN

Thursday, May 6, 2004

Public Hearing: 5:00 pm - 6:30 pm

Board Meeting: 7:00 pm

Brazos Valley Groundwater  
Conservation District  
Office  
112 W. 3rd Street  
Hearne, Texas

\*\*\*You may contact the District\*\*\*  
for a copy of the Management Plan  
(979) 279-9350

tradition to mark Mother's Day. However you decide to express your feelings, do it in a way that fits your mother's style, and Mother's Day will be an unforgettable experience for both of you.

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North  
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Artist

## GUN SAFE SALE

### "Lone Star Gun Safe

Featuring Champion Safes

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ROBERTSON COUNTY NEW

News

# As remaining, race too close to call

## Free outcome will hinge on events, not campaigns

economic measures than the three losing presidents, especially his father in 1992 and Jimmy Carter in 1980.

But by late spring of the election year, each of the last five incumbents who won had approval ratings higher than Bush enjoys, according to Gallup polls. And none of them faced an electorate polarized so profoundly.

In such an uncertain environment, confidence and concern mix on both sides. With the economy stirring, Republican pollster Bill McInturff sees Bush edging closer in his overall standing to the presidents who won than those who lost. "Bush is neither fish nor fowl, but he's more fish — closer to the winners — than he is fowl," he said.

Democratic pollster Stanley Greenberg, however, sees Bush teetering on the brink. "Across a broad range of questions, the number 49 percent hangs over him," Greenberg said. "As an incumbent, [he's] just at the edge of electability."

Presidential elections, like baseball teams, sometimes look very different in the fall than the spring, especially when Americans are ambivalent about the incumbent. At this point in 1980, President Carter led challenger Ronald Reagan in Gallup polls; Reagan eventually won decisively. At this point in 1992, several polls showed Clinton running third behind the elder

Bush and independent Ross Perot; Clinton ultimately won easily.

But by now, the path of the recent presidents who won a second term had diverged from those who didn't. Approval ratings for Carter in 1980 and the elder Bush in 1992 had dropped below 45 percent by early May, en route to fur-



KERRY

ther declines. In 1976, President Ford had slipped just below 50 percent in approval by mid-spring — where he remained through early summer en route to his narrow defeat by Carter.

By contrast, the five presidents who won second terms since 1956 all received positive ratings on their job performance from a majority of Americans at this point.

Dwight Eisenhower in 1956 and Lyndon Johnson in 1964 scored stratospheric ratings of around 70 percent. Richard Nixon in 1972, Reagan in 1984 and Clinton in 1996 were in situations more similar to Bush's today, with approval ratings just above 50 percent through mid-spring. Bush's rating stood at 52 percent in the latest Gallup poll, and from 46 percent to 51 percent in four other surveys released last week.

There's no sign Bush is on

track to follow his father and Carter into free-falls, or that he can reach the heights of approval scaled by Eisenhower and Johnson. The more relevant question might be whether Bush will follow Ford's model and remain around the 50 percent approval level that virtually

guarantees a close race, or rise into a comfort zone that provides a clear advantage.

Nixon, Reagan and Clinton saw their approval ratings grow through early summer. Is Bush poised for such a take-off? One senior Republican strategist familiar with campaign planning said, "I see preliminaries to it, and the preliminaries are driven by the economy."



Brazos Valley Groundwater Conservation District

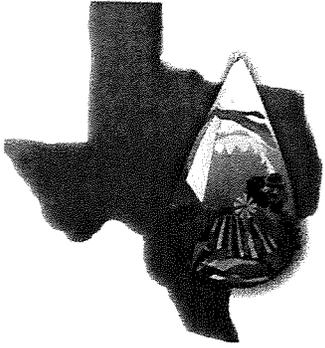
### PUBLIC HEARING ON THE DISTRICT'S GROUNDWATER MANAGEMENT PLAN

Thursday, May 6, 2004

Public Hearing: 5:00 pm - 6:30 pm  
Board Meeting: 7:00 pm

Brazos Valley Groundwater  
Conservation District  
Office  
112 W. 3rd Street  
Hearne, Texas

\*\*\*You may contact the District\*\*\*  
for a copy of the Management Plan  
(979) 279-9350



**MINUTES  
BRAZOS VALLEY  
GROUNDWATER CONSERVATION DISTRICT**

Public Hearing  
May 6, 2004  
5:00 pm to 6:30 pm  
Brazos Valley Groundwater  
Conservation District Building  
112 W. 3<sup>rd</sup> Street  
Hearne, Texas 77859

Directors present: Steve Lazarus, Tom McDonald, Wayne Wilson, Gary Lightsey, Pete Brien,  
Stephen Cast, John Woody  
Directors absent: Marcus Greaves  
Others present: Bill Riley, Monique Norman, Heather Skeide, John Seifert

1. Public Hearing on District's Management Plan.

The District held a public hearing and asked Citizens wishing to address the Board to sign in to speak and no one requested to speak to the Board concerning the Management Plan. Several individuals did address the Board on related issues. Comments are a matter of record and are recorded on audiocassette. Additionally, the law firm of Bracewell & Patterson provided a written testimony to be included as part of the record.

2. Adjourn

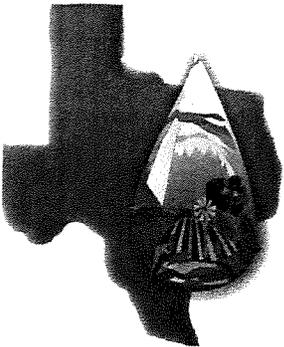
President Wilson adjourned the hearing at 5:45 p.m.

PRESIDENT:

SECRETARY:

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**MINUTES  
BRAZOS VALLEY  
GROUNDWATER CONSERVATION DISTRICT**

Regular Meeting  
May 6, 2004 at 7:00 p.m.  
Brazos Valley Groundwater  
Conservation District Building  
112 W. 3<sup>rd</sup> Street  
Hearne, Texas 77859

Directors present: Steve Lazarus, Tom McDonald, Wayne Wilson, Gary Lightsey, Pete Brien, Stephen Cast, John Woody  
Directors absent: Marcus Greaves  
Others present: Bill Riley, Monique Norman, Heather Skeide, John Seifert

1. Discussion and possible action on Minutes from the March 4, 2004, Regular Board Meeting.

Minutes were approved as presented.

2. Review and Authorization of payments made for services rendered during March, 2004 and April, 2004.

Payments made through March were reviewed and approved by all Directors present. Payments made through April were reviewed and approved by all Directors present.

3. Discussion and possible action on signatory authority for District's Bank Account.

Bill Riley informed the Board that the District is the Treasurer for the Texas Groundwater District Coalition and therefore has opened a new bank account for that purpose. He also informed the Board that the Bank is going to start charging a Fee of \$15.00/month to continue to watch the District's bank account for 2 signatures. After discussion, the Board decided not to pay the fee and have the District's treasurer, Pete Brien, review the monthly bank statements and copies of checks.

4. Discussion and possible action on Resolution adopting District's Management Plan.

The Board discussed the adoption of the Management Plan. Bill Riley went over several grammatical errors and changes to the plan which needed to be made. A Motion was made to pass the Resolution on adopting the Management Plan with suggested changes. The Motion passed unanimously.

5. General Manager's Report

Bill Riley presented the financial report. He told the Board that we will send the Management Plan to the Water Development Board for certification. Bill also suggested that a reasonable schedule for adoption of the rules would include at least 2 public hearings with one in Robertson County and one in Brazos County with adoption of the Rules in September or October of this year.

7. Legal Report

Monique Norman updated the Board on the Texas Groundwater District Coalition. Almost 1/2 of Texas' groundwater districts have joined in the coalition.

8. Hear Visitors

No Visitors spoke.

9. Adjourn

President Wilson adjourned the meeting at 7:50p.m.

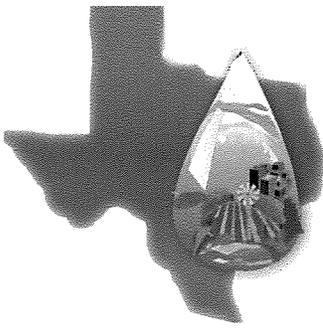
Signed this \_\_\_\_\_ day of \_\_\_\_\_, 2004.

PRESIDENT:

SECRETARY:

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DRAFT



**BRAZOS VALLEY**  
**Groundwater Conservation District**

P.O. Box 528  
Hearne, TX 77859  
PH: 979/279-9350  
FAX: 979/279-0035

June 22, 2004

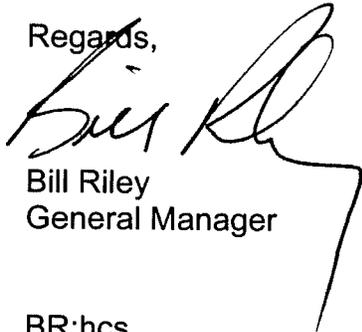
Ms. Rema Petrossian  
Texas Water Development Board  
Stephen F. Austin Building  
PO Box 13231  
1700 N. Congress Ave.  
Austin, TX 78711-3231

Dear Ms. Petrossian:

Per your request, enclosed is a copy of the letter we sent to Susan Morgan with the Brazos River Authority transmitting our Management Plan, letter from Brazos G Water Planning Group acknowledging receipt of our Management Plan and a copy of the certified Resolution adopting the Management Plan.

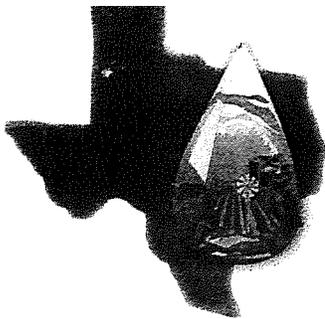
If you need anything further, please don't hesitate to let me know.

Regards,



Bill Riley  
General Manager

BR:hcs  
enclosure



**BRAZOS VALLEY**  
**Groundwater Conservation District**

P.O. Box 528  
Hearne, TX 77859  
PH: 979/279-9350  
FAX: 979/279-0035

**COPY**

June 21, 2004

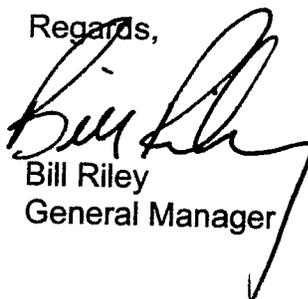
Ms. Susan Morgan  
Regional Manager  
Lower Basin  
Brazos River Authority  
PO Box 7555  
Waco, TX 76714-7555

Dear Ms. Morgan

Pursuant to Chapter 36 of the Texas Water Code, Section 36.1071(b) and Section 36.1072(a), the Brazos Valley Groundwater Conservation District (District) has developed a comprehensive groundwater management plan and is forwarding the enclosed copy of the plan to the Brazos River Authority for your review. Following public hearing and comment, this Management Plan was adopted by the District Board of Directors on May 6, 2004.

If you have any questions or concerns in regards to this plan please feel free to call me at 979/279-9350.

Regards,



Bill Riley  
General Manager

BR:hcs  
enclosure

# BRAZOS G

## WATER PLANNING GROUP

### VOTING GROUP MEMBERS

Tony Jones, Chair  
 Michael Morrison  
 Vice Chair  
 Phil Ford,  
 Secretary/Treasurer  
 Truman O. Blum  
 Mark H. Bryson  
 Jon H. Burrows  
 Tom Clark  
 Scott Diermann  
 Tim Fambrough  
 Horace R. Grace  
 A. V. Jones, Jr.  
 Terry Kelley  
 Scott Mack  
 Stephen L. Stark  
 Wiley Stem III  
 Chance Thompson, Jr.  
 Kent Watson

### COUNTIES

Bell  
 Bosque  
 Brazos  
 Burleson  
 Callahan  
 Comanche  
 Coryell  
 Eastland  
 Erath  
 Falls  
 Fisher  
 Grimes  
 Hamilton  
 Haskell  
 Hill  
 Hood  
 Johnson  
 Jones  
 Kent  
 Knox  
 Lampasas  
 Lee  
 Limestone  
 McLennan  
 Milam  
 Nolan  
 Palo Pinto  
 Robertson  
 Shackelford  
 Somervell  
 Stephens  
 Stonewall  
 Taylor  
 Throckmorton  
 Washington  
 Williamson  
 Young

BRAZOS RIVER AUTHORITY, Administrative Agent  
 P.O. Box 7555 Waco, Texas 76714-7555  
 (254) 761-3100 W Fax (254) 761-3204

June 21, 2004

Mr. Bill Riley  
 General Manager  
 Brazos Valley Groundwater Conservation District  
 P.O. Box 528  
 Hearne, Texas 77859

Dear Mr. Riley:

The Brazos River Authority has received the Brazos Valley Groundwater Conservation District's Management Plan on behalf of the Brazos G Regional Water Planning Group. The District's plan will be referenced in the Brazos G Regional Water Plan for consistency with the plan.

Please accept this letter as fulfillment of the TWDB rule for documentation of coordination with the Brazos G Regional Water Planning Group.

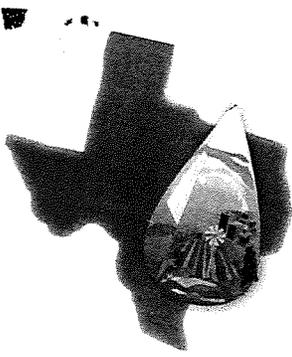
If you have any questions or need additional information, please call.

Sincerely,



Teresa Clark  
 Planner / Grant Coordinator  
 Brazos River Authority

Cc: David Dunn, HDR



**The Brazos Valley  
Groundwater Conservation District**

P.O. Box 528 • Hearne, Texas 77859 • PH: 979.279.9350 • FAX: 979.279.0035

**COPY**

**AN ORDER OF THE  
BRAZOS VALLEY GROUNDWATER CONSERVATION DISTRICT  
ADOPTING ITS MANAGEMENT PLAN FOR SUBMITTAL  
TO THE TEXAS WATER DEVELOPMENT BOARD FOR CERTIFICATION**

**WHEREAS**, the Brazos Valley Groundwater Conservation District ("District") is charged by the Texas Legislature with providing for the conservation, preservation, protection, and prevention of waste of groundwater, and of groundwater resources under §36.0015, Tex. Water Code;

**WHEREAS**, the District is authorized to make and enforce fair and impartial rules to manage groundwater resources as scientifically necessary to conserve and protect groundwater resources in the area under §36.101, Tex. Water Code;

**WHEREAS**, pursuant to §36.1071, Tex. Water Code, following notice and hearing, the District shall develop a comprehensive management plan that addresses the following management goals, as applicable:

- (1) providing the most efficient use of groundwater;
- (2) controlling and preventing waste of groundwater;
- (3) controlling and preventing subsidence;
- (4) addressing conjunctive surface water management issues;
- (5) addressing natural resource issues;
- (6) addressing drought conditions; and
- (7) addressing conservation.

**WHEREAS**, pursuant to §36.1071, Tex. Water Code, *the District's* management plan shall:

- (1) identify the performance standards and *management* objectives under which the district will operate to achieve the *management* goals identified;
- (2) specify, in as much detail as possible, the *actions*, procedures, performance, and avoidance that are or may be necessary to *effect* the plan, including specifications and proposed rules;

- (3) include estimates of the following:
  - (A) the existing total usable amount of groundwater in the district;
  - (B) the amount of groundwater being used within the district on an annual basis;
  - (C) the annual amount of recharge, if any, to the groundwater resources within the district and how natural or artificial recharge may be increased; and
  - (D) the projected water supply and demand for water within the district; and
- (4) address water supply needs in a manner that is not in conflict with the appropriate approved regional water plan.

**WHEREAS**, in developing its management plan, the District shall use the groundwater availability modeling information provided by the executive administrator in conjunction with any available site-specific information provided by the District and acceptable to the Texas Water Development Board, under §36.1071, Tex. Water Code;

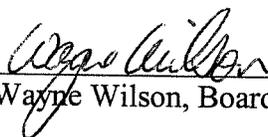
**WHEREAS**, pursuant to §36.1072, Tex. Water Code, the District shall, not later than two years after the election confirming the District's creation, submit the management plan required under Section 36.1071 to the Texas Water Development Board for review and certification.

**NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF DIRECTORS OF THE BRAZOS VALLEY GROUNDWATER CONSERVATION DISTRICT THAT**

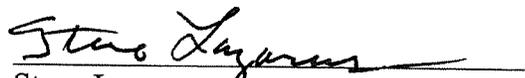
The District adopts the Brazos Valley Groundwater Conservation District Management Plan—2004 and submits it to the Texas Water Development Board for review and certification.

**PASSED AND APPROVED** this the 6th day of May, 2004

**BRAZOS VALLEY GROUNDWATER CONSERVATION DISTRICT**

  
\_\_\_\_\_  
Wayne Wilson, Board President

ATTEST:

  
\_\_\_\_\_  
Steve Lazarus

**Regional Water Planning Area Project Manager Review of  
Groundwater Conservation District Management Plan for  
Conflicts With a TWDB Approved Regional Water Plan**

Review of the Groundwater Conservation District Management Plan for Conflict With TWDB Approved Regional Water Plan(s)	Yes	No
13(a). Did the District provide a letter by certified mail, return receipt requested to all Regional Water Planning Groups formed under authority of TWC §16.053 (c) in which any part of the District is located, asking the Regional Water Planning Group to review the groundwater management plan and specify any areas of conflict with the Texas Water Development Board approved regional water plan? 31TAC §356.6 (a)(5)	yes	
13(b). Did any Regional Water Planning Group formed under authority of TWC §16.053 (c) indicate any potential conflict between the groundwater conservation district management plan and a Texas Water Development Board approved regional water plan? 31TAC §356.6 (a)(5)		NA
13(c). Did reviewer identify any potential conflicts between the management plan and the Texas Water Development Board approved regional water plan? TWC §36.1071 (e)(4), 31TAC §356.6 (a)(5) [If answering Yes, please provide a written explanation]		No
Signify an affirmative response with YES Signify a negative response with NO Signify that a checklist item is not applicable with (N/A)		

**AFFIRMATION OF COMPLETION OF THE GROUNDWATER CONSERVATION DISTRICT  
MANAGEMENT PLAN REVIEW PROCESS BY TEXAS WATER DEVELOPMENT BOARD**

The undersigned does affirm and attest that the management plan submitted by:

\_\_\_\_\_ Brazos Valley GCD  
has been reviewed and the contents of \_\_\_\_\_ have been found to fulfill the requirements of TWC §36.1071 (e)(4) and 31TAC Ch. 356.6 (a)5, as defined by the TWDB groundwater management plan review checklist.

**David Meesey**

**G**

\_\_\_\_\_, Project Manager for Region \_\_\_\_\_  
(Please Print Project Manager's Name)

\_\_\_\_\_  
(Project Manager's Signature)

Date 6/18/04