

Texana Groundwater Conservation District

Management Plan

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TEXANA GROUNDWATER CONSERVATION DISTRICT

MANAGEMENT PLAN

I. District Mission

The Texana Groundwater Conservation District (the District) is committed to manage, conserve, preserve and protect the groundwater resources of the District. The District is committed to maintaining a sustainable, adequate, reliable, cost effective and high quality source of groundwater to promote the vitality, economy and environment of the District. The District will work with and for the citizens of the District and cooperate with other local, regional and state agencies involved in the study and management of groundwater resources. The District shall take no action without a full consideration of the groundwater needs of the citizens of the District.

II. Purpose of Management Plan

In 1997 the 75th Texas Legislature established a statewide comprehensive regional water planning initiative with the enactment of Senate Bill 1 (SB1). Among the provisions of SB1 were amendments to Chapter 36 of the Texas Water Code requiring groundwater conservation districts to develop a groundwater management plan that shall be submitted to the Texas Water Development Board for approval as administratively complete. The groundwater management plan is specified to contain estimates on the availability of groundwater in the District, details of how the District would manage groundwater and management goals for the District. In 2001 the 77th Texas Legislature further clarified the water planning and management provisions of SB1 with the enactment of Senate Bill 2 (SB2).

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 jointly agree upon and establish the desired future conditions of the aquifers within their respective GMAs. Through this process, the districts will submit the desired future conditions (DFC) to the executive administrator of the Texas Water Development Board (TWDB) who, in turn, will provide each district within the GMA with the amount of Managed Available Groundwater (MAG) within each district. The MAG will be based on the desired future conditions jointly established for each aquifer within the GMA.

The administrative requirements of the Chapter 36 Texas Water Code provisions for groundwater management plan development are specified in 31 Texas Administrative Code Chapter 356 of the Texas Water Development Board Rules. This plan fulfills all requirements for groundwater management plans in SB1, SB2, Chapter 36 Texas Water Code and administrative rules of the Texas Water Development Board.

III. Time Period of Management Plan

This plan shall be in effect for a period of five years from the date of TWDB approval, unless a new or amended management plan is adopted by the District Board of Directors and approved by TWDB. This plan will be reviewed within five years as required by TWC 36.1072(e). 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).

IV. Texana Groundwater Conservation District

The District was created in 1999 by the 76th Texas Legislature, regular session, enacting SB 1911, passed the Senate May 17, 1999 and the Senate concurred in House amendments on May 28, 1999. The District was confirmed by majority vote in the local election held in Jackson County on November 6, 2001.

The District is located in Jackson County, Texas. The District boundary is the same as the area and extent of Jackson County, Texas and is comprised of 829.5 square miles. The boundaries of the District include the incorporated towns of Edna and Ganado and the unincorporated towns of LaWard, Lolita and Vanderbilt. The District is bounded by Victoria, Calhoun, Colorado, Wharton, Lavaca and Matagorda Counties. As of the plan date, confirmed groundwater conservation districts (GCDs) exist in Victoria, Wharton, Colorado and Matagorda Counties. The GCDs neighboring the District are: Coastal Bend GCD (Wharton), Coastal Plains GCD (Matagorda), Colorado County GCD (Colorado) and Victoria County GCD (Victoria).

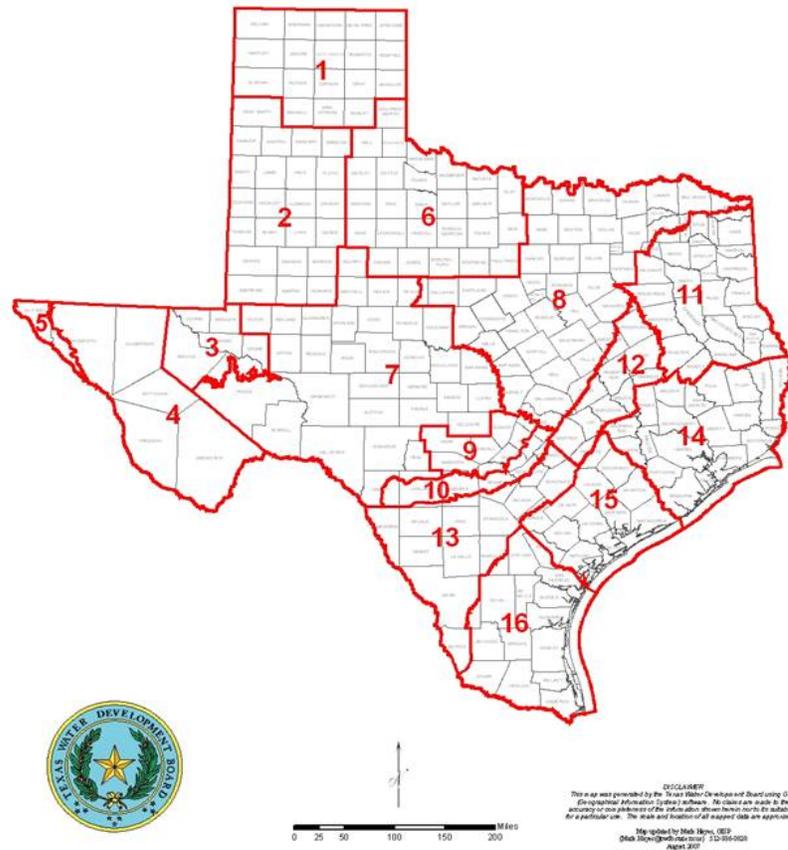


Figure 2: Groundwater Management Areas in Texas

The District Board of Directors is composed of seven members elected to staggered four-year terms. Four directors are elected from county precincts and three directors are elected at-large. The Board of Directors holds regular meetings at the District offices at Jackson County Services Building located at 213 W Cypress in Edna, Texas on the second Tuesday of each month unless otherwise posted. All meetings of the Board of Directors are public meetings noticed and held in accordance with all public meeting requirements.

The Board of Directors meetings are announced on the District website (www.co.jackson.tx.us/ips/cms/TexanaGroundwater.html) along with other items of interest posted by the District.

V. Authority of the District

The District derives its authority to manage groundwater within the District by virtue of the powers granted and authorized in the District's enabling legislation. The District, acting under authority of the enabling legislation, assumes all the rights and responsibilities of a groundwater conservation district specified in Chapter 36 of the Texas Water Code. Upon adoption of the District Rules by the

Board of Directors in a public meeting, the authority to manage the use of groundwater in the District will be governed at all times by the due process specified in the District Rules. A copy of the currently adopted rules can be downloaded from the District website at <http://www.co.jackson.tx.us/ips/cms/TexanaGroundwater.html>

VI. Geology and Hydrologic Units of the District

The aquifer layers described below (Jasper, Evangeline, and Chicot) are all part of the Gulf Coast Aquifer, which is recognized by the TWDB as a major aquifer.

Except for the Quaternary alluvium, the geologic formations crop out in belts nearly parallel to the Gulf of Mexico. Younger formations crop out nearer the Gulf and older formations crop out inland. The formations dip toward the coast and thicken causing the older formations to dip more steeply. Faults are common and some of them have displacements of up to several hundred feet. The displacements tend to decrease upward and may not appear at the surface. Faulting generally does not disrupt regional hydraulic continuity. (Loskot, Sandeen and Follett 1982)

Jasper Aquifer

The Jasper aquifer is a minor source of water that may be slightly or moderately saline. It consists mainly of the Oakville Sandstone, but may include the upper part of the Catahoula Sandstone. The Oakville Sandstone contains laterally discontinuous sand and gravel lenses inter-bedded with shale and clay. Massive sandstone beds at the base of the formation thin upward with greater amounts of shale and clay. The Jasper aquifer ranges in thickness from about 200 to 800 feet where fresh to slightly saline water is present, but may reach 2,500 feet of thickness down dip in Wharton County. (Loskot, Sandeen and Follett 1982)

Burkeville Confining Layer

The Burkeville confining layer is mostly clay but contains some sand layers. The Burkeville clay sequences are identified in the subsurface by electric logs and act as a regional impediment to the vertical flow of water. The Burkeville ranges from 300 to 500 feet in thickness. (Loskot, Sandeen and Follett 1982)

Evangeline Aquifer

The Evangeline aquifer consists of sand and clay of the Goliad Sand and the upper part of the Fleming Formation. The Evangeline aquifer generally contains more sand than clay. Some of the sands and clays are continuous throughout much of the area. Individual sands may reach 100 feet in thickness in the area containing fresh to slightly saline water. The maximum thickness of the Evangeline aquifer is 1,380 feet and may have up to 470 feet of sand in aggregate thickness. Fresh water may occur as deep as 1,400 to 1,700 feet in Jackson County. (Loskot, Sandeen and Follett 1982)

Chicot Aquifer

The Chicot aquifer is the main source of groundwater in Jackson County and consists of discontinuous layers of sand and clay of about equal thickness. It is composed of water bearing units of the Willis Sand, Lissie Formation, Beaumont Clay and Quaternary alluvium, which include all deposits from land surface to the top of the Evangeline aquifer. The Chicot aquifer contains all fresh water in Jackson County. Individual sands may reach 500 feet in thickness. It is in hydrologic continuity with the Evangeline aquifer and the two units can be difficult to distinguish. The Chicot is delineated from the Evangeline in the subsurface mainly on higher sand to clay ratios that give the Chicot higher hydraulic conductivity. (Loskot, Sandeen and Follett 1982)

System	Series	Geologic Unit		Hydrologic Unit
Quaternary	Holocene	Alluvium		Chicot aquifer
	Pleistocene	Beaumont Clay		
		Montgomery Formation	Lissie Formation	
		Bentley Formation		
		Willis Sand		
Tertiary	Pliocene	Goliad Sand		Evangeline aquifer
	Miocene	Fleming Formation		Burkeville Confining Zone
		Oakville Sandstone		Jasper aquifer
		Catahoula Sandstone (Tuff)		

Figure 3: Geologic and Hydrologic Units of the Gulf Coast aquifer in Jackson County; Modified from (Loskot, Sandeen and Follett 1982)

VII. Geography of the District

The District is located within the Gulf Coastal Plains region of Texas. The topography of the District ranges from gently rolling terrain in the northern part of the District to very gently rolling in the south. There are two major drainages in the District; Lavaca River and Navidad River. The principal cross-roads of the District are State Highway 111 and U.S. Highway 59.

The major population centers in the district are the Cities of Edna and Ganado. Other population centers of the District are LaWard, Lolita, and Vanderbilt. (Texas Almanac, 2000)

Agriculture is one of the principal economic activities in the District. The major agricultural interests in the District include rice, cotton, corn, grain sorghum, and beef cattle production. Other principal economic activities in the District include production of oil and gas, waterfowl and big-game hunting, fishing, lake recreation, metal fabrication and tooling, sheet metal works, and plastics manufacturing.

VIII. Estimate Of Managed Available Groundwater (MAG) In The District Based On The Desired Future Condition Established Under TWC 36.108 - 31TAC356.5 (a)(5)(A) (TWC 36.1071(e)(3)(A))

Managed available groundwater is defined in TWC 36.001 as “the amount of water that may be permitted by a district for beneficial use in accordance with the desired future condition of the aquifer.”

On July 14, 2010, the desired future conditions (DFCs) for the Gulf Coast Aquifer located within the District boundaries and within Groundwater Management Area (GMA) 15 were adopted. MAG estimates have not yet been calculated for GMA 15 so the requirement to present MAG data in the groundwater management plan is not applicable at this time. After MAG estimates become available, the District will amend the management plan.

IX. Estimate of the Amount of Groundwater Used in the District on Annual Basis - 31TAC356.5 (a)(5)(B) (TWC 36.1071(e)(3)(B))

Year	Aquifer	Municipal	Manu- facturing	Steam Electric	Irrigation	Mining	Live- stock	Total
1980	GULF COAST	3,254	1,824	0	132,000	161	381	137,620
1984	GULF COAST	1,900	1,396	0	94,844	225	468	98,833
1985	GULF COAST	2,660	1,313	0	69,520	201	497	74,191
1986	GULF COAST	2,612	1,259	0	68,890	177	639	73,577
1987	GULF COAST	2,293	1,292	0	69,112	126	488	73,311
1988	GULF COAST	2,285	1,805	0	96,386	170	520	101,166
1989	GULF COAST	2,079	1,969	0	66,505	170	532	71,255
1990	GULF COAST	1,874	1,933	0	89,898	170	525	94,400
1991	GULF COAST	1,805	1,781	0	72,878	121	535	77,120
1992	GULF COAST	1,833	1,988	0	62,824	121	554	67,320
1993	GULF COAST	1,837	1,733	0	56,658	121	574	60,923
1994	GULF COAST	1,829	1,487	0	66,427	121	600	70,464
1995	GULF COAST	1,771	1,309	0	59,065	113	488	62,746
1996	GULF COAST	1,774	1,484	0	78,356	113	444	82,171
1997	GULF COAST	1,734	1,539	0	41,267	112	445	45,097
1998	GULF COAST	1,900	1,572	0	58,204	110	520	62,306
1999	GULF COAST	1,781	1,542	0	48,355	110	547	52,335
2000	GULF COAST	1,886	1,360	0	44,236	110	510	48,102
2001	GULF COAST	1,908	1,336	70	39,754	109	522	43,699
2002	GULF COAST	1,987	1,206	28	35,251	109	505	39,086
2003	GULF COAST	1,771	1,334	7	33,494	109	588	37,303

Units: Acre Feet (ACFT)

Source: (TWDB Water Use Survey, <http://www.twdb.state.tx.us/wushistorical/>.)

Table 1: Historical Groundwater Pumpage Summary rounded to nearest 1 acre-foot.

X. Estimate of the Annual Recharge from Precipitation to the Groundwater Resources within the District – 31TAC356.5 (a)(5)(C) (TWC 36.1071(e)(3)(C))

The average amount of groundwater recharge from precipitation was estimated using groundwater budget studies that employed the Central Gulf Coast Aquifer Model. The model runs were carried out by the Texas Water Development Board and the results were described in the report. (Oliver 2009) Water Budgets from 1981-1999 were averaged to obtain recharge estimates. The average recharge estimates are presented below in Table 2.

Aquifer or confining unit	Recharge from Precipitation
Chicot Aquifer	10,988
Evangeline Aquifer	0
Burkeville Confining Unit	0
Jasper Aquifer	0

Table 2: Estimate of the Annual Recharge from Precipitation to the Groundwater Resources within the District rounded to nearest 1 acre-foot.

As shown in Table 2, all recharge from precipitation occurs in the Chicot formation which is averaged to be 10,988 acre feet annually. It is apparent that the majority of recharge to the Chicot and Evangeline aquifers is due to lateral underflow, presented in Table 4. Lateral underflow is the amount of water annually entering the District through the underground migration of water moving down-gradient within the aquifer after being recharged in aquifer outcrops lying beyond District boundaries.

XI. Estimate Of The Annual Volume Of Water That Discharges From The Aquifer To Springs And Any Surface Water Bodies, Including Lakes, Streams, And Rivers - 31TAC356.5 (a)(5)(D) (TWC 36.1071(e)(3)(D))

The surface water-groundwater exchanges between various components average over the 1981-1999 time-frame is present in Table 3. The values in these tables were again obtained from water budgets carried out by the Texas Water Development Board taken from the report. (Oliver 2009)

Aquifer or confining unit	Discharge
Chicot Aquifer	16,415
Evangeline Aquifer	0
Burkeville Confining Unit	0
Jasper Aquifer	0

Table 3: Estimate of the annual volume of water that discharges from the aquifer to springs and any surface water bodies, including lakes, streams, and rivers rounded to nearest 1 acre-foot.

The results indicated that over the 1981-1999 time frame, the Chicot Aquifer, on average, discharged water to surface water bodies within the district.

XII. Estimate Of 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 -

31TAC356.5 (a)(5)(E) (TWC 36.1071(e)(3)(E))

The lateral movement of water (inflow into and out of the district) across the district boundaries is referred to as horizontal exchanges. Water budget calculations were made by TWDB for each year during the 1981-1999 time-frame over the entire Texana GCD to estimate these horizontal exchanges. (Oliver 2009)

Aquifer or Confining Unit	Inflow	Outflow
Chicot Aquifer	25,222	13,243
Evangeline Aquifer	13,601	6,695
Burkeville Confining Unit	28	4
Jasper Aquifer	191	36

Table 4: Estimate of annual volume of flow into and out of District rounded to nearest 1 acre-foot.

Vertical exchanges represent the cross-formational flows within the District boundaries among various aquifer formations. Water budget calculations were made by the TWDB to estimate the net annual volume of flow between each aquifer in the District. (Oliver 2009)

Aquifer or Confining Unit	Net Flow
Chicot Aquifer to the Evangeline Aquifer	14,306
Burkeville Confining Unit to the Evangeline Aquifer	1,660
Jasper Aquifer to the Burkeville Confining Unit	726

Table 5: Estimate of annual volume of flow between each aquifer in the District rounded to nearest 1 acre-foot.

XIII. Projected Surface Water Supply In The District, According To The Most Recently Adopted State Water Plan - 31TAC356.5

(a)(5)(F) (TWC 36.1071(e)(3)(F))

RW PG	Water User Group	County	River Basin	Source Name	2010	2020	2030	2040	2050	2060
P	Manufacturing	Jackson	Colorado-Lavaca	Texana Lake / Reservoir	1,832	1,832	1,832	1,832	1,832	1,832
Total Projected Surface Water Supplies (acre-feet per year) =					1,832	1,832	1,832	1,832	1,832	1,832

Units: Acre Feet (ACFT)

Source: (2007 State Water Plan, TWDB)

Table 6: Projected surface water supplies rounded to the nearest 1 acre-foot, Jackson County.

**XIV. Projected Total Demand For Water In The District
According To The Most Recent Adopted State Water Plan -
31TAC356.5 (a)(5)(G) (TWC 36.1071(e)(3)(G))**

RWPG	Water User Group	County	River Basin	2010	2020	2030	2040	2050	2060
P	County Other	Jackson	Colorado-Lavaca	266	275	277	274	273	273
P	County Other	Jackson	Lavaca	478	495	498	493	491	492
P	County Other	Jackson	Lavaca-Guadalupe	59	61	61	61	60	60
P	Edna	Jackson	Lavaca	816	850	861	856	855	855
P	Ganado	Jackson	Lavaca	259	272	277	276	276	276
P	Irrigation	Jackson	Colorado-Lavaca	32,748	32,764	32,782	32,804	32,825	32,847
P	Irrigation	Jackson	Lavaca	42,511	42,533	42,555	42,584	42,612	42,641
P	Irrigation	Jackson	Lavaca-Guadalupe	13,490	13,496	13,504	13,513	13,522	13,531
P	Livestock	Jackson	Colorado-Lavaca	298	298	298	298	298	298
P	Livestock	Jackson	Lavaca	418	418	418	418	418	418
P	Livestock	Jackson	Lavaca-Guadalupe	136	136	136	136	136	136
P	Manufacturing	Jackson	Colorado-Lavaca	641	668	688	706	722	768
P	Manufacturing	Jackson	Lavaca	2	2	2	3	3	3
P	Mining	Jackson	Colorado-Lavaca	25	27	28	29	30	30
P	Mining	Jackson	Lavaca	38	40	41	43	44	45
P	Mining	Jackson	Lavaca-Guadalupe	63	66	69	71	74	76
Total Projected Water Demands (acre-feet per year) =				92,248	92,401	92,495	92,565	92,639	92,749

Units: Acre Feet (ACFT)

Source: (2007 State Water Plan, TWDB)

Table 7: Projected Water Demands rounded to the nearest 1 acre-foot.

XV. Water Supply Needs and Water Management Strategies Included in The Adopted State Water Plan – 31TAC356.5(a)(7) (TWC 36.107(e)(4))

RWPG	WUG	County	River Basin	2010	2020	2030	2040	2050	2060
P	County Other	Jackson	Colorado-Lavaca	11	2	0	3	4	4
P	County Other	Jackson	Lavaca	20	3	0	5	7	6
P	County Other	Jackson	Lavaca-Guadalupe	2	0	0	0	1	1
P	Edna	Jackson	Lavaca	45	11	0	5	6	6
P	Ganado	Jackson	Lavaca	18	5	0	1	1	1
P	Irrigation	Jackson	Colorado-Lavaca	-15,735	-15,751	-15,769	-15,791	-15,812	-15,834
P	Irrigation	Jackson	Lavaca	6,782	6,760	6,738	6,709	6,681	6,652
P	Irrigation	Jackson	Lavaca-Guadalupe	5,100	5,094	5,086	5,077	5,068	5,059
P	Livestock	Jackson	Colorado-Lavaca	0	0	0	0	0	0
P	Livestock	Jackson	Lavaca	0	0	0	0	0	0
P	Livestock	Jackson	Lavaca-Guadalupe	0	0	0	0	0	0
P	Manufacturing	Jackson	Colorado-Lavaca	1,191	1,164	1,144	1,126	1,110	1,064
P	Manufacturing	Jackson	Lavaca	1	1	1	0	0	0
P	Mining	Jackson	Colorado-Lavaca	5	3	2	1	0	0
P	Mining	Jackson	Lavaca	7	5	4	2	1	0
P	Mining	Jackson	Lavaca-Guadalupe	13	10	7	5	2	0
Total Projected Water Needs (acre-feet per year) =				-15,735	-15,751	-15,769	-15,791	-15,812	-15,834

Units: Acre Feet (ACFT); Positive values reflect a water surplus; negative values reflect a water need.

Source: (2007 State Water Plan, TWDB)

Table 8: Projected Water Needs rounded to the nearest 1 acre-foot.

RWPG	WUG	WUG County	River Basin	Water Management Strategy	Source Name	Source County	2010	2020	2030	2040	2050	2060
P	Irrigation	Jackson	Colorado-Lavaca	Temporary Over drafting of the Gulf Coast Aquifer - Jackson County	Gulf Coast Aquifer	Jackson	15,735	15,751	15,769	15,791	15,812	15,834

Units: Acre Feet (ACFT)

Source: (2007 State Water Plan, TWDB)

Table 9: Water Management Strategies with volumes in acre-feet.

XVI. Details On How The District Will Manage Groundwater Within The District

The District will manage the supply 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. 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 would result in more efficient use of groundwater. An observation network shall be 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 Board and to the public. The District will undertake, as necessary and co-operate with investigations of the groundwater resources within the District and will make the results of investigations available to the public upon adoption by the Board. Notwithstanding, all actions and rules of the District will adhere to the Texas Water Code.

The District may adopt rules to regulate groundwater withdrawals by means of spacing and production limits. The District may deny a well construction permit or limit groundwater withdrawals in accordance with the guidelines stated in the rules of the District. In making a determination to deny a permit or limit groundwater withdrawals, the District will consider the public benefit against individual hardship after considering all appropriate testimony.

The relevant factors to be considered in making a determination to deny a permit or limit groundwater withdrawals will include:

- 1) The purpose of the rules of the District;
- 2) The distribution of groundwater resources; and
- 3) The economic hardship resulting from grant or denial of a permit or the terms prescribed by the permit.

The District is committed to maintaining a sustainable, adequate, reliable, cost effective and high quality source of groundwater to promote the vitality, economy and environment of the District. In pursuit of the District's mission of protecting the resource, the District may require reduction of groundwater withdrawals to amounts, which will not cause harm to the aquifer. To achieve this purpose, the District may, at the Board's discretion amend or revoke any permits after notice and hearing. The determination to seek the amendment or revocation of a permit by the District will be based on aquifer conditions observed by the District.

The District will enforce the terms and conditions of permits and the rules of the District by enjoining the permit holder in a court of competent jurisdiction as provided for in Texas Water Code Chapter 36.102.

The District will employ technical resources at its disposal to evaluate the resources available within the District and to determine the effectiveness of

regulatory or conservation measures. A public or private user may appeal to the Board for discretion in enforcement of the provisions of the water supply deficit contingency plan on grounds of adverse economic hardship or unique local conditions. The exercise of said discretion by the Board shall not be construed as limiting the power of the Board.

XVII. Actions, Procedures, Performance And Avoidance Necessary To Effectuate The Plan

The District will implement the provisions of this management plan and will utilize the objectives of the plan as a guide for District actions, operations and decision-making. The District will ensure that its planning efforts, activities and operations are consistent with the provisions of this plan.

The District adopted rules in accordance with Chapter 36 of the Texas Water Code on January 13, 2011. The rules will be followed and enforced upon approval by the TWDB. Future additions, deletions, and or modification of the rules will be based on the best scientific information and technical evidence available to the District. A copy of the currently adopted rules can be downloaded from the District website at <http://www.co.jackson.tx.us/ips/cms/TexanaGroundwater.html>

The District will encourage public input, cooperation and coordination in the implementation of this plan. All operations and activities will be performed in a manner that encourages the involvement and cooperation of the citizens of the District and with the appropriate water management entities at the state, regional and local level.

XVIII. Methodology For Tracking The District's Progress In Achieving Management Goals

The general manager of the District will prepare and submit an annual report (Annual Report) to the District's Board of Directors. The Annual Report will include an update on the District's performance in achieving the management goals contained in this plan. The general manager will present the Annual Report to the Board of Directors Within ninety (90) days following the completion of the District's Fiscal Year, beginning in the fiscal year starting on October 1, 2010. A copy of the annual audit of District financial records will be included in the Annual Report. The District will maintain a copy of the Annual Report on file for public inspection at the District office, upon adoption by the Board of Directors.

XIX. Management Goals

1. Providing for the Most Efficient Use of Groundwater in the District.

1.1 Objective – Each year, the District will provide groundwater awareness information to the citizens of Jackson County that will assist in preservation, conservation, and protection of groundwater resources.

1.1.1 Performance Standard – Each year, the District will conduct at least 1 public meeting to discuss TGCD activities, submit at least 2 newspaper articles about TGCD activities, present at least 1 website article discussing TGCD activities. The activities will include progress implementation of the Management Plan and review of Rules. Record of the meetings, articles and speakers will be recorded by the District Board Secretary in the last meeting minutes of the fiscal year.

2. Controlling and Preventing the Waste of Groundwater in the District.

2.1 Objective – Each year, the District will promote awareness with the citizens about the waste of groundwater and means to control/prevent groundwater waste.

2.1.1 Performance Standard – The District will conduct at least 1 public meeting to discuss waste of groundwater, submit at least 2 newspaper articles about groundwater waste control/prevention, and present at least 1 website article discussing waste of groundwater.

3. Controlling and Preventing Subsidence.

3.1 Objective – Each year, the District will participate in a meeting with neighboring Groundwater Conservation Districts focused on sharing information regarding subsidence and the control and prevention of subsidence through the regulation of groundwater use.

3.1.1 Performance Standard – Each year, a summary of the meeting on subsidence issues will be included in the last meeting minutes of the fiscal year and on the District's website.

4. Natural Resource Issues That Affect the Use and Availability of Groundwater or are affected by the Use of Groundwater.

4.1 Objective – Each year the District will inquire to the Texas Railroad Commission asking whether any new salt water or waste disposal injection wells have been permitted by the Texas Railroad Commission to operate within the District.

4.1.1 Performance Standard – Each year a copy of the letter to the Texas Railroad Commission asking for the location of any new salt water or waste disposal wells permitted to operate within the District will be posted on the district's website along with any information received from the TRC.

5. Conjunctive Surface Water Management Issues.

5.1 Objective – Each year, the District will participate in the regional planning process by attending at least 1 of the Region P Water Planning Group meetings to encourage the development of surface water supplies to meet the needs of water user groups in the District. Each year, the District will invite the Lavaca Navidad River Authority (LNRA) Board of Directors to discuss conjunctive water use issues.

5.1.1 Performance Standard – A summary of the meeting attended by a District representative at the Region P Water Planning Group meetings will be posted on the District website. Minutes of the meeting with the Lavaca Navidad River Authority Board of Directors will be kept at the District office for examination.

6. Addressing Drought Conditions.

6.1 Objective – The District will participate in the notifying the citizens about drought severity conditions through postings on its website and links to drought focused websites such as:

<http://agrilife.tamu.edu/drought/>

<http://www.twdb.state.tx.us/DATA/DROUGHT/index.asp>

<http://www.drought.gov>

6.1.1 Performance Standard – The District will solicit drought conditions information from LNRA, The County Commissioners' Court, and surface water agencies and post drought conditions quarterly. If the Palmer Drought Severity Index (PDSI) reaches the moderate level or higher, the District will begin reporting it on the website monthly to alert interested parties. A record of these postings will be summarized in the last District meeting of the fiscal year.

7. Water Conservation

7.1 Objective – The District will annually submit an article regarding water conservation for publication to at least one newspaper of general circulation in the District.

7.1.1 Performance Standard – A copy of the article submitted by the District for publication to a newspaper of general circulation in the District regarding water conservation will be included in the last meeting minutes of the fiscal year.

8. Groundwater Recharge Enhancement

8.1 Objective – Each year, the District will provide one article relating to recharge enhancement on the District web site.

8.1.1 Performance Standard – Each year, a copy of the information that has been provided on the District web site relating to recharge enhancement will be included in the last meeting minutes of the fiscal year.

9. Rainwater Harvesting and Precipitation Enhancement

Rainwater harvesting and precipitation enhancement are not appropriate or cost-effective programs for the District at this time because there is not an existing harvesting and enhancement program operating in nearby counties in which the District could participate and share costs. The cost of operating a single-county rainwater harvesting and precipitation enhancement program is prohibitive and would require the District to increase taxes. Therefore, these goals are not applicable to the District at this time.

10. Brush Control

10.1 Objective – Each year, the District will provide one article relating to Brush Control on the District web site.

10.1.1 Performance Standard – Each year, a copy of the information that has been provided on the District web site relating to Brush Control will be included in the last meeting minutes of the fiscal year.

11. Addressing in a Quantitative Manner the Desired Future Conditions of the Groundwater Resources

Managed available groundwater is defined in TWC 36.001 as “the amount of water that may be permitted by a district for beneficial use in accordance with the desired future condition of the aquifer.”

On July 14, 2010, the desired future conditions (DFCs) for the Gulf Coast Aquifer located within the District boundaries and within Groundwater Management Area (GMA) 15 were adopted. MAG estimates have not yet been calculated for GMA 15 so the requirement to present MAG data in the groundwater management plan is not applicable at this time. After MAG estimates become available the District will amend the management plan.

11.1 Objective – The District will annually analyze, chart, and/or map TWDB-measured well water levels within Jackson County and will determine the five-year water level averages based on the measurements taken. The District will compare the five-year water level averages to its DFC in order to track its progress in achieving the DFC.

11.1.1 Performance Standard – The District’s Annual Report will include the water level measurements taken each year for the purpose of measuring water levels to assess the District’s progress towards achieving its DFCs. Once the District has obtained water level measurements for five consecutive years and is able to calculate water level averages over five-year periods thereafter, the District will include a discussion of its comparison of water level averages to its DFC in order to track its progress in achieving its DFCs.

The District will record and document each of these performance standards activities as part of its annual report that will be presented to the Board at its last District meeting of its fiscal year.

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