



# **Victoria County Groundwater Conservation District**

## **Fiscal Year 2009-2010 Annual Report** **(October 1, 2009 – September 30, 2010)**

**Adopted:** Adopted by Board Action  
on April 15, 2011.

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## Financial Summary

The following section is provided to give the reader a basic overview of the financial management of the District as it relates to revenue, expenses, and the adopted budget.

### District Revenue

For FY09-10, the District established an ad valorem tax rate of \$0.00955 per \$100.00 value which was calculated to generate approximately \$499,791.27 to be used for the operation of the District. In addition to the tax revenue, the District projected that an additional \$5,000.00 would be realized in earned interest. The District received \$501,161.72 through tax collections and earned \$3,755.39 interest on its interest-bearing accounts.

### District Expenditures

For FY09-10, the District adopted a budget that had expense accounts totaling \$469,552.00. These expense accounts were grouped into the following categories: Personnel & Benefits, Commodities, Contractual Services, and Capital Purchases. Below is a table that summarizes the expense by category:

Expense Category	Budget Amount	Actual Expenses	Actual of Budget
Payroll & Benefits	\$ 122,852.00	\$ 107,496.53	87.6 %
General & Admin.	\$ 64,500.00	\$ 30,128.32	46.7 %
Contractual Services	\$ 265,200.00	\$ 141,199.29	54.4 %
Capital Purchases	\$ 17,000.00	\$ 443.29	2.6 %
<b>Total</b>	<b>\$ 469,552.00</b>	<b>\$ 279,267.43</b>	<b>59.5 %</b>

All revenue received but not expended was reserved to be used to pay for the operation of the District in FY10-11 until sufficient tax revenue is collected.

### Outstanding District Obligations and Refunds

The District has several outstanding financial obligations for services provided to the District during FY09-10 that are not yet quantified and are not reflected in the actual expenses summarized in the previous section. When the proper invoicing and board authorization is provided, the expense will be paid from the current fiscal year budget. In particular, the District anticipates invoices from Allison, Bass and Associates for legal services provided to the District during FY09-10. These expenses were anticipated and budgeted and the District's expectation is that the total will not exceed the adopted budgeted amount for their respective categories.

See Attachment A: Victoria County Groundwater Conservation District Investment Report: July 1, 2010 – September 30, 2010.

**Fiscal Year 2008-2009 Audit**

During FY09-10, the District contracted with Goldman, Hunt, and Notz, LLP to conduct a financial audit of District for the fiscal year beginning October 1, 2008 and ending September 30, 2009. The audit report is archived in the District's records and has been review during previous board meetings. The audit found no significant problems or issues.

See Attachment B: Victoria County Groundwater Conservation District Financial Statements for the Year Ended September 30, 2010.

## **Review of the Goals, Objectives, and Performance Standards from the Approved Management Plan**

The following section reports on the District's performance in achieving the goals and objectives established in the approved management plan.

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

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

**Objective:** *Develop and maintain a Water Well Registration Program (WWRP) for tracking well information for wells within the District's boundaries.*

**Performance Standard:** *Each year, beginning in 2008, the District will summarize within the annual report the changes related to water well registration including the number of new and existing wells registered.*

#### **Performance Evaluation: SATISFACTORY**

The District has developed and is maintaining its water well registration program and therefore can report on the number of newly registered wells. As of September 2010, the District had registered 378 water wells which is an increase of 318 during FY09-10..

See Attachment M: General Manager Report for September 2010.

**Objective:** *Develop and maintain a Water Well Permitting Program (WWPP) for tracking all permits authorizing water well operation and groundwater production.*

**Performance Standard:** *Each year, beginning in 2008, the District will summarize within the annual report the changes related to water well permitting including the number of new applications and the disposition of the applications.*

#### **Performance Evaluation: SATISFACTORY**

The District has developed and is maintaining its water well permitting program and therefore can report on the number of new applications or their disposition. Below is a table representing statistics for applications submitted through September 30, 2010. The District anticipates that the registration applications that did not indicate a desire to validate historic use may choose to validate historic use in the future.

Application Type	Total Count	Count by Disposition			
		Approved	Closed	Pending	Withdrawn
Drill Exempt Well	223	223	0	0	0
Drill Non-Exempt Well	16	12	1	0	3
Operate New Well	19	16	0	0	3
Validate Historic Use	40	20	0	20	0

See Attachment N: Application Status Summaries

**Controlling and Preventing Waste of Groundwater –31TAC  
356.5(a)(1)(B) ((Implementing TWC §36.1071(a)(2))**

*Objective: Develop and maintain a Water Well Inspection Program (WWIP) for non-exempt wells.*

*Performance Standard: Each year, beginning in 2008, the District will summarize within the annual report the findings of the inspection activities including information regarding the number of wells that require improvement to prevent waste and/or prevent groundwater contamination.*

**Performance Evaluation: SATISFACTORY**

The District has satisfactorily met the performance standard of this objective. The table summarizes the metrics of the objectives:

October 14, 2009	Site Visit and Inspection - LMVR
December 14, 2009	Site Visit and Inspection - S. W. Moody
December 14, 2009	Site Visit and Inspection - Crawford Dr.
February 9, 2010	Site Visit and Inspection - Hwy 185
April 5, 2010	Site Visit and Inspection - Hwy 87 & FM 447
April 7, 2010	Site Visit and Inspection - Zac Lentz Pkwy
April 12, 2010	Site Visit and Inspection - Lucky J Ranch
April 12, 2010	Site Visit and Inspection - Telferner
May 14, 2010	Site Visit and Inspection – J-2 Ranch Rd, Nickel Rd.
August 6, 2010	Site Visit and Inspection - Harvey and Kuntz

Based on the site visits, the District did not identify any water wells in need of improvement or repair to prevent waste.

See Attachment O: Expense Claim Forms related to Site Visits.

**Objective:** *Develop and maintain a Groundwater Conservation Education Program (GCEP).*

**Performance Standard:** *Each year, beginning in 2008, the District will summarize within the annual report the educational activities including the number of educational materials developed and delivered to local schools, the number of cooperative educational contributions and grants, the number of public speaking events and presentations, the number of community events participated in, and the number of educational publications.*

**Performance Evaluation: SATISFACTORY**

The District has satisfactorily met the performance standard of this objective. The table summarizes the metrics of the objectives:

<b>Standard</b>	<b>Performance</b>
Materials delivered to local schools	None
Cooperative Education Contributions	None
Public Speaking Events	<ol style="list-style-type: none"> <li>1. Victoria Soil and Water Conservation District Meeting – 10/15/09</li> <li>2. Memorial High School Aquatic Science Classes – 11/9/09</li> <li>3. Raisin Volunteer Fire Department Meeting – 2/2/10</li> <li>4. 2010 Texas Zoo Ranger Camp – 7/12/2010</li> </ol>
Community Events Participated In	<ol style="list-style-type: none"> <li>1. South Texas Farm and Ranch Show – 10/28/09</li> <li>2. Earth Day Expo – 4/12/10</li> </ol>
Educational Publications	Newsletter – March 2010

See Attachment H: Participation Acknowledgement Forms and Newsletter.

**Addressing Conjunctive Surface Water Management Issues – 31TAC356.5 (a)(1)(D) ((Implementing TWC §36.1071(a)(4))**

**Objective:** *Participate in the regional water planning process by attending at least two South Central Texas Regional Water Planning Group (Region L) meetings.*

**Performance Standard:** Each year, beginning in 2008, the District will summarize within the annual report the attendees, dates, and the number of meetings attended.

**Performance Evaluation: SATISFACTORY**

The District has satisfactorily met the performance standard of this objective. The table summarizes the metrics of the objectives:

Date	Meeting
November 5, 2009	South Central Texas RWPG (Region L) – Quarterly Meeting
November 24, 2009	Guadalupe Basin Water Needs Workgroup II Meeting
December 3, 2009	South Central Texas RWPG (Region L) – Quarterly Meeting
February 4, 2010	South Central Texas RWPG (Region L) – Quarterly Meeting
May 6, 2010	South Central Texas RWPG (Region L) – Quarterly Meeting
August 5, 2010	South Central Texas RWPG (Region L) – Quarterly Meeting

Each meeting was attended by the VCGCD Manager, Mr. Andruss, as well as the VCGCD Director representing the Victoria County At-Large, Mr. Eller. Mr. Eller did not attend the November 24, 2009 meeting regarding Guadalupe Basin Water Needs.

See Attachment E: Compilation of Region L Meeting Minutes held during FY09-10.

**Objective:** Communicate with GBRA, SARA, City of Victoria, and Victoria County Navigation District concerning conjunctive surface water management issues.

**Performance Standard:** Each year, beginning in 2008, the District will summarize within the annual report the number of and nature of communications with GBRA, SARA, City of Victoria, and Victoria County Navigation District.

**Performance Evaluation: SATISFACTORY**

The District has satisfactorily met the performance standard of this objective. The District's participation in the regional water planning



process provided opportunities during which the District, GBRA, SARA, and City of Victoria discussed conjunctive use. In addition, the District sent letters to GBRA, SARA, City of Victoria, and the Victoria County Navigation District related to conjunctive use of surface water and groundwater.

See Attachment P: Conjunctive Use Letters.

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

*Objective: Develop and maintain a Water Level Monitoring Program (WLMP).*

*Performance Standard: Each year, beginning in 2008, the District will summarize within the annual report the monitoring activities including the number of wells monitored and the year to year change of water level.*

**Performance Evaluation: SATISFACTORY**

The District has satisfactorily met the performance standard of this objective. The District measured water levels on two separate occasions: March 2010 and August 2010.

See Attachment Q: Water Level Measurements for March and August 2010 with change of water levels.

The District continued its implementation of the Water Level Monitoring Program with the development of the standard operating procedures by Pastor, Behling, and Wheeler, LLC.

See Attachment L: Standard Operating Procedure No. 1 and 2.

*Objective: Develop and maintain a Water Quality Monitoring Program (WQMP).*

*Performance Standard: Each year, beginning in 2008, the District will summarize within the annual report the monitoring activities including the number of wells monitored and the year to year change of water quality.*

**Performance Evaluation: SATISFACTORY**

The District continued its implementation of the Water Quality Monitoring Program with the development of the standard operating procedures by Pastor, Behling, and Wheeler, LLC.

See Attachment I: Standard Operating Procedure No. 3, 4, and 5.

The District collected and had analyzed three water quality samples from the northeastern quadrant of Victoria County in response to citizens concerns with a sludge dumping operation. The samples will support the District's water quality monitoring efforts.

See Attachment J: Sample Analysis Reports.

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

**Objective:** *Collect and review drought condition information related to Victoria County and the surrounding region of Texas on a monthly basis.*

**Performance Standard:** *Each year, beginning in 2008, the District will summarize within the annual report the monthly drought information including Palmer Drought Severity Index (PDSI) maps and the Drought Preparedness Council Situation Report updates posted on the Texas Water Information Network website ([www.txwin.net](http://www.txwin.net)). Additionally, the number of weeks and/or months that the District experienced drought based on the PDSI will be reported in the annual report.*

**Performance Evaluation: SATISFACTORY**

The District has satisfactorily met the performance standard of this objective. The District Board was provided updates regarding the drought conditions within the District at regular board meetings. During FY09-10, the District experienced 2 months with drought conditions ranging from abnormally dry to moderate drought.

See Attachment R: Drought Monitoring Information for FY09-10.

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

**X.A.6.a Conservation**

*Objective: Promote groundwater conservation within Victoria County.*

*Performance Standard: Each year, beginning in 2008, the District will summarize within the annual report the activities directly related to groundwater conservation including educational materials developed and delivered to local schools, cooperative educational contributions and grants, public speaking events and presentations, community event participation, and educational publications. Additionally, the number of activities participated in and the number of educational materials developed or disseminated each year will be reported in the annual report.*

**Performance Evaluation: SATISFACTORY**

The District has satisfactorily met the performance standard of this objective. The District's exhibitor booth at the South Texas Farm and Ranch Show had over 10 different brochures, pamphlets, and other educational and promotional material directly related to water conservation. These events are attended by over 2,000 people. The booths have had considerable attention and the conservation materials have been collected by many attendees.

In addition, the District published a newsletter in March 2010 which directly addressed water conservation, recharge enhancement, brush management, well plugging and maintenance.

See Attachment H: Participation Acknowledgement Forms and Newsletter.

**X.A.6.b Rainwater Harvesting**

*Objective: Promote rainwater harvesting within Victoria County.*

*Performance Standard: Each year, beginning in 2008, the District will summarize within the annual report the activities directly related to promoting rainwater harvesting including the development and dissemination of educational materials via the district website and other educational events. Additionally, the number of activities participated in*

*and the number of educational materials developed or disseminated each year will be reported in the annual report.*

**Performance Evaluation: SATISFACTORY**

The District has satisfactorily met the performance standard of this objective. The District's exhibitor booth at the South Texas Farm and Ranch Show had over 10 different brochures, pamphlets, and other educational and promotional material including materials related to rainwater harvesting. These events are attended by over 2,000 people. The booths have had considerable attention and the conservation materials have been collected by many attendees.

***X.A.6.c Recharge Enhancement***

***Objective:*** Promote recharge enhancement within Victoria County.

***Performance Standard:*** Each year, beginning in 2008, the District will summarize within the annual report the activities directly related to promoting recharge enhancement including the development and dissemination of educational materials via the district website and other educational events. Additionally, the number of activities participated in and the number of educational materials developed or disseminated each year will be reported in the annual report.

**Performance Evaluation: SATISFACTORY**

The District has satisfactorily met the performance standard of this objective. The District's exhibitor booth at the South Texas Farm and Ranch Show had over 10 different brochures, pamphlets, and other educational and promotional material including materials related to recharge enhancement. These events are attended by over 2,000 people. The booths have had considerable attention and the conservation materials have been collected by many attendees.

In addition, the District published a newsletter in March 2010 which directly addressed water conservation, recharge enhancement, brush management, well plugging and maintenance.

See Attachment H: Participation Acknowledgement Forms and Newsletter.

***X.A.6.e Brush Control***

***Objective:*** Promote brush control within Victoria County.

***Performance Standard:*** Each year, beginning in 2008, the District will summarize within the annual report the activities directly related to promoting brush control including the development and dissemination of educational materials via the district website and other educational events. Additionally, the number of activities participated in and the number of educational materials developed or disseminated each year will be reported in the annual report.

**Performance Evaluation: SATISFACTORY**

The District has satisfactorily met the performance standard of this objective. The District's exhibitor booth at the South Texas Farm and Ranch Show had over 10 different brochures, pamphlets, and other educational and promotional material including materials related to brush control. These events are attended by over 2,000 people. The booths have had considerable attention and the conservation materials have been collected by many attendees

In addition, the District published a newsletter in March 2010 which directly addressed water conservation, recharge enhancement, brush management, well plugging and maintenance.

See Attachment H: Participation Acknowledgement Forms and Newsletter.

## District Activities

The following section is provided to give the reader a summary of the major activities of the District staff and directors that is not otherwise reported in the previous section (*Review of the Goals, Objectives, and Performance Standards from the Approved Management Plan*). This activity information is organized into broad subject categories of the District as opposed to a summary based on date or sequence. In addition to the activities described below, the reader should consider that there is considerable effort put into daily operations of the District's office and preparation for district meetings.

### Joint Planning / Groundwater Management Area 15

The District continued its efforts related to developing a scientifically-sound desired future condition for the Gulf Coast Aquifer contained within GMA 15. The District contracted with Dr. Uddameri of Texas A&M University – Kingsville to evaluate the impact of increased groundwater production within Victoria County as well as evaluate the impact on drawdown when recharge conditions included simulated drought-of-record conditions using the CGC-GAM.

See Attachment C: Groundwater Modeling to Support Desired Future Condition Development for Victoria County.

Date	Meeting
October 19, 2009	GMA 15 Meeting in Victoria, Texas
February 18, 2010	GMA 15 Meeting in Victoria, Texas
March 11, 2010	GMA 15 Meeting in Victoria, Texas
June 2, 2010	GMA 15 Meeting in Victoria, Texas
July 14, 2010	GMA 15 Meeting in Victoria, Texas
July 14, 2010	GMA 15 Meeting in Victoria, Texas

During FY09-10, the District hosted six GMA 15 meetings. During these public meetings, member GCD representatives considered various aspects of DFCs and the potential impacts on groundwater management. At the July 14, 2010 meeting, GMA 15 established a DFC statement that stated "***groundwater within GM 15 shall be managed in such a way as to achieve a Desired Future Condition in 2060 of no more than 12 feet of average drawdown of the Gulf Coast Aquifer within the GMA 15 boundary relative to 1999 starting conditions in accordance with Table 7 of GAM Run 10-008 Addendum.***" GMA 15 is awaiting the final determination of the Managed Available Groundwater (MAG) from Texas Water Development Board.

See Attachment D: Resolution to Adopt Desired Future Conditions for Groundwater Management Area 15 Aquifers and supporting information.

### **Texas Alliance of Groundwater Districts (TAGD)**

The District is a voting member of TAGD and has actively participated in the quarterly meetings of the organization. In addition to the quarterly meeting and business meetings, the District is a member of the TAGD Legislative Committee which considers matters that may impact upcoming legislative sessions. The District has attended the following TAGD meetings during FY09-10:

<b>Date</b>	<b>Meeting</b>
December 1, 2009	Quarterly TAGD Meeting
March 30, 2010	Quarterly TAGD Meeting
June 29, 2010	Quarterly TAGD Meeting
September 28, 2010	Quarterly TAGD Meeting

See Attachment F: Agenda and Expense Claim Forms related to TAGD Meetings held during FY09-10.

### **Cooperative Projects and Programs**

The District continued its participation in a collaborative project with Goliad County Groundwater Conservation District, Pecan Valley Groundwater Conservation District, USGS, GBRA, and SARA to study the groundwater/surface water interaction in the Coletto Creek Watershed. The District aided in the collection of water level measurements and water quality sample collection during FY09-10 in cooperation with USGS.

See Attachment G: Invoices and Expense Claim Forms related to USGS Coletto Creek Watershed Project during FY09-10.

### **Conferences, Meetings, and Seminars**

The District attended a number of conferences, meetings and seminars during FY09-10. Generally, these events focused on one of the following areas of interest to a groundwater district: water resource policy and groundwater science. These events benefit the District by improving the District's knowledge and awareness of the particular area of interest. Below is a list of the conferences and seminars attended by the District:

October 5, 2009	TCEQ Public Meeting on Uranium Mining
October 21, 2011	TWCA Fall Meeting
November 2, 2009	Goliad GCD Meeting

November 16, 2009	H204 Texas - The Water Event
December 11, 2009	USGS Meeting - Guadalupe Basin Gain Loss Study
December 15, 2009	E-Flows Meeting
January 11, 2010	E-Flows Meeting
January 12, 2010	San Antonio Bay Partnership Meeting
January 20, 2010	AgriLife DFC Conference
February 3, 2010	Natural Resources Committee Meeting
March 1, 2010	E-Flows Meeting
April 7, 2010	E-Flows Meeting
April 12, 2010	Coleto Creek Watershed Study Meeting
April 15, 2010	House Natural Resources Committee
April 14, 2010	Legislative Subcommittee Meeting
May 5, 2010	E-Flows Meeting
June 21, 2010	TCEQ Meeting - Groundwater Exchange
June 28, 2010	Investment Training
August 17, 2010	USGS Meeting

### **District Challenges and Concerns for FY10-11**

There are several items of concern and challenges that remain as the District moves into FY10-11 including regional water planning, specifically the establishment of a Managed Available Groundwater value by the Texas Water Development Board, the development of the water level monitoring program that is sufficient to assess achievement of established Desired Future Conditions, hydraulic fracturing practices and the impact on groundwater resources, in-situ mining, and disposal wells.



**Attachment A: Victoria County Groundwater Conservation District  
Investment Report: July 1, 2010 – September 30, 2010.**

# Victoria County Groundwater Conservation District

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## INVESTMENT REPORT July 1, 2010 through September 30, 2010

### **Detailed Description of Investment Position - PFIA 2256.023(b)(1)**

The Victoria County Groundwater Conservation District (District) investment position during the reporting period was restricted to FDIC-insured certificates of deposit, FDIC-insured demand deposits, and demand deposits secured by pledged collateral in accordance with state law and the District's Investment Policy.

During the reporting period, the District maintained a demand deposit account at First Victoria National Bank. The beginning balance of the demand deposit as reflected on the bank account statement was \$795,427.16. The ending balance of the demand deposit as reflected on the bank account statement was \$772,738.15. As of September 30, 2010, the District had outstanding checks totaling \$3,717.43. The monies in the demand deposit account were secured by FDIC insurance up to \$250,000.00 and pledged collateral. The beginning book value of the pledged collateral during the reporting period was \$727,170.82. The ending book value of the pledged collateral during the reporting period was \$1,016,689.17. The beginning market value of the pledged collateral during the reporting period was \$743,742.75. The ending market value of the pledged collateral during the reporting period was \$1,062,209.70.

All other monies of Victoria County Groundwater Conservation District were held in three certificates of deposits (FVNB CD 99055937, FVNB CD 99064995, FVNB CD 99087790) issued by FVNB issued to the District.

FVNB CD 99055937 was opened by the District on August 19, 2009 in an amount of \$100,000.00 for a 12 month term with an annual percentage yield of 1.40%. Interest was compounded daily and credited monthly and added back to the certificate. The renewal policy established for this CD was single maturity and not automatically renewed. During the reporting period, the CD matured. The principal and interest, totaling \$101,399.68, were deposited in the District's demand deposit account.

FVNB CD 99064995 was opened by the District on November 23, 2009 in an amount of \$100,000.00 for a 12 month term with an annual percentage yield of 1.35%. Interest was compounded daily and credited monthly and added back to the certificate. The renewal policy established for this CD was single maturity and not automatically renewed.

FVNB CD 99087790 was opened by the District on August 19, 2010 in an amount of \$100,000.00 for a 12 month term with an annual percentage yield of 0.8%. Interest was compounded daily and credited monthly and added back to the certificate. The renewal policy established for this CD was single maturity and not automatically renewed.

**Summary of Pooled Fund Groups – PFIA 2256.023(b)(4)(A-D)**

The District did not invest any portion of its funds in any pooled fund groups during the reporting period.

Beginning Market Value of Investments in Pooled Fund Groups:	\$0.00
Additions and Changes to the Market Value of Investments in Pooled Fund Groups:	\$0.00
Ending Market Value of Investments in Pooled Fund Groups:	\$0.00
Fully Accrued Interest of Investments in Pooled Fund Groups:	\$0.00

**Book and Market Values by Asset Type and Fund Type Statement – PFIA 2256.023(b)(5)**

Fund Type	Asset Type	Book Value	Market Value
General	FVNB Demand Deposits		
	Beginning	\$795,427.16	\$795,427.16
	Ending	\$772,738.15	\$772,738.15
	Ending (including Outstanding Checks)	\$769,020.72	\$769,020.72

General	FVNB CD 99055937		
	Beginning	\$101,164.40	\$101,164.40
	At maturity (8/19/2010)	\$101,399.68	\$101,399.68
	Ending	\$0.00	\$0.00

General	FVNB CD 99064995		
	Beginning	\$100,781.32	\$100,781.32
	Ending	\$101,122.28	\$101,122.28

General	FVNB CD 99087790		
	Beginning	\$0.00	\$0.00
	At opening (8/19/2010)	\$100,000.00	\$100,000.00
	Ending	\$100,067.97	\$100,067.97

**Asset Maturity Date Statement – PFIA 2256.0023(b)(6)**

Asset	Maturity Date
FVNB CD 99055937	August 19, 2010
FVNB CD 99064995	November 23, 2010
FVNB CD 99087790	August 19, 2011

**Investments for Funds Statement – PFIA 2256.0023(b)(7)**

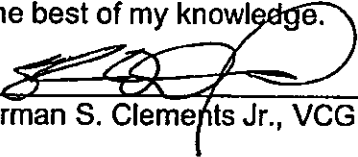
Investment	Fund
FVNB Demand Deposits	General
FVNB CD 99055937	General
FVNB CD 99064995	General
FVNB CD 99087790	General

**Statement of Compliance – PFIA 2256.0023(b)(8)**

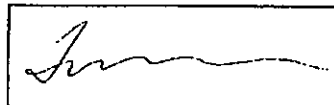
The District portfolio is believed to be in compliance with the District's Investment Strategy expressed in the District's Investment Policy and the Public Funds Investment Act.

**Statement regarding Report Preparation – PFIA 2256.0023(b)(2-3)**

By my signature, I represent that 1) this report was written under my direct supervision; 2) I have thoroughly reviewed all the information contained within and used to develop this report; and 3) I believe this report to be true and correct to the best of my knowledge.

  
\_\_\_\_\_  
Thurman S. Clements Jr., VCGCD Investment Officer

2/18/11  
Date



Digitally signed by Tim Andruss  
DN: cn=Tim Andruss, o=Victoria  
County Groundwater Conservation  
District, ou,  
email=tim.andruss@vcgcd.org, c=US  
Date: 2010.12.14 11:22:40 -06'00'



First Victoria National Bank  
 101 South Main Street  
 PO Box 1338  
 Victoria, TX 77902-1338  
 www.firstvictoria.com

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Date 7/30/10

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4870847  
 VICTORIA COUNTY GROUNDWATER  
 CONSERVATION DISTRICT  
 2805 N NAVARRO ST STE 210  
 VICTORIA TX 77901-3947

*8/4/10  
 Reconciled  
 Statement  
 Balanced  
 w/ Qwikbooks  
 w/ checkbook  
 B.D.*

*Received  
 8/4/10 B.D.  
 In the office of*




Have you Opted-In? New Federal Regulations, effective August 15th, 2010, may affect the way we authorize your one-time Debit or ATM Card transactions.

CHECKING ACCOUNTS

VICT CO. GROUNDWATER CONS DIST	<i>#33</i>	Number of Enclosures	24
Account Number	<del>          </del>	Statement Dates	7/01/10 thru 8/01/10
Previous Balance	<i>#1</i> 795,427.16	Days in statement period	32
5 Deposits/Credits	3,626.46	Average Ledger	793,078.54
21 Checks/Debits	8,007.68	Average Collected	793,078.54
Total Account Charges	.00		
Interest Paid	336.82		
Current Balance	791,382.76	2010 Interest Paid	2,338.83

----- CREDITS -----

DATE	DESCRIPTION	AMOUNT
7/02	Deposit	1,420.16 CR ✓
7/07	Deposit	595.40 CR ✓
7/13	Deposit	543.17 CR ✓
7/20	Deposit	604.07 CR ✓
7/27	Deposit	463.66 CR ✓
7/31	Interest Deposit	336.82 CR ✓

----- DEBITS -----

DATE	DESCRIPTION	AMOUNT
7/15	DEBITS TEXAS COUNTY DRS PPD	614.65- ✓
7/30	DUPLICATE STATEMENT FEE	5.00- ✓

----- CHECKS IN SERIAL NUMBER ORDER -----

DATE	CHECK NO	AMOUNT	DATE	CHECK NO	AMOUNT	DATE	CHECK NO	AMOUNT
7/06	2005	88.50	7/06	2029*	169.00	7/06	2031	346.86
7/16	2026*	20.66	7/06	2030	153.73	7/06	2032	125.00

\* SKIP IN CHECK NUMBER SEQUENCE

PLEASE PRINT THE NAME OF THE ACCOUNT AND THE NUMBER OF THIS STATEMENT OR CALL US AT THE TELEPHONE NUMBER ON THE STATEMENT FOR MORE INFORMATION ABOUT A TRANSFER ON THE STATEMENT OR THE NUMBER OF PAGES IN THIS STATEMENT. If there is an error or why you need more information, we will recredit your account for the amount you think is in or out of error.

THIS IS PROVIDED TO HELP YOU BALANCE YOUR BANK CHECKBOOK

CHECKBOOK BALANCE AT STATEMENT DATE \$ 791,382.76

SUBTRACT - (IF ANY) ACCOUNT CHARGES

SUBTOTAL

SUBTRACT - (IF ANY) OTHER BANK CHARGES

BALANCE SHOULD AGREE WITH YOUR STATEMENT BALANCE \$ 788,284.78

2047	61,410
2048	346.86
2049	2,308.15
2050	367.97
2041	10.33
TOTAL 3097.98	

THIS IS PROVIDED TO HELP YOU BALANCE YOUR BANK CHECKBOOK

CHECKBOOK BALANCE AT STATEMENT DATE \$ \_\_\_\_\_

SUBTRACT - (IF ANY) ACCOUNT CHARGES \_\_\_\_\_

SUBTOTAL \_\_\_\_\_

SUBTRACT - (IF ANY) OTHER BANK CHARGES \_\_\_\_\_

BALANCE SHOULD AGREE WITH YOUR STATEMENT BALANCE \$ \_\_\_\_\_

*8/4/10*  
*Balanced*  
*Wichita*  
*B.D.*

We are sorry if you have any questions about this statement. You can contact us on a separate sheet at the address shown on your statement as soon as possible. We will be glad to help you. If you have any questions about this statement, please call us at the telephone number shown on the statement. We will be glad to help you, but doing so will not preserve your rights.

The average daily balance is calculated by adding the periodic rate of the average daily balance of your account (including current and past payments, credits, and advances) and subtracting any payments or credits. This gives us the daily balance. Then we average the daily balance over the period of the statement. This part of the average daily balance.

First Victoria Bank, N.A. is a member of the FDIC. This statement is prepared by First Victoria Bank, N.A. as from time to time amended, or as varied by agreements made between the bank and the customer. All items deposited in this account are held by First Victoria Bank, N.A. as from time to time amended, or as varied by agreements made between the bank and the customer. All items deposited in this account are held by First Victoria Bank, N.A. as from time to time amended, or as varied by agreements made between the bank and the customer.

First Victoria  
 24 Hour Express Banking  
 (361) 372-3281  
 (800) 309-4065



## COPY

Date 8/31/10

Page 1

4939079  
VICTORIA COUNTY GROUNDWATER  
CONSERVATION DISTRICT  
2805 N NAVARRO ST STE 210  
VICTORIA TX 77901-3947

*9/14/10  
Bank Statement  
Balances w/ checkbook  
Balances w/AB*

*Received  
9/7/10 B.P.  
In the office of*



### CHECKING ACCOUNTS

VICT CO. GROUNDWATER CONS DIST		Number of Enclosures	29
Account Number	██████████	Statement Dates	8/02/10 thru 8/31/10
Previous Balance	791,382.76	Days in statement period	30
9 Deposits/Credits	104,923.59	Average Ledger	787,766.81
23 Checks/Debits	111,839.87	Average Collected	787,754.40
Total Account Charges	.00		
Interest Paid	334.57		
Current Balance	784,801.05	2010 Interest Paid	2,673.40

### CREDITS

DATE	DESCRIPTION	AMOUNT	
8/02	Deposit	783.93	CR ✓
8/05	Deposit	353.40	CR ✓
8/06	Deposit	620.70	CR ✓
8/09	Deposit	285.16	CR ✓
8/10	Deposit	TML 372.48	CR ✓
8/17	Deposit	463.54	CR ✓
8/19	Deposit from CD	101,399.68	#16
	Cert No. 99055937		
8/23	Deposit	252.40	CR ✓
8/30	Deposit	392.30	CR ✓
8/31	Interest Deposit	334.57	CR

*101,399.68*  
*100,000.00*  
*11,399.68*  
*CD Interest*

### DEBITS

DATE	DESCRIPTION	AMOUNT
8/16	DEBITS TEXAS COUNTY DRS PPD	864.12-
8/31	DUPLICATE STATEMENT FEE	5.00-

### CHECKS IN SERIAL NUMBER ORDER

DATE	CHECK NO	AMOUNT	DATE	CHECK NO	AMOUNT	DATE	CHECK NO	AMOUNT
8/19		100,000.00	8/06	2041*	10.33	8/05	2047*	64.40

\* SKIP IN CHECK NUMBER SEQUENCE



CASE OF ERRORS OR QUESTIONS ABOUT YOUR ELECTRONIC TRANSFERS WRITE US AT THE ADDRESS ON THE BOTTOM OF THIS STATEMENT OR CALL US AT THE TELEPHONE NUMBER ON THE BOTTOM OF THE STATEMENT as soon as you can, if you think your statement is incorrect. Let us know if you need more information about a transfer on the statement or receipt. We must hear from you no later than 60 days after we sent you the first statement on which the error or problem appeared.

- (1) Tell us your name and account number, if any.
- (2) Describe the error or transfer you are unsure about, and explain as clearly as you can why you believe there is an error or why you need more information.
- (3) Tell us the dollar amount of the suspected error.

We will investigate your complaint and will correct any error promptly. If we take more than 10 business days to do this, we will recredit your account for the amount you think is in error, so that you will have use of the money during the time it takes us to complete our investigation.

THIS IS PROVIDED TO HELP YOU BALANCE YOUR BANK STATEMENT

BANK BALANCE SHOWN ON THIS STATEMENT

\$ 784,801.05

ADD + (IF ANY) DEPOSITS NOT SHOWN ON THIS STATEMENT

\_\_\_\_\_

SUBTOTAL

\_\_\_\_\_

SUBTRACT - (IF ANY) CHECKS OUTSTANDING

6,931.31

BALANCE SHOULD AGREE WITH YOUR CHECKBOOK BALANCE

\$ 777,869.74

CHECKS OUTSTANDING	
NO	AMOUNT
2057	101.33
2066	20.00
2067	141.00
2070	39.314
2071	153.73
2072	558.15
2073	2057.50
2074	750.00
2075	346.86
2076	2500.00
TOTAL	6,931.31

THIS IS PROVIDED TO HELP YOU BALANCE YOUR BANK CHECKBOOK

CHECKBOOK BALANCE AT STATEMENT DATE

\$ \_\_\_\_\_

SUBTRACT - (IF ANY) ACTIVITY CHARGES

\_\_\_\_\_

SUBTOTAL

\_\_\_\_\_

SUBTRACT - (IF ANY) OTHER BANK CHARGES

\_\_\_\_\_

BALANCE SHOULD AGREE WITH YOUR STATEMENT BALANCE

\$ \_\_\_\_\_

*9/14/10*  
*Balance of checkbook B.D.*

**IN CASE OF ERRORS OR QUESTIONS ABOUT YOUR STATEMENT**

If you think your statement is wrong, or if you need more information about a transaction on your statement, write us on a separate sheet at the address shown on your statement as soon as possible. We will hear from you no later than 60 days after we sent you the first statement on which the error or problem appeared. You can telephone us, but doing so will not preserve your rights. Your letter, give us the following information:

- Your name and account number.
- The dollar amount of the suspected error.
- Describe the error and explain. If you can, why you believe there is an error. If you need more information, describe the item you are unsure about.

We do not have to pay any amount in question while we are investigating, but you are still obligated to pay the parts of your statement that are not in question. While we investigate your question, we cannot report you as delinquent or take any action to collect the amount in question.

**NOTICE TO CUSTOMERS WITH A LINE OF CREDIT** — We figure the finance charge on your account by applying the periodic rate to the "average daily balance" of your account (including current transactions). To get the "average daily balance" we take the beginning balance of your account each day, add any new deposits and subtract any payments or credits. This gives us the daily balance. Then, add up all the daily balances for the billing cycle and divide the total by the number of days in the billing cycle. This gives us the "average daily balance."

**TERMS GOVERNING ACCOUNTS**

Deposit in or presentment to the Bank of any item for a customer's account shall constitute the customer's consent to the terms hereof with respect to the account and all the items deposited therein or presented to the Bank for payment.

Deposits and collections shall be governed by the pertinent provisions of the Uniform Commercial Code — Bank Deposits & Collection (of Texas), as from time to time amended, or as varied by agreements permitted by that statute, including those hereinafter set out.

Receipt from others of items for credit to a customer's account shall render the customer liable to the Bank to the same extent as though they had been endorsed by and received directly from the customer. Money or item shall be deemed to have been received by the bank unless and until it shall have issued a receipt.

A customer's account shall at all times be subject to service and maintenance charges according to the practice of the Bank prevailing at the time.

When the Bank deems such action proper, the Bank may require that the account be closed.

The provisions hereof shall control, in the event of a conflict with any deposit slip or passbook.

The Bank reserves the right to change the provisions hereof by printing on its statement Terms Governing Accounts, incorporating the change. The new Terms Governing Accounts will be effective, prospectively, when the statement containing the charge is made available to the customer, by mailing or otherwise.

Victoria  
101 South Main Street  
P.O. Box 1333  
Victoria Texas 77901-1338

Customer Service  
(361) 572-6500  
(877) 496-6500  
www.firstvictoria.com

First Victoria  
24 Hour Express Banking  
(24/7) 572-6500  
(800) 808-6500



First Victoria National Bank  
 101 South Main Street  
 PO Box 1338  
 Victoria, TX 77902-1338  
 www.firstvictoria.com

COPY

Date 9/30/10 Page 1

5037915  
 VICTORIA COUNTY GROUNDWATER  
 CONSERVATION DISTRICT  
 2805 N NAVARRO ST STE 210  
 VICTORIA TX 77901-3947

Received  
 10/5/10 BD  
 In the office of



CHECKING ACCOUNTS

VICT CO. GROUNDWATER CONS DIST	Number of Enclosures	24
Account Number	Statement Dates	9/01/10 thru 9/30/10
Previous Balance 784,801.05	Days in statement period	30
3 Deposits/Credits 1,902.56	Average Ledger	777,555.60
23 Checks/Debits 14,285.01	Average Collected	777,555.60
Total Account Charges .00		
Interest Paid 319.55		
Current Balance #2 772,738.15	2010 Interest Paid	2,992.95

CREDITS

DATE	DESCRIPTION	AMOUNT
9/03	Deposit	1,120.32 CR
9/13	Deposit	456.70 CR
9/20	Deposit	325.54 CR
9/30	Interest Deposit	319.55 CR ✓

DEBITS

DATE	DESCRIPTION	AMOUNT
9/15	DEBITS TEXAS COUNTY DRS	586.50-
	PPD	
9/30	DUPLICATE STATEMENT FEE	5.00-✓

CHECKS IN SERIAL NUMBER ORDER

DATE	CHECK NO	AMOUNT	DATE	CHECK NO	AMOUNT	DATE	CHECK NO	AMOUNT
9/02	2057	10.33	9/09	2074	750.00	9/10	2081	2,308.45
9/02	2066*	20.00	9/07	2075	346.86	9/13	2082	408.24
9/02	2067	141.00	9/08	2076	2,500.00	9/24	2083	31.92
9/03	2070*	393.14	9/10	2077	1,075.40	9/27	2084	298.80
9/07	2071	153.73	9/13	2078	15.00	9/27	2085	161.79
9/09	2072	558.75	9/10	2079	24.47	9/28	2086	89.95
9/09	2073	2,057.50	9/10	2080	39.73	9/27	2087	2,308.45

\* SKIP IN CHECK NUMBER SEQUENCE



**Reportfolio**

First Victoria National Bank, Victoria, TX  
 Published: 6/28/2010 10:37:26 AM

**COPY**

Management Report

Pledged To: VICTORIA COUNTY GROUNDWATER

Section V-C

Date: 30-Jun-10

Page: 24

Safekeeping

Code	Cusip Trans#	Description Maturity Prerefund	Pool Coupon	Moody StdPoor	Original Face Pledged Percent	Pledged Original Face Value	Pledged Par Value	Pledged Book Value	Pledged Market Value
TIB	850000SH4 0610240240	SPRING TX INDPT SCH 8/15/2020	5.000	Aaa AAA	\$325,000.00 100.00%	\$325,000.00	\$325,000.00	\$325,000.00	\$325,958.75
THE INDEPENDENT BANKERS AFS									
TIB	748743JT9 522862007041	QUINLAN TX INDPTSCH DIST 2/15/2021	4.000	Aaa NR	\$815,000.00 48.08%	\$400,000.00	\$400,000.00	\$402,170.82	\$417,784.00
THE INDEPENDENT BANKERS AFS									
<u>2 Muni Tax Exempt - Fixed Rate</u>						<u>\$725,000.00</u>	<u>\$725,000.00</u>	<u>\$727,170.82</u>	<u>\$743,742.75</u>
<u>Total Pledged</u>	<u>2 To: VCG VICTORIA COUNTY GROUNDWATER</u>					<u>\$725,000.00</u>	<u>\$725,000.00</u>	<u>\$727,170.82</u>	<u>\$743,742.75</u>
	\$0.00	Munis with Maturity Under 2 Years			\$0.00	Other securities with Stated Maturity Under 2 Years			
	\$725,000.00	Munis with Maturity Over 2 Years			\$0.00	Other securities with Stated Maturity Over 2 Years		#4	#6

\*\* If no data is shown, then there are no pledges for the current period.

**Reportfolio**

First Victoria National Bank, Victoria, TX  
 Published: 7/27/2010 8:51:29 AM

**COPY**

Management Report


Pledged To: VICTORIA COUNTY GROUNDWATER

Section V-C

Date: 31-Jul-10  
 Page: 25

Safekeeping

Code	Cusip Transf	Description Maturity Prerefund	Pool Coupon	Moody StdPoor	Original Face Pledged Percent	Pledged Original Face Value	Pledged Par Value	Pledged Book Value	Pledged Market Value
TIB	850000SH4 0610240240	SPRING TX INDPT SCH 8/15/2020	5,000	Aaa AAA	\$325,000.00 100.00%	\$325,000.00	\$325,000.00	\$325,000.00	\$325,923.00
THE INDEPENDENT BANKERS AFS									
TIB	748743JT9 522862007041	QUINLAN TX INDPTSCH DIST 2/15/2021	4,000	Aaa NR	\$815,000.00 49.08%	\$400,000.00	\$400,000.00	\$402,143.50	\$425,620.00
THE INDEPENDENT BANKERS AFS									
<u>2 Muni Tax Exempt - Fixed Rate</u>						<u>\$725,000.00</u>	<u>\$725,000.00</u>	<u>\$727,143.50</u>	<u>\$751,543.00</u>
<u>Total Pledged 2 To: VCG VICTORIA COUNTY GROUNDWATER</u>						<u>\$725,000.00</u>	<u>\$725,000.00</u>	<u>\$727,143.50</u>	<u>\$751,543.00</u>
\$0.00 Munis with Maturity Under 2 Years					\$0.00 Other securities with Stated Maturity Under 2 Years				
\$725,000.00 Munis with Maturity Over 2 Years					\$0.00 Other securities with Stated Maturity Over 2 Years				


  
 Received  
 8/6/10  
 In the office of  
 J. G. ...

\*\* If no data is shown, then there are no pledges for the current period.

**Reportfolio**

First Victoria National Bank, Victoria, TX  
 Published: 8/30/2010 9:09:08 AM

Management Report  
 Pledged To: VICTORIA COUNTY GROUNDWATER

Date: 31-Aug-10  
 Page: 24  
 Section V-C

**COPY**

Safekeeping

Code	Cusip Trans#	Description Maturity Prerefund	Pool Coupon	Moody StdPoor	Original Face Pledged Percent	Pledged Original Face Value	Pledged Par Value	Pledged Book Value	Pledged Market Value
TIB	661838AF9 1538992009060	NORTH RICHLAND HILLS TEX 2/15/2015	3.000	Aa2 AA+	\$285,000.00 100.00%	\$285,000.00	\$285,000.00	\$289,687.98	\$306,779.70
THE INDEPENDENT BANKERS AFS									
TIB	850000SH4 0610240240	SPRING TX INDPT SCH 8/15/2020	5.000	Aaa AAA	\$325,000.00 100.00%	\$325,000.00	\$325,000.00	\$325,000.00	\$326,036.75
THE INDEPENDENT BANKERS AFS									
TIB	748743JT9 5228620070417	QUINLAN TX INDPTSCH DIST 2/15/2021	4.000	Aaa NR	\$815,000.00 49.08%	\$400,000.00	\$400,000.00	\$402,116.18	\$432,168.00
THE INDEPENDENT BANKERS AFS									

3 Muni Tax Exempt - Fixed Rate

\$1,010,000.00    \$1,010,000.00    \$1,016,804.16    \$1,064,984.45

Total Pledged

3 To: VCG VICTORIA COUNTY GROUNDWATER

\$1,010,000.00    \$1,010,000.00    \$1,016,804.16    \$1,064,984.45

\$0.00 Munis with Maturity Under 2 Years      \$0.00 Other securities with Stated Maturity Under 2 Years  
 \$1,010,000.00 Munis with Maturity Over 2 Years      \$0.00 Other securities with Stated Maturity Over 2 Years

Received  
 9/10/10 B.D.  
 in the office of



\*\* If no data is shown, then there are no pledges for the current period.

**Reportfolio**

First Victoria National Bank, Victoria, TX  
 Published: 9/24/2010 1:48:14 PM

**COPY**

Management Report  
 Pledged To: VICTORIA COUNTY GROUNDWATER

Received  
 10/5/10 BD  
 in the office of



Section V-C

Date: 30-Sep-10  
 Page: 25

Safekeeping

Code	Cusip Trans#	Description Maturity Prerefund	Pool Coupon	Moody StdPoor	Original Face Pledged Percent	Pledged Original Face Value	Pledged Par Value	Pledged Book Value	Pledged Market Value
TIB	661838AF9 1538992009060	NORTH RICHLAND HILLS TEX 2/15/2015	3.000	Aa2 AA+	\$285,000.00 100.00%	\$285,000.00	\$285,000.00	\$289,600.30	\$306,309.45
THE INDEPENDENT BANKERS AFS									
TIB	850000SH4 0610240240	SPRING TX INDPT SCH 8/15/2020	5.000	Aaa AAA	\$325,000.00 100.00%	\$325,000.00	\$325,000.00	\$325,000.00	\$326,056.25
THE INDEPENDENT BANKERS AFS									
TIB	748743JT9 5228620070417	QUINLAN TX INDPTSCH DIST 2/15/2021	4.000	Aaa NR	\$815,000.00 49.08%	\$400,000.00	\$400,000.00	\$402,088.87	\$429,844.00
THE INDEPENDENT BANKERS AFS									
<u>3 Muni Tax Exempt - Fixed Rate</u>						<u>\$1,010,000.00</u>	<u>\$1,010,000.00</u>	<u>\$1,016,699.17</u>	<u>\$1,062,209.70</u>
<u>Total Pledged 3 To: VCG VICTORIA COUNTY GROUNDWATER</u>						<u>\$1,010,000.00</u>	<u>\$1,010,000.00</u>	<u>\$1,016,699.17</u>	<u>\$1,062,209.70</u>
		\$0.00 Munis with Maturity Under 2 Years			\$0.00 Other securities with Stated Maturity Under 2 Years			#5	#1
		\$1,010,000.00 Munis with Maturity Over 2 Years			\$0.00 Other securities with Stated Maturity Over 2 Years				

\*\* If no data is shown, then there are no pledges for the current period.

Date Opened: 08/19/09 <sup>#9</sup> Term: 12 Month(s) Tax ID: 32-0172725 Number: 99055937 <sup>#8</sup>

# Certificate of Deposit

Account Number: 99055937

Dollar Amount of Deposit:

One hundred thousand & no/100

# COPY

\$ 100,000.00 <sup>#10</sup>

This Time Deposit is Issued to:

Issuer:

VICTORIA COUNTY GROUNDWATER CONSERVATION DISTRICT  
2805 N NAVARRO ST STE 210  
VICTORIA TX 77901-3947

FIRST VICTORIA NATIONAL BANK  
MAIN BRANCH  
101 S MAIN ST  
VICTORIA, TX 77901

Received  
8-24-09  
In the office of gc



Not Negotiable - Not Transferable - Additional terms are below.

By CARRIE VERA  
CARRIE VERA

## Additional Terms and Disclosures

This form contains the terms for your time deposit. It is also the Truth-in-Savings disclosure for those depositors entitled to one. There are additional terms and disclosures on page two of this form, some of which explain or expand on those below. You should keep one copy of this form.

Minimum Balance Requirement: You must make a minimum deposit to open this account of \$ 1,000.00

Maturity Date: This account matures 08/19/10 <sup>#11</sup> (See below for renewal information.)

You must maintain this minimum balance on a daily basis to earn the annual percentage yield disclosed.

Rate Information: The interest rate for this account is 1.39 % with an annual percentage yield of 1.40 <sup>#12</sup> %. This rate will be paid until the maturity date specified above. Interest begins to accrue on the business day you deposit any noncash item (for example, a check).

Withdrawals of Interest: Interest  accrued  credited during a term can be withdrawn: before crediting date.

Interest will be compounded Daily <sup>#13</sup>. Interest will be credited monthly <sup>#14</sup> added back to the certificate <sup>#15</sup>.

Early Withdrawal Penalty: If we consent to a request for a withdrawal that is otherwise not permitted you may have to pay a penalty. The penalty will be an amount equal to: \_\_\_\_\_ interest on the amount withdrawn.

The annual percentage yield assumes that interest remains on deposit until maturity. A withdrawal of interest will reduce earnings.

Renewal Policy:

If you close your account before interest is credited, you will not receive the accrued interest.

Single Maturity: If checked, this account will not automatically renew. Interest  will  will not accrue after maturity.

The NUMBER OF ENDORSEMENTS needed for withdrawal or any other purpose is: 1

Automatic Renewal: If checked, this account will automatically renew on the maturity date. (see page two for terms) Interest  will  will not accrue after final maturity.

ACCOUNT OWNERSHIP: (Select one and place your initials next to account selected) UNIFORM SINGLE-PARTY OR MULTIPLE-PARTY ACCOUNT SELECTION FORM NOTICE: THE TYPE OF ACCOUNT YOU SELECT MAY DETERMINE HOW PROPERTY PASSES ON YOUR DEATH. YOUR WILL MAY NOT CONTROL THE DISPOSITION OF FUNDS HELD IN SOME OF THE FOLLOWING ACCOUNTS.

TIN: 32-0172725

Social Security or Employer's I.D. Number: A correct taxpayer identification number is required for almost every type of account. A certification of this number is also required and is contained on the first copy of this certificate.

- SINGLE-PARTY ACCOUNT WITHOUT "P.O.D." (Payable on Death) DESIGNATION
- SINGLE-PARTY ACCOUNT WITH "P.O.D." (Payable on Death) DESIGNATION
- MULTIPLE-PARTY ACCOUNT WITHOUT RIGHT OF SURVIVORSHIP
- MULTIPLE-PARTY ACCOUNT WITH RIGHT OF SURVIVORSHIP
- MULTIPLE-PARTY ACCOUNT WITH RIGHT OF SURVIVORSHIP AND "P.O.D." (Payable on Death) DESIGNATION
- TRUST ACCOUNT (name beneficiaries below)
- TRUST ACCOUNT SUBJECT TO SEPARATE AGREEMENT

Backup Withholding - A certification that you are not subject to backup withholding is necessary for almost all accounts (except for persons who are exempt altogether). This certification is contained on the first copy of this form. Failure to provide this certification when required will cause us to withhold a percentage of the interest earned (for payment to the IRS). Providing a false certification can result in serious federal penalties.

DATED: \_\_\_\_\_

OTHER: Public Funds  
NAME OR NAMES OF P.O.D. BENEFICIARIES: \_\_\_\_\_

ENDORSEMENTS - SIGN ONLY WHEN YOU REQUEST WITHDRAWAL

X \_\_\_\_\_  
X **UNDER CONTRACT**  
X \_\_\_\_\_





Date Opened: 08/19/10 #20 Term: 12 Month(s) Tax ID: 32-0172725 Number: 99087790 #25

# Certificate of Deposit

**COPY**

Account Number: 99087790

Dollar Amount of Deposit: One hundred thousand & no/100

#31  
\$ 100,000.00 #27

This Time Deposit is Issued to:

Issuer:

VICTORIA COUNTY GROUNDWATER  
CONSERVATION DISTRICT  
2805 N NAVARRO ST STE 210  
VICTORIA TX 77901-3947

FIRST VICTORIA NATIONAL BANK  
MAIN BRANCH  
101 S MAIN ST  
VICTORIA, TX 77901

Received  
8/25/10  
In the office of



Not Negotiable - Not Transferable - Additional terms are below.

By Shelley Brotze  
SHELLEY BROTZE

## Additional Terms and Disclosures

This form contains the terms for your time deposit. It is also the Truth-in-Savings disclosure for those depositors entitled to one. There are additional terms and disclosures on page two of this form, some of which explain or expand on those below. You should keep one copy of this form.

Maturity Date: This account matures 08/19/11 #28 (See below for renewal information.) Minimum Balance Requirement: You must make a minimum deposit to open this account of \$ 100,000.00

Rate Information: The interest rate for this account is .80 % with an annual percentage yield of .80 #29 %. This rate will be paid until the maturity date specified above. Interest begins to accrue on the business day you deposit any noncash item (for example, a check).

Interest will be compounded Daily #30. Interest will be credited monthly #31 added back to the certificate #32.

The annual percentage yield assumes that interest remains on deposit until maturity. A withdrawal of interest will reduce earnings.

If you close your account before interest is credited, you will not receive the accrued interest.

The NUMBER OF ENDORSEMENTS needed for withdrawal or any other purpose is: 1.

You must maintain this minimum balance on a daily basis to earn the annual percentage yield disclosed.

Withdrawals of Interest: Interest  accrued  credited during a term can be withdrawn: before crediting date.

Early Withdrawal Penalty: If we consent to a request for a withdrawal that is otherwise not permitted you may have to pay a penalty. The penalty will be an amount equal to: \_\_\_\_\_

\_\_\_\_\_ interest on the amount withdrawn.

Renewal Policy:

Single Maturity: If checked, this account will not automatically renew. Interest  will  will not accrue after maturity.

Automatic Renewal: If checked, this account will automatically renew on the maturity date. (see page two for terms)

Interest  will  will not accrue after final maturity.

ACCOUNT OWNERSHIP: (Select one and place your initials next to account selected) UNIFORM SINGLE-PARTY OR MULTIPLE-PARTY ACCOUNT SELECTION FORM NOTICE: THE TYPE OF ACCOUNT YOU SELECT MAY DETERMINE HOW PROPERTY PASSES ON YOUR DEATH. YOUR WILL MAY NOT CONTROL THE DISPOSITION OF FUNDS HELD IN SOME OF THE FOLLOWING ACCOUNTS.

- SINGLE-PARTY ACCOUNT WITHOUT "P.O.D." (Payable on Death) DESIGNATION
- SINGLE-PARTY ACCOUNT WITH "P.O.D." (Payable on Death) DESIGNATION
- MULTIPLE-PARTY ACCOUNT WITHOUT RIGHT OF SURVIVORSHIP
- MULTIPLE-PARTY ACCOUNT WITH RIGHT OF SURVIVORSHIP
- MULTIPLE-PARTY ACCOUNT WITH RIGHT OF SURVIVORSHIP AND "P.O.D." (Payable on Death) DESIGNATION
- TRUST ACCOUNT (name beneficiaries below)
- TRUST ACCOUNT SUBJECT TO SEPARATE AGREEMENT

DATED: \_\_\_\_\_  
 OTHER: PUBLIC FUNDS  
NAME OR NAMES OF P.O.D. BENEFICIARIES: \_\_\_\_\_

TIN: 32-0172725  
Social Security or Employer's I.D. Number: A correct taxpayer identification number is required for almost every type of account. A certification of this number is also required and is contained on the first copy of this certificate.

Backup Withholding - A certification that you are not subject to backup withholding is necessary for almost all accounts (except for persons who are exempt altogether). This certification is contained on the first copy of this form. Failure to provide this certification when required will cause us to withhold a percentage of the interest earned (for payment to the IRS). Providing a false certification can result in serious federal penalties.

ENDORSEMENTS - SIGN ONLY WHEN YOU REQUEST WITHDRAWAL

X \_\_\_\_\_

X UNDER CONTRACT

X \_\_\_\_\_



COPY

First Victoria National Bank

First Victoria

Victoria County Groundwater Conservation District  
As of July 31, 2010

Received  
8/9/10 B.D.  
In the office of



NOW				
23566	<u>791,382.76</u>	0.50%		
<b>Total NOW</b>	<b>791,382.76</b>			
CD				
99064995	100,892.38	1.34%	APY 1.35%	
99055937	<u>101,280.04</u>	1.39%	APY 1.40%	
<b>Total CD</b>	<b>202,172.42</b>			
<b>Total Deposits</b>	<b>993,555.18</b>			
Less FDIC Ins	<u>(250,000.00)</u>			
<b>Total Uninsured</b>	<b><u>743,555.18</u></b>			
<b>Total Deposits</b>	<b>993,555.18</b>			
<b>Total Uninsured</b>	<b>743,555.18</b>			
<b>Pledged</b>	<b><u>751,543.00</u></b>			<i>* See Below</i>

**\*Securities Pledged to Victoria County Groundwater Conservation District:**

Coupon	Description	Par Value	Market Value	Moody Rating
5.00%	Spring, TX ISD	\$325,000.00	\$325,923.00	AAA Rated
4.00%	Quinlan, TX ISD	\$400,000.00	<u>\$425,620.00</u>	AAA Rated
			\$751,543.00	

**\*As of August 4, 2010 the following security was pledged to Victoria County Groundwater Conservation District for additional collateral**

Coupon	Description	Par Value	Market Value	Moody Rating
3.00%	North Richland Hills, TX	\$285,000.00	\$302,644.35	AA2 Rated

COPY

*Corrected copy*

COPY

Victoria County Groundwater Conservation District  
As of August 31, 2010

NOW				
23566	<u>784,801.05</u>	0.50%		
<i>Total NOW</i>	784,801.05			
CD				
99064995	101,007.27	1.34%	APY 1.35%	
99087790	<u>100,000.00</u>	1.39%	APY 0.80%	
<i>Total CD</i>	201,007.27			
<i>Total Deposits</i>	985,808.32			
Less FDIC Ins	<u>(250,000.00)</u>			
<i>Total Uninsured</i>	<u>735,808.32</u>			
<i>Total Deposits</i>	985,808.32			
<i>Total Uninsured</i>	735,808.32			
<i>Pledged</i>	<u>1,064,984.45</u>			<i>* See Below</i>

**\*Securities Pledged to Victoria County Groundwater Conservation District:**

Coupon	Description	Par Value	Market Value	Moody Rating
5.00%	Spring, TX ISD	\$325,000.00	\$326,036.75	AAA Rated
4.00%	Quinlan, TX ISD	\$400,000.00	\$432,168.00	AAA Rated
3.00%	North Richland Hills, TX	\$285,000.00	\$306,779.70	AA2 Rated

COPY

Victoria County Groundwater Conservation District  
As of September 30, 2010

NOW			
23566	<u>772,738.15</u>	0.50%	
<b>Total NOW</b>	<b>772,738.15</b>		
CD			
99064995	101,122.28	1.34%	APY 1.35%
99087790	<u>100,067.97</u>	1.39%	APY 0.80%
<b>Total CD</b>	<b>201,190.25</b>		
<b>Total Deposits</b>	<b>973,928.40</b>		
Less FDIC Ins	<u>(250,000.00)</u>		
<b>Total Uninsured</b>	<b><u>723,928.40</u></b>		
<b>Total Deposits</b>	<b>973,928.40</b>		
<b>Total Uninsured</b>	<b>723,928.40</b>		
<b>Pledged</b>	<b><u>1,062,209.70</u></b>		<i>* See Below</i>

**\*Securities Pledged to Victoria County Groundwater Conservation District:**

Coupon	Description	Par Value	Market Value	Moody Rating
5.00%	Spring, TX ISD	\$325,000.00	\$326,056.25	AAA Rated
4.00%	Quinlan, TX ISD	\$400,000.00	\$429,844.00	AAA Rated
3.00%	North Richland Hills, TX	\$285,000.00	\$306,309.45	AA2 Rated

**Attachment B: Victoria County Groundwater Conservation District  
Financial Statements for the Year Ended September 30, 2010.**

**VICTORIA COUNTY GROUNDWATER CONSERVATION DISTRICT**  
**FINANCIAL STATEMENTS**  
**For the Year Ended September 30, 2010**

**VICTORIA COUNTY GROUNDWATER CONSERVATION DISTRICT  
FINANCIAL STATEMENTS  
For the Year Ended September 30, 2010**

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ANNUAL FILING AFFIDAVIT

STATE OF TEXAS }

COUNTY OF VICTORIA }

I, D. Mark Meek  
(Name of Duly Authorized District Representative)

of the Victoria County Groundwater Conservation District  
(Name of District)

hereby swear, or affirm, that the District above has reviewed and approved at a meeting of the District's Board of Directors on the 21<sup>st</sup> day of January, 2011 its annual audit report for the fiscal period ended September 30, 2010 and that copies of the annual audit report have been filed in the District's office, located at 2805 N. Navarro, Suite 210, Victoria, Texas 77901.

This filing affidavit and the attached copy of the audit report will be submitted to the Texas Commission on Environmental Quality to satisfy the annual filing requirements of Texas Water Code Section 49.194.

Date: \_\_\_\_\_, 20 \_\_\_\_\_ By: \_\_\_\_\_  
(Signature of District Representative)

D. Mark Meek, President  
(Typed Name & Title of District Representative)

Sworn to and subscribed to before me this \_\_\_\_\_ day of \_\_\_\_\_, 20 \_\_\_\_\_

(Seal) \_\_\_\_\_ (Signature of Notary)

My Commission Expires On: \_\_\_\_\_  
Notary Public in the State of Texas

# Goldman, Hunt & Notz

---

## Certified Public Accountants

DONALD G. GOLDMAN, CPA  
D. DALE HUNT, CPA  
JAMIE K. NOTZ, CPA, CVA\*  
\*CERTIFIED VALUATION ANALYST

K. LACE FELDMAN, CPA  
SYLVIA H. GORIS, CPA  
SUE N. GUTHRIE, CPA

MEMBERS OF:  
  
AMERICAN INSTITUTE OF  
CERTIFIED PUBLIC ACCOUNTANTS  
  
TEXAS SOCIETY OF  
CERTIFIED PUBLIC ACCOUNTANTS

### INDEPENDENT AUDITOR'S REPORT

November 30, 2010

To the Board of Directors  
Victoria, Texas

We have audited the accompanying financial statements of the governmental activities and each major fund of the Victoria County Groundwater Conservation District as of September 30, 2010, and for the year then ended, which collectively comprise the District's basic financial statements as listed in the table of contents. These financial statements are the responsibility of the management of the Victoria County Groundwater Conservation District. Our responsibility is to express opinions on these financial statements based on our audit.

We conducted our audit in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audit provides a reasonable basis for our opinions.

In our opinion, the financial statements referred to above present fairly, in all material respects, the respective financial position of the governmental activities and each major fund of the Victoria County Groundwater Conservation District as of September 30, 2010, and the respective changes in financial position, thereof and for the year then ended, in conformity with accounting principles generally accepted in the United States of America.

Accounting principles generally accepted in the United States of America require that the management's discussion and analysis and budgetary comparison information on pages 4 through 7 and 17 through 19 be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board, who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Our audit was conducted for the purpose of forming opinions on the financial statements that collectively comprise the Victoria County Groundwater Conservation District's financial statements as a whole. The other supplementary information on pages 20 through 26 are presented for purposes of additional analysis and are not a required part of the financial statements. The other supplementary information are the responsibility of management and were derived from and relate directly to the underlying accounting and other records used to prepare the financial statements. The information has been subjected to the auditing procedures applied in the audit of the financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the financial statements or to the financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the information is fairly stated in all material respects in relation to the financial statements as a whole.

*John, Hunt & Nott, LLP*

**VICTORIA COUNTY GROUNDWATER CONSERVATION DISTRICT  
MANAGEMENT'S DISCUSSION AND ANALYSIS  
September 30, 2010**

As management of the Victoria County Groundwater Conservation District (District), we offer readers of the District's financial statements this narrative overview and analysis of the financial activities of the District for the fiscal year ended September 30, 2010. This discussion and analysis is intended to be an easily readable analysis of the District's financial activities based on currently known facts, decisions or conditions. This analysis focuses on current year activities and should be read in conjunction with the financial statements that follow.

**Report Layout**

In addition to the Management's Discussion and Analysis (MD&A), the report consists of basic financial statements, notes to the financial statements and supplementary information. The basic financial statements are highly condensed and present a government-wide view of the District's finances. These government-wide statements are designed to be more corporate-like in that all activities are consolidated into a total for the District. The notes to the financial statements provide additional information that is essential to a full understanding of the data provided in the government-wide basic financial statements.

**Basic Financial Statements**

- The Statement of Net Assets and Governmental Funds Balance Sheet is the first of two governmental fund and government-wide financial statements which focus on resources available for future operations. In simple terms, this statement presents a snapshot view of the assets the District owns, the liabilities it owes and the net difference. The net difference is further separated into amounts restricted for specific purposes and unrestricted amounts. The presentation is similar to a private-sector business.
- The second governmental fund and government-wide financial statement is called the Statement of Activities and Governmental Funds Revenues, Expenditures, and Changes in Fund Balance/Net Assets. This statement summarizes the District's income and expenditures for the year. Once again, the presentation is similar to a private-sector business.
- The notes to the financial statements provide additional disclosure required by governmental accounting standards and provide information to assist the reader in understanding the District's financial condition.

The discussion and analysis of the District's financial performance provides an overall review of its financial activities for the year ended September 30, 2010. The intent of this discussion and analysis is to look at the District's financial performance as a whole; readers should also review the basic financial statements to enhance their understanding of the District's financial performance.

**VICTORIA COUNTY GROUNDWATER CONSERVATION DISTRICT  
MANAGEMENT'S DISCUSSION AND ANALYSIS  
September 30, 2010**

**Financial Highlights**

- The assets of the Victoria County Groundwater Conservation District exceeded its liabilities at the close of the fiscal year ended September 30, 2010 by \$973,950. Of this amount, \$963,277 in unrestricted net assets is available to meet the District's ongoing obligations.
- At September 30, 2010, unreserved fund balance for the General Fund was \$912,200 or 347% of total General Fund expenditures.
- The total cost of all District activities was \$262,285 for the fiscal year.

**District as a Whole**

*Government-Wide Financial Statements*

A condensed version of the Statement of Net Assets at September 30, 2010 and 2009 follows:

	<b>Net Assets at Year-End</b> (in thousands)					
	<b>Governmental Activities</b>		<b>Total Government</b>		<b>Amount Change</b>	<b>% Change</b>
	<u>2010</u>	<u>2009</u>	<u>2010</u>	<u>2009</u>		
Cash and investments	\$ 970	\$ 739	\$ 970	\$ 739	\$ 231	31%
Other assets	24	21	24	21	3	14%
Capital assets	11	10	11	10	1	10%
Total assets	<u>1,005</u>	<u>770</u>	<u>1,005</u>	<u>770</u>	<u>235</u>	31%
Other liabilities	31	45	31	45	(14)	-31%
Total liabilities	<u>31</u>	<u>45</u>	<u>31</u>	<u>45</u>	<u>(14)</u>	-31%
<b>Net assets:</b>						
Investments in capital assets, net of related debt	11	10	11	10	1	10%
Unrestricted	963	715	963	715	248	35%
Total net assets	<u>\$ 974</u>	<u>\$ 725</u>	<u>\$ 974</u>	<u>\$ 725</u>	<u>\$ 249</u>	34%

The total net assets increased by approximately \$249,000. The increase was principally invested in cash.

**VICTORIA COUNTY GROUNDWATER CONSERVATION DISTRICT  
MANAGEMENT'S DISCUSSION AND ANALYSIS  
September 30, 2010**

**Financial Highlights (Concluded)**

A condensed version of the Statement of Activities follows:

**Governmental Activities  
For the years ended September 30, 2010 and 2009  
(in thousands)**

	<u>Governmental Activities</u>		<u>Total Government</u>		<u>Amount Change</u>	<u>% Change</u>
	<u>2010</u>	<u>2009</u>	<u>2010</u>	<u>2009</u>		
Revenues						
General revenues						
Taxes	\$ 504	\$ 511	\$ 504	\$ 511	\$ (7)	-1%
Interest	6	4	6	4	2	50%
Miscellaneous income	-	2	-	2	(2)	-100%
Total revenues	<u>510</u>	<u>517</u>	<u>510</u>	<u>517</u>	<u>(7)</u>	<u>-1%</u>
Expenses						
Salaries, benefits and payroll taxes	106	102	106	102	4	4%
Office	13	18	13	18	(5)	-28%
Rent	13	13	13	13	-	0%
Travel and training	13	9	13	9	4	44%
Supplies	3	5	3	5	(2)	-40%
Research and consultation	55	23	55	23	32	139%
Legal and professional fees	20	39	20	39	(19)	-49%
Insurance	2	1	2	1	1	100%
Public relations	1	2	1	2	(1)	-50%
Appraisal District and Tax Assessor	31	31	31	31	-	0%
Weather station	-	1	-	1	(1)	-100%
Depreciation	4	3	4	3	1	33%
Total expenses	<u>261</u>	<u>247</u>	<u>261</u>	<u>247</u>	<u>14</u>	<u>6%</u>
Change in net assets	249	270	249	270	(21)	-8%
Beginning net assets	725	455	725	455	270	59%
Ending net assets	<u>\$ 974</u>	<u>\$ 725</u>	<u>\$ 974</u>	<u>\$ 725</u>	<u>\$ 249</u>	<u>34%</u>

The revenues exceeded expenses by approximately \$249,000 and are being used to build the net assets of the District to maintain an adequate capital structure. Tax revenues were lower due to a decrease in collection this year. Interest was up due to the addition of a second time deposit. Total expenses were up principally due to increased spending on groundwater research and consultation.

**VICTORIA COUNTY GROUNDWATER CONSERVATION DISTRICT  
MANAGEMENT'S DISCUSSION AND ANALYSIS  
September 30, 2010**

**Budgetary Highlights**

The District did not revise its budget for the General Fund during the fiscal year, so there were no differences between the original adopted budget and the final budget. Actual revenues in the General Fund exceeded budgeted revenues by \$3,205. Actual General Fund expenditures were \$206,918 less than budgeted expenditures.

**Capital Assets**

At September 30, 2010 the District had \$10,673 invested in net capital assets. The District added \$4,019 in office equipment during the year.

**Capital Assets  
For the years ended September 30, 2010 and 2009  
(in thousands)**

	<b>Governmental Activities</b>		<b>Total Government</b>		<b>Amount Change</b>	<b>% Change</b>
	<u>2010</u>	<u>2009</u>	<u>2010</u>	<u>2009</u>		
Equipment	\$ 20	\$ 16	\$ 20	\$ 16	\$ 4	25%
Subtotal	<u>20</u>	<u>16</u>	<u>20</u>	<u>16</u>	<u>4</u>	<u>25%</u>
Accumulated depreciation	<u>9</u>	<u>6</u>	<u>9</u>	<u>6</u>	<u>3</u>	<u>50%</u>
Capital assets, net	<u>\$ 11</u>	<u>\$ 10</u>	<u>\$ 11</u>	<u>\$ 10</u>	<u>\$ 1</u>	<u>10%</u>

Additional information on the District's capital assets can be found in the notes to the financial statements.

**Debt Outstanding**

At year-end, the District had no debt outstanding.

**Economic Factors and Next Year's Budgets and Rates**

The District's property tax rate for 2010/2011 is \$0.00946 per \$100 valuation. The net taxable value is \$5,279,138,053 for total tax revenue of \$499,406.

The District's budgeted expenditures for 2010/2011 are \$497,200.

**Financial Contact**

The District's financial statements are designed to present users (citizens, taxpayers, customers, investors, and creditors) with a general overview of the District's finances and to demonstrate the District's accountability. If you have questions about the report or need additional financial information, please contact the District Manager at 2805 N. Navarro, Suite 210, Victoria, Texas 77901.

**VICTORIA COUNTY GROUNDWATER CONSERVATION DISTRICT  
STATEMENT OF NET ASSETS AND GOVERNMENTAL FUNDS BALANCE SHEET  
September 30, 2010**

	<u>General Fund</u>	<u>Total</u>	<u>Adjustments</u>	<u>Statement of Net Assets</u>
<b>Assets</b>				
Cash and investments	\$ 970,211	\$ 970,211	\$ -	\$ 970,211
Taxes receivable	22,436	22,436	-	22,436
Other receivables	1,013	1,013	-	1,013
Prepayments	708	708	-	708
Capital assets (net of accumulated depreciation)	-	-	10,673	10,673
<b>Total assets</b>	<u>\$ 994,368</u>	<u>\$ 994,368</u>	<u>\$ 10,673</u>	<u>\$ 1,005,041</u>
<b>Liabilities</b>				
Accounts payable	\$ 4,054	\$ 4,054	\$ -	\$ 4,054
Payroll and other taxes payable	1,715	1,715	-	1,715
Accrued liabilities	25,322	25,322	-	25,322
Deferred revenues	22,436	22,436	(22,436)	-
<b>Total liabilities</b>	<u>53,527</u>	<u>53,527</u>	<u>(22,436)</u>	<u>31,091</u>
<b>Fund balance/net assets</b>				
Fund balance:				
Reserved	28,641	28,641	(28,641)	-
Unreserved	912,200	912,200	(912,200)	-
<b>Total fund balance</b>	<u>940,841</u>	<u>940,841</u>	<u>(940,841)</u>	<u>-</u>
<b>Total liabilities and fund balance</b>	<u>\$ 994,368</u>	<u>\$ 994,368</u>		
<b>Net assets:</b>				
Invested in capital assets, net of related debt			10,673	10,673
Unrestricted			963,277	963,277
<b>Total net assets</b>			<u>\$ 973,950</u>	<u>\$ 973,950</u>

The notes to the financial statements are an integral part of this statement.



**VICTORIA COUNTY GROUNDWATER CONSERVATION DISTRICT  
STATEMENT OF ACTIVITIES AND GOVERNMENTAL FUNDS REVENUES,  
EXPENDITURES, AND CHANGES IN FUND BALANCE/NET ASSETS  
For the Year Ended September 30, 2010**

	<u>General Fund</u>	<u>Total</u>	<u>Adjustments</u>	<u>Statement of Activities</u>
<b>Revenues</b>				
Property taxes, including penalty and interest	\$ 501,419	\$ 501,419	\$ 2,833	\$ 504,252
Interest income	6,227	6,227	-	6,227
Miscellaneous income	350	350	-	350
<b>Total revenues</b>	<u>507,996</u>	<u>507,996</u>	<u>2,833</u>	<u>510,829</u>
<b>Expenditures/expenses</b>				
Service operations:				
District manager and personnel	106,240	106,240	-	106,240
Office	13,774	13,774	-	13,774
Rent	12,960	12,960	-	12,960
Travel and training	12,434	12,434	-	12,434
Supplies	3,117	3,117	-	3,117
Repair and maintenance	193	193	-	193
Research and consultation	55,044	55,044	-	55,044
Legal and professional fees	19,888	19,888	-	19,888
Insurance	1,601	1,601	-	1,601
Appraisal District and Tax Assessor	30,902	30,902	-	30,902
Other	1,977	1,977	-	1,977
Water quality	485	485	-	485
Capital outlay	4,019	4,019	(4,019)	-
Depreciation	-	-	3,670	3,670
<b>Total expenditures/expenses</b>	<u>262,634</u>	<u>262,634</u>	<u>(349)</u>	<u>262,285</u>
Excess (deficiency) of revenues over expenditures/expenses	245,362	245,362	3,182	248,544
<b>Fund balance/net assets:</b>				
Beginning of the year	695,479	695,479	29,927	725,406
End of the year	<u>\$ 940,841</u>	<u>\$ 940,841</u>	<u>\$ 33,109</u>	<u>\$ 973,950</u>

The notes to the financial statements are an integral part of this statement.

**VICTORIA COUNTY GROUNDWATER CONSERVATION DISTRICT  
NOTES TO THE FINANCIAL STATEMENTS  
For the Year Ended September 30, 2010**

**NOTE 1: SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES AND BASIS OF ACCOUNTING**

**Basis of Accounting/Measurement Focus**

The accounts of the District are organized on the basis of funds, each of which is considered a separate accounting entity. The operations of each fund are accounted for with a separate set of self-balancing accounts that comprise its assets, liabilities, fund equity, revenues, and expenditures or expenses, as appropriate. Governmental resources are allocated to and accounted for in individual funds based upon the purposes for which they are to be spent and the means by which spending activities are controlled.

The accounting and reporting policies of the District relating to the funds included in the accompanying financial statements conform to generally accepted accounting principles applicable to state and local governments. Generally accepted accounting principles for local governments include those principles prescribed by the Governmental Accounting Standards Board (GASB), the American Institute of Certified Public Accountants in the publication entitled *Audits of State and Local Governmental Units*, and by the Financial Accounting Standards Board (when applicable). The more significant accounting policies of the District are described below.

**A. Governmental Fund Financial Statements and Government-Wide Financial Statements**

The governmental fund financial statements and government-wide financial statements include a Statement of Net Assets and Governmental Funds Balance Sheet and a Statement of Activities and Governmental Funds Revenues, Expenditures, and Changes in Fund Balance/Net Assets. These statements present summaries of governmental activities for the District.

These statements are presented on an "economic resources" measurement focus and the accrual basis of accounting. Accordingly, all of the District's assets and liabilities, including capital assets as well as infrastructure assets and long-term liabilities, are included in the accompanying Statement of Net Assets and Governmental Funds Balance Sheet. The Statement of Activities and Governmental Funds Revenues, Expenditures, and Changes in Fund Balance/Net Assets presents changes in fund balance/net assets. Under the accrual basis of accounting, revenues are recognized in the period in which they are earned while expenses are recognized in the period in which the liability is incurred. The types of transactions reported as program revenues for the District are reported in two categories: 1) property taxes and 2) investment earnings.

Governmental fund financial statements are included in the Statement of Net Assets and Governmental Funds Balance Sheet and Statement of Activities and Governmental Funds Revenues, Expenditures, and Changes in Fund Balance/Net Assets. The District has presented all major funds that met those qualifications.

All governmental funds are accounted for on a spending or "current financial resources" measurement focus and the modified accrual basis of accounting. Accordingly, only current assets and current liabilities are included on the Statement of Net Assets and Governmental Funds Balance Sheet. The Statement of Activities and Governmental Funds Revenues, Expenditures, and Changes in Fund Balance/Net Assets present increases (revenues and other financing sources) and decreases (expenditures and other financing uses) in net current assets. Under the modified accrual basis of accounting, revenues are recognized in the accounting period in which they become both measurable and available to finance expenditures of the current period. Accordingly, revenues are recorded when received in cash, except that revenues

**VICTORIA COUNTY GROUNDWATER CONSERVATION DISTRICT  
NOTES TO THE FINANCIAL STATEMENTS  
For the Year Ended September 30, 2010**

**NOTE 1: SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES AND BASIS OF ACCOUNTING  
(Continued)**

subject to accrual (generally 60 days after year-end) are recognized when due. The primary revenue sources, which have been treated as susceptible to accrual by the District are charges for property tax and interest income. Expenditures are recorded in the accounting period in which the related fund liability is incurred.

The following is the District's Governmental Fund type:

**General Fund**

The General Fund is the general operating fund of the District. All financial resources, except those required to be accounted for in another fund, are accounted for in the General Fund.

**B. Budget**

The District Board members follow these procedures in establishing the District budgets:

- a. Thirty to sixty days prior to the beginning of each fiscal year, the department supervisors submit to the Board members a proposed budget for the fiscal year beginning on the following October 1. The operating budget includes proposed expenditures and the means of financing them.
- b. Public hearings are conducted at which comments concerning the budget are heard.
- c. The budget is legally enacted by the Board members prior to the beginning of the fiscal year.
- d. Any revisions that alter the total expenditures of any fund must be approved by the Board members.

**C. Inventory**

There is no inventory at September 30, 2010.

**D. Vacation and Sick Leave**

Vacation accrues at a rate of .83 days per month or ten days per year. Sick leave accrues at a rate of .42 days per month or five days per year. There is no provision for this liability due to immateriality.

**E. Property Tax**

The Appraisal District annually prepares appraisal records listing all property within the District and the appraised value of each parcel or item as of January 1. Additionally on January 1, a tax lien attaches to property to secure the payment of all taxes, penalty, and interest ultimately imposed for the year on the property. By September 1 of each year, or as soon thereafter as practicable, the rate of taxation is set by the Board of Directors of the District based upon the aggregate appraisal value.

Taxes are levied on October 1 and are due and payable on or before January 31 of the following year. All unpaid taxes become delinquent February 1 and attach as an enforceable lien on the property as of July 1 of the following year. The Victoria County Tax Assessor/Collector collects and remits the property taxes to the District on a monthly basis. Property taxes not collected within 60 days are deemed not to be material to the financial statements, so no allowance for doubtful accounts has been established.

**VICTORIA COUNTY GROUNDWATER CONSERVATION DISTRICT  
NOTES TO THE FINANCIAL STATEMENTS  
For the Year Ended September 30, 2010**

**NOTE 1: SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES AND BASIS OF ACCOUNTING  
(Concluded)**

**E. Property Tax**

The District reports deferred revenue on its General Fund balance sheet. Deferred revenues arise when potential revenue does not meet both the "measurable" and "available" criteria for recognition in the current period. Deferred revenues also arise when the District receives resources before it has legal claim to them. In subsequent periods, when both revenue recognition criteria are met, or when the District has a legal claim to the resources, the liability for deferred revenue is removed from the balance sheet and revenue is recognized.

**F. Capital Assets**

Capital assets purchased or acquired are carried at historical cost or estimated historical cost. Contributed assets are recorded at fair market value as of the date donated. Additions, improvements and other capital outlays that significantly extend the useful life of an asset are capitalized. Other costs incurred for repairs and maintenance are expensed as incurred. Depreciation on capital assets is calculated on the straight-line basis over the following estimated useful lives:

Equipment	3 – 7 years
-----------	-------------

**G. Related Party Transactions**

There are no related party transactions.

**H. Contracts**

The District and Coleta Creek Watershed entered into a Joint-Funding agreement with the U.S. Geological Survey (USGS). The District has agreed to pay \$27,200 towards the project over a course of three years, with payments not to exceed \$10,000 per year.

The District signed a one year umbrella contract with Pastor, Behling & Wheeler, LLC for hydrogeological services which set the rates for services for the year. When the District requires services, they will agree on a joint task order. When these task orders are made, funds become reserved.

**NOTE 2: THE FINANCIAL REPORTING ENTITY**

**Creation of District**

The Victoria County Groundwater Conservation District operates with a Board of Directors form of government. The District was created on June 17, 2005 under and subject to the authority, conditions, and restrictions of Section 59, Article XVI, Texas Constitution. It has the same boundaries as Victoria County, which covers an area of 889 square miles and is in the West Gulf Coast Plain of South Texas. The District's mission is to develop, promote, and implement water conservation, augmentation, and management strategies in order to protect water resources for the benefit of the citizens, economy, and environment of Victoria County.

**VICTORIA COUNTY GROUNDWATER CONSERVATION DISTRICT  
NOTES TO THE FINANCIAL STATEMENTS  
For the Year Ended September 30, 2010**

**NOTE 3: CASH DEPOSITS WITH FINANCIAL INSTITUTIONS**

State statutes require that all deposits in financial institutions be fully collateralized by U.S. Government obligations or obligations of Texas and its agencies that have a market value of not less than the principal amount of the deposits. The District's deposits were fully collateralized at September 30, 2010. At year-end, the carrying amount of the District's deposits was \$970,211 and the respective bank balance totaled \$973,928. Of the total bank balance, \$451,190 was covered by Federal Depository Insurance. The additional \$522,738 was covered by additional securities pledged to the District at September 30, 2010. The fair market value of the securities at year end was \$1,062,210.

Texas Statutes authorize the Victoria County Groundwater Conservation District to invest in:

1. Obligations of the U.S. Treasury or its agencies and instrumentalities;
2. Direct obligations of the State of Texas of its agencies;
3. Other obligations, the principal of and interest on which are unconditionally guaranteed or insured by the State of Texas or the United States;
4. Obligations of states, agencies, counties, or cities rated A or better by a national investment rating firm;
5. Certificates of deposit that are insured by the Federal Deposit Insurance Corporation or secured by obligations having a market value of at least the principal amount of the certificates; and
6. Fully collateralized direct repurchase agreements.

**NOTE 4: CHANGES IN FIXED ASSETS**

	Primary Government			Ending Balance
	Beginning Balance	Additions	Retirements	
Governmental activities:				
Capital assets not being depreciated				
Land	\$ -	\$ -	\$ -	\$ -
Total capital assets not being depreciated	-	-	-	-
Other capital assets				
Equipment	16,304	4,019	-	20,323
Total other capital assets at historical cost	16,304	4,019	-	20,323
Total capital assets	16,304	4,019	-	20,323
Less accumulated depreciation for:				
Equipment	5,980	3,670	-	9,650
Total accumulated depreciation	5,980	3,670	-	9,650
Governmental activities capital assets, net	<u>\$ 10,324</u>	<u>\$ 349</u>	<u>\$ -</u>	<u>\$ 10,673</u>

**VICTORIA COUNTY GROUNDWATER CONSERVATION DISTRICT  
NOTES TO THE FINANCIAL STATEMENTS  
For the Year Ended September 30, 2010**

**NOTE 5: OPERATING LEASES**

The District leases a copier and related equipment for \$154 per month. The lease will expire on August 9, 2011. The amounts due in subsequent year is as follows:

<u>Year Ended September 30,</u>	<u>Amount Due</u>
2011	<u>\$ 1,537</u>
	<u>\$ 1,537</u>

The District leases office space from Victoria County, Texas for \$1,080 per month plus a potential increase from year to year for lessor's increased amount of maintenance, repair, cleanup, and utilities provided, but will not be more than five percent in any lease year. The lease expires on March 31, 2011.

The amounts due in subsequent year (without the increased cost provision) is as follows:

<u>Year Ended September 30,</u>	<u>Amount Due</u>
2011	<u>\$ 6,480</u>
	<u>\$ 6,480</u>

**NOTE 6: RISK MANAGEMENT**

The District is exposed to various risks of loss related to torts, theft of, damage to and destruction of assets, errors and omissions, injuries to employees and natural disasters. During the year ended September 30, 2010, the District purchased commercial insurance to cover general liabilities.

**NOTE 7: ADJUSTMENTS**

The adjustments on the Statement of Net Assets and Governmental Funds Balance Sheet are to add the fixed assets net of accumulated depreciation and record all taxes as earned rather than deferred.

The adjustments to the Statement of Activities and Governmental Funds Revenues, Expenditures, and Changes in Fund Balance/Net Assets are to record the difference in deferred revenues at the beginning and end of the year, to record capital outlay expenditures as capital assets, and to record depreciation expense for the year.

**NOTE 8: OTHER DISCLOSURES**

**Tax Revenues**

The tax rate for 2009/2010 was \$0.00955 per \$100 valuation. The taxable value was \$5,222,142,347. All tax monies are used for maintenance and operations.

**Location of District**

The District is located in Victoria County, Texas. The general membership of the board is elected within the District.

**VICTORIA COUNTY GROUNDWATER CONSERVATION DISTRICT  
NOTES TO THE FINANCIAL STATEMENTS  
For the Year Ended September 30, 2010**

**NOTE 9: RETIREMENT PLAN**

The District provides retirement benefits for their respective full-time employees through nontraditional defined benefit plans in the state-wide Texas County and District Retirement System (TCDRS). The Board of Trustees of TCDRS is responsible for the administration of the statewide agent multiple-employer public employee retirement system consisting of 586 nontraditional defined benefit pension plans. TCDRS in the aggregate issues a comprehensive annual financial report (CAFR) on a calendar year basis. The CAFR is available upon written request from the TCDRS Board of Trustees at P.O. Box 2034, Austin, Texas, 78768-2034.

The plan provisions are adopted by the Board of Directors, within the options available in the state statutes governing TCDRS (TCDRS Act). Employees can retire regardless of age with 30 years of service. The "Rule of 80" will determine retirement eligibility. Members are vested after 10 years but must leave their accumulated contributions in the plans to receive any employer-financed benefit. Members who withdraw their personal contributions in a lump-sum are not entitled to any amounts contributed by their employer.

Benefit amounts are determined by the sum of the employee's contributions to the plan, with interest, and employer-financed monetary credits. The level of these monetary credits is adopted by the Board of Directors within the constraints imposed by the TCDRS Act so that the resulting benefits can be expected to be adequately financed by the employer's commitment to contribute. At retirement the benefit is calculated by converting the sum of the employee's accumulated contribution and the employer-financed monetary credits to a monthly annuity using annuity purchase rates prescribed by the TCDRS Act.

**Funding Policy**

The District elected the annually determined contribution rate (Variable-Rate) plan provisions of the TCDRS Act. The plans are funded by monthly contributions from both employee members and the employer based on the covered payroll of employee members. Under the TCDRS Act, the contribution rate of the employer is actuarially determined annually. The contribution rate was 4.10% for 2009.

The contribution rate payable by the employee members for calendar year 2009 is the rate of 5% as adopted by the Board of Directors. The employee contribution rate and the employer contribution rate may be changed by the Board of Directors within the options available in the TCDRS Act.

**Annual Pension Cost**

The required contribution was determined as part of the December 31, 2009 actuarial valuation using the entry age actuarial cost method. The actuarial assumptions at December 31, 2009 include (a) 8.0 percent investment return (net of administrative expenses), and (b) projected salary increases of 5.4 percent. Both (a) and (b) included an inflation component of 3.5 percent. The actuarial value of assets was determined using techniques that spread the effects of short-term volatility in the market value of investments over a ten-year period. The unfunded actuarial accrued liability is being amortized as a level percentage of projected payroll on a closed basis. The remaining amortization period at December 31, 2009 was 20 years.

**VICTORIA COUNTY GROUNDWATER CONSERVATION DISTRICT  
NOTES TO THE FINANCIAL STATEMENTS  
For the Year Ended September 30, 2010**

**NOTE 9: RETIREMENT PLAN (Concluded)**

**Funded Status and Funding Progress**

As of December 31, 2009, the most recent actuarial valuation date, the plan was 68.5 percent funded. The actuarial accrued liability for benefits was \$12,337, and the actuarial value of assets was \$8,451, resulting in an unfunded actuarial accrued liability (UAAL) of \$3,886. The covered payroll was \$92,869 and the ratio of the UAAL to the covered payroll was 4.18 percent.

The schedule of funding progress, presented as Required Supplementary Information following the notes to the financial statements, presents multi-year trend information about whether the actuarial value of plan assets is increasing or decreasing over time relative to the actuarial accrued liability for benefits.



**VICTORIA COUNTY GROUNDWATER CONSERVATION DISTRICT  
REQUIRED SUPPLEMENTARY INFORMATION  
BUDGETARY COMPARISON SCHEDULE – GENERAL FUND  
For the Year Ended September 30, 2010**

	Original and Final Budget	Actual	Variance Positive (Negative)
<b>Revenues</b>			
Property taxes	\$ 499,791	\$ 501,419	\$ 1,628
Interest income	5,000	6,227	1,227
Miscellaneous income	-	350	350
<b>Total revenues</b>	<u>504,791</u>	<u>507,996</u>	<u>3,205</u>
<b>Expenditures</b>			
<b>Service operations:</b>			
District Manager and personnel	122,852	106,240	16,612
Office	37,000	13,774	23,226
Rent	15,000	12,960	2,040
Travel and training	23,500	12,434	11,066
Supplies	8,000	3,117	4,883
Repair and maintenance	2,000	193	1,807
Research and consultation	75,000	55,044	19,956
Legal and professional fees	75,000	19,888	55,112
Insurance	5,000	1,601	3,399
Appraisal District and Tax Assessor	33,200	30,902	2,298
Other	16,000	1,977	14,023
Capital outlay	17,000	4,019	12,981
Water quality testing	40,000	485	39,515
<b>Total expenditures</b>	<u>469,552</u>	<u>262,634</u>	<u>206,918</u>
<b>Excess (deficiency) of revenues over expenditures</b>	<u>\$ 35,239</u>	<u>\$ 245,362</u>	<u>\$ 210,123</u>

**VICTORIA COUNTY GROUNDWATER CONSERVATION DISTRICT  
 REQUIRED SUPPLEMENTARY INFORMATION  
 SCHEDULE OF FUNDED PROGRESS  
 For the Year Ended September 30, 2010**

**Schedule of Funded Progress**

Actuarial Valuation Date	Actuarial Value of Assets	Actuarial Accrued Liability (AAL)	Funded Ratio	Unfunded AAL (UAAL)	Covered Payroll	UAAL as a Percentage of Covered Payroll
1/1/2009	\$0	\$4,664	0%	\$4,664	\$91,008	5.12%
12/31/2009	\$8,451	\$12,337	68.5%	\$3,886	\$92,869	4.18%

**VICTORIA COUNTY GROUNDWATER CONSERVATION DISTRICT  
NOTE TO REQUIRED SUPPLEMENTARY INFORMATION  
September 30, 2010**

**NOTE 1: BUDGET**

The budget for the Governmental Fund adopted during the year by the District was prepared using the modified accrual basis of accounting in accordance with generally accepted accounting principles. The General Fund has a legally adopted budget.

**VICTORIA COUNTY GROUNDWATER CONSERVATION DISTRICT  
TEXAS SUPPLEMENTARY INFORMATION  
For the Year Ended September 30, 2010**

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- TSI-1. Services and Rates
- TSI-2. General Fund Expenditures
- TSI-3. Temporary Investments
- TSI-4. Taxes Levied and Receivable
- TSI-5. Long-Term Debt Service Requirements by Years - N/A
- TSI-6. Changes in Long-Term Bonded Debt - N/A
- TSI-7. Comparative Schedule of Revenues and Expenditures - General Fund - Five Years
- TSI-8. Board Members, Consultants, and Key Administrative Personnel

**VICTORIA COUNTY GROUNDWATER CONSERVATION DISTRICT  
TSI-1. SERVICES AND RATES  
For the Year Ended September 30, 2010**

**1. Services Provided by the District During the Fiscal Year:**

- |  |   |                                     |
|--|---|-------------------------------------|
| <input type="checkbox"/> Retail Water  | <input type="checkbox"/> Wholesale Water      | <input type="checkbox"/> Drainage   |
| <input type="checkbox"/> Retail Wastewater   | <input type="checkbox"/> Wholesale Wastewater | <input type="checkbox"/> Irrigation |
| <input type="checkbox"/> Parks/Recreation  | <input type="checkbox"/> Fire Protection      | <input type="checkbox"/> Security   |
| <input type="checkbox"/> Solid Waste/Garbage   | <input type="checkbox"/> Flood Control        | <input type="checkbox"/> Roads      |
| <input type="checkbox"/> Participates in joint venture, regional system, and/or wastewater service (other than emergency interconnect) |   |                                     |
| <input checked="" type="checkbox"/> Other (specify): <u>Groundwater District</u>   |   |                                     |

**2. Retail Service Providers: N/A**

**a. Retail Rates for a 5/8" meter (or equivalent):**

<u>Minimum Charge</u>	<u>Minimum Usage</u>	<u>Flat Rate Y/N</u>	<u>Rate per 500 Gallons Over Minimum Use</u>	<u>Usage Levels</u>
-----------------------	----------------------	----------------------	--	---------------------

WATER:

WASTEWATER:

SURCHARGE:

District employs winter averaging for wastewater usage?    Yes     No

Total charges per 10,000 gallons usage:    Water:    Wastewater:

**b. Water and Wastewater Retail Connections:**

<u>Meter Size</u>	<u>Total Connections</u>	<u>Active Connections</u>	<u>ESFC Factor</u>	<u>Active ESFCs</u>
Unmetered	_____	_____	x 1.0	_____
≤ 3/4"	_____	_____	x 1.0	_____
1"	_____	_____	x 2.5	_____
1 1/2"	_____	_____	x 5.0	_____
2"	_____	_____	x 8.0	_____
3"	_____	_____	x 15.0	_____
4"	_____	_____	x 25.0	_____
6"	_____	_____	x 50.0	_____
8"	_____	_____	x 80.0	_____
10"	_____	_____	x 115.0	_____
Total Water	_____	_____		_____
Total Wastewater	_____	_____	x 1.0	_____



**VICTORIA COUNTY GROUNDWATER CONSERVATION DISTRICT  
TSI-2. GENERAL FUND EXPENDITURES  
For the Year Ended September 30, 2010**

<b>Personnel Expenditures</b> (including benefits) *	\$ 106,240
<b>Professional Fees:</b>	
Auditing	6,300
Legal	13,588
<b>Contracted Services:</b>	
Tax assessor and appraisal services	30,902
Public relations	-
Research and consultation	55,044
Other contracted services	485
<b>Utilities</b>	-
<b>Repairs and Maintenance</b>	193
<b>Administrative Expenditures:</b>	
Travel and training	12,434
Rent	12,960
Insurance	1,601
Supplies	3,117
Other administrative expenditures	15,751
<b>Capital Outlay</b>	<u>4,019</u>
<b>Total Expenditures</b>	<u><u>\$ 262,634</u></u>

\* Number of persons employed by the District: 1 Full-Time 1 Part-Time

**VICTORIA COUNTY GROUNDWATER CONSERVATION DISTRICT  
TSI-3. TEMPORARY INVESTMENTS  
For the Year Ended September 30, 2010**

<u>General Fund</u>	<u>Identification or Certificate</u>	<u>Interest Rate</u>	<u>Maturity Date</u>	<u>Balance at End of Year</u>	<u>Accrued Interest Receivable at End of Year</u>
Certificate of Deposit	99064995	1.34%	11/23/2010	\$ 101,122	\$ 26
Certificate of Deposit	99087790	0.80%	8/19/2011	100,068	24
<b>Total</b>				<u>\$ 201,190</u>	<u>\$ 50</u>



**VICTORIA COUNTY GROUNDWATER CONSERVATION DISTRICT  
TSI-4. TAXES LEVIED AND RECEIVABLE  
For the Year Ended September 30, 2010**

	Maintenance Taxes	Debt Service Taxes	Other District Taxes	
Taxes Receivable, Beginning of Year	\$ 19,603	\$ -	\$ -	
2009 Original Tax Levy	498,715		-	
Total to be accounted for	518,318	-	-	
Tax collections and adjustments:				
Current year	486,730	-	-	
Prior years	8,879	-	-	
Adjustments	273	-	-	
Total collections and adjustments	495,882	-	-	
Taxes Receivable, End of Year	<u>\$ 22,436</u>	<u>\$ -</u>	<u>\$ -</u>	
Taxes Receivable, by Years				
2009	\$ 12,378	\$ -	\$ -	
2008 and before	10,058	-	-	
Taxes Receivable, End of Year	<u>\$ 22,436</u>	<u>\$ -</u>	<u>\$ -</u>	
	<u>2009/2010</u>	<u>2008/2009</u>	<u>2007/2008</u>	<u>2006/2007</u>
Property Valuations:				
Land	\$ 1,486,610,793	\$1,465,122,581	\$ 1,447,025,098	\$ 1,369,184,769
Improvements	3,733,266,939	3,579,066,557	3,293,482,431	3,024,566,595
Personal property	1,012,693,510	1,074,657,090	985,374,640	870,111,210
Minerals	156,172,610	186,276,940	172,605,020	233,718,540
Total Market Value	6,388,743,852	6,305,123,168	5,898,487,189	5,497,581,114
Exemptions and adjustments	<u>(1,166,601,505)</u>	<u>(1,182,854,318)</u>	<u>(1,196,293,899)</u>	<u>(1,142,688,223)</u>
Total Market Value	<u>\$ 5,222,142,347</u>	<u>\$ 5,122,268,850</u>	<u>\$ 4,702,193,290</u>	<u>\$ 4,354,892,891</u>
Tax Rates per \$100 Valuation:				
Maintenance tax rates	0.00955	0.00976	0.01000	0.01000
Debt service tax rates				
Other district tax rates				
Total Tax Rates per \$100 Valuation	<u>0.00955</u>	<u>0.00976</u>	<u>0.01000</u>	<u>0.01000</u>
Original Tax Levy	<u>\$ 498,715</u>	<u>\$ 499,511</u>	<u>\$ 470,219</u>	<u>\$ 435,489</u>
Percent of Taxes Collected to Taxes Levied	<u>99.43 %</u>	<u>98.94 %</u>	<u>98.91 %</u>	<u>97.89 %</u>

**VICTORIA COUNTY GROUNDWATER CONSERVATION DISTRICT  
TSI-7. COMPARATIVE SCHEDULE OF REVENUES AND EXPENDITURES -  
GENERAL FUND – FIVE YEARS  
For the Year Ended September 30, 2010**

	Amounts					Percent of Fund Total Revenues				
	2010	2009	2008	2007	2006	2010	2009	2008	2007	2006
<b>Revenues:</b>										
Property taxes	\$ 501,419	\$ 505,879	\$ 468,499	\$ 429,819	\$ -	98.71 %	98.82 %	97.76 %	97.75 %	0.00 %
Interest	6,227	3,890	9,083	9,885	-	1.23	0.76	1.90	2.25	0.00
Miscellaneous income	350	2,168	1,629	-	-	0.06	0.42	0.34	0.00	0.00
<b>Total revenues</b>	<b>507,996</b>	<b>511,937</b>	<b>479,211</b>	<b>439,704</b>	<b>-</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>	<b>0.00</b>
<b>Expenditures:</b>										
District Manager and personnel	106,240	102,163	95,469	48,036	-	20.91	19.96	19.92	10.92	0.00
Office	13,774	16,275	9,648	8,450	-	2.71	3.18	2.01	1.92	0.00
Rent	12,960	12,960	12,960	19,440	-	2.55	2.53	2.70	4.42	0.00
Travel and training	12,434	9,423	16,767	10,306	-	2.45	1.84	3.50	2.34	0.00
Supplies	3,117	5,177	4,532	4,013	-	0.61	1.01	0.95	0.91	0.00
Repair and maintenance	193	-	-	176	-	0.04	0.00	0.00	0.04	0.00
Research and consultation	55,044	23,204	44,183	27,683	-	10.84	4.53	9.22	6.30	0.00
Legal and professional fees	19,888	39,112	42,951	36,748	-	3.91	7.64	8.96	8.36	0.00
Public relations	-	1,512	1,608	15,719	-	0.00	0.30	0.34	3.57	0.00
Insurance	1,601	782	2,154	981	-	0.32	0.15	0.45	0.22	0.00
Appraisal District and Tax Assessor	30,902	31,099	30,936	34,684	-	6.08	6.07	6.46	7.89	0.00
Weather station	-	1,314	1,718	-	-	0.00	0.26	0.36	0.00	0.00
Water quality	485	-	5,355	-	-	0.10	0.00	1.12	0.00	0.00
Other	1,977	532	448	551	-	0.39	0.10	0.09	0.13	0.00
Capital outlay	4,019	400	6,552	9,352	-	0.79	0.08	1.37	2.13	0.00
<b>Total expenditures</b>	<b>262,634</b>	<b>243,953</b>	<b>275,281</b>	<b>216,139</b>	<b>-</b>	<b>51.70</b>	<b>47.65</b>	<b>57.45</b>	<b>49.15</b>	<b>0.00</b>
<b>Excess revenues over (under) expenditures</b>	<b>\$ 245,362</b>	<b>\$ 267,984</b>	<b>\$ 203,930</b>	<b>\$ 223,565</b>	<b>\$ -</b>	<b>48.30 %</b>	<b>52.35 %</b>	<b>42.55 %</b>	<b>50.85 %</b>	<b>0.00 %</b>

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**VICTORIA COUNTY GROUNDWATER CONSERVATION DISTRICT  
TSI-8. BOARD MEMBERS, CONSULTANTS, AND KEY ADMINISTRATIVE PERSONNEL  
For the Year Ended September 30, 2010**

Complete District Mailing Address: 2805 N. Navarro, Suite 210, Victoria, Texas 77901

District Business Telephone Number: (361) 579-6863

Submission Date of the most recent District Registration Form: September 8, 2010  
(TWC Sections 36.054 and 49.054)

Limit on Fees of Office that a Director may receive during a fiscal year: Zero  
(Set by Board Resolution – TWC Section 49.060)

<u>Names:</u>	<u>Term of Office (Elected or Appointed) or Date Hired</u>	<u>Fees of Office Paid Year Ended 09/30/10</u>	<u>Expense Reim- bursements Year Ended 09/30/10</u>	<u>Title at Year End</u>
<b>Board Members:</b>				
D. Mark Meek	Elected 11/08 – 11/11	\$0	\$40	President
Jerry J. Hroch	Elected 11/10 – 11/14	\$0	\$0	Vice Pres.
Barbara A. Dietzel	Elected 11/10 – 11/14	\$0	\$40	Secretary
Thurman Clements, Jr.	Elected 11/08 – 11/11	\$0	\$120	Director
Kenneth L. Eller	Elected 11/08 – 11/11	\$0	\$748	At Large
<b>Consultants:</b>				
Allison, Bass & Associates, LLP		\$30,940		Attorney
Goldman, Hunt & Notz, LLP		\$8,450		Auditor
Mike McCauley, CPA		\$1,165		Payroll services
Pastor, Behling & Wheeler, LLC		\$38,494		Groundwater specialist
<b>Key Administrative Personnel:</b>				
Tim Andruss		\$72,000		District manager
Janet Eager		\$13,786		District secretary
Barbara Dietzel		\$4,465		District secretary

**Attachment C: Groundwater Modeling to Support Desired Future  
Condition Development for Victoria County.**

**GROUNDWATER MODELING  
TO SUPPORT  
DESIRED FUTURE CONDITION DEVELOPMENT  
FOR  
VICTORIA COUNTY**

May 20, 2010

Prepared for:

**VICTORIA COUNTY GROUNDWATER CONSERVATION DISTRICT**  
Victoria, Texas

Prepared By:

**PASTOR, BEHLING & WHEELER, LLC**  
consulting engineers and scientists

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PBW Project No. 3161

## EXECUTIVE SUMMARY

Pastor, Behling & Wheeler, LLC (PBW) modified the GAM 09-010 groundwater model for the central part of the Gulf Coast Aquifer System to evaluate the impacts of increased pumping in Victoria County and decreased recharge across the model area. The results of the 60-year modeling simulation run are demonstrated using line plots showing the relationship between the specified pumpage and recharge rates and the resulting drawdowns in aquifers of the central part of the Groundwater Management Area 15 (GMA 15). Recharge was varied from the average recharge used in GAM Run 09-010 to drought-of-record conditions. As expected, increased pumpage and less-than-average rainfall (recharge) conditions generally result in water-level declines (increases in drawdown). The line plots and water budgets were developed to support the Victoria County Groundwater Conservation District's efforts to develop reasonable and scientifically-sound Desired Future Conditions (DFC).

## INTRODUCTION AND BACKGROUND

PBW modified the GAM 09-010 groundwater computer model prepared by the Texas Water Development Board (TWDB) (Anaya, 2010) to evaluate several different pumping and recharge scenarios. The GAM 09-010 model is a 60-year predictive simulation using initial water levels from the end of the 1999 historical calibration period. In the TWDB simulations, recharge conditions and evapotranspiration rates were kept constant based on the results of the 1981 to 1999 calibration-verification runs. Requested (i.e., base) pumpage amounts were specified by the members of GMA 15 and used for the 60-year predictive simulation (1999-2060). The base pumpage volumes were then reduced or increased in ten percent increments to develop plots of the relationship between pumpage volumes and water-level drawdowns.

For this project, predictive simulations were made for the 1999-2060 period under three different simulation series: 1) increased pumpage in Victoria County only; 2) increased pumpage in Victoria County only with one drought of record for the entire model area; and 3) increased pumpage in Victoria County with two droughts of record for entire model area. The three simulation series are described in greater detail in the following sections.

## **METHODS**

At the request of the District, electronic copies of the GAM 09-010 MODFLOW files were made available to PBW. The GAM 09-010 model is based on Version 1.01 of the groundwater availability model for the central part of the Gulf Coast Aquifer. To verify that we had received the appropriate files, PBW re-ran the MODFLOW model using these files and compared the results to those presented in the GAM 09-010 report. The base pumpage volumes matched favorably. Therefore, the calibrated results from the GAM 09-010 model (1999) were used as a starting point for the 60-year predictive simulations (1999-2060) conducted for this project. The three predictive simulation series are discussed in more detail below.

### **Simulation Series 1**

In Simulation Series 1, the base pumpage volume for Victoria County from GAM 09-010 (35,000 acre-feet/yr) was increased in seven 20-percent increments. Thus, the pumpage volumes were 35,000 (100 percent); 42,000 (120 percent); 49,000 (140 percent); 56,000 (160 percent); 63,000 (180 percent); 70,000 (200 percent); 77,000 (220 percent); and 84,000 acre-feet/yr (240 percent). Pumpage volumes for the other counties in GMA 15 were not changed from those requested in the GAM 09-010 model. Recharge rates were not modified from the calibrated conditions in this simulation series.

### **Simulation Series 2**

Simulation Series 2 was the same as Simulation Series 1, except that recharge conditions for the final decade of the simulation period (2051-2060) were modified throughout the model domain to reflect the drought of record (DOR). Recharge conditions for the DOR were modified using the approach described in Appendix A.

### **Simulation Series 3**

These simulations were the same as Simulation Series 2, except that recharge conditions were modified to reflect a DOR for the initial decade of the simulation period (2000-2009) and the final decade of the simulation period (2051-2060) throughout the model domain.

## PARAMETERS AND ASSUMPTIONS

The assumptions and limitations of the groundwater availability model for the GAM 09-010 model are provided in the GAM 09-010 report. Important assumptions specific to this project are summarized below:

- The model includes four layers representing: the Chicot Aquifer (Layer 1), the Evangeline Aquifer (Layer 2), the Burkeville Confining Unit (Layer 3), and the Jasper Aquifer (Layer 4).
- The base pumpage amounts and distributions (between the model layers) for the 60-year predictive simulations were the same as those used in the GAM 09-010 model for all counties within GMA 15 except for Victoria County. Details on how the pumpage was adjusted for Victoria County are provided below.
- For Simulation Series 2 and 3, recharge rates were lowered across the model domain based on the DOR. Details on how the DOR was determined and applied to these simulations are also provided below.

### Specified Pumpage

For each of the three simulation series, the base pumpage volume used in the GAM 09-010 model for Victoria County (35,000 acre-feet/yr) was increased in 20 percent increments (7,000 acre-feet/yr increments) up to 84,000 acre-feet/yr, or 240 percent of the base pumpage. The methodology for adjusting the pumping rates is described below:

- 1) From the GAM 09-010 model, pumping wells located within those model cells representing Victoria County were identified.
- 2) Programming script files were developed to multiply the pumping rate for each simulated well located within Victoria County by the appropriate factor (e.g., 120 percent, 140 percent, etc.) and to update the MODFLOW well file with the modified pumping rates.
- 3) For each adjusted pumpage volume, the ratio of total pumpage from the Chicot and Evangeline Aquifers was kept constant (i.e., about 23 percent from the Chicot to 77 percent from the Evangeline). This 23/77 ratio was used in previous GAM runs, including GAM 09-010. Even though future groundwater development in Victoria County will likely focus on the Evangeline Aquifer, a revision to this ratio was not considered appropriate in the interest of maintaining consistency between modeling efforts.



- 4) Following each simulation, pumping volumes for both the Chicot Aquifer (Layer 1) and Evangeline Aquifer (Layer 2), as provided in MODFLOW's output files, were checked to ensure that they matched the specified pumping volumes.

The actual base pumpage volumes calculated and used for these model simulations are listed in Table 1 and shown on Figure 1. These match the values used in the GAM 09-010 model, with the exception of Bee County because we have shown the pumpage for all of Bee County and not just the portion of Bee County that is in GMA 15. As explained in the GMA 09-010 report, the values in Table 1 do not always match exactly the specified pumpage. This may be due to the precision or rounding errors inherent in the development of the MODFLOW well file. Differences between the specified pumpage and the actual model pumpage are small (less than 1 percent) and will not impact the overall conclusions of the model simulations.

Table 2 lists the adjusted pumpage volumes for Victoria County that were used in the simulation series.

Water budgets for the simulation series conducted for this project are provided in Appendix B, and it should be noted that some of the well outflow values in the water budget tables may be less than the pumpage values shown in Table 1 or Table 2. As the model simulation progresses through time, some of the model cells of an aquifer may go dry due to excessive pumpage. These dry cells will no longer be active and therefore affect the volume of water pumped from that aquifer.

### **Drought of Record**

For the central part of the Gulf Coast Aquifer System, the DOR was shown to occur from 1947 through 1956. The actual period of the DOR was evaluated using the Standard Precipitation Index (SPI) as described in Appendix A. Although historical rainfall records show that a significant period of drought also occurred in Texas from approximately 1910 to 1915, the 1947 to 1956 drought is widely accepted as the DOR for water planning purposes. Precipitation data from six weather stations located within the model area were used to develop recharge ratios between the average recharge values used in the calibrated GAM 09-010 model and each year of the DOR (Appendix A). Recharge input files in the model were then adjusted on a cell by cell basis across the model domain to simulate the 10-year DOR.

As discussed previously, no changes were made to the calibrated recharge values in Simulation Series 1. In Simulation Series 2, recharge files for the final 10 years of the 60-year simulation (2051-2060) were adjusted to simulate the DOR. In Simulation Series 3, recharge files for the periods 2000-2009 and 2051-

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2060 were adjusted to simulate the DOR. The scenario of two significant droughts occurring within a 60-year period is reasonable given the fact that between 1900 and 1960 Texas experienced two severe periods of drought.

## RESULTS

Groundwater flow simulations from this model run are described for the Chicot Aquifer (layer 1 in the model), the Evangeline Aquifer (layer 2), the Burkeville Confining Unit (layer 3), and the Jasper Aquifer (layer 4).

A series of seven model runs (one for each of the seven different pumpage increments) were performed for three simulation series, resulting in a total of 21 model runs. The results of these runs describe the relationships between increased pumpage rates, decreased recharge, and the resulting groundwater level drawdowns. Average drawdowns in each aquifer in Victoria County for each of the three simulation series are provided in Tables 3, 4 and 5, respectively. Average drawdowns for each aquifer for each county in GMA 15 are provided for each of the three simulation series in Tables 6, 7, and 8, respectively. Average drawdowns for each of the counties in GMA 15 for each of the three simulation series are provided in Appendix C as follows: Simulation Series 1 (Tables C-1 through C-4); Simulation Series 2 (Tables C-5 through C-8); and Simulation Series 3 (Tables C-9 through C-12).

Average drawdowns were calculated by extracting from the MODFLOW output files the drawdowns for all active cells in the model (i.e., a cell that is active for a specific aquifer and that has not gone dry during the simulation). The drawdowns were then summed and divided by the total number of active cells.

For Victoria County, pumpage values were extracted from each of the 21 model simulation water budget outputs and plotted against averaged water-level drawdown values for (Appendix D, Figures D-1 through D-12). These pumpage versus drawdown plots show a line sloping down and towards the right, indicating increasing drawdowns with increased pumpage. Maps of water levels for the Chicot Aquifer, the Evangeline Aquifer, the Burkeville Confining Unit, and the Jasper Aquifer were also created to show average drawdown distributions by each county under the base pumpage conditions for the three different simulations (Figures 2 through 13).

Appendix B contains the water budgets after running the model for 60 years using the specified base pumpage volumes for each of the three simulations. The components of the water budgets are described below (from GAM 09-010 report):

- **Wells** – water produced from pumpage wells in each aquifer. This component is always shown as “Outflow” from the water budget, because all wells included in the model produce (rather than inject) water. Wells are modeled using the MODFLOW well package.
- **Springs** – water that drains from an aquifer if water levels are above the elevation of the spring. Near the coast, some springs may represent wetlands. The spring component is always shown as “Outflow”, or discharge, from the water budget. Springs and wetlands are modeled using the MODFLOW drain package.
- **Recharge** – simulates areally distributed recharge due to precipitation falling on the outcrop area of aquifers. Recharge is always shown as “Inflow” into the water budget.
- **Vertical Leakage (from upper to lower unit)** – describes the vertical flow, or leakage, between two aquifers. This flow is controlled by the water levels in each aquifer and aquifer properties of each aquifer that define the amount of flow or leakage that can occur. “Inflow” to an aquifer from an overlying or underlying aquifer will always equal the “Outflow” from the other aquifer.
- **Lateral flow** – describes lateral flow within an aquifer between a county and adjacent counties.
- **Evapotranspiration** – water that flows out of an aquifer due to direct evaporation and plant transpiration. This component of the budget will always be shown as “Outflow”. Evapotranspiration is modeled using the MODFLOW Evapotranspiration package.
- **Rivers and Stream** – water that flows between streams or rivers and the underlying aquifer. The direction and amount of flow depends on the water level in the stream or river and the aquifer. In areas where water levels in the stream or river are above the water level in the aquifer, water flows into the aquifer from the losing stream or river and is shown as “Inflow” in the budget. In areas where water levels in the aquifer are above the water level in the stream or river, water flows out of the aquifer and into the gaining stream or river and is shown as “Outflow” in the budget. Rivers and streams are modeled using the MODFLOW Stream or River packages.
- **General-Head Boundary** – the model uses general-head boundaries to simulate the movement of water out of or into the Chicot Aquifer along the Gulf Coast.
- **Change in Storage** – change in volume of water stored in the aquifer. This component of the budget is an accounting of water moving both into and out of the aquifer because this is a regional budget, and water levels will decline in some areas (water is removed from storage) and will rise in other areas (water is added to storage).

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## REFERENCES

Anaya, R. 2010. *Draft GAM Run 09-010 Revised*. Report prepared by Texas Water Development Board, Groundwater Availability Modeling Section. April 7.

**Table 1. Base pumpage used for each county in Simulation Series 1-3. Pumpage is reported in acre-feet per year. A dashed line indicates that the aquifer does not exist or was not modeled for that county.**

County	Groundwater Management Area 15 base pumpage for this project				
	Chicot Aquifer (Layer 1)	Evangeline Aquifer (Layer 2)	Burkeville Confining Unit (Layer 3)	Jasper Aquifer (Layer 4)	Gulf Coast Aquifer Total (All Layers)
ARANSAS	1,826	0	--	--	1,826
BEE*	8,757	11,993	75	600	21,425
CALHOUN	2,881	62	0	--	2,943
COLORADO	24,448	22,649	0	900	47,997
DEWITT	999	7,659	162	6,281	15,101
FAYETTE	--	887	153	7,655	8,695
GOLIAD	699	10,374	299	100	11,472
JACKSON	54,679	20,211	0	0	74,890
KARNES	--	103	500	2,999	3,602
LAVACA	3,034	12,398	147	4,599	20,178
MATAGORDA	35,673	9,327	0	0	45,000
REFUGIO	6,254	22,499	0	--	28,753
VICTORIA	7,999	26,999	0	0	34,998
WHARTON	108,650	66,350	0	0	175,000
<b>GMA 15 Totals*</b>	<b>255,899</b>	<b>211,511</b>	<b>1,336</b>	<b>23,134</b>	<b>491,880</b>

Note: Bee County pumpage is for entire county and not just GMA 15 portion of county.

**Table 2. Adjusted pumpage volumes used for Victoria County. Pumpage is reported in acre-ft per year.**

Aquifer/ Confining Unit	Pumpage for Victoria County							
	100%	120%	140%	160%	180%	200%	220%	240%
Chicot	7,999	9,599	11,199	12,799	14,398	15,998	17,598	19,198
Evangeline	26,999	32,399	37,799	43,199	48,599	53,999	59,399	64,799
Burkeville	0	0	0	0	0	0	0	0
Jasper	0	0	0	0	0	0	0	0
<b>Total</b>	<b>34,998</b>	<b>42,000</b>	<b>48,999</b>	<b>55,999</b>	<b>62,999</b>	<b>69,999</b>	<b>76,999</b>	<b>83,999</b>

**Table 3. Average water level drawdowns for Victoria County for Simulation Series 1. The drawdown values were simulated based on pumpage for Victoria County adjusted from base pumpage volumes. Drawdown values indicate water level declines in feet for the period between the end of 1999 and the end of 2060 with negative values indicating a rise in water levels.**

Aquifer/ Confining Unit	Average Drawdown in Victoria County - Simulation Series 1							
	100%	120%	140%	160%	180%	200%	220%	240%
Chicot	-9.4	-8.6	-7.8	-6.9	-6.1	-5.2	-4.3	-3.4
Evangeline	3.4	7.9	12.4	17	21.6	26.2	30.9	35.6
Burkeville	3.2	5.4	7.7	10	12.3	14.7	17.1	19.5
Jasper	7.4	9.2	11.1	12.9	14.8	16.7	18.7	20.7

**Table 4. Average water level drawdowns for Victoria County for Simulation Series 2. The drawdown values were simulated based on pumpage for Victoria County adjusted from base pumpage volumes and the drought of record applied to years 2051-2060. Drawdown values indicate water level declines in feet for the period between the end of 1999 and the end of 2060 with negative values indicating a rise in water levels.**

Aquifer/ Confining Unit	Average Drawdown in Victoria County - Simulation Series 2							
	100%	120%	140%	160%	180%	200%	220%	240%
Chicot	-6.2	-5.3	-4.5	-3.6	-2.7	-1.8	-0.8	0.2
Evangeline	5.8	10.3	14.9	19.5	24.1	28.8	33.6	38.3
Burkeville	3.8	6	8.3	10.6	12.9	15.3	17.7	20.1
Jasper	7.6	9.4	11.3	13.1	15	16.9	18.9	20.8

**Table 5. Average water level drawdowns for Victoria County for Simulation Series 3. The drawdown values were simulated based on pumpage for Victoria County adjusted from base pumpage volumes and the drought of record applied to years 2001-2010 and 2051-2060. Drawdown values indicate water level declines in feet for the period between the end of 1999 and the end of 2060 with negative values indicating a rise in water levels.**

Aquifer/ Confining Unit	Average Drawdown in Victoria County - Simulation Series 3							
	100%	120%	140%	160%	180%	200%	220%	240%
Chicot	-6.1	-5.3	-4.4	-3.5	-2.6	-1.7	-0.7	0.3
Evangeline	5.9	10.4	15	19.6	24.3	29	33.7	38.5
Burkeville	4	6.3	8.6	10.9	13.2	15.6	18	20.4
Jasper	8	9.9	11.7	13.6	15.5	17.5	19.4	21.4



**Table 6. Average water level drawdowns for the Gulf Coast Aquifer System in Groundwater Management Area 15, Simulation Series 1. Drawdown values indicate water level declines in feet with negative values indicating a rise in water levels. A dashed line indicates that the aquifer does not exist or was not modeled for that county.**

County	Groundwater Management Area 15 Average Water Level Drawdowns						
	Chicot Aquifer (Layer 1)	Evangeline Aquifer (Layer 2)	Chicot + Evangeline	Burkeville Confining Unit (Layer 3)	Jasper Aquifer (Layer 4)	Gulf Coast Aquifer Total (All Layers)	Gulf Coast Aquifer Total (Without Burkeville)
ARANSAS	-0.1	25.0	0.5	--	--	0.5	0.5
BEE*	7.6	16.8	13.8	11.1	4.5	10.4	10.1
CALHOUN	-1.0	9.1	1.9	2.6	--	1.9	1.9
COLORADO	5.2	8.9	7.2	13.9	20.4	12.4	11.9
DEWITT	0.2	5.4	4.6	14.5	22.3	14.8	14.9
FAYETTE	--	13.4	13.3	39.5	45.6	39.2	39.1
GOLIAD	-1.3	3.4	2.4	7.2	9.1	5.8	5.2
JACKSON	12.4	15.5	14.0	11.4	19.1	14.1	15.0
KARNES	--	-0.4	-0.4	15.7	15.4	13.9	13.4
LAVACA	4.7	5.1	5.0	14.1	28.6	15.4	16.0
MATAGORDA	3.2	17.7	7.6	14.4	0.0	8.2	7.6
REFUGIO	0.5	31.4	14.7	12.5	--	14.4	14.7
VICTORIA	-9.4	3.4	-2.7	3.2	7.4	0.6	-0.4
WHARTON	11.7	3.8	7.7	18.4	21.1	13.5	11.8
<b>GMA 15 Totals*</b>	<b>3.5</b>	<b>10.4</b>	<b>7.1</b>	<b>12.9</b>	<b>19.3</b>	<b>11.4</b>	<b>10.9</b>

Note: \*Bee County average drawdown is for entire county and not just GMA 15 portion of county.

**Table 7. Average water level drawdowns for the Gulf Coast Aquifer System in Groundwater Management Area 15, Simulation Series 2. Drawdown values indicate water level declines in feet with negative values indicating a rise in water levels. A dashed line indicates that the aquifer does not exist or was not modeled for that county.**

County	Groundwater Management Area 15 Average Water Level Drawdowns						
	Chicot Aquifer (Layer 1)	Evangeline Aquifer (Layer 2)	Chicot + Evangeline	Burkeville Confining Unit (Layer 3)	Jasper Aquifer (Layer 4)	Gulf Coast Aquifer Total (All Layers)	Gulf Coast Aquifer Total (Without Burkeville)
ARANSAS	0.0	26.1	0.6	--	--	0.6	0.6
BEE*	17.8	26.5	23.6	13.0	4.8	15.1	16.0
CALHOUN	-0.7	9.8	2.3	2.6	--	2.3	2.3
COLORADO	12.8	15.5	14.3	15.1	20.6	16.2	16.5
DEWITT	11.0	10.2	10.3	16.7	22.9	17.3	17.6
FAYETTE	--	21.0	20.8	41.6	46.1	41.2	41.0
GOLIAD	6.0	8.6	8.1	8.2	9.3	8.4	8.6
JACKSON	15.5	18.1	16.8	11.6	19.1	15.8	17.3
KARNES	--	11.7	11.5	17.6	15.9	15.8	15.3
LAVACA	14.4	9.5	11.0	15.0	28.8	18.1	19.3
MATAGORDA	3.5	18.3	8.0	14.4	0.0	8.6	8.0
REFUGIO	1.7	33.7	16.4	12.7	--	15.8	16.4
VICTORIA	-6.2	5.8	0.0	3.8	7.6	2.3	1.8
WHARTON	13.8	5.9	9.8	18.6	21.2	14.7	13.3
<b>GMA 15 Totals*</b>	<b>6.7</b>	<b>14.5</b>	<b>10.7</b>	<b>13.9</b>	<b>19.6</b>	<b>13.6</b>	<b>13.5</b>

Note: \*Bee County average drawdown is for entire county and not just GMA 15 portion of county.

**Table 8. Average water level drawdowns for the Gulf Coast Aquifer System in Groundwater Management Area 15, Simulation Series 3. Drawdown values indicate water level declines in feet with negative values indicating a rise in water levels. A dashed line indicates that the aquifer does not exist or was not modeled for that county.**

County	Groundwater Management Area 15 Average Water Level Drawdowns						Gulf Coast Aquifer Total (Without Burkeville)
	Chicot Aquifer (Layer 1)	Evangeline Aquifer (Layer 2)	Chicot + Evangeline	Burkeville Confining Unit (Layer 3)	Jasper Aquifer (Layer 4)	Gulf Coast Aquifer Total (All Layers)	
ARANSAS	0.0	26.2	--	--	0.6	0.6	0.6
BEE*	20.2	28.3	15.1	6.6	25.6	17.1	18.0
CALHOUN	-0.7	9.9	2.6	--	2.3	2.3	2.3
COLORADO	13.6	16.2	16.3	21.8	15.0	17.1	17.4
DEWITT	11.0	10.2	17.0	23.2	10.3	17.5	17.8
FAYETTE	--	21.2	42.1	46.5	21.1	41.6	41.4
GOLIAD	6.1	8.7	8.6	9.8	8.1	8.8	8.8
JACKSON	16.0	18.5	12.1	19.7	17.3	16.3	17.7
KARNES	--	11.8	18.0	16.2	11.7	16.2	15.6
LAVACA	15.3	9.9	15.6	29.4	11.5	18.6	19.9
MATAGORDA	3.6	18.5	14.5	0.0	8.1	8.7	8.1
REFUGIO	1.8	33.8	13.1	--	16.5	16.0	16.5
VICTORIA	-6.1	5.9	4.0	8.0	0.1	2.5	1.9
WHARTON	14.1	6.3	19.0	21.5	10.2	15.0	13.7
<b>GMA 15 Totals*</b>	<b>7.1</b>	<b>14.9</b>	<b>14.6</b>	<b>20.3</b>	<b>11.1</b>	<b>14.1</b>	<b>14.0</b>

Note: \*Bee County average drawdown is for entire county and not just GMA 15 portion of county.

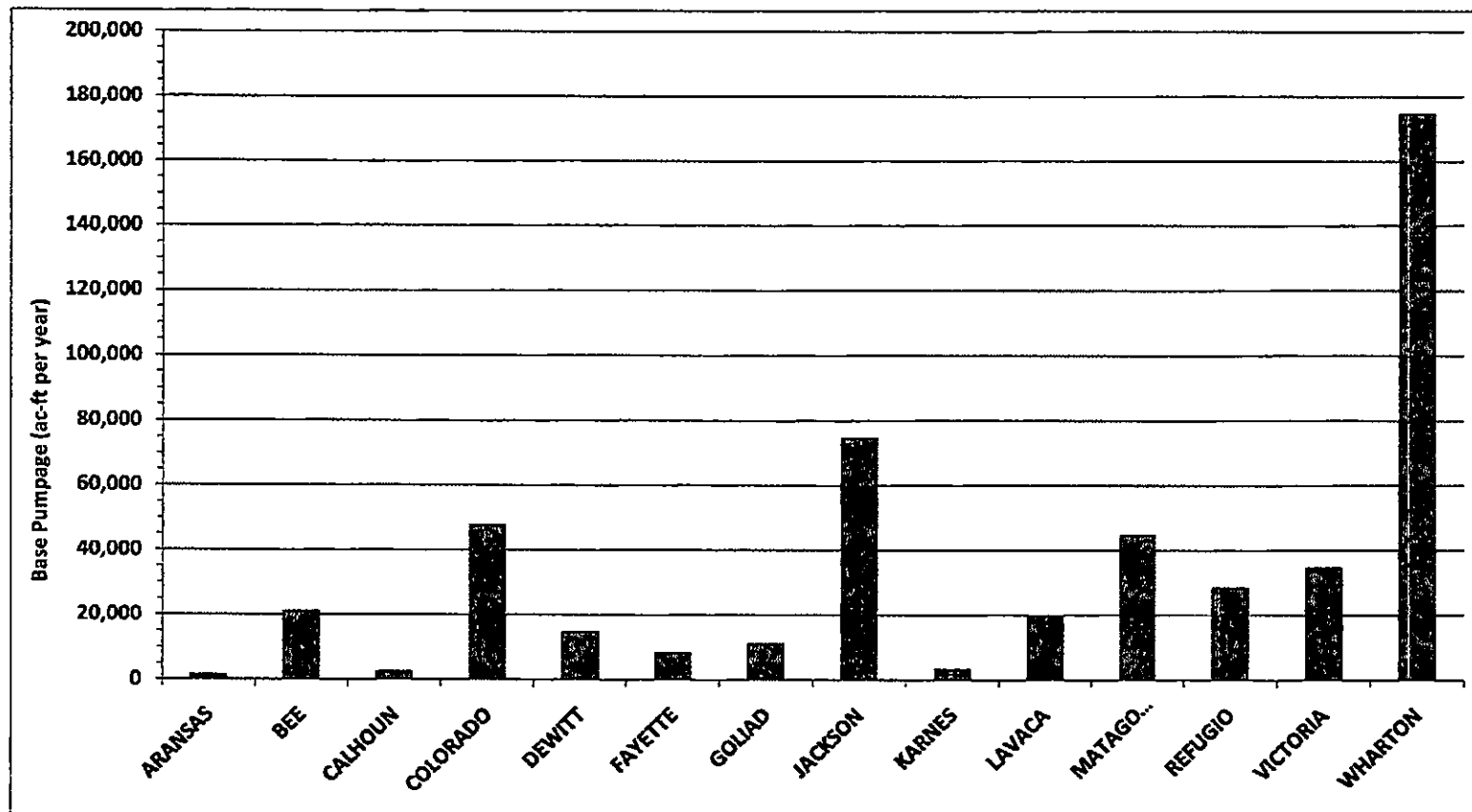


Figure 1. Base pumpages for the Gulf Coast Aquifer for each county. These base pumpages were used for all three simulation series. Values include total pumpage for the Gulf Coast Aquifer, i.e., they include pumpage from all model layers (Chicot Aquifer, Evangline Aquifer, Burkeville Confining Unit, and Jasper Aquifer). See Table 1 for pumpage values for each model layer.

**Simulation Series 1  
Drawdowns for the  
Chicot Aquifer  
by County**

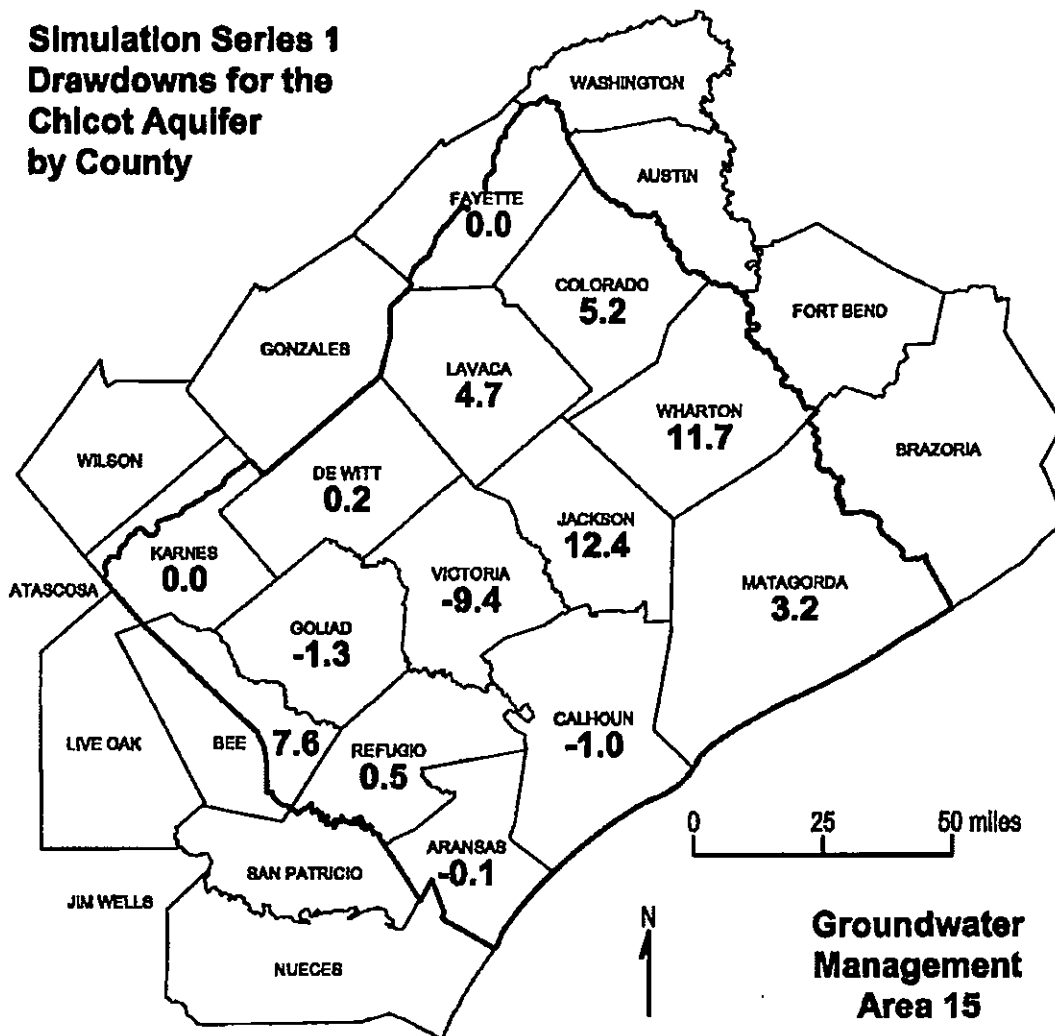


Figure 2. Average drawdown for the Chicot Aquifer in each county of Groundwater Management Area 15 for Simulation Series 1. The drawdown values are based on modeling 100 percent of the "base" pumpage. The bold font values indicate the water level declines in feet for the period between the end of 1999 and the end of 2060 with negative values indicating a rise in water levels.

**Simulation Series 1  
Drawdowns for the  
Evangeline Aquifer  
by County**

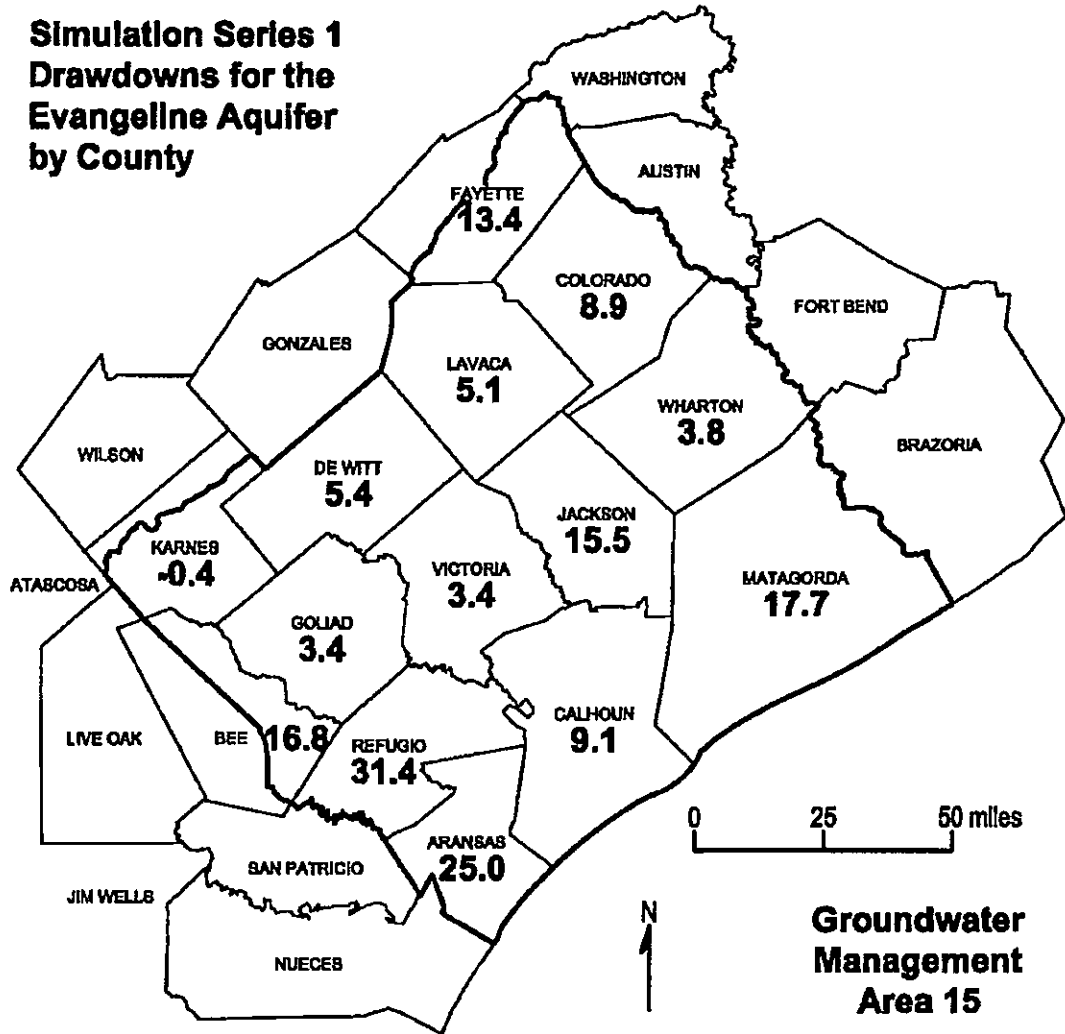


Figure 3. Average drawdown for the Evangeline Aquifer in each county of Groundwater Management Area 15 for Simulation Series 1. The drawdown values are based on modeling 100 percent of the "base" pumpage. The bold font values indicate the water level declines in feet for the period between the end of 1999 and the end of 2060 with negative values indicating a rise in water levels.

**Simulation Series 1  
Drawdowns for the  
Burkeville Confining Unit  
by County**

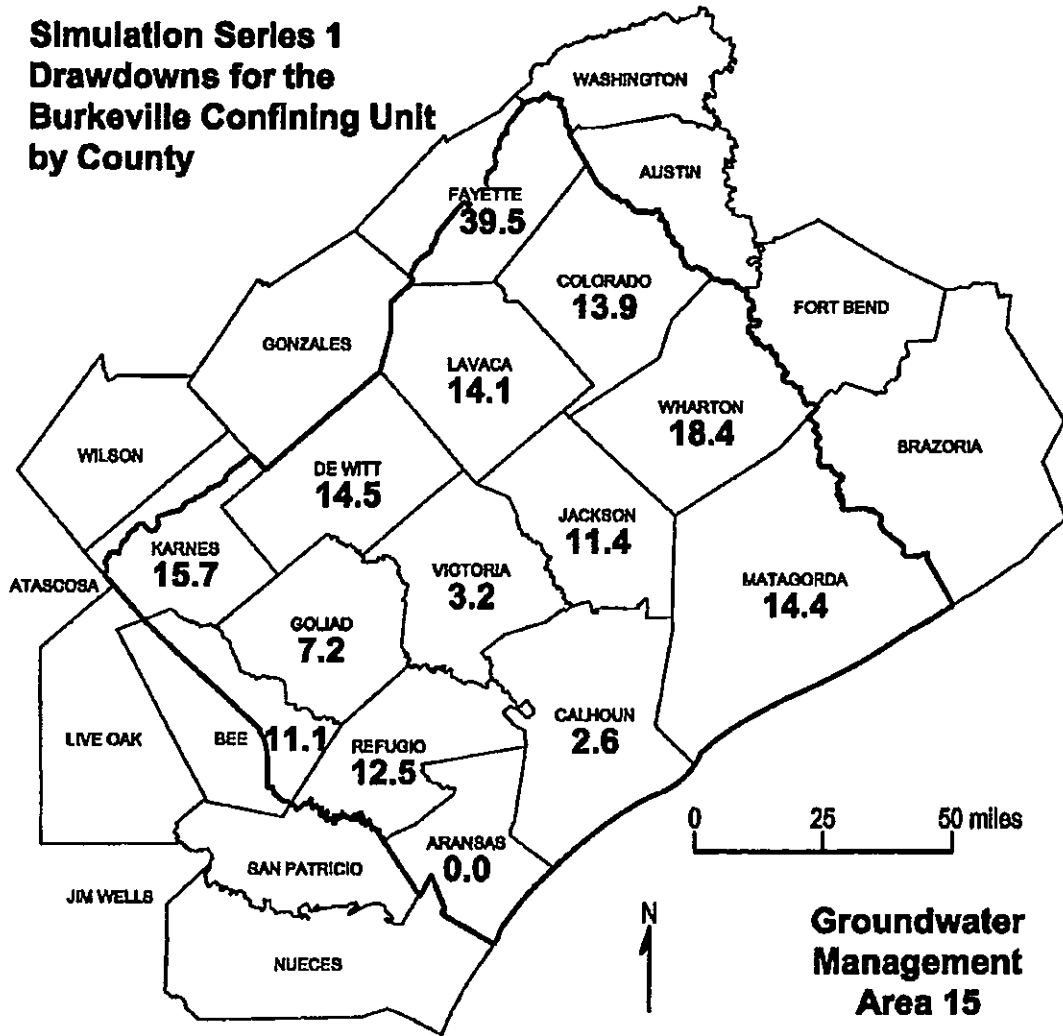


Figure 4. Average drawdown for the Burkeville Confining Unit in each county of Groundwater Management Area 15 for Simulation Series 1. The drawdown values are based on modeling 100 percent of the "base" pumpage. The bold font values indicate the water level declines in feet for the period between the end of 1999 and the end of 2060 with negative values indicating a rise in water levels.

**Simulation Series 1  
Drawdowns for the  
Jasper Aquifer  
by County**

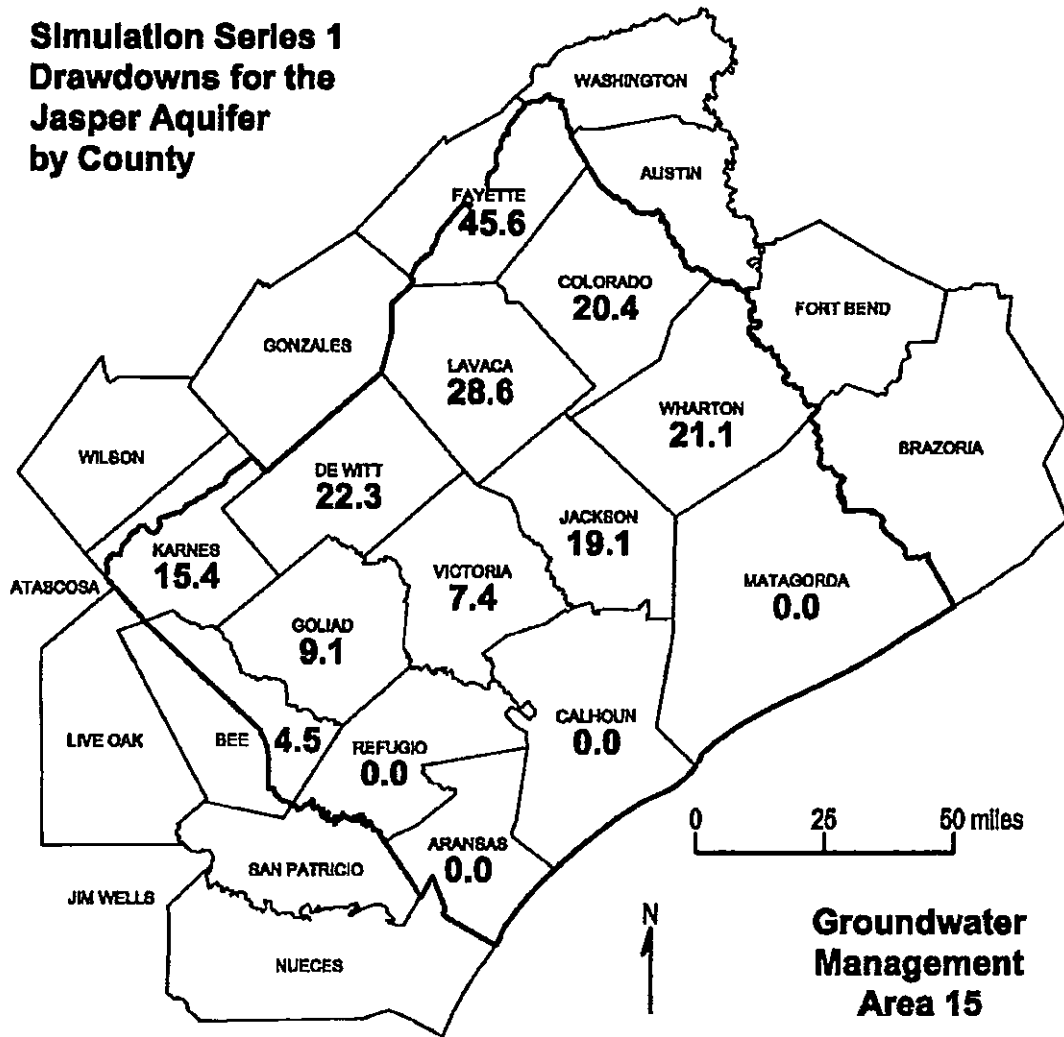


Figure 5. Average drawdown for the Jasper Aquifer in each county of Groundwater Management Area 15 for Simulation Series 1. The drawdown values are based on modeling 100 percent of the "base" pumpage. The bold font values indicate the water level declines in feet for the period between the end of 1999 and the end of 2060 with negative values indicating a rise in water levels.



**Simulation Series 2  
Drawdowns for the  
Chicot Aquifer  
by County**

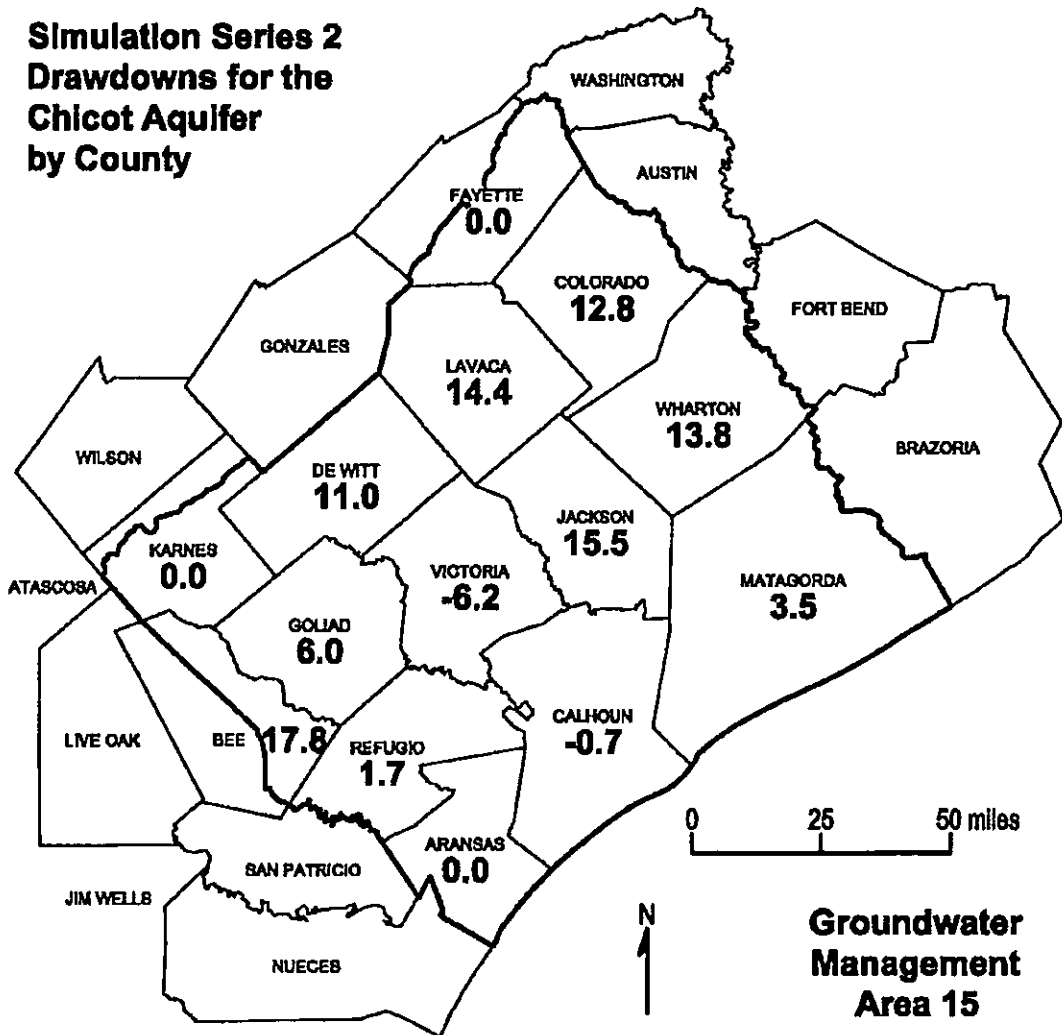


Figure 6. Average drawdown for the Chicot Aquifer in each county of Groundwater Management Area 15 for Simulation Series 2. The drawdown values are based on modeling 100 percent of the "base" pumpage. The bold font values indicate the water level declines in feet for the period between the end of 1999 and the end of 2060 with negative values indicating a rise in water levels.

**Simulation Series 2  
Drawdowns for the  
Evangeline Aquifer  
by County**

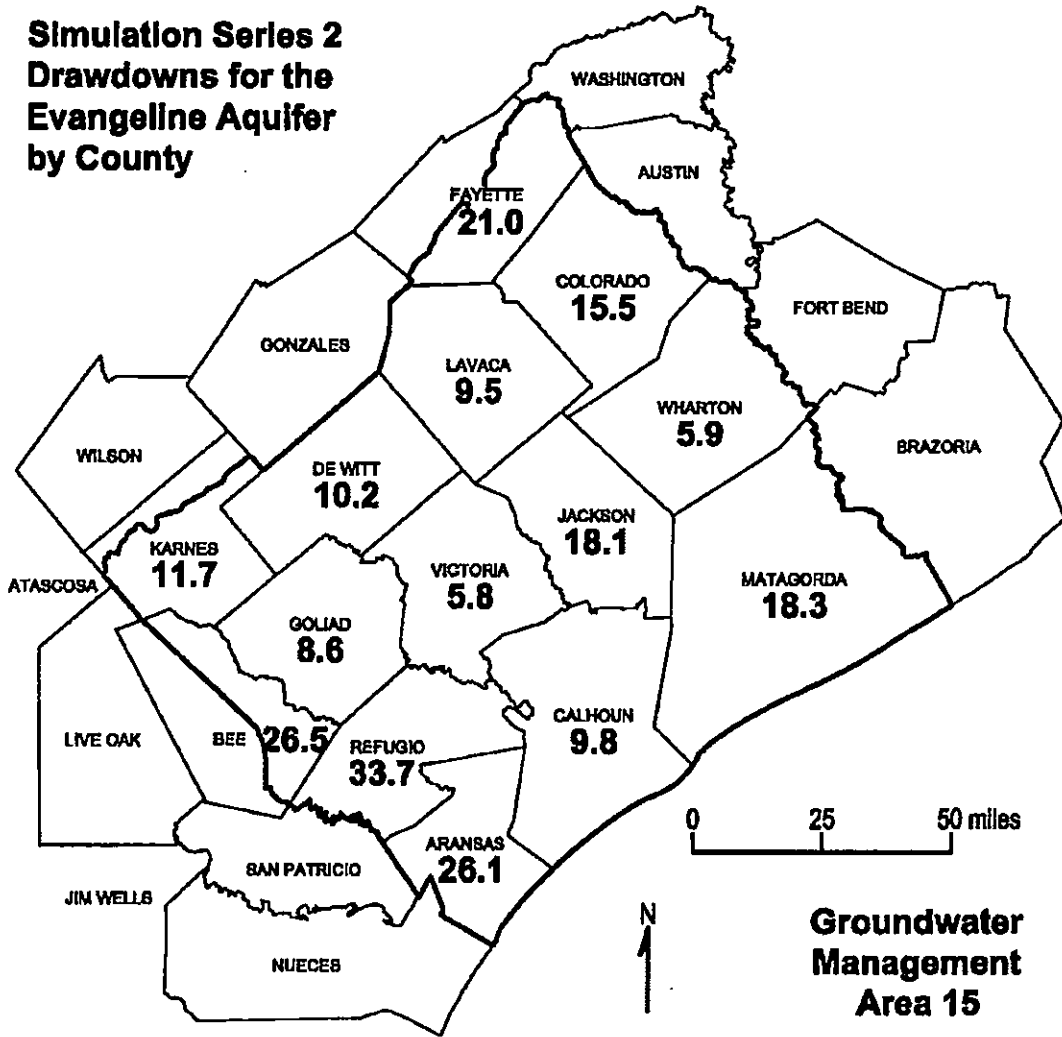


Figure 7. Average drawdown for the Evangeline Aquifer in each county of Groundwater Management Area 15 for Simulation Series 2. The drawdown values are based on modeling 100 percent of the "base" pumpage. The bold font values indicate the water level declines in feet for the period between the end of 1999 and the end of 2060 with negative values indicating a rise in water levels.

**Simulation Series 2  
Drawdowns for the  
Burkeville Confining Unit  
by County**

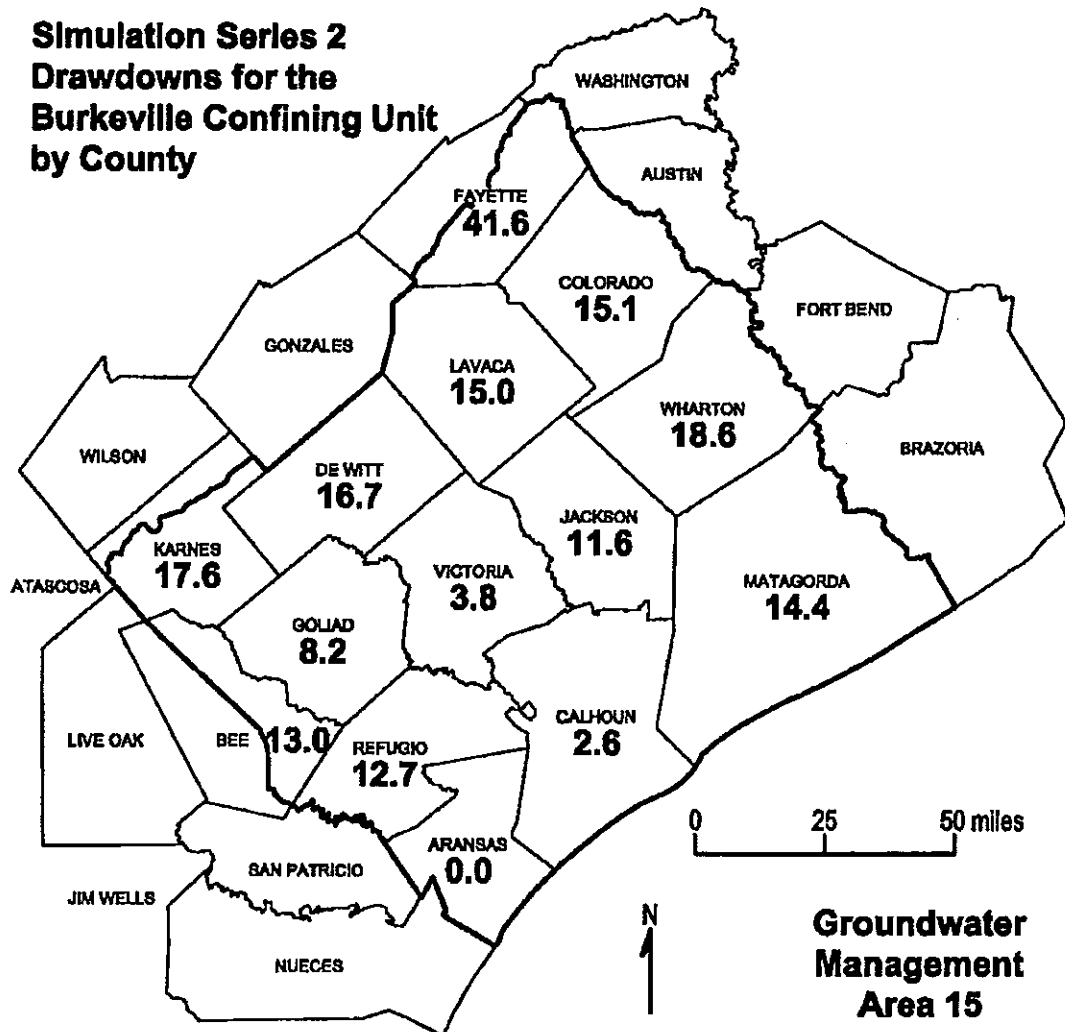


Figure 8. Average drawdown for the Burkeville Confining Unit in each county of Groundwater Management Area 15 for Simulation Series 2. The drawdown values are based on modeling 100 percent of the "base" pumpage. The bold font values indicate the water level declines in feet for the period between the end of 1999 and the end of 2060 with negative values indicating a rise in water levels.

**Simulation Series 2  
Drawdowns for the  
Jasper Aquifer  
by County**

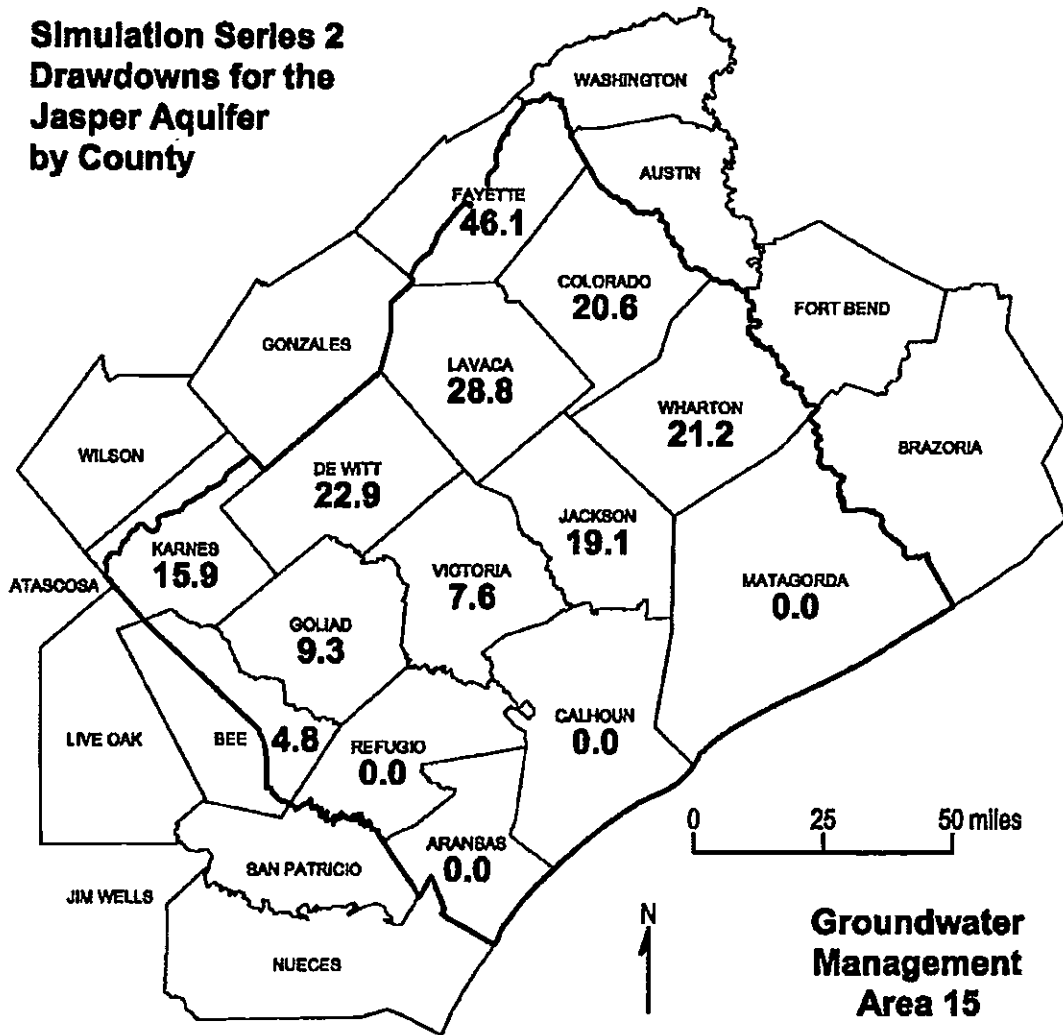


Figure 9. Average drawdown for the Jasper Aquifer in each county of Groundwater Management Area 15 for Simulation Series 2. The drawdown values are based on modeling 100 percent of the "base" pumpage. The bold font values indicate the water level declines in feet for the period between the end of 1999 and the end of 2060 with negative values indicating a rise in water levels.

**Simulation Series 3  
Drawdowns for the  
Chicot Aquifer  
by County**

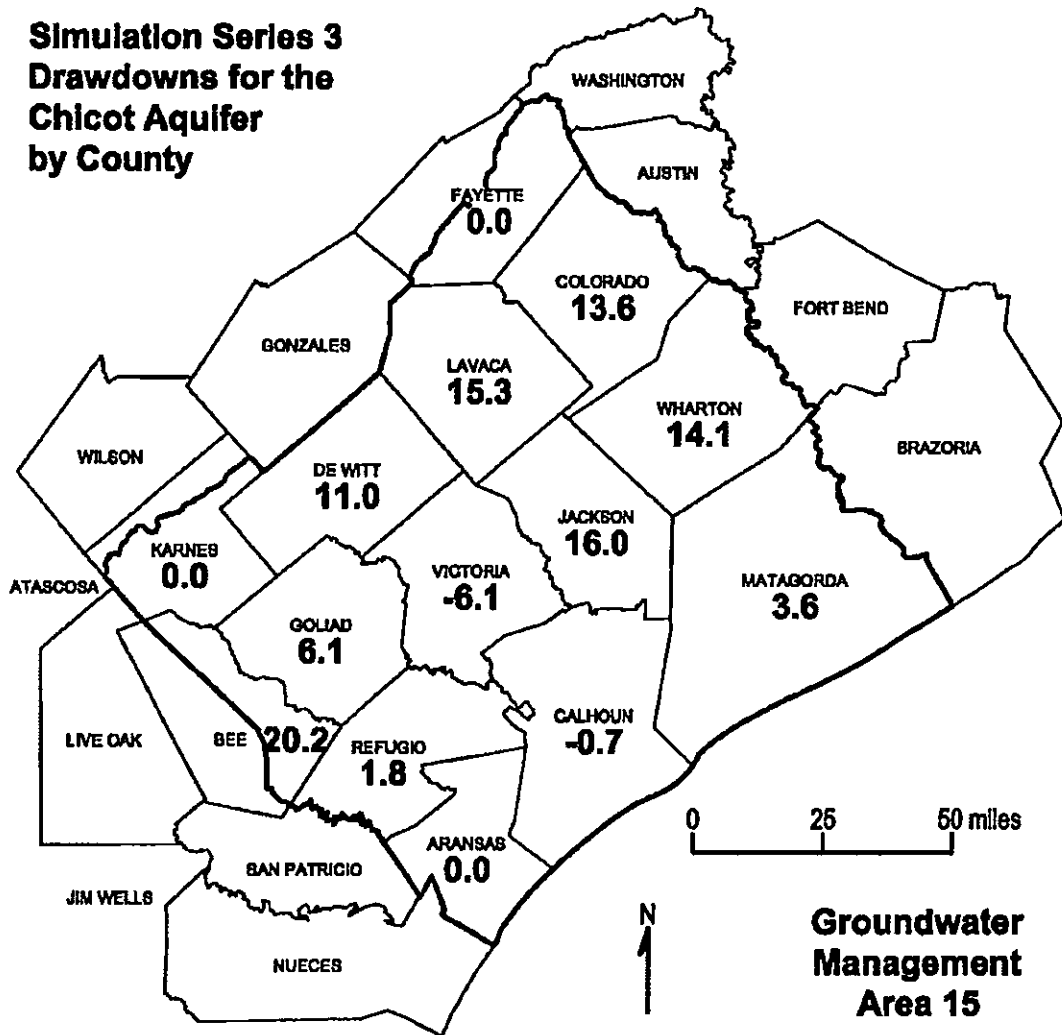


Figure 10. Average drawdown for the Chicot Aquifer in each county of Groundwater Management Area 15 for Simulation Series 3. The drawdown values are based on modeling 100 percent of the "base" pumpage. The bold font values indicate the water level declines in feet for the period between the end of 1999 and the end of 2060 with negative values indicating a rise in water levels.

**Simulation Series 3  
Drawdowns for the  
Evangeline Aquifer  
by County**

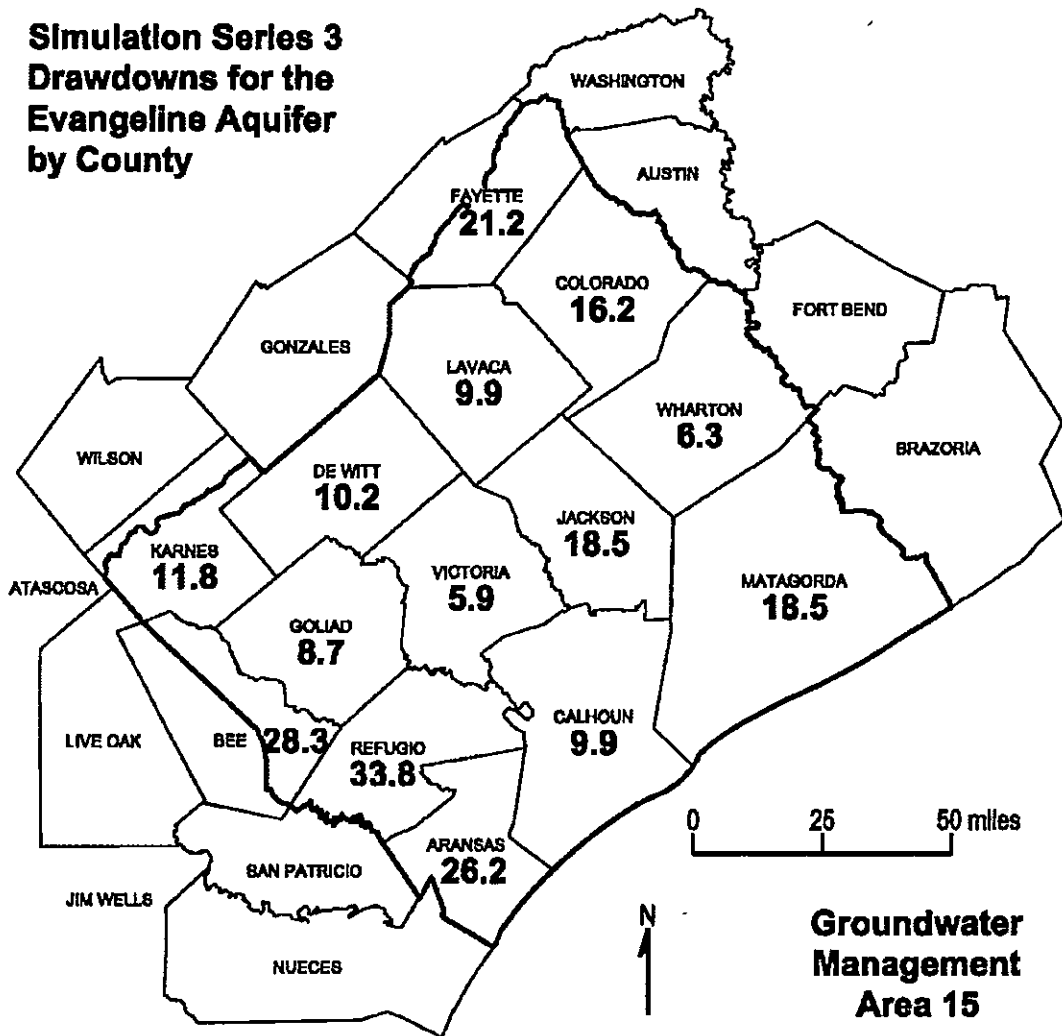


Figure 11. Average drawdown for the Evangeline Aquifer in each county of Groundwater Management Area 15 for Simulation Series 3. The drawdown values are based on modeling 100 percent of the "base" pumpage. The bold font values indicate the water level declines in feet for the period between the end of 1999 and the end of 2060 with negative values indicating a rise in water levels.

**Simulation Series 3  
Drawdowns for the  
Burkeville Confining Unit  
by County**

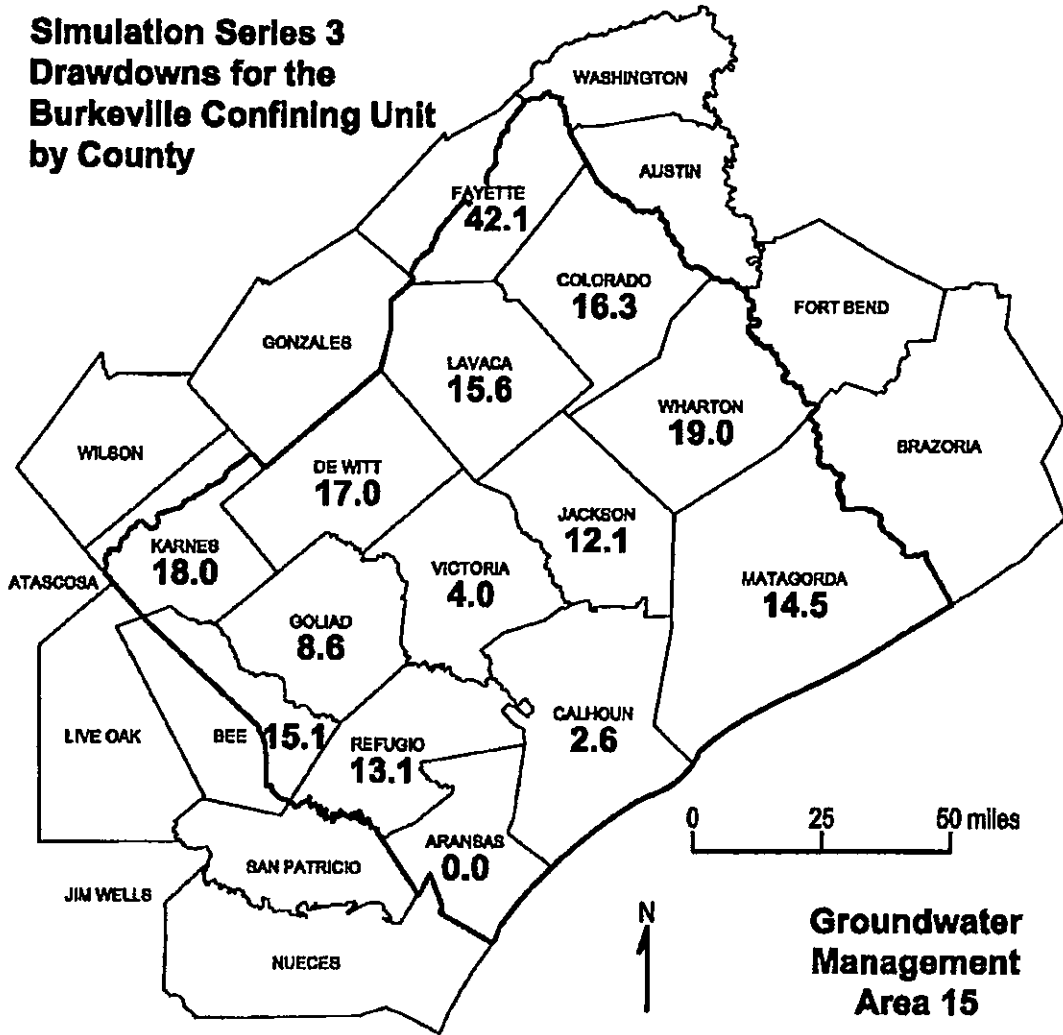


Figure 12. Average drawdown for the Burkeville Confining Unit in each county of Groundwater Management Area 15 for Simulation Series 3. The drawdown values are based on modeling 100 percent of the "base" pumpage. The bold font values indicate the water level declines in feet for the period between the end of 1999 and the end of 2060 with negative values indicating a rise in water levels.

**Simulation Series 3  
Drawdowns for the  
Jasper Aquifer  
by County**

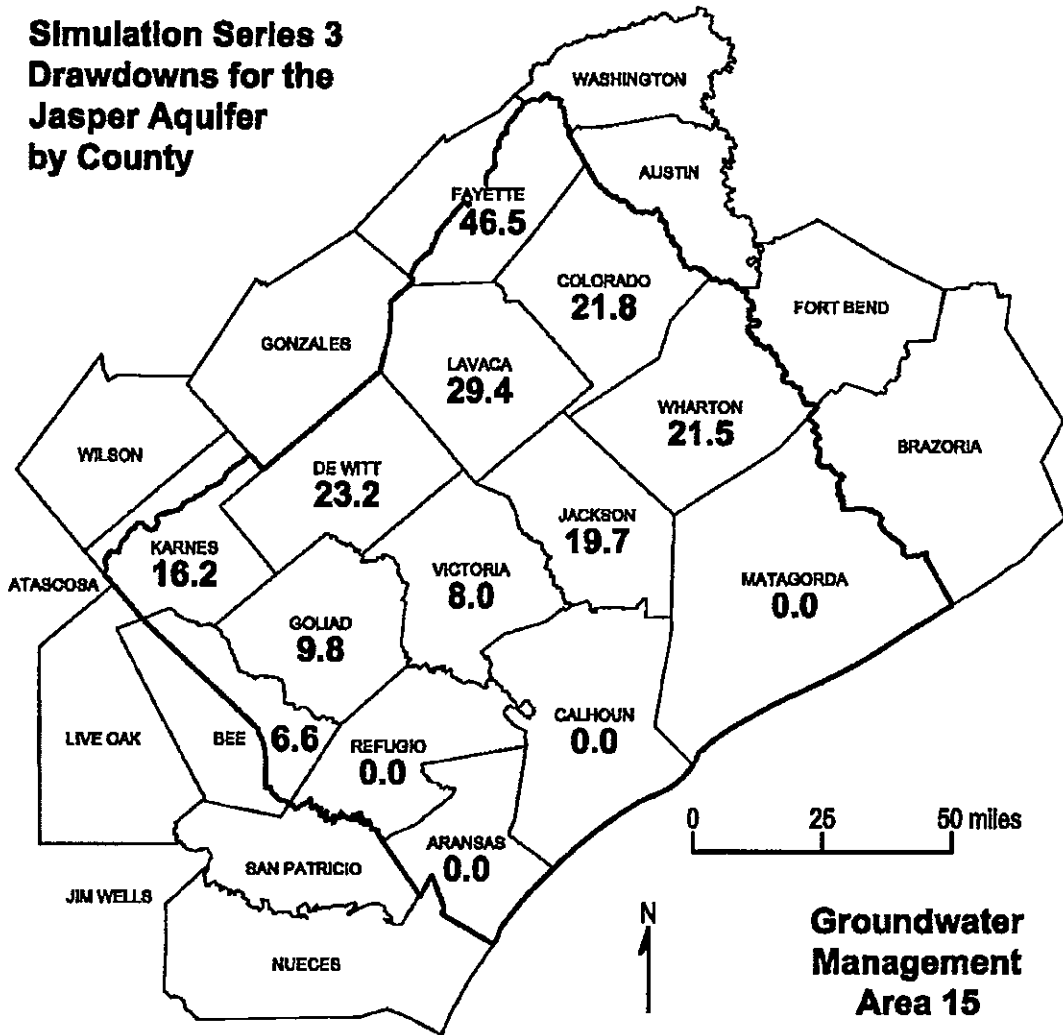


Figure 13. Average drawdown for the Jasper Aquifer in each county of Groundwater Management Area 15 for Simulation Series 3. The drawdown values are based on modeling 100 percent of the "base" pumpage. The bold font values indicate the water level declines in feet for the period between the end of 1999 and the end of 2060 with negative values indicating a rise in water levels.



## Appendix A

### Method for Computing Drought of Record Recharge Fluxes

Using the annual standard precipitation index (SPI) values, the drought of record (DOR) for the study domain of interest was determined to occur during 1947 – 1956. The SPI is a common method for measuring drought and is used by the National Climatic Data Center (NCDC) (along with the Palmer Drought Index, or PDI). The SPI is a probability-based method that considers precipitation only, as opposed to the PDI, which is a water balance index that considers water supply (precipitation), demand (evapotranspiration) and loss (runoff). The SPI was considered the most appropriate method for calculating the drought of record for the current groundwater modeling study.

The first step in the process was to collect and evaluate precipitation data within the domain of interest. Data available through the United States Historical Climatology Network (USHCN) were evaluated across the GMA 15. Uninterrupted annual precipitation data for the period of interest (generally 1940 to present) were limited to three weather stations within GMA 15, all in the northern part of GMA 15. However, data were available at three stations just south of the GMA 15 boundary and were used to interpolate precipitation data across the southern part of the model domain. Although uninterrupted precipitation data were limited across the GMA 15 area, the uninterrupted data were compared to the available precipitation data (for instance the data available for Victoria County), and compared favorably.

Figure 2 depicts an illustrative SPI for precipitation data for a weather station at Hallettsville, Texas. The ratio of the annual precipitation for each DOR year and the average annual rainfall for the GAM run 09-010 calibration period (1980 -1999) were calculated for the six weather stations selected for the study (Figure 3). The predictive GAM model run 09-010 uses a time-invariant recharge value for each model cell that is averaged over the 1980 – 1999 time period. The precipitation ratios for each year are listed in Table 1 and were interpolated using the Thiessen polygon approach using ArcGIS software. A total of 10 Thiessen polygons were created, one for each year from 1947 – 1956 (Figure 4). Upon interpolation, the values were extracted for each GAM cell and used to prepare recharge files for DOR simulation series runs 2 and 3, as described in the report. For Simulation Series 2, the recharge values corresponding to 1947 – 1956 were used for stress periods 51 – 60 in the predictive runs. For Simulation Series 3, the DOR was used for stress periods 2 – 11 and again for stress periods 51 – 60.

Appendix A

Method for Computing Drought of Record Recharge Fluxes

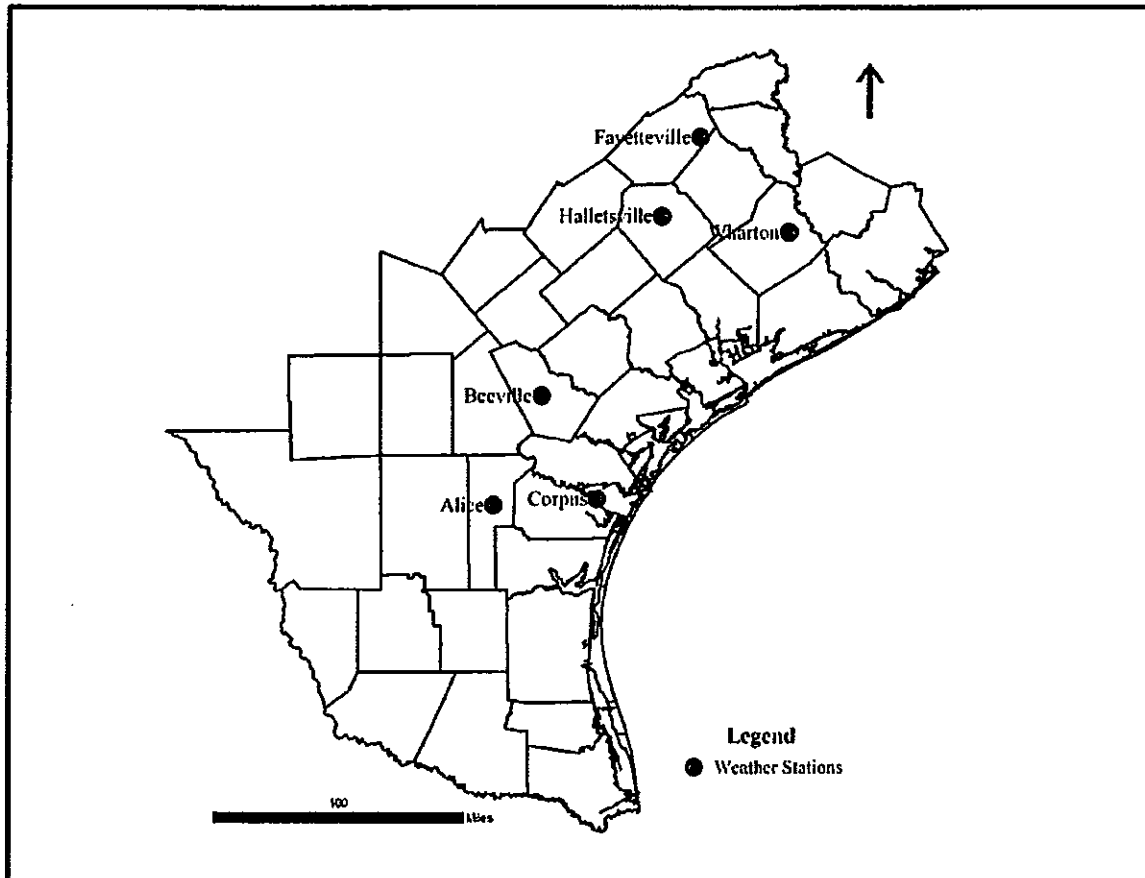


Figure 1: Weather Stations Used for Calculating Recharge Ratios

Appendix A

Method for Computing Drought of Record Recharge Fluxes

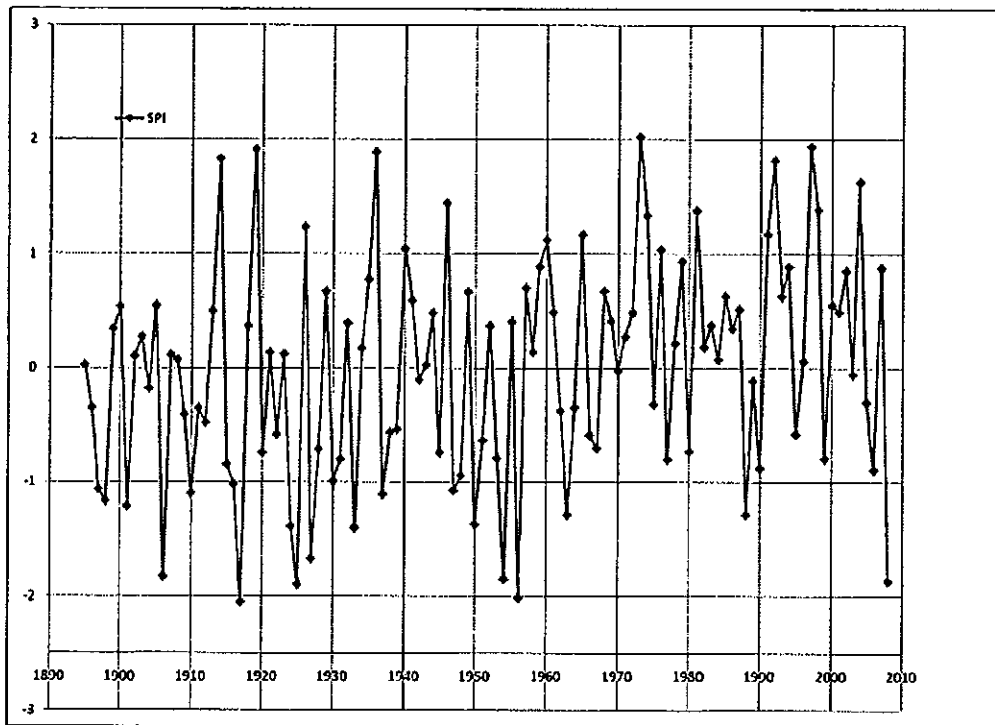


Figure 2: Annual Standard Precipitation Index (SPI) at Hallettsville, TX

Appendix A

Method for Computing Drought of Record Recharge Fluxes

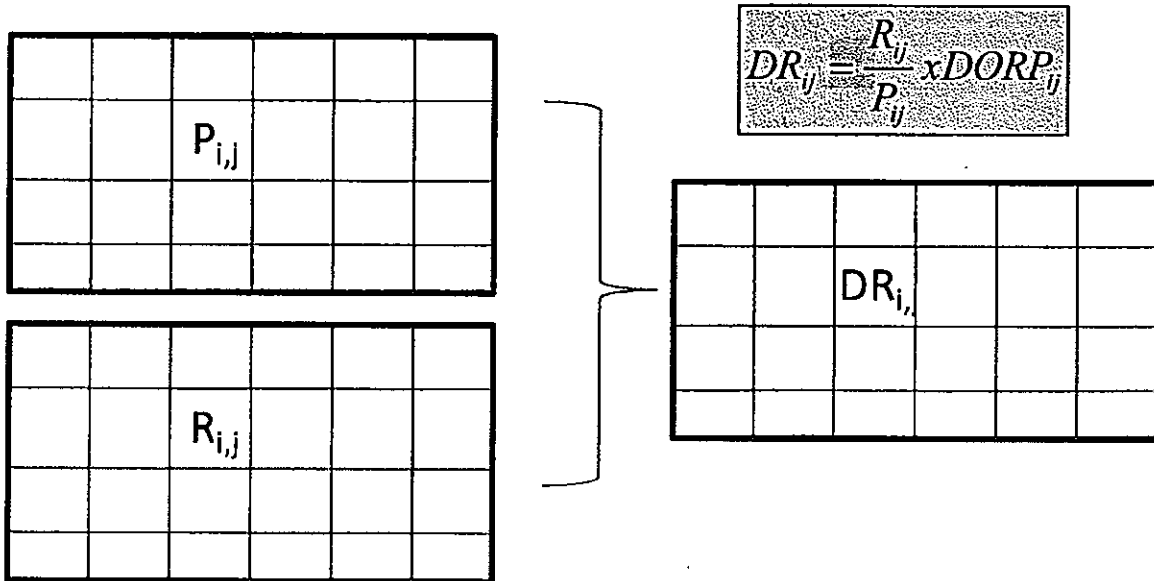


Figure 3: Schematic Representation of Drought of Record Recharge Estimation Process ( $P_{i,j}$  is the average precipitation for the calibration period;  $R_{i,j}$  is the calibrated recharge and  $DORP_{i,j}$  is the drought of record precipitation and  $DR_{i,j}$  is the drought of record recharge)

Appendix A

Method for Computing Drought of Record Recharge Fluxes

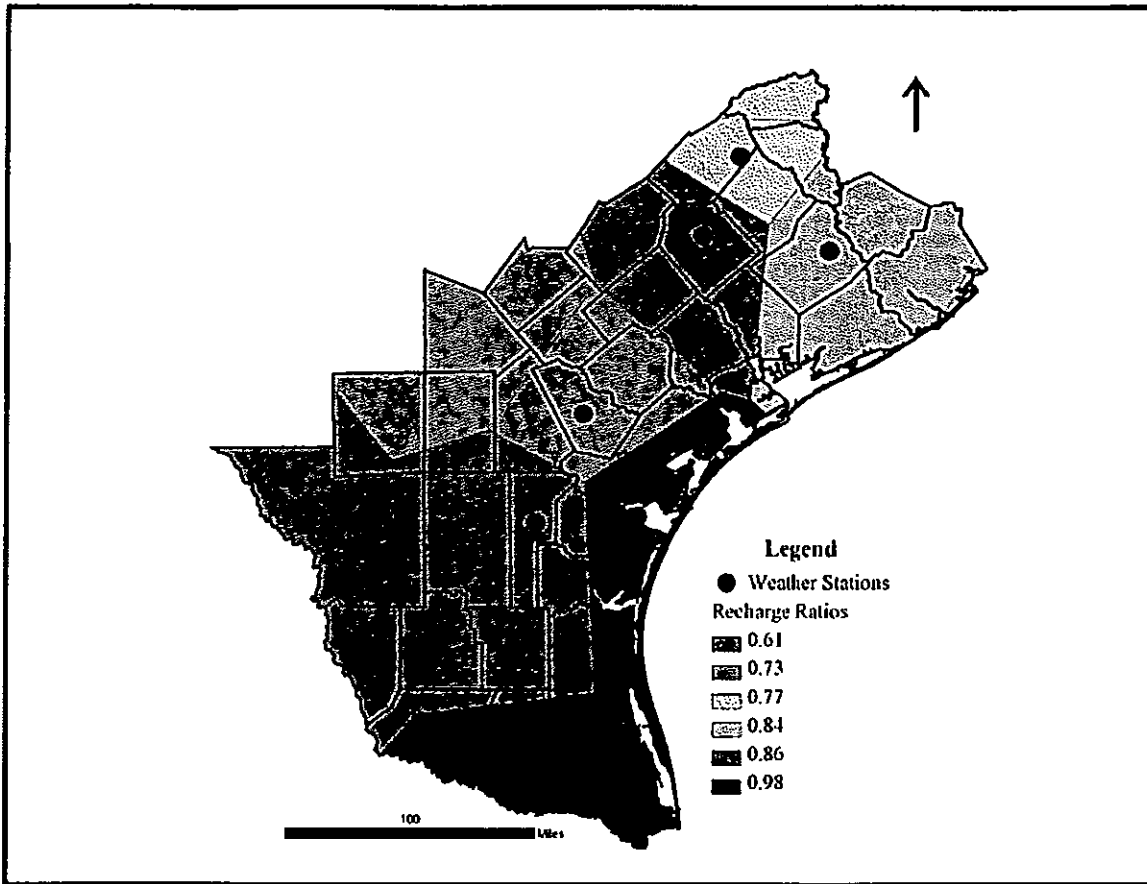


Figure 4: Precipitation Ratios for the Year 1947 within the Model Domain (Data from Beeville, Corpus Christi and Alice were extrapolated to cells in the Southern portions of the GAM where no stations were available)

Appendix A

Method for Computing Drought of Record Recharge Fluxes

Year	Recharge Ratio					
	Wharton	Bee	Alice	Hallettsville	Fayetteville	Corpus Christi
1947	0.84	0.73	0.86	0.61	0.77	0.98
1948	0.70	0.63	0.77	0.64	0.64	0.71
1949	1.02	1.10	1.08	1.07	1.44	0.95
1950	0.70	0.44	0.68	0.55	0.86	0.49
1951	0.56	0.80	1.20	0.71	0.72	0.85
1952	0.77	1.01	0.57	0.98	0.85	0.67
1953	0.89	0.61	0.87	0.68	0.85	0.76
1954	0.35	0.48	0.66	0.46	0.51	0.50
1955	0.76	0.61	0.80	0.99	0.94	0.69
1956	0.50	0.61	0.60	0.43	0.56	0.68

**Table 1: Precipitation Ratios at Six Stations Weather Stations with long-term Meteorological Data**

## **APPENDIX B**

**Water budgets for the end of the 60-year period assuming base pumpage**

- B-1            Simulation Series 1 Water Budget**
- B-2            Simulation Series 2 Water Budget**
- B-3            Simulation Series 3 Water Budget**

**WATER BUDGET SUMMARY  
SIMULATION SERIES 1, BASE PUMPAGE**

County	Parameters	Chicot Aquifer (acre-ft/yr)	Evangeline Aquifer (acre-ft/yr)	Burkeville Confining Unit (acre-ft/yr)	Jasper Aquifer (acre-ft/yr)
Aransas	<b>Inflows</b>				
	Lateral Flows to/from Adjacent County(s)	3823	39	0	0
	Vertical Leakage (Upper)	0	55	0	0
	Vertical Leakage (Lower)	0	0	0	0
	Recharge	164	0	0	0
	River Leakage	0	0	0	0
	Water Flows from/to Bays and/or Gulf	1202	0	0	0
	Stream Leakage	2465	0	0	0
	<i>Total Inflows</i>	<i>7653</i>	<i>94</i>	<i>0</i>	<i>0</i>
	<b>Outflows</b>				
	Lateral Flows to/from Adjacent County(s)	1243	94	0	0
	Vertical Leakage (Upper)	0	0	0	0
	Vertical Leakage (Lower)	55	0	0	0
	Wells	1825	0	0	0
	Springs	11	0	0	0
	Evapotranspiration	733	0	0	0
	River Leakage	0	0	0	0
	Water Flows from/to Bays and/or Gulf	3147	0	0	0
	Stream Leakage	640	0	0	0
	<i>Total Outflows</i>	<i>7654</i>	<i>94</i>	<i>0</i>	<i>0</i>
	<i>Inflows - Outflows</i>	<i>-1</i>	<i>0</i>	<i>0</i>	<i>0</i>
	Change in Storage	1	0	0	0
	Model Error	0	0	0	0



**WATER BUDGET SUMMARY  
SIMULATION SERIES 1, BASE PUMPAGE**

County	Parameters	Chicot Aquifer (acre-ft/yr)	Evangeline Aquifer (acre-ft/yr)	Burkeville Confining Unit (acre-ft/yr)	Jasper Aquifer (acre-ft/yr)
Bee	<b>Inflows</b>				
	Lateral Flows to/from Adjacent County(s)	656	3129	35	544
	Vertical Leakage (Upper)	0	7354	531	668
	Vertical Leakage (Lower)	0	403	224	0
	Recharge	18814	5039	60	23
	River Leakage	0	0	0	0
	Water Flows from/to Bays and/or Gulf	0	0	0	0
	Stream Leakage	6467	6909	95	126
	<b>Total Inflows</b>	<b>25936</b>	<b>22835</b>	<b>946</b>	<b>1362</b>
	<b>Outflows</b>				
	Lateral Flows to/from Adjacent County(s)	7721	9139	106	755
	Vertical Leakage (Upper)	0	0	403	224
	Vertical Leakage (Lower)	7354	531	668	0
	Wells	8757	11993	75	600
	Springs	0	0	0	0
	Evapotranspiration	85	0	0	0
	River Leakage	0	0	0	0
	Water Flows from/to Bays and/or Gulf	0	0	0	0
	Stream Leakage	2697	1367	0	77
	<b>Total Outflows</b>	<b>26614</b>	<b>23030</b>	<b>1254</b>	<b>1656</b>
	<i>Inflows - Outflows</i>	-678	-196	-308	-294
	Change in Storage	677	200	306	294
	Model Error	-1	4	-1	0

**WATER BUDGET SUMMARY  
SIMULATION SERIES 1, BASE PUMPAGE**

County	Parameters	Chicot Aquifer (acre-ft/yr)	Evangeline Aquifer (acre-ft/yr)	Burkeville Confining Unit (acre-ft/yr)	Jasper Aquifer (acre-ft/yr)
Calhoun	<b>Inflows</b>				
	Lateral Flows to/from Adjacent County(s)	12308	2	0	0
	Vertical Leakage (Upper)	0	1900	0	0
	Vertical Leakage (Lower)	0	5	0	0
	Recharge	3083	0	0	0
	River Leakage	3225	0	0	0
	Water Flows from/to Bays and/or Gulf	766	0	0	0
	Stream Leakage	4126	0	0	0
	<b>Total Inflows</b>	<b>23509</b>	<b>1908</b>	<b>0</b>	<b>0</b>
	<b>Outflows</b>				
	Lateral Flows to/from Adjacent County(s)	3829	1849	0	0
	Vertical Leakage (Upper)	0	0	5	0
	Vertical Leakage (Lower)	1900	0	0	0
	Wells	2879	62	0	0
	Springs	1050	0	0	0
	Evapotranspiration	1241	0	0	0
	River Leakage	0	0	0	0
	Water Flows from/to Bays and/or Gulf	10344	0	0	0
	Stream Leakage	2276	0	0	0
	<b>Total Outflows</b>	<b>23518</b>	<b>1911</b>	<b>6</b>	<b>0</b>
	<i>Inflows - Outflows</i>	-9	-3	-5	0
	Change in Storage	10	3	5	0
	Model Error	0	0	0	0

**WATER BUDGET SUMMARY  
SIMULATION SERIES 1, BASE PUMPAGE**

County	Parameters	Chicot Aquifer (acre-ft/yr)	Evangeline Aquifer (acre-ft/yr)	Burkeville Confining Unit (acre-ft/yr)	Jasper Aquifer (acre-ft/yr)
Colorado	<b>Inflows</b>				
	Lateral Flows to/from Adjacent County(s)	9371	8974	31	295
	Vertical Leakage (Upper)	0	26240	754	857
	Vertical Leakage (Lower)	331	541	120	0
	Recharge	35102	2499	0	0
	River Leakage	1407	0	0	0
	Water Flows from/to Bays and/or Gulf	0	0	0	0
	Stream Leakage	32490	5116	0	0
	<b>Total Inflows</b>	<b>78701</b>	<b>43370</b>	<b>905</b>	<b>1152</b>
	<b>Outflows</b>				
	Lateral Flows to/from Adjacent County(s)	20166	17711	60	487
	Vertical Leakage (Upper)	0	331	541	120
	Vertical Leakage (Lower)	26240	754	857	0
	Wells	24432	22634	0	899
	Springs	5	0	0	0
	Evapotranspiration	55	0	0	0
	River Leakage	0	0	0	0
	Water Flows from/to Bays and/or Gulf	0	0	0	0
	Stream Leakage	8624	1990	0	0
	<b>Total Outflows</b>	<b>79521</b>	<b>43419</b>	<b>1457</b>	<b>1506</b>
	<i>Inflows - Outflows</i>	-820	-49	-552	-354
	Change in Storage	819	50	552	354
	Model Error	-1	1	0	0

**WATER BUDGET SUMMARY  
SIMULATION SERIES 1, BASE PUMPAGE**

County	Parameters	Chicot Aquifer (acre-ft/yr)	Evangeline Aquifer (acre-ft/yr)	Burkeville Confining Unit (acre-ft/yr)	Jasper Aquifer (acre-ft/yr)
Dewitt	<b>Inflows</b>				
	Lateral Flows to/from Adjacent County(s)	12	1316	7	816
	Vertical Leakage (Upper)	0	4514	3145	3621
	Vertical Leakage (Lower)	0	8	23	0
	Recharge	4567	5757	28	243
	River Leakage	0	0	0	0
	Water Flows from/to Bays and/or Gulf	0	0	0	0
	Stream Leakage	2943	11424	449	1382
	<b>Total Inflows</b>	<b>7522</b>	<b>23018</b>	<b>3653</b>	<b>6062</b>
	<b>Outflows</b>				
	Lateral Flows to/from Adjacent County(s)	1364	7205	37	740
	Vertical Leakage (Upper)	0	0	8	23
	Vertical Leakage (Lower)	4514	3145	3621	0
	Wells	998	6928	122	6278
	Springs	0	0	0	0
	Evapotranspiration	11	56	0	0
	River Leakage	0	0	0	0
	Water Flows from/to Bays and/or Gulf	0	0	0	0
	Stream Leakage	635	5744	0	288
	<b>Total Outflows</b>	<b>7522</b>	<b>23078</b>	<b>3788</b>	<b>7329</b>
	<i>Inflows - Outflows</i>	0	-60	-135	-1267
	Change in Storage	0	60	135	1267
	Model Error	0	0	0	-1

**WATER BUDGET SUMMARY  
SIMULATION SERIES 1, BASE PUMPAGE**

County	Parameters	Chicot Aquifer (acre-ft/yr)	Evangeline Aquifer (acre-ft/yr)	Burkeville Confining Unit (acre-ft/yr)	Jasper Aquifer (acre-ft/yr)
Fayette	<b>Inflows</b>				
	Lateral Flows to/from Adjacent County(s)	0	77	6	414
	Vertical Leakage (Upper)	0	0	1093	1733
	Vertical Leakage (Lower)	0	0	11	0
	Recharge	0	1736	3	353
	River Leakage	0	0	271	202
	Water Flows from/to Bays and/or Gulf	0	0	0	0
	Stream Leakage	0	766	347	1243
	<b>Total Inflows</b>	<b>0</b>	<b>2580</b>	<b>1731</b>	<b>3945</b>
	<b>Outflows</b>				
	Lateral Flows to/from Adjacent County(s)	0	565	11	236
	Vertical Leakage (Upper)	0	0	0	11
	Vertical Leakage (Lower)	0	1093	1733	0
	Wells	0	887	113	7339
	Springs	0	0	0	0
	Evapotranspiration	0	0	19	5
	River Leakage	0	0	0	0
	Water Flows from/to Bays and/or Gulf	0	0	0	0
	Stream Leakage	0	76	0	19
	<b>Total Outflows</b>	<b>0</b>	<b>2621</b>	<b>1876</b>	<b>7609</b>
	<b>Inflows - Outflows</b>	<b>0</b>	<b>-41</b>	<b>-145</b>	<b>-3664</b>
	Change in Storage	0	41	145	3664
	Model Error	0	0	0	0

**WATER BUDGET SUMMARY  
SIMULATION SERIES 1, BASE PUMPAGE**

<b>County</b>	<b>Parameters</b>	<b>Chicot Aquifer (acre-ft/yr)</b>	<b>Evangeline Aquifer (acre-ft/yr)</b>	<b>Burkeville Confining Unit (acre-ft/yr)</b>	<b>Jasper Aquifer (acre-ft/yr)</b>
Goliad	<b>Inflows</b>				
	Lateral Flows to/from Adjacent County(s)	803	4095	34	401
	Vertical Leakage (Upper)	0	4061	669	520
	Vertical Leakage (Lower)	85	522	425	0
	Recharge	10504	7975	0	0
	River Leakage	1518	0	0	0
	Water Flows from/to Bays and/or Gulf	0	0	0	0
	Stream Leakage	3284	18247	0	0
	<b>Total Inflows</b>	<b>16194</b>	<b>34900</b>	<b>1128</b>	<b>921</b>
	<b>Outflows</b>				
	Lateral Flows to/from Adjacent County(s)	3891	12743	56	622
	Vertical Leakage (Upper)	0	85	522	425
	Vertical Leakage (Lower)	4061	669	520	0
	Wells	700	10368	300	100
	Springs	6	1	0	0
	Evapotranspiration	179	32	0	0
	River Leakage	0	0	0	0
	Water Flows from/to Bays and/or Gulf	0	0	0	0
	Stream Leakage	7362	11031	0	0
	<b>Total Outflows</b>	<b>16199</b>	<b>34929</b>	<b>1397</b>	<b>1147</b>
	<i>Inflows - Outflows</i>	-6	-28	-269	-226
	Change in Storage	6	29	269	226
	Model Error	0	0	0	0

**WATER BUDGET SUMMARY  
SIMULATION SERIES 1, BASE PUMPAGE**

<b>County</b>	<b>Parameters</b>	<b>Chicot Aquifer (acre-ft/yr)</b>	<b>Evangeline Aquifer (acre-ft/yr)</b>	<b>Burkeville Confining Unit (acre-ft/yr)</b>	<b>Jasper Aquifer (acre-ft/yr)</b>
Jackson	<b>Inflows</b>				
	Lateral Flows to/from Adjacent County(s)	24106	12630	24	132
	Vertical Leakage (Upper)	0	14744	0	4
	Vertical Leakage (Lower)	0	1078	413	0
	Recharge	11752	0	0	0
	River Leakage	4176	0	0	0
	Water Flows from/to Bays and/or Gulf	919	0	0	0
	Stream Leakage	56942	0	0	0
	<b>Total Inflows</b>	<b>97895</b>	<b>28452</b>	<b>437</b>	<b>136</b>
	<b>Outflows</b>				
	Lateral Flows to/from Adjacent County(s)	12412	8293	8	36
	Vertical Leakage (Upper)	0	0	1078	413
	Vertical Leakage (Lower)	14744	0	4	0
	Wells	54642	20198	0	0
	Springs	75	0	0	0
	Evapotranspiration	448	0	0	0
	River Leakage	0	0	0	0
	Water Flows from/to Bays and/or Gulf	133	0	0	0
	Stream Leakage	16692	0	0	0
	<b>Total Outflows</b>	<b>99146</b>	<b>28491</b>	<b>1090</b>	<b>449</b>
	<b>Inflows - Outflows</b>	<b>-1251</b>	<b>-39</b>	<b>-653</b>	<b>-313</b>
	Change in Storage	1252	31	653	313
	Model Error	1	-8	0	0

**WATER BUDGET SUMMARY  
SIMULATION SERIES 1, BASE PUMPAGE**

County	Parameters	Chicot Aquifer (acre-ft/yr)	Evangeline Aquifer (acre-ft/yr)	Burkeville Confining Unit (acre-ft/yr)	Jasper Aquifer (acre-ft/yr)
Karnes	<b>Inflows</b>				
	Lateral Flows to/from Adjacent County(s)	0	157	22	465
	Vertical Leakage (Upper)	0	0	263	387
	Vertical Leakage (Lower)	0	14	67	0
	Recharge	0	883	2	417
	River Leakage	0	0	0	0
	Water Flows from/to Bays and/or Gulf	0	0	0	0
	Stream Leakage	0	361	237	768
	<b>Total Inflows</b>	<b>0</b>	<b>1416</b>	<b>591</b>	<b>2037</b>
	<b>Outflows</b>				
	Lateral Flows to/from Adjacent County(s)	0	671	16	701
	Vertical Leakage (Upper)	0	0	14	67
	Vertical Leakage (Lower)	0	263	387	0
	Wells	0	103	244	2716
	Springs	0	0	0	0
	Evapotranspiration	0	0	1	65
	River Leakage	0	0	0	0
	Water Flows from/to Bays and/or Gulf	0	0	0	0
	Stream Leakage	0	383	8	430
	<b>Total Outflows</b>	<b>0</b>	<b>1420</b>	<b>671</b>	<b>3984</b>
	<i>Inflows - Outflows</i>	0	-4	-80	-1947
	Change in Storage	0	4	78	1942
	Model Error	0	0	-2	-5



**WATER BUDGET SUMMARY  
SIMULATION SERIES 1, BASE PUMPAGE**

<b>County</b>	<b>Parameters</b>	<b>Chicot Aquifer (acre-ft/yr)</b>	<b>Evangeline Aquifer (acre-ft/yr)</b>	<b>Burkeville Confining Unit (acre-ft/yr)</b>	<b>Jasper Aquifer (acre-ft/yr)</b>
Lavaca	<b>Inflows</b>				
	Lateral Flows to/from Adjacent County(s)	1345	3031	13	539
	Vertical Leakage (Upper)	0	8102	1195	1714
	Vertical Leakage (Lower)	5	104	44	0
	Recharge	18265	6103	2	171
	River Leakage	0	0	0	0
	Water Flows from/to Bays and/or Gulf	0	0	0	0
	Stream Leakage	12532	13946	281	729
	<b>Total Inflows</b>	<b>32147</b>	<b>31287</b>	<b>1535</b>	<b>3152</b>
	<b>Outflows</b>				
	Lateral Flows to/from Adjacent County(s)	17874	14067	39	663
	Vertical Leakage (Upper)	0	5	104	44
	Vertical Leakage (Lower)	8102	1195	1714	0
	Wells	3032	12391	137	4405
	Springs	0	0	0	0
	Evapotranspiration	2	3	0	2
	River Leakage	0	0	0	0
	Water Flows from/to Bays and/or Gulf	0	0	0	0
	Stream Leakage	3507	3653	0	0
	<b>Total Outflows</b>	<b>32517</b>	<b>31315</b>	<b>1995</b>	<b>5115</b>
	<i>Inflows - Outflows</i>	-370	-28	-459	-1962
	Change in Storage	371	28	459	1962
	Model Error	2	0	0	0

**WATER BUDGET SUMMARY  
SIMULATION SERIES 1, BASE PUMPAGE**

County	Parameters	Chicot Aquifer (acre-ft/yr)	Evangeline Aquifer (acre-ft/yr)	Burkeville Confining Unit (acre-ft/yr)	Jasper Aquifer (acre-ft/yr)
Matagorda	<b>Inflows</b>				
	Lateral Flows to/from Adjacent County(s)	12002	2800	7	0
	Vertical Leakage (Upper)	0	10212	0	0
	Vertical Leakage (Lower)	0	265	0	0
	Recharge	23047	0	0	0
	River Leakage	801	0	0	0
	Water Flows from/to Bays and/or Gulf	1752	0	0	0
	Stream Leakage	62330	0	0	0
	<b>Total Inflows</b>	<b>99933</b>	<b>13277</b>	<b>7</b>	<b>0</b>
	<b>Outflows</b>				
	Lateral Flows to/from Adjacent County(s)	14516	3982	11	0
	Vertical Leakage (Upper)	0	0	265	0
	Vertical Leakage (Lower)	10212	0	0	0
	Wells	35650	9321	0	0
	Springs	197	0	0	0
	Evapotranspiration	3016	0	0	0
	River Leakage	0	0	0	0
	Water Flows from/to Bays and/or Gulf	9571	0	0	0
	Stream Leakage	26968	0	0	0
	<b>Total Outflows</b>	<b>100129</b>	<b>13303</b>	<b>276</b>	<b>0</b>
	<i>Inflows - Outflows</i>	-196	-26	-269	0
	Change in Storage	196	19	269	0
	Model Error	0	-7	0	0

**WATER BUDGET SUMMARY  
SIMULATION SERIES 1, BASE PUMPAGE**

County	Parameters	Chicot Aquifer (acre-ft/yr)	Evangeline Aquifer (acre-ft/yr)	Burkeville Confining Unit (acre-ft/yr)	Jasper Aquifer (acre-ft/yr)
Refugio	<b>Inflows</b>				
	Lateral Flows to/from Adjacent County(s)	11978	12064	36	0
	Vertical Leakage (Upper)	0	10642	0	0
	Vertical Leakage (Lower)	0	325	0	0
	Recharge	14658	0	0	0
	River Leakage	0	0	0	0
	Water Flows from/to Bays and/or Gulf	0	0	0	0
	Stream Leakage	33883	0	0	0
	<b>Total Inflows</b>	<b>60520</b>	<b>23030</b>	<b>36</b>	<b>0</b>
	<b>Outflows</b>				
	Lateral Flows to/from Adjacent County(s)	10432	549	3	0
	Vertical Leakage (Upper)	0	0	325	0
	Vertical Leakage (Lower)	10642	0	0	0
	Wells	6250	22486	0	0
	Springs	96	0	0	0
	Evapotranspiration	1762	0	0	0
	River Leakage	0	0	0	0
	Water Flows from/to Bays and/or Gulf	5471	0	0	0
	Stream Leakage	25917	0	0	0
	<b>Total Outflows</b>	<b>60568</b>	<b>23035</b>	<b>328</b>	<b>0</b>
	<i>Inflows - Outflows</i>	-49	-4	-292	0
	Change in Storage	49	5	292	0
	Model Error	0	0	0	0

**WATER BUDGET SUMMARY  
SIMULATION SERIES 1, BASE PUMPAGE**

County	Parameters	Chicot Aquifer (acre-ft/yr)	Evangeline Aquifer (acre-ft/yr)	Burkeville Confining Unit (acre-ft/yr)	Jasper Aquifer (acre-ft/yr)
Victoria	<b>Inflows</b>				
	Lateral Flows to/from Adjacent County(s)	7003	10665	37	455
	Vertical Leakage (Upper)	0	18592	58	67
	Vertical Leakage (Lower)	2	846	531	0
	Recharge	24815	742	0	0
	River Leakage	1056	0	0	0
	Water Flows from/to Bays and/or Gulf	0	0	0	0
	Stream Leakage	46221	2326	0	0
	<b>Total Inflows</b>	<b>79097</b>	<b>33172</b>	<b>626</b>	<b>523</b>
	<b>Outflows</b>				
	Lateral Flows to/from Adjacent County(s)	19775	4186	10	146
	Vertical Leakage (Upper)	0	2	846	531
	Vertical Leakage (Lower)	18592	58	67	0
	Wells	7994	26981	0	0
	Springs	1474	0	0	0
	Evapotranspiration	924	26	0	0
	River Leakage	0	0	0	0
	Water Flows from/to Bays and/or Gulf	471	0	0	0
	Stream Leakage	29889	1924	0	0
	<b>Total Outflows</b>	<b>79119</b>	<b>33177</b>	<b>925</b>	<b>677</b>
	<i>Inflows - Outflows</i>	-22	-5	-298	-154
	Change in Storage	23	6	298	154
	Model Error	0	1	0	0

**WATER BUDGET SUMMARY  
SIMULATION SERIES 1, BASE PUMPAGE**

<b>County</b>	<b>Parameters</b>	<b>Chicot Aquifer (acre-ft/yr)</b>	<b>Evangeline Aquifer (acre-ft/yr)</b>	<b>Burkeville Confining Unit (acre-ft/yr)</b>	<b>Jasper Aquifer (acre-ft/yr)</b>
Wharton	<b>Inflows</b>				
	Lateral Flows to/from Adjacent County(s)	33793	28991	60	218
	Vertical Leakage (Upper)	0	38005	0	0
	Vertical Leakage (Lower)	0	2355	977	0
	Recharge	21719	0	0	0
	River Leakage	536	0	0	0
	Water Flows from/to Bays and/or Gulf	0	0	0	0
	Stream Leakage	120639	0	0	0
	<b>Total Inflows</b>	<b>176688</b>	<b>69350</b>	<b>1037</b>	<b>218</b>
	<b>Outflows</b>				
	Lateral Flows to/from Adjacent County(s)	17896	3097	14	108
	Vertical Leakage (Upper)	0	0	2355	977
	Vertical Leakage (Lower)	38005	0	0	0
	Wells	108578	66306	0	0
	Springs	8	0	0	0
	Evapotranspiration	233	0	0	0
	River Leakage	0	0	0	0
	Water Flows from/to Bays and/or Gulf	0	0	0	0
	Stream Leakage	13309	0	0	0
	<b>Total Outflows</b>	<b>178029</b>	<b>69402</b>	<b>2369</b>	<b>1085</b>
	<b>Inflows - Outflows</b>	<b>-1341</b>	<b>-52</b>	<b>-1332</b>	<b>-867</b>
	Change in Storage	1340	41	1331	865
	Model Error	-1	-11	0	-1

**WATER BUDGET SUMMARY  
SIMULATION SERIES 2, BASE PUMPAGE**

County	Parameters	Chicot Aquifer (acre-ft/yr)	Evangeline Aquifer (acre-ft/yr)	Burkeville Confining Unit (acre-ft/yr)	Jasper Aquifer (acre-ft/yr)
Aransas	<b>Inflows</b>				
	Lateral Flows to/from Adjacent County(s)	3759	44	0	0
	Vertical Leakage (Upper)	0	60	0	0
	Vertical Leakage (Lower)	0	0	0	0
	Recharge	42	0	0	0
	River Leakage	0	0	0	0
	Water Flows from/to Bays and/or Gulf	1319	0	0	0
	Stream Leakage	2477	0	0	0
	<i>Total Inflows</i>	<i>7597</i>	<i>104</i>	<i>0</i>	<i>0</i>
	<b>Outflows</b>				
	Lateral Flows to/from Adjacent County(s)	1256	105	0	0
	Vertical Leakage (Upper)	0	0	0	0
	Vertical Leakage (Lower)	60	0	0	0
	Wells	1825	0	0	0
	Springs	11	0	0	0
	Evapotranspiration	731	0	0	0
	River Leakage	0	0	0	0
	Water Flows from/to Bays and/or Gulf	3086	0	0	0
	Stream Leakage	637	0	0	0
	<i>Total Outflows</i>	<i>7606</i>	<i>105</i>	<i>0</i>	<i>0</i>
	<i>Inflows - Outflows</i>	<i>-9</i>	<i>-1</i>	<i>0</i>	<i>0</i>
Change in Storage	9	1	0	0	
Model Error	0	0	0	0	

**WATER BUDGET SUMMARY  
SIMULATION SERIES 2, BASE PUMPAGE**

County	Parameters	Chicot Aquifer (acre-ft/yr)	Evangelina Aquifer (acre-ft/yr)	Burkeville Confining Unit (acre-ft/yr)	Jasper Aquifer (acre-ft/yr)
Bcc	<b>Inflows</b>				
	Lateral Flows to/from Adjacent County(s)	537	3400	36	545
	Vertical Leakage (Upper)	0	6868	316	553
	Vertical Leakage (Lower)	0	912	267	0
	Recharge	2964	777	27	4
	River Leakage	0	0	0	0
	Water Flows from/to Bays and/or Gulf	0	0	0	0
	Stream Leakage	6434	7451	96	134
	<b>Total Inflows</b>	<b>9934</b>	<b>19408</b>	<b>742</b>	<b>1236</b>
	<b>Outflows</b>				
	Lateral Flows to/from Adjacent County(s)	6188	9059	106	753
	Vertical Leakage (Upper)	0	0	912	267
	Vertical Leakage (Lower)	6868	316	553	0
	Wells	8757	11849	75	600
	Springs	0	0	0	0
	Evapotranspiration	24	0	0	0
	River Leakage	0	0	0	0
	Water Flows from/to Bays and/or Gulf	0	0	0	0
	Stream Leakage	167	606	0	71
	<b>Total Outflows</b>	<b>22004</b>	<b>21830</b>	<b>1646</b>	<b>1691</b>
	<b>Inflows - Outflows</b>	<b>-12070</b>	<b>-2422</b>	<b>-904</b>	<b>-455</b>
	Change in Storage	12069	2433	904	455
	Model Error	-1	11	0	0

**WATER BUDGET SUMMARY  
SIMULATION SERIES 2, BASE PUMPAGE**

County	Parameters	Chicot Aquifer (acre-ft/yr)	Evangeline Aquifer (acre-ft/yr)	Burkeville Confining Unit (acre-ft/yr)	Jasper Aquifer (acre-ft/yr)
Calhoun	<b>Inflows</b>				
	Lateral Flows to/from Adjacent County(s)	12154	2	0	0
	Vertical Leakage (Upper)	0	1942	0	0
	Vertical Leakage (Lower)	0	5	0	0
	Recharge	643	0	0	0
	River Leakage	3442	0	0	0
	Water Flows from/to Bays and/or Gulf	974	0	0	0
	Stream Leakage	4226	0	0	0
	<b>Total Inflows</b>	<b>21439</b>	<b>1950</b>	<b>0</b>	<b>0</b>
	<b>Outflows</b>				
	Lateral Flows to/from Adjacent County(s)	3903	1907	0	0
	Vertical Leakage (Upper)	0	0	5	0
	Vertical Leakage (Lower)	1942	0	0	0
	Wells	2879	62	0	0
	Springs	957	0	0	0
	Evapotranspiration	1228	0	0	0
	River Leakage	0	0	0	0
	Water Flows from/to Bays and/or Gulf	9269	0	0	0
	Stream Leakage	1464	0	0	0
	<b>Total Outflows</b>	<b>21642</b>	<b>1969</b>	<b>5</b>	<b>0</b>
	<i>Inflows - Outflows</i>	-203	-19	-5	0
	Change in Storage	203	19	6	0
	Model Error	0	0	1	0



**WATER BUDGET SUMMARY  
SIMULATION SERIES 2, BASE PUMPAGE**

County	Parameters	Chicot Aquifer (acre-ft/yr)	Evangeline Aquifer (acre-ft/yr)	Burkeville Confining Unit (acre-ft/yr)	Jasper Aquifer (acre-ft/yr)
Colorado	<b>Inflows</b>				
	Lateral Flows to/from Adjacent County(s)	9259	8752	32	294
	Vertical Leakage (Upper)	0	24471	452	765
	Vertical Leakage (Lower)	228	790	141	0
	Recharge	6611	419	0	0
	River Leakage	1407	0	0	0
	Water Flows from/to Bays and/or Gulf	0	0	0	0
	Stream Leakage	40102	6486	0	0
	<b>Total Inflows</b>	<b>57606</b>	<b>40919</b>	<b>625</b>	<b>1059</b>
	<b>Outflows</b>				
	Lateral Flows to/from Adjacent County(s)	19845	17017	59	488
	Vertical Leakage (Upper)	0	228	790	141
	Vertical Leakage (Lower)	24471	452	765	0
	Wells	24432	22634	0	899
	Springs	2	0	0	0
	Evapotranspiration	43	0	0	0
	River Leakage	0	0	0	0
	Water Flows from/to Bays and/or Gulf	0	0	0	0
	Stream Leakage	3794	1389	0	0
	<b>Total Outflows</b>	<b>72587</b>	<b>41720</b>	<b>1614</b>	<b>1528</b>
	<b>Inflows - Outflows</b>	<b>-14981</b>	<b>-801</b>	<b>-989</b>	<b>-469</b>
	Change in Storage	14978	806	990	469
	Model Error	-3	5	1	0

**WATER BUDGET SUMMARY  
SIMULATION SERIES 2, BASE PUMPAGE**

County	Parameters	Chicot Aquifer (acre-ft/yr)	Evangeline Aquifer (acre-ft/yr)	Burkeville Confining Unit (acre-ft/yr)	Jasper Aquifer (acre-ft/yr)
Dewitt	<b>Inflows</b>				
	Lateral Flows to/from Adjacent County(s)	119	1407	8	811
	Vertical Leakage (Upper)	0	3862	2754	3372
	Vertical Leakage (Lower)	0	10	21	0
	Recharge	766	938	13	40
	River Leakage	0	0	0	0
	Water Flows from/to Bays and/or Gulf	0	0	0	0
	Stream Leakage	4721	14608	456	1437
	<b>Total Inflows</b>	<b>5607</b>	<b>20825</b>	<b>3252</b>	<b>5660</b>
	<b>Outflows</b>				
	Lateral Flows to/from Adjacent County(s)	1267	7298	38	737
	Vertical Leakage (Upper)	0	0	10	21
	Vertical Leakage (Lower)	3862	2754	3372	0
	Wells	998	6880	122	6278
	Springs	0	0	0	0
	Evapotranspiration	0	54	0	0
	River Leakage	0	0	0	0
	Water Flows from/to Bays and/or Gulf	0	0	0	0
	Stream Leakage	141	4565	0	264
	<b>Total Outflows</b>	<b>6268</b>	<b>21551</b>	<b>3542</b>	<b>7300</b>
	<b>Inflows - Outflows</b>	<b>-661</b>	<b>-726</b>	<b>-290</b>	<b>-1640</b>
	Change in Storage	663	725	291	1640
	Model Error	2	-1	1	0

**WATER BUDGET SUMMARY  
SIMULATION SERIES 2, BASE PUMPAGE**

County	Parameters	Chicot Aquifer (acre-ft/yr)	Evangeline Aquifer (acre-ft/yr)	Burkeville Confining Unit (acre-ft/yr)	Jasper Aquifer (acre-ft/yr)
Fayette	<b>Inflows</b>				
	Lateral Flows to/from Adjacent County(s)	0	72	6	418
	Vertical Leakage (Upper)	0	0	883	1648
	Vertical Leakage (Lower)	0	0	9	0
	Recharge	0	291	0	59
	River Leakage	0	0	272	203
	Water Flows from/to Bays and/or Gulf	0	0	0	0
	Stream Leakage	0	1503	350	1286
	<b>Total Inflows</b>	0	1866	1520	3613
	<b>Outflows</b>				
	Lateral Flows to/from Adjacent County(s)	0	501	12	235
	Vertical Leakage (Upper)	0	0	0	9
	Vertical Leakage (Lower)	0	883	1648	0
	Wells	0	887	111	7339
	Springs	0	0	0	0
	Evapotranspiration	0	0	19	5
	River Leakage	0	0	0	0
	Water Flows from/to Bays and/or Gulf	0	0	0	0
	Stream Leakage	0	0	0	16
	<b>Total Outflows</b>	0	2271	1790	7604
	<b>Inflows - Outflows</b>	0	-405	-270	-3991
	Change in Storage	0	405	269	3991
	Model Error	0	0	-1	0

**WATER BUDGET SUMMARY  
SIMULATION SERIES 2, BASE PUMPAGE**

County	Parameters	Chicot Aquifer (acre-ft/yr)	Evangeline Aquifer (acre-ft/yr)	Burkeville Confining Unit (acre-ft/yr)	Jasper Aquifer (acre-ft/yr)
Goliad	<b>Inflows</b>				
	Lateral Flows to/from Adjacent County(s)	716	4553	35	397
	Vertical Leakage (Upper)	0	3501	495	453
	Vertical Leakage (Lower)	70	701	441	0
	Recharge	1655	1257	0	0
	River Leakage	1629	0	0	0
	Water Flows from/to Bays and/or Gulf	0	0	0	0
	Stream Leakage	4031	19740	0	0
	<b>Total Inflows</b>	<b>8101</b>	<b>29752</b>	<b>971</b>	<b>850</b>
	<b>Outflows</b>				
	Lateral Flows to/from Adjacent County(s)	2564	12764	56	622
	Vertical Leakage (Upper)	0	70	701	441
	Vertical Leakage (Lower)	3501	495	453	0
	Wells	700	10368	300	100
	Springs	0	0	0	0
	Evapotranspiration	136	28	0	0
	River Leakage	0	0	0	0
	Water Flows from/to Bays and/or Gulf	0	0	0	0
	Stream Leakage	3801	6969	0	0
	<b>Total Outflows</b>	<b>10702</b>	<b>30694</b>	<b>1510</b>	<b>1163</b>
	<b>Inflows - Outflows</b>	<b>-2601</b>	<b>-942</b>	<b>-539</b>	<b>-313</b>
	Change in Storage	2600	943	539	313
	Model Error	-1	1	0	0

**WATER BUDGET SUMMARY  
SIMULATION SERIES 2, BASE PUMPAGE**

County	Parameters	Chicot Aquifer (acre-ft/yr)	Evangeline Aquifer (acre-ft/yr)	Burkeville Confining Unit (acre-ft/yr)	Jasper Aquifer (acre-ft/yr)
Jackson	<b>Inflows</b>				
	Lateral Flows to/from Adjacent County(s)	22999	12630	24	131
	Vertical Leakage (Upper)	0	14330	0	3
	Vertical Leakage (Lower)	0	1208	421	0
	Recharge	2099	0	0	0
	River Leakage	4198	0	0	0
	Water Flows from/to Bays and/or Gulf	990	0	0	0
	Stream Leakage	51813	0	0	0
	<b>Total Inflows</b>	<b>82100</b>	<b>28169</b>	<b>445</b>	<b>134</b>
	<b>Outflows</b>				
	Lateral Flows to/from Adjacent County(s)	11433	8184	9	36
	Vertical Leakage (Upper)	0	0	1208	421
	Vertical Leakage (Lower)	14330	0	3	0
	Wells	54642	20198	0	0
	Springs	50	0	0	0
	Evapotranspiration	425	0	0	0
	River Leakage	0	0	0	0
	Water Flows from/to Bays and/or Gulf	103	0	0	0
	Stream Leakage	10567	0	0	0
	<b>Total Outflows</b>	<b>91550</b>	<b>28382</b>	<b>1220</b>	<b>457</b>
	<i>Inflows - Outflows</i>	-9450	-213	-775	-323
	Change in Storage	9432	186	775	323
	Model Error	-18	-27	0	0

**WATER BUDGET SUMMARY  
SIMULATION SERIES 2, BASE PUMPAGE**

County	Parameters	Chicot Aquifer (acre-ft/yr)	Evangelina Aquifer (acre-ft/yr)	Burkeville Confining Unit (acre-ft/yr)	Jasper Aquifer (acre-ft/yr)
Karnes	<b>Inflows</b>				
	Lateral Flows to/from Adjacent County(s)	0	239	23	464
	Vertical Leakage (Upper)	0	0	167	352
	Vertical Leakage (Lower)	0	18	69	0
	Recharge	0	139	0	66
	River Leakage	0	0	0	0
	Water Flows from/to Bays and/or Gulf	0	0	0	0
	Stream Leakage	0	382	238	774
	<i>Total Inflows</i>	0	778	496	1656
	<b>Outflows</b>				
	Lateral Flows to/from Adjacent County(s)	0	582	15	697
	Vertical Leakage (Upper)	0	0	18	69
	Vertical Leakage (Lower)	0	167	352	0
	Wells	0	103	244	2716
	Springs	0	0	0	0
	Evapotranspiration	0	0	1	63
	River Leakage	0	0	0	0
	Water Flows from/to Bays and/or Gulf	0	0	0	0
	Stream Leakage	0	158	7	381
	<i>Total Outflows</i>	0	1010	637	3926
	<i>Inflows - Outflows</i>	0	-232	-141	-2270
	Change in Storage	0	231	140	2270
	Model Error	0	-1	-1	0

**WATER BUDGET SUMMARY  
SIMULATION SERIES 2, BASE PUMPAGE**

County	Parameters	Chicot Aquifer (acre-ft/yr)	Evangeline Aquifer (acre-ft/yr)	Burkeville Confining Unit (acre-ft/yr)	Jasper Aquifer (acre-ft/yr)
Lavaca	<b>Inflows</b>				
	Lateral Flows to/from Adjacent County(s)	893	2589	12	536
	Vertical Leakage (Upper)	0	6706	1003	1632
	Vertical Leakage (Lower)	38	200	44	0
	Recharge	3064	1024	0	29
	River Leakage	0	0	0	0
	Water Flows from/to Bays and/or Gulf	0	0	0	0
	Stream Leakage	13746	18766	283	740
	<b>Total Inflows</b>	<b>17741</b>	<b>29284</b>	<b>1342</b>	<b>2937</b>
	<b>Outflows</b>				
	Lateral Flows to/from Adjacent County(s)	16156	14118	41	668
	Vertical Leakage (Upper)	0	38	200	44
	Vertical Leakage (Lower)	6706	1003	1632	0
	Wells	3032	12391	137	4405
	Springs	0	0	0	0
	Evapotranspiration	1	3	0	2
	River Leakage	0	0	0	0
	Water Flows from/to Bays and/or Gulf	0	0	0	0
	Stream Leakage	501	2075	0	0
	<b>Total Outflows</b>	<b>26396</b>	<b>29628</b>	<b>2010</b>	<b>5119</b>
	<i>Inflows - Outflows</i>	-8655	-344	-668	-2182
	Change in Storage	8653	347	668	2182
	Model Error	-2	3	0	0

**WATER BUDGET SUMMARY  
SIMULATION SERIES 2, BASE PUMPAGE**

County	Parameters	Cheat Aquifer (acre-ft/yr)	Evangeline Aquifer (acre-ft/yr)	Burkeville Confining Unit (acre-ft/yr)	Jasper Aquifer (acre-ft/yr)
Matagorda	<b>Inflows</b>				
	Lateral Flows to/from Adjacent County(s)	11107	2760	7	0
	Vertical Leakage (Upper)	0	10299	0	0
	Vertical Leakage (Lower)	0	272	0	0
	Recharge	5534	0	0	0
	River Leakage	816	0	0	0
	Water Flows from/to Bays and/or Gulf	1945	0	0	0
	Stream Leakage	69806	0	0	0
	<b>Total Inflows</b>	<b>89208</b>	<b>13330</b>	<b>7</b>	<b>0</b>
	<b>Outflows</b>				
	Lateral Flows to/from Adjacent County(s)	14599	4077	11	0
	Vertical Leakage (Upper)	0	0	272	0
	Vertical Leakage (Lower)	10299	0	0	0
	Wells	35650	9321	0	0
	Springs	145	0	0	0
	Evapotranspiration	2889	0	0	0
	River Leakage	0	0	0	0
	Water Flows from/to Bays and/or Gulf	7036	0	0	0
	Stream Leakage	18958	0	0	0
	<b>Total Outflows</b>	<b>89576</b>	<b>13398</b>	<b>283</b>	<b>0</b>
	<i>Inflows - Outflows</i>	-368	-68	-276	0
	Change in Storage	368	54	276	0
	Model Error	0	-14	0	0



**WATER BUDGET SUMMARY  
SIMULATION SERIES 2, BASE PUMPAGE**

County	Parameters	Chicot Aquifer (acre-ft/yr)	Evangeline Aquifer (acre-ft/yr)	Burkeville Confining Unit (acre-ft/yr)	Jasper Aquifer (acre-ft/yr)
Refugio	<b>Inflows</b>				
	Lateral Flows to/from Adjacent County(s)	9330	11554	36	0
	Vertical Leakage (Upper)	0	11001	0	0
	Vertical Leakage (Lower)	0	366	0	0
	Recharge	2692	0	0	0
	River Leakage	0	0	0	0
	Water Flows from/to Bays and/or Gulf	26	0	0	0
	Stream Leakage	38680	0	0	0
	<b>Total Inflows</b>	<b>50727</b>	<b>22921</b>	<b>36</b>	<b>0</b>
	<b>Outflows</b>				
	Lateral Flows to/from Adjacent County(s)	10250	510	4	0
	Vertical Leakage (Upper)	0	0	366	0
	Vertical Leakage (Lower)	11001	0	0	0
	Wells	6250	22486	0	0
	Springs	82	0	0	0
	Evapotranspiration	1684	0	0	0
	River Leakage	0	0	0	0
	Water Flows from/to Bays and/or Gulf	5108	0	0	0
	Stream Leakage	18078	0	0	0
	<b>Total Outflows</b>	<b>52453</b>	<b>22996</b>	<b>370</b>	<b>0</b>
	<i>Inflows - Outflows</i>	-1726	-75	-334	0
	Change in Storage	1723	81	334	0
	Model Error	-3	6	0	0

**WATER BUDGET SUMMARY  
SIMULATION SERIES 2, BASE PUMPAGE**

County	Parameters	Chicot Aquifer (acre-ft/yr)	Evangeline Aquifer (acre-ft/yr)	Burkeville Confining Unit (acre-ft/yr)	Jasper Aquifer (acre-ft/yr)
Victoria	<b>Inflows</b>				
	Lateral Flows to/from Adjacent County(s)	6844	10654	37	451
	Vertical Leakage (Upper)	0	17975	31	51
	Vertical Leakage (Lower)	0	999	579	0
	Recharge	4080	124	0	0
	River Leakage	1056	0	0	0
	Water Flows from/to Bays and/or Gulf	0	0	0	0
	Stream Leakage	51955	2806	0	0
	<i>Total Inflows</i>	<i>63934</i>	<i>32558</i>	<i>647</i>	<i>502</i>
	<b>Outflows</b>				
	Lateral Flows to/from Adjacent County(s)	19424	4094	10	144
	Vertical Leakage (Upper)	0	0	999	579
	Vertical Leakage (Lower)	17975	31	51	0
	Wells	7994	26981	0	0
	Springs	1300	0	0	0
	Evapotranspiration	846	25	0	0
	River Leakage	0	0	0	0
	Water Flows from/to Bays and/or Gulf	423	0	0	0
	Stream Leakage	20496	1520	0	0
	<i>Total Outflows</i>	<i>68458</i>	<i>32651</i>	<i>1060</i>	<i>723</i>
	<i>Inflows - Outflows</i>	<i>-4524</i>	<i>-93</i>	<i>-413</i>	<i>-221</i>
	Change in Storage	4522	99	413	221
	Model Error	-2	6	0	0

**WATER BUDGET SUMMARY  
SIMULATION SERIES 2, BASE PUMPAGE**

County	Parameters	Chicot Aquifer (acre-ft/yr)	Evangeline Aquifer (acre-ft/yr)	Burkeville Confining Unit (acre-ft/yr)	Jasper Aquifer (acre-ft/yr)
Wharton	<b>Inflows</b>				
	Lateral Flows to/from Adjacent County(s)	33719	28543	60	218
	Vertical Leakage (Upper)	0	37973	0	0
	Vertical Leakage (Lower)	0	2509	997	0
	Recharge	5149	0	0	0
	River Leakage	536	0	0	0
	Water Flows from/to Bays and/or Gulf	0	0	0	0
	Stream Leakage	127094	0	0	0
	<b>Total Inflows</b>	<b>166498</b>	<b>69026</b>	<b>1057</b>	<b>218</b>
	<b>Outflows</b>				
	Lateral Flows to/from Adjacent County(s)	16249	2951	14	110
	Vertical Leakage (Upper)	0	0	2509	997
	Vertical Leakage (Lower)	37973	0	0	0
	Wells	108578	66306	0	0
	Springs	8	0	0	0
	Evapotranspiration	205	0	0	0
	River Leakage	0	0	0	0
	Water Flows from/to Bays and/or Gulf	0	0	0	0
	Stream Leakage	10662	0	0	0
	<b>Total Outflows</b>	<b>173675</b>	<b>69257</b>	<b>2523</b>	<b>1107</b>
	<b>Inflows - Outflows</b>	<b>-7177</b>	<b>-231</b>	<b>-1466</b>	<b>-889</b>
	Change in Storage	7176	194	1466	889
Model Error	-1	-37	0	0	

**WATER BUDGET SUMMARY  
SIMULATION SERIES 3, BASE PUMPAGE**

<b>County</b>	<b>Parameters</b>	<b>Chicot Aquifer (acre-ft/yr)</b>	<b>Evangeline Aquifer (acre-ft/yr)</b>	<b>Burkeville Confining Unit (acre-ft/yr)</b>	<b>Jasper Aquifer (acre-ft/yr)</b>
Aransas	<b>Inflows</b>				
	Lateral Flows to/from Adjacent County(s)	3752	45	0	0
	Vertical Leakage (Lower)	0	0	0	0
	Vertical Leakage (Upper)	0	60	0	0
	Recharge	42	0	0	0
	River Leakage	0	0	0	0
	Water Flows from/to Bays and/or Gulf	1325	0	0	0
	Stream Leakage	2477	0	0	0
	<b>Total Inflows</b>	<b>7596</b>	<b>105</b>	<b>0</b>	<b>0</b>
	<b>Outflows</b>				
	Lateral Flows to/from Adjacent County(s)	1256	106	0	0
	Vertical Leakage (Upper)	0	0	0	0
	Vertical Leakage (Lower)	60	0	0	0
	Wells	1825	0	0	0
	Springs	11	0	0	0
	Evapotranspiration	731	0	0	0
	River Leakage	0	0	0	0
	Water Flows from/to Bays and/or Gulf	3084	0	0	0
	Stream Leakage	637	0	0	0
	<b>Total Outflows</b>	<b>7604</b>	<b>106</b>	<b>0</b>	<b>0</b>
	<i>Inflows - Outflows</i>	-9	-1	0	0
	Change in Storage	9	1	0	0
	Model Error	0	0	0	0

**WATER BUDGET SUMMARY  
SIMULATION SERIES 3, BASE PUMPAGE**

County	Parameters	Chicot Aquifer (acre-ft/yr)	Evangeline Aquifer (acre-ft/yr)	Burkeville Confining Unit (acre-ft/yr)	Jasper Aquifer (acre-ft/yr)
Bee	<b>Inflows</b>				
	Lateral Flows to/from Adjacent County(s)	565	3438	36	551
	Vertical Leakage (Lower)	0	907	288	0
	Vertical Leakage (Upper)	0	6718	323	548
	Recharge	2964	769	34	4
	River Leakage	0	0	0	0
	Water Flows from/to Bays and/or Gulf	0	0	0	0
	Stream Leakage	6465	7422	97	137
	<b>Total Inflows</b>	<b>9994</b>	<b>19254</b>	<b>777</b>	<b>1240</b>
	<b>Outflows</b>				
	Lateral Flows to/from Adjacent County(s)	5974	8931	104	737
	Vertical Leakage (Upper)	0	0	907	288
	Vertical Leakage (Lower)	6718	323	548	0
	Wells	8757	11785	75	600
	Springs	0	0	0	0
	Evapotranspiration	21	0	0	0
	River Leakage	0	0	0	0
	Water Flows from/to Bays and/or Gulf	0	0	0	0
	Stream Leakage	144	513	0	69
	<b>Total Outflows</b>	<b>21614</b>	<b>21551</b>	<b>1633</b>	<b>1693</b>
	<b>Inflows - Outflows</b>	<b>-11620</b>	<b>-2297</b>	<b>-856</b>	<b>-453</b>
	Change in Storage	11620	2301	856	453
	Model Error	0	4	0	0

**WATER BUDGET SUMMARY  
SIMULATION SERIES 3, BASE PUMPAGE**

County	Parameters	Chicot Aquifer (acre-ft/yr)	Evangeline Aquifer (acre-ft/yr)	Burkeville Confining Unit (acre-ft/yr)	Jasper Aquifer (acre-ft/yr)
Calhoun	<b>Inflows</b>				
	Lateral Flows to/from Adjacent County(s)	12134	2	0	0
	Vertical Leakage (Lower)	0	5	0	0
	Vertical Leakage (Upper)	0	1953	0	0
	Recharge	643	0	0	0
	River Leakage	3443	0	0	0
	Water Flows from/to Bays and/or Gulf	993	0	0	0
	Stream Leakage	4229	0	0	0
	<b>Total Inflows</b>	<b>21442</b>	<b>1961</b>	<b>0</b>	<b>0</b>
	<b>Outflows</b>				
	Lateral Flows to/from Adjacent County(s)	3919	1918	0	0
	Vertical Leakage (Upper)	0	0	5	0
	Vertical Leakage (Lower)	1953	0	0	0
	Wells	2879	62	0	0
	Springs	956	0	0	0
	Evapotranspiration	1228	0	0	0
	River Leakage	0	0	0	0
	Water Flows from/to Bays and/or Gulf	9247	0	0	0
	Stream Leakage	1458	0	0	0
	<b>Total Outflows</b>	<b>21641</b>	<b>1980</b>	<b>6</b>	<b>0</b>
	<i>Inflows - Outflows</i>	-199	-19	-5	0
	Change in Storage	199	19	5	0
	Model Error	0	0	0	0

**WATER BUDGET SUMMARY  
SIMULATION SERIES 3, BASE PUMPAGE**

County	Parameters	Chicot Aquifer (acre-ft/yr)	Evangeline Aquifer (acre-ft/yr)	Burkeville Confining Unit (acre-ft/yr)	Jasper Aquifer (acre-ft/yr)
Colorado	<b>Inflows</b>				
	Lateral Flows to/from Adjacent County(s)	9267	8770	32	296
	Vertical Leakage (Lower)	222	770	138	0
	Vertical Leakage (Upper)	0	24332	475	771
	Recharge	6611	417	2	0
	River Leakage	1407	0	0	0
	Water Flows from/to Bays and/or Gulf	0	0	0	0
	Stream Leakage	40497	6558	0	0
	<b>Total Inflows</b>	<b>58003</b>	<b>40847</b>	<b>647</b>	<b>1067</b>
	<b>Outflows</b>				
	Lateral Flows to/from Adjacent County(s)	19785	16941	59	480
	Vertical Leakage (Upper)	0	222	770	138
	Vertical Leakage (Lower)	24332	475	771	0
	Wells	24432	22606	0	899
	Springs	2	0	0	0
	Evapotranspiration	43	0	0	0
	River Leakage	0	0	0	0
	Water Flows from/to Bays and/or Gulf	0	0	0	0
	Stream Leakage	3737	1366	0	0
	<b>Total Outflows</b>	<b>72330</b>	<b>41610</b>	<b>1600</b>	<b>1517</b>
	<i>Inflows - Outflows</i>	-14327	-763	-953	-449
	Change in Storage	14327	767	953	450
	Model Error	0	4	0	0

**WATER BUDGET SUMMARY  
SIMULATION SERIES 3, BASE PUMPAGE**

County	Parameters	Chicot Aquifer (acre-ft/yr)	Evangeline Aquifer (acre-ft/yr)	Burkeville Confining Unit (acre-ft/yr)	Jasper Aquifer (acre-ft/yr)
Dewitt	<b>Inflows</b>				
	Lateral Flows to/from Adjacent County(s)	120	1407	8	809
	Vertical Leakage (Lower)	0	9	21	0
	Vertical Leakage (Upper)	0	3867	2775	3393
	Recharge	766	933	17	40
	River Leakage	0	0	0	0
	Water Flows from/to Bays and/or Gulf	0	0	0	0
	Stream Leakage	4725	14635	458	1452
	<b>Total Inflows</b>	<b>5611</b>	<b>20852</b>	<b>3279</b>	<b>5694</b>
	<b>Outflows</b>				
	Lateral Flows to/from Adjacent County(s)	1270	7301	39	739
	Vertical Leakage (Upper)	0	0	9	21
	Vertical Leakage (Lower)	3867	2775	3393	0
	Wells	998	6852	122	6278
	Springs	0	0	0	0
	Evapotranspiration	0	54	0	0
	River Leakage	0	0	0	0
	Water Flows from/to Bays and/or Gulf	0	0	0	0
	Stream Leakage	141	4557	0	261
	<b>Total Outflows</b>	<b>6277</b>	<b>21539</b>	<b>3563</b>	<b>7299</b>
	<i>Inflows - Outflows</i>	-666	-687	-284	-1605
	Change in Storage	666	687	284	1606
	Model Error	0	0	0	0



**WATER BUDGET SUMMARY  
SIMULATION SERIES 3, BASE PUMPAGE**

<b>County</b>	<b>Parameters</b>	<b>Chicot Aquifer (acre-ft/yr)</b>	<b>Evangeline Aquifer (acre-ft/yr)</b>	<b>Burkeville Confining Unit (acre-ft/yr)</b>	<b>Jasper Aquifer (acre-ft/yr)</b>
Fayette	<b>Inflows</b>				
	Lateral Flows to/from Adjacent County(s)	0	71	6	416
	Vertical Leakage (Lower)	0	0	9	0
	Vertical Leakage (Upper)	0	0	888	1653
	Recharge	0	291	0	59
	River Leakage	0	0	273	204
	Water Flows from/to Bays and/or Gulf	0	0	0	0
	Stream Leakage	0	1519	354	1290
	<b>Total Inflows</b>	<b>0</b>	<b>1882</b>	<b>1529</b>	<b>3622</b>
	<b>Outflows</b>				
	Lateral Flows to/from Adjacent County(s)	0	492	12	236
	Vertical Leakage (Upper)	0	0	0	9
	Vertical Leakage (Lower)	0	888	1653	0
	Wells	0	887	110	7339
	Springs	0	0	0	0
	Evapotranspiration	0	0	19	5
	River Leakage	0	0	0	0
	Water Flows from/to Bays and/or Gulf	0	0	0	0
	Stream Leakage	0	0	0	16
	<b>Total Outflows</b>	<b>0</b>	<b>2267</b>	<b>1794</b>	<b>7605</b>
	<i>Inflows - Outflows</i>	0	-386	-265	-3983
	Change in Storage	0	386	265	3984
	Model Error	0	0	0	1

**WATER BUDGET SUMMARY  
SIMULATION SERIES 3, BASE PUMPAGE**

County	Parameters	Chicot Aquifer (acre-ft/yr)	Evangeline Aquifer (acre-ft/yr)	Burkeville Confining Unit (acre-ft/yr)	Jasper Aquifer (acre-ft/yr)
Goliad	<b>Inflows</b>				
	Lateral Flows to/from Adjacent County(s)	717	4550	35	397
	Vertical Leakage (Lower)	70	684	436	0
	Vertical Leakage (Upper)	0	3505	505	461
	Recharge	1655	1257	0	0
	River Leakage	1629	0	0	0
	Water Flows from/to Bays and/or Gulf	0	0	0	0
	Stream Leakage	4032	19780	0	0
	<b>Total Inflows</b>	<b>8104</b>	<b>29776</b>	<b>977</b>	<b>858</b>
	<b>Outflows</b>				
	Lateral Flows to/from Adjacent County(s)	2574	12805	56	625
	Vertical Leakage (Upper)	0	70	684	436
	Vertical Leakage (Lower)	3505	505	461	0
	Wells	700	10368	300	100
	Springs	0	0	0	0
	Evapotranspiration	136	28	0	0
	River Leakage	0	0	0	0
	Water Flows from/to Bays and/or Gulf	0	0	0	0
	Stream Leakage	3797	6938	0	0
	<b>Total Outflows</b>	<b>10711</b>	<b>30713</b>	<b>1501</b>	<b>1161</b>
	<i>Inflows - Outflows</i>	-2607	-937	-525	-303
	Change in Storage	2607	938	525	303
	Model Error	0	0	0	0

**WATER BUDGET SUMMARY  
SIMULATION SERIES 3, BASE PUMPAGE**

County	Parameters	Chicot Aquifer (acre-ft/yr)	Evangeline Aquifer (acre-ft/yr)	Burkeville Confining Unit (acre-ft/yr)	Jasper Aquifer (acre-ft/yr)
Jackson	<b>Inflows</b>				
	Lateral Flows to/from Adjacent County(s)	23037	12695	24	131
	Vertical Leakage (Lower)	0	1206	425	0
	Vertical Leakage (Upper)	0	14300	0	3
	Recharge	2099	0	0	0
	River Leakage	4200	0	0	0
	Water Flows from/to Bays and/or Gulf	1016	0	0	0
	Stream Leakage	51667	0	0	0
	<i>Total Inflows</i>	<b>82019</b>	<b>28201</b>	<b>449</b>	<b>134</b>
	<b>Outflows</b>				
	Lateral Flows to/from Adjacent County(s)	11414	8206	9	36
	Vertical Leakage (Upper)	0	0	1206	425
	Vertical Leakage (Lower)	14300	0	3	0
	Wells	54642	20198	0	0
	Springs	48	0	0	0
	Evapotranspiration	423	0	0	0
	River Leakage	0	0	0	0
	Water Flows from/to Bays and/or Gulf	103	0	0	0
	Stream Leakage	10279	0	0	0
	<i>Total Outflows</i>	<b>91209</b>	<b>28404</b>	<b>1218</b>	<b>460</b>
	<i>Inflows - Outflows</i>	-9190	-203	-769	-327
	Change in Storage	9184	191	769	327
	Model Error	-6	-11	0	0

**WATER BUDGET SUMMARY  
SIMULATION SERIES 3, BASE PUMPAGE**

County	Parameters	Chicot Aquifer (acre-ft/yr)	Evangeline Aquifer (acre-ft/yr)	Burkeville Confining Unit (acre-ft/yr)	Jasper Aquifer (acre-ft/yr)
Karnes	<b>Inflows</b>				
	Lateral Flows to/from Adjacent County(s)	0	240	23	463
	Vertical Leakage (Lower)	0	17	67	0
	Vertical Leakage (Upper)	0	0	170	353
	Recharge	0	139	0	66
	River Leakage	0	0	0	0
	Water Flows from/to Bays and/or Gulf	0	0	0	0
	Stream Leakage	0	382	238	776
	<b>Total Inflows</b>	<b>0</b>	<b>778</b>	<b>498</b>	<b>1658</b>
	<b>Outflows</b>				
	Lateral Flows to/from Adjacent County(s)	0	581	16	700
	Vertical Leakage (Upper)	0	0	17	67
	Vertical Leakage (Lower)	0	170	353	0
	Wells	0	103	244	2716
	Springs	0	0	0	0
	Evapotranspiration	0	0	1	61
	River Leakage	0	0	0	0
	Water Flows from/to Bays and/or Gulf	0	0	0	0
	Stream Leakage	0	156	5	376
	<b>Total Outflows</b>	<b>0</b>	<b>1010</b>	<b>635</b>	<b>3920</b>
	<i>Inflows - Outflows</i>	0	-232	-137	-2261
	Change in Storage	0	232	137	2262
	Model Error	0	0	0	0

**WATER BUDGET SUMMARY  
SIMULATION SERIES 3, BASE PUMPAGE**

County	Parameters	Chicot Aquifer (acre-ft/yr)	Evangeline Aquifer (acre-ft/yr)	Burkeville Confining Unit (acre-ft/yr)	Jasper Aquifer (acre-ft/yr)
Lavaca	<b>Inflows</b>				
	Lateral Flows to/from Adjacent County(s)	887	2549	12	532
	Vertical Leakage (Lower)	37	196	44	0
	Vertical Leakage (Upper)	0	6631	1021	1643
	Recharge	3064	1024	0	29
	River Leakage	0	0	0	0
	Water Flows from/to Bays and/or Gulf	0	0	0	0
	Stream Leakage	13713	18919	284	743
	<i>Total Inflows</i>	<i>17702</i>	<i>29319</i>	<i>1361</i>	<i>2947</i>
	<b>Outflows</b>				
	Lateral Flows to/from Adjacent County(s)	16130	14159	41	670
	Vertical Leakage (Upper)	0	37	196	44
	Vertical Leakage (Lower)	6631	1021	1643	0
	Wells	3032	12391	137	4405
	Springs	0	0	0	0
	Evapotranspiration	1	3	0	2
	River Leakage	0	0	0	0
	Water Flows from/to Bays and/or Gulf	0	0	0	0
	Stream Leakage	467	2047	0	0
	<i>Total Outflows</i>	<i>26261</i>	<i>29657</i>	<i>2018</i>	<i>5122</i>
	<i>Inflows - Outflows</i>	<i>-8559</i>	<i>-338</i>	<i>-657</i>	<i>-2174</i>
	Change in Storage	8559	341	657	2174
	Model Error	0	3	0	0

**WATER BUDGET SUMMARY  
SIMULATION SERIES 3, BASE PUMPAGE**

County	Parameters	Chicot Aquifer (acre-ft/yr)	Evangeline Aquifer (acre-ft/yr)	Burkeville Confining Unit (acre-ft/yr)	Jasper Aquifer (acre-ft/yr)
Matagorda	<b>Inflows</b>				
	Lateral Flows to/from Adjacent County(s)	11080	2769	7	0
	Vertical Leakage (Lower)	0	272	0	0
	Vertical Leakage (Upper)	0	10327	0	0
	Recharge	5534	0	0	0
	River Leakage	816	0	0	0
	Water Flows from/to Bays and/or Gulf	1966	0	0	0
	Stream Leakage	69878	0	0	0
	<b>Total Inflows</b>	<b>89274</b>	<b>13368</b>	<b>7</b>	<b>0</b>
	<b>Outflows</b>				
	Lateral Flows to/from Adjacent County(s)	14655	4111	11	0
	Vertical Leakage (Upper)	0	0	272	0
	Vertical Leakage (Lower)	10327	0	0	0
	Wells	35650	9321	0	0
	Springs	145	0	0	0
	Evapotranspiration	2888	0	0	0
	River Leakage	0	0	0	0
	Water Flows from/to Bays and/or Gulf	7029	0	0	0
	Stream Leakage	18923	0	0	0
	<b>Total Outflows</b>	<b>89616</b>	<b>13432</b>	<b>283</b>	<b>0</b>
	<i>Inflows - Outflows</i>	-341	-64	-276	0
	Change in Storage	340	57	276	0
	Model Error	-2	-8	0	0

**WATER BUDGET SUMMARY  
SIMULATION SERIES 3, BASE PUMPAGE**

<b>County</b>	<b>Parameters</b>	<b>Chicot Aquifer (acre-ft/yr)</b>	<b>Evangeline Aquifer (acre-ft/yr)</b>	<b>Burkeville Confining Unit (acre-ft/yr)</b>	<b>Jasper Aquifer (acre-ft/yr)</b>
Refugio	<b>Inflows</b>				
	Lateral Flows to/from Adjacent County(s)	9245	11502	35	0
	Vertical Leakage (Lower)	0	365	0	0
	Vertical Leakage (Upper)	0	11045	0	0
	Recharge	2692	0	0	0
	River Leakage	0	0	0	0
	Water Flows from/to Bays and/or Gulf	28	0	0	0
	Stream Leakage	38585	0	0	0
	<i>Total Inflows</i>	<i>50550</i>	<i>22912</i>	<i>35</i>	<i>0</i>
	<b>Outflows</b>				
	Lateral Flows to/from Adjacent County(s)	10266	502	3	0
	Vertical Leakage (Upper)	0	0	365	0
	Vertical Leakage (Lower)	11045	0	0	0
	Wells	6250	22486	0	0
	Springs	82	0	0	0
	Evapotranspiration	1681	0	0	0
	River Leakage	0	0	0	0
	Water Flows from/to Bays and/or Gulf	5100	0	0	0
	Stream Leakage	17883	0	0	0
	<i>Total Outflows</i>	<i>52308</i>	<i>22988</i>	<i>368</i>	<i>0</i>
	<i>Inflows - Outflows</i>	<i>-1758</i>	<i>-76</i>	<i>-333</i>	<i>0</i>
	Change in Storage	1757	79	333	0
	Model Error	-1	3	0	0

**WATER BUDGET SUMMARY  
SIMULATION SERIES 3, BASE PUMPAGE**

County	Parameters	Chicot Aquifer (acre-ft/yr)	Evangeline Aquifer (acre-ft/yr)	Burkeville Confluing Unit (acre-ft/yr)	Jasper Aquifer (acre-ft/yr)
Victoria	<b>Inflows</b>				
	Lateral Flows to/from Adjacent County(s)	6848	10662	37	451
	Vertical Leakage (Lower)	0	984	570	0
	Vertical Leakage (Upper)	0	18004	33	53
	Recharge	4080	124	0	0
	River Leakage	1056	0	0	0
	Water Flows from/to Bays and/or Gulf	0	0	0	0
	Stream Leakage	52043	2811	0	0
	<i>Total Inflows</i>	64026	32584	640	504
	<b>Outflows</b>				
	Lateral Flows to/from Adjacent County(s)	19501	4123	10	144
	Vertical Leakage (Upper)	0	0	984	570
	Vertical Leakage (Lower)	18004	33	53	0
	Wells	7994	26981	0	0
	Springs	1300	0	0	0
	Evapotranspiration	845	25	0	0
	River Leakage	0	0	0	0
	Water Flows from/to Bays and/or Gulf	421	0	0	0
	Stream Leakage	20439	1517	0	0
	<i>Total Outflows</i>	68504	32680	1047	715
	<i>Inflows - Outflows</i>	-4478	-95	-407	-210
	Change in Storage	4478	97	407	210
	Model Error	0	2	0	0



**WATER BUDGET SUMMARY  
SIMULATION SERIES 3, BASE PUMPAGE**

County	Parameters	Chicot Aquifer (acre-ft/yr)	Evangeline Aquifer (acre-ft/yr)	Burkeville Confining Unit (acre-ft/yr)	Jasper Aquifer (acre-ft/yr)
Wharton	<b>Inflows</b>				
	Lateral Flows to/from Adjacent County(s)	33755	28555	60	216
	Vertical Leakage (Lower)	0	2508	1000	0
	Vertical Leakage (Upper)	0	37978	0	0
	Recharge	5149	0	0	0
	River Leakage	536	0	0	0
	Water Flows from/to Bays and/or Gulf	0	0	0	0
	Stream Leakage	127325	0	0	0
	<i>Total Inflows</i>	<i>166765</i>	<i>69041</i>	<i>1060</i>	<i>216</i>
	<b>Outflows</b>				
	Lateral Flows to/from Adjacent County(s)	16211	2953	14	110
	Vertical Leakage (Upper)	0	0	2508	1000
	Vertical Leakage (Lower)	37978	0	0	0
	Wells	108578	66306	0	0
	Springs	8	0	0	0
	Evapotranspiration	204	0	0	0
	River Leakage	0	0	0	0
	Water Flows from/to Bays and/or Gulf	0	0	0	0
	Stream Leakage	10645	0	0	0
	<i>Total Outflows</i>	<i>173625</i>	<i>69258</i>	<i>2522</i>	<i>1110</i>
	<i>Inflows - Outflows</i>	<i>-6859</i>	<i>-217</i>	<i>-1462</i>	<i>-893</i>
	Change in Storage	6858	200	1462	893
	Model Error	-1	-17	0	0

**APPENDIX C**

Average drawdowns for each aquifer and each county for each of the three simulations

**Table C-1. Average water level drawdowns of the Chicot Aquifer for each county in Groundwater Management Area 15. The drawdown values were simulated based on pumpage for Victoria County adjusted from base pumpage volumes. Drawdown values indicate water level declines in feet for the period between the end of 1999 and the end of 2060 with negative values indicating a rise in water levels.**

County	Average County Drawdowns for Chicot Aquifer (Layer 1) - Simulation Series 1							
	100%	120%	140%	160%	180%	200%	220%	240%
ARANSAS	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	0.0	0.0
BEE	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6
CALHOUN	-1.0	-0.8	-0.6	-0.5	-0.3	-0.2	0.0	0.1
COLORADO	5.2	5.2	5.2	5.3	5.3	5.3	5.3	5.3
DEWITT	0.2	0.6	1.0	1.4	1.8	2.2	2.6	3.0
FAYETTE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GOLIAD	-1.3	-1.2	-1.1	-0.9	-0.8	-0.7	-0.6	-0.5
JACKSON	12.4	12.6	12.7	12.8	13.0	13.1	13.3	13.5
KARNES	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAVACA	4.7	4.8	4.8	4.9	5.0	5.0	5.1	5.3
MATAGORDA	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
REFUGIO	0.5	0.5	0.5	0.6	0.6	0.6	0.6	0.6
VICTORIA	-9.4	-8.6	-7.8	-6.9	-6.1	-5.2	-4.3	-3.4
WHARTON	11.7	11.7	11.7	11.8	11.8	11.9	11.9	11.9

**Table C-2. Average water level drawdowns of the Evangeline Aquifer for each county in Groundwater Management Area 15. The drawdown values were simulated based on pumpage for Victoria County adjusted from base pumpage volumes. Drawdown values indicate water level declines in feet for the period between the end of 1999 and the end of 2060 with negative values indicating a rise in water levels.**

County	Average County Drawdowns for Evangeline Aquifer (Layer 2) - Simulation Series 1							
	100%	120%	140%	160%	180%	200%	220%	240%
ARANSAS	25.0	25.3	25.6	25.9	26.2	26.4	26.7	27.0
BEE	16.8	16.8	16.8	16.9	16.9	16.9	16.9	16.9
CALHOUN	9.1	11.0	13.0	15.0	17.0	19.0	21.0	23.0
COLORADO	8.9	8.9	8.9	8.9	8.9	8.9	9.0	9.0
DEWITT	5.4	5.6	5.9	6.1	6.3	6.6	6.9	7.2
FAYETTE	13.4	13.4	13.4	13.4	13.4	13.4	13.4	13.4
GOLIAD	3.4	3.7	3.9	4.1	4.4	4.6	4.9	5.1
JACKSON	15.5	16.4	17.4	18.4	19.4	20.4	21.4	22.4
KARNES	-0.4	-0.4	-0.4	-0.4	-0.4	-0.4	-0.4	-0.4
LAVACA	5.1	5.2	5.3	5.5	5.6	5.7	5.9	6.0
MATAGORDA	17.7	17.8	17.9	18.1	18.2	18.4	18.5	18.6
REFUGIO	31.4	32.0	32.5	33.0	33.5	34.0	34.5	35.0
VICTORIA	3.4	7.9	12.4	17.0	21.6	26.2	30.9	35.6
WHARTON	3.8	3.9	4.0	4.1	4.2	4.2	4.3	4.4

**Table C-3. Average water level drawdowns of the Burkeville Confining Unit for each county in Groundwater Management Area 15. The drawdown values were simulated based on pumpage for Victoria County adjusted from base pumpage volumes. Drawdown values indicate water level declines in feet for the period between the end of 1999 and the end of 2060 with negative values indicating a rise in water levels.**

County	Average County Drawdowns for Burkeville Confining Unit (Layer 3) - Simulation Series 1							
	100%	120%	140%	160%	180%	200%	220%	240%
ARANSAS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BEE	11.1	11.1	11.1	11.2	11.2	11.2	11.2	11.2
CALHOUN	2.6	3.0	3.4	3.8	4.2	4.6	4.9	5.3
COLORADO	13.9	13.9	13.9	13.9	13.9	13.9	14.0	14.0
DEWITT	14.5	14.7	14.8	15.0	15.2	15.4	15.6	15.8
FAYETTE	39.5	39.5	39.5	39.5	39.5	39.5	39.5	39.5
GOLIAD	7.2	7.3	7.5	7.6	7.7	7.8	7.9	8.0
JACKSON	11.4	11.9	12.4	13.0	13.5	14.1	14.7	15.2
KARNES	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7
LAVACA	14.1	14.2	14.3	14.4	14.5	14.5	14.6	14.7
MATAGORDA	14.4	14.4	14.5	14.5	14.5	14.6	14.6	14.6
REFUGIO	12.5	12.6	12.6	12.7	12.8	12.9	12.9	13.0
VICTORIA	3.2	5.4	7.7	10.0	12.3	14.7	17.1	19.5
WHARTON	18.4	18.5	18.5	18.5	18.6	18.6	18.6	18.7

**Table C-4. Average water level drawdowns of the Jasper Aquifer for each county in Groundwater Management Area 15. The drawdown values were simulated based on pumpage for Victoria County adjusted from base pumpage volumes. Drawdown values indicate water level declines in feet for the period between the end of 1999 and the end of 2060 with negative values indicating a rise in water levels.**

County	Average County Drawdowns for Jasper Aquifer (Layer 4) - Simulation Series 1							
	100%	120%	140%	160%	180%	200%	220%	240%
ARANSAS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BEE	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
CALHOUN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
COLORADO	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4
DEWITT	22.3	22.5	22.6	22.8	22.9	23.1	23.2	23.4
FAYETTE	45.6	45.6	45.6	45.6	45.6	45.6	45.6	45.6
GOLIAD	9.1	9.2	9.3	9.4	9.4	9.5	9.6	9.7
JACKSON	19.1	19.6	20.1	20.6	21.1	21.6	22.2	22.7
KARNES	15.4	15.4	15.4	15.4	15.4	15.4	15.4	15.4
LAVACA	28.6	28.7	28.8	28.8	28.9	29.0	29.1	29.2
MATAGORDA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
REFUGIO	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
VICTORIA	7.4	9.2	11.1	12.9	14.8	16.7	18.7	20.7
WHARTON	21.1	21.1	21.1	21.2	21.2	21.2	21.2	21.2

**Table C-5. Average water level drawdowns of the Chicot Aquifer for each county in Groundwater Management Area 15. The drawdown values were simulated based on pumpage for Victoria County adjusted from base pumpage volumes and drought of record recharge from 2051-2060. Drawdown values indicate water level declines in feet for the period between the end of 1999 and the end of 2060 with negative values indicating a rise in water levels.**

County	Average County Drawdowns for Chicot Aquifer (Layer 1) - Simulation Series 2							
	100%	120%	140%	160%	180%	200%	220%	240%
ARANSAS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BEE	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8
CALHOUN	-0.7	-0.6	-0.4	-0.3	-0.1	0.0	0.2	0.3
COLORADO	12.8	12.8	12.8	12.8	12.8	12.8	12.9	12.9
DEWITT	11.0	11.3	11.6	11.8	12.1	12.4	12.7	12.9
FAYETTE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GOLIAD	6.0	6.1	6.2	6.3	6.5	6.6	6.7	6.8
JACKSON	15.5	15.7	15.9	16.2	16.4	16.7	16.9	17.2
KARNES	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAVACA	14.4	14.6	14.7	14.9	15.0	15.2	15.4	15.6
MATAGORDA	3.5	3.5	3.5	3.5	3.6	3.6	3.6	3.6
REFUGIO	1.7	1.7	1.7	1.8	1.8	1.8	1.8	1.8
VICTORIA	-6.2	-5.3	-4.5	-3.6	-2.7	-1.8	-0.8	0.2
WHARTON	13.8	13.8	13.8	13.9	13.9	13.9	14.0	14.0

**Table C-6. Average water level drawdowns of the Evangeline Aquifer for each county in Groundwater Management Area 15. The drawdown values were simulated based on pumpage for Victoria County adjusted from base pumpage volumes and drought of record recharge from 2051-2060. Drawdown values indicate water level declines in feet for the period between the end of 1999 and the end of 2060 with negative values indicating a rise in water levels.**

County	Average County Drawdowns for Evangeline Aquifer (Layer 2) - Simulation Series 2							
	100%	120%	140%	160%	180%	200%	220%	240%
ARANSAS	26.1	26.4	26.7	27.0	27.2	27.5	27.8	28.1
BEE	26.5	26.5	26.5	26.5	26.5	26.5	26.5	26.5
CALHOUN	9.8	11.8	13.7	15.7	17.7	19.7	21.7	23.7
COLORADO	15.5	15.5	15.5	15.5	15.5	15.5	15.6	15.6
DEWITT	10.2	10.4	10.6	10.9	11.2	11.4	11.7	12.0
FAYETTE	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0
GOLIAD	8.6	8.8	9.1	9.3	9.6	9.8	10.1	10.3
JACKSON	18.1	19.1	20.1	21.1	22.2	23.3	24.3	25.4
KARNES	11.7	11.7	11.7	11.7	11.7	11.7	11.7	11.7
LAVACA	9.5	9.7	9.8	9.9	10.1	10.3	10.4	10.6
MATAGORDA	18.3	18.4	18.6	18.7	18.9	19.0	19.2	19.3
REFUGIO	33.7	34.2	34.7	35.2	35.7	36.2	36.7	37.3
VICTORIA	5.8	10.3	14.9	19.5	24.1	28.8	33.6	38.3
WHARTON	5.9	6.0	6.1	6.2	6.3	6.4	6.5	6.6

**Table C-7. Average water level drawdowns of the Burkeville Confining Unit for each county in Groundwater Management Area 15. The drawdown values were simulated based on pumpage for Victoria County adjusted from base pumpage volumes and drought of record recharge from 2051-2060. Drawdown values indicate water level declines in feet for the period between the end of 1999 and the end of 2060 with negative values indicating a rise in water levels.**

County	Average County Drawdowns for Burkeville Confining Unit (Layer 3) - Simulation Series 2							
	100%	120%	140%	160%	180%	200%	220%	240%
ARANSAS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BEE	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0
CALHOUN	2.6	3.0	3.4	3.8	4.2	4.6	5.0	5.4
COLORADO	15.1	15.2	15.2	15.2	15.2	15.2	15.2	15.2
DEWITT	16.7	16.9	17.0	17.2	17.4	17.6	17.8	18.0
FAYETTE	41.6	41.6	41.6	41.6	41.6	41.6	41.6	41.6
GOLIAD	8.2	8.3	8.4	8.6	8.7	8.8	8.9	9.0
JACKSON	11.6	12.1	12.7	13.2	13.8	14.3	14.9	15.5
KARNES	17.6	17.6	17.6	17.6	17.6	17.6	17.6	17.6
LAVACA	15.0	15.1	15.2	15.3	15.4	15.5	15.6	15.7
MATAGORDA	14.4	14.5	14.5	14.5	14.6	14.6	14.6	14.7
REFUGIO	12.7	12.7	12.8	12.9	12.9	13.0	13.1	13.1
VICTORIA	3.8	6.0	8.3	10.6	12.9	15.3	17.7	20.1
WHARTON	18.6	18.7	18.7	18.7	18.8	18.8	18.8	18.9

**Table C-8. Average water level drawdowns of the Jasper Aquifer for each county in Groundwater Management Area 15. The drawdown values were simulated based on pumpage for Victoria County adjusted from base pumpage volumes and drought of record recharge from 2051-2060. Drawdown values indicate water level declines in feet for the period between the end of 1999 and the end of 2060 with negative values indicating a rise in water levels.**

County	Average County Drawdowns for Jasper Aquifer (Layer 4) - Simulation Series 2							
	100%	120%	140%	160%	180%	200%	220%	240%
ARANSAS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BEE	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
CALHOUN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
COLORADO	20.6	20.6	20.6	20.6	20.7	20.7	20.7	20.7
DEWITT	22.9	23.0	23.1	23.3	23.4	23.6	23.7	23.9
FAYETTE	46.1	46.1	46.1	46.1	46.1	46.1	46.1	46.1
GOLIAD	9.3	9.4	9.5	9.5	9.6	9.7	9.8	9.9
JACKSON	19.1	19.6	20.2	20.7	21.2	21.7	22.2	22.7
KARNES	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9
LAVACA	28.8	28.9	29.0	29.1	29.2	29.2	29.3	29.4
MATAGORDA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
REFUGIO	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
VICTORIA	7.6	9.4	11.3	13.1	15.0	16.9	18.9	20.8
WHARTON	21.2	21.2	21.2	21.2	21.2	21.2	21.3	21.3

**Table C-9. Average water level drawdowns of the Chicot Aquifer for each county in Groundwater Management Area 15. The drawdown values were simulated based on pumpage for Victoria County adjusted from base pumpage volumes and drought of record recharge from 2001-2010 and 2051-2060. Drawdown values indicate water level declines in feet for the period between the end of 1999 and the end of 2060 with negative values indicating a rise in water levels.**

County	Average County Drawdowns for Chicot Aquifer (Layer 1) - Simulation Series 3							
	100%	120%	140%	160%	180%	200%	220%	240%
ARANSAS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BEE	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2
CALHOUN	-0.7	-0.6	-0.4	-0.3	-0.1	0.0	0.2	0.3
COLORADO	13.6	13.6	13.6	13.7	13.7	13.7	13.7	13.7
DEWITT	11.0	11.3	11.6	11.9	12.1	12.4	12.7	13.0
FAYETTE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GOLIAD	6.1	6.2	6.3	6.4	6.5	6.6	6.7	6.9
JACKSON	16.0	16.2	16.5	16.7	17.0	17.2	17.5	17.8
KARNES	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAVACA	15.3	15.5	15.6	15.8	16.0	16.1	16.3	16.5
MATAGORDA	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
REFUGIO	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.9
VICTORIA	-6.1	-5.3	-4.4	-3.5	-2.6	-1.7	-0.7	0.3
WHARTON	14.1	14.2	14.2	14.2	14.3	14.3	14.4	14.4

**Table C-10. Average water level drawdowns of the Evangeline Aquifer for each county in Groundwater Management Area 15. The drawdown values were simulated based on pumpage for Victoria County adjusted from base pumpage volumes and drought of record recharge from 2000-2010 and 2051-2060. Drawdown values indicate water level declines in feet for the period between the end of 1999 and the end of 2060 with negative values indicating a rise in water levels.**

County	Average County Drawdowns for Evangeline Aquifer (Layer 2) - Simulation Series 3							
	100%	120%	140%	160%	180%	200%	220%	240%
ARANSAS	26.2	26.4	26.7	27.0	27.3	27.6	27.9	28.2
BEE	28.3	28.4	28.4	28.4	28.4	28.4	28.4	28.4
CALHOUN	9.9	11.8	13.8	15.8	17.8	19.8	21.8	23.8
COLORADO	16.2	16.2	16.2	16.2	16.2	16.3	16.3	16.3
DEWITT	10.2	10.4	10.6	10.8	11.1	11.4	11.6	11.9
FAYETTE	21.2	21.2	21.2	21.2	21.2	21.2	21.2	21.2
GOLIAD	8.7	8.9	9.1	9.4	9.6	9.9	10.1	10.4
JACKSON	18.5	19.6	20.6	21.6	22.7	23.8	24.9	26.0
KARNES	11.8	11.8	11.8	11.8	11.8	11.8	11.8	11.8
LAVACA	9.9	10.0	10.2	10.3	10.5	10.6	10.8	10.9
MATAGORDA	18.5	18.6	18.8	18.9	19.1	19.2	19.3	19.5
REFUGIO	33.8	34.3	34.9	35.4	35.9	36.4	36.9	37.4
VICTORIA	5.9	10.4	15.0	19.6	24.3	29.0	33.7	38.5
WHARTON	6.3	6.4	6.5	6.6	6.7	6.8	6.9	7.0

**Table C-11. Average water level drawdowns of the Burkeville Confining Unit for each county in Groundwater Management Area 15. The drawdown values were simulated based on pumpage for Victoria County adjusted from base pumpage volumes and drought of record recharge from 2001-2010 and 2051-2060. Drawdown values indicate water level declines in feet for the period between the end of 1999 and the end of 2060 with negative values indicating a rise in water levels.**

County	Average County Drawdowns for Burkeville Confining Unit (Layer 3) - Simulation Series 3							
	100%	120%	140%	160%	180%	200%	220%	240%
ARANSAS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BEE	15.1	15.1	15.1	15.1	15.1	15.2	15.2	15.2
CALHOUN	2.6	3.0	3.4	3.8	4.2	4.6	5.0	5.4
COLORADO	16.3	16.3	16.3	16.3	16.3	16.3	16.3	16.3
DEWITT	17.0	17.1	17.3	17.5	17.7	17.9	18.1	18.3
FAYETTE	42.1	42.1	42.1	42.1	42.1	42.1	42.1	42.1
GOLIAD	8.6	8.7	8.8	9.0	9.1	9.2	9.3	9.4
JACKSON	12.1	12.7	13.2	13.8	14.3	14.9	15.5	16.1
KARNES	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0
LAVACA	15.6	15.7	15.8	15.8	15.9	16.0	16.1	16.2
MATAGORDA	14.5	14.6	14.6	14.6	14.7	14.7	14.7	14.8
REFUGIO	13.1	13.1	13.2	13.3	13.3	13.4	13.5	13.6
VICTORIA	4.0	6.3	8.6	10.9	13.2	15.6	18.0	20.4
WHARTON	19.0	19.0	19.1	19.1	19.1	19.2	19.2	19.2

**Table C-12. Average water level drawdowns of the Jasper Aquifer for each county in Groundwater Management Area 15. The drawdown values were simulated based on pumpage for Victoria County adjusted from base pumpage volumes and drought of record recharge for 2000-2010 and 2050-2060. Drawdown values indicate water level declines in feet for the period between the end of 1999 and the end of 2060 with negative values indicating a rise in water levels.**

County	Average County Drawdowns for Jasper Aquifer (Layer 4) - Simulation Series 3							
	100%	120%	140%	160%	180%	200%	220%	240%
ARANSAS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BEE	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6
CALHOUN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
COLORADO	21.8	21.8	21.8	21.8	21.8	21.8	21.8	21.8
DEWITT	23.2	23.4	23.5	23.6	23.8	24.0	24.1	24.3
FAYETTE	46.5	46.5	46.5	46.5	46.5	46.5	46.5	46.5
GOLIAD	9.8	9.9	10.0	10.1	10.2	10.3	10.4	10.5
JACKSON	19.7	20.2	20.7	21.2	21.8	22.3	22.8	23.4
KARNES	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2
LAVACA	29.4	29.5	29.6	29.7	29.7	29.8	29.9	30.0
MATAGORDA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
REFUGIO	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
VICTORIA	8.0	9.9	11.7	13.6	15.5	17.5	19.4	21.4
WHARTON	21.5	21.5	21.5	21.5	21.5	21.5	21.6	21.6



**APPENDIX D**

**Graphs of average drawdown versus total pumpage for Victoria County for each of the three simulations**

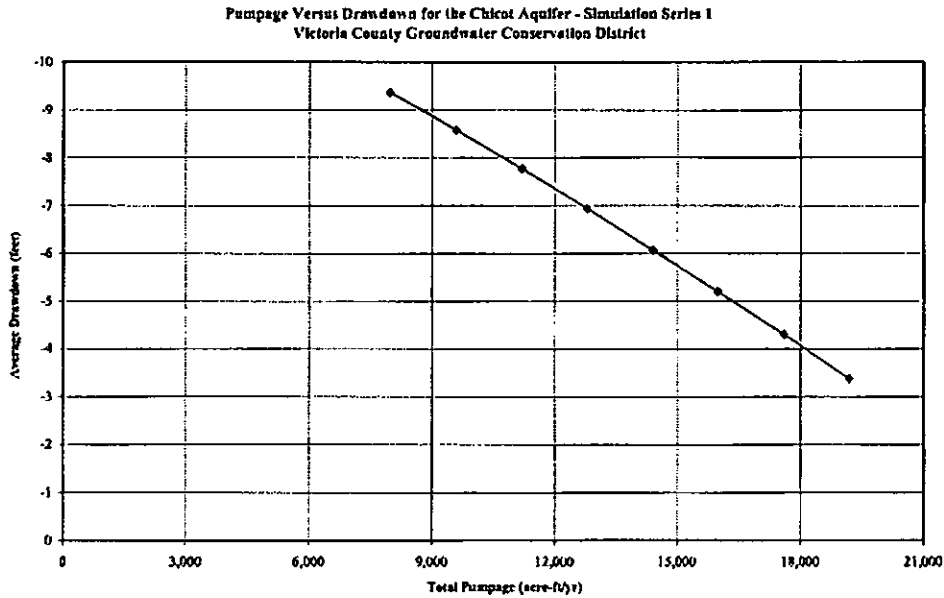


Figure D-1. Average drawdown for the Chicot Aquifer in Victoria County, Simulation Series 1. The pumpage was adjusted to 100, 120, 140, 160, 180, 200, 220, and 240 percent of 7,999 acre-ft per year "base" pumpage. Negative drawdown values represent water level rises.

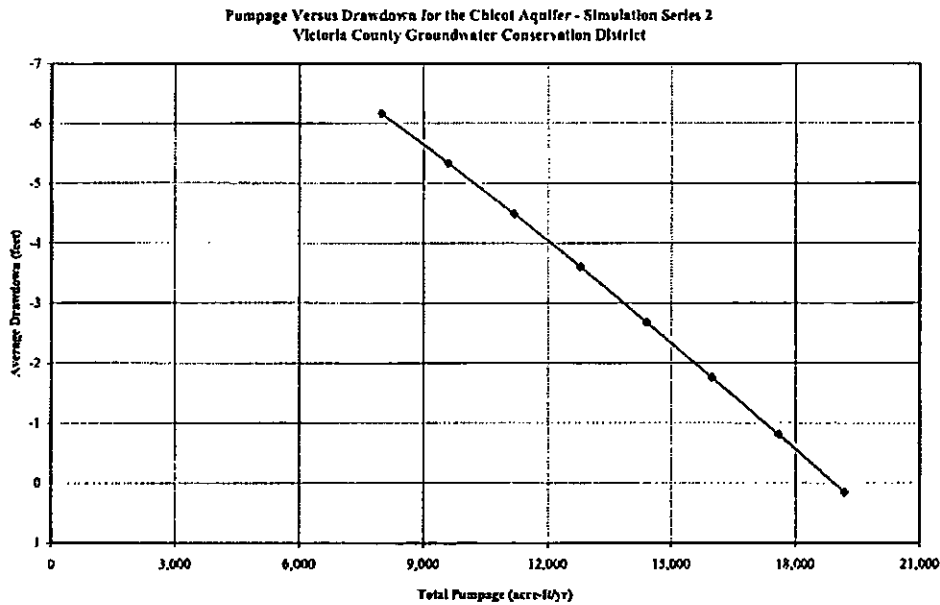


Figure D-2. Average drawdown for the Chicot Aquifer in Victoria County, Simulation Series 2. The pumpage was adjusted to 100, 120, 140, 160, 180, 200, 220, and 240 percent of 7,999 acre-ft per year "base" pumpage. Negative drawdown values represent water level rises.

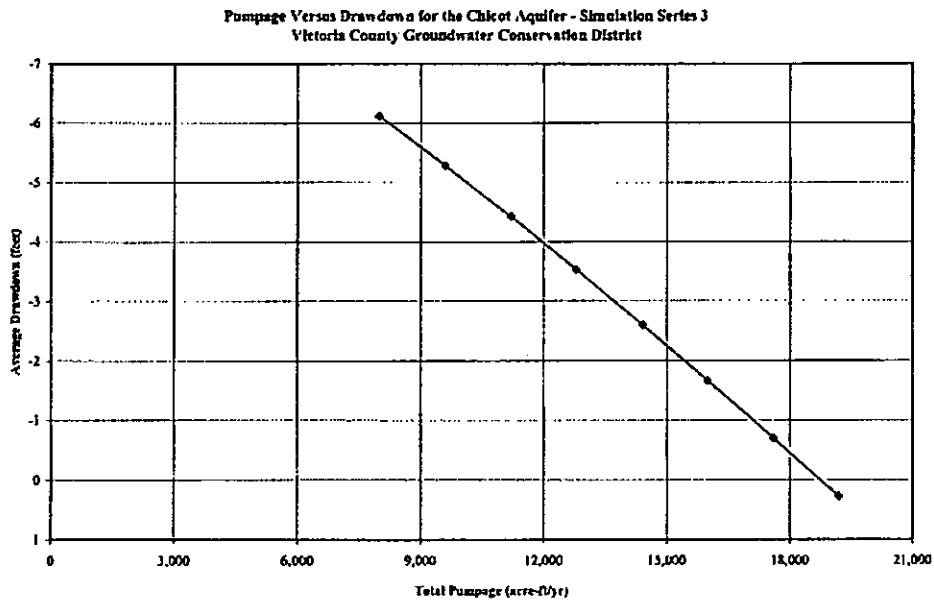


Figure D-3. Average drawdown for the Chicot Aquifer in Victoria County, Simulation Series 3. The pumpage was adjusted to 100, 120, 140, 160, 180, 200, 220, and 240 percent of 7,999 acre-ft per year "base" pumpage. Negative drawdown values represent water level rises.

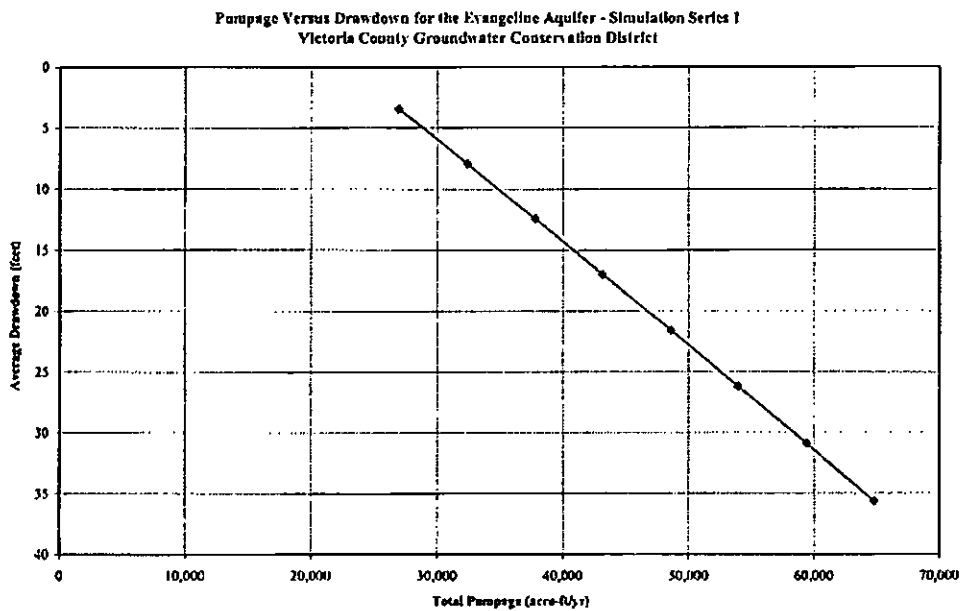


Figure D-4. Average drawdown for the Evangeline Aquifer in Victoria County, Simulation Series 1. The pumpage was adjusted to 100, 120, 140, 160, 180, 200, 220, and 240 percent of 26,999 acre-ft per year "base" pumpage. Negative drawdown values represent water level rises.

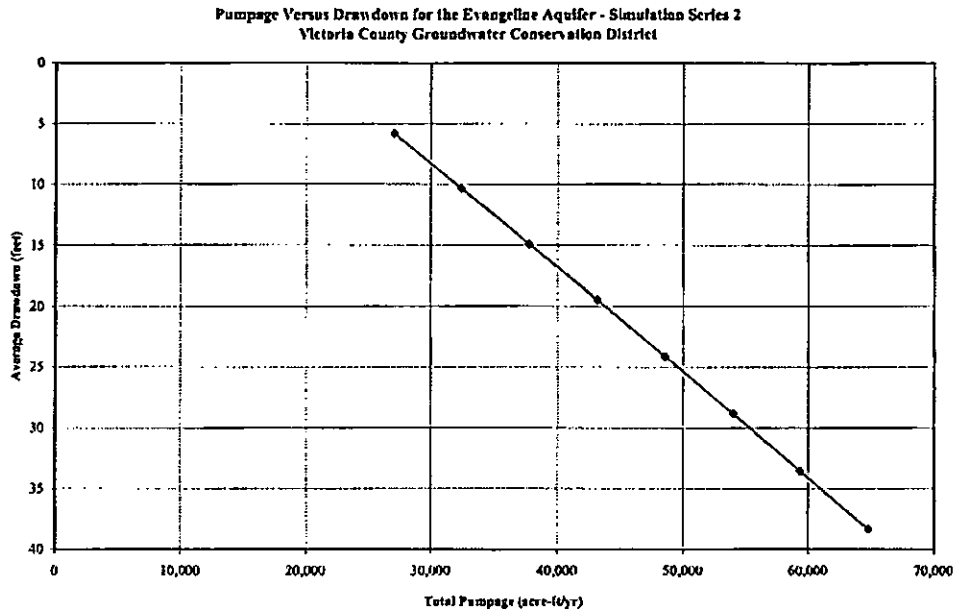


Figure D-5. Average drawdown for the Evangeline Aquifer in Victoria County, Simulation Series 2. The pumpage was adjusted to 100, 120, 140, 160, 180, 200, 220, and 240 percent of 26,999 acre-ft per year "base" pumpage. Negative drawdown values represent water level rises.

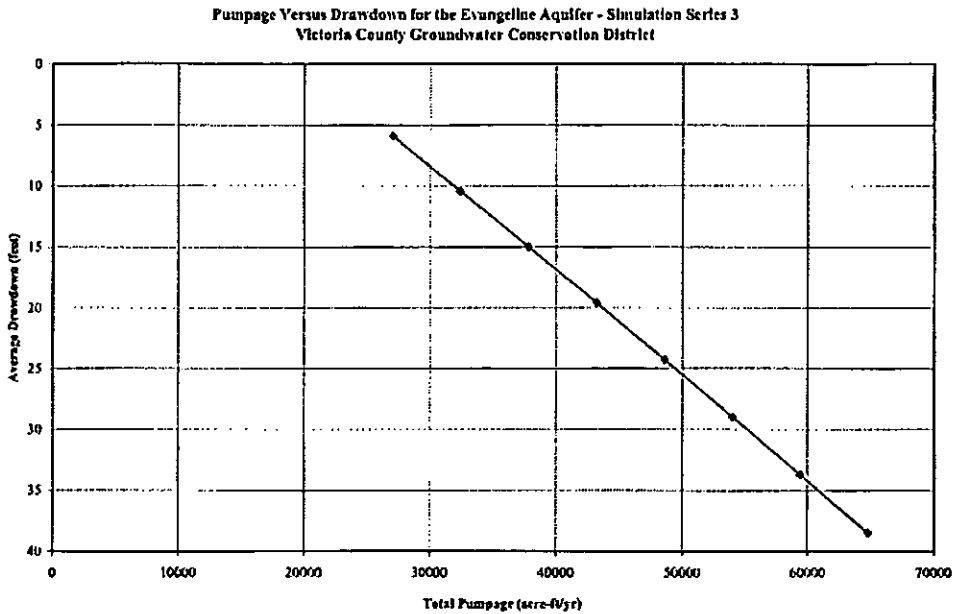


Figure D-6. Average drawdown for the Evangeline Aquifer in Victoria County, Simulation Series 3. The pumpage was adjusted to 100, 120, 140, 160, 180, 200, 220, and 240 percent of 26,999 acre-ft per year "base" pumpage. Negative drawdown values represent water level rises.

Pumpage Versus Drawdown for the Burkeville Confining Unit - Simulation Series 1  
Victoria County Groundwater Conservation District

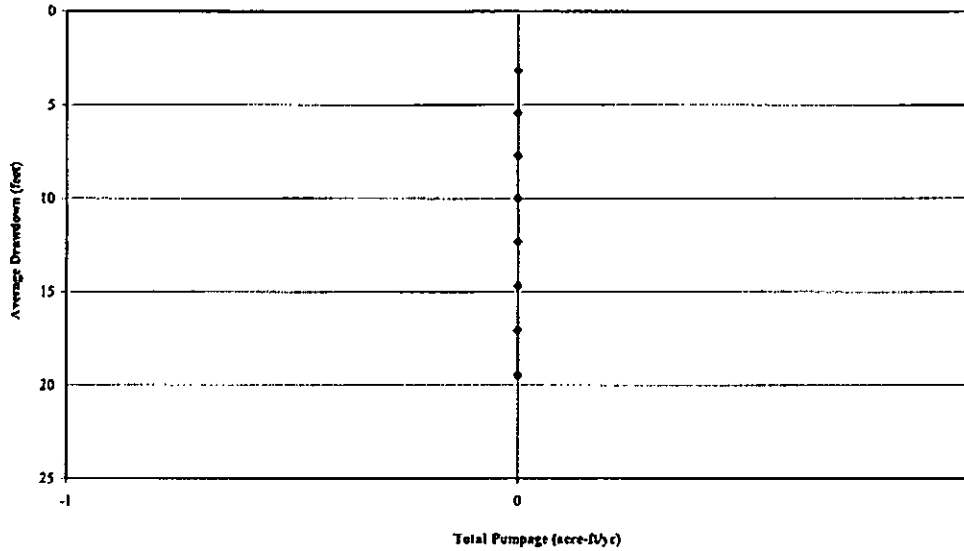


Figure D-7. Average drawdown for the Burkeville Confining Unit in Victoria County, Simulation Series 1. The pumpage was adjusted to 100, 120, 140, 160, 180, 200, 220, and 240 percent of 0 acre-ft per year "base" pumpage. Water levels decline even with zero pumpage.

Pumpage Versus Drawdown for the Burkeville Confining Unit - Simulation Series 2  
Victoria County Groundwater Conservation District

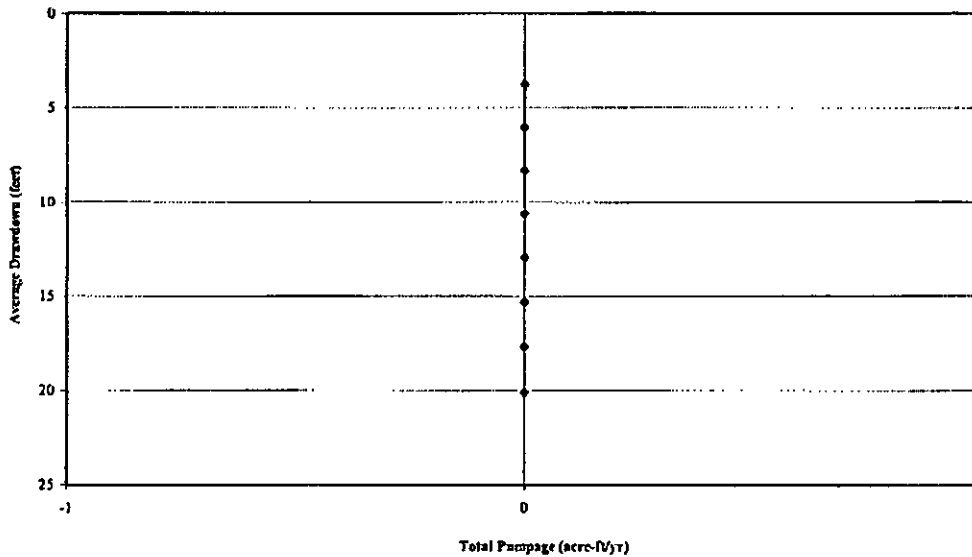


Figure D-8. Average drawdown for the Burkeville Confining Unit in Victoria County, Simulation Series 2. The pumpage was adjusted to 100, 120, 140, 160, 180, 200, 220, and 240 percent of 0 acre-ft per year "base" pumpage. Water levels decline even with zero pumpage.

Pumpage Versus Drawdown for the Burkeville Confining Unit - Simulation Series 3  
Victoria County Groundwater Conservation District

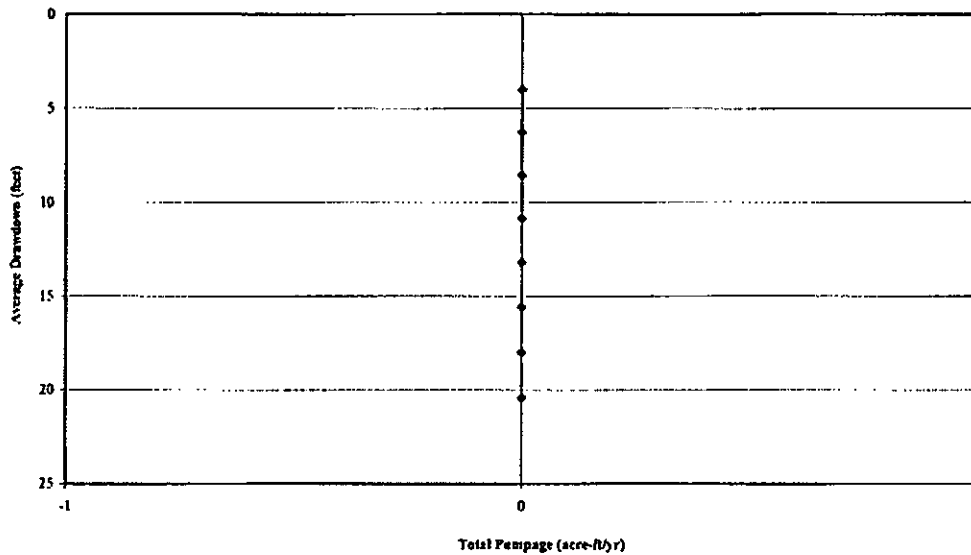


Figure D-9. Average drawdown for the Burkeville Confining Unit in Victoria County, Simulation Series 3. The pumpage was adjusted to 100, 120, 140, 160, 180, 200, 220, and 240 percent of 0 acre-ft per year "base" pumpage. Water levels decline even with zero pumpage.

Pumpage Versus Drawdown for the Jasper Aquifer - Simulation Series 1  
Victoria County Groundwater Conservation District

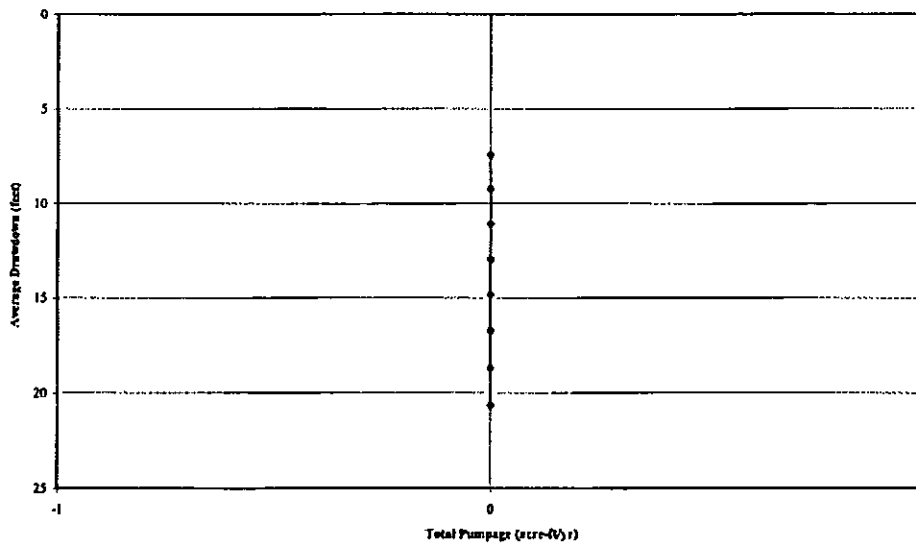


Figure D-10. Average drawdown for the Jasper Aquifer in Victoria County, Simulation Series 1. The pumpage was adjusted to 100, 120, 140, 160, 180, 200, 220, and 240 percent of 0 acre-ft per year "base" pumpage. Water levels decline even with zero pumpage.

Pumpage Versus Drawdown for the Jasper Aquifer - Simulation Series 2  
Victoria County Groundwater Conservation District

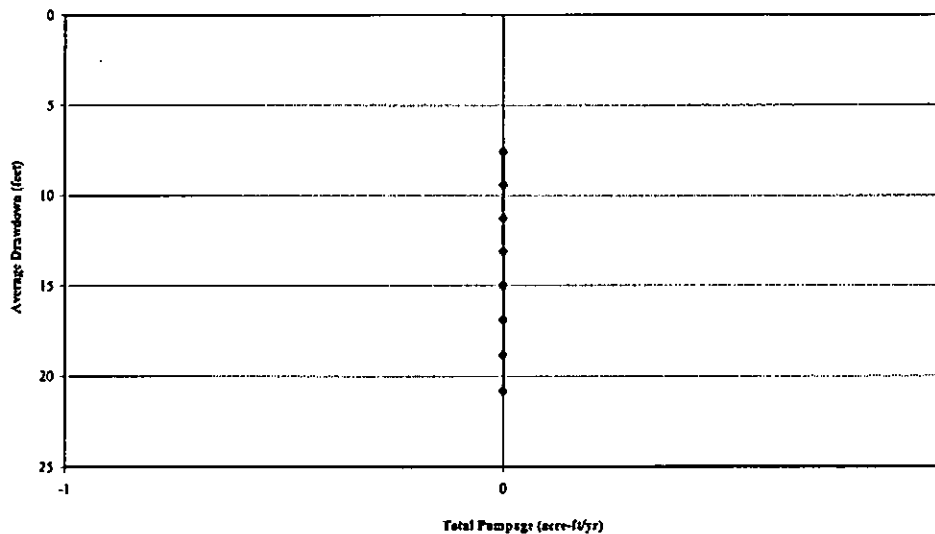


Figure D-11. Average drawdown for the Jasper Aquifer in Victoria County, Simulation Series 2. The pumpage was adjusted to 100, 120, 140, 160, 180, 200, 220, and 240 percent of 0 acre-ft per year "base" pumpage. Water levels decline even with zero pumpage.

Pumpage Versus Drawdown for the Jasper Aquifer - Simulation Series 3  
Victoria County Groundwater Conservation District

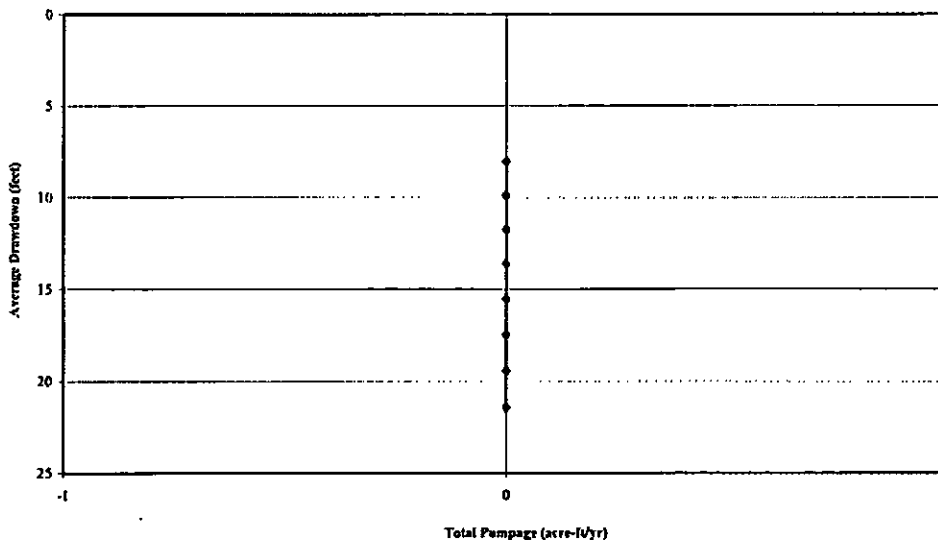


Figure D-12. Average drawdown for the Jasper Aquifer in Victoria County, Simulation Series 3. The pumpage was adjusted to 100, 120, 140, 160, 180, 200, 220, and 240 percent of 0 acre-ft per year "base" pumpage. Water levels decline even with zero pumpage.

**Attachment D: Resolution to Adopt Desired Future Conditions for  
Groundwater Management Area 15 Aquifers and supporting information.**



**RESOLUTION TO ADOPT DESIRED FUTURE CONDITIONS  
FOR GROUNDWATER MANAGEMENT AREA 15 AQUIFERS**

**STATE OF TEXAS**

§  
§  
§  
§

**RESOLUTION # 2010-01**

**GROUNDWATER  
MANAGEMENT AREA 15**

WHEREAS, Texas Water Code § 36.108 requires the Groundwater Conservation Districts located whole or in part in a Groundwater Management Area ("GMA") designated by the Texas Water Development Board to adopt desired future conditions for the relevant aquifers located within the management area;

WHEREAS, the Groundwater Conservation Districts located wholly or partially within Groundwater Management Area 15 ("GMA 15"), as designated by the Texas Water Development Board, as of the date of this resolution are as follows:

Bee Groundwater Conservation District, Coastal Bend Groundwater Conservation District, Coastal Plains Groundwater Conservation District, Colorado County Groundwater Conservation District, Corpus Christi Aquifer Storage and Recovery Conservation District, Evergreen Underground Water Conservation District, Fayette County Groundwater Conservation District, Goliad County Groundwater Conservation District, Lavaca County Groundwater Conservation District, Pecan Valley Groundwater Conservation District, Refugio Groundwater Conservation District, Texana Groundwater Conservation District, and Victoria County Groundwater Conservation District;

WHEREAS, the Board Presidents or their Designated Representatives of GCDs in GMA 15 have met at various meetings and conducted joint planning in accordance with Chapter 36.108, Texas Water Code since September 2005 and;

WHEREAS, GMA 15, having given proper and timely notice, held an open meeting of the GMA 15 Member Districts on July 14, 2010 and;

WHEREAS, GMA 15 has solicited and considered public comment at specially called Public Meetings, including the meeting on July 14, 2010 and;

WHEREAS, the GMA 15 Member Districts received and considered technical advice regarding local aquifers, hydrology, geology, recharge characteristics, local groundwater demands and usage, population projections, ground and surface water inter-relationships, and other considerations that affect groundwater conditions and;

WHEREAS, following public discussion and due consideration of the current and future needs and conditions of the aquifers in question, the current and projected groundwater demands, and the potential effects on springs, surface water, habitat, and water-dependent species through the year 2060, GMA 15 Member Districts have analyzed drawdown estimations from numerous

pumping scenarios using the Central Gulf Coast Groundwater Availability Model and have voted on a motion made and seconded to adopt a proposed Desired Future Condition (DFC) stated as follows:

An average drawdown of the Gulf Coast Aquifer within the GMA 15 boundary of 12 feet relative to year 1999 starting conditions in accordance with Table 7 of GAM Run 10-008 Addendum.

NOW THEREFORE BE IT RESOLVED, that the Groundwater Management Area 15 Member Districts do hereby document, record and confirm that groundwater within GMA 15 shall be managed in such a way as to achieve a Desired Future Condition in 2060 of no more than 12 feet of average drawdown of the Gulf Coast Aquifer within the GMA 15 boundary relative to 1999 starting conditions in accordance with Table 7 of GAM Run 10-008 Addendum.

AND IT IS SO ORDERED.

PASSED AND ADOPTED on this 14<sup>th</sup> day of July, 2010.

ATTEST:

AYES:

Lonnie Stewart  
Bee Groundwater Conservation District

Lonnie Stewart  
Signature

Ronald Gertson  
Coastal Bend Groundwater Conservation District

Ronald Gertson  
Signature

NEIL HUGHINS  
Coastal Plains Groundwater Conservation District

Neil Hughins  
Signature

James E Brasher  
Colorado County Groundwater Conservation District

James E Brasher  
Signature

Not Present  
Corpus Christi Aquifer Storage & Recovery Conservation District

Signature

Diane Savags  
Evergreen Underground Water Conservation District

Diane Savags  
Signature

DAVID A. VAN DER SAN  
Lavette County Groundwater Conservation District

David A. Van Der San  
Signature

ART DOHMANN  
Goliad County Groundwater Conservation District

Art Dohmann  
Signature

Not Present  
Lavacon County Groundwater Conservation District

\_\_\_\_\_  
Signature

Charlotte Krause  
Pecan Valley Groundwater Conservation District

Charlotte Krause  
Signature

Garrett Engelking  
Refugio Groundwater Conservation District

Garrett Engelking  
Signature

Tim Andrews  
Victoria County Groundwater Conservation District

Tim Andrews  
Signature

**NAYS:** None

**ABSTENTIONS:**

Robert Martin  
Texana Groundwater Conservation District

Robert Martin  
Signature

## Groundwater Management Area 15 Meeting Minutes

GMA 15 meeting convened in the Pattie Dodson Health Center, 2805 N. Navarro St., Victoria, Texas, Classroom 108 at 9:30 AM on July 14, 2010

Members GCD Representatives Present:

<b>Bee Groundwater Conservation District</b>	Lonnie Stewart
<b>Coastal Bend Groundwater Conservation District</b>	Ronald Gertson
<b>Coastal Plains Groundwater Conservation District</b>	Neil Hudgins
<b>Colorado County Groundwater Conservation District</b>	Jim Brasher
<b>Corpus Christi A.S.R. Conservation District</b>	
<b>Evergreen Underground Water Conservation District</b>	Diane Savage
<b>Fayette County Groundwater Conservation District</b>	David Van Dresar
<b>Goliad County Groundwater Conservation District</b>	Art Dohmann
<b>Lavaca County Groundwater Conservation District</b>	
<b>Pecan Valley Groundwater Conservation District</b>	Charlotte Krause
<b>Refugio Groundwater Conservation District</b>	Garrett Engelking
<b>Texana Groundwater Conservation District</b>	Robert Martin
<b>Victoria County Groundwater Conservation District</b>	Tim Andruss

### Agenda Item 1: Welcome and Introductions

Neil Hudgins called the meeting to order at 9:41 AM and welcomed guests. See attached Sign-in Sheet for list of other meeting attendees.

### Agenda Item 2: Public Comments

No public comment offered.

### Agenda Item 3: Review and consider approval of GMA 15 minutes fro meeting held on 6/2/2010.

The meeting minutes for the GMA 15 meeting held on June 2, 2010 were reviewed.

**MOTION:** Tim Andruss moved to accept and approve the minutes of GMA 15 meeting held on June 2, 2010. Ronald Gertson seconded the motion. The motion passed.

(Note: Texana GCD abstained.)

### Agenda Item 4: Discussion of DFCs pertaining to Yegua-Jackson, Carrizo-Wilcox, Sparta, & Queen City. (Action Item)

## **Groundwater Management Area 15 Meeting Minutes**

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Neil Hudgins remarked that GMA 15 had, at previous meetings, discussed the matter of designating the Yegua-Jackson, Carrizo-Wilcox, Sparta, & Queen City aquifers as being not relevant in GMA 15.

David Van Dresar discussed the considerations Fayette County GCD made regarding the slivers of these aquifers within GMA 15. In light of the fact that DFCs and MAGs were being developed for these aquifers in GMA 12 for Fayette County, David Van Dresar stated that he believed it to be acceptable to designate these aquifer slivers as not relevant in GMA 15.

**MOTION:** David Van Dresar moved to designate the portions of Yegua-Jackson, Carrizo, Sparta, and Queen City Aquifer slivers located within GMA 15 as not relevant in GMA 15. Jim Brasher seconded the motion. The motion passed.

(Note: Texana GCD abstained.)

### **Agenda Item 5: Review Draft Resolution No. 2010-10 to consider modifications prior to adoption of DFC for Gulf Coast Aquifer.**

The membership of GMA 15 reviewed and considered the draft resolution related to the DFC for the Gulf Coast Aquifer in GMA 15 including possible clarifications or changes to the language used to state the DFC for the Gulf Coast Aquifer within GMA 15.

Tim Andruss remarked that, by referencing Table 7 of GAM Run 10-008 Addendum, the proposed DFC identifies one pumping scenario which results in an estimated 12-foot average drawdown across GMA 15 in the year 2060 relative to 1999 conditions. Many other pumping scenarios could result in a 12-foot average drawdown estimate across GMA 15 in the year 2060 relative to 1999 conditions. Tim Andruss provided the GMA 15 membership with a copy of a letter to Neil Hudgins as the GMA 15 Administrator articulating Victoria County GCD's comments. See attached letter.

**MOTION:** Ronald Gertson moved to modify the proposed DFC and draft resolution to read as follows: groundwater within GMA 15 shall be managed in such a way as to achieve a Desired Future Condition in 2060 of no more than 12 feet of average drawdown of the Gulf Coast Aquifer within the GMA 15 boundary relative to 1999 starting conditions in accordance with Table 7 of GAM Run 10-008 Addendum. Tim Andruss seconded the motion. The motion passed.

(Note: Texana GCD abstained.)

### **Agenda Item 6: Discussion & Consideration of Draft Submittal Package to TWDB (Possible Action)**

## Groundwater Management Area 15 Meeting Minutes

The membership of GMA 15 reviewed and considered the draft GMA 15 Submittal Package.

### Agenda Item 7: Recess for Public Hearing

At 10:06 AM Neil Hudgins recessed the GMA 15 meeting to conduct the public hearing related to the proposed Desired Future Condition for the Gulf Coast Aquifer within GMA 15.

### Agenda Item 7a: Public Hearing on the Adoption of the Desired Future Conditions for all Aquifers within Groundwater Management Area 15.

At 10:06 AM Neil Hudgins opened the public hearing related to the proposed Desired Future Condition for all aquifers within GMA 15.

No comments provided.

### Agenda Item 7b: Close Public Hearing

At 10:07 AM, Neil Hudgins closed the public hearing related to the proposed Desired Future Condition for all aquifers within GMA 15.

### Agenda Item 8: Reconvene Meeting

At 10:07 AM, Neil Hudgins reconvened the GMA 15 meeting.

### Agenda Item 9: Adoption of the Desired Future Condition for the Aquifers in Groundwater Management Area 15 and Resolution No. 2010-01.

Neil Hudgins read GMA 15 Resolution No. 2010-01.

**MOTION:** David Van Dresar moved to adopt GMA 15 Resolution No. 2010-01. Jim Brasher seconded the motion. The motion passed with the following voting record:

Member District	District Representative	Aye	Nay	Abstention
Bee GCD	Lonnie Stewart	X		
Coastal Bend GCD	Ronald Gertson	X		
Coastal Plains GCD	Neil Hudgins	X		
Colorado County GCD	Jim Brasher	X		
Corpus Christi A.S.R.C.D.				
Evergreen UWCD	Diane Savage	X		
Fayette County GCD	David Van Dresar	X		
Goliad County GCD	Art Dohmann	X		

## Groundwater Management Area 15 Meeting Minutes

Lavaca County GCD				
Pecan Valley GCD	Charlotte Krause	X		
Refugio GCD	Garrett Engelking	X		
Texana GCD	Robert Martin			X
Victoria County GCD	Tim Andruss	X		

**Agenda Item 10: Recess Meeting if necessary to alter Resolution 2010-01 based on action taken by GMA 15.**

At 10:16 AM, Neil Hudgins recessed the GMA 15 meeting to modify Resolution 2010-01.

**Agenda Item 11: Reconvene Meeting if necessary.**

At 10:26 AM, Neil Hudgins reconvened the GMA 15 meeting.

**Agenda Item 12: Public Comments**

No public comment offered.

**Agenda Item 13: Adjournment**

**MOTION:** At 10:33 AM, Garrett Engelking moved to adjourn the GMA 15 meeting. The motion was seconded by David Van Dresar. The motion passed.

(Note: Texana GCD abstained.)



GMA-15

VICTORIA COUNTY GROUNDWATER CONSERVATION DISTRICT

DATE: July 14, 2010

NAME	COMPANY OR ORGANIZATION	AGENDA ITEM # (If you wish to speak)
Steve Young	Intera	
Andy Donnelly	DBS+A	
Stefan Schuster	DBS+A	
Barbara Smith	GCGCD	
Marty	CB/CPGCS	
Garrett Engelke	Refy. GCD	
Art Moberg	GCGCD	
Charlotte Knouse	PY GCD	
Mike Mahony	Evergreen WCD	
Ronald Gertson	CB BCP	
Jim Brasher	CCGCD	
Bob Pickens	. "	
Sarah Backhouse	TWDB	
Barbara Kasper		
MARGIE KASPER		





GMA 15

VICTORIA COUNTY GROUNDWATER CONSERVATION DISTRICT

DATE: July 14, 2010

NAME	COMPANY OR ORGANIZATION	AGENDA ITEM # (If you wish to speak)
Lisa Peterson	Rep. Morrison	
David Valdez	FC GCD	
Lee J. Welch	FC GCD	
Woj Darnin	FC GCD	
Diane Savage	Evergreen UWCD	
Robert Martin	Terrence GWD	
Ken Callis	Jackson County Herald Tribune	
Lonnie Howard	Bee GCD	
Tim Andruss	VCGCD	

# Victoria County Groundwater Conservation District



**Directors:**

**Mark Maek**  
*President*

**Jerry Hroch**  
*Vice-President*

**Barbara Dietzel**  
*Secretary*

**Thurman Clements**  
**Kenneth Eller**

July 13, 2010

Mr. Neil Hudgins  
Coastal Bend Groundwater Conservation District  
P. O. Box 341  
109 E. Milam  
Wharton, Texas 77488

Dear Neil,

The Board of Directors of the Victoria County Groundwater Conservation District, at a public meeting held on June 18, 2010, expressed their support for GMA 15's proposed Desired Future Condition for the Gulf Coast Aquifer by a motion which passed unanimously. As part of that motion, the Board of Directors requested that GMA 15 consider a policy statement regarding the evaluation of member GCD's degree of compliance the DFC.

Victoria County Groundwater Conservation District believes that, by referencing Table 7 of GAM Run 10-008 Addendum, the proposed Desired Future Condition for the Gulf Coast Aquifer within GMA 15 identifies a single, GMA-wide, pumping scenario which results in an estimated (modeled) 12-foot average drawdown across GMA 15 in the year 2060 relative to 1999 conditions. The District believes that many other pumping scenarios could result in a 12-foot average drawdown estimate across GMA 15 in the year 2060 relative to 1999 conditions. Therefore, the District encourages the membership of GMA 15 to recognize this situation and acknowledge that the purpose for referencing Table 7 of GAM Run 10-008 Addendum in the DFC statement was to provide Texas Water Development Board with guidance regarding preferred, initial, pumping volumes to be used to establish managed available groundwater estimates. In addition, the District recommends that, at a future meeting, GMA 15 acknowledge by resolution the need for future efforts by GMA 15 to evaluate achievement or compliance with the DFC to focus on the degree to which the 12 foot average drawdown of the Gulf Coast Aquifer within GMA 15 relative to 1999 conditions was or was not exceeded.

Regards,

  
Tim Andruss, General Manager  
Victoria County Groundwater Conservation District

TA/bd

**RESOLUTION TO ADOPT DESIRED FUTURE CONDITIONS  
FOR GROUNDWATER MANAGEMENT AREA 15 AQUIFERS**

<b>STATE OF TEXAS</b>	<b>§</b>	
	<b>§</b>	<b>RESOLUTION # 2010-01</b>
<b>GROUNDWATER</b>	<b>§</b>	
<b>MANAGEMENT AREA 15</b>	<b>§</b>	

WHEREAS, Texas Water Code § 36.108 requires the Groundwater Conservation Districts located whole or in part in a Groundwater Management Area ("GMA") designated by the Texas Water Development Board to adopt desired future conditions for the relevant aquifers located within the management area;

WHEREAS, the Groundwater Conservation Districts located wholly or partially within Groundwater Management Area 15 ("GMA 15"), as designated by the Texas Water Development Board, as of the date of this resolution are as follows:

Bee Groundwater Conservation District, Coastal Bend Groundwater Conservation District, Coastal Plains Groundwater Conservation District, Colorado County Groundwater Conservation District, Corpus Christi Aquifer Storage and Recovery Conservation District, Evergreen Underground Water Conservation District, Fayette County Groundwater Conservation District, Goliad County Groundwater Conservation District, Lavaca County Groundwater Conservation District, Pecan Valley Groundwater Conservation District, Refugio Groundwater Conservation District, Texana Groundwater Conservation District, and Victoria County Groundwater Conservation District;

WHEREAS, the Board Presidents or their Designated Representatives of GCDs in GMA 15 have met at various meetings and conducted joint planning in accordance with Chapter 36.108, Texas Water Code since September 2005 and;

WHEREAS, GMA 15, having given proper and timely notice, held an open meeting of the GMA 15 Member Districts on July 14, 2010 and;

WHEREAS, GMA 15 has solicited and considered public comment at specially called Public Meetings, including the meeting on July 14, 2010 and;

WHEREAS, the GMA 15 Member Districts received and considered technical advice regarding local aquifers, hydrology, geology, recharge characteristics, local groundwater demands and usage, population projections, ground and surface water inter-relationships, and other considerations that affect groundwater conditions and;

WHEREAS, following public discussion and due consideration of the current and future needs and conditions of the aquifers in question, the current and projected groundwater demands, and the potential effects on springs, surface water, habitat, and water-dependent species through the year 2060, GMA 15 Member Districts have analyzed drawdown estimatlons from numerous

pumping scenarios using the Central Gulf Coast Groundwater Availability Model and have voted on a motion made and seconded to adopt a proposed Desired Future Condition (DFC) stated as follows:

An average drawdown of the Gulf Coast Aquifer within the GMA 15 boundary of 12 feet relative to year 1999 starting conditions in accordance with Table 7 of GAM Run 10-008 Addendum.

NOW THEREFORE BE IT RESOLVED, that the Groundwater Management Area 15 Member Districts do hereby document, record and confirm that groundwater within GMA 15 shall be managed in such a way as to achieve a Desired Future Condition in 2060 of no more than 12 feet of average drawdown of the Gulf Coast Aquifer within the GMA 15 boundary relative to 1999 starting conditions in accordance with Table 7 of GAM Run 10-008 Addendum.

AND IT IS SO ORDERED.

PASSED AND ADOPTED on this 14<sup>th</sup> day of July, 2010.

ATTEST:

**AYES:**

Lonnie Stewart  
Bee Groundwater Conservation District

Lonnie Stewart  
Signature

Ronald Gertson  
Coastal Bend Groundwater Conservation District

Ronald Gertson  
Signature

NEIL HUGGINS  
Coastal Plains Groundwater Conservation District

Neil Huggins  
Signature

James E. Brasher  
Colorado County Groundwater Conservation District

James E. Brasher  
Signature

Not Present  
Corpus Christi Aquifer Storage & Recovery Conservation District

Signature

Diane Savage  
Evergreen Underground Water Conservation District

Diane Savage  
Signature

David A. Val Desjar  
Fayette County Groundwater Conservation District

David A. Val Desjar  
Signature

Art Dohmann  
Goliad County Groundwater Conservation District

Art Dohmann  
Signature

Not Present  
Lavaca County Groundwater Conservation District

\_\_\_\_\_  
Signature

Charlotte Krause  
Pecan Valley Groundwater Conservation District

Charlotte Krause  
Signature

Garrett Engelking  
Refugio Groundwater Conservation District

Garrett Engelking  
Signature

Tim Anderson  
Victoria County Groundwater Conservation District

Tim Anderson  
Signature

**NAYS: None**

**ABSTENTIONS:**

Robert Martin  
Texana Groundwater Conservation District

Robert Martin  
Signature

**Narrative of Methods and References Used to Determine the Desired Future Condition of the Gulf Coast Aquifer in Groundwater Management Area 15**

**Groundwater Management Area 15 Public Meetings**

Groundwater Management Area 15 (GMA 15) has held numerous public meetings for the purpose of developing and adopting Desired Future Conditions (DFC) for the relevant groundwater resources within its boundary. All of these meetings were public and held in accordance with the Texas Open Meeting Act.

<b>Meeting Date</b>	<b>Location</b>
July 14, 2010	Victoria, Texas - Dr. Pattie Dodson Health Center
July 14, 2010	Victoria, Texas - Dr. Pattie Dodson Health Center
June 2, 2010	Victoria, Texas - Dr. Pattie Dodson Health Center
March 11, 2010	Victoria, Texas - Dr. Pattie Dodson Health Center
February 18, 2010	Victoria, Texas - Dr. Pattie Dodson Health Center
October 19, 2009	Victoria, Texas – Tejas Café Meeting Room
May 27, 2009	Victoria, Texas - Dr. Pattie Dodson Health Center
March 26, 2009	Victoria, Texas - Dr. Pattie Dodson Health Center
November 5, 2008	Victoria, Texas - Dr. Pattie Dodson Health Center
April 23, 2008	Victoria, Texas - Dr. Pattie Dodson Health Center
February 20, 2008	Victoria, Texas - Dr. Pattie Dodson Health Center
November 8, 2007	Victoria, Texas - Dr. Pattie Dodson Health Center
May 11, 2007	Beeville, Texas - Bee County Farm Bureau Office
September 26, 2006	Victoria, Texas - Holiday Inn Victoria
August 23, 2006	Beeville, Texas - Bee County Farm Bureau Office
November 8, 2005	Wharton, Texas - Wharton Civic Center, O'Quinn Rm.

Table 1: Listing of GMA 15 Public Meetings.

**Consideration of the Effects of Simulated Groundwater Production (GAM Runs)**

Texas Water Development Board (TWDB) staff provided technical guidance and support throughout the DFC development process. Of particular importance to the DFC development process was the numerous predictive simulations of groundwater production scenarios (GAM Runs) and related statistical analyses. The simulations and analyses focused on estimating the effect of groundwater production from the Gulf Coast Aquifer (comprised of the Chicot, Evangeline, Burkeville, and Jasper Layers in the Central Gulf Coast GAM (CGC-GAM)) on water levels in terms of year 2060 drawdown relative to estimated water levels of year 1999 assuming future recharge and evapotranspiration rates equal to the averages calculated for years between 1981 and 1999.

<b>GAM Run</b>	<b>Report Date</b>
Addendum for GR10-08 draft	May 2010
Draft DFC run of the Central Gulf Coast GAM (GR10-08 draft)	April 2010
Draft DFC run of the Central Gulf Coast GAM (GR09-10 draft_revised)	April 2010
Baseline run of the Central Gulf Coast GAM (GR08-56)	March 2009
Baseline run of the Central Gulf Coast GAM (GR07-43)	March 2008
Baseline run of the Central Gulf Coast GAM (GR07-42)	March 2008
Availability run of the Central Gulf Coast GAM (GR07-14)	October 2007
Baseline run of the Central Gulf Coast GAM (GR07-12)	April 2007

**Table 2: Listing of Groundwater Availability Model Run Reports for GMA 15.**

At the request of GMA 15 and GMA 16, TWDB staff developed and published GAM Run 07-12 which was referred to as the "Baseline Run." GAM Run 07-12 simulated the effects of continued groundwater production from the Gulf Coast Aquifer for 60 years (year 2000 through year 2060) in quantities equal to the amount being produced throughout GMA 15 at the end of year 1999. The total volume of simulated groundwater production for the counties within GMA 15 was approximately 352,000 acre-feet/year. *(Note: The boundary line between GMA 15 and GMA 16 was altered after this GAM Run was requested and finalized.)*

The analysis of the final GAM Run request of TWDB by GMA 15 was reported in Addendum for GR10-08 draft. GAM Run GR10-08 simulated the effects of continuous groundwater production from the Gulf Coast Aquifer for 60 year (year 2000 through year 2060) in quantities that exceeded the amount being produced throughout GMA 15 at the end of year 1999. The total volume of simulated groundwater production within GMA 15 was approximately 479,000 acre-feet/year.

### **GCD-Sponsored Investigations related to the Adoption of the GMA 15 DFC**

In addition to the information and guidance provided by TWDB staff, several groundwater conservation districts of GMA 15 sponsored separate investigations or studies to examine the impact of various approaches to developing DFCs within GMA 15.

Victoria County Groundwater Conservation District (VCGCD) sponsored two separate investigations directly related to the development of DFCs for GMA 15. The initial investigation evaluated the district's initially proposed DFC in terms of four criteria: 1) the appropriateness of the DFC statement for evaluating the future conditions of the aquifer (appropriateness criterion); 2) the impacts of the DFC on the estimated groundwater availability (availability criterion); 3) the preference of the stakeholders within the district and the board of directors with regards to the DFC statement

(preference criterion) and 4) the feasibility of implementing the DFC statement, if adopted, (implementation criterion). The final report can be viewed and downloaded from the VCGCD website at:

[www.vcgcd.org/ReportPDFs/Uddameri\\_EvaluationofVCGCDDraftDFC\\_Final.pdf](http://www.vcgcd.org/ReportPDFs/Uddameri_EvaluationofVCGCDDraftDFC_Final.pdf) .

The second investigation sponsored by VCGCD evaluated the impact of increased groundwater production within Victoria County as well as evaluated the impact on drawdown when recharge conditions included simulated drought-of-record conditions using the CGC-GAM. The final report can be viewed and downloaded from the VCGCD website at: [www.vcgcd.org/ReportPDFs/PBW%20-%20Uddameri%20-%20GW%20Modeling%20including%20Drought%20of%20Record%20Simulations%20for%20VCGCD.pdf](http://www.vcgcd.org/ReportPDFs/PBW%20-%20Uddameri%20-%20GW%20Modeling%20including%20Drought%20of%20Record%20Simulations%20for%20VCGCD.pdf).

Coastal Bend Groundwater Conservation District, Coastal Plains Groundwater Conservation District, and Colorado County Groundwater Conservation District cooperated in an investigation of various approaches to structuring the DFC for the Gulf Coast Aquifer as well as a comparison of the drawdown impacts between the CGC-GAM and the LCRB model.

#### **Adoption of the Proposed and Final DFC for the Gulf Coast Aquifer within GMA 15**

At the June 2, 2010 meeting of GMA 15, a proposed DFC was adopted by the GCD representatives of GMA 15 and a public hearing was scheduled for July 14, 2010 in Victoria Texas for the purpose of receiving public comment regarding the DFC.

Following proper notification and consideration of comments provided at the public hearing regarding the proposed DFC for the Gulf Coast Aquifer within GMA 15, the GCD representatives of GMA 15 passed a resolution adopting the following DFC:

**“groundwater within GMA 15 shall be managed in such a way as to achieve a Desired Future Condition in 2060 of no more than 12 feet of average drawdown of the Gulf Coast Aquifer within the GMA 15 boundary relative to 1999 starting conditions in accordance with Table 7 of GAM Run 10-008 Addendum.”**



**Notice of Open Meeting**

As required by section 36.108(e), Texas Water Code, a meeting of the Groundwater Management Area 15 Planning Committee, comprised of delegates from the following groundwater conservation districts located wholly or partially within Groundwater Management Area 15: Coastal Bend GCD, Coastal Plains GCD, Colorado County GCD, Fayette County GCD, Lavaca County GCD, Texana GCD, Victoria County GCD, Refugio County GCD, Pecan Valley GCD, Goliad County GCD, Evergreen UWCD, Bee County GCD, and the Corpus Christi Aquifer Storage and Recovery District will be held on Wednesday, July 14, 2010, at 9:30a.m. at Classroom A #108, Pattle Dodson Health Center, 2805 N. Navarro St, Victoria, Victoria County, Texas

At this meeting, the following business may be considered and recommended for action:

1. Welcome and Introductions
2. Public comments
3. Review and consider approval of GMA 15 minutes for meeting held on 6/2/2010.
4. Discussion of DFCs pertaining to Yagua-Jackson, Carrizo-Wilcox, Sparta, & Queen City. (Action Item)
5. Review Draft Resolution No. 2010-10 to consider modifications prior to adoption of DFC for Gulf Coast Aquifer.
6. Discussion & Consideration of Draft Submittal Package to TWDB. (Possible Action)
7. Recess for Public Hearing.
  - a. Public Hearing on the Adoption of Desired Future Conditions for all Aquifers within Groundwater Management Area 15.
  - b. Close Public Hearing.
8. Reconvene meeting.
9. Adoption of the Desired Future Condition for the Aquifers in Groundwater Management Area 15 and Resolution No. 2010-01
10. Recess Meeting if necessary to alter Resolution No. 2010-01 based on action taken by GMA 15.
11. Reconvene meeting if necessary.
12. Public comments
13. Adjournment



Neil Hudgins, Administrator  
Groundwater Management Area 15

RECEIVED & POSTED  
JULY 7, 2010 @ 9:10 A.M.

MIRELLA ESCAMILLA DAVIS, CLERK  
COUNTY COURT, BEE COUNTY, TEXAS

BY   
CYNTHIA TREVINO, DEPUTY

COASTAL BEND  
(WHARTON)

Notice of Open Meeting

As required by section 36.108(e), Texas Water Code, a meeting of the Groundwater Management Area 15 Planning Committee, comprised of delegates from the following groundwater conservation districts located wholly or partially within Groundwater Management Area 15: Coastal Bend GCD, Coastal Plains GCD, Colorado County GCD, Fayette County GCD, Lavaca County GCD, Texana GCD, Victoria County GCD, Refugio County GCD, Pecan Valley GCD, Goliad County GCD, Evergreen UWCD, Bee County GCD, and the Corpus Christi Aquifer Storage and Recovery District will be held on Wednesday, July 14, 2010, at 9:30a.m. at Classroom A #108, Pattie Dodson Health Center; 2805 N. Navarro St; Victoria, Victoria County, Texas

At this meeting, the following business may be considered and recommended for action:

POSTED

JUL - 9 2010

11:15 AM

RR

1. Welcome and Introductions
2. Public comments
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4. Discussion of DFCs pertaining to Yegua-Jackson, Carrizo-Wilcox, Sparta, & Queen City. (Action Item)
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Neil Hudgins, Administrator  
Groundwater Management Area 15

07-09-10:07:08AM

1079 031 1002

# 2/ 3

Notice of Open Meeting

As required by section 36.109(e), Texas Water Code, a meeting of the Groundwater Management Area 15 Planning Committee, comprised of delegates from the following groundwater conservation districts located wholly or partially within Groundwater Management Area 15: Coastal Bend GCD, Coastal Plains GCD, Colorado County GCD, Fayette County GCD, Lavaca County GCD, Texana GCD, Victoria County GCD, Refugio County GCD, Pecan Valley GCD, Goliad County GCD, Evergreen UWCD, Bee County GCD, and the Corpus Christi Aquifer Storage and Recovery District will be held on Wednesday, July 14, 2010, at 9:30a.m. at Classroom A #108, Patie Dodson Health Center; 2805 N. Navarro St; Victoria, Victoria County, Texas

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11. Reconvene meeting if necessary.
12. Public comments
13. Adjournment

  
 Nell Hudgins, Administrator  
 Groundwater Management Area 15

CPGLD  
 (Matagorda County)

Received & Posted 7-09-10 at 8:35 AM  
 Gail Denn, County Clerk  
 By Marie Davison, Deputy Clerk

**COPY**

Notice of Open Meeting

As required by section 36.108(e), Texas Water Code, a meeting of the Groundwater Management Area 15 Planning Committee, comprised of delegates from the following groundwater conservation districts located wholly or partially within Groundwater Management Area 15: Coastal Bend GCD, Coastal Plains GCD, Colorado County GCD, Fayette County GCD, Lavaca County GCD, Texana GCD, Victoria County GCD, Refugio County GCD, Pecan Valley GCD, Goliad County GCD, Evergreen UWCD, Bee County GCD, and the Corpus Christi Aquifer Storage and Recovery District will be held on Wednesday, July 14, 2010, at 9:30a.m. at Classroom A #108, Pattie Dodson Health Center, 2805 N. Navarro St, Victoria, Victoria County, Texas

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11. Reconvene meeting if necessary.
12. Public comments
13. Adjournment

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Neil Hudgins, Administrator  
Groundwater Management Area 15

FILED FOR RECORD  
COLORADO COUNTY, TX  
2010 JUL -8 PM 4:24  
DARLENE HAYEK DK  
COLORADO CO. CLERK

**Notice of Open Meeting**

As required by section 36.108(a), Texas Water Code, a meeting of the Groundwater Management Area 15 Planning Committee, comprised of delegates from the following groundwater conservation districts located wholly or partially within Groundwater Management Area 15: Coastal Bend GCD, Coastal Plains GCD, Colorado County GCD, Fayette County GCD, Lavaca County GCD, Tarrant GCD, Victoria County GCD, Refugio County GCD, Pecan Valley GCD, Galia County GCD, Evergreen UWCD, Bee County GCD, and the Corpus Christi Aquifer Storage and Recovery District will be held on Wednesday, July 14, 2010, at 9:30a.m. at Classroom A #108, Patti Dodson Health Center, 2805 N. Navarro St, Victoria, Victoria County, Texas

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6. Discussion & Consideration of Draft Submittal Packages to TWDB. (Possible Action)
7. Reasons for Public Hearing.
  - a. Public Hearing on the Adoption of Desired Future Conditions for all Aquifers within Groundwater Management Area 15.
  - b. Close Public Hearing.
8. Reconvene meeting.
9. Adoption of the Desired Future Condition for the Aquifers in Groundwater Management Area 15 and Resolution No. 2010-01
10. Recess Meeting if necessary to alter Resolution No. 2010-01 based on action taken by GMA 15.
11. Reconvene meeting if necessary.
12. Public comments
13. Adjournment

  
 \_\_\_\_\_  
 Nell Hudgins, Administrator  
 Groundwater Management Area 15

CLASRCO

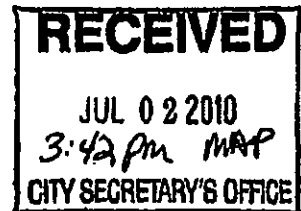
Doc# 2010880440  
 # Pages 2  
 07/02/2010 3:36PM  
 Official Records of  
 NUECES COUNTY  
 DIANA T. BARRERA  
 COUNTY CLERK  
 Fees \$0.00

**Notice of Open Meeting**

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Neil Hudgins, Administrator  
Groundwater Management Area 15

CCASRCO

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11. Reconvene meeting if necessary.
12. Public comments
13. Adjournment

  
Neil Hudgins, Administrator  
Groundwater Management Area 15

RECEIVED & POSTED  
on 7/14/10  
at 8:15 am  
LEO ALARCON  
Webb County, Clerk  
By: [Signature]  
Deputy

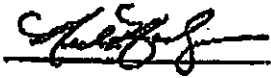
CCASRCO

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11. Reconvene meeting if necessary.
12. Public comments
13. Adjournment



Nell Hudgins, Administrator  
Groundwater Management Area 15

CCASRCD  
(Stamped on following page)

To receive contact: www.gma15.com



To license contact: www.ingmaker.com

Notice of Open Meeting

As required by section 36.108(e), Texas Water Code, a meeting of the Groundwater Management Area 15 Planning Committee, comprised of delegates from the following groundwater conservation districts located wholly or partially within Groundwater Management Area 15: Coastal Bend GCD, Coastal Plains GCD, Colorado County GCD, Fayette County GCD, Lavaca County GCD, Texas GCD, Victoria County GCD, Refugio County GCD, Pecan Valley GCD, Galveston County GCD, Evergreen UWCD, Bee County GCD, and the Corpus Christi Aquifer Storage and Recovery District will be held on Wednesday, July 14, 2010, at 10:00a.m. at Classroom A #108, Purlo Dodson Health Center, 2805 N. Navarro St, Victoria, Victoria County, Texas

At this meeting, the following business may be considered and recommended for action:

1. Welcome and Introductions
2. Review and consider approval of GMA 15 minutes for meeting held on 7/14/2010.
3. Public comments
4. Adjournment



Neil Hudgins, Administrator  
Groundwater Management Area 15

FILED  
AT 3:25 P.M. O'CLOCK

JUL 0 8 2010

GRACIE ALARIC-VALDEZ, CLERK  
SAN PATRICK COUNTY, TEXAS  
BY Alison Lantz DEPUTY

CCASRLD

**Notice of Open Meeting**

As required by section 36.108(e), Texas Water Code, a meeting of the Groundwater Management Area 15 Planning Committee, comprised of delegates from the following groundwater conservation districts located wholly or partially within Groundwater Management Area 15: Coastal Bend GCD, Coastal Plains GCD, Colorado County GCD, Fayette County GCD, Lavaca County GCD, Texana GCD, Victoria County GCD, Refugio County GCD, Pecan Valley GCD, Goliad County GCD, Evergreen UWCD, Bee County GCD, and the Corpus Christi Aquifer Storage and Recovery District will be held on Wednesday, July 14, 2010, at 9:30a.m. at Classroom A #108, Pattle Dodson Health Center, 2805 N. Navarro St; Victoria, Victoria County, Texas

At this meeting, the following business may be considered and recommended for action:

1. Welcome and Introductions
2. Public comments
3. Review and consider approval of GMA 15 minutes for meeting held on 6/2/2010.
4. Discussion of DFCs pertaining to Yegua-Jackson, Carrizo-Wilcox, Sparta, & Queen City. (Action Item)
5. Review Draft Resolution No. 2010-10 to consider modifications prior to adoption of DFC for Gulf Coast Aquifer.
6. Discussion & Consideration of Draft Submittal Package to TWDB. (Possible Action)
7. Recess for Public Hearing.
  - a. Public Hearing on the Adoption of Desired Future Conditions for all Aquifers within Groundwater Management Area 15.
  - b. Close Public Hearing.
8. Reconvene meeting.
9. Adoption of the Desired Future Condition for the Aquifers in Groundwater Management Area 15 and Resolution No. 2010-01
10. Recess Meeting if necessary to alter Resolution No. 2010-01 based on action taken by GMA 15.
11. Reconvene meeting if necessary.
12. Public comments
13. Adjournment



Neil Hudgins, Administrator  
Groundwater Management Area 15

CCASRD  
(stamped on following page)

**Notice of Open Meeting**

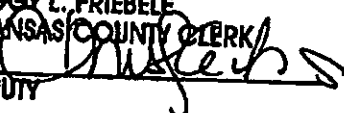
As required by section 36.102(e), Texas Water Code, a meeting of the Groundwater Management Area 15 Planning Committee, comprised of delegates from the following groundwater conservation districts located wholly or partially within Groundwater Management Area 15: Coastal Bend GCD, Coastal Plains GCD, Colorado County GCD, Fayette County GCD, Lavaca County GCD, Texana GCD, Victoria County GCD, Refugio County GCD, Pecan Valley GCD, Goliad County GCD, Evergreen UWCD, Bee County GCD, and the Corpus Christi Aquifer Storage and Recovery District will be held on Wednesday, July 14, 2010, at 10:00a.m. at Classroom A #108, Pettie Dodson Health Center, 2805 N. Navarro St, Victoria, Victoria County, Texas

At this meeting, the following business may be considered and recommended for action:

- 1. Welcome and Introductions
- 2. Review and consider approval of GMA 15 minutes for meeting held on 7/14/2010.
- 3. Public comments
- 4. Adjournment



Neil Hudgins, Administrator  
Groundwater Management Area 15

THIS IS A PURPORTED COPY OF A  
DOCUMENT FILED FOR RECORD ON THIS  
THE 9 DAY OF July 2010  
AT 9:25 A.M.  
PEGGY L. FRIEBELE  
ARANSAS COUNTY CLERK  
BY:   
DEPUTY

CCASRCO

**Notice of Open Meeting**

As required by section 36.108(e), Texas Water Code, a meeting of the Groundwater Management Area 15 Planning Committee, comprised of delegates from the following groundwater conservation districts located wholly or partially within Groundwater Management Area 15: Coastal Bend GCD, Coastal Plains GCD, Colorado County GCD, Fayette County GCD, Lavaca County GCD, Texana GCD, Victoria County GCD, Refugio County GCD, Pecan Valley GCD, Goliad County GCD, Evergreen UWCD, Bee County GCD, and the Corpus Christi Aquifer Storage and Recovery District will be held on Wednesday, July 14, 2010, at 9:30a.m. at Classroom A #108, Pattie Dodson Health Center; 2805 N. Navarro St; Victoria, Victoria County, Texas

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9. Adoption of the Desired Future Condition for the Aquifers in Groundwater Management Area 15 and Resolution No. 2010-01
10. Recess Meeting if necessary to alter Resolution No. 2010-01 based on action taken by GMA 15.
11. Reconvene meeting if necessary.
12. Public comments
13. Adjournment



Neil Hudgins, Administrator  
Groundwater Management Area 15

*Evergreen UWCD*

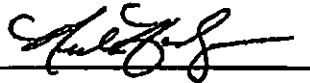
FILED  
*July 7th, 2010*  
At 9:45 o'clock A.M.  
ALVA JONAS  
COUNTY CLERK  
KARNES COUNTY, TEXAS  
*Nancy Hodges*  
Deputy

Notice of Open Meeting

As required by section 36.108(e), Texas Water Code, a meeting of the Groundwater Management Area 15 Planning Committee, comprised of delegates from the following groundwater conservation districts located wholly or partially within Groundwater Management Area 15: Coastal Bend GCD, Coastal Plains GCD, Colorado County GCD, Fayette County GCD, Lavaca County GCD, Texana GCD, Victoria County GCD, Refugio County GCD, Pecan Valley GCD, Goliad County GCD, Evergreen UWCD, Bee County GCD, and the Corpus Christi Aquifer Storage and Recovery District will be held on Wednesday, July 14, 2010, at 9:30a.m. at Classroom A #108, Pattie Dodson Health Center; 2805 N. Navarro St; Victoria, Victoria County, Texas


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  - b. Close Public Hearing.
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10. Recess Meeting if necessary to alter Resolution No. 2010-01 based on action taken by GMA 15.
11. Reconvene meeting if necessary.
12. Public comments
13. Adjournment



Nell Hudgins, Administrator  
Groundwater Management Area 15

Evergreen UWCD

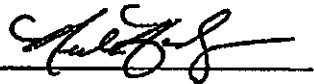
FILED  
At 9:15 o'Clock A M  
This 7 day of 7 10  
  
Clerk County Court, FRIO COUNTY, TX

Notice of Open Meeting

As required by section 36.108(e), Texas Water Code, a meeting of the Groundwater Management Area 15 Planning Committee, comprised of delegates from the following groundwater conservation districts located wholly or partially within Groundwater Management Area 15: Coastal Bend GCD, Coastal Plains GCD, Colorado County GCD, Fayette County GCD, Lavaca County GCD, Texana GCD, Victoria County GCD, Refugio County GCD, Pecan Valley GCD, Goliad County GCD, Evergreen UWCD, Bee County GCD, and the Corpus Christi Aquifer Storage and Recovery District will be held on Wednesday, July 14, 2010, at 9:30a.m. at Classroom A #108, Pattie Dodson Health Center, 2805 N. Navarro St; Victoria, Victoria County, Texas

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11. Reconvene meeting if necessary.
12. Public comments
13. Adjournment

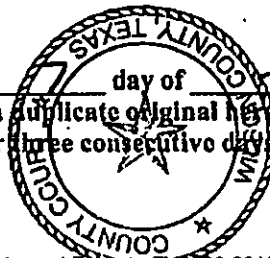


Neil Hudgins, Administrator  
Groundwater Management Area 15

*Evergreen UWCD*

STATE OF TEXAS  
COUNTY OF WILSON

Received in duplicate originals this \_\_\_\_\_ day of \_\_\_\_\_, 2010, and published according to law by posting a duplicate original of on a bulletin board convenient to the public at Wilson County Courthouse for three consecutive days prior to the 14 day of July, 2010.



EVA S. MARTINEZ

County Clerk of Wilson County, Texas GCD Annual Report 2009-2010

By: Orana Jela, Deputy

Posted time: 10:30 AM

Notice of Open Meeting

As required by section 36.108(e), Texas Water Code, a meeting of the Groundwater Management Area 15 Planning Committee, comprised of delegates from the following groundwater conservation districts located wholly or partially within Groundwater Management Area 15: Coastal Bend GCD, Coastal Plains GCD, Colorado County GCD, Fayette County GCD, Lavaca County GCD, Texana GCD, Victoria County GCD, Refugio County GCD, Pecan Valley GCD, Goliad County GCD, Evergreen UWCD, Bee County GCD, and the Corpus Christi Aquifer Storage and Recovery District will be held on Wednesday, July 14, 2010, at 9:30a.m. at Classroom A #108, Pattie Dodson Health Center; 2805 N. Navarro St; Victoria, Victoria County, Texas

At this meeting, the following business may be considered and recommended for action:

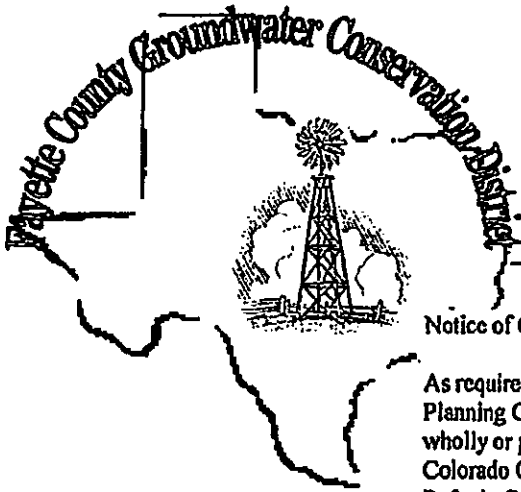
1. Welcome and Introductions
2. Public comments
3. Review and consider approval of GMA 15 minutes for meeting held on 6/2/2010.
4. Discussion of DFCs pertaining to Yegua-Jackson, Carrizo-Wilcox, Sparta, & Queen City. (Action Item)
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11. Reconvene meeting if necessary.
12. Public comments
13. Adjournment



Neil Hudgins, Administrator  
Groundwater Management Area 15

*Evergreen UWCD*

FILED FOR RECORD  
2010 JUL -6 AM 9:28  
DIANE GONZALES  
ATASCOSA COUNTY CLERK  
BY KWest DEPUTY



255 Svoboda Lane, Room 115  
La Grange, Texas 78945  
Telephone: (979) 968-3135  
Fax: (979) 968-3194

**COPY**  
THE ORIGINAL INSTRUMENT WAS  
FILED IN FAYETTE COUNTY, TEXAS ON  
**11/11/2010** JP  
July 9, 2010 @ 8:55AM

#### Notice of Open Meeting

As required by section 36.108(e), Texas Water Code, a meeting of the Groundwater Management Area 15 Planning Committee, comprised of delegates from the following groundwater conservation districts located wholly or partially within Groundwater Management Area 15: Coastal Bend GCD, Coastal Plains GCD, Colorado County GCD, Fayette County GCD, Lavaca County GCD, Texana GCD, Victoria County GCD, Refugio County GCD, Pecan Valley GCD, Goliad County GCD, Evergreen UWCD, Bee County GCD, and the Corpus Christi Aquifer Storage and Recovery District will be held on Wednesday, July 14, 2010, at 9:30a.m. at Classroom A #108, Pattie Dodson Health Center, 2805 N. Navarro St; Victoria, Victoria County, Texas

At this meeting, the following business may be considered and recommended for action:

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2. Public comments
3. Review and consider approval of GMA 15 minutes for meeting held on 6/2/2010.
4. Discussion of DFCs pertaining to Yagua-Jackson, Carrizo-Wilcox, Sparta, & Queen City. (Action Item)
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10. Recess Meeting if necessary to alter Resolution No. 2010-01 based on action taken by GMA 15.
11. Reconvene meeting if necessary.
12. Public comments
13. Adjournment

Neil Hudgins, Administrator  
Groundwater Management Area 15

**Directors:**

Robert Leer - Precinct 1  
Charles Richter - Precinct 3  
Leo Wick, Sr - At Large

L. J. Calley - Precinct 2  
Leo Kalner - Precinct 4



**GOLIAD COUNTY GROUNDWATER CONSERVATION DISTRICT  
BOARD OF DIRECTORS  
NOTICE OF MEETING**

**Notice of Open Meeting**

As required by section 36.108(e), Texas Water Code, a meeting of the Groundwater Management Area 15 Planning Committee, comprised of delegates from the following groundwater conservation districts located wholly or partially within Groundwater Management Area 15: Coastal Bend GCD, Coastal Plains GCD, Colorado County GCD, Fayette County GCD, Lavaca County GCD, Texans GCD, Victoria County GCD, Refugio County GCD, Pecan Valley GCD, Goliad County GCD, Evergreen UWCD, Bee County GCD, and the Corpus Christi Aquifer Storage and Recovery District will be held on Wednesday, July 14, 2010, at 9:30 a.m. at Classroom A #108, Pattie Dodson Health Center, 2805 N. Navarro St, Victoria, Victoria County, Texas

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2. Public comments
3. Review and consider approval of GMA 15 minutes for meeting held on 6/2/2010.
4. Discussion of DFCs pertaining to Yegua-Jackson, Carrizo-Witcox, Sparta, & Queen City. (Action Item)
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10. Recess Meeting ~~if necessary~~ to alter Resolution No. 2010-01 based on action taken by GMA 15.
11. Reconvene meeting ~~if necessary~~.
12. Public comments
13. Adjournment

**72 HOUR NOTICE**

The Goliad County Groundwater Conservation District is committed to compliance with the Americans with Disabilities Act (ADA). Reasonable accommodations and equal opportunity for effective communications will be provided upon request. Please contact the District at 361-645-1716 at least 24 hours in advance if accommodation is needed.

**CERTIFICATE OF POSTING  
POSTED**

3:16 o'clock P.M.  
4th day of July A.D. 2010  
*Mary Walker Flores*  
County Clerk, Goliad County, Texas  
*Exp. Annie Clark, Deputy*

### Notice of Open Meeting

As required by section 36.108(e), Texas Water Code, a meeting of the Groundwater Management Area 15 Planning Committee, comprised of delegates from the following groundwater conservation districts located wholly or partially within Groundwater Management Area 15: Coastal Bend GCD, Coastal Plains GCD, Colorado County GCD, Fayette County GCD, Lavaca County GCD, Texana GCD, Victoria County GCD, Refugio County GCD, Pecan Valley GCD, Goliad County GCD, Evangreen UWCD, Bea County GCD, and the Corpus Christi Aquifer Storage and Recovery District will be held on Wednesday, July 14, 2010, at 9:30a.m. at Classroom A #108, Fattie Dodson Health Center, 2805 N. Navarro St, Victoria, Victoria County, Texas

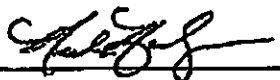
At this meeting, the following business may be considered and recommended for action:

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2. Public comments
3. Review and consider approval of GMA 15 minutes for meeting held on 6/2/2010.
4. Discussion of DFCs pertaining to Yegua-Jackson, Carrizo-Wilcox, Sparta, & Queen City. (Action Item)
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  - b. Close Public Hearing.
8. Reconvene meeting.
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10. Recess Meeting if necessary to alter Resolution No. 2010-01 based on action taken by GMA 15.
11. Reconvene meeting if necessary.
12. Public comments
13. Adjournment

**FILED FOR RECORD**  
At 1:45 O'Clock, P M

**JUL 02 2010**

ELIZABETH A. KOUBA, CLERK  
COUNTY COURT LAVACA CO, TEXAS  
By Elizabeth A. Kouba Deputy



Neil Hudgins, Administrator  
Groundwater Management Area 15

# PECAN VALLEY GCD (DEWITT)

## Notice of Open Meeting

As required by section 36.108(e), Texas Water Code, a meeting of the Groundwater Management Area 15 Planning Committee, comprised of delegates from the following groundwater conservation districts located wholly or partially within Groundwater Management Area 15: Coastal Bend GCD, Coastal Plains GCD, Colorado County GCD, Fayette County GCD, Lavaca County GCD, Texana GCD, Victoria County GCD, Refugio County GCD, Pecan Valley GCD, Goliad County GCD, Evergreen UWCD, Bee County GCD, and the Corpus Christi Aquifer Storage and Recovery District will be held on Wednesday, July 14, 2010, at 9:30a.m. at Classroom A #108, Patti Dodson Health Center; 2805 N. Navarro St; Victoria, Victoria County, Texas

At this meeting, the following business may be considered and recommended for action:

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11. Reconvene meeting if necessary.
12. Public comments
13. Adjournment



Noil Hudgins, Administrator  
Groundwater Management Area 15

POSTED  
DATE: 7-7-10

Notice of Open Meeting

As required by section 36.108(a), Texas Water Code, a meeting of the Groundwater Management Area 15 Planning Committee, comprised of delegates from the following groundwater conservation districts located wholly or partially within Groundwater Management Area 15: Coastal Bend GCD, Coastal Plains GCD, Colorado County GCD, Fayette County GCD, Lavaca County GCD, Texas GCD, Victoria County GCD, Refugio County GCD, Pecos Valley GCD, Goliad County GCD, Brevard JWCD, Bee County GCD, and the Corpus Christi Aquifer Storage and Recovery District will be held on Wednesday, July 14, 2010, at 9:30 a.m. at Classroom A #108, Patsie Dodson Health Center, 2605 N. Navarro St, Victoria, Victoria County, Texas

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8. Reconvene meeting.
9. Adoption of the Desired Future Condition for the Aquifers in Groundwater Management Area 15 and Resolution No. 2010-01
10. Recess Meeting if necessary to allow Resolution No. 2010-01 based on action taken by GMA 15.
11. Reconvene meeting if necessary.
12. Public comments
13. Adjournment

  
Neil Hodgins, Administrator  
Groundwater Management Area 15

Certificate of Posting

The above Notice of Meeting was posted July 2, 2010, at a place convenient to the public on a bulletin board in the Refugio County Courthouse at Refugio, Texas.

WITNESS MY HAND AND SEAL of office on above date.  
Ruby Garcia, Clerk County Court  
Refugio County, Texas

# Victoria County Groundwater Conservation District



**Directors:**

**Mark Meek**  
President

**Jerry Hroch**  
Vice-President

**Barbara Dietzel**  
Secretary

**Thurman Clements**  
Kenneth Eller

**NOTICE OF SPECIAL CALLED MEETING  
VICTORIA COUNTY GROUNDWATER CONSERVATION DISTRICT  
BOARD OF DIRECTORS**

Notice is given in accordance with Chapter 551-Government Code (V.T.C.A.) Texas Open Meetings Act that the Victoria County Groundwater Conservation District Board of Directors will hold a meeting on **Wednesday, July 14, 2010 at 9:30 AM at Dr. Pattie Dodson Health Center, 2805 N. Navarro St. Room 108, Victoria, Texas 77901.**

Notice is given in accordance with Chapter 551 - Government Code (V.T.C.A.) Texas Open Meeting Act, that the Victoria County Groundwater Conservation District Board of Directors will attend a meeting, as required by section 36.108(e), Texas Water Code, of the Groundwater Management Area 15 (GMA-15).

GMA 15 is comprised of delegates from the following groundwater conservation districts wholly or partially within GMA-15: Bee GCD, Coastal Bend GCD, Coastal Plains GCD, Colorado County GCD, Corpus Christi ASRCD, Evergreen UWCD, Fayette County GCD, Goliad County GCD, Lavaca GCD, Pecan Valley GCD, Refugio GCD, Texana GCD, and Victoria County GCD.

**AGENDA**

Victoria County Groundwater Conservation District (VCGCD) Board of Directors and staff will attend and participate in joint planning of GMA 15 regarding the development of Desired Future Conditions (DFC) of aquifers within Groundwater Management Area 15 (GMA-15).

  
\_\_\_\_\_  
Tim Andruss, General Manager

72 Hour Notice Date: 7/11/10

(In Accordance with Title III of the Americans with Disabilities Act, we invite all attendees to advise us of any special accommodations due to disability. Please submit your request as far as possible in advance of programs you wish to attend.)

2805 N. Navarro St. Suite 210, Victoria, TX 77901, Phone (361) 579-6863, Fax (361) 579-0041

**FILED**

**2010 JUL -6 PM 1:22**

*Val W. Fernald*  
COUNTY CLERK  
VICTORIA COUNTY, TEXAS

By: *Jerry J. Parsons, Deputy*

**Notice of Open Meeting**

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11. Reconvene meeting if necessary.
12. Public comments
13. Adjournment



Neil Hudgins, Administrator  
Groundwater Management Area 15

**FILED**

2010 JUL -8 PM 12:45

*Neil W. Howard*  
COUNTY CLERK  
VICTORIA COUNTY, TEXAS

*By: Jimmy H. ... Deputy*

**Notice of Open Meeting**

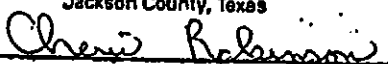
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  - b. Close Public Hearing.
8. Reconvene meeting.
9. Adoption of the Desired Future Condition for the Aquifers in Groundwater Management Area 15 and Resolution No. 2010-01
10. Recess Meeting if necessary to alter Resolution No. 2010-01 based on action taken by GMA 15.
11. Reconvene meeting if necessary.
12. Public comments
13. Adjournment



Neil Hudgins, Administrator  
Groundwater Management Area 15


FILED 7-6-10  
KENNETH W. McELVEEN-Clerk of County Court  
Jackson County, Texas  
BY 

**Notice of Open Meeting**

As required by section 36.108(e), Texas Water Code, a meeting of the Groundwater Management Area 15 Planning Committee, comprised of delegates from the following groundwater conservation districts located wholly or partially within Groundwater Management Area 15: Coastal Bend GCD, Coastal Plains GCD, Colorado County GCD, Fayette County GCD, Lavaca County GCD, Texas GCD, Victoria County GCD, Refugio County GCD, Pecan Valley GCD, Goliad County GCD, Evergreen UWCD, Bee County GCD, and the Corpus Christi Aquifer Storage and Recovery District will be held on Wednesday, July 14, 2010, at 9:30a.m. at Classroom A #108, Patti Dodson Health Center; 2805 N. Navarro St; Victoria, Victoria County, Texas

At this meeting, the following business may be considered and recommended for action:


1. Welcome and Introductions
2. Public comments
3. Review and consider approval of GMA 15 minutes for meeting held on 6/2/2010.
4. Discussion of DFCs pertaining to Yegua-Jackson, Carrizo-Wilcox, Sparta, & Queen City. (Action Item)
5. Review Draft Resolution No. 2010-10 to consider modifications prior to adoption of DFC for Gulf Coast Aquifer.
6. Discussion & Consideration of Draft Submittal Package to TWDB. (Possible Action)
7. Recess for Public Hearing.
  - a. Public Hearing on the Adoption of Desired Future Conditions for all Aquifers within Groundwater Management Area 15.
  - b. Close Public Hearing.
8. Reconvene meeting.
9. Adoption of the Desired Future Condition for the Aquifers in Groundwater Management Area 15 and Resolution No. 2010-01
10. Recess Meeting if necessary to alter Resolution No. 2010-01 based on action taken by GMA 15.
11. Reconvene meeting if necessary.
12. Public comments
13. Adjournment



Neil Hudgins, Administrator  
Groundwater Management Area 15

AT 4 O'CLOCK P M

JUL 06 2010

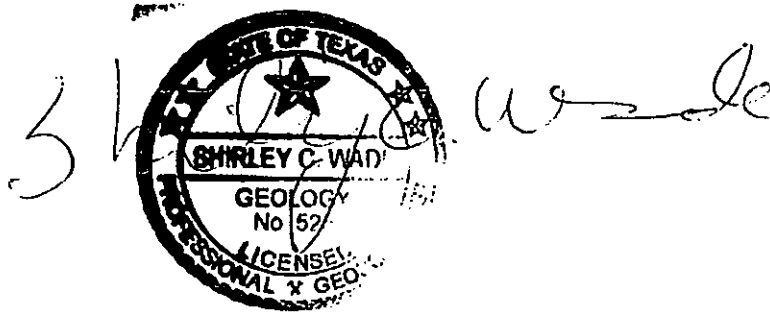




# GAM Run 10-008 Addendum

By Shirley C. Wade, Ph.D., P.G.  
Texas Water Development Board  
Groundwater Resources Division  
(512) 936-0883  
June 30, 2010

The seal appearing on this document was authorized by Shirley C. Wade, P.G. 525, on June 30, 2010.



## **EXECUTIVE SUMMARY:**

The groundwater availability model for the central part of the Gulf Coast Aquifer System was used with a constant specified annual pumpage for a 60-year predictive simulation using average recharge rates, evapotranspiration rates, and initial streamflows. A baseline pumping run results in an overall average drawdown of 11.4 feet with approximately 479,000 acre-feet per year of pumping in Groundwater Management Area 15. Additional model runs indicate that approximately 456,000, 471,000, and 488,000 acre-feet per year can be pumped from the Gulf Coast Aquifer in Groundwater Management Area 15 to achieve overall average drawdowns of 10, 11, and 12 feet respectively within GMA 15.

## **REQUESTOR:**

This GAM Run Addendum is a follow-up to a run requested by Mr. Neil Hudgins of the Coastal Bend Groundwater Conservation District acting on behalf of Groundwater Management Area 15.

## **DESCRIPTION OF REQUEST:**

In GAM Run 10-008 Mr. Neil Hudgins requested model runs using the groundwater availability model for the central part of the Gulf Coast Aquifer. In that model run and in the baseline run (Hutchison, 2010 and Anaya, 2010) the amount of pumping reported for Fayette County was less than the requested amount, 8,700 acre-feet per year, partly due to model cells going dry. Mr. David Van Dresar of the Fayette County Groundwater Conservation District requested that the amount of pumping for Fayette County in the model run be kept at 8,700 acre-feet per year. The baseline run (GAM Run 09-010; Anaya, 2010) and adjusted pumping runs (GAM Run 10-008; Hutchison, 2010) were repeated with the baseline pumping in Fayette County maintained at 8,700 acre-feet per year. The model runs are 60-year predictive simulations using initial water levels from the end of the 1999 historical calibration period and average recharge conditions.

## **METHODS:**

Recharge, evapotranspiration rates, and initial streamflows were averaged for the historic calibration-verification runs, representing 1981 to 1999. These averages were then used for each year of the 60-year predictive simulation along with the requested pumpage volumes.

For Fayette County, pumping was increased uniformly so that even with dry cells the amount would not be less than 8,700 acre-feet per year. In addition it was observed that 333 acre-feet per year of pumping in Fayette County is located in Groundwater Management Area 12 so it did not appear in the GMA 15 pumpage totals in the previous runs. The pumpage total for GMA 12 is listed separately for this run. The total GMA 15 and GMA 12 baseline pumping in Fayette County for this run is 8,710 acre-feet per year.

## **PARAMETERS AND ASSUMPTIONS:**

The groundwater availability model for the central part of the Gulf Coast Aquifer was used for this model run. The parameters and assumptions for this model are described below:

- Version 1.01 of the groundwater availability model for the central part of the Gulf Coast Aquifer was used. This model assumes partial penetrating wells in the Evangeline Aquifer due to a lack of data for aquifer properties in the lower portion of the aquifer.
- See Chowdhury and others (2004) and Waterstone and others (2003) for assumptions and limitations of the groundwater availability model for the central part of the Gulf Coast Aquifer.
- The mean absolute error (a measure of the difference between simulated and actual water levels during model calibration) in the entire model for 1999 is 26 feet, which is 4.6 percent of the hydraulic head drop across the model area (Chowdhury and others, 2004).
- The model includes four layers representing: the Chicot Aquifer (Layer 1), the Evangeline Aquifer (Layer 2), the Burkeville Confining Unit (Layer 3), and the Jasper Aquifer (Layer 4).
- Recharge rates, evapotranspiration rates, and initial streamflows are averages from the 1981 to 1999 calibration and verification time period.
- With the exception of Fayette County, the pumpage distribution was specified for GAM Run 09-010 (Anaya, 2010) and the amounts were scaled uniformly to achieve the desired overall average drawdowns.

## **RESULTS:**

Groundwater Management Area 15 overall drawdown is 11.4 feet for the revised baseline pumping run. The county-averaged groundwater level drawdowns are listed in Table 1 and the corresponding pumping amounts are listed in Table 2.

The county-averaged groundwater level drawdowns for the 10 feet average overall drawdown are listed in Table 3 and the corresponding pumping amounts are listed in Table 4. Ten feet of overall drawdown allows a total pumping amount of 455,679 acre-feet per year in the Gulf Coast Aquifer in Groundwater Management Area 15. The county-averaged groundwater level drawdowns for the 11 feet average overall drawdown are listed in Table 5 and the corresponding pumping amounts are listed in Table 6. Eleven feet of overall drawdown allows a total pumping amount of 471,492 acre-feet per year in the Gulf Coast Aquifer in Groundwater Management Area 15. The county-averaged groundwater level drawdowns for the 12 feet average overall drawdown are listed in Table 7 and the corresponding pumping amounts are listed in Table 8. Twelve feet of overall drawdown allows a total pumping amount of 487,567 acre-feet per year in the Gulf Coast Aquifer in Groundwater Management Area 15.

## **REFERENCES:**

Anaya, R., 2010, GAM Run 09-010, Texas Water Development Board GAM Run Report, 30 p.

Hutchison, W.R., 2010, GAM Run 10-008, Texas Water Development Board GAM Run Report, 9 p.

**Chowdhury, A.H., Wade, S., Mace, R.E., and Ridgeway, C., 2004, Groundwater Availability Model of the Central Gulf Coast Aquifer System: Numerical Simulations through 1999, Texas Water Development Board, unpublished report, 114 p.**

**Donnelly, A.C.A., 2007a, GAM Run 07-12, Texas Water Development Board GAM Run Report, 39 p.**

**Waterstone Engineering, Inc., and Parsons, Inc., 2003, Groundwater Availability of the Central Gulf Coast Aquifer: Numerical Simulations to 2050 Central Gulf Coast, Texas- Final Report: contract report to the Texas Water Development Board, 158 p.**

**Table 1 GMA 15 Baseline Drawdown in 60 years (in feet, 1999 Starting Conditions)**

County	Chicot	Evangeline	Chicot+ Evangeline	Burkeville	Jasper	Overall	Overall (without Burkeville)
Aransas	-0.1	25.0	0.5	--	--	0.5	0.5
Bee	3.0	13.6	10.0	9.4	4.8	8.5	8.1
Calhoun	-1.0	9.1	1.9	2.6	--	1.9	1.9
Colorado	5.2	8.9	7.3	14.1	20.7	12.6	12.0
DeWitt	0.2	5.4	4.6	14.5	22.3	14.8	14.9
Fayette	--	13.8	13.8	41.6	48.4	41.4	41.4
Goliad	-1.3	3.4	2.4	7.2	9.1	5.8	5.2
Jackson	12.5	15.5	14.0	11.4	19.1	14.1	15.0
Karnes	--	-0.4	-0.4	15.7	15.4	13.9	13.4
Lavaca	4.7	5.1	5.0	14.1	28.7	15.5	16.0
Matagorda	3.2	17.7	7.6	14.4	--	8.2	7.6
Refugio	0.5	31.4	14.7	12.5	--	14.4	14.7
Victoria	-9.4	3.4	-2.7	3.2	7.4	0.6	-0.4
Wharton	11.7	3.8	7.7	18.4	21.1	13.5	11.8
<b>Overall</b>	<b>3.3</b>	<b>9.9</b>	<b>6.7</b>	<b>13.0</b>	<b>20.6</b>	<b>11.4</b>	<b>10.9</b>

**Table 2 Baseline Pumping (AF/yr)**

County	Chicot	Evangeline	Chicot+ Evangeline	Burkeville	Jasper	Overall	Overall (without Burkeville)
Aransas	1,826	--	1,826	--	--	1,826	1,826
Bee	3,635	5,321	8,956	17	283	9,256	9,239
Calhoun	2,881	62	2,943	--	--	2,943	2,943
Colorado	24,448	22,649	47,097	900	--	47,997	47,997
DeWitt	999	6,933	7,932	122	6,282	14,336	14,214
Fayette (GMA 15)	--	888	888	156	7,333	8,377	8,221
Fayette (GMA 12)	--	--	--	--	333	333	333
Goliad	700	10,375	11,075	300	100	11,475	11,175
Jackson	54,678	20,211	74,889	--	--	74,889	74,889
Karnes	--	103	103	244	2,713	3,060	2,816
Lavaca	3,034	12,399	15,433	138	4,408	19,979	19,841
Matagorda	35,673	9,327	45,000	--	--	45,000	45,000
Refugio	6,254	22,501	28,755	--	--	28,755	28,755
Victoria	7,999	26,999	34,998	--	--	34,998	34,998
Wharton	108,649	66,349	174,998	--	--	174,998	174,998
<b>Overall</b>	<b>250,776</b>	<b>204,117</b>	<b>454,893</b>	<b>1,877</b>	<b>21,452</b>	<b>478,889</b>	<b>476,912</b>

**Table 3 GMA 15 10 feet scenario**  
**Drawdown after 60 years (in feet, 1999 Starting Conditions)**

County	Chicot	Evangeline	Chicot+ Evangeline	Burkeville	Jasper	Overall	Overall (without Burkeville)
Aransas	-0.1	23.7	0.5	--	--	0.5	0.5
Bee	2.0	12.3	8.8	8.7	4.2	7.6	7.1
Calhoun	-1.0	7.7	1.4	2.5	--	1.4	1.4
Colorado	3.8	6.7	5.4	12.6	19.1	10.9	10.9
DeWitt	-0.2	4.8	4.1	13.3	20.7	13.6	13.7
Fayette	--	13.0	13.0	39.5	46.3	39.5	39.5
Goliad	-1.6	2.9	2.0	6.8	8.6	5.3	4.7
Jackson	10.3	11.8	11.0	9.7	18.1	11.8	12.4
Karnes	--	-0.9	-0.9	15.0	14.8	13.3	12.8
Lavaca	3.5	4.0	3.8	13.0	26.8	14.1	14.6
Matagorda	2.8	14.6	6.4	13.4	--	7.1	6.4
Refugio	0.4	29.7	13.9	11.8	--	13.6	13.9
Victoria	-9.6	1.8	-3.7	2.3	6.5	-0.3	-1.3
Wharton	9.2	-1.0	4.1	16.4	20.0	10.9	9.0
<b>Overall</b>	<b>2.4</b>	<b>7.7</b>	<b>5.1</b>	<b>11.8</b>	<b>19.3</b>	<b>10.0</b>	<b>9.6</b>

**Table 4 Pumping (AF/yr) for 10 feet scenario**

County	Chicot	Evangeline	Chicot+ Evangeline	Burkeville	Jasper	Overall	Overall (without Burkeville)
Aransas	1,741	--	1,741	--	--	1,741	1,741
Bee	3,465	5,073	8,538	16	270	8,824	8,808
Calhoun	2,746	59	2,805	--	--	2,805	2,805
Colorado	23,306	21,591	44,897	--	858	45,755	45,755
DeWitt	952	6,609	7,561	117	5,989	13,667	13,550
Fayette (GMA 15)	--	847	847	156	6,991	7,994	7,838
Fayette (GMA 12)	--	--	--	--	317	317	317
Goliad	667	9,890	10,557	286	95	10,938	10,652
Jackson	52,125	19,267	71,392	--	--	71,392	71,392
Karnes	--	98	98	240	2,678	3,016	2,776
Lavaca	2,892	11,820	14,712	134	4,202	19,048	18,914
Matagorda	34,007	8,891	42,898	--	--	42,898	42,898
Refugio	5,962	21,450	27,412	--	--	27,412	27,412
Victoria	7,625	25,738	33,363	--	--	33,363	33,363
Wharton	103,575	63,251	166,826	--	--	166,826	166,826
<b>Overall (GMA 15)</b>	<b>239,063</b>	<b>194,584</b>	<b>433,647</b>	<b>949</b>	<b>21,400</b>	<b>455,679</b>	<b>454,730</b>

**Table 5 GMA 15 11 feet scenario**  
**Drawdown after 60 years (in feet, 1999 Starting Conditions)**

County	Chlcot	Evangeline	Chicott+ Evangeline	Burkeville	Jasper	Overall	Overall (without Burkeville)
Aransas	-0.1	24.6	0.5	--	--	0.5	0.5
Bee	2.7	13.2	9.6	9.1	4.6	8.2	7.8
Calhoun	-1.0	8.7	1.8	2.5	--	1.8	1.8
Colorado	4.8	8.3	6.7	13.7	20.2	12.1	11.5
DeWitt	0.1	5.2	4.5	14.2	21.9	14.4	14.5
Fayette	--	13.6	13.6	41.1	47.8	40.9	40.8
Goliad	-1.4	3.3	2.3	7.1	8.9	5.7	5.0
Jackson	11.8	14.4	13.1	10.9	18.8	13.4	14.3
Karnes	--	-0.6	-0.6	15.6	15.2	13.8	13.2
Lavaca	4.4	4.8	4.6	13.8	28.1	15.1	15.6
Matagorda	3.1	16.8	7.2	14.1	--	7.9	7.2
Refugio	0.5	31.0	14.5	12.3	--	14.1	14.5
Victoria	-9.4	3.0	-3.0	2.9	7.1	0.3	-0.7
Wharton	11.0	2.4	6.7	17.9	20.8	12.8	11.0
<b>Overall</b>	<b>3.1</b>	<b>9.3</b>	<b>6.2</b>	<b>12.7</b>	<b>20.2</b>	<b>11.0</b>	<b>10.5</b>

**Table 6 Pumping (AF/yr) 11 feet scenario**

County	Chicot	Evangeline	Chicott+ Evangeline	Burkeville	Jasper	Overall	Overall (without Burkeville)
Aransas	1,802	--	1,802	--	--	1,802	1,802
Bee	3,586	5,250	8,836	16	279	9,131	9,115
Calhoun	2,842	61	2,903	--	--	2,903	2,903
Colorado	24,120	22,345	46,465	--	888	47,353	47,353
DeWitt	986	6,840	7,826	121	6,198	14,145	14,024
Fayette (GMA 15)	--	876	876	157	7,235	8,268	8,111
Fayette (GMA 12)	--	--	--	--	328	328	328
Goliad	691	10,236	10,927	296	99	11,322	11,026
Jackson	53,946	19,940	73,886	--	--	73,886	73,886
Karnes	--	102	102	245	2,676	3,023	2,778
Lavaca	2,993	12,233	15,226	136	4,349	19,711	19,575
Matagorda	35,195	9,202	44,397	--	--	44,397	44,397
Refugio	6,170	22,199	28,369	--	--	28,369	28,369
Victoria	7,892	26,637	34,529	--	--	34,529	34,529
Wharton	107,193	65,460	172,653	--	--	172,653	172,653
<b>Overall (GMA 15)</b>	<b>247,416</b>	<b>201,381</b>	<b>448,797</b>	<b>971</b>	<b>22,052</b>	<b>471,492</b>	<b>470,521</b>

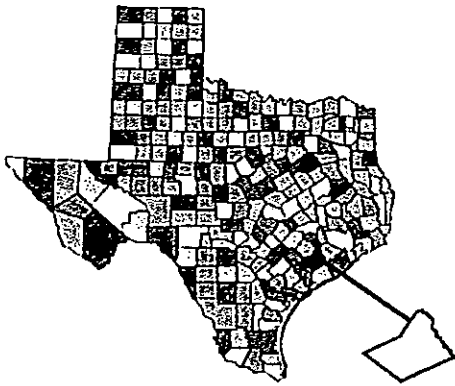
**Table 7 GMA 15 12 feet scenario**  
**Drawdown after 60 years (in feet, 1999 Starting Conditions)**

County	Chicot	Evangeline	Chicot+ Evangeline	Burkeville	Jasper	Overall	Overall (without Burkeville)
Aransas	0.0	25.6	0.6	--	--	0.6	0.6
Bee	3.3	14.2	10.5	9.7	5.1	8.9	8.5
Calhoun	-0.9	9.7	2.1	2.6	--	2.1	2.1
Colorado	5.9	9.8	8.1	14.7	21.3	13.3	12.8
DeWitt	0.3	5.6	4.8	15.0	23.0	15.3	15.4
Fayette	--	14.2	14.2	42.4	49.3	42.2	42.1
Goliad	-1.2	3.7	2.6	7.4	9.3	6.0	5.4
Jackson	13.4	17.1	15.2	12.1	19.6	15.1	16.1
Karnes	--	-0.2	-0.2	16.1	15.7	14.3	13.7
Lavaca	5.3	5.6	5.5	14.7	29.4	16.1	16.7
Matagorda	3.3	19.0	8.1	14.8	--	8.7	8.1
Refugio	0.6	32.2	15.1	12.8	--	14.7	15.1
Victoria	-9.2	4.1	-2.3	3.5	7.8	1.0	0.0
Wharton	12.7	5.8	9.3	19.3	21.6	14.7	13.1
<b>Overall</b>	<b>3.7</b>	<b>10.8</b>	<b>7.4</b>	<b>13.5</b>	<b>21.1</b>	<b>12.0</b>	<b>11.5</b>

**Pumping (AF/yr) 12 feet scenario**

County	Chicot	Evangeline	Chicot+ Evangeline	Burkeville	Jasper	Overall	Overall (without Burkeville)
Aransas	1,863	--	1,863	--	--	1,863	1,863
Bee	3,707	5,480	9,187	17	289	9,493	9,476
Calhoun	2,939	63	3,002	--	--	3,002	3,002
Colorado	24,937	23,102	48,039	--	918	48,957	48,957
DeWitt	1,019	7,071	8,090	128	6,408	14,626	14,498
Fayette (GMA 15)	--	906	906	157	7,408	8,490	8,314
Fayette (GMA 12)	--	--	--	--	339	339	339
Goliad	714	10,582	11,296	306	102	11,704	11,398
Jackson	55,772	20,615	76,387	--	--	76,387	76,387
Karnes	--	105	105	261	2,865	3,231	2,970
Lavaca	3,095	12,647	15,742	151	4,496	20,389	20,238
Matagorda	36,386	9,513	45,899	--	--	45,899	45,899
Refugio	6,379	22,951	29,330	--	--	29,330	29,330
Victoria	8,159	27,539	35,698	--	--	35,698	35,698
Wharton	110,822	67,676	178,498	--	--	178,498	178,498
<b>Overall (GMA 15)</b>	<b>255,792</b>	<b>208,250</b>	<b>464,042</b>	<b>1,039</b>	<b>22,486</b>	<b>487,567</b>	<b>486,528</b>





# COASTAL BEND GROUNDWATER CONSERVATION DISTRICT

RECEIVED

JUL 30 2010

TWDB

## BOARD OF DIRECTORS

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East Bernard, TX

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109 E. Milam  
P.O. Box 341  
Wharton, TX 77488

(979) 531-1412  
(979) 531-1002 Fax

www.cbgcd.com

July 15, 2010

J. Kevin Ward, Executive Administrator  
Texas Water Development Board  
P.O. Box 13231  
Austin, Texas 78711-3231

Re: Desired Future Condition Submittal for GMA 15

Dear Mr. Ward:

I am pleased to submit to you the Desired Future Condition for Groundwater Management Area 15 (GMA 15), pursuant to Section 36.108 of the Texas Water Code. This letter and the attached document comprise the GMA 15 Desired Future Condition Submission packet. Groundwater Management Area 15 is comprised of the following thirteen groundwater conservation districts contained wholly or in part within the boundary of GMA 15: Bee GCD, Coastal Bend GCD, Coastal Plains GCD, Colorado County GCD, Corpus Christi ASRCD, Evergreen UWCD, Fayette County GCD, Goliad County GCD, Lavaca GCD, Pecan Valley GCD, Refugio GCD, Texana GCD, and Victoria County GCD.

The GMA 15 DFC is generally defined as managing the groundwater resources of GMA 15 in such a way as to achieve no more than 12 feet of average drawdown by 2060 in the Gulf Coast Aquifer within the GMA 15 boundary relative to year 1999 conditions (see attached GMA 15 Resolution #2010-01). This DFC was based on results presented in GAM Run 10-008 Addendum, specifically Table 7 of that report. GMA 15 determined that the Yegua-Jackson, Carrizo-Wilcox, Sparta, and

Queen City aquifers present within the GMA 15 boundary were not relevant in GMA 15 (see attached meeting minutes for July 14, 2010).

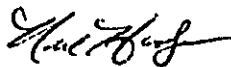
Attached documents:

1. GMA 15 Resolution # 2010-01 with complete voting record;
2. Copy of the Adopted Minutes of the July 14, 2010 GMA 15 Meeting at which the resolution adopting the DFC for the Gulf Coast Aquifer within GMA 15 was adopted;
3. Narrative of Methods and References Used to Determine the Desired Future Condition of the Gulf Coast Aquifer in Groundwater Management Area 15;
4. Copies of Posted Meeting Notices for the July 14, 2010 GMA 15 Public Hearing and Meetings;
5. Copy of GAM Run 10-008 Addendum;

Please feel free to contact me if you have any questions or comments regarding this submission for GMA 15. I can be contacted at the following:

Neil Hudgins  
109 E. Milam St.  
Wharton, TX 77488  
nhudgins@cbgcd.com  
(979) 531-1412 office  
(979) 531-1412 fax

Kind Regards,



Neil Hudgins

**Attachment E: Compilation of Region L Meeting Minutes held during  
FY09-10.**

**Minutes of the  
South Central Texas Regional Water Planning Group  
November 5, 2009**

The meeting was called to order at 10:01 a.m. in the San Antonio Water System's (SAWS) Customer Service Building, Room CR 145, 2800 US Highway 281 North, San Antonio, Bexar County, Texas.

Twenty-five of the 25 voting members, or their alternates, were present.

**Voting Members Present:**

Jason Ammerman	Jay Millikin
Donna Balin	Con Mims
Evelyn Bonavita	Ron Naumann
Buck Benson for Darrell Brownlow	Tyson Broad for Iliana Peña
Rick Illgner for Velma Danielson	Chuck Ahrens for Robert Puente
Garrett Engelking	Suzanne Scott
Mike Fields	Steve Ramsey
Bill Jones	Milton Stolte
John Kight	Tom Taggart
David Langford	Bill West
Diane Savage for Mike Mahoney	Tony Wood
Michael Harris	Tim Andruss
Gary Middleton	

**Non-Voting Members Present:**

Norman Boyd, Texas Parks and Wildlife Department, Water Resources Branch  
Matt Nelson, Texas Water Development Board (TWDB)  
Ken Widenfeller, Texas Department of Agriculture  
Pat Guzman, Texas Commission of Environmental Quality (TCEQ)

**AGENDA ITEM NO. 1: Public Comment**

Con Mims introduced Alan Cockerell, Regional Water Alliance (RWA). Mr. Cockerell announced the (RWA) meeting and invited interested parties to the November 10, 2009 meeting to be held at the San Antonio River Authority (SARA) Board Room. The Texas Commission on Environmental Quality will present on the new Groundwater Rules.

Jeanne Schnuriger, Springs Hill Water Supply Corporation, requested that in reference to item number 17 (Regional Carrizo for Guadalupe Basin) on the 2011 Water Management Strategies Progress Table, she would like to see it be expanded to include Gonzales County and Guadalupe County having a pipeline run through both Counties so that they may take advantage of the Carrizo Aquifer.

Barry Miller, Gonzales County Water Supply Corporation, expanded on Ms. Schnurigers comments, stating that there is going to be a supply project developed in Eastern Gonzales County and it will be a fresh source of water supply.

Kirk Holland, General Manager Barton Springs Edwards Aquifer Conservation District, stated that Region K has recently approved a water management strategy and desalination facility in

the Edwards Aquifer very close to Region L. Mr. Holland asked that the committee strive to remove any obstacles that exist with respect to the development of desalination.

Julie Norton, representing the Texas Farm and Ranch Group, reported on studies of Range Land Management and encouraged the Planning Group to give greater support to these studies as water management techniques. Mr. Mims pointed out that the committee is directly addressing Range Land Management as one of the potential water management strategies.

#### **AGENDA ITEM NO. 2: Approval of Minutes**

Chairman Mims asked for a motion to approve the August 6, 2009 minutes and asked that a correction be made to Agenda Item 8 on page 4, second paragraph, the last sentence should be made to read: "Mr. Ramsey stated that the City of New Braunfels supports recommendation for designation as a unique stream segment that segment of the Comal River in Comal County that was previously being considered by the planning group." Ron Naumann made a motion to approve the minutes as corrected. Tony Wood seconded the motion. The minutes were approved by consensus.

#### **AGENDA ITEM NO. 3: Status of Edwards Aquifer Recovery Implementation Program (EARIP)**

Dr. Robert Gulley, EARIP, reported that EARIP hired RECON Environmental Inc. to serve as the Program Document Contractor for the development of the Habitat Conservation Plan (HCP). EARIP has also retained a group of facilitators, Collaborative Process, that will help in the decision making process. A series of four workshops/retreats have been scheduled beginning December 1<sup>st</sup> and 2<sup>nd</sup> in Kerrville, Texas. The meetings will be designed to reach decisions. The subsequent meetings are scheduled in January, February and March 2010.

EARIP also hired Dr. Tom Hardy, Texas State University to come up with Instream flow modeling. The initial draft report is on the EARIP website. The final report will be out at the end of the month.

The Science Subcommittee will be coming out with the "J Charges" in early December. Initial steps have been taken by the Science Subcommittee to create flow targets and ideas on what the species need at Comal and San Marcos Springs in order to be protected. Dr. Gulley stressed that the numbers published in regards to these projects are likely to be modified due to further review. The numbers do not dictate any action, they are just a guide to the latest process.

#### **AGENDA ITEM NO. 4: Chair's Report**

- **Preliminary Stakeholder/Issues Identification Process for the San Antonio Bay System – James Dodson, Coastal Bend Bays and Estuary Program**

James Dodson provided a brief history regarding work on several estuary programs in Texas and discussed a study to determine the feasibility for the San Antonio Bay System estuary program that is being funded by the Coastal Bend Bays and Estuary Program. Mr. Dodson stated that the first step is to identify the Stakeholders and the Issues and see if there is enough interest to pursue this program. A tentative, preliminary meeting is being held in early December

in the Victoria area. Mr. Dodson distributed a handout with his contact information and asked if anyone had an interest or questions, or wanted to be invited to the meeting to contact him.

Bill Jones commented that the San Antonio Bay Foundation was established last year with the purpose of bringing focus to the protection and long term health of the San Antonio Bay. Mr. Jones stated his support for this process.

Chairman Mims commented that he can personally vouch for the great success of the Coastal Bend Basin Estuaries Program and was personally involved with development of it along with Mr. Dodson and others and stressed that if anyone would like to support this work please contact Mr. Dodson.

• **Responsibilities of the Water Planning Group - Kevin Ward, Executive Administrator of the Texas Water Development Board (TWDB)**

Kevin Ward, TWDB, addressed the Planning Group on the importance of consensus and submitting a Region L Water Plan by the set deadlines.

Chairman Mims stated that he recently had discussions with legislators and reiterated that if the group fails to submit the regional water plan on time in the future, there will not be any reprieve during the next legislative session.

Chairman Mims recognized Wendy Foster (TWDB) Director of Government Relations.

**AGENDA ITEM NO. 5: Review /Approve Administrator's 2010 Budget**

Steve Raabe, SARA, reviewed the proposed administrator's budget for 2010 and stated that the budget is operated on a calendar year basis. Administrative costs are funded and agreed upon through an interlocal agreement. Evelyn Bonavita motioned to approve the Administrator's Budget for 2010 at \$58,000.00. The motion was seconded. The motion passed by consensus.

**AGENDA ITEM NO. 6: Texas Water Development Board (TWDB) Communications**

Matt Nelson, TWDB, reported that the TWDB approved the 2006 Region L Water Plan in September. TWDB will now amend the State Water Plan in December as outlined under House Bill 3776.

**AGENDA ITEM NO. 7: Status Report Regarding Designation of Ecologically Unique Stream Segments in Region L**

Sam Vaughn, HDR Engineering, stated that the Comal River Segment was added and that the Region L Designation of Ecologically Unique Stream Segments will be submitted to the TWDB early next week. TWDB will conduct a review of the submission and provide comments to the Planning Group within about thirty days. At that point, the Planning Group may integrate and include that recommendation in the Initially Prepared Plan that includes five stream segments be designated by the legislature as having unique ecological boundaries. Mr. Mims asked that after the TWDB review period and comments are received, that the document be made available on the Region L website.

Chairman Mims then called on Laura Raun and Susan Hughes.

Ms. Raun, Laura Raun Public Relations, stated they are maintaining the website and public comments database.

Ms. Hughes, Ximenez & Associates, stated that they stand ready to provide facilitation services.

**AGENDA ITEM NO. 8: Discussion and Appropriate Action Regarding Gonzales County Groundwater Projects Workgroup Recommendation**

Kevin Janak, Victoria County Commissioners Court, commended San Antonio Water System (SAWS) on their support of desalination and asked the Planning Group to consider The Gulf of Mexico and desalination when making decisions on future Water Plans.

Tim Andruss summarized the letter from the Victoria County Ground Water Conservation District (VCGWCD). Mr. Andruss suggested that Region L include policies that offer protection for the reserve of fresh ground water to the Lower Basin. VCGWCD supports the approach not to use imminent domain to site the off channel reservoir. Regarding the Guadalupe Basin Water Needs Workgroup projects - VCGWCD does not know enough about those projects to oppose or recommend them.

Chairman Mims asks that the policy issues brought up by Mr. Andruss be added to the next meetings agenda. Mr. Mims read the Recommendation of the Gonzales County Groundwater Projects Workgroup footnote aloud, as presented in the agenda packet. Mr. Mims asks for a motion to approve the workgroups recommended footnote. Chuck Ahrens made the motion. Motion seconded by Gary Middleton. The motion was approved by majority with 21 Aye's and 4 Nay's.

**AGENDA ITEM NO. 9: Discussion and Appropriate Action Regarding Guadalupe Basin Water Needs Workgroup Recommendation**

Barbara Smith, Gollad County Ground Water Conservation District (GCGWCD), stated the GCGWCD does not support the Guadalupe-Blanco River Authority (GBRA) Lower Basin Storage Project until more studies have been done, costs have been determined and the protections to the previous Lower Guadalupe Water Supply Project are added to this and any future projects.

Chairman Mims briefed the Planning Group on the results that the Guadalupe Basin Water Needs Workgroup recommended, and call on Mr. Vaugh

Mr. Vaugh reviewed the recommended water management strategies with the Planning Group. Mr. Vaugh began with the 10/23/2009 Draft GBRA wholesale water provider tables which outlined all the projected demands within the Basin and addressed the sources that will meet those demands. Mr. Vaugh noted a correction to the recommended WMS found on page 3, row 30 and titled GBRA/Exelon Project. The numbers will probably increase by an estimated 7,000 acre feet and should read 49,000 acre feet. Mr. Vaugh then summarized the GBRA Upper and Mid-Basin Areas graph. Bill West distributed a handout highlighting population increases in differing counties in the State of Texas.

Chairman Mims suggested postponing an agreement on the recommended water management strategies and alternates until definite figures can be provided to the Planning Group. Mr. Mims suggested convening another workgroup to address the recommended strategies, alternate strategies and concerns coming out of the Lower Basin. Suzanne Scott proposed to keep all the same members from the previous workgroup. Mr. Mims suggested adding Tom Andruss to the workgroup.

Chairman Mims asked if there were any objections to approving Section A, item 1, item 2 and Section C of the Guadalupe Basin Water Needs Workgroup Recommendation. Mr. Vaugh suggested changing the word "only" to "primary" which is found on page 1, item 2, second paragraph, second line. Mr. Mims called for a motion to approve all of the workgroup recommendations except Section B. Bill West motioned for approval. Seconded by Garrett Engelking. The motion was approved by consensus.

**AGENDA ITEM NO. 10: Discussion and Appropriate Action Regarding Consultants' Work and Schedule**

Brian Perkins, HDR Engineering, reported on the status of the Proposed Workplan for Development schedule and briefed the group on the Water Management Strategies Progress Table.

Mr. Vaugh provided an update on the current schedule and also stated the steam electric demand projections are in the process of being completed and submitted to TWDB for approval. Mr. Vaugh presented a draft of the Wholesale Water Provider Table for the Canyon Regional Water Authority (CRWA). Ms. Balin requested copies of the CRWA table.

Mr. Perkins presented a Power Point presentation on Recycled Water Programs, LCRA-SAWS Water Project, and Medina Lake Firm Up Water Project.

Diane Savage asked about pre-treatment of the Carrizo Aquifer. Mr. Perkins stated that in accordance with TCEQ rules, the water is treated to drinking water standards.

Dianna Wassenich, San Marcos River Foundation, asked if chlorinated water would be pumped into the Edwards Aquifer. Mr. Vaugh stated that the water would be treated in compliance with TCEQ standards.

Mr. Vaugh presented three Power Point presentations: Wimberley and Woodcreek Water Supply Project, including Supply Concepts and Options A, B and C for pipeline routes, GBRA Mid-Basin Project (Surface Water and Conjunctive Use), and the Regional Carrizo for Guadalupe Basin. Ms. Savage expressed her concern regarding the Wimberley and Woodcreek Water Supply Project, Option B and the building of a pipeline over San Marcos Springs.

Mr. Perkins presented two Power Point presentations on Brackish Wilcox Groundwater for SAWS Project and the Brackish Wilcox Groundwater for SS Water Supply Corporation. Mr. Mims asked that Mr. Perkins and Kevin Morrison, San Antonio Water System (SAWS), confer and bring more solidified Unit Cost estimates to the next Planning Group meeting.

**AGENDA ITEM NO. 11: Possible Agenda Items for the Next South Central Texas Regional Water Planning Group**



Chairman Mims stated that agenda items will be determined at a later date.

**AGENDA ITEM NO. 12: Public Comment**

Carol Patterson, Edwards Aquifer Authority, commented on the \$3,800 cost of desalination she shared with the Planning Group. Ms. Patterson stated the number was a published number but that number may become higher due to integration costs.

Mr. Mims verified that the next meeting would be at SAWS on December 3, 2009 at 10:00 a.m. with the goal of having the workgroup work completed.

There being no further business, the meeting adjourned by consensus at 2:51 p.m.

Recommended for approval.

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GARY MIDDLETON, SECRETARY

Approved by the South Central Texas Regional Water Planning Group at meeting held on December 3, 2009.

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CON MIMS, CHAIR

**Minutes of the  
South Central Texas Regional Water Planning Group  
December 3, 2009**

The meeting was called to order at 10:00 a.m. in the San Antonio Water System's (SAWS) Customer Service Building, Room CR 145, 2800 US Highway 281 North, San Antonio, Bexar County, Texas.

Twenty-four of the 25 voting members, or their alternates, were present.

**Voting Members Present:**

Jason Ammerman	Jay Millikin
Tim Andruss	Con Mims
Donna Balin	Ron Naumann
Evelyn Bonavita	Iliana Peña
Darrell Brownlow	Robert Puente
Velma Danielson	Suzanne Scott
Art Dohmann for Garrett Engelking	Steve Ramsey
Mike Fields	Milton Stolte
Michael Harris	Tom Taggart
Bill Jones	Bill West
John Kight	Tony Wood
David Langford	
Gary Middleton	

**Non-Voting Members Present:**

Norman Boyd, Texas Parks and Wildlife Department, Water Resources Branch  
Matt Nelson, Texas Water Development Board (TWDB)  
Ken Widenfeller, Texas Department of Agriculture  
Ron Fieseler, Lower Colorado RWPG

**AGENDA ITEM NO. 1: Public Comment**

Kevin Janak, Victoria County Commissioner, spoke to the Planning Group regarding the Planning Group's ability to place restrictions in the Regional Water Plan for the well being of the lower basin and his concerns about a statement made stating that no condemnation would be used for off channel reservoirs when the concerns of the citizens of the lower basin that condemnation may be used regardless of earlier statements made. Please place restrictions in the RWP and protect the lower basin.

Kenneth Eller, Victoria County Groundwater Conservation District, stated that he believe that Region L should put seawater desalination ahead of all other projects.

Diane Wassenich, San Marcos River Foundation, reminded the Planning Group that in regards to the Planning Group not having the right to override eminent domain, the Planning Group's power, as a board, is voting for a particular project, whether it be as an alternate project, a recommended project or a project that "needs more study".

## **AGENDA ITEM NO. 2: Approval of Minutes**

Chairman Mims stated before he asked for a motion to approve the minutes from November 5, 2009, there are several corrections to be made. On page 3, Agenda Item No. 7, the minutes should reflect that TWDB be corrected to TPWD in three places. On page 4, Agenda Item No. 9, last paragraph, should reflect "projected GBRA demands" instead of "projected demands". On page 5, Agenda Item No. 10, paragraph 5 of the item, should be corrected to Carrizo Aquifer, not Edwards Aquifer and in paragraph 5, correct Ms. Savage to Ms. Wassenich. At that time, Gary Middleton made a motion to approve the minutes as corrected. Ron Naumann seconded the motion. The motion carried by consensus.

## **AGENDA ITEM NO. 3: Texas Water Development Board (TWDB) Communications**

Matt Nelson, TWDB, stated he had no new business to discuss but asked if anyone had any questions. There were none at that time.

## **AGENDA ITEM NO. 4: Discussion and Appropriate Action Regarding Guadalupe Basin Water Needs Workgroup Recommendation**

Mr. Mims began by informing the Planning Group that it was important that today the Planning Group instruct HDR Engineering as to the Water Management Strategies (WMS) they should include in the cumulative effect analysis.

At the previous Planning Group Meeting, concerns were raised with respect to some of the Guadalupe Basin projects and recommendations by the Guadalupe Basin Water Needs Projects Workgroup. In an attempt to work through those concerns, a fourth Guadalupe Basin Water Needs Projects Workgroup Meeting was held. The Workgroup then came up with new recommendations for the Planning Group to consider. The recommendations were outlined in a Memo sent out on November 30, 2009, as well as attached to the Planning Group packet.

In regards to **Proposed Policy 1** regarding WMS's that are designated as surface water projects and would require transport pipelines should prohibit the inclusion of fresh groundwater supplies:

Rather than prohibiting inclusion of fresh groundwater in the pipelines, the PG recommends that a description of any WMS involving surface water and delivery pipelines that originate in the lower Guadalupe Basin state that if fresh groundwater from the lower Guadalupe Basin is added to this WMS, the character of the strategy changes and the WMS must be amended to remain as a recommended strategy in the 2011 Regional Water Plan (RWP). This would require additional technical evaluation and the public comment process.

The Planning Group approved, by consensus, the workgroup recommendation for Proposed Policy 1.

**Proposed Policy 2** – WMS's that involve the transport of surface water from the lower basin should include a reservation of at least 40% of the unallocated water volumes for associated water rights for lower basin uses.

The workgroup, concerned about the precedent this policy would set throughout the region, recommended that proposed policy not be done, with respect to the reservation of unallocated water.

The Planning Group approved, by consensus, the workgroup's recommendation for Proposed Policy 2.

**Proposed Policy 3** – WMS's that are designed to include or require off-channel reservoirs should prohibit the use of condemnation powers for acquiring properties necessary for the reservoir.

The workgroup believed it is not appropriate for a regional water planning group to tell a governmental entity to abandon its eminent domain powers if it wants its project to be approved as a recommended WMS. If the Planning Group were to do that, there will be demands from the rest of the region to apply this restriction to other WMS's in the 2011 RWP. It is not within the Planning Group's jurisdiction to judge the merits of eminent domain.

The Planning Group approved, by consensus, the workgroup's recommendation for Proposed Policy 3 in regards to the use of condemnation and eminent domain powers, with the above appropriate language.

Under **Consideration of WMS's**, the workgroup recommended that all WMS's must have the same level of technical evaluation that meets the TWDB requirements and receive public consideration before being recommended by the Planning Group. Both the GBRA Lower Basin Storage and the GBRA New Appropriation (Lower Basin) WMS's are expected to be technically evaluated and presented for public consideration. TWDB will not accept WMS's that have not received proper technical evaluation and public vetting.

The Planning Group approved, by consensus, the workgroup's recommendation for Consideration of WMS's.

**Protections Offered by HB3776** – the workgroup agreed that the protections offered by HB3776 applied to the LGWSP for Upstream GBRA Needs – applied only to that strategy and only applied to the 2006 RWP and the 2007 State Water Plan. There is no language in HB3776 that extends those measures to any other WMS or water plan. The workgroup agreed that if the Planning Group wished to attach any or all of those protective measures to any other WMS in the 2011 RWP, they certainly have the right to consider the option.

The Planning Group approved the workgroup's position with respect to HB3776 by consensus.

In the Memo, there were three additional "Other Recommendations" by the workgroup for additional statements in the 2011 RWP.

**Other Recommendations – 1:** The workgroup recommends including in the cumulative effects analysis all of the Recommended WMS's shown on the HDR table dated 10/23/09 which was attached to the Planning Group packet, with the exception of the GBRA Lower Basin Storage and the GBRA New Appropriation (Lower Basin) strategies. Recommendation of the inclusion of these two strategies is withheld subject to receipt of their technical evaluations and public discussion.

The above recommendation was changed to also reflect the exceptions, the GBRA Lower Basin Storage and the GBRA New Appropriation (Lower Basin) strategies, and to include the Simsboro Groundwater Project. It was noted that all three of these strategies' technical evaluations would be presented by HDR Engineering under Agenda Item No. 6, Presentation and Discussion of Water Management Strategies, during today's meeting.

The Planning Group approved, by consensus, the above recommendation by the workgroup.

**Other Recommendations – 2:** The workgroup recommends approval of the placement of all of the WMS's in the categories (Recommended, Alternative or Needing Further Study) as shown on HDR's table dated 10/23/09, subject to the decisions of the Planning Group today regarding the GBRA Lower Basin Storage and the GBRA New Appropriation (Lower Basin) strategies.

The above recommendation was changed to reflect the addition of the Simsboro Groundwater Project.

Steve Raabe, SARA, clarified that the action needed today by the Planning Group is to identify the strategies that will be in the cumulative effects analysis. There are still many strategies that will be in the cumulative effects analysis that the Planning Group does not have the write-ups on at this time. That will be accomplished by the February 2010 meeting. At the February 4, 2010 meeting, the PG will take official action of adopting the Initially Prepared Plan that will be submitted to the TWDB for their review and out for public comments. There are two separate actions before the Planning Group today. There were decisions made today that have to be put into project descriptions. Mr. Mims agreed and stated that at the February meeting we will see the project descriptions and the cumulative effects and the Planning Group will then decide whether or not to include a project.

The above recommendation was approved by consensus by the Planning Group.

**Other Recommendations – 3:** The workgroup recommends, with one member opposed, that a statement be made in the RWP that it is the Planning Group's understanding that all land needed for WMS's will be obtained using a process of willing seller and willing buyer and that limited condemnation will be used as a last resort.

The Planning Group approved Other Recommendation – 3, as a statement to be placed in the 2011 RWP.

#### **AGENDA ITEM NO. 5: Discussion and Appropriate Action Regarding Consultants' Work and Schedule**

Laura Raun, Laura Raun Public Relations, briefed the Planning Group on the Public Comment Database and recently received public comments.

Brian Perkins, HDR Engineering, updated the Planning Group on the Proposed Workplan for Development schedule and the Water Management Strategies Progress Table, including the nine WMS to be discussed at this meeting.

#### **AGENDA ITEM NO. 6: Presentation and Discussion of Water Management Strategies**

Todd Snelgrove, Texas A&M University, Institute of Renewable Natural Resources, presented a powerpoint presentation to the Planning Group on the WMS Brush Management above Canyon Reservoir, specifically land stewardship.

Mr. Perkins presented HDR Engineering's study of the Brush Management WMS. HDR's scope of work included estimates of how much land could be developed for brush management and the associated costs. This information was then put into a HSPF model, a rainfall runoff model.

Sam Vaugh, HDR Engineering, presented the Simsboro Aquifer and Guadalupe-Blanco River Authority (GBRA) Lower Basin Storage WMS' for the Planning Group's review.

Mr. Perkins briefed the Planning Group on four WMS: GBRA New Appropriation (Lower Basin), Canyon Regional Water Authority (CRWA) Wells Ranch Project, CRWA Siesta Project and Edwards Transfers.

Mr. Vaugh provided brief updates on WMS'; Water Conservation (Demand Reduction) and Drought Management.

Mr. Vaugh and Mr. Perkins reviewed a summary table of projected demands, supply, needs and WMS for the Wholesale Water Providers within Region L.

**AGENDA ITEM NO. 7: Discussion and Appropriate Action Regarding Cumulative Effect Analysis**

Mr. Mims proposed that the Planning Group request HDR include all of the recommended WMS presented today in the cumulative effects analysis, without committing the Planning Group in any way, for the purpose of seeing what the regional affect of our maximum plan could be. The Planning Group agreed and HDR will complete the analysis.

**AGENDA ITEM NO. 8: Possible Agenda Items for the Next South Central Texas Regional Water Planning Group**

Mr. Mims presented the following agenda item for the February 4<sup>th</sup>, 2010 meeting:

- Discussion and Appropriate Action Regarding Which Recommended Water Management Strategies will be in the IPP

**AGENDA ITEM NO. 9: Public Comment**

Mr. Mims informed the Planning Group that he had received a letter from an organization, Aransas Project TAP, stating next week they would be filing a Notice of Intent to Sue under the Endangered Species Act alleging the water management practices in the Guadalupe-San Antonio River Basin created conditions that harmed Whooping Cranes. This could have an affect on our regional planning.

There being no further business, the meeting adjourned by consensus at 4:33 p.m.

Recommended for approval.

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GARY MIDDLETON, SECRETARY

Approved by the South Central Texas Regional Water Planning Group at meeting held on February 4, 2010.

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CON MIMS, CHAIR

**Minutes of the  
South Central Texas Regional Water Planning Group  
February 4, 2010**

The meeting was called to order at 10:00 a.m. in the San Antonio Water System's (SAWS) Customer Service Building, Room CR 145, 2800 US Highway 281 North, San Antonio, Bexar County, Texas.

Twenty-five of the 25 voting members, or their alternates, were present.

**Voting Members Present:**

Jason Ammerman	Gary Middleton
Tim Andruss	Jay Millikin
Donna Balin	Con Mims
Evelyn Bonavita	Ron Naumann
Darrell Brownlow	Iliana Peña
Velma Danielson	Robert Puente
Garrett Engelking	Suzanne Scott
Art Dohmann for Mike Fields	Steve Ramsey
Michael Harris	Milton Stolte
Bill Jones	Tom Taggart
John Kight	Bill West
David Langford	Tony Wood
Mike Mahoney	

**Non-Voting Members Present:**

Norman Boyd, Texas Parks and Wildlife Department, Water Resources Branch  
Matt Nelson, Texas Water Development Board (TWDB)  
Ken Widenfeller, Texas Department of Agriculture  
Ron Fieseler, Lower Colorado RWPG  
Lyn Lyndsay, Texas Commission on Environmental Quality (TCEQ)

**AGENDA ITEM NO. 1: Public Comment**

Alan Cockerill, Regional Water Alliance (RWA), stated the next RWA meeting will be held on February 25, 2010 at 9:00am. The RWA welcomes everyone who would like to attend.

James Dodson, Groundswell Enterprises and the San Antonio Bay Partnership, stated the Stakeholders Meeting on January 12, 2010 was well attended. A committee was formed to discuss the development of an estuary management program, with funding from the Coastal Bays and Estuaries Program for the next six months.

**AGENDA ITEM NO. 2: Approval of Minutes**

Chairman Con Mims asked if there were any corrections to be made to the minutes. As there were none, Mr. Mims asked for a motion to approve the minutes. Gary Middleton made a



motion to approve the minutes. Jay Milliken seconded the motion. The motion carried by consensus.

**AGENDA ITEM NO. 3: Status of the Edwards Aquifer Recovery Implementation Program (EARIP)**

Dr. Robert Gulley, EARIP, provided an update on the workshop held in December 2009 regarding the EARIP's decision making process. Dr. Gulley believes the EARIP has made great progress and continues to move forward. The EARIP will be looking at (1) alternatives to get water to the species when the species need it; (2) looking at ways to enhance water in the aquifer and; (3) looking at minimization and mitigation measures to make the species healthier so they are more able to withstand stress that may be imposed. The goal is to have a blueprint of items the EARIP needs more input from consultants on to be able to reach decisions, hopefully by the end of summer.

**AGENDA ITEM NO. 4: Election of Planning Group Officers and At-Large Executive Committee Members for 2010**

Mr. Mims asked for nominations to elect Planning Group Officers and At-Large Executive Committee Members for 2010. Darrell Brownlow made a motion to keep the existing officers. David Langford seconded the motion. The motion carried by consensus.

**AGENDA ITEM NO. 5: Texas Water Development Board (TWDB) Communications**

Matt Nelson, TWDB, stated he had no new business to discuss and asked if anyone had any questions. There were none at that time.

**AGENDA ITEM NO. 6: Discussion and Appropriate Action Regarding Consultants Work and Schedule**

Laura Raun, Laura Raun Public Relations (LRPR), provided an update on the Region L website and stated that 80% of the 2010 Draft Initially Prepared Plan (IPP) is on the website for viewing.

Sonia Jimenez, Ximenes and Associates, stated there was no new business to discuss at this time.

Brian Perkins, HDR Engineering, updated the Planning Group on the Proposed Workplan for Development schedule and the Water Management Summary Checklist which showed all the Water Management Strategies (WMSs), when they were presented to the Planning Group and when they were posted on the website.

Mr. Perkins presented an update on the Brush Management WMS, including firm supply and cost.

Mr. Perkins presented an update on Recycled Water Programs. Donna Ballin asked that HDR relook at the use of recycled water from the mining industry over the Edwards Aquifer Recharge Zone.

Mr. Perkins presented the Facilities Expansion WMS, which though does not provide a firm yield, allows water user groups (WUGs) the possibility to expand major components to their existing facilities to better serve customers and better utilize the existing supply they already have or other projects that may be coming on line. A list was provided to the Planning Group of entities in the region that communicated to HDR they were interested in facilities expansion.

Mr. Perkins presented the Lavaca River Off-Channel Reservoir and the Palmetto Bend – Stage II WMSs. Though these WMSs are more for Region P, they are needed in Region L as parts of Calhoun County are serviced by Lavaca-Navidad River Authority (LNRA) as a wholesale water provider and Calhoun County falls under Region L. One of these WMSs will be in the plan for consistency with Region P's plan. LNRA sells water to the Formosa Plant and the City of Point Comfort.

Mr. Perkins presented the Texas Water Alliance Regional Carrizo Project, a groundwater WMS.

Sam Vaughn, HDR Engineering, provided an update on Drought Management WMS, to include the methodology for economic impacts, demand reduction (yield) and average unit cost for water users.

Mr. Vaughn updated the Planning Group on the Surface Water Rights Water Management Strategy Summary Sheet, which uses the same language as in the 2006 Regional Water Plan and pertains to existing water rights.

Mr. Vaughn provided an update on the Local Storage Water Management Strategy Summary Sheet.

#### **AGENDA ITEM NO. 7: Discussion of Cumulative Effects Analysis**

Mr. Perkins and Mr. Vaughn, HDR Engineering, presented Cumulative Effects & Environmental Assessments of Regional Water Plan Implementation to the Planning Group. The presentation included hydrologic assessments for groundwater and surface water, ecologically-based assessments for stream flow at Guadalupe River at Victoria and San Antonio River near Falls City and freshwater inflow to the Guadalupe Estuary and environmental assessments. Iliana Peña requested that a graphic be added to show spring/early summer critical periods for species. Mr. Perkins will add the graphic to the 2011 Initially Prepared Plan.

#### **AGENDA ITEM NO. 8: Discussion and Appropriate Action Regarding Request for TWDB to Perform Socioeconomic Impact Analysis**

Mr. Vaughn, HDR Engineering, stated that the TWDB has requested that the Planning Group make a formal request to the TWDB to perform the Socioeconomic Impact Analysis, an estimated needs for additional water supply as projected for each water user group and each use category throughout the region. The TWDB will then report the results back to the Planning Group for use in the 2011 Regional Water Plan. Bill West made a motion to make a formal request to the TWDB for them to perform the Socioeconomic Impact Analysis. Mike Mahoney seconded the motion. The motion passed by consensus.

#### **AGENDA ITEM NO. 9: Discussion and Appropriate Action Regarding Adoption and Submission of Initially Prepared Plan (IPP) to TWDB**

Mr. Mims informed the Planning Group that this agenda item will be completed in three parts; an overview of the proposed plan, policy and recommendations, and adoption of the plan. Mr. Mims also stated public comments regarding the plan will be accepted during the agenda item.

Mr. Vaugh began the presentation by reviewing the proposed plan, section by section, to include a status of the posting of the section onto the Region L website, any actions taken during the planning process, and all updates to the section of the plan.

There were no changes to Section's 1 – 7.

At this time, Mr. Vaugh reviewed changes/edits and language updates to Section 8 – Policies and Recommendations, Mr. Vaugh asked the Planning Group if they had any questions or comments regarding the changes and/or language used in Section 8, which was provided in the agenda packet for review.

Suzanne Scott asked that the groundwater policy statement regarding the meeting of requirements of the Groundwater Districts be reiterated in this section (Section 8.3, Groundwater) as it is a policy statement. Tim Andruss asked that a statement be added that any description of a water management strategy involving surface water and pipelines that originate from the lower basin state if fresh groundwater is added, the character of the strategy changes. Mr. Vaugh will add the two statements to Section 8.

There were no changes to Section 9 - Water Infrastructure Funding Recommendations or 10 - Adoption of Plan.

Mr. Mims informed the Planning Group that at this time, the Planning Group would begin by discussing Recommended Water Management Strategies and the approval of each.

Alan Cockerill, General Manager of Schertz-Seguin Local Government Corporation (SSLGC), spoke to the Planning Group requesting changes to the Regional Carrizo-Wilcox for SSLGC Projected Expansion be placed in the plan as an Alternate Water Management Strategy. Because it has not been fully studied at this time, it was suggested that it be put under the category "Needs Further Study".

Ron Outen, Regional Director of The Aransas Project and Chairman of the Aransas County Navigation District, spoke to the Planning Group regarding two projects, GBRA-Exelon Project and GBRA New Appropriation Project. Mr. Outen asked the Planning Group consider placing these projects under "Needs Further Study". Mr. Outen stated that the projects need further study as they have not been fully evaluated and he believes that the SB3 process may not be sufficient to protect the bays and estuaries.

Commissioner Charles Smith, Aransas County Commissioners Court, informed the Planning Group that he supports placing the GBRA-Exelon Project and GBRA New Appropriation Project under "Needs Further Study" in the 2011 Regional Water Plan. Commissioner Smith reminded the Planning Group that not only do these projects impact the ecosystem, but the basis of tourism in his county. He also stated that in the draft 2011 Regional Water Plan, Section 8, the Planning Group recommends additional environmental studies be done to evaluate the effects of projects on the ecosystem that rely on inflow to the San Antonio Bay, such as the GBRA-Exelon Project and GBRA New Appropriation Project, which is where flows will be restricted, going in to San Antonio Bay.

Commissioner Leslie Casterline, Aransas County Commissioners Court, informed the Planning Group of his concerns regarding the level of study completed. Commissioner Casterline stated the study looked at the water as it hit San Antonio Bay, when in actuality the water goes either to Madagorda Bay or south and comes through the Gulf to Port Aransas, affecting the salinity levels in the bays and life in the water.

Mr. Mims asked if there were any additional public comments. There were none at this time. Mr. Mims stated that at this time, the water management strategies for the draft Initially Prepared Plan (IPP) would be voted on by categories.

Mr. Vaughn began with recommended water management strategies emphasizing conservation - Municipal Water Conservation, Irrigation Water Conservation, and Drought Management. Mr. Mims asked if there were any objections to the three water management strategies for Conservation as Recommended Water Management Strategies in the IPP. There were no objections. The Water Management Strategies for Conservation passed by consensus.

Mr. Vaughn listed the recommended water management strategies maximizing the use of available resources, water rights, and reservoirs - Edwards Transfers, GBRA-Exelon Project, SAWS Recycled Water Program Expansion and other Recycled Water, GBRA Lower Basin Storage, Medina Lake Firm-Up (ASR), Wimberley & Woodcreek Water Supply Project, Surface Water Rights, and Facilities Expansions to the Planning Group as Recommended Water Management Strategies in the IPP.

Bill Jones stated that he has concerns with the GBRA-Exelon Project. Mr. Jones believes it may be premature to recommend 75,000 ac-ft in the IPP for a project that may not happen.

Bill Scott, Director of Government Affairs, Exelon Corporation, provided an update on the Exelon Project, to the Planning Group. Though Exelon had previously backed off on submitting a COLA (Combined Operating License Application) to the NRC, Exelon is on track to submit the application for an Early Site Permit (ESP) in March to NRC. The ESP gives Exelon a 20 year window. There is a sense of urgency as Exelon would like to reference the inclusion of the GBRA-Exelon Project in the ESP application. Exelon and GBRA do have a contract in place for existing water rights. Mr. Scott also stated President Obama's new budget proposal sent to Congress last week included the potential for additional funds (DOE loan guarantees) for developing nuclear energy which is extremely important for Exelon.

Mr. West commented that his understanding of TWDB rules regarding contracts in place are to be recognized as a project. Mr. Nelson, TWDB, stated the Planning Group must take into consideration existing contracts for water and existing water rights. The contract must be considered when allocating water. In addition, there is a need for water to meet projected steam-electric demands in the draft IPP.

Mr. Mims asked if there were any objections to the water management strategies, Edwards Transfers, SAWS Recycled Water Program Expansion and other Recycled Water, GBRA Lower Basin Storage, Medina Lake Firm-Up (ASR), Wimberley & Woodcreek Water Supply Project, Surface Water Rights, and Facilities Expansions as Recommended Water Management Strategies in the IPP. The motion passed by consensus.

Darrell Brownlow made a motion to approve the GBRA-Exelon Project as a Recommended Water Management Strategy. Mr. Puente seconded the motion. The motion was approved by majority with 19 ayes, 4 no's, and 1 abstaining.

Mr. Vaugh listed the recommended water management strategies that simultaneously develop groundwater supplies and limit depletion of storage in regional aquifers - GBRA Simsboro Project, Hays/Caldwell PUA Project, Local Carrizo, Gulf Coast, and Trinity, TWA Regional Carrizo, Brackish Wilcox Groundwater for SAWS, Regional Carrizo for SAWS, Brackish Wilcox Groundwater for Regional Water Alliance, CRWA Wells Ranch Project, Regional Carrizo for SSLGC Project Expansion, and Brackish Wilcox Groundwater SS WSC to the Planning Group as Recommended Water Management Strategies in the 2011 RWP. Mr. West made a motion to approve the projects as Recommended Water Management Strategies in the IPP. Ron Naumann seconded the motion. The motion passed by consensus.

Mr. Vaugh listed the recommended water management strategies that engage the efficiency of conjunctive use of surface and groundwater as well as maximize the use of available resources and water rights - LCRA-SAWS Water Project, Edwards Recharge – Type 2 Projects, and CRWA Siesta Project. Mr. Naumann made a motion to approve the projects as Recommended Water Management Strategies in the IPP. Mr. Mahoney seconded the motion. The motion passed by consensus.

Mr. Vaugh listed the recommended water management strategies that involve new surface water appropriations while avoiding development of large mainstem reservoirs - Lavaca River Off-Channel Reservoir, GBRA Mid-Basin Project (Surface Water), GBRA New Appropriation (Lower Basin), and Storage Above Canyon Reservoir (ASR) to the Planning Group as Recommended Water Management Strategies in the 2011 RWP. Mr. Vaugh noted that from the Planning Group workshops, the two GBRA water management strategies are in agreement subject to Senate Bill (SB) 3 as adopted in Environmental Flows Standards by TCEQ at some point in the future.

Ms. Scott asked Mr. Vaugh to clarify how the permitting process will work for the GBRA projects, as the language in the 2011 RWP states the projects are subject to the full extent of the SB3 process. Will the permit be issued or held pending until the SB3 environmental flows criteria is decided upon? Mr. Vaugh stated he can only speculate as to the decision process by TCEQ and believes that within a couple of years there will be environmental flows standards adopted for Guadalupe-San Antonio River Basin and Guadalupe Estuary through the SB3 process. The application will be processed in accordance with TCEQ and SB3 environmental flows standards. He believes a permit could be issued, subject to those standards. Depending on what point in time the permit is issued for adaptive management or an adjustment as the SB2 process continues on, as SB2 is on a different timeline than the SB3 process.

Steve Raabe, SARA, added that in the event SB2 and SB3 schedules don't match, the permit could be issued with a special condition that the permit is subject to future set aside as established by TCEQ and that could be agreed to voluntarily by the applicant, or as a result of a request for a contested case hearing, by someone protesting the application. Then when however many years passed, the set aside was adopted, the permit would then become effective at that point.

Mr. West stated that the GBRA Mid-Basin Project has been declared administratively complete by TCEQ and the GBRA New Appropriation (Lower Basin) application is pending. GBRA has stated in their permit application that whatever environmental flows standards comes forth, GBRA will make both of the applications subject to them. Mr. West also stated that the Lower Basin Project will be junior to all existing water rights, subject to the environmental flows process, and the project will be a flood flow process.

Art Dohmann asked Mr. Vaugh to clarify the 11,300 ac-ft firm yield and the GBRA Lower Basin Project allowance for 189,484 ac-ft of diversion. Mr. Vaugh confirmed that the application reflects 189,484 ac-ft for maximum annual diversion. The firm supply associated with that, based on 100,000 ac-ft off-channel storage reservoir, is the 11,300 ac-ft. Mr. Dohmann stated he would like to see the project listed by the diversion, not the firm yield.

Mr. Jones stated he believes this project is also premature as it is in the 2030 decade need and the Planning Group should allow the SB3 process to play out before allowing this project to be listed as a Recommended Water Management Strategy. Mr. Jones stated that In Section 7 of the draft IPP, it states an environmental concern regarding the New Appropriation Project due to fresh water inflows into the estuary.

Mr. Mims asked if there were any objections to including the Lavaca River Off-Channel Reservoir, GBRA Mid-Basin Project (Surface Water Right), and Storage Above Canyon Reservoir (ASR) as Recommended Water Management Strategies in the IPP. There were no objections. The motion passed by consensus.

Mr. West made a motion to approve the GBRA New Appropriation (Lower Basin) as a Recommended Water Management Strategy. Mr. Naumann seconded the motion. The motion passed by majority with 18 aye's, 6 nay's and 1 abstaining.

Mr. Vaugh stated the final Recommended Water Management Strategy is the development of Seawater Desalination at 84,012 ac-ft. Mr. Mims asked if there were any objections to this project as a Recommended Water Management Strategy for the IPP. There were no objections. The motion passed by consensus.

Mr. Vaugh reviewed the alternative water management strategies that have been technically evaluated in accordance with TWDB rules and may replace recommended water management strategies in the 2011 RWP, subject to appropriate amendment processes – Lower Guadalupe Water Supply Project for Upstream GBRA Needs, GBRA Lower Basin Storage, Lower Guadalupe Water Supply Project for Upstream GBRA Needs at Reduced Capacity, GBRA Mid-Basin Project (Conjunctive Use), Regional Carrizo for Guadalupe Basin, Lake Texana – Stage II, Medina Lake Firm-Up, Local Barton Springs Edwards Aquifer, Southern Calhoun County Brackish Groundwater, and Local Carrizo Aquifer (Yancey WSC) to the Planning Group as Alternative Water Management Strategies. Mr. Middleton made a motion to approve the projects as Alternative WMS for the IPP. Mr. Naumann seconded the motion. The motion passed by consensus.

Finally, Mr. Vaugh reviewed the following water management strategies that require further study and funding prior to recommendation for implementation – Brush Management, Weather Modification, Rainwater Harvesting, Storage Above Canyon Reservoir (Off Channel), Edwards Aquifer Recharge & Recirculation Systems, Seawater Desalination for Guadalupe River Basin, Mesa Water Supply Project (SAWS), SAWS Other Water Supplies, Mining Water Conservation, Regional Carrizo for BMWD, Regional Carrizo/Brackish Wilcox SSLGC Expansion, CRWA Dunlap Project, and Additional Storage to the Planning Group to be included in the IPP as "Needs Further Study". Mr. Mims asked if there were any objections to the projects as "Needs Further Study" in the IPP. Mr. Mahoney made a motion to approve the projects as "Needs Further Study" for the IPP. Mr. Middleton seconded the motion. The motion was approved by consensus.

Mr. Mims asked for a motion to adopt the Initially Prepared Plan (IPP) containing the Water Management Strategies in the categories as listed and authorizing its submission to the TWDB.

Robert Puente made a motion to adopt the IPP and submit to TWDB. Mr. West seconded the motion. The motion passed by consensus.

Mr. Jones asked that the record state that although he objects to two projects, he is certainly willing to vote for consensus.

**AGENDA ITEM NO. 10: Discussion and Appropriate Action Regarding Public Meetings and Hearings for IPP**

Mr. Raabe, SARA, discussed the draft Public Hearing notice for the IPP and the public comment period. There are three public hearing dates and locations tentatively set. Included in the Public Hearing Notice is the deadline for receipt of public comments, as well as where and to whom to submit the public comments. Ms. Scott recommended an email address be included for those public comments to be sent via email. The public hearings will be recorded for those Planning Group members that may not be able to attend. The Public Hearing Notice will be posted in the San Antonio Express News and the Victoria Advocate, as well as posted in each of Region L's county courthouses.

**AGENDA ITEM NO. 11: Possible Agenda Items for the Next South Central Texas Regional Water Planning Group**

Mr. Mims proposed the following agenda item for the May 6, 2010 meeting:

- Discussion of Public Hearings

**AGENDA ITEM NO. 9: Public Comment**

Dianne Wassenich, San Marcos River Foundation (SMRF), stated that in following the Bay and Basin Stakeholder Process and it appears as if the other two basins have punted on the issue of bays and estuary needs. Ms. Wassenich hopes that this does not happen with the Guadalupe and San Antonio Bay and Basin Stakeholder Committees. She hopes the Planning Group is thinking about the lack of water the GBRA projects will have on the bays and estuaries.

Carol Patterson reminded the Planning Group that the recommendations approved in the 2011 RWP effect everyone and to think of conservation practices when making recommendations.

There being no further business, the meeting adjourned by consensus at 3:41 p.m.

Recommended for approval.

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GARY MIDDLETON, SECRETARY

**Minutes of the  
South Central Texas Regional Water Planning Group  
May 6, 2010**

The meeting was called to order at 10:00 a.m. in the San Antonio Water System's (SAWS) Customer Service Building, Room CR 145, 2800 US Highway 281 North, San Antonio, Bexar County, Texas.

Twenty-three of the 24 voting members, or their alternates, were present.

**Voting Members Present:**

Jason Ammerman	Jay Millikin
Tim Andruss	Con Mims
Donna Balin	Ron Naumann
Evelyn Bonavita	Iliana Peña
Darrell Brownlow	Robert Puente
Velma Danielson	Suzanne Scott
Garrett Engelking	Steve Ramsey
Mike Fields	Milton Stolte
Bill Jones	Tom Taggart
Micah Voulgaris for John Kight	Bill West
David Langford	Tony Wood
Gary Middleton	

**Voting Members Absent:**

Mike Mahoney

**Non-Voting Members Present:**

Norman Boyd, Texas Parks and Wildlife Department, Water Resources Branch  
Matt Nelson, Texas Water Development Board (TWDB)  
Robert Maggiani, Texas Department of Agriculture  
Ron Fieseler, Lower Colorado RWPG  
Pat Guzman, Texas Commission on Environmental Quality (TCEQ)

**AGENDA ITEM NO. 1: Public Comment**

There were no public comments at this time.

**AGENDA ITEM NO. 2: Approval of Minutes**

Chairman Con Mims asked if there were any corrections to be made to the minutes. As there were none, Mr. Mims asked for a motion to approve the minutes. Ron Naumann made a motion to approve the minutes. Gary Middleton seconded the motion. The motion carried by consensus.



**AGENDA ITEM NO. 3: Status of the Edwards Aquifer Recovery Implementation Program (EARIP)**

Dr. Robert Gulley, EARIP, provided an update on EARIP activities. There have been seven public meetings across the region held by the EARIP. Public comments will be accepted until June 3, 2010 and comments received will be turned over for responses at that time. That information will feed into the decision making process. The major focus by the group recently has been looking at ways of bringing water to the species when the species need it (engineered solutions). On June 4, 2010, HDR Engineering, who is helping develop the engineered solutions, will be reporting their initial analysis of the alternatives to the Recharge Facility Sub-Committee. On June 14 – 15, 2010, a meeting will be held at Guadalupe-Blanco River Authority (GBRA) to gather the information provided by HDR Engineering and develop five packages for further consideration over the summer. This is a very critical time for EARIP. A rough outline of the plan should be completed by the end of June 2010.

Mr. Mims asked Dr. Gulley if there would be a RIP process for the Whooping Crane. Dr. Gulley stated that he heard the Endangered Species Act Taskforce is working out of the Comptroller's Office. Joy Nicholopoulos, U.S. Fish and Wildlife State Administrator, announced she was creating a Whooping Crane Process and have entered into a contract with Texas A&M to develop a Stakeholder Group, which would then evolve into a "RIP-like" process.

**AGENDA ITEM NO. 4: Texas Water Development Board (TWDB) Communications**

Matt Nelson, TWDB, stated they are busy reviewing all the Regional Water Plans that have been submitted. Responses should be provided in the next six weeks. All Regional Water Planning Groups turned in their draft plans on time.

Mr. Nelson also stated that TWDB is accepting public comments on Regional Water boundaries and will discuss the boundaries public comments more in Agenda Item 8.

**AGENDA ITEM NO. 5: Discussion and Appropriate Action Authorizing Administrator to Solicit Nominations for Vacant Planning Group Position**

Mr. Mims informed the Planning Group that Michael Harris has resigned effective immediately from the Region L Planning Group. Mr. Mims asked the Planning Group if they would like to begin soliciting nominations to fill the position at this time, or wait until the 2011 Regional Water Plan has been adopted in August. The Planning Group agreed by consensus to revisit this topic at the August 5<sup>th</sup>, 2010 meeting.

**AGENDA ITEM NO. 6: Discussion and Appropriate Action Regarding Consultants Work and Schedule**

Laura Raun, Laura Raun Public Relations (LRPR), provided an update on the Region L website, including information posted from each of the recent public hearings. Ms. Raun also stated that all comments received to date regarding the draft 2011 Initially Prepared Plan (IPP), verbal and written, are available on the Region L website ([www.RegionLTexas.org](http://www.RegionLTexas.org)).

Susan Hughes for Ximenes and Associates, stated the public hearings ran smoothly and offered assistance should the Planning Group need it.

Brian Perkins, HDR Engineering, updated the Planning Group on the Proposed Workplan for Development schedule to show where we are for the month of May. Mr. Perkins also gave a brief update and actions taken to complete the Infrastructure Financing Survey (IFS) with the entities TWDB requested complete the IFS.

**AGENDA ITEM NO. 7: Discussion and Appropriate Action Regarding Proposed Amendment to Technical Consultant's Contract and San Antonio River Authority and TWDB Contract No. 0904830871**

Steve Raabe, San Antonio River Authority (SARA), provided an overview of the contracting process between TWDB, SARA and the consultants for Region L. Mr. Raabe reminded the Planning Group that when expenses greater than 35% occur within a task, if the consultant requests moving funds between tasks, the Planning Group must authorize SARA, as the Administrator for Region L, to amend the contract between HDR and SARA, as well as the contract between SARA and TWDB to reflect the appropriate budget changes.

Mr. Perkins presented the original budget and Scope-of-Work between SARA and HDR Engineering to the Planning Group. Mr. Perkins pointed out the changes being requested to cover expenses occurred while completing Task 4.III.B, Brush Control as a Water Management Strategy. In order to complete Task 4.III.B, HDR had to create a HSPF (Hydrologic Simulation Program-Fortran) model which, when the Scope-of-Work was developed, was thought to be in existence. During the process of completing the task, it was discovered that the model was not created and therefore had to be developed.

The original contract amount for HDR's Scope-of-Work will remain the same, but funds will be moved from other tasks where HDR was able to save money; \$7000.00 from Task 4.II.B.1, General WMSs and \$10,000.00 from Task 4.II.B.3, Update Technical Evaluations of WMSs. After moving funds from the two tasks into Task 4.III.B, Task 4.II.B.1 will have 15.0% budget remaining and Task 4.II.B.3 will have 16.5% budget remaining.

The HSPF model developed by HDR Engineering for Region L's use may be used in the future, as well. The budget changes requested today are to cover the expenditures in Task 4.III.B only. Jay Millikin made a motion to amend the budget as shown by HDR Engineering's request to move funds to Task 4.III.B. Mr. Naumann seconded the motion. The motion passed by consensus.

Mr. Mims asked for a motion to authorize SARA to request the amendment from the TWDB. Mr. Millikin made a motion to authorize SARA to amend the contract with TWDB to reflect budget changes in Task 4.III.B, Task 4.II.B.1 and Task 4.II.B.3 for HDR Engineering. Mr. Naumann seconded the motion. The motion passed by consensus.

Bill West stated that the Texas State Soil and Water Conservation Board is going through Sunset Review process at this time and the Brush Management Program has come under attack regarding the concept of using government funds on private property. Mr. West requests that Region L send a letter in support of the Brush Management Program to the Texas State Soil and Water Conservation Board. Mr. Mims asked SARA staff to draft the letter on behalf of Region L.

**AGENDA ITEM NO. 8: Discussion Regarding Notice of Opportunity to Comment on Water Planning Area Boundaries**

Mr. Nelson, TWDB, informed the Planning Group a public notice had been sent out for comments on Regional Water Planning boundaries. TWDB will consider comments from the public regarding changes to existing boundaries. The public comment period is open until June 1, 2010.

**AGENDA ITEM NO. 9: Discussion and Appropriate Action to Resolve Inter-Regional Conflicts**

Mr. Perkins, HDR Engineering, provided a summary of correspondence between Region L and Regions G and K regarding a potential inter-regional conflict. The GBRA-Simsboro Project is a project in which we have groundwater well fields in Bastrop and Lee Counties. The project is two phases; the first phase would be in Bastrop County for about 30,000 ac-ft/year and the second phase would be an additional 20,000 ac-ft/year from Lee County, bringing water in to our basin near San Marcos to service customers along the IH-35 corridor.

At this time, HDR has communicated with Regions G and K identifying the fact that Region L has a WMS in the 2011 IPP that could use groundwater from both regions. HDR has provided relevant technical information in that Region L WMSs could potentially use 30,000 ac-ft from Bastrop County in Region K and 20,000 ac-ft from Lee County in Region G. HDR has stated that Region L would like to work with both regions to resolve any potential conflicts.

In response to HDR's letter, Region K has stated that there is only 28,000 ac-ft/year of groundwater, they have already allocated the water and no, they have not identified alternative WMS should the groundwater conservation district did not issue permits for their projects. Region G has responded by recommending that Region L only rely on 14,743 ac-ft/year in 2010 through 2040 and 19,777 ac-ft/year in 2050 and 2060 and they have identified alternative WMS, or a source for a WMS.

Mr. Nelson stated that this is a potential conflict – at this point, the regional plans are in as draft forms. TWDB will then go through each plan and look for any over allocations of water, which would be considered an inter-regional conflict. Region L has already identified the potential conflict and has taken steps to attempt to correct it. It isn't technically an inter-regional conflict until Region L has adopted the plan. Once two plans are adopted and they over allocate a source, that is an inter-regional conflict. At this time, Region L has not adopted the plan so it is considered a "potential" inter-regional conflict. If there is an inter-regional conflict that has not been worked out and the two plans are adopted, and they over allocate a water source, there is a process outlined in TWDB's rules to follow. TWDB would notify the regions affected. TWDB would encourage the regions to get together and try to resolve the over allocation. If there are difficulties, TWDB may try to help facilitate the process and support whatever it takes to help the regions work it out amongst themselves. If that doesn't work, then it goes to the board and the board would develop a resolution to that conflict and put out a public notice in both regions and hold one hearing at a location to be determined, comments would be accepted at the hearing on the board's proposed resolution of the conflict. After public comment, the board would consider public comment, perhaps modify the proposed resolution and then take it to the board. If the TWDB board approves it, then part of the approval would include a determination of exactly what changes would need to be made to each regional water plan to accommodate that resolution. The regional planning groups would then need to amend their plans.

Mr. Mims asked the Planning Group if there were any objection to HDR Engineering meeting with the technical consultants from Region G and Region K, as well as Lost Pines Groundwater Conservation District, to come up with possible solutions to the potential conflict and report back to the Planning Group in August. The Planning Group would like the technical consultants to explore all options and possibilities to resolve the over allocation. If not, there is still the option of adopting the plan and letting TWDB facilitate a solution between the regions.

**AGENDA ITEM NO. 10: Discussion Regarding Comments Received From Public Comment Process**

Sam Vaughn, HDR Engineering, summarized the public comments received during three public hearings for the draft IPP. The comments categorized into eighteen major subject categories, which have been outlined for the Planning Group's review. The comment period is open until June 16, 2010.

**AGENDA ITEM NO. 11: Possible Agenda Items for the Next South Central Texas Regional Water Planning Group**

Mr. Mims proposed the following agenda item for the August 5, 2010 meeting:

- Discussion Regarding Pending Legislation Affecting Surface Water and Groundwater (Jay Millikin)
- Status of Senate Bill (SB) 3 Committees
- Discussion and Appropriate Action Authorizing Administrator to Solicit Nominations for Vacant Planning Group Position
- Discussion and Appropriate Action for Adoption of the 2011 Regional Water Plan

**AGENDA ITEM NO. 12: Public Comment**

Suzanne Scott informed the Planning Group that the San Antonio Bays and Basins Stakeholder Committee appointed the Bays and Basins Expert Science Team (BBEST) Committee and the BBEST Committee elected Mr. Vaughn as Chair of the Science Committee for the Bay and Basin Committee.

Dianne Wassenich, San Marcos River Foundation, thanked Mr. Vaughn for his summary regarding her comments on the Blanco Recharge Dam and asked that Ms. Raun recheck her public comment chart to verify Ms. Wassenich's comments.

There being no further business, the meeting adjourned by consensus at 12:00 p.m.

Recommended for approval.

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GARY MIDDLETON, SECRETARY

**Minutes of the  
South Central Texas Regional Water Planning Group  
August 5, 2010**

The meeting was called to order at 10:02 a.m. in the San Antonio Water System's (SAWS) Customer Service Building, Room CR 145, 2800 US Highway 281 North, San Antonio, Bexar County, Texas.

Twenty-four of the 24 voting members, or their alternates, were present.

**Voting Members Present:**

Jason Ammerman	Jay Millikin
Tim Andruss	Con Mims
Donna Balin	Ron Naumann
Evelyn Bonavita	Iliana Peña
Darrell Brownlow	Robert Puente
Velma Danielson	Suzanne Scott
Garrett Engelking	Steve Ramsey
Kevin Janak for Mike Fields	Milton Stolte
Bill Jones	Tom Taggart
John Kight	Bill West
David Langford	Doug McGooky for Tony Wood
Jerry James for Gary Middleton	Diane Savage for Mike Mahoney

**Voting Members Absent:**

None

**Non-Voting Members Present:**

Norman Boyd, Texas Parks and Wildlife Department, Water Resources Branch  
Matt Nelson, Texas Water Development Board (TWDB)  
Ken Weidenfeller, Texas Department of Agriculture  
Ron Fieseler, Lower Colorado RWPG  
Lyn Lyndsay, Texas Commission on Environmental Quality (TCEQ)

**AGENDA ITEM NO. 1: Public Comment**

There were no public comments at this time.

**AGENDA ITEM NO. 2: Approval of Minutes**

Chairman Con Mims asked if there were any corrections to be made to the minutes. Evelyn Bonavita requested a spelling change on Agenda Item No. 7. Mr. Mims asked for a motion to approve the minutes as amended. Ron Naumann made a motion to approve the minutes. David Langford seconded the motion. The motion carried by consensus.

**AGENDA ITEM NO. 3: Status of the Edwards Aquifer Recovery Implementation Program (EARIP)**

Dr. Robert Gulley, EARIP, provided an update on EARIP activities. On September 9-10, 2010, the EARIP will meet to begin structuring the HCP (Habitat Conservation Plan) and covered activities, to include setting targets and goals for the HCP. Given the magnitude of the issues, the EARIP has tentatively scheduled a second session on September 23-24, 2010.

**AGENDA ITEM NO. 4: Texas Water Development Board (TWDB) Communications**

Matt Nelson, TWDB, stated that the TWDB has finished reviewing all sixteen draft regional water plans. Once the plans have been adopted, they will be taken to the board beginning in October. Mr. Nelson had stated at the previous Region L meeting that TWDB was accepting public comments on regional planning area boundaries. TWDB received about thirteen comments. Five were related to Calhoun County, one comment was made regarding moving Kerr County in to Region L. The comments will be taken to the board in October.

**AGENDA ITEM NO. 5: Discussion and Appropriate Action Regarding Consultants' Work and Schedule**

Laura Raun, LRPR, provided an update on the number of public comments received on the Initially Prepared Plan. LRPR has categorized the comments by Water Management Strategies (WMS) and placed them in Region L's database. The database is available on the website ([www.RegionLTexas.org](http://www.RegionLTexas.org)).

Susan Hughes, Ximenes & Associates, informed the Planning Group they are available should assistance be needed.

Brian Perkins, HDR Engineering, Inc., reviewed the schedule and any changes that may need to happen to the Regional Water Plan after today's discussion.

**AGENDA ITEM NO. 6: Discussion and Appropriate Action Regarding TWDB Socioeconomic Impact**

Mr. Nelson, TWDB, explained what the Socioeconomic Impact Analysis is and it is done each round of planning for each regional planning group. The basic assumption is identified needs for water; shortages, and the economic impact on the region if the plan is not implemented to meet those shortages. Mr. Naumann made a motion to accept and include the provided Socioeconomic Impact into the 2011 Regional Water Plan (RWP). John Kight seconded the motion. The motion carried by consensus.

**AGENDA ITEM NO. 7: Discussion and Appropriate Action to Resolve Potential Inter-Regional Conflicts**

Mr. Mims briefed the Planning Group on steps taken to attempt to resolve the potential inter-regional conflict in respect to the Guadalupe-Blanco River Authority's (GBRA) Simsboro Project in Bastrop County in that 30,000 ac-ft from the Simsboro Aquifer for the water management strategy is more water than is available. Representatives from Region L, Region K, Aqua Water

Supply Corporation, TWDB representatives, Lost Pines Groundwater Conservation District (GCD), GBRA, and technical consultants from both regions met recently to discuss the potential conflict. Region L has three options: (1) delete GBRA-Simsboro Project from the 2011 RWP, (2) change the project from a Recommended Water Management Strategy (WMS) to an Alternate WMS, and (3) keep the GBRA-Simsboro Project as it currently is shown in the plan, as a Recommended Strategy, but label the project as an overdraft strategy, which would be acceptable to TWDB as a solution to the issue.

GBRA currently has permit applications before Lost Pines GCD awaiting approval. If the project is deleted from the plan, Region L will be interfering with the permit process and the planning of a governmental entity, which Region L has historically chosen not to do. If the strategy is changed from a Recommended to Alternative Strategy, we create a problem for GBRA. GBRA is currently applying for a loan (planning funds) through TWDB related to the GBRA-Simsboro Project and the project must be shown as a Recommended WMS in the 2011 RWP to qualify for the loan. Region L does not want to interfere with the loan process.

Mr. Nelson, TWDB, stated in this case, had Region K been willing to put a backup strategy in their 2011 RWP for their groundwater strategy, Region L would be in a similar position as with Gonzales County Groundwater Conservation District (GCGCD) regarding permitting processes and the over allocation of water. The Planning Group dealt with that by putting projects in the plan as Recommended strategies, but had alternate strategies in the event the project was not permitted, acknowledging the privacy of groundwater districts. It was stated there is currently a footnote in the 2011 RWP regarding permitting by groundwater districts.

Sam Vaughn, HDR Engineering, stated there will be clarification of the GBRA-Simsboro Project and the water allocations shown in response to TWDB's comments on the 2011 Initially Prepared Plan in Section 10 – Plan Adoption. Mr. Perkins, HDR Engineering, also reminded the Planning Group there is a footnote in the 2011 RWP regarding a need for a backup strategy for the project.

Mr. Mims asked HDR to add an explanation of why the project is considered an overdraft in the WMS definition of the GBRA-Simsboro Project, Section 4, of the 2011 RWP.

Robert Puente made a motion to accept the recommendation, to label the GBRA-Simsboro Project as an overdraft strategy, with the understanding the Technical Consultant will clearly define why the project is labeled as an overdraft strategy in Section 4, Water Management Strategies, and prepare a response to TWDB's comment on the 2011 IPP regarding the project's over allocation in Section 10 of the RWP. Mr. Naumann seconded the motion. The motion carried by consensus.

#### **AGENDA ITEM NO. 8: Discussion and Appropriate Action Regarding Comments Received on 2011 Regional Water Plan IPP**

Mr. Vaughn, HDR Engineering, reviewed all comments received on the 2011 RWP IPP, as well as appropriate responses to the comments drafted by HDR, with the Planning Group, for the Planning Group's approval. There were some suggested minor changes to responses based on comments received. All comments received had been forwarded to the Planning Group, as well as posted on the Planning Group website, [www.RegionL.Texas.org](http://www.RegionL.Texas.org) for viewing prior to today's meeting.

Mr. Vaugh received many public comments expressing concern on the Lavaca River Off-Channel Reservoir as a Recommended WMS and Palmetto Bend Stage II Reservoir as an Alternative WMS. Currently, Region L has projected needs in Eastern Calhoun County that the RWP must show a strategy for meeting those needs. HDR suggested the Lavaca River Off-Channel Reservoir remain a Recommended strategy, but the Palmetto Bend Stage II Reservoir be downgraded to a strategy that "Needs Further Study" for the 2011 RWP.

Bill West made a motion to approve HDR's recommendation, leaving the Lavaca River Off-Channel Reservoir as a Recommended WMS and downgrade the Palmetto Bend Stage II Reservoir from an Alternate WMS to "Needs Further Study". Mr. Puente seconded the motion. The motion carried by consensus.

Mr. Vaugh completed the review of public comments and appropriate drafted responses for the Planning Group. Mr. Mims asked for a motion to approve recommended responses as modified by the Planning Group, by HDR Engineering. Mr. Kight made a motion to approve public comment responses for incorporation into the 2011 RWP. Mr. Naumann seconded the motion. The motion carried by consensus.

#### **AGENDA ITEM NO. 9: Discussion and Appropriate Action Regarding Adoption and Submission of 2011 Regional Water Plan**

Mr. Mims began by asking if there was a motion to adopt the 2011 RWP as it has been modified today and submit the plan to TWDB. Mr. West made a motion to adopt the 2011 RWP and submit the plan to the TWDB. Jerry James seconded the motion. The motion carried by majority vote of 23 aye's and one abstained.

Mr. Mims thanked the Planning Group members and the public for their dedication to a consensus based approval of a very comprehensive and difficult plan. The work done by the Planning Group, as well as Individual workgroups, is the epitome of a consensus based planning operation. The Planning Group worked tremendously hard to overcome many challenges leading to the approval of the 2011 RWP, to include eminent domain, the Exelon Project, groundwater district permitting, and many others. Mr. Mims also congratulated the Planning Group for their achievements, such as being the only Planning Group in the state to study the use of brush management and land stewardship as a potential water management strategy and designating unique stream segments in the region.

Mr. Mims thanked the consultants for their hard work and dedication. Mr. Mims also thanked Mr. Nelson, TWDB, for his guidance during the entire process and the San Antonio River Authority for their administration efforts.

#### **AGENDA ITEM NO. 10: Discussion and Appropriate Action Authorizing Administrator to Solicit Nominations for Vacant Planning Group Position**

Mr. Mims asked the Planning Group if, upon the recent resignation by Michael Harris, representing Industries, the Planning Group would like to begin soliciting nominations to fill the vacancy to complete the term to 2011. The Planning Group recommended the position stay as an Industries interest and authorized the Administrator to solicit nominations to fill the vacancy.



**AGENDA ITEM NO. 11: Possible Agenda Items for the Next South Central Texas Regional Water Planning Group**

Mr. Mims proposed the following agenda item for the November 4, 2010 meeting:

- Discussion Regarding Pending Legislation Affecting Surface Water and Groundwater
- Status of Senate Bill (SB) 3 Committees
- Presentation by USGS – Groundwater/Surface Water Interaction Study, Gain/Loss Study on the Lower San Antonio River Basin and Guadalupe River
- Presentation by USGS - Trinity Aquifer System, Allan K. Clark, P.G.
- Appointment of Planning Group Member

**AGENDA ITEM NO. 12: Set Dates and Times of Regional Water Planning Group Meetings for 2011**

Mr. Mims asked the Planning Group if the quarterly dates provided in the agenda packet would suffice for 2011 meeting dates. There were no objections. Mr. Mims stated if concerns came up closer to those dates, we would discuss at that time.

**AGENDA ITEM NO. 13: Public Comment**

There was no public comment at this time.

There being no further business, the meeting adjourned by consensus at 12:34 p.m.

Recommended for approval.

---

GARY MIDDLETON, SECRETARY

Approved by the South Central Texas Regional Water Planning Group at a meeting held on November 4, 2010.

---

CON MIMS, CHAIR

**Attachment F: Agenda and Expense Claim Forms related to TAGD Meetings held during FY09-10.**

**TEXAS ALLIANCE OF GROUNDWATER DISTRICTS**  
*Regular Meeting*

**Tuesday, December 1 and Wednesday, December 2, 2009**

Crowne Plaza Austin Central  
6121 N IH-35, Austin, TX 78752

**AGENDA**

**Tuesday, December 1, 2009**

- 1) Call to Order - 1:00 p.m.
- 2) Invocation.
- 3) Roll Call.
- 4) Speaker Presentations
  - a) Presentation by Michael Reagor, Texas State Library and Archives Commission – **“Records Retention and Accessibility”**
  - b) Presentation by Robert Wood, Director for Local Government Assistance and Economic Development, Texas State Comptroller’s Office – **“Texas Transparency Check-up”**
  - c) Presentation by C.E. Williams, Panhandle GCD – **“Got your DFC Now What?”**
  - d) Presentation by Mike Mahoney, Evergreen UWCD – **“Interim Charges as they Relate to GCDs and Water Resources”**
- 5) Member Comment or Reports
  - a) GMA progress toward setting a Desired Future Condition
  - b) Individual Groundwater Conservation District updates
- 6) Reports
  - a) Executive Director’s Report – Greg Ellis
  - b) Drought Preparedness Council – David van Dresar
  - c) Groundwater Protection – David van Dresar
  - d) Information and Education – Deanya Williams
  - e) Railroad Commission – Lee Sweeten
  - f) Soil and Water Conservation – Caroline Runge
  - g) Aquifer Storage and Recovery – John Cartwright
  - h) Membership Development –
  - i) Operations Manual – Caroline Runge
  - j) Bylaws – Lonnie Stewart
  - k) Texas Environmental Flows Advisory Group
    - i) Trinity River Basin – Kathy Jones and Lloyd Behm
    - ii) Sabine River Basin – Walter Glen, David Alford

**Wednesday, December 3, 2009 - 8:00am**

**Business Meeting: This portion of the meeting may be closed in accordance with Article 6.0.D.2.**

- 1) Call to Order - 8:00 a.m.
- 2) Presentation by Luana Buckner regarding TWCA.
- 3) Discussion and possible action on District and Associate Membership benefits.
- 4) Discussion and possible action on Minutes of prior meeting.
- 5) Discussion and possible action on Financial Reports.
- 6) Discussion and possible action on Financial Statement/Audit for September 30, 2008 and 2009.
- 7) Reports:
  - a) Executive Committee Report – Jim Conkwright
  - b) Legislative Committee – Mike Mahoney
  - c) Bylaws – Lonnie Stewart
  - d) Litigation Update – Greg Ellis
- 8) Other TAGD business
- 9) Adjournment



VICTORIA COUNTY GROUNDWATER CONSERVATION DISTRICT

Travel and Expense Claim

J.H.  
12/1/09

TO: VICTORIA COUNTY GROUNDWATER CONSERVATION DISTRICT

CHECK IF:  ADVANCE  REIMBURSEMENT

12-7-09  
KE

PAYABLE TO: Lern Andrews

TRAVEL LOCATION: Austin Texas

PURPOSE OF TRIP: Attend TAGD meeting

DATE(S) EXPENSES WERE INCURRED: 12/1/09 + 12/2/09

AUTOMOBILE MILEAGE: 134 MILES @ 0.55 PER MILE \$ 73.70

MEALS: KENNETH TIM THURMAN MARK BARBARA B of D MTG. \$ \_\_\_\_\_

LODGING ..... \$ \_\_\_\_\_

REGISTRATION FEES ..... \$ \_\_\_\_\_

TIPS AND INCIDENTALS ..... \$ \_\_\_\_\_

OTHER EXPENSES (EXPLAIN) \_\_\_\_\_ \$ \_\_\_\_\_

\_\_\_\_\_ \$ \_\_\_\_\_

\_\_\_\_\_ \$ \_\_\_\_\_

SUBTOTAL ..... \$ 73.70

LESS ADVANCE (IF ANY) ..... \$ -0-

TOTAL DUE EMPLOYEE ..... \$ 73.70

I certify that the expenses listed above were incurred by me in the performance of official County business and I have not received reimbursement from any other source.

SIGNATURE: \_\_\_\_\_

DATE: \_\_\_\_\_

TITLE: \_\_\_\_\_

DATE: \_\_\_\_\_

DEPT. APPROVAL \_\_\_\_\_

DATE: \_\_\_\_\_

\*ATTACH TICKETS, RECEIPTS, OR OTHER SUPPORTING DOCUMENTATION.

**TEXAS ALLIANCE OF GROUNDWATER DISTRICTS**  
*Regular Meeting*

**Tuesday, March 30 and Wednesday, March 31, 2010**

Crowne Plaza Austin Central  
6121 N IH-35, Austin, TX 78752

**AGENDA**

**Tuesday, March 30, 2010**

- 1) Call to Order - 1:00 pm
- 2) Invocation
- 3) Roll Call
- 4) Speaker Presentations
  - a) Presentation by Scott Orr, NetIrrigate LLC – Flow-meter Telemetry Solutions
  - b) Presentation by Charles Porter – Water-rights and related history of major Texas springs
  - c) Presentation by Weir Labatt, Texas Water Development Board – Some thoughts on the current management of groundwater in Texas
  - d) Presentation by L'Oreal Stepney, P.E., Deputy Director, TCEQ Office of Water – 3:00 pm
- 5) Member Comment or Reports
  - a) GMA progress toward setting a Desired Future Condition – Detailed Reports
  - b) Individual Groundwater Conservation District updates
- 6) Reports
  - a) Executive Director's Report – Greg Ellis
  - b) Drought Preparedness Council – David van Dresar
  - c) Groundwater Protection – David van Dresar
  - d) Information and Education – Deanya Williams
  - e) Railroad Commission – Lee Sweeten
  - f) Soil and Water Conservation – Caroline Runge
  - g) Aquifer Storage and Recovery – John Cartwright
  - h) Membership Development –
  - i) Operations Manual – Caroline Runge
  - j) Bylaws – Lonnie Stewart
  - k) Texas Environmental Flows Advisory Group
    - i) Trinity River Basin – Kathy Jones and Lloyd Behm
    - ii) Sabine River Basin – Walter Glen, David Alford
    - iii) Guadalupe River Basin – Velma Danielson, Thurman S. Clements, Jr., Brad Groves
- 7) Recess of Open Session

**7:00 pm Member District Networking Dinner at Pappadeaux's – Registered attendees only**

**Wednesday, March 31, 2010**

**Business Meeting: This portion of the meeting may be closed in accordance with Article 6.0.D.2.**

- 1) Call to Order - 8:00 am
- 2) Discussion and possible action on District and Associate Membership applications.
  - a) Charles Porter – Associate Member Applicant
  - b) Brush Country Groundwater Conservation District – District Member Applicant
  - c) Trinity Glen Rose Groundwater Conservation District – District Member Applicant
  - d) Prairielands Groundwater Conservation District – District Member Applicant
- 3) Discussion and possible action on Minutes of prior meeting.
- 4) Discussion and possible action on Financial Reports.
- 5) Discussion and possible action on Bylaw Amendments.
- 6) Discussion and possible action on the appointment of a committee to evaluate how the Executive Committee is composed, including the possible (re-)definition of TAGD areas.
- 7) Discussion and possible action on the appointment of Kirk Holland as the TAGD representative on the Technical Resource Panel for the Brackish Resource Aquifer Characterization System within the Texas Water Development Board.
- 8) Reports:
  - a) Executive Committee Report – Jim Conkwright
  - b) Legislative Committee – Mike Mahoney
  - c) Bylaws – Lonnie Stewart
  - d) Litigation Update – Greg Ellis
- 9) Other TAGD business
- 10) Adjournment



# VICTORIA COUNTY GROUNDWATER CONSERVATION DISTRICT

## Travel and Expense Claim

TO: VICTORIA COUNTY GROUNDWATER CONSERVATION DISTRICT

*4-7-10  
KE*

CHECK IF:  ADVANCE  REIMBURSEMENT

PAYABLE TO: Tim Andrews

TRAVEL LOCATION: Austin

PURPOSE OF TRIP: SAGD Quarterly Mtg.

DATE(S) EXPENSES WERE INCURRED: 3/27/10

AUTOMOBILE MILEAGE: 246 MILES @ 0.50 PER MILE \$ 123.00

MEALS: KENNETH TIM THURMAN MARK BARBARA B of D MTG. \$ \_\_\_\_\_

LODGING ..... \$ \_\_\_\_\_

REGISTRATION FEES ..... \$ \_\_\_\_\_

TIPS AND INCIDENTALS ..... \$ \_\_\_\_\_

OTHER EXPENSES (EXPLAIN) \_\_\_\_\_ \$ \_\_\_\_\_

\_\_\_\_\_ \$ \_\_\_\_\_

\_\_\_\_\_ \$ \_\_\_\_\_

SUBTOTAL ..... \$ 123.00

LESS ADVANCE (IF ANY) ..... \$ - 0 -

TOTAL DUE EMPLOYEE ..... \$ 123.00

*4-6-10  
B.D.*

I certify that the expenses listed above were incurred by me in the performance of official County business and I have not received reimbursement from any other source.

SIGNATURE: \_\_\_\_\_

DATE: \_\_\_\_\_

TITLE: \_\_\_\_\_

DATE: \_\_\_\_\_

DEPT. APPROVAL \_\_\_\_\_

DATE: \_\_\_\_\_

\*ATTACH TICKETS, RECEIPTS, OR OTHER SUPPORTING DOCUMENTATION



**TEXAS ALLIANCE OF GROUNDWATER DISTRICTS**  
*Regular Meeting*

**Tuesday, June 29, and Wednesday, June 30, 2010**

Crowne Plaza Austin Central  
6121 N IH-35, Austin, TX 78752

**AGENDA**

**Tuesday, June 29, 2010**

- 1) Call to Order - 1:00 p.m.
- 2) Invocation.
- 3) Roll Call.
- 4) Speaker Presentations
  - a) Robert Mace—DFC/MAG determinations and exempt uses
  - b) Update on State Auditor GCD audits (panel—Janet Adams)
  - c) Joe Fitzsimmons, Private Property and Groundwater
  - d) Kirk Holland – Development of a DFC in a complex stakeholder environment
- 5) Member Comment or Reports
  - a) GMA progress toward setting a Desired Future Condition
  - b) Individual Groundwater Conservation District updates
- 6) Reports
  - a) Executive Director's Report – Greg Ellis
  - b) Drought Preparedness Council – David van Dresar
  - c) Groundwater Protection – David van Dresar
  - d) Information and Education – Deanya Williams and David Mauk
  - e) Railroad Commission – Lee Sweeten
  - f) Soil and Water Conservation – Caroline Runge
  - g) Aquifer Storage and Recovery – John Cartwright
  - h) Membership Development –
  - i) Operations Manual – Caroline Runge
  - j) Bylaws – Lonnie Stewart
  - k) Texas Environmental Flows Advisory Group
    - i) Trinity River Basin – Kathy Jones and Lloyd Behm
    - ii) Sabine River Basin – Walter Glen, David Alford
    - iii) Guadalupe River Basin – Velma Danielson, Thurman S. Clements, Jr., Brad Groves
- 7) Recess of Open Session

**7:00 pm** Member District Networking Dinner at Texas Land & Cattle Steak House – Registered attendees only

**Wednesday, June 30, 2010**

**Business Meeting: This portion of the meeting may be closed in accordance with Article 6.0.D.2.**

- 1) Call to Order - 8:00 a.m.
- 2) Discussion and possible action on Minutes of prior meeting.
- 3) Discussion and possible action on Financial Reports.
- 4) Discussion and possible action on Bylaw Amendments.
- 5) Discussion and possible action on records retention, samples and implementation.
- 6) Discussion and possible action on agendas for closed meetings (executive sessions).
- 7) Reports:
  - a) Executive Committee Report – Jim Conkwright
  - b) Legislative Committee – Mike Mahoney
  - c) Bylaws – Lonnie Stewart
  - d) Litigation Update – Greg Ellis
- 8) Other TAGD business
- 9) Adjournment



VICTORIA COUNTY GROUNDWATER CONSERVATION DISTRICT

Travel and Expense Claim

TO: VICTORIA COUNTY GROUNDWATER CONSERVATION DISTRICT

CHECK IF:  ADVANCE  REIMBURSEMENT

PAYABLE TO: Tim Andrews

TRAVEL LOCATION: CROWN PLAZA AUSTIN (SEE ATTACHED)

PURPOSE OF TRIP: TAGD Meeting

DATE(S) EXPENSES WERE INCURRED: 6/29/10

AUTOMOBILE MILEAGE: 250 MILES @ 0.50 PER MILE \$ 125.00

MEALS: KENNETH (TIM) THURMAN MARK BARBARA B of D MTG. \$ e.c.

LODGING ..... \$ 0

REGISTRATION FEES ..... \$ 0

TIPS AND INCIDENTALS ..... \$ 0

OTHER EXPENSES (EXPLAIN) ..... \$ 0

SUBTOTAL ..... \$ 125.00

LESS ADVANCE (IF ANY) ..... \$ 0

TOTAL DUE EMPLOYEE ..... \$ 125.00 <sup>7/1/10</sup>

I certify that the expenses listed above were incurred by me in the performance of official County business and I have not received reimbursement from any other source.

SIGNATURE: [Signature]

DATE: 6/30/10 <sup>7-2-10</sup>

TITLE: C.M.

DATE: \_\_\_\_\_

DEPT. APPROVAL \_\_\_\_\_

DATE: \_\_\_\_\_

## TEXAS ALLIANCE OF GROUNDWATER DISTRICTS

[www.texasgroundwater.org](http://www.texasgroundwater.org)

Jim Conkwright, President  
Mike Mahoney, Vice President

Kirk Holland, Secretary  
Kathy Jones, Treasurer

Lonnie Stewart, Parliamentarian

---

### UPCOMING EVENTS

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#### **TAGD SPEAKER SESSION**

*Tuesday, September 28, 2010 from 1:00pm – 5:00pm*

*Crowne Plaza Austin Central*

*6121 N IH-35, Austin, TX 78752*

*Directions: <http://www.ihotelsgroup.com/h/d/cp/1/en/hotel/AUSGZ/transportation?start=1>*

#### **TAGD MEMBER DINNER**

*Tuesday, September 28, 2010 at 7:00 pm*

*Texas Land & Cattle Steak House*

*6007 North IH-35, Austin, TX 78723*

*Directions: <http://www.texaslandandcattle.com/files/locations-result.aspx?by=Zip&k=78717>*

#### **TAGD QUARTERLY BUSINESS MEETING**

*Wednesday, September 29, 2010 from 8:00am – 12:00pm*

*May be closed to non-District Members*

*Crowne Plaza Austin Central*

*6121 N IH-35, Austin, TX 78752*

*Hotel Accommodations for \$105/night single occupancy can be made through*

*Crowne Plaza Austin Central*

*6121 N IH-35, Austin, TX 78752*

***\*Price guarantee only available if reservation is made before September 15, 2010.***

*To make a reservation call 1-800-227-6963 and reference the Texas Alliance of Groundwater Districts as the group name in order to get the group rate. Also note there is a 72 hour cancellation policy.*



VICTORIA COUNTY GROUNDWATER CONSERVATION DISTRICT

Travel and Expense Claim

10-5-10 KE

TO: VICTORIA COUNTY GROUNDWATER CONSERVATION DISTRICT

CHECK IF:  ADVANCE  REIMBURSEMENT

PAYABLE TO: TIM ANDRUSS

TRAVEL LOCATION: AUSTIN, TEXAS

PURPOSE OF TRIP: ATTEND TAGD MEETING 9/28/10

DATE(S) EXPENSES WERE INCURRED: 9/28/10

AUTOMOBILE MILEAGE: 250 MILES @ 0.50 PER MILE \$ 125.<sup>00</sup>

MEALS: KENNETH (TIM) THURMAN MARK BARBARA B of D MTG. \$ \_\_\_\_\_

LODGING ..... \$ \_\_\_\_\_

REGISTRATION FEES ..... \$ \_\_\_\_\_

TIPS AND INCIDENTALS ..... \$ \_\_\_\_\_

OTHER EXPENSES (EXPLAIN) \$5.40 / \$13.90 \$ 19.30

\_\_\_\_\_ \$ \_\_\_\_\_

\_\_\_\_\_ \$ \_\_\_\_\_

SUBTOTAL ..... \$ \_\_\_\_\_

LESS ADVANCE (IF ANY) ..... \$ \_\_\_\_\_

TOTAL DUE EMPLOYEE ..... \$ 144.<sup>30</sup>

750/ 10-8-10

I certify that the expenses listed above were incurred by me in the performance of official County business and I have not received reimbursement from any other source.

SIGNATURE: [Signature]

DATE: 9/30/10

TITLE: General Mgr

DATE: \_\_\_\_\_

DEPT. APPROVAL \_\_\_\_\_

DATE: \_\_\_\_\_

**Attachment G: Invoices and Expense Claim Forms related to USGS  
Coleta Creek Watershed Project during FY09-10.**

DI-1040DPR

COPY

Received  
2-22-10  
In the office of *Jr*



United States  
Department of the Interior  
Geological Survey

TX169  
Request No: 0-8653-DPR464

Request Date: 02/18/2010  
Due Date: 04/19/2010

**DOWN PAYMENT (BILL) REQUEST**

Customer Address:  
Attention: VICTORIA COUNTY GROUNDWATER TX169  
CONSERVATION DISTRICT  
2805 N. NAVARRO ST., SUITE 210  
VICTORIA, TX 77963

Mall Check To:  
DOI - USGS  
BOX 70834  
CHARLOTTE NC 28272-0834  
Send Overnight/Express Mail To:  
QLP Wholesale Lockbox - NC 0810  
Lockbox # 70834  
1525 West WT Harris Blvd  
Charlotte, NC 28282

Checks must be made payable to: DOI-USGS and must  
include a copy of this request or reference the Request No above.

Notice: Payments to USGS may be made by all major credit cards, either by email to  
USGS address: [gdatta@usgs.gov](mailto:gdatta@usgs.gov) OR by phone (703.648.7605).

Description:	Quantity	Unit Price	Unit Issue	Amount
For expenses incurred under Joint Funding Agreement between our agencies for the program involving data collection activities. For the period of 10/1/09 - 12/31/09	1	\$2,500.00	EA	\$2,500.00

*K.K. Becher*  
3.19.10  
*J.H.*  
3/19/10

I certify that this Down Payment Request is correct, in accordance with the terms of the order/signed agreement, and payment has not been received.  
*Kandis K Becher*

Prepared by: *Kandis K Becher* 817-263-9545  
x225

Amount Due This Bill: \$2,500.00

**USGS ACCOUNTING CLASSIFICATION SECTION:**

Agreement #	BFY	EFY	Cust#	Amount	Fund	Rev Src	Cost Center
09C4TX169000000	2010	2011	TX169	\$2,500.00	SIRTR	ARJF	8653

\$2,500.00 \*Total

Routing Slip:  
Created By: *Kandis K Becher*  
Supervisor:

OFM Contact:  
CC: *Denis J Sheehan/APS/USGS/DOI* 703-648-7642  
*Kandis K Becher* TTN:32-0127275

02/18/2010

DI-1040DPR

Received  
4-16-10  
in the office of [signature]

COPY

TX169

Request No: 0-8653-DPR516



United States  
Department of the Interior  
Geological Survey

Request Date: 04/14/2010  
Due Date: 06/13/2010

**DOWN PAYMENT (BILL) REQUEST**

Mail Check To:  
DOI - USGS  
BOX 70934  
CHARLOTTE NC 28272-0934  
Send Overnight/Express Mail To:  
QLP Wholesale Lockbox - NC 0810  
Lockbox # 70934  
1625 West WT Harris Blvd  
Charlotte, NC 28262

Customer Address:  
Attention: VICTORIA COUNTY GROUNDWATER TX169  
CONSERVATION DISTRICT  
2805 N. NAVARRO ST., SUITE 210  
VICTORIA, TX 77963

Checks must be made payable to: DOI-USGS and must include a copy of this request or reference the Request No. above.

Notice: Payments to USGS may be made by all major credit cards, either by email to USGS address: gdatta@usgs.gov OR by phone (703.648.7605).

Description:	Quantity	Unit Price	Unit Issue	Amount
For expenses incurred under Joint Funding Agreement between our agencies for the program involving data collection activities.	1	\$2,500.00	EA	\$2,500.00

For the period of 1/1/10 - 3/31/10

I certify that this Down Payment Request is correct, in accordance with the terms of the order/signed agreement, and payment has not been received.  
*Kandis K Becher*

Prepared by: Kandis K Becher 817-263-9545 x225  
Amount Due This Bill: \$2,500.00

**USGS ACCOUNTING CLASSIFICATION SECTION:**

Agreement #	BFY	EFY	Cust#	Amount	Fund	Rev Src	Cost Center
09C4TX169000000	2010	2011	TX169	\$2,500.00	SIRTR	ARJF	8653

\$2,500.00 \*Total

Routing Slip:  
Created By: Kandis K Becher  
Supervisor:  
OFM Contact: Denis J Sheehan/APS/USGS/DOI 703-648-7642  
CC: Kandis K Becher TIN:32-0127275

04/14/2010



DI-1040DPR

NAA  
9-1-10

9-1-10  
VE

TX169

Request No: 0-8653-DPR600

COPY

United States  
Department of the Interior  
Geological Survey

Request Date: 07/08/2010  
Due Date: 09/06/2010

DOWN PAYMENT (BILL) REQUEST

Mall Check To:  
DOI - USGS  
BOX 70934  
CHARLOTTE NC 28272-0934  
Send Overnight/Express Mail To:  
QLP Wholesale Lockbox - NC 0810  
Lockbox # 70934  
1525 West WT Harris Blvd  
Charlotte, NC 28262

Customer Address: VICTORIA COUNTY GROUNDWATER TX169  
Attention: CONSERVATION DISTRICT  
2805 N. NAVARRO ST., SUITE 210  
VICTORIA, TX 77963

Checks must be made payable to: DOI-USGS and must  
include a copy of this request or reference the Request No above.

Notice: Payments to USGS may be made by all major credit cards, either by email to  
USGS address: gdata@usgs.gov OR by phone (703.648.7605).

Description:	Quantity	Unit Price	Unit Issue	Amount
--------------	----------	------------	------------	--------

For expenses incurred under Joint Funding Agreement between our agencies for the program involving data collection activities.	1	\$2,500.00	EA	\$2,500.00
--	---	------------	----	------------

For the period of 4/1/10 - 6/30/10

Received  
7/14/10 BT  
In the office of



I certify that this Down Payment Request is correct, in accordance with the terms of the order/signed agreement, and payment has not been received.  
Kandis K Becher

Prepared by: Kandis K Becher 817-263-9545 x225  
Amount Due This Bill: \$2,500.00

USGS ACCOUNTING CLASSIFICATION SECTION:

Agreement #	BFY	EFY	Cust#	Amount	Fund	Rev Src	Cost Center
09C4TX169000000	2010	2011	TX169	\$2,500.00	SIRTR	ARJF	8653

\$2,500.00 \*Total

Routing Slip:  
Created By: Kandis K Becher  
Supervisor:  
OFM Contact: Denis J Sheehan/APS/USGS/DOI 703-648-7642  
CC: Kandis K Becher TIN:32-0127275

07/08/2010



VICTORIA COUNTY GROUNDWATER CONSERVATION DISTRICT

Travel and Expense Claim

4/13/10  
TAA  
4-13-10  
KQ

TO: VICTORIA COUNTY GROUNDWATER CONSERVATION DISTRICT

CHECK IF:  ADVANCE  REIMBURSEMENT

PAYABLE TO: Lin Andrus

TRAVEL LOCATION: Goliad 118 S. Market

PURPOSE OF TRIP: Colito Creek Watershed Study

DATE(S) EXPENSES WERE INCURRED: \_\_\_\_\_

AUTOMOBILE MILEAGE: <u>55</u> MILES @ <u>0.50</u> PER MILE	\$ <u>27.50</u>
MEALS: KENNETH TIM THURMAN MARK BARBARA B of D MTG.	\$ _____
LODGING .....	\$ _____
REGISTRATION FEES .....	\$ _____
TIPS AND INCIDENTALS .....	\$ _____
OTHER EXPENSES (EXPLAIN) _____	\$ _____
_____	\$ _____
_____	\$ _____
SUBTOTAL .....	\$ <u>27.50</u>
LESS ADVANCE (IF ANY) .....	\$ <u>- 0 -</u>
TOTAL DUE EMPLOYEE .....	\$ <u>27.50</u>

I certify that the expenses listed above were incurred by me in the performance of official County business and I have not received reimbursement from any other source.

SIGNATURE: [Signature] DATE: \_\_\_\_\_

TITLE: \_\_\_\_\_ DATE: \_\_\_\_\_

DEPT. APPROVAL \_\_\_\_\_ DATE: \_\_\_\_\_



# VICTORIA COUNTY GROUNDWATER CONSERVATION DISTRICT

## Travel and Expense Claim

TO: VICTORIA COUNTY GROUNDWATER CONSERVATION DISTRICT

CHECK IF:  ADVANCE  REIMBURSEMENT

PAYABLE TO: Tim Andrus

TRAVEL LOCATION: WELL SITES - COLETO CREEP SW/OW STUDY

PURPOSE OF TRIP: WATER LEVEL MEASUREMENT  
WATER QUALITY MEASUREMENT

DATE(S) EXPENSES WERE INCURRED: 6-21-10

AUTOMOBILE MILEAGE: 71 MILES @ 0.50 PER MILE \$ 35.50

MEALS: KENNETH TIM THURMAN MARK BARBARA B of D MTG. \$ \_\_\_\_\_

LODGING ..... \$ \_\_\_\_\_

REGISTRATION FEES ..... \$ \_\_\_\_\_

TIPS AND INCIDENTALS ..... \$ \_\_\_\_\_

OTHER EXPENSES (EXPLAIN) \_\_\_\_\_ \$ \_\_\_\_\_

\_\_\_\_\_ \$ \_\_\_\_\_

\_\_\_\_\_ \$ \_\_\_\_\_

SUBTOTAL ..... \$ \_\_\_\_\_

LESS ADVANCE (IF ANY) ..... \$ \_\_\_\_\_

TOTAL DUE EMPLOYEE ..... \$ 35.50

*Handwritten notes:*  
0/23/10  
4/23/10

I certify that the expenses listed above were incurred by me in the performance of official County business and I have not received reimbursement from any other source.

SIGNATURE: [Signature]

DATE: 6-22-10

TITLE: GM

DATE: \_\_\_\_\_

DEPT. APPROVAL \_\_\_\_\_

DATE: \_\_\_\_\_



**Victoria County Groundwater Conservation District**

2805 N. Navarro St., Suite 210, Victoria, Texas 77901  
 (361)579-6863 FAX: (361)579-0041  
 Website: [www.vcgcd.org](http://www.vcgcd.org) Email: [admin@vcgcd.org](mailto:admin@vcgcd.org)

**COPY**

**Participation Acknowledgement Form**

PROGRAM / EVENT INFORMATION			
Program / Event Title:	2010 Aquatic Science Class		
Program / Event Date:	Fall 2009	Program / Event Location:	Memorial High School
Program Description:	Presentation on groundwater including conservation, current issues, law, wells, drought, preservation, etc.		
Description of VCGCD Participation:	Tim Andruss, general manager of VCGCD, organized and presented information to high school aquatic science students at Memorial High School.		
DISCUSSION TOPICS			
Efficient Use of Groundwater:	<input checked="" type="checkbox"/>	Preventing Waste of Groundwater:	<input checked="" type="checkbox"/>
Conjunctive Use:	<input checked="" type="checkbox"/>	Natural Resource Issues:	<input checked="" type="checkbox"/>
Drought Conditions:	<input checked="" type="checkbox"/>	Conservation:	<input checked="" type="checkbox"/>
Recharge Enhancement:	<input checked="" type="checkbox"/>	Rain Water Harvesting:	<input checked="" type="checkbox"/>
Precipitation Enhancement:	<input type="checkbox"/>	Brush Control:	<input checked="" type="checkbox"/>
Preventing Subsidence:	<input checked="" type="checkbox"/>	Desired Future Conditions:	<input type="checkbox"/>
SIGNATURE			
<u>Denise Andruss</u> Signature of Program / Event Coordinator		<u>7/20/10</u> Date	
<u>Denise Andruss - Aquatic Science Teacher Memorial High School</u> Printed Name and Title of Program / Event Coordinator			

COPY



**Victoria County Groundwater Conservation District**

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 (361)579-6863 FAX: (361)579-0041  
 Website: [www.vcgcd.org](http://www.vcgcd.org) Email: [admin@vcgcd.org](mailto:admin@vcgcd.org)

**Participation Acknowledgement Form**

PROGRAM / EVENT INFORMATION			
Program / Event Title:	2010 Earth Day Expo - "Color Our World Clean!"		
Program / Event Date:	04/21/2010	Program / Event Location:	Victoria Community Center
Program Description:	Expo of Our Environment for natural resource management and conservation for students from area schools in Victoria County.		
Description of VCGCD Participation:	VCGCD conducted a hands-on demonstration related to understanding and protecting the Gulf Coast Aquifer within Victoria County. Students were able to see an aquifer-specific model that demonstrates the effects of groundwater infiltration, groundwater recharge, and groundwater pumping. Viewed video on groundwater and participated in question and answer session.		
DISCUSSION TOPICS			
Efficient Use of Groundwater:	<input checked="" type="checkbox"/>	Preventing Waste of Groundwater:	<input checked="" type="checkbox"/>
Conjunctive Use:	<input checked="" type="checkbox"/>	Natural Resource Issues:	<input checked="" type="checkbox"/>
Drought Conditions:	<input checked="" type="checkbox"/>	Conservation:	<input checked="" type="checkbox"/>
Recharge Enhancement:	<input type="checkbox"/>	Rain Water Harvesting:	<input checked="" type="checkbox"/>
Precipitation Enhancement:	<input type="checkbox"/>	Brush Control:	<input type="checkbox"/>
Preventing Subsidence:	<input type="checkbox"/>	Desired Future Conditions:	<input type="checkbox"/>
SIGNATURE			
<i>Marie Lester</i>		7-21-10	
Signature of Program / Event Coordinator		Date	
Marie Lester, Earth Day Expo			
Printed Name and Title of Program / Event Coordinator			



## Victoria County Groundwater Conservation District

2805 N. Navarro St., Suite 210, Victoria, Texas 77901

(361)579-6863

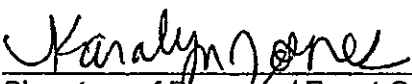
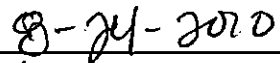
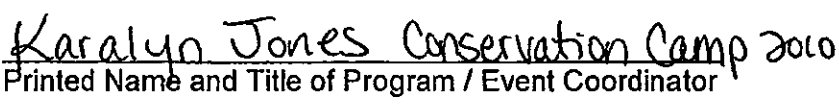
FAX: (361)579-0041

Website: [www.vcgcd.org](http://www.vcgcd.org)

Email: [admin@vcgcd.org](mailto:admin@vcgcd.org)

COPY

# Participation Acknowledgement Form

PROGRAM / EVENT INFORMATION			
Program / Event Title:	2010 Texas Zoo Conservation Ranger Camp		
Program / Event Date:	07/12/2010	Program / Event Location:	Texas Zoo, Victoria, Tx
Program Description:	Day camp for 5th and 6th grade students focused on natural resource management and conservation.		
Description of VCGCD Participation:	VCGCD conducted a hands-on demonstration related to understanding and protecting the Gulf Coast Aquifer within Victoria County. Students constructed aquifer-specific models that demonstrate the effects of groundwater infiltration, groundwater recharge, and ground pumping.		
DISCUSSION TOPICS			
Efficient Use of Groundwater:	<input checked="" type="checkbox"/>	Preventing Waste of Groundwater:	<input checked="" type="checkbox"/>
Conjunctive Use:	<input checked="" type="checkbox"/>	Natural Resource Issues:	<input checked="" type="checkbox"/>
Drought Conditions:	<input checked="" type="checkbox"/>	Conservation:	<input checked="" type="checkbox"/>
Recharge Enhancement:	<input type="checkbox"/>	Rain Water Harvesting:	<input type="checkbox"/>
Precipitation Enhancement:	<input type="checkbox"/>	Brush Control:	<input type="checkbox"/>
Preventing Subsidence:	<input type="checkbox"/>	Desired Future Conditions:	<input type="checkbox"/>
SIGNATURE			
 Signature of Program / Event Coordinator		 Date	
 Printed Name and Title of Program / Event Coordinator			



# Victoria County Groundwater NEWS

March 2010

## Current Activities

- Well Registration
- New Well Permitting
- Groundwater Joint Planning (GMA-15, DFC/MAG)
- Regional Water Planning (Region L)
- Environmental Flows—Guadalupe River and San Antonio Bay System
- Water Level Monitoring
- Water Quality Monitoring
- Sludge Disposal / Groundwater Impact Monitoring
- Advanced Monitoring Program Development
- Groundwater Availability Modeling Simulations
- Coletto Creek Groundwater / Surface Water Study

## Well Registration Update

Since January 2009, the District has accepted and processed 323 applications to register grandfathered wells or drill new wells.

As of March 2010, the District had registered 310 "exempt" wells and 19 "non-exempt" wells.

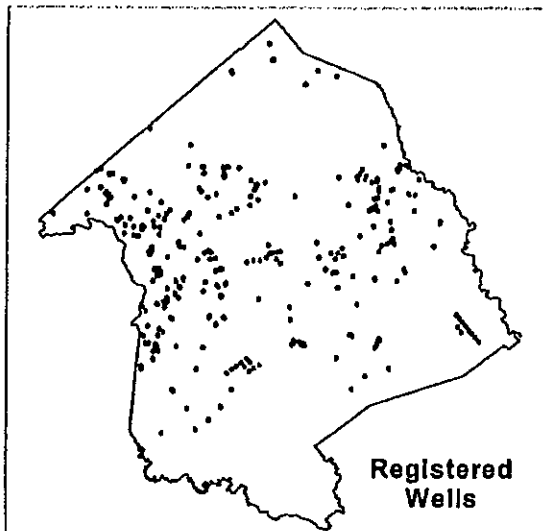
The District has developed

a series of simple forms that can be filled out by either the landowner or a designated agent to register grandfathered wells. These applications can be downloaded from the District's website ( [www.vcgcd.org](http://www.vcgcd.org) ) or can be obtained from the District's office.

Well registration has a number of direct benefits for well owners including eligibility to participate in the District's aquifer monitoring programs and mandatory offset requirements by new wa-

ter wells.

As of March 2010, the District has approved **10 production permits that, in total, authorize 13,100 acre feet per year (ac-ft/yr) of groundwater production.** Only 421 ac-ft/yr is associated with new water wells.



Registered Wells

An accurate registry of water wells is vital

to supporting your District's efforts to locally manage the groundwater resources of Victoria County.

***The District's Board of Directors strongly encourages landowners within Victoria County to support its efforts to conserve, preserve, protect, and prevent waste of this most valuable resource by immediately registering your water wells with the District.***

Victoria County Groundwater Conservation District  
 2805 N. Navarro St. Suite 210, Victoria, Texas 77901  
 WWW.VCGCD.ORG | Phone: 361.579.6863 | FAX: 361-579-0041







# VICTORIA COUNTY GROUNDWATER CONSERVATION DISTRICT

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## STANDARD OPERATING PROCEDURE NO. 3 GROUNDWATER SAMPLING

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### 1.0 SCOPE AND PURPOSE

This SOP describes the methods for collection of groundwater samples from groundwater wells (water wells). The purpose of this standard operating procedure (SOP) is to establish a consistent method for the collection of groundwater samples from groundwater wells. Procedures for sample preservation are included in this SOP. Procedures for related activities such as water-level measurement, equipment decontamination, sample custody and shipment, etc. are included in other SOPs.

### 2.0 APPLICABILITY

This procedure applies to all groundwater sampling performed for the Victoria County Groundwater Conservation District (VCGCD), unless other methods are approved by the General Manager.

### 3.0 EQUIPMENT

Suggested equipment for groundwater sampling is listed in Attachment A (Equipment and Supplies Checklist for Groundwater Sampling).

This SOP assumes that the analytical laboratory has provided sample bottles of the appropriate material (plastic or glass) and size for all constituents to be analyzed. Furthermore, it is

assumed that all sample bottles contain the appropriate preservative (for example, nitric acid for samples to be analyzed for metals). In other words, this SOP does not include information related to adding of preservative to sample bottles.

This SOP also assumes that groundwater from wells being sampled is not contaminated with hazardous substances. Sampling of water contaminated with hazardous substances requires safety precautions based on potential contact with the contaminated water, and also may require specific sampling procedures related to the specific contaminant.

## **4.0 PROCEDURES**

### **4.1 Sampling Preparation**

The following activities should be undertaken during preparation for a groundwater sampling event:

- 1) Identify the wells to be sampled during the event.
- 2) Contact well owners to coordinate entry of property and field work.
- 3) Assemble and review details of each well including well registration, well log, well construction details, previous sampling data (particularly the field measurement data for pH, specific conductance, etc.), well photo (with measuring point identified), and authorization to enter the property.
- 4) Print out the applicable forms. These may include:
  - a. Groundwater Sampling Record (Attachment B)
  - b. Chain-of-Custody Record (See VCGCD SOP-05)
  - c. Daily Field Record (See VCGCD SOP-02)
- 5) Pre-populate the VCGCD Groundwater Sampling Record (Attachment B) with well meta data (e.g., state well number, total depth, etc.).
- 6) Assemble the required equipment and supplies (see Attachment A of this SOP) and make sure all equipment is in proper working order and calibrated (if appropriate).

### **4.2 Sampling Procedures**

#### **4.2.1 Introduction**

These procedures assume that a pump is installed in the well to be sampled. Types of pumps include submersible, turbine, or jet.

Every effort should be made to maintain a clean transport and sampling environment to prevent contamination of the groundwater samples. All equipment and containers referred to in this procedure should be clean prior to use and stored in a clean environment. Sample containers should be transported inside of pre-cleaned coolers provided by the analytical laboratory. The sampling vehicle interior or truck bed must be clean prior to loading equipment and care taken to keep it clean during sampling. All equipment and sample containers should be taken directly from the vehicle to plastic ground cloths and never allowed to touch anything at the sampling site. Gloves (typically nitrile) must be worn when handling open sample bottles. Change gloves whenever there is a possibility of them becoming contaminated with anything other than the sample being collected.

#### **4.2.2 Purging of Wells Prior to Sampling**

Wells must be purged prior to sampling to ensure that a representative groundwater sample is obtained from the aquifer. In other words, any "static" water must be removed from the well casing prior to collection of samples. Static water may not be representative of the groundwater in the aquifer due to reactions of the water with the air in the well casing. This is not an issue with wells that are pumped often or continuously. However, in many instances, the sampler will not know whether the well has been pumping or not, and in these cases the sampler must assume that it has not been pumped and that the well casing needs to be purged.

The amount of water to be purged prior to collection of a sample depends on the well depth, hydraulic properties of the aquifer, sampling methodology and sampling program requirements. There is no set purge volume that applies to all situations. However, it is generally agreed that a minimum of three casing volumes of water should be purged from a well (as well as stabilization of field constituents – see VCGCD SOP-04). The following formula can be used to estimate the quantity of water to be purged (i.e., three casing volumes):

$$V = 3C\pi(D/2)^2H$$

where:

V = total purge volume (i.e., three casing volumes)

$\pi$  = Pi constant (= 3.1416)

C = constant (= 7.48) (converts feet to U.S. gallons)

$D$  = inside diameter of well casing (in feet)

$H$  = height of water in well (ft) (this is calculated by subtracting the depth to water in the well from the total depth of the well; if the total depth of the well is not known, subtract the depth of water in the well from the pump setting or the bottom of the screened interval of the well)

In cases where it is not feasible to measure the discharge from a well (e.g., large wells with high discharge rates), a common rule of thumb is to purge the well for 10 minutes and until field constituents have stabilized.

#### 4.2.3 Sampling Procedures

Observe the following procedures to collect groundwater samples:

- 1) Determine the type of sample port at the well. Sample port types include sniffer (Schrader) valves, discharge pipes, faucets, or petcocks. Examine the system carefully to understand the direction of flow to determine which potential sample ports are before the tank and before any water treatment system, such as chlorination or water softening.
- 2) Determine the storage tank type. The combination of the storage tank type and sample port available will determine the sampling procedure to follow. If possible, water should be sampled prior to, but not after the storage tank and, therefore, it is desirable to have the sample port located before the water enters the storage tank. Some well systems, particularly wells with jet pumps or unpressurized storage tanks, rarely have sample ports before the tank. (It may be possible, with owner approval and if configuration of the system allows, to install a sample port before the storage tank)
- 3) Prior to collecting samples from a well, a clean plastic apron should be placed adjacent to the sampling port location to prevent equipment and sample containers from coming into contact with surface materials. Alternatively, a clean field table may be used. If used, the table shall be cleaned before and after use at each well.
- 4) Calculate the purging time as described in Section 4.2.2. This is based on the amount of time the pump runs and the discharge rate.
  - a. Turn the pump on (if it not on already).
  - b. Measure the discharge rate using buckets and a stopwatch (or other method).
  - c. If the pump cycles on and off during the purging process be sure to keep track of the total time the pump is running. If the well is already running when the crew arrives at the well, the time the well has been running may be applied to the required purging time. To speed up the process of purging make sure the well tank is emptying as fast as the pump can fill it. Do this by opening enough faucets around the house (if possible) and monitoring the pressure gauge on the storage tank. If the output is equal to the inflow, the gauge will hold at a steady level below the pump's shutoff pressure.
- 5) Samples should be collected depending on the well/pump configuration, as follows:

- a. For **sampling ports prior to the tank**, purge the well casing by opening enough faucets to force the well pump to run for a minimum of 10 minutes.
  - b. **Sampling after the tank** requires draining three tank volumes prior to sampling. Purging time must be calculated based on tank volume and outflow rate. Check to make sure the owner will permit such water use before flushing the tank. If the well has already been running long enough to have drained the three tank volumes (i.e., running an irrigation system for several hours), it is possible to collect the sample after the tank without purging. Always note that the sample was obtained after the tank on the Groundwater Sampling Record.
- 6) While purging, begin monitoring the designated field parameters (See VCGCD SOP-04). Measure and record field parameters until field parameter values have stabilized and indicate that sampling can be performed (assuming that three casing volumes have been removed from the well).
  - 7) Arrange and label the necessary sample bottles. Include on the sample bottle label the unique sample number (or well designation), time, date, the initials of the sampler(s), the requested analysis. Usually, sample bottles will come with labels attached, and the labels will indicate the analysis requested.
  - 8) Fill the sample bottles according to the following:
    - a. For sample bottles that do not contain a preservative:
      - i. Rinse the bottle with the water to be sampled prior to filling.
      - ii. Completely fill the bottles with well water to eliminate any airspace under the cap.
    - b. For bottles which contain preservative:
      - i. Do not pre-rinse the bottles.
      - ii. Fill the bottles to as close to the top as possible without overflowing. Overflowing could allow for some of the preservative to be lost.
  - 9) Immediately seal each sample bottle and place on ice in a cooler to maintain sample temperature preservation requirements as outlined in VCGCD SOP-05.
  - 10) Samples shall be marked, packaged and shipped in accordance with VCGCD SOP-05.
  - 11) Turn off well pump and secure well, as appropriate.
  - 12) Note all field measurements, purging times, sample dates/times, etc. on the Groundwater Sampling Record. Note any unusual odors from the groundwater, or unusual color or appearance. Review all sampling records for completeness.
  - 13) Decontaminate equipment in accordance with VCGCD SOP-06.

## 5.0 DOCUMENTATION AND RECORDS MANAGEMENT

All measurement results should be recorded according to procedures outlined in VCGCD SOP-01 (Field Documentation).

After any field event, perform the following activities:

- 1) Update forms – Conduct field documentation requirements as described in SOPs that apply to the activities performed. Field forms are contained in the attachments to each SOP.

- 2) Sign all forms.
- 3) File all forms in the appropriate location.

If applicable, enter any measurement data into internal electronic database. If a handheld data logger is used to enter, store or manage data, enter the appropriate data according to the SOP "Handheld Datalogger Use".

## **6.0 QUALITY ASSURANCE/QUALITY CONTROL**

### **6.1 Forms**

Completed field forms should be reviewed by the Project Manager or project designated QA/QC reviewer. The elements of this review will include technical content, consistency, and compliance with the project plans and SOPs. Discrepancies and errors identified during the review should be resolved between reviewer and author of the field documentation. Any necessary corrections will be made in pen with a single-line strike out that is initialed and dated.

### **6.2 Quality Assurance/Quality Control Samples**

Field quality control (QC) samples may include field duplicate samples, and matrix spike/matrix spike duplicate samples. A description of the field QC samples required by the VCGCD is included in the Groundwater Quality Sampling and Analysis Plan.

**ATTACHMENT A**

**EQUIPMENT AND SUPPLIES CHECKLIST FOR GROUNDWATER SAMPLING**

## **EQUIPMENT AND SUPPLIES CHECKLIST FOR GROUNDWATER SAMPLING**

- Field Forms (Sampling Records, Chain-of-Custody Forms, etc.)
- Maps, location information, and/or access information for wells to be sampled
- Sample Labels, Custody Seals
- Flow-Through Cell and Equipment
- Meters (pH, specific conductance, etc., including spare probes and batteries)
- Calibration fluids
- Graduated buckets
- Plastic tarps or plastic sheeting
- Portable folding table
- Tool Kit
- Calculator
- Nitrile Gloves
- Deionized Water
- Dilute chlorine solution, chlorine wipes, or Alconox
- Paper Towels
- Keys to wells or locks
- Pens (including permanent markers)
- Digital Camera
- First Aid Kit
- GPS Unit
- Ziploc bags
- Garbage bags
- Coolers
- Filters
- Pump(s) and associated equipment
- Overnight shipping labels, account number



# GROUNDWATER SAMPLING RECORD

Date:	Starting Water Level (ft below MP):
State Well ID:	Casing Stickup: (ft):
District Well ID:	Starting Water Level (ft below GL):
Location:	Total Depth (ft below GL):
Measuring Point of Well:	Casing Diameter (ft):
Sampled By:	Casing Volume (gal):

### METHODS

Well Purging:  
 Sampling:

### INSTRUMENTS (make, model)

Water Level:	pH Meter:
Specific Conductance:	Other:
Dissolved Oxygen:	Filters (brand, size):

### CALIBRATION

pH:	Specific Conductance:
Dissolved Oxygen:	Other:

### FIELD CONSTITUENT MEASUREMENTS

Time	Cum. Vol. (gal)	Purge Rate (gal/min)	Temp. (°C)	pH	Specific Conduct. (umhos/cm)	Color, Turbidity	Remarks

### SAMPLE INVENTORY

Samples Collected				Other Information		
Time	Volume	Comp. (G,P)	No.	Filtered (Y/N)	Preserved (Type)	Remarks

Comments:



## VICTORIA COUNTY GROUNDWATER CONSERVATION DISTRICT



# VICTORIA COUNTY GROUNDWATER CONSERVATION DISTRICT

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## STANDARD OPERATING PROCEDURE NO. 4 Measurement of Field Constituents

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### 1.0 SCOPE AND PURPOSE

This Standard Operating Procedure (SOP) describes the procedures for measurement of field constituents (pH, temperature, specific conductance, and dissolved oxygen) during the process of sampling groundwater from wells. The SOP also generally describes the methods for calibrating the instruments used for measurement of field constituents.

The objective of this standard operating procedure (SOP) is to ensure that accurate and precise measurements of field constituents are made during groundwater sampling performed for the Victoria County Groundwater Conservation District (VCGCD).

### 2.0 APPLICABILITY

This SOP describes the methods to be followed for the measurement of field constituents in water samples. This procedure applies to all groundwater sampling performed for the VCGCD, unless other methods are approved by the General Manager.

### 3.0 EQUIPMENT

This SOP assumes that a multi-probe system with a flow-through cell (MPS) is used for measurement of field constituents. An MPS consists of the following:

- A handheld display and control unit;
- A probe module;
- A flow-through cell;
- Cables and connectors, as needed for the specific unit;
- Batteries or charging accessories.

The display unit controls the system and consists of a keypad and display. The display unit is connected by cable to the probe module. The probe module contains the various probes (or sensors) that measure the field constituents. Typically, there is one probe for measurement of pH (and oxidation reduction potential, if needed), one probe for measurement of specific conductance and temperature, and one probe for measurement of dissolved oxygen. The probes are packed tightly in the probe module. The probe module attaches to the flow-through cell, which has an inlet and outlet and allows for groundwater to flow over the probes. Cables and connectors connect the various units. The unit can either use disposable batteries, a rechargeable battery pack or DC power (from a car battery, for instance).

The Operations Manual for the MPS should accompany the instrument into the field and should be referenced for all unit-specific operations or those not covered in this SOP.

Typically, the probes for an MPS are calibrated individually at the beginning of each field day. Calibration procedures are described in general in Section 4.0, though the MPS Operations Manual should be consulted for detailed instructions.

Other equipment that may be useful for measurement of field constituents includes:

- Five-gallon buckets
- Plastic clamps
- Paper towels
- Extra batteries for MPS
- Miscellaneous equipment such as calculator, electrical/duct tape, etc.

## 4.0 PROCEDURES

### 4.1 Calibration Procedures

Prior to calibration, proper maintenance of the instruments and/or probes must be completed in accordance with the manufacturer's instructions. Failure to perform proper maintenance can lead to erratic measurements.

Observe the following general guidelines for calibration of measurement probes:

- All instrument probes and cable connections must be cleaned and the battery checked according to the manufacturer's instructions.
- Program the MPS to display the parameters to be measured (e.g., temperature, pH, dissolved oxygen, and specific conductance).
- The volume of the calibration solutions must be sufficient to cover both the probe and temperature sensor (see manufacturer's instructions for the volume to be used).
- Check the expiration date of the standards. Do not use expired standards.
- Store all standards according to manufacturer instructions.
- Allow the calibration standards to equilibrate to the ambient temperature prior to calibration.

Assemble the MPS according to the manufacturer's instructions. Calibrate each probe at least at the beginning of each field day according to the Operations Manual for the specific MPS. Typically, MPS probes will have instructions for evaluating measurement "drift" throughout the field day, which may require recalibration.

### 4.2 Measurement Procedures

Once purging of a well has been initiated per the procedures in VCGCD SOP-03, begin measuring field constituents using the following general procedures:

- 1) Connect the discharge line from the well to the flow-through cell and initiate flow through the cell. Groundwater will fill the cell and exit through an outlet on the cell. The water that exits the cell can be collected in a five-gallon bucket or can be discharged to the ground. The cell should be adjusted so that air bubbles are not present.

- 2) Readings of field constituents should be taken every 5-10 minutes and recorded on the Groundwater Sampling Record. A minimum of five sets of readings (of all constituents) should be taken during the purging process.
- 3) In general, purging will continue until all field constituents (and visual observations of the water from the well) show no significant fluctuations or trends (increasing or decreasing over time). The stabilization of field constituents will be considered adequate when successive measurements compare as follows:
  - a. Specific conductance – within  $\pm 5\%$
  - b. pH – within  $\pm 0.1$  standard pH unit
  - c. Temperature – within  $\pm 0.2^{\circ}\text{C}$
  - d. Dissolved oxygen – within  $\pm 5\%$

Once field constituent measurements show stabilization (and three casing volumes of water have been removed from the well) the samples can be collected from the well as described in VCGCD SOP-02.

## 5.0 DOCUMENTATION

All measurement results should be recorded according to procedures outlined in VCGCD SOP-01 (Field Documentation).

After any field event, perform the following activities:

- 1) Update forms – Conduct field documentation requirements as described in SOPs that apply to the activities performed. Field forms are contained in Attachment A of each SOP.
- 2) Sign all forms.
- 3) File all forms in the appropriate location.

Probe calibration data should be entered on the Groundwater Sampling Record included with VCGCD SOP-03.

If applicable, enter any measurement data into internal electronic database. If a handheld data logger is used to enter, store or manage data, enter the appropriate data according to the SOP "Handheld Datalogger Use".

## 6.0 QUALITY ASSURANCE

The Project Manager or designated QA reviewer should check and verify that documentation has been completed and filed per this procedure.

Completed field forms should be reviewed by the Project Manager or project designated QA/QC reviewer. The elements of this review will include technical content, consistency, and compliance with the project plans and SOPs. Discrepancies and errors identified during the review should be resolved between reviewer and author of the field documentation. Any necessary corrections will be made in pen with a single-line strike out that is initialed and dated.



# VICTORIA COUNTY GROUNDWATER CONSERVATION DISTRICT

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## STANDARD OPERATING PROCEDURE NO. 5 SAMPLE CUSTODY, PACKAGING, AND SHIPMENT

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### 1.0 SCOPE AND PURPOSE

This SOP generally describes the protocol to be followed for sample custody, packaging, and shipment. The objective of this standard operating procedure (SOP) is to ensure that samples are adequately packed in the field to avoid breakage, that samples are stored and shipped appropriately for the intended analysis, and that proper chain of custody procedures are observed.

### 2.0 APPLICABILITY

This procedure applies to all groundwater sampling performed for the Victoria County Groundwater Conservation District (VCGCD), unless other methods are approved by the General Manager.

This SOP applies to any liquid or solid sample that is being transported by the sampler, a courier, or an overnight delivery service.

### 3.0 RESPONSIBILITY

The sampling personnel whose signature appears on the Chain-of-Custody/Request for Analysis (CC/RA) form is responsible for the custody of a sample from the time of sample

collection until the custody of the sample is transferred to a designated laboratory, a courier, or to another VCGCD employee or subcontractor for the purpose of transporting a sample to the designated laboratory. An example of a CC/RA form is provided in Attachment A. A sample is considered to be in their custody when the custodian: (1) has direct possession of it; (2) has plain view of it; or (3) has securely locked it in a restricted access area.

Custody is transferred when both parties to the transfer complete the portion of the CC/RA form under "Relinquished by" and "Received by." Signatures, printed names, company names, and date and time of custody transfer are required. Upon transfer of custody, the sampling personnel who relinquished the samples will retain a copy of the CC/RA form. When the samples are shipped by a common carrier, a Bill of Lading supplied by the carrier will be used to document the sample custody and its identification number will be entered on the CC/RA form.

#### 4.0 PROCEDURES

##### 4.1 Packaging Materials

The following is a list of materials that are typically needed to facilitate proper sample packaging:

- Chain-of-Custody Record forms (provided by the laboratory);
- Coolers (insulated ice chests) or other shipping containers as appropriate to sample type;
- Transparent packaging tape;
- Zip-lock type bags (note: this is used as a generic bag type, not a specific brand name);
- Labels;
- Permanent black marker (fine point);
- Gloves (latex, typically);
- Protective wrapping and packaging material (bubble wrap or other);
- Contained ice (packaged and sealed to prevent leakage when melted), "Blue Ice", or dry ice<sup>1</sup> (if specified by the lab to be shipped frozen); and
- Any additional supplies listed in associated procedures, as needed.

---

<sup>1</sup> The courier should be contacted prior to sampling to obtain additional shipping information for the shipment of dry ice.



#### **4.2 Sample Custody from Field Collection to Laboratory**

After samples have been collected, they will be maintained under chain-of-custody procedures. These procedures are used to document the transfer of custody of the samples from the field to the designated analytical laboratory. The same chain-of-custody procedures will be used for the transfer of samples from one laboratory to another, if required.

The field sampling personnel will complete a CC/RA form (provided by the laboratory) for each separate container of samples to be shipped or delivered to the laboratory for chemical analysis. The CC/RA form shall be filled out in black ink. Information contained on the form will include:

- Project Identification;
- Date and time of sampling;
- Sample Identification;
- Sample matrix type;
- Sample preservation method(s);
- Number and types of sample containers;
- Sample hazards (if any);
- Requested analyses;
- Requested sample turnaround time;
- Method of shipment;
- Carrier/waybill number (if any);
- Signature of sampling personnel;
- Name of person to whom analytical results will be sent;
- Signature, name, and company of the person relinquishing and the person receiving the samples when custody is being transferred; and
- Date and time of sample custody transfer.

Typically, a CC/RA form is a three-part form with a white, yellow and pink copy (from top copy to bottom copy). After the form is completed, the white and yellow copies are placed in the shipping container (See Section 4.3). The pink copy is retained by the sampling personnel.

#### **4.3 Packaging and Shipping Procedure**

Be sure that all sample containers are properly labeled and all samples have been logged on the CC/RA form in accordance with the procedures explained above.

All samples should be packed in the cooler so as to minimize the possibility of breakage, cross-contamination and leakage. Before placing the sample containers into the cooler, be sure to check all sample bottle caps and tighten if necessary. Bottles made of glass should also be wrapped in protective material (e.g., bubble wrap, plastic gridding, or foam) prior to placement in the cooler. All sample containers should be placed in a zip-lock bag to prevent cross contamination. Samples from the same well may be placed in the same zip-lock bag. Place the sample containers upright in the cooler. Avoid stacking glass sample bottles directly on top of each other.

If required by the method, samples should be preserved to 4°C prior to the analysis. Water ice or "blue ice" may be used to keep the sample temperatures at 4°C. The ice may be placed in zip-lock bags between and on top of the sample containers to maximize the contact between the containers and the bagged ice. Furthermore, placing the ice in sealed bags will eliminate the possibility of water leaking from the shipping container as the ice melts. Overnight couriers will not accept containers that are leaking any fluid, including water from ice.

If required by the method, samples should be frozen prior to the analysis. Dry ice may be used to keep the sample temperatures below 0° C. The dry ice should be placed above and below the sample containers to maximize the contact between the containers and the dry ice. Due to the weight of the dry ice, additional packing material should be placed between the dry ice and the sample containers to prevent crushing of the containers.<sup>1</sup>

If there is any remaining space at the top of the cooler, packing material (e.g., styrofoam pellets or bubble wrap) should be placed to fill the balance of the cooler. After filling the cooler, close the top and shake the cooler to verify that the contents are secure. Add additional packaging material if necessary.

When transport to the laboratory by the sampler is not feasible, sample shipment should occur via courier or overnight express shipping service that guarantees shipment tracking and next morning delivery (e.g., Federal Express Priority Overnight). In this case, place the chain-of-custody records in a zip-lock bag and place the bag on top of the contents within the cooler. If supplied by the laboratory, place a custody seal across the cooler lid to provide assurance that the samples were not tampered with during shipment. Tape the cooler shut with packaging

tape. Packaging tape should completely encircle the cooler and cover the custody seal (if present).

## **5.0 DOCUMENTATION AND RECORDS MANAGEMENT**

All measurement results should be recorded according to procedures outlined in VCGCD SOP-01 (Field Documentation).

After any field event, perform the following activities:

- 1) Update forms – Conduct field documentation requirements as described in SOPs that apply to the activities performed. Field forms are contained in Attachment A of each SOP.
- 2) Sign all forms.
- 3) File all forms in the appropriate location.

If applicable, enter any measurement data into internal electronic database. If a handheld data logger is used to enter, store or manage data, enter the appropriate data according to the SOP "Handheld Datalogger Use".

## **6.0 QUALITY ASSURANCE**

The Project Manager or designated QA reviewer should check and verify that documentation has been completed and filed per this procedure.

Completed field forms should be reviewed by the Project Manager or project designated QA/QC reviewer. The elements of this review will include technical content, consistency, and compliance with the project plans and SOPs. Discrepancies and errors identified during the review should be resolved between reviewer and author of the field documentation. Any necessary corrections will be made in pen with a single-line strike out that is initialed and dated.



**ALS Laboratory Group**  
 10450 Stancliff Rd., Suite 210  
 Houston, Texas 77099  
 Tel. +1 281 530 5656  
 Fax. +1 281 530 5887

# Chain of Custody Form

Page \_\_\_\_\_ of \_\_\_\_\_

**ALS Laboratory Group**  
 3352 128th Ave.  
 Holland, MI 49424-9263  
 Tel: +1 616 399 6070  
 Fax: +1 616 399 6185

ALS Project Manager: \_\_\_\_\_ ALS Work Order #: \_\_\_\_\_

Customer Information		Project Information		Parameter/Method Request for Analysis	
Purchase Order		Project Name	Alcoa CAPA Weekly	A	VOC (8280) Client Select List
Work Order		Project Number		B	Total Metals (6020/7000) Hg only
Company Name	Pastor, Behling & Wheeler, LLC	Bill To Company	Pastor, Behling & Wheeler, LLC	C	
Send Report To	Matthew Wickham	Invoice Attn	Matthew Wickham	D	
Address	131 N. Virginia Suite B	Address	131 N. Virginia Suite B	E	
City/State/Zip	Port Lavaca, TX 77979	City/State/Zip	Port Lavaca, TX 77979	F	
Phone	(361) 553-6442	Phone	(361) 553-6442	G	
Fax	(361) 553-6449	Fax	(361) 553-6449	H	
E-Mail Address		E-Mail Address		I	

Sample Description	Date	Time	Matrb	Pres	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold

Sampler(s) Please Print & Sign		Shipment Method		Required Turnaround Time: (Check Box)				Results Due Date			
				<input type="checkbox"/> Std. 10 WK Days <input checked="" type="checkbox"/> 7.5 WK Days <input type="checkbox"/> 2 WK Days <input type="checkbox"/> 24-Hour							
Relinquished by:		Date:	Time:	Received by:		Notes: 5 Work Days TAT.					
Relinquished by:		Date:	Time:	Received by (Laboratory):		Cooler ID:	Cooler Temp:	QC Package: (Check One Box Below)			
Logged by (Laboratory):		Date:	Time:	Checked by (Laboratory):		<input checked="" type="checkbox"/> Level II Std QC <input type="checkbox"/> TRRP Checklist <input type="checkbox"/> Level III Std QC/Rzw Data <input type="checkbox"/> TRRP Level IV <input type="checkbox"/> Level IV SW846/CLP <input type="checkbox"/> Other					
Preservative Key: 1-HCl   2-HNO <sub>3</sub> 3-H <sub>2</sub> SO <sub>4</sub> 4-NaOH   5-Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> 6-NaHSO <sub>3</sub> 7-Other   8-4°C   9-5035											

Note: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Laboratory Group.  
 2. Unless otherwise agreed in a formal contract, services provided by ALS Laboratory Group are expressly limited to the terms and conditions stated on the reverse.  
 3. The Chain of Custody is a legal document. All information must be completed accurately.

**REPORT OF SAMPLE ANALYSIS**

**TO:** Tim Andruss  
 Victoria County Ground Water Dist.  
 2805 N Navarro STE 210  
 Victoria, TX 77901



Certificate Number: T104704328-10-02

Received  
 5-18-10 B.D.  
 in the office of

**CLIENT INFORMATION**

**LABORATORY INFORMATION**

**Project Name:**  
**Sample ID:** Meek Windmill  
**Date Taken:** 04/23/2010  
**Time Taken:** 1010

**LAB Sample #:** 132785  
**Date Received:** 04/23/2010  
**Time Received:** 10:40  
**Report Date:** 05/07/2010



TEST DESCRIPTION	SAMPLE RESULT	UNITS	ANALYZED		LOQ	RUN BY	METHOD USED
			DATE	TIME			
Arsenic, ICP	0.002	mg/L	05/04/2010	10:06	0.002	PCS	EPA 200.7
Barium, ICP	0.115	mg/L	05/04/2010	10:06	0.010	PCS	EPA 200.7
Cadmium, ICP	<0.001	mg/L	05/04/2010	10:06	0.001	PCS	EPA 200.7
Chromium, ICP	<0.010	mg/L	05/04/2010	10:06	0.010	PCS	EPA 200.7
Lead, ICP	<0.002	mg/L	05/04/2010	10:06	0.002	PCS	EPA 200.7
Mercury, CVAA	<0.0002	mg/L	05/05/2010	14:37	0.0002	PCS	EPA 245.1
Selenium, ICP	<0.002	mg/L	05/04/2010	10:06	0.002	PCS	EPA 200.7
Silver, ICP	<0.002	mg/L	05/04/2010	10:06	0.002	PCS	EPA 200.7

<i>Quality Assurance Data</i>							
TEST DESCRIPTION	BLANK	LCS % REC	DUP RPD	RPD LIMIT	MS % REC	MSD % REC	% REC LIMITS
Arsenic, ICP	<0.002	102	3.0	20	96	98	75 - 125
Barium, ICP	<0.010	97	2.0	20	77	79	70 - 125
Cadmium, ICP	<0.001	98	2.0	20	88	90	70 - 125
Chromium, ICP	<0.010	98	2.0	20	79	81	75 - 125
Lead, ICP	<0.002	101	2.0	20	77	79	70 - 125
Mercury, CVAA	<0.0002	100	<1.0	20	100	100	70 - 125
Selenium, ICP	<0.002	99	1.0	20	96	98	70 - 125
Silver, ICP	<0.002	125	2.0	20	93	95	70 - 125

Approved By:

Kevin Baros  
 General Manager Page 296 of 360

The analytical results relate only to the samples tested. All data meets the requirements of NELAC unless noted in an attached "Case Narrative".  
 LOQ — Limit of Quantitation  
 LCS — Laboratory Control Standard  
 DUP RPD — Duplicate Relative Percent Deviation  
 MS — Matrix Spike Recovery  
 MSD — Matrix Spike Duplicate Recovery

\*\* PCS, San Antonio, TX Cert. No. T104704361-09-TX

**B ENVIRONMENTAL**

2713 Houston Hwy.

Victoria, TX 77901

(361) 572-8224

**REPORT OF SAMPLE ANALYSIS**



Certificate Number: T104704328-10-02

**TO:** Tim Andruss  
Victoria County Ground Water Dist.  
2805 N Navarro STE 210  
Victoria, TX 77901

*Received*  
*5-18-10 B.D*  
In the office of

**CLIENT INFORMATION**

**LABORATORY INFORMATION**



**Project Name:**  
**Sample ID:** Meek #1  
**Date Taken:** 04/23/2010  
**Time Taken:** 0935

**LAB Sample #:** 132786  
**Date Received:** 04/23/2010  
**Time Received:** 10:40  
**Report Date:** 05/07/2010

TEST DESCRIPTION	SAMPLE RESULT	UNITS	ANALYZED		LOQ	RUN BY	METHOD USED
			DATE	TIME			
Arsenic, ICP	<0.002	mg/L	05/04/2010	10:06	0.002	PCS	EPA 200.7
Barium, ICP	0.125	mg/L	05/04/2010	10:06	0.010	PCS	EPA 200.7
Cadmium, ICP	<0.001	mg/L	05/04/2010	10:06	0.001	PCS	EPA 200.7
Chromium, ICP	<0.010	mg/L	05/04/2010	10:06	0.010	PCS	EPA 200.7
Lead, ICP	0.004	mg/L	05/04/2010	10:06	0.002	PCS	EPA 200.7
Mercury, CVAA	<0.0002	mg/L	05/05/2010	14:37	0.0002	PCS	EPA 245.1
Selenium, ICP	<0.002	mg/L	05/04/2010	10:06	0.002	PCS	EPA 200.7
Silver, ICP	<0.002	mg/L	05/04/2010	10:06	0.002	PCS	EPA 200.7

<i>Quality Assurance Data</i>							
TEST DESCRIPTION	BLANK	LCS % REC	DUP RPD	RPD LIMIT	MS % REC	MSD % REC	% REC LIMITS
Arsenic, ICP	<0.002	102	3.0	20	96	98	75 - 125
Barium, ICP	<0.010	97	2.0	20	77	79	70 - 125
Cadmium, ICP	<0.001	98	2.0	20	88	90	70 - 125
Chromium, ICP	<0.010	98	2.0	20	79	81	75 - 125
Lead, ICP	<0.002	101	2.0	20	77	79	70 - 125
Mercury, CVAA	<0.0002	100	<1.0	20	100	100	70 - 125
Selenium, ICP	<0.002	99	1.0	20	96	98	70 - 125
Silver, ICP	<0.002	125	2.0	20	93	95	70 - 125

Approved By:

**Kevin Baros**  
General Manager

The analytical results relate only to the samples tested. All data meets the requirements of NELAC unless noted in an attached "Case Narrative".  
 LOQ — Limit of Quantitation  
 LCS — Laboratory Control Standard  
 DUP RPD — Duplicate Relative Percent Deviation  
 MS — Matrix Spike Recovery  
 MSD — Matrix Spike Duplicate Recovery  
 \*\* PCS, San Antonio, TX Cert. No. T104704361-09-TX

**B ENVIRONMENTAL**

2713 Houston Hwy.

Victoria, TX 77901

(361) 572-8224

**REPORT OF SAMPLE ANALYSIS**



Certificate Number: T104704361-02

5-18-10 BD  
in the office of

**TO:** Tim Andruss  
Victoria County Ground Water Dist.  
2805 N Navarro STE 210  
Victoria, TX 77901

**CLIENT INFORMATION**

**LABORATORY INFORMATION**



**Project Name:**  
**Sample ID:** Lee Hafernic  
**Date Taken:** 04/23/2010  
**Time Taken:** 0915

**LAB Sample #:** 132787  
**Date Received:** 04/23/2010  
**Time Received:** 10:40  
**Report Date:** 05/07/2010

TEST DESCRIPTION	SAMPLE RESULT	UNITS	ANALYZED		LOQ	RUN BY	METHOD USED
			DATE	TIME			
Arsenic, ICP	<0.002	mg/L	05/04/2010	10:06	0.002	PCS	EPA 200.7
Barium, ICP	3.90	mg/L	05/04/2010	10:06	0.010	PCS	EPA 200.7
Cadmium, ICP	<0.001	mg/L	05/04/2010	10:06	0.001	PCS	EPA 200.7
Chromium, ICP	<0.010	mg/L	05/04/2010	10:06	0.010	PCS	EPA 200.7
Lead, ICP	<0.002	mg/L	05/04/2010	10:06	0.002	PCS	EPA 200.7
Mercury, CVAA	<0.0002	mg/L	05/05/2010	14:37	0.0002	PCS	EPA 245.1
Selenium, ICP	0.004	mg/L	05/04/2010	10:06	0.002	PCS	EPA 200.7
Silver, ICP	<0.002	mg/L	05/04/2010	10:06	0.002	PCS	EPA 200.7

<i>Quality Assurance Data</i>							
TEST DESCRIPTION	BLANK	LCS % REC	DUP RPD	RPD LIMIT	MS % REC	MSD % REC	% REC LIMITS
Arsenic, ICP	<0.002	102	3.0	20	96	98	75 - 125
Barium, ICP	<0.010	97	2.0	20	77	79	70 - 125
Cadmium, ICP	<0.001	98	2.0	20	88	90	70 - 125
Chromium, ICP	<0.010	98	2.0	20	79	81	75 - 125
Lead, ICP	<0.002	101	2.0	20	77	79	70 - 125
Mercury, CVAA	<0.0002	100	<1.0	20	100	100	70 - 125
Selenium, ICP	<0.002	99	1.0	20	96	98	70 - 125
Silver, ICP	<0.002	125	2.0	20	93	95	70 - 125

The analytical results relate only to the samples tested. All data meets the requirements of NELAC unless noted in an attached "Case Narrative".

- LOQ — Limit of Quantitation
- LCS — Laboratory Control Standard
- DUP RPD — Duplicate Relative Percent Deviation
- MS — Matrix Spike Recovery
- MSD — Matrix Spike Duplicate Recovery

\*\* PCS, San Antonio, TX Cert. No. T104704361-09-TX

Approved By:

Kevin Baros  
General Manager



Environmental  
Testing  
Laboratory

Received  
5-18-10  
The office of



CHAIN OF CUSTODY RECORD

REPORT RESULTS TO:			BILLING INFORMATION				NUMBER OF CONTAINERS	Preservative:		Analyses						
Company:	Address:	Contact:	Company:	Address:	Contact:	1. None		2. H <sub>2</sub> SO <sub>4</sub>	3. HNO <sub>3</sub>	4. N <sub>2</sub> OH	5. HCL	6. N <sub>2</sub> H <sub>2</sub> SO <sub>4</sub>	7. N <sub>2</sub> S <sub>2</sub> O <sub>3</sub>	8. Ice	9. _____	
Victoria County Ground District	2805 N. Navarro Street Victoria TX, 77901	Tim Andruss														
Project:			PO#:													
Sample #	Sample Identification	Matrix	Date	Time	Size	Type										
	Meck windmill	L	4-23-10	1010	1L	P	1	X							132785	
	meck #1	L	4-23-10	0935	1L	P	1	X							132786	
	Lee Kafferniek	L	4-23-10	0915	1L	P	1	X							132787	
Sampler Name: Kevin C Baus			Shipment Method:			Air Bill #:										
REQUIRED TURNAROUND										<input type="checkbox"/> Same Day (3x charge) * <input type="checkbox"/> 24 hr (2x charge) * <input type="checkbox"/> 48 hr (1.5x charge) * <input checked="" type="checkbox"/> 3-5 days (1.2x charge) <input type="checkbox"/> Standard 6-10 working days		Uncorrected Temp 23.2°C				
Relinquished by: (Signature)			Date: 4-23-10	Time: 1040	Received by: (Signature)			Date: 4-23-10	Time: 1040	Therm ID: #3	Corrected Temp 22.8°C					
Relinquished by: (Signature)			Date:	Time:	Received by: (Signature)			Date:	Time:	Remarks: no ice just taken						
Relinquished by: (Signature)			Date:	Time:	Received by: (Signature)			Date:	Time:							

\*RUSH TURNAROUND REQUIRES SURCHARGE

RCRA & Metals

VCGID Annual Report - FY2009-2010

00003



**B Environmental**

Received  
5-18-10 B D  
In the office of

2713 Houston Hwy.  
Victoria, TX 77901

Phone (361) 575-8241  
Fax (361) 575-8243



Client Name: vic. county ground water  
BE Sample #: 132785-87

Date Received: 4-23-10

Reviewed By: \_\_\_\_\_

Checklist completed By: MLL 4-23-10  
Signature Date

Reviewed By: \_\_\_\_\_  
Signature Date

Carrier Name: \_\_\_\_\_

- Shipping container/cooler in good condition? YES  NO  NOT PRESENT
  - Custody seals intact on shipping container/cooler? YES  NO  NOT PRESENT
  - Custody seals intact on sample bottles? YES  NO  NOT PRESENT
  - Chain of custody present? YES  NO
  - Chain of custody signed when relinquished and received? YES  NO
  - Chain of custody agrees with sample labels? YES  NO
  - Sample in proper container/bottle? YES  NO
  - Sample containers intact? YES  NO
  - Sufficient sample volume for indicated test? YES  NO
  - All samples received within holding time? YES  NO
  - Container/Temp Blank Temperature in compliance? YES  NO
  - Water-VOA vials have zero headspace? YES  NO  NO VOA VIALS SUBMITTED
  - Water-pH acceptable upon receipt? YES  NO  NOT APPLICABLE
- ADJUSTED? \_\_\_\_\_ Checked by \_\_\_\_\_  
Ph < 2 \_\_\_\_\_ Ph > 12 \_\_\_\_\_

Any NO response must be detailed in the section below:

Client contacted: \_\_\_\_\_ Date contacted \_\_\_\_\_ Person contacted: \_\_\_\_\_

Contacted by: \_\_\_\_\_

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Action taken to correct problem: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Well ID	Contact Information		2010-March		2010-August	
	General Location	Measure Date	March 2010 - Depth Below Surface	Measure Date	August 2010 - Depth Below Surface	
66-57-406	Hwy 77 & Fordtran Rd	3/15/2010	70.20	8/13/2010	87.50	
79-07-305	U.S. Hwy. 87 Near DeWitt Co. Line	3/15/2010	72.80	8/13/2010	73.30	
79-07-703	FM 236 & Albrecht Rd.	3/15/2010	105.55	8/13/2010	105.50	
79-07-902	FM 447 & Guadalupe River	3/15/2010	55.45	8/16/2010	69.35	
79-08-201	4398 Nursery Rd	3/15/2010	81.90	8/13/2010	82.80	
79-08-805	Hwy 87 & Riverwood Dr	3/15/2010	53.45	8/13/2010	55.10	
79-15-903	Coletoville Rd & Coletoville Rd. E.	3/15/2010	43.70	8/13/2010	31.30	
79-16-608	McCright Dr & FB Lowery Dr			8/13/2010	22.50	
79-16-701	Chuckar Dr & Grouse Rd	3/15/2010	45.00	8/16/2010	46.90	
79-16-702	Chuckar Dr & Chaparral Dr	3/15/2010	38.50	8/13/2010	40.80	
79-16-703	Chuckar Dr & Turkey Ln	3/15/2010	52.00	8/13/2010	52.40	
79-23-303	Hwy 59 & NW Creek Rd	3/15/2010	33.80	8/13/2010	34.40	
79-23-601	Cologne Rd & Strobel Rd	3/15/2010	46.75	8/13/2010	45.25	
79-24-102	Givens Rd & FM 446	3/15/2010	49.50	8/13/2010	48.75	
79-24-702	Kemper City Rd & Fleming Prairie Rd	3/15/2010	50.00	8/13/2010	49.00	
79-32-602	McFaddin Rd	3/15/2010	23.90	8/13/2010	35.25	
80-01-301	Wilson Rd. & FM 444	3/18/2010	81.10	8/13/2010	90.10	
80-01-302	Salem Rd & FM 444	3/18/2010	80.60	8/13/2010		
80-02-102	J-2 Ranch Rd. & Nickel Rd	3/18/2010	52.00	8/13/2010	55.90	
80-02-804	Hwy 59 Service Rd & FM 444 S	3/18/2010	28.40	8/13/2010	28.60	
80-10-101	Hwy 59 & Beck Rd	3/18/2010	50.95	8/13/2010	54.20	
80-10-401	Hiller Rd & Midway Rd	3/18/2010	32.50	8/13/2010	32.75	
Unk1	FM 444 S & Lasalle Rd (-96.743172 28.841926 Decimal Degrees)	3/18/2010	28.50	8/13/2010	29.80	
80-17-101	Bois-D-Ark	3/18/2010	9.50	8/16/2010	11.10	

Well ID	Contact Information		2010-March		2010-August	
	General Location	Measure Date	March 2010 - Depth Below Surface	Measure Date	August 2010 - Depth Below Surface	
80-17-501	Old Bloomington Rd & FM 1686	3/15/2010	32.90	8/16/2010	35.00	
80-17-905	Indiana St. & Second St.	3/15/2010	25.60	8/16/2010	32.15	
80-18-401	FM 616 & Levi Rd	3/15/2010	33.70	8/16/2010	34.60	
80-18-402	259 E. Serene	3/15/2010	31.40	8/16/2010	31.90	
Unk2	J-2 Ranch Rd. & Young Rd (-96.882963 29.019542 Decimal Degrees)	3/18/2010	55.30	8/13/2010	65.30	
Unk3	J-2 Ranch Rd. & Grasshopper Rd. (-96.918122 29.040971 Decimal Degrees)	3/22/2010	35.70	8/13/2010	36.50	



# VICTORIA COUNTY GROUNDWATER CONSERVATION DISTRICT

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## STANDARD OPERATING PROCEDURE NO. 1 COLLECTION OF WATER-LEVEL MEASUREMENTS FROM GROUNDWATER WELLS

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### 1.0 SCOPE AND PURPOSE

This Standard Operating Procedure (SOP) describes the protocol to be followed during measurement of water levels in water wells, monitoring wells and piezometers (for the purposes of this SOP, all of these installations will be called "wells"). This SOP may also be used to measure water levels in open or cased boreholes.

Several methods can be used to collect water-level measurements from wells. The two most common methods are use of a chalked steel tape or an electronic water-level meter. Other measurement methods include submerged air lines, pressure gages, or floats. Continuous water-level measurements may be collected using water-level recorders with floats or pressure transducers. The chalked steel tape and electronic water-level meter methods are discussed in this SOP.

The purpose of this SOP is to provide methods to be used for the consistent measurement of water-level measurements in water wells.

## **2.0 APPLICABILITY**

Water levels may be obtained in association with long-term water-level monitoring programs, well development, purging and sampling of wells, or aquifer testing. Successive measurements of water levels over time at the same well(s) as part of a long-term monitoring program may be used to assess trends of water levels in the wells and aquifers of concern.

Water levels taken successively (e.g., over a 24-hour period) from multiple locations can be used to construct water table or potentiometric surface maps and to determine flow direction as well as other aquifer characteristics.

## **3.0 EQUIPMENT**

Suggested equipment for water-level measurement includes the following:

- Maps, location information, and/or access information for wells to be measured
- Steel tape and chalk
- Electronic water level meter (with printed scale in 0.01 foot increments, if possible)
- Measuring tape (10-25 feet) (with engineers scale)
- Handheld datalogger (if being used)
- Forms (e.g., Attachment A to this SOP) and/or field notebook
- Dilute chlorine solution or chlorine wipes and deionized water
- Extra batteries (for electronic water-level meter)
- Miscellaneous equipment such as writing instruments, calculator, digital camera, tool kit, electrical/duct tape, keys for locked protective well casings, first aid kit, or GPS unit.

## **4.0 PROCEDURES**

### **4.1 Preparation**

The following activities should be undertaken during preparation for a water-level measurement event:

- 1) Identify the wells to be measured during the event.
- 2) Contact well owners to coordinate entry of property and field work.
- 3) Assemble and review details of each well including well registration, well log, well construction details, previous water-level measurements, well photo (with measuring point identified), and authorization to enter the property.

- 4) Pre-populate the VCGCD water-level measurement form (Attachment A) with well meta data.

In general, water-level measurements should not be collected while a well is being pumped. However, this may not always be possible. Always note on the field form that a well was being pumped during the water-level measurement.

If using an electronic water-level meter, establish that the meter is in working condition before going into the field by immersing the probe into water in a bucket, sink, etc. and checking for an audible tone and/or lighted signal.

#### **4.2 Well Inspection**

Prior to obtaining a water-level measurement in a given well, its condition should be inspected for the following:

- 1) Any signs of vandalism or unauthorized entry;
- 2) Settlement or ponding around the well;
- 3) Damage to well pad;
- 4) Potential sources of surface contamination;
- 5) Changes in casing height or configuration (compare to previous photographs, for example).

The results of the inspection should be noted on the field forms.

#### **4.3 Measuring Point**

A permanent measuring point (MP) from which all subsequent water-level measurements will be measured must be established for each well to ensure data comparability. The MP should be established when a well is installed or when an existing well is measured for the first time.

Measuring points are normally established on the top rim of the actual well casing and this position is sometimes referred to as the "top of casing" or "TOC". Locate the MP at a convenient place from which to measure the water level.

General procedures for establishing the measuring point are as follows:

- 1) Clearly mark the MP. The MP must be as permanent as possible and clearly visible and easily located. The MP may be marked using a permanent black marker, bright color paint pen, or by a notch or mark in the casing. If possible and if appropriate, always locate the MP on the north side of the casing for consistency in case an MP mark becomes faded.
- 2) Describe the position of the MP clearly in the field notebook or on the information page for the specific well. A photo of the MP may be taken and included in the information page for the well in cases where the MP is not obvious or is difficult to locate.
- 3) The MP height is established relative to a Land Surface Datum (LSD). The LSD is typically chosen to be approximately equivalent to the altitude of the ground surface around the well (on the north side of the well if ground surface is uneven).
- 4) Measure the height of MP relative to the LSD using a measuring tape. (This is also called the "stickup" or "MP correction value"). MPs should be established to a minimum of the nearest 0.01 feet using a measuring tape. Note if the MP is below ground surface.
- 5) Because MPs and the LSD may change over time, the distance between the two should be checked occasionally.
- 6) All subsequent water-level measurements should be referenced to the established MP. The MP value is used to convert measurements to values relative to land surface (and typically to mean sea level).

Some domestic or small public supply water wells are completed with an above-ground metal casing. After removing the cover, establish a permanent MP on the casing rim as described above. Other water wells may have a more complex and hard to remove well cover with screened pressure equilibration vents, electric component boxes, and attached riser pipes. In this situation, there is often a small opening (sometimes plugged with a nut) on the well cover that is designed to serve as an instrument port, allowing down-hole measurements without the need to remove the cover. If so, remove the plug and establish the MP location at the top surface of the port. Determine and record the height of the MP above LSD as described above. If an access port is available, it may be necessary to remove a portion of the vent pipe, or drill a port through the cover to simplify access to the well. Some larger wells have a dedicated pipe inside the well casing specifically for water-level measurement.

#### **4.4 Measuring Water Levels Using a Steel Tape and Chalk**

The following procedures should be used to measure a water level using a steel tape and chalk:

- 1) Clean or disinfect the lower portion of the steel tape (and breakaway weight, if any) using a dilute chlorine solution or chlorine wipes. Make sure the tape is completely dry.

- 2) Chalk the lower few feet of the steel tape. If available, use previous water-level measurements to determine the length of tape that should be lowered into the well.
- 3) If possible, lower the steel tape down the center of the well. If taking measurements in a well with a dedicated pump, lower the steel tape so that it is away from pump power cables and other obstacles. An accurate measurement cannot be made if the tape does not hang plumb.
- 4) In general, a water-level measurement should not be taken with a steel tape if a pump is operating in the well. Also, steel tapes are not generally effective in wells with cascading water or heavy condensation on the interior of the well casing.
- 5) Slowly lower the tape into the well until the bottom end of the tape is inserted into the well 10 feet beyond the last known depth to water below the measurement point. Avoid splashing as the weight enters the water. Note the footage mark on the tape at the MP or continue to lower the tape until the next whole-foot mark is at the MP. Measure to the nearest 0.01 foot. Record the footage mark as the HOLD number on the field form.
- 6) If the tape goes slack before reaching the previous measurements HOLD, the tape is probably hung up in the well. Carefully raise and re-lower the tape as necessary.
- 7) The chalked steel tape should not be in the water longer than a few seconds to avoid water wicking up the chalked surface.
- 8) Quickly reel the tape to the surface before the wetted chalk mark dries as it may become difficult to read. The wetted chalk/dry chalk mark identifies the distinct water boundary. This position on the steel tape is referred to as the WATER MARK.
- 9) Identify and read the tape position on the wetted chalk/dry chalk mark. If using a steel tape with a printed scale, note the wetted chalk/dry chalk mark position on the scale.
- 10) If using a steel tape with 1-foot interval marks, measure the distance between the wetted chalk/dry mark position and the nearest marker using a measuring tape. If the marker used is below the wetted chalk/dry chalk mark, then add the distance to the markers value to determine the WATER MARK value. If the marker is above the wetted chalk/dry chalk position, then subtract the distance from the markers value to determine the WATER MARK value. Measure to the nearest 0.01 foot. Record this value as the WATER MARK value on the field form.
- 11) Subtract the WATER MARK value from the HOLD value and record the difference as the depth-to-water (DTW) below the MP. Record the date and time that the measurement was collected.

$$\text{HOLD} - \text{WATER MARK} = \text{DTW BELOW MP}$$

- 12) Clean, dry and re-chalk the tape and repeat the measurement to ensure reproducibility and accuracy. The check measurements should be made using a different HOLD value than that used for the original measurement. Record the measurements as before.
- 13) Repeat measurements should be accurate to 0.02 foot. This method is most accurate for DTW measurements less than 200 feet below the land surface. Tape expansion and stretch may need to be considered if the depth is greater than 200 feet.
- 14) If repeat measurements are not reproducible, try to establish and document the reason for the different measurements (i.e., well is pumping, nearby well is pumping, obstructions in the well casing, etc.).
- 15) To determine the DTW in relation to the LSD, apply the measurement point correction value (Section 4.3) as follows:

$$\text{DTW below MP} \pm \text{MEASUREMENT POINT} = \text{DTW BELOW LSD}$$



- 16) After completing all well measurements, clean the exposed portion of the tape. To prevent microbial cross contamination of other wells, the tape can be disinfected using dilute chlorine solution or chlorine wipes. Rinse with deionized water and dry the tape after each use. Do not store a steel tape that is dirty or wet.

#### **4.5 Measuring Water Levels Using an Electronic Water Level Meter**

The following procedures should be used to measure a water level using an electronic water level meter:

- 1) Clean or disinfect the lower portion of the electronic tape and probe using a dilute chlorine solution or chlorine wipes.
- 2) If available, set the sensitivity control on the electronic water level meter to a mid-range setting.
- 3) If possible, lower the tape/probe down the center of the well. If taking measurements in a well with a dedicated pump, lower the tape/probe so that it is away from pump power cables and other obstacles. An accurate measurement cannot be made if the tape does not hang plumb.
- 4) Slowly lower the tape into the well until the indicator (light or audible tone) shows that contact with the water surface is made and the electronic-tape circuit is closed. To confirm contact with the distinct water boundary, slowly raise and lower the tape in and out of the water column. If necessary, adjust the sensitivity setting of the meter to provide a "crisp" indication of the water surface.
- 5) If the tape goes slack before contact with the water, the tape is probably hung up in the well. Carefully raise and re-lower the tape as necessary.
- 6) On occasions, condensation on the interior casing wall and probe can prematurely trigger an electronic-tape indicator, giving a false positive reading. This is especially true in small diameter wells. In this situation, center the tape/probe in the well above the water surface and lightly shake the probe to remove excess water.
- 7) At the precise location that the indicator shows contact with the water surface, pinch the tape between your fingers at the point exactly at the MP. This position is the DTW below the MP. Note the DTW on the field form to the nearest 0.01 foot.
- 8) Repeat the measurement to ensure reproducibility and accuracy. Make all measurements using the same sensitivity setting on the meter so that measurements will be consistent.
- 9) If repeat measurements are not reproducible, try to establish and document the reason for the different measurements (i.e., well is pumping, nearby well is pumping, obstructions in the well casing, etc.).
- 10) Record the DTW on the field form. Record the date and time of the measurement.
- 11) To determine DTW in relation to LSD, apply the stickup correction value (Section 4.3) as follows:

$$DTW \text{ below MP } +/- \text{ STICKUP } = DTW \text{ below LSD}$$

- 12) After completing all well measurements, clean the exposed portion of the tape and probe. To prevent microbial cross contamination of other wells, the tape and probe can

be disinfected using dilute chlorine solution or chlorine wipes. Rinse with deionized water and dry the tape after each use.

## **5.0 DOCUMENTATION AND RECORDS MANAGEMENT**

After a measurement event, perform the following activities:

- 1) Update forms - Field documentation requirements are described in Section 4, Procedures. Field forms are contained in Attachment A.
- 2) Sign forms.
- 3) File forms in the appropriate location.

Enter measurement data into internal electronic database. If a handheld data logger is used to enter, store or manage water-level measurement data, enter the appropriate data according to the SOP "Handheld Datalogger Use".

## **6.0 QUALITY ASSURANCE**

Quality assurance procedures related to the reproducibility and accuracy of measurements were described in Section 4.0

# VCGCD Water-Level Measurement Field Form

## Measurement Event Data

Measurement Date	Measurement Time	District Well ID	State Well ID
Location:			
Contact:			
Access Notes:			

Field Notes:			
Previous Depth to Water Below Land Surface (ft):		Average Depth to Water Below Land Surface (ft):	

## Measurement Data

Tape Cleaned |  Measurement Point Confirmed | Tape Type:

Technician			Measurement Type	
Measurement Point (ft)	Measurement Hold (ft)	Water Mark (ft)	Water Level - Depth Below MP (ft)	Water Level - Depth Below Surface (ft)

Sign and Date:	
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# VICTORIA COUNTY GROUNDWATER CONSERVATION DISTRICT

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## STANDARD OPERATING PROCEDURE NO. 2 FIELD DOCUMENTATION

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### 1.0 SCOPE AND PURPOSE

This SOP describes the protocol for the documentation of all field activities affecting sample data including; sample collection, sample handling, and field-testing activities. The purpose of this standard operating procedure (SOP) is to establish a consistent method and format for the use and control of documentation generated during field activities. Field notes and records are intended to provide sufficient information to recreate the field activities as well as the collection of environmental data. Information placed in these documents and/or records shall be factual, detailed, and objective.

### 2.0 APPLICABILITY

This procedure will be used, regardless of the purpose, by all project team personnel and subcontractors who conduct field activities for the Victoria County Groundwater Conservation District (VCGCD). Each person shall document field activities on formatted field records and other appropriate data sheets. These formatted record and data sheets will be part of the VCGCD project files; all forms must be filled out carefully and completely by one of the personnel actually performing the field activities.

### **3.0 PROCEDURES**

#### **3.1 Daily Field Record**

The VCGCD field representative will prepare a Daily Field Record form (Attachment A) for each day of field work. As appropriate, documentation on the form will include:

- Project identification;
- Date;
- Time on job (beginning and ending time);
- Weather conditions;
- Activity description;
- List of personnel and visitors on site;
- Safety equipment used and monitoring performed;
- Waste storage inventory (if any);
- Chronological record of activities and events;
- Comments and variances from project work plan;
- Content of telephone conversations; and
- Signature of the field representative.

The field representative will document details as necessary to recreate the day's activities and events at a later time, using as many additional sheets as needed. The Daily Field Record also can be used to document field activities that may not be specified on other field record forms. Other activity-specific documentation requirements that can be recorded on the Daily Field Record are discussed in the VCGCD SOP for each activity, if applicable.

#### **3.2 Field Record Forms**

In addition to the Daily Field Record, field personnel will complete specific VCGCD field record forms applicable to the field activities being conducted. The procedures for completion of activity-specific field record forms are presented in the applicable VCGCD SOPs. Some of the VCGCD field record forms include:

- Collection of Water-Level Measurements from Groundwater Wells (VCGCD SOP-01)
- Groundwater Sampling (VCGCD SOP-03); and
- Sample Custody, Packaging, and Shipment (VCGCD SOP-05).

#### **4.0 DOCUMENTATION AND RECORDS MANAGEMENT**

After any field event, perform the following activities:

- 1) Update forms – Conduct field documentation requirements as described in SOPs that apply to the activities performed. Field forms are contained with each SOP.
- 2) Sign all forms.
- 3) File all forms in the appropriate location.

If applicable, enter any measurement data into internal electronic database. If a handheld data logger is used to enter, store or manage data, enter the appropriate data according to the SOP "Handheld Datalogger Use".

#### **5.0 QUALITY ASSURANCE**

Completed field forms should be reviewed by the Project Manager or project designated QA/QC reviewer. The elements of this review will include technical content, consistency, and compliance with the project plans and SOPs. Discrepancies and errors identified during the review should be resolved between reviewer and author of the field documentation. Any necessary corrections will be made in pen with a single-line strike out that is initialed and dated.

**DAILY FIELD RECORD** Page \_\_\_ of \_\_\_

Date: \_\_\_\_\_ Weather Conditions: \_\_\_\_\_

Activities Conducted: \_\_\_\_\_

**PERSONNEL**

Name	Affiliation	Time In	Time Out

**DESCRIPTION OF DAILY ACTIVITIES AND EVENTS**

TIME	DESCRIPTION

**COMMENTS/COMMUNICATIONS**



**VICTORIA COUNTY GROUNDWATER CONSERVATION DISTRICT**

Meeting Item Packet Page

<b>Meeting Item Details</b>																
<b>Item ID:</b>	<b>20)</b>															
<b>Item Title:</b>	<b>General Manager Report - Region L Update; GMA 15 Update; Registration Update; Monitoring Program Update; Calendar of Events.</b>															
<b>Management Discussion:</b>	<p><b>Region L Update:</b> - On August 5, 2010, Region L approved submitting the regional water plan to TWDB.</p> <p><b>GMA 15:</b> - On July 14, 2010, the membership of GMA 15 approved a Desired Future Condition package. The DFC is stated as follows:</p> <p>"Groundwater Management Area 15 Member Districts do hereby document, record and confirm that groundwater within GMA 15 shall be managed in such a way as to achieve a Desired Future Condition in 2060 of <u>no more than 12 feet of average drawdown of the Gulf Coast Aquifer within the GMA 15 boundary relative to 1999 starting conditions</u> in accordance with Table 7 of GAM Run 10-008 Addendum."</p> <p><b>Registration and Permitting Update:</b></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 60%;"></th> <th style="width: 20%;">Previous Report</th> <th style="width: 20%;">Current Report</th> </tr> </thead> <tbody> <tr> <td>Drilling Permit Applications</td> <td style="text-align: center;">209</td> <td style="text-align: center;">229</td> </tr> <tr> <td>Operating Permit Applications</td> <td style="text-align: center;">18</td> <td style="text-align: center;">19</td> </tr> <tr> <td>Registration Applications</td> <td style="text-align: center;">190</td> <td style="text-align: center;">222</td> </tr> <tr> <td>Registered Wells</td> <td style="text-align: center;">378</td> <td style="text-align: center;">378</td> </tr> </tbody> </table> <p><b>Monitoring Program Update:</b>  <b>Drought Monitoring:</b> See attached document.  <b>Water Level Monitoring:</b> See attached document.</p> <p><b>Calendar of Events:</b> See attached document.</p>		Previous Report	Current Report	Drilling Permit Applications	209	229	Operating Permit Applications	18	19	Registration Applications	190	222	Registered Wells	378	378
	Previous Report	Current Report														
Drilling Permit Applications	209	229														
Operating Permit Applications	18	19														
Registration Applications	190	222														
Registered Wells	378	378														
<b>Management Recommendation:</b>																
<b>Financial Details:</b>																
<b>Related Documents:</b>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;"><i>Document Title:</i></td> <td>GMA 15 DFC Resolution</td> </tr> <tr> <td><i>Document Title:</i></td> <td>Drought Monitoring</td> </tr> <tr> <td><i>Document Title:</i></td> <td>Water Level Monitoring Update</td> </tr> <tr> <td> </td> <td> </td> </tr> </table>	<i>Document Title:</i>	GMA 15 DFC Resolution	<i>Document Title:</i>	Drought Monitoring	<i>Document Title:</i>	Water Level Monitoring Update									
<i>Document Title:</i>	GMA 15 DFC Resolution															
<i>Document Title:</i>	Drought Monitoring															
<i>Document Title:</i>	Water Level Monitoring Update															



Application ID	Status
ADNW-20090504-02	Approved
ADNW-20090513-03	Approved
ADNW-20090528-02	Approved
ADNW-20090623-01	Withdrawn
ADNW-20090731-02	Approved
ADNW-20090904-02	Approved
ADNW-20090917-02	Approved
ADNW-20090917-05	Withdrawn
ADNW-20091008-03	Closed
ADNW-20091023-03	Withdrawn
ADNW-20091030-01	Approved
ADNW-20091130-04	Approved
ADNW-20100209-01	Approved
ADNW-20100302-02	Approved
ADNW-20100324-01	Approved
ADNW-20100709-01	Approved

Row Labels	Count of Application ID
Approved	12
Closed	1
Withdrawn	3
<b>Grand Total</b>	<b>16</b>

Application ID	Status
AONW-20090504-03	Approved
AONW-20090513-04	Approved
AONW-20090528-03	Approved
AONW-20090623-02	Withdrawn
AONW-20090731-03	Approved
AONW-20090904-03	Approved
AONW-20090911-01	Approved
AONW-20090917-03	Approved
AONW-20090917-06	Withdrawn
AONW-20090917-07	Approved
AONW-20090917-08	Approved
AONW-20091023-04	Withdrawn
AONW-20091030-02	Approved
AONW-20091130-05	Approved
AONW-20100305-01	Approved
AONW-20100324-02	Approved
AONW-20100420-02	Approved
AONW-20100503-02	Approved
AONW-20100709-02	Approved

Row Labels	Count of Application ID
Approved	16
Withdrawn	3
<b>Grand Total</b>	<b>19</b>

Application ID	Status
ARGNW-20090223-01	Approved
ARGNW-20100922-01	Approved
ARGNW-20090223-02	Approved
ARGNW-20090223-03	Approved
ARGNW-20090223-04	Approved
ARGNW-20090223-05	Approved
ARGNW-20090223-06	Approved
ARGNW-20090223-07	Approved
ARGNW-20090223-08	Approved
ARGNW-20090223-09	Approved
ARGNW-20090223-10	Approved
ARGNW-20090528-01	Approved
ARGNW-20090513-01	Approved
ARGNW-20090612-01	Pending
ARGNW-20090615-01	Approved
ARGNW-20090615-02	Approved
ARGNW-20090615-03	Approved
ARGNW-20090615-04	Approved
ARGNW-20090615-05	Approved
ARGNW-20090708-01	Pending
ARGNW-20090826-01	Approved
ARGNW-20090911-02	Closed
ARGNW-20091104-01	Pending
ARGNW-20091104-02	Pending
ARGNW-20091104-03	Pending
ARGNW-20091130-01	Approved
ARGNW-20100129-01	Pending
ARGNW-20100714-05	Pending
ARGNW-20100714-04	Pending
ARGNW-20100714-03	Pending
ARGNW-20100714-02	Pending
ARGNW-20100714-01	Pending
ARGNW-20100209-02	Approved
ARGNW-20100405-05	Pending
ARGNW-20100406-01	Approved
ARGNW-20100406-02	Approved
ARGNW-20100409-01	Approved
ARGNW-20100409-02	Approved
ARGNW-20100414-04	Approved
ARGNW-20100526-02	Approved

Row Labels	Count of Application ID
Approved	27
Pending	12
Closed	1
<b>Grand Total</b>	<b>40</b>



VICTORIA COUNTY GROUNDWATER CONSERVATION DISTRICT

Travel and Expense Claim

10-16-09  
KE  
10/15/09  
J.H.

TO: VICTORIA COUNTY GROUNDWATER CONSERVATION DISTRICT

CHECK IF:  ADVANCE  REIMBURSEMENT

PAYABLE TO: Jim Andress

TRAVEL LOCATION: 1547 Lower Mission Valley Road

PURPOSE OF TRIP: off-site visit

DATE(S) EXPENSES WERE INCURRED: 10/14/09

AUTOMOBILE MILEAGE: 21 MILES @ 0.55 PER MILE \$ 10.50

MEALS: KENNETH TIM THURMAN MARK BARBARA B of D MTG. \$ \_\_\_\_\_

LODGING ..... \$ \_\_\_\_\_

REGISTRATION FEES ..... \$ \_\_\_\_\_

TIPS AND INCIDENTALS ..... \$ \_\_\_\_\_

OTHER EXPENSES (EXPLAIN) \_\_\_\_\_ \$ \_\_\_\_\_

\_\_\_\_\_ \$ \_\_\_\_\_

\_\_\_\_\_ \$ \_\_\_\_\_

SUBTOTAL ..... \$ 10.50

LESS ADVANCE (IF ANY) ..... \$ -0-

TOTAL DUE EMPLOYEE ..... \$ 10.50

I certify that the expenses listed above were incurred by me in the performance of official County business and I have not received reimbursement from any other source.

SIGNATURE: \_\_\_\_\_

DATE: \_\_\_\_\_

TITLE: \_\_\_\_\_

DATE: \_\_\_\_\_

DEPT. APPROVAL \_\_\_\_\_

DATE: \_\_\_\_\_



5178

INVOICE: 2009-016

# VICTORIA COUNTY GROUNDWATER CONSERVATION DISTRICT

## Travel and Expense Claim

TO: VICTORIA COUNTY GROUNDWATER CONSERVATION DISTRICT

12-18-09  
KE

CHECK IF:  ADVANCE  REIMBURSEMENT

PAYABLE TO: Jim Address

TRAVEL LOCATION: Victoria County

PURPOSE OF TRIP: off-site visits

1) L.H. Moody 2) Crawford Dr 3) LMRK

DATE(S) EXPENSES WERE INCURRED: December 2009

AUTOMOBILE MILEAGE: 55 MILES @ 0.55 PER MILE \$ 30.25

MEALS: KENNETH TIM THURMAN MARK BARBARA B of D MTG. \$ \_\_\_\_\_

LODGING ..... \$ \_\_\_\_\_

REGISTRATION FEES ..... \$ \_\_\_\_\_

TIPS AND INCIDENTALS ..... \$ \_\_\_\_\_

OTHER EXPENSES (EXPLAIN) \_\_\_\_\_ \$ \_\_\_\_\_

\_\_\_\_\_ \$ \_\_\_\_\_

\_\_\_\_\_ \$ \_\_\_\_\_

SUBTOTAL ..... \$ 30.25

LESS ADVANCE (IF ANY) ..... \$ -0-

TOTAL DUE EMPLOYEE ..... \$ 30.25

12-14-09  
3.0  
12-18-09  
95/10

I certify that the expenses listed above were incurred by me in the performance of official County business and I have not received reimbursement from any other source.

SIGNATURE: \_\_\_\_\_

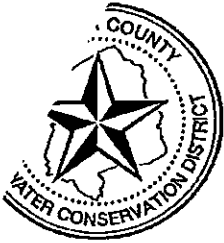
DATE: \_\_\_\_\_

TITLE: \_\_\_\_\_

DATE: \_\_\_\_\_

DEPT. APPROVAL \_\_\_\_\_

DATE: \_\_\_\_\_



SITE

INVOICE: 2010-030

# VICTORIA COUNTY GROUNDWATER CONSERVATION DISTRICT

## Travel and Expense Claim

2-11-10  
KE  
2-10-10  
KSA

TO: VICTORIA COUNTY GROUNDWATER CONSERVATION DISTRICT

CHECK IF:  ADVANCE  REIMBURSEMENT

PAYABLE TO: Jim Andrews

TRAVEL LOCATION: 10796 State Hwy. 185

PURPOSE OF TRIP: Off-site visit

DATE(S) EXPENSES WERE INCURRED: 2/9/2010

AUTOMOBILE MILEAGE: 30 MILES @ 0.50 PER MILE \$ 15.00

MEALS: KENNETH TIM THURMAN MARK BARBARA B of D MTG. \$ \_\_\_\_\_

LODGING ..... \$ \_\_\_\_\_

REGISTRATION FEES ..... \$ \_\_\_\_\_

TIPS AND INCIDENTALS ..... \$ \_\_\_\_\_

OTHER EXPENSES (EXPLAIN) \_\_\_\_\_ \$ \_\_\_\_\_

\_\_\_\_\_ \$ \_\_\_\_\_

\_\_\_\_\_ \$ \_\_\_\_\_

SUBTOTAL ..... \$ 15.00

LESS ADVANCE (IF ANY) ..... \$ -0-

TOTAL DUE EMPLOYEE ..... \$ 15.00

I certify that the expenses listed above were incurred by me in the performance of official County business and I have not received reimbursement from any other source.

SIGNATURE: [Signature]

DATE: \_\_\_\_\_

TITLE: GM

DATE: \_\_\_\_\_

DEPT. APPROVAL \_\_\_\_\_

DATE: \_\_\_\_\_



# VICTORIA COUNTY GROUNDWATER CONSERVATION DISTRICT

## Travel and Expense Claim

4-7-10  
TAA  
4-7-10  
KE

TO: VICTORIA COUNTY GROUNDWATER CONSERVATION DISTRICT

CHECK IF:  ADVANCE  REIMBURSEMENT

PAYABLE TO: Jim Andrews

TRAVEL LOCATION: ① Hwy 87 + FM 447 ②zac Lentz Pkwy + Beck Rd Hqs

PURPOSE OF TRIP: off-site visits  
① Mark McNeil ② Dr. Seaman

DATE(S) EXPENSES WERE INCURRED: 4-5-10

AUTOMOBILE MILEAGE: 18 MILES @ 0.50 PER MILE \$ 9.00

MEALS: KENNETH TIM THURMAN MARK BARBARA B of D MTG. \$ \_\_\_\_\_

LODGING ..... \$ \_\_\_\_\_

REGISTRATION FEES ..... \$ \_\_\_\_\_

TIPS AND INCIDENTALS ..... \$ \_\_\_\_\_

OTHER EXPENSES (EXPLAIN) \_\_\_\_\_ \$ \_\_\_\_\_

\_\_\_\_\_ \$ \_\_\_\_\_

\_\_\_\_\_ \$ \_\_\_\_\_

SUBTOTAL ..... \$ 9.00

LESS ADVANCE (IF ANY) ..... \$ -0-

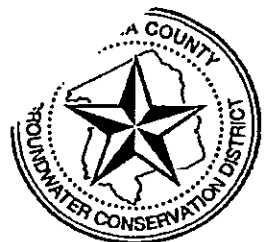
TOTAL DUE EMPLOYEE ..... \$ 9.00

I certify that the expenses listed above were incurred by me in the performance of official County business and I have not received reimbursement from any other source.

SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

TITLE: \_\_\_\_\_ DATE: \_\_\_\_\_

DEPT. APPROVAL \_\_\_\_\_ DATE: \_\_\_\_\_



# VICTORIA COUNTY GROUNDWATER CONSERVATION DISTRICT

## Travel and Expense Claim

4-13-10  
KE  
4/13/10  
JAA

TO: VICTORIA COUNTY GROUNDWATER CONSERVATION DISTRICT

CHECK IF:  ADVANCE  REIMBURSEMENT

PAYABLE TO: Tim Adrus

TRAVEL LOCATION: Lucky J Ranch

PURPOSE OF TRIP: Permit Site Visit

DATE(S) EXPENSES WERE INCURRED: \_\_\_\_\_

AUTOMOBILE MILEAGE: 42 MILES @ 0.50 PER MILE \$ 21.00

MEALS: KENNETH TIM THURMAN MARK BARBARA B of D MTG. \$ \_\_\_\_\_

LODGING ..... \$ \_\_\_\_\_

REGISTRATION FEES ..... \$ \_\_\_\_\_

TIPS AND INCIDENTALS ..... \$ \_\_\_\_\_

OTHER EXPENSES (EXPLAIN) \_\_\_\_\_ \$ \_\_\_\_\_

\_\_\_\_\_ \$ \_\_\_\_\_

\_\_\_\_\_ \$ \_\_\_\_\_

SUBTOTAL ..... \$ 21.00

LESS ADVANCE (IF ANY) ..... \$ -0-

TOTAL DUE EMPLOYEE ..... \$ 21.00

I certify that the expenses listed above were incurred by me in the performance of official County business and I have not received reimbursement from any other source.

SIGNATURE: [Signature]

DATE: \_\_\_\_\_

TITLE: \_\_\_\_\_

DATE: \_\_\_\_\_

DEPT. APPROVAL \_\_\_\_\_

DATE: \_\_\_\_\_

\*ATTACH TICKETS, RECEIPTS, OR OTHER SUPPORTING DOCUMENTATION.  
VCGCD Annual Report - FY 2009-2010





# VICTORIA COUNTY GROUNDWATER CONSERVATION DISTRICT

## Travel and Expense Claim

4/13/10  
TBA  
4-13-10  
VCE

TO: VICTORIA COUNTY GROUNDWATER CONSERVATION DISTRICT

CHECK IF:  ADVANCE  REIMBURSEMENT

PAYABLE TO: Tim Andrews

TRAVEL LOCATION: Selferne

PURPOSE OF TRIP: Pederson site visit - Brady - 309

DATE(S) EXPENSES WERE INCURRED: \_\_\_\_\_

AUTOMOBILE MILEAGE: 18 MILES @ 0.50 PER MILE \$ 9.00

MEALS: KENNETH TIM THURMAN MARK BARBARA B of D MTG. \$ \_\_\_\_\_

LODGING ..... \$ \_\_\_\_\_

REGISTRATION FEES ..... \$ \_\_\_\_\_

TIPS AND INCIDENTALS ..... \$ \_\_\_\_\_

OTHER EXPENSES (EXPLAIN) \_\_\_\_\_ \$ \_\_\_\_\_

\_\_\_\_\_ \$ \_\_\_\_\_

\_\_\_\_\_ \$ \_\_\_\_\_

SUBTOTAL ..... \$ 9.00

LESS ADVANCE (IF ANY) ..... \$ -0-

TOTAL DUE EMPLOYEE ..... \$ 9.00

I certify that the expenses listed above were incurred by me in the performance of official County business and I have not received reimbursement from any other source.

SIGNATURE: [Signature]

DATE: \_\_\_\_\_

TITLE: \_\_\_\_\_

DATE: \_\_\_\_\_

DEPT. APPROVAL \_\_\_\_\_

DATE: \_\_\_\_\_



# VICTORIA COUNTY GROUNDWATER CONSERVATION DISTRICT

## Travel and Expense Claim

TO: VICTORIA COUNTY GROUNDWATER CONSERVATION DISTRICT

CHECK IF:  ADVANCE  REIMBURSEMENT

PAYABLE TO: Jim Andrews

TRAVEL LOCATION: \_\_\_\_\_

PURPOSE OF TRIP: Well Registration Site Visit  
5/14/10

DATE(S) EXPENSES WERE INCURRED: \_\_\_\_\_

AUTOMOBILE MILEAGE: 42.0 MILES @ 0.50 PER MILE \$ 21.00

MEALS: KENNETH TIM THURMAN MARK BARBARA B of D MTG. \$ \_\_\_\_\_

LODGING ..... \$ \_\_\_\_\_

REGISTRATION FEES ..... \$ \_\_\_\_\_

TIPS AND INCIDENTALS ..... \$ \_\_\_\_\_

OTHER EXPENSES (EXPLAIN) \_\_\_\_\_ \$ \_\_\_\_\_

\_\_\_\_\_ \$ \_\_\_\_\_

\_\_\_\_\_ \$ \_\_\_\_\_

SUBTOTAL ..... \$ \_\_\_\_\_

LESS ADVANCE (IF ANY) ..... \$ \_\_\_\_\_

TOTAL DUE EMPLOYEE ..... \$ 21.00 <sup>5/27/10</sup> <sub>B.P.</sub>

I certify that the expenses listed above were incurred by me in the performance of official County business and I have not received reimbursement from any other source.

SIGNATURE: [Signature]

DATE: 5/27/10

TITLE: GM

DATE: \_\_\_\_\_

DEPT. APPROVAL \_\_\_\_\_

DATE: \_\_\_\_\_

\*ATTACH TICKETS, RECEIPTS, OR OTHER SUPPORTING DOCUMENTATION.



# VICTORIA COUNTY GROUNDWATER CONSERVATION DISTRICT

## Travel and Expense Claim

TO: VICTORIA COUNTY GROUNDWATER CONSERVATION DISTRICT

CHECK IF:  ADVANCE  REIMBURSEMENT

PAYABLE TO: Tim Andrews

TRAVEL LOCATION: HANEY WELL SITE; KUNTZ WELL SITE

PURPOSE OF TRIP: \_\_\_\_\_

DATE(S) EXPENSES WERE INCURRED: August 6, 2010

AUTOMOBILE MILEAGE: 46 MILES @ 0.50 PER MILE \$ 23.00

MEALS: KENNETH TIM THURMAN MARK BARBARA B of D MTG. \$ \_\_\_\_\_

LODGING ..... \$ \_\_\_\_\_

REGISTRATION FEES ..... \$ \_\_\_\_\_

TIPS AND INCIDENTALS ..... \$ \_\_\_\_\_

OTHER EXPENSES (EXPLAIN) \_\_\_\_\_ \$ \_\_\_\_\_

\_\_\_\_\_ \$ \_\_\_\_\_

\_\_\_\_\_ \$ \_\_\_\_\_

SUBTOTAL ..... \$ \_\_\_\_\_

LESS ADVANCE (IF ANY) ..... \$ \_\_\_\_\_

TOTAL DUE EMPLOYEE ..... \$ 23.<sup>00</sup>

I certify that the expenses listed above were incurred by me in the performance of official County business and I have not received reimbursement from any other source.

SIGNATURE: [Signature]

TITLE: GM

DEPT. APPROVAL \_\_\_\_\_

DATE: 8/10/10 8.10.10  
DATE: \_\_\_\_\_ GM, GM  
DATE: \_\_\_\_\_ 8-12-10  
KE

# Victoria County Groundwater Conservation District



**Directors:**

Mark Meek  
*President*

Jerry Hroch  
*Vice-President*

Barbara Dietzel  
*Secretary*

Thuman Clements  
Kenneth Eller

September 14, 2010  
*peck*

Mr. W. E. West, Jr. – General Manager  
Guadalupe Blanco River Authority  
933 East Court Street  
Seguin, Texas 78155

RE: Conjunctive Use

Dear Mr. West,

Through the Victoria County Groundwater Conservation District's management plan and rule-making process, the District established objectives related to addressing conjunctive surface water management issues. One of the objectives requires the District to communicate with specific entities that use surface water within Victoria County.

**Objective:** Communicate with GBRA, SARA, City of Victoria, and Victoria County Navigation District concerning conjunctive surface water management issues.

During the past year, the District has considered and monitored the City of Victoria's conjunctive use approach to addressing water management issues caused by drought and low flow conditions of the Guadalupe River. The District recognizes that in the coming years as water resources are more heavily relied upon, the need to consider innovative approaches to water management such as conjunctive water use will increase. Therefore, the District remains interested in learning more about conjunctive use and other potential solutions to water management issues that involve the groundwater resources of Victoria County.

If you have an interest in discussing conjunctive water use or any other groundwater resource matter with the District, please contact me. I would be happy to coordinate with you and place an item on an upcoming agenda of the Board of Directors to discuss the matter.

Kind regards,

  
Tim Andruss – General Manager

TA/bd

# Victoria County Groundwater Conservation District



**Directors:**


Mark Meek  
*President*

Jerry Hroch  
*Vice-President*

Barbara Dietzel  
*Secretary*

Thurman Clements  
Kenneth Eller

September 14, 2010

  
Mr. Jerry James – Director  
City of Victoria – Environmental Services  
700 Main Center, Suite 113  
Victoria, Texas 77901

RE: Conjunctive Use

Dear Mr. James,

Through the Victoria County Groundwater Conservation District's management plan and rule-making process, the District established objectives related to addressing conjunctive surface water management issues. One of the objectives requires the District to communicate with specific entities that use surface water within Victoria County.

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Kind regards,



Tim Andruss – General Manager

TA/bd

# Victoria County Groundwater Conservation District



**Directors:**

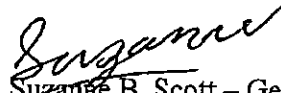
Mark Meek  
*President*

Jerry Hroch  
*Vice-President*

Barbara Dietzel  
*Secretary*

Thurman Clements  
Kenneth Eller

September 14, 2010

  
Ms. Suzanne B. Scott – General Manager  
San Antonio River Authority  
P. O. Box 839980  
100 East Guenther Street  
San Antonio, Texas 78283-9880

RE: Conjunctive Use

Dear Ms. Scott,


Through the Victoria County Groundwater Conservation District's management plan and rule-making process, the District established objectives related to addressing conjunctive surface water management issues. One of the objectives requires the District to communicate with specific entities that use surface water within Victoria County.

**Objective:** Communicate with GBRA, SARA, City of Victoria, and Victoria County Navigation District concerning conjunctive surface water management issues.

During the past year, the District has considered and monitored the City of Victoria's conjunctive use approach to addressing water management issues caused by drought and low flow conditions of the Guadalupe River. The District recognizes that in the coming years as water resources are more heavily relied upon, the need to consider innovative approaches to water management such as conjunctive water use will increase. Therefore, the District remains interested in learning more about conjunctive use and other potential solutions to water management issues that involve the groundwater resources of Victoria County.

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Kind regards,

  
Tim Andruss – General Manager

TA/bd

# Victoria County Groundwater Conservation District



**Directors:**

Mark Meek  
*President*

Jerry Hroch  
*Vice-President*

Barbara Dietzel  
*Secretary*

Thurman Clements  
Kenneth Eller

September 14, 2010

Mr. Charles E. Windwehen – City Manager  
City of Victoria  
105 West Juan Linn Street  
Victoria, Texas 77901

RE: Conjunctive Use

Dear Mr. Windwehen,


Through the Victoria County Groundwater Conservation District's management plan and rule-making process, the District established objectives related to addressing conjunctive surface water management issues. One of the objectives requires the District to communicate with specific entities that use surface water within Victoria County.

**Objective:** Communicate with GBRA, SARA, City of Victoria, and Victoria County Navigation District concerning conjunctive surface water management issues.

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Kind regards,

  
\_\_\_\_\_  
Tim Andruss – General Manager

TA/bd

# Victoria County Groundwater Conservation District

---



**Directors:**

Mark Meek  
*President*

Jerry Hroch  
*Vice-President*

Barbara Dietzel  
*Secretary*

Thurman Clements  
Kenneth Eller

September 14, 2010

Mr. Tony Rigdon – Executive Director  
Victoria County Navigation District  
1934 FM 1432  
Victoria, Texas 77905

RE: Conjunctive Use

Dear Mr. Rigdon,

Through the Victoria County Groundwater Conservation District's management plan and rule-making process, the District established objectives related to addressing conjunctive surface water management issues. One of the objectives requires the District to communicate with specific entities that use surface water within Victoria County.

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If you have an interest in discussing conjunctive water use or any other groundwater resource matter with the District, please contact me. I would be happy to coordinate with you and place an item on an upcoming agenda of the Board of Directors to discuss the matter.

Kind regards,

  
\_\_\_\_\_  
Tim Andruss – General Manager

TA/bd



**Attachment Q: Water Level Measurements for March and August 2010  
with change of water levels.**

Well ID	2010-March		2010-August		Comments	6-Month Change	12-Month Change	18-Month Change
	Measure Date	March 2010 - Depth Below Surface	Measure Date	August 2010 - Depth Below Surface				
66-57-406	3/15/2010	70.20	8/13/2010	87.50		-17.30	1.40	-2.30
79-07-305	3/15/2010	72.80	8/13/2010	73.30		-0.50	0.25	
79-07-703	3/15/2010	105.55	8/13/2010	105.50		-0.05	-0.02	-4.10
79-07-902	3/15/2010	55.45	8/16/2010	69.35		-13.90	15.06	-4.45
79-08-201	3/15/2010	81.90	8/13/2010	82.80		-0.90	4.30	-2.70
79-08-805	3/15/2010	53.45	8/13/2010	55.10		-1.65	14.90	-15.60
79-15-903	3/15/2010	43.70	8/13/2010	31.30		-12.40	12.45	-11.62
79-16-608			8/13/2010	22.50			2.45	
79-16-701	3/15/2010	45.00	8/16/2010	46.90		-1.90	7.50	-10.90
79-16-702	3/15/2010	38.50	8/13/2010	40.80		-2.30	15.80	-8.30
79-16-703	3/15/2010	52.00	8/13/2010	52.40		-0.40	4.40	-11.90
79-23-303	3/15/2010	33.80	8/13/2010	34.40		-0.60	3.60	-1.70
79-23-601	3/15/2010	46.75	8/13/2010	45.25		1.50	0.22	0.05
79-24-102	3/15/2010	49.50	8/13/2010	48.75		-0.75	1.20	-0.35
79-24-702	3/15/2010	50.00	8/13/2010	49.00		1.00	0.18	-0.50
79-32-602	3/15/2010	23.90	8/13/2010	35.25		-11.35		-7.15
80-01-301	3/18/2010	81.10	8/13/2010	90.10		-9.00		-31.20
80-01-302	3/18/2010	80.60	8/13/2010		Pumping			
80-02-102	3/18/2010	52.00	8/13/2010	55.90		-3.90	-2.40	-6.65
80-02-804	3/18/2010	28.40	8/13/2010	28.60		-0.20	3.00	
80-10-101	3/18/2010	50.95	8/13/2010	54.20		-3.25	6.47	-15.20
80-10-401	3/18/2010	32.50	8/13/2010	32.75		-0.25	4.15	-1.80
Unk1	3/18/2010	28.50	8/13/2010	29.80		-1.30	2.70	
80-17-101	3/18/2010	9.50	8/16/2010	11.10		-1.60	2.53	
80-17-501	3/15/2010	32.90	8/16/2010	35.00		-2.10	-3.50	
80-17-905	3/15/2010	25.60	8/16/2010	32.15		-6.55	-0.20	
80-18-401	3/15/2010	33.70	8/16/2010	34.60		-0.90	0.77	-0.10
80-18-402	3/15/2010	31.40	8/16/2010	31.90		-0.50	1.70	-0.90
Unk2	3/18/2010	55.30	8/13/2010	65.30		-10.00		

Well ID	2010-March		2010-August					
	Measure Date	March 2010 - Depth Below Surface	Measure Date	August 2010 - Depth Below Surface	Comments	6-Month Change	12-Month Change	18-Month Change
Unk3	3/22/2010	35.70	8/13/2010	36.50		-0.80	2.50	0.50
						-2.73	1.53	-5.36

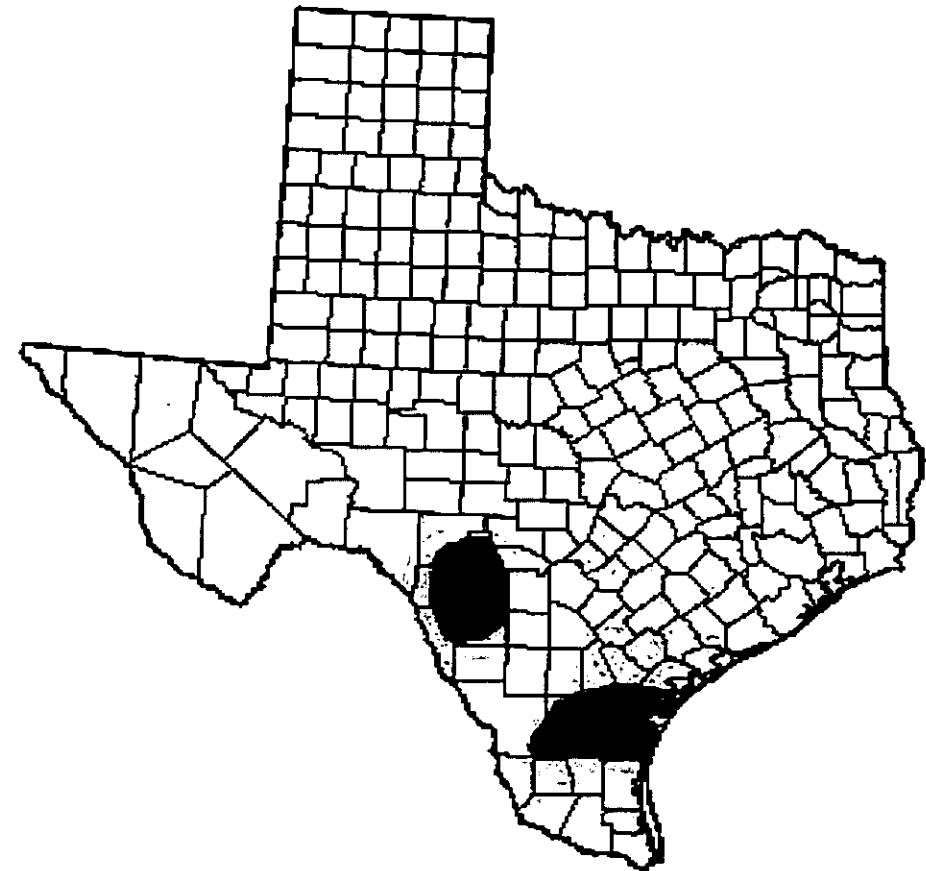
# U.S. Drought Monitor

## Texas

November 10, 2009  
Valid 7 a.m. EST

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	75.2	24.8	14.7	8.7	4.3	0.9
Last Week (11/03/2009 map)	75.4	24.6	14.0	8.7	4.3	0.9
3 Months Ago (08/18/2009 map)	49.9	50.1	35.3	28.9	26.7	18.1
Start of Calendar Year (01/06/2009 map)	41.7	58.3	24.5	15.0	9.1	4.2
Start of Water Year (10/06/2009 map)	66.1	33.9	22.4	14.5	6.8	1.5
One Year Ago (11/11/2008 map)	59.2	40.8	22.4	14.5	6.8	0.0



Intensity:

- D0 Abnormally Dry
- D1 Drought - Moderate
- D2 Drought - Severe
- D3 Drought - Extreme
- D4 Drought - Exceptional

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements

<http://drought.unl.edu/dm>



Released Thursday, November 12, 2009  
Author: Brian Fuchs, National Drought Mitigation Center

# U.S. Drought Monitor

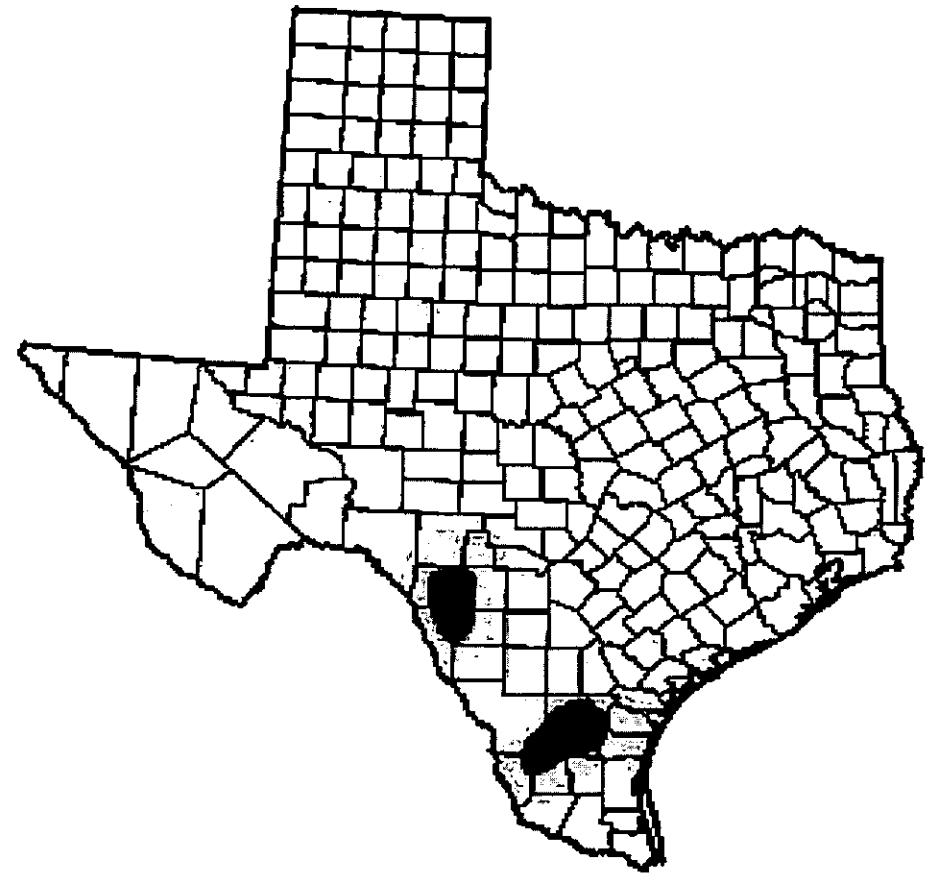
## Texas

December 8, 2009

Valid 7 a.m. EST

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	71.2	28.8	10.7	5.9	2.1	0.0
Last Week (12/01/2009 map)	66.0	34.0	12.1	5.9	2.9	0.0
3 Months Ago (09/15/2009 map)	60.7	39.3	30.6	25.2	15.8	3.4
Start of Calendar Year (01/01/2009 map)	41.7	58.3	24.5	15.0	9.1	4.2
Start of Water Year (10/01/2009 map)	66.1	33.9	22.4	14.5	6.8	1.5
One Year Ago (12/09/2008 map)	52.9	47.1	24.6	15.0	8.1	3.2



Intensity:

- D0 Abnormally Dry
- D1 Drought - Moderate
- D2 Drought - Severe
- D3 Drought - Extreme
- D4 Drought - Exceptional

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements

<http://drought.unl.edu/dm>



Released Thursday, December 10, 2009  
 Author: M. Brewer/L. Love-Brotak, NOAA/NESDIS/NCDC

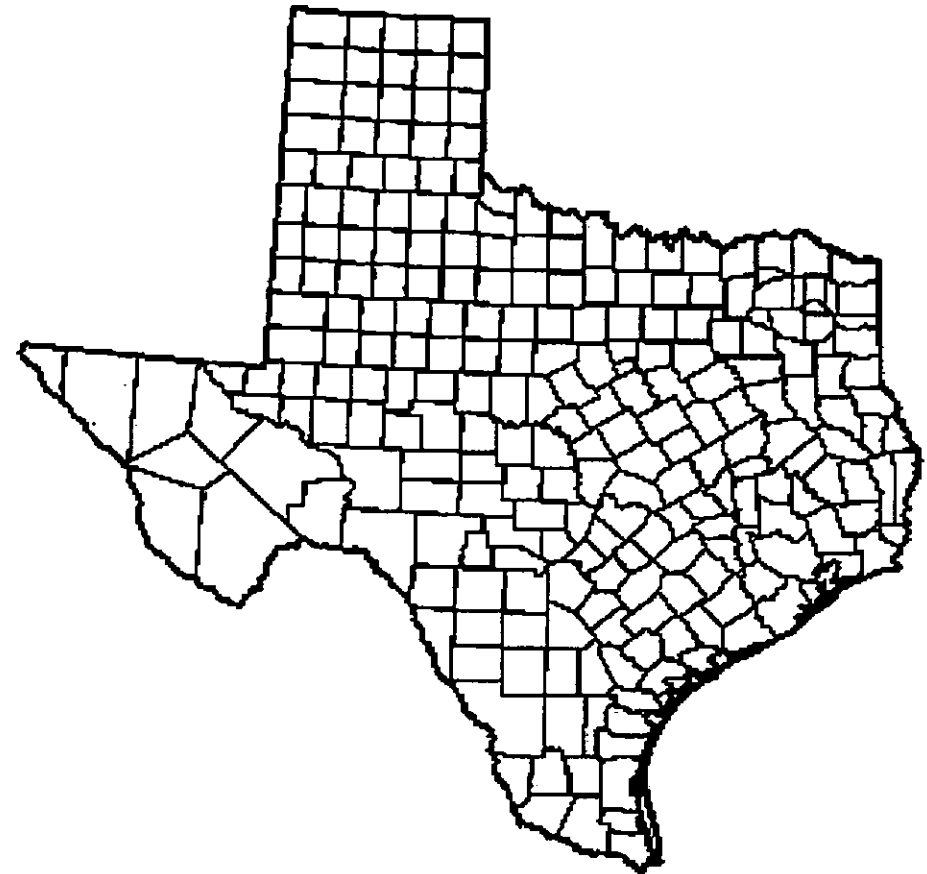
# U.S. Drought Monitor

## Texas

February 9, 2010  
Valid 7 a.m. EST

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	92.8	7.2	0.4	0.0	0.0	0.0
Last Week (02/02/2010 map)	83.9	16.1	4.2	0.4	0.0	0.0
3 Months Ago (11/17/2009 map)	75.2	24.8	14.7	8.7	4.3	0.9
Start of Calendar Year (01/05/2010 map)	72.9	27.1	7.0	2.3	0.0	0.0
Start of Water Year (10/06/2009 map)	66.1	33.9	22.4	14.5	6.8	1.5
One Year Ago (02/10/2009 map)	2.6	97.4	69.5	43.8	19.6	7.6



Intensity:

- D0 Abnormally Dry
- D1 Drought - Moderate
- D2 Drought - Severe
- D3 Drought - Extreme
- D4 Drought - Exceptional

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements

<http://drought.unl.edu/dm>



Released Thursday, February 11, 2010  
Author: Brian Fuchs, National Drought Mitigation Center

# U.S. Drought Monitor

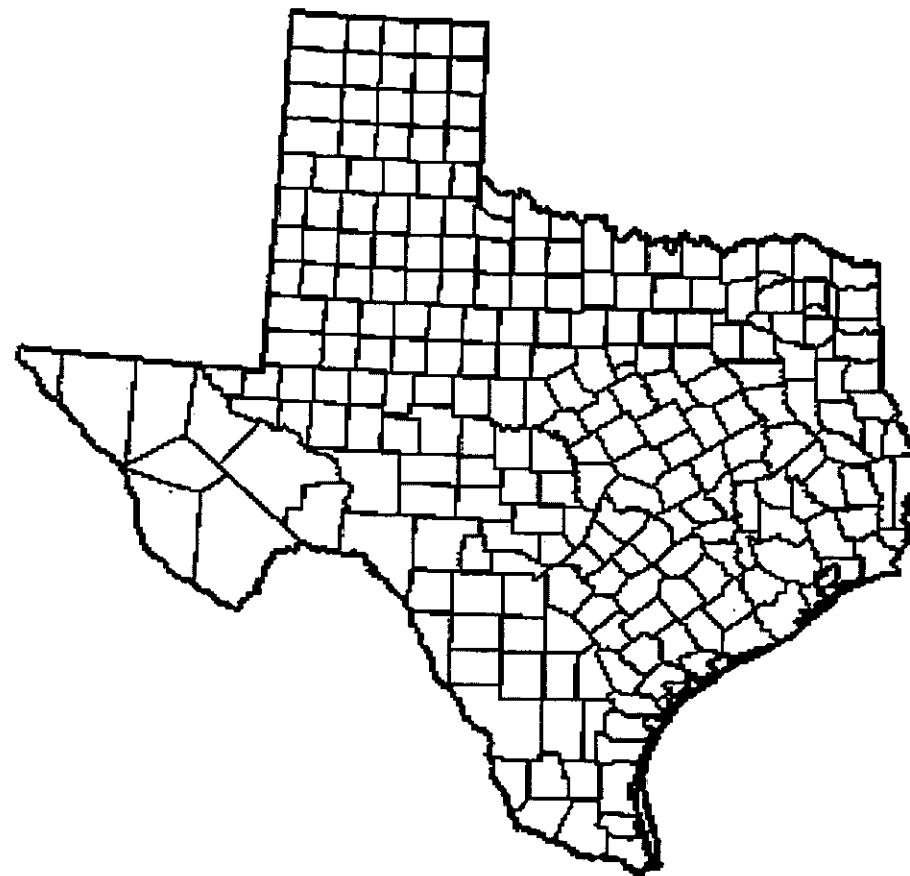
## Texas

March 9, 2010

Valid 7 a.m. EST

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	96.5	3.5	0.0	0.0	0.0	0.0
Last Week (03/02/2010 map)	96.4	3.6	0.0	0.0	0.0	0.0
3 Months Ago (12/15/2009 map)	71.8	28.2	8.5	4.6	0.0	0.0
Start of Calendar Year (01/05/2010 map)	72.9	27.1	7.0	2.3	0.0	0.0
Start of Water Year (10/06/2009 map)	66.1	33.9	22.4	14.5	6.8	1.5
One Year Ago (03/10/2009 map)	0.0	100.0	84.3	45.8	22.4	9.6



Intensity:

- D1 Abnormally Dry
- D1 Drought - Moderate
- D2 Drought - Severe
- D3 Drought - Extreme
- D4 Drought - Exceptional

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements

<http://drought.unl.edu/dm>



Released Thursday, March 11, 2010

Author: R. Tinker, GPC/NOAA

# U.S. Drought Monitor

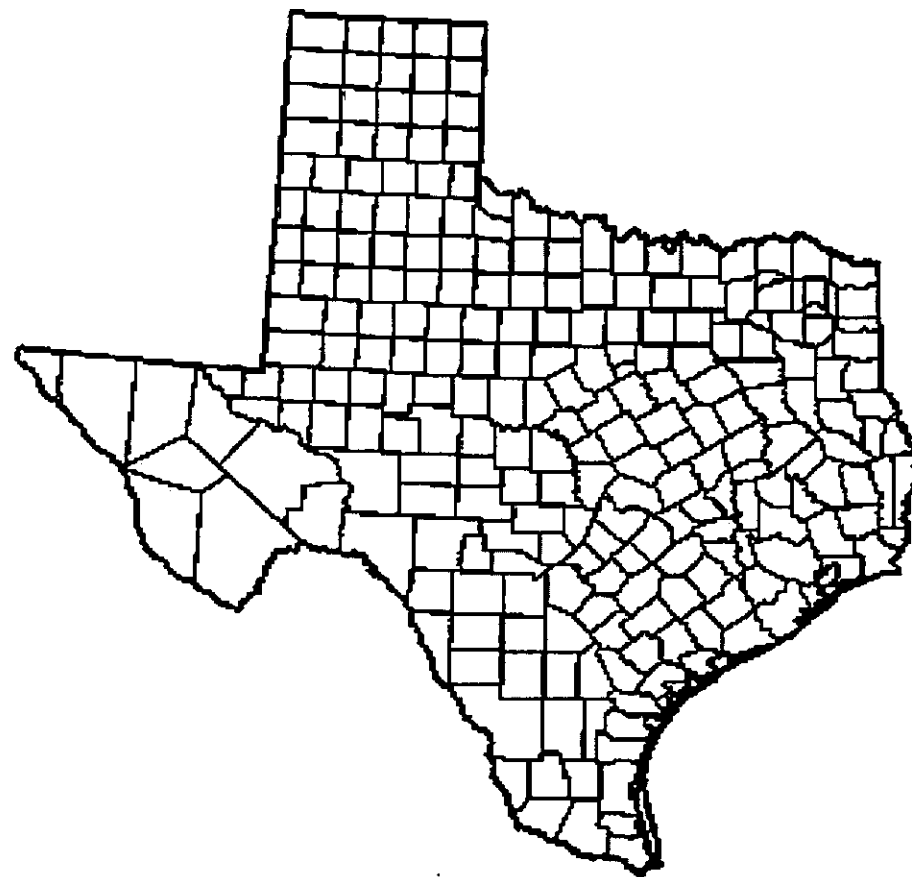
## Texas

April 6, 2010

Valid 7 a.m. EST

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	95.9	4.1	0.0	0.0	0.0	0.0
Last Week (03/30/2010 map)	96.5	3.5	0.0	0.0	0.0	0.0
3 Months Ago (01/12/2010 map)	73.1	26.9	7.0	2.3	0.0	0.0
Start of Calendar Year (01/05/2010 map)	72.9	27.1	7.0	2.3	0.0	0.0
Start of Water Year (10/08/2009 map)	66.1	33.9	22.4	14.5	6.8	1.5
One Year Ago (04/07/2009 map)	6.7	93.3	79.1	53.5	24.6	7.1



Intensity:

- D0 Abnormally Dry
- D1 Drought - Moderate
- D2 Drought - Severe
- D3 Drought - Extreme
- D4 Drought - Exceptional

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements

<http://drought.unl.edu/dm>



Released Thursday, April 8, 2010

Author: Anthony Artusa, CPC/NOAA



# U.S. Drought Monitor

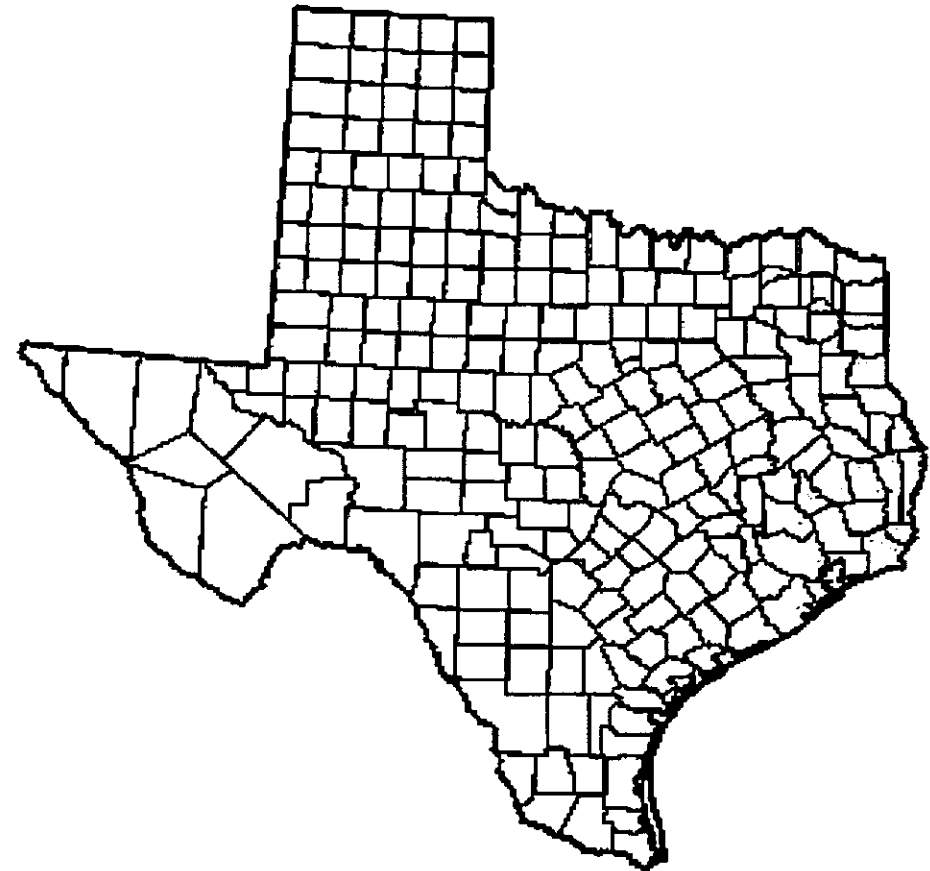
## Texas

May 11, 2010

Valid 7 a.m. EST

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	83.8	16.2	3.4	0.0	0.0	0.0
Last Week (05/04/2010 map)	89.2	10.8	0.3	0.0	0.0	0.0
3 Months Ago (02/16/2010 map)	93.4	6.6	0.0	0.0	0.0	0.0
Start of Calendar Year (01/05/2010 map)	72.9	27.1	7.0	2.3	0.0	0.0
Start of Water Year (10/06/2009 map)	66.1	33.9	22.4	14.5	6.8	1.5
One Year Ago (05/12/2009 map)	31.2	68.8	50.5	38.0	23.7	14.9



Intensity:

- D0 Abnormally Dry
- D1 Drought - Moderate
- D2 Drought - Severe
- D3 Drought - Extreme
- D4 Drought - Exceptional

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements

<http://drought.unl.edu/dm>



Released Thursday, May 13, 2010

Author: M. Brewer, NOAA/NCDC

# U.S. Drought Monitor

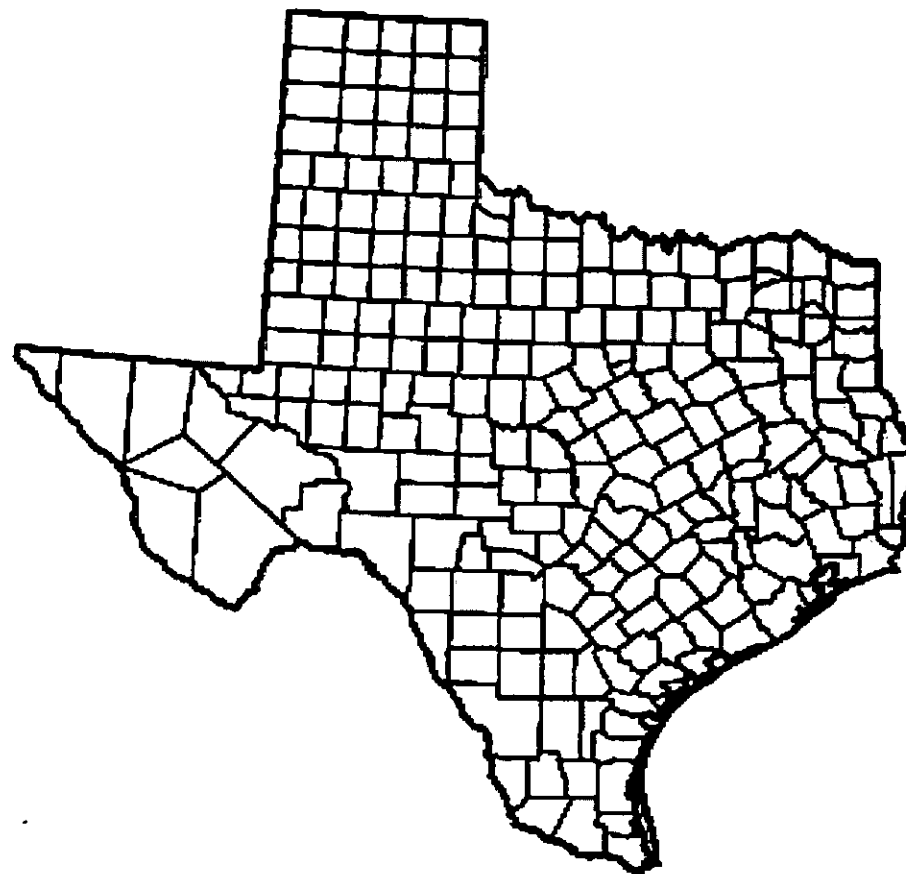
## Texas

June 15, 2010

Valid 7 a.m. EST

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	83.4	16.6	1.0	0.0	0.0	0.0
Last Week (06/08/2010 map)	76.7	23.3	7.0	0.0	0.0	0.0
3 Months Ago (03/23/2010 map)	96.5	3.5	0.0	0.0	0.0	0.0
Start of Calendar Year (01/05/2010 map)	72.9	27.1	7.0	2.3	0.0	0.0
Start of Water Year (10/01/2009 map)	66.1	33.9	22.4	14.5	6.8	1.5
One Year Ago (06/16/2009 map)	27.0	73.0	45.5	27.8	16.5	7.6

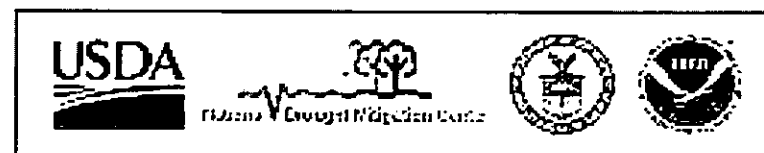


Intensity:

- D0 Abnormally Dry
- D1 Drought - Moderate
- D2 Drought - Severe
- D3 Drought - Extreme
- D4 Drought - Exceptional

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements

<http://drought.unl.edu/dm>



Released Thursday, June 17, 2010

Author: Laura Edwards, Western Regional Climate Center

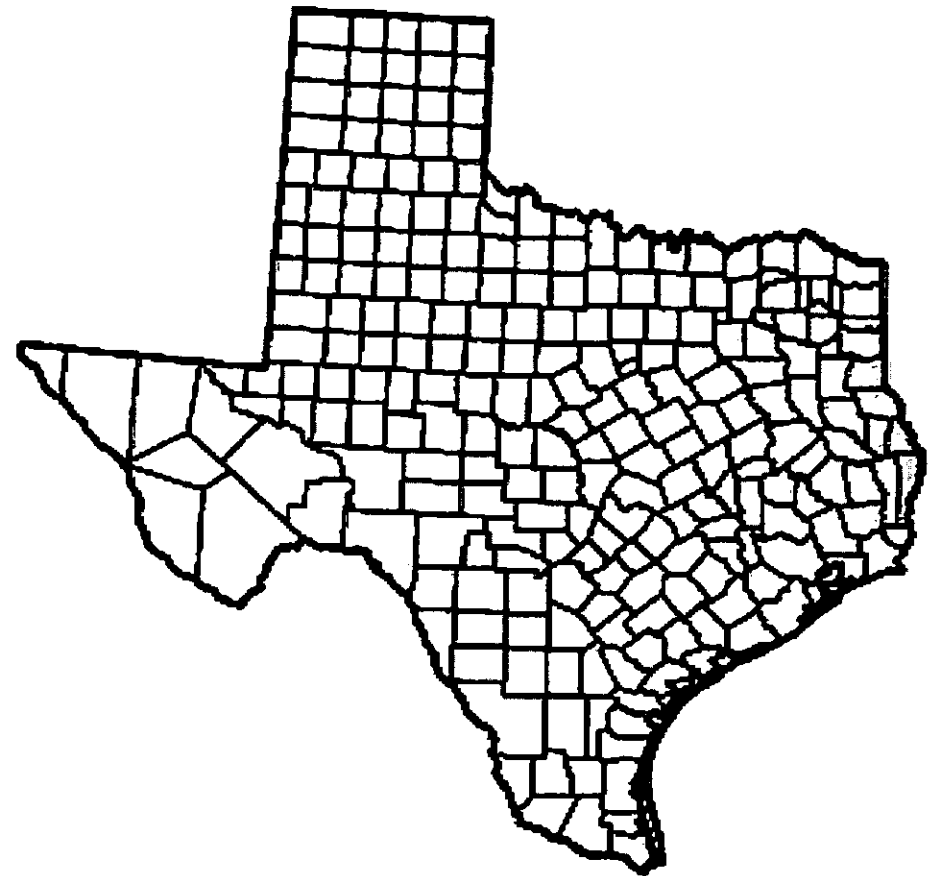
# U.S. Drought Monitor

## Texas

August 24, 2010  
Valid 7 a.m. EST

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	75.5	24.5	5.5	0.7	0.0	0.0
Last Week (08/17/2010 map)	85.0	15.0	4.5	0.7	0.0	0.0
3 Months Ago (06/01/2010 map)	72.7	27.3	9.5	0.0	0.0	0.0
Start of Calendar Year (01/05/2010 map)	72.9	27.1	7.0	2.3	0.0	0.0
Start of Water Year (10/08/2009 map)	66.1	33.9	22.4	14.5	6.8	1.5
One Year Ago (08/25/2009 map)	47.6	52.4	35.7	28.8	26.5	18.8

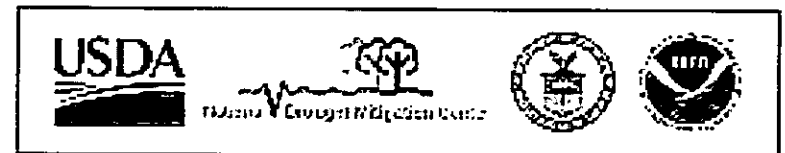


Intensity:

- D0 Abnormally Dry
- D1 Drought - Moderate
- D2 Drought - Severe
- D3 Drought - Extreme
- D4 Drought - Exceptional

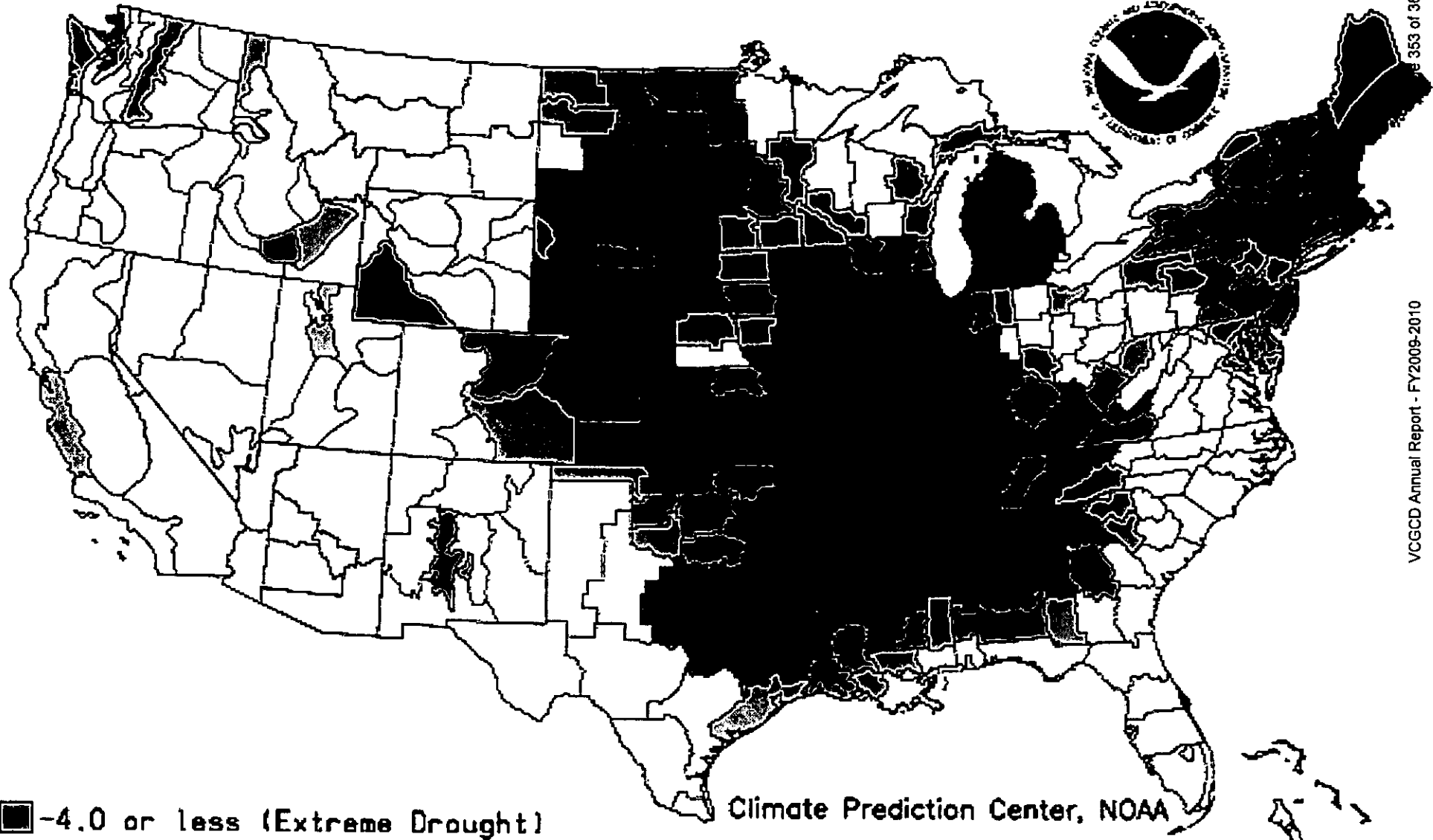
The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements

<http://drought.unl.edu/dm>



Released Thursday, August 26, 2010  
Author: Brad Rippey, U.S. Department of Agriculture

Drought Severity Index by Division  
Weekly Value for Period Ending NOV 7, 2009  
Long Term Palmer

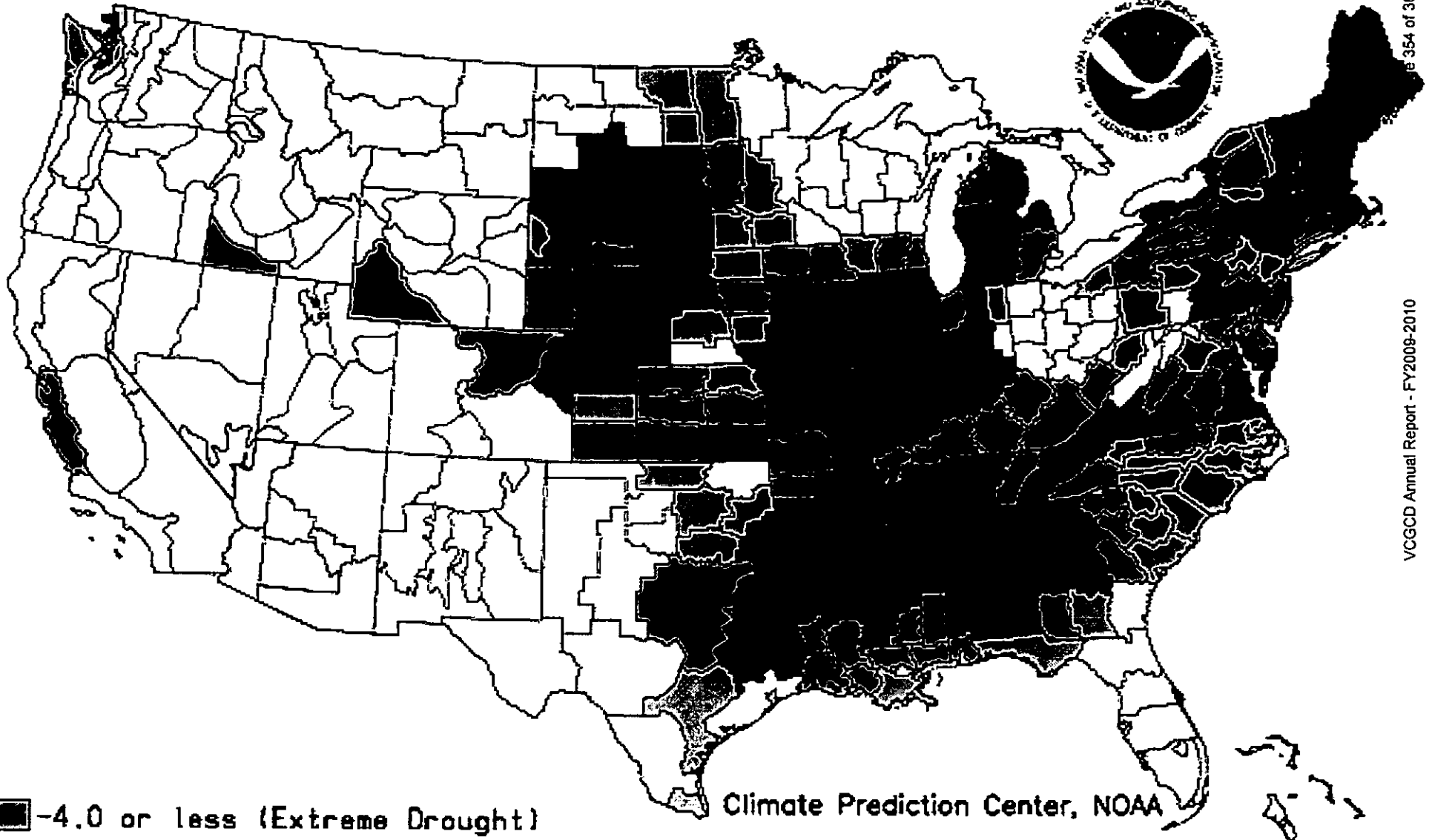


- -4.0 or less (Extreme Drought)
- -3.0 to -3.9 (Severe Drought)
- -2.0 to -2.9 (Moderate Drought)
- -1.9 to +1.9 (Near Normal)

Climate Prediction Center, NOAA

- +2.0 to +2.9 (Unusual Moist Spell)
- +3.0 to +3.9 (Very Moist Spell)
- +4.0 and above (Extremely Moist)

Drought Severity Index by Division  
 Weekly Value for Period Ending DEC 12, 2009  
 Long Term Palmer

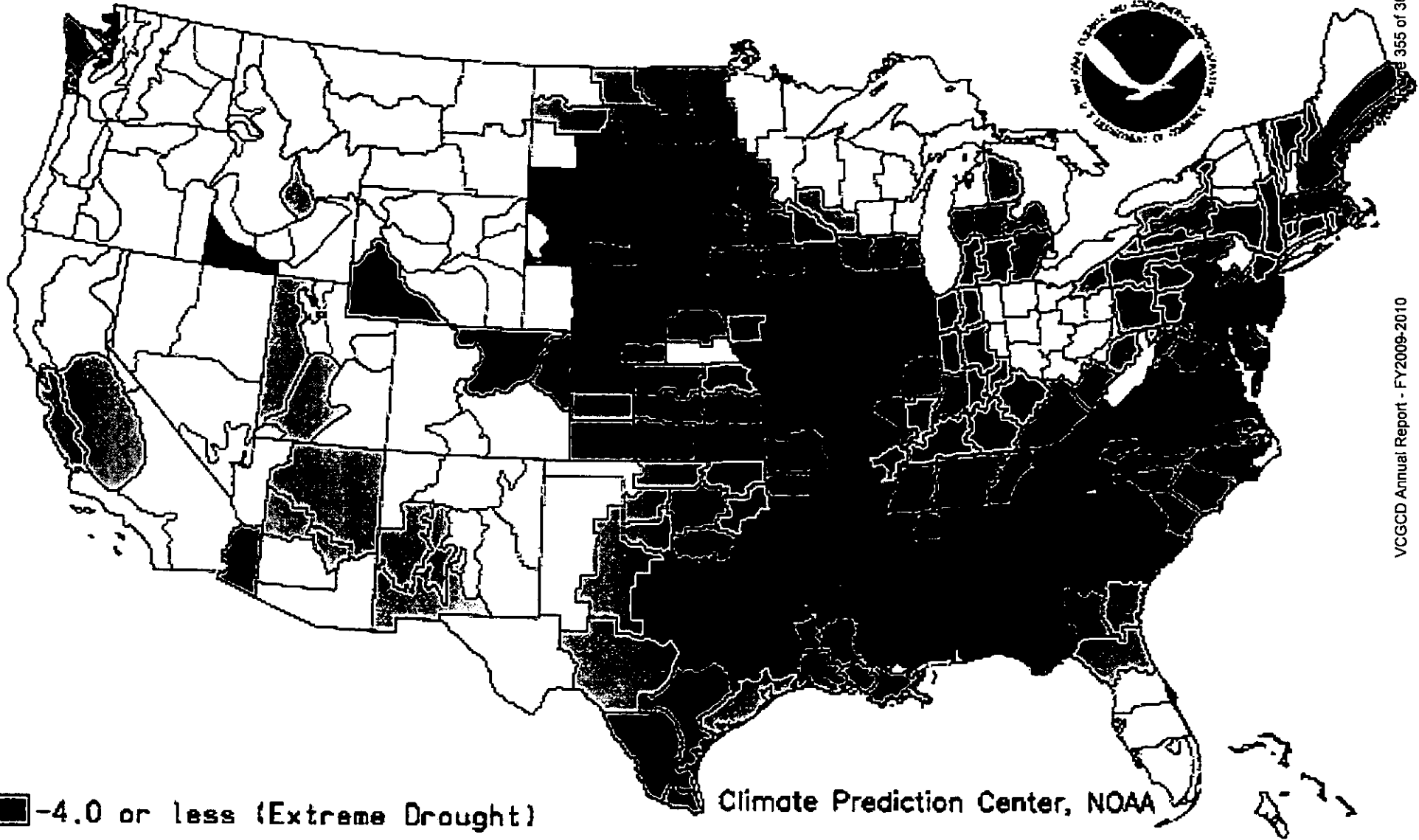


- -4.0 or less (Extreme Drought)
- -3.0 to -3.9 (Severe Drought)
- -2.0 to -2.9 (Moderate Drought)
- -1.9 to +1.9 (Near Normal)

Climate Prediction Center, NOAA

- +2.0 to +2.9 (Unusual Moist Spell)
- +3.0 to +3.9 (Very Moist Spell)
- +4.0 and above (Extremely Moist)

Drought Severity Index by Division  
Weekly Value for Period Ending FEB 13, 2010  
Long Term Palmer

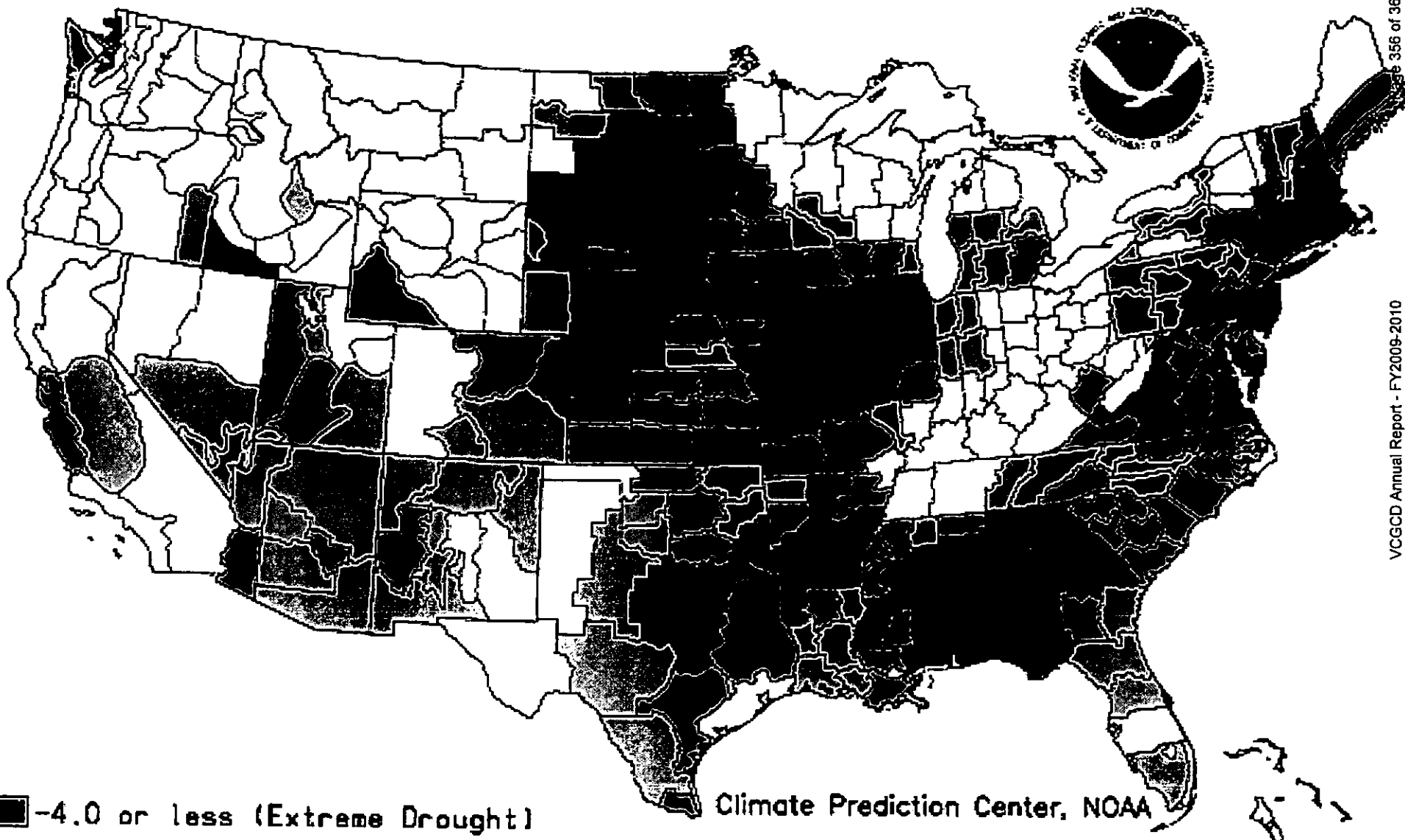


- -4.0 or less (Extreme Drought)
- -3.0 to -3.9 (Severe Drought)
- -2.0 to -2.9 (Moderate Drought)
- -1.9 to +1.9 (Near Normal)

Climate Prediction Center, NOAA

- +2.0 to +2.9 (Unusual Moist Spell)
- +3.0 to +3.9 (Very Moist Spell)
- +4.0 and above (Extremely Moist)

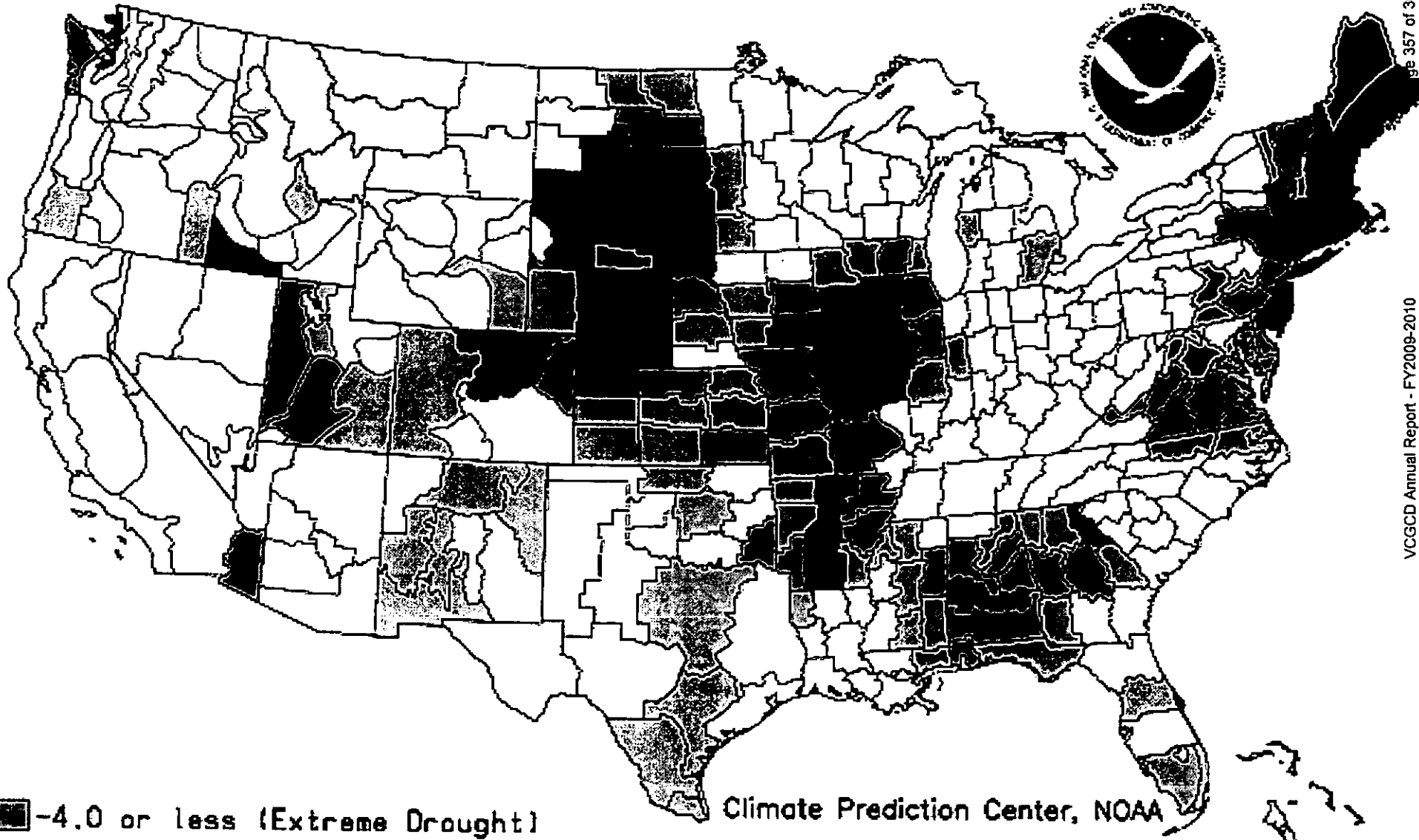
Drought Severity Index by Division  
 Weekly Value for Period Ending MAR 13, 2010  
 Long Term Palmer



- -4.0 or less (Extreme Drought)
- -3.0 to -3.9 (Severe Drought)
- -2.0 to -2.9 (Moderate Drought)
- -1.9 to +1.9 (Near Normal)

- Climate Prediction Center, NOAA
- +2.0 to +2.9 (Unusual Moist Spell)
  - +3.0 to +3.9 (Very Moist Spell)
  - +4.0 and above (Extremely Moist)

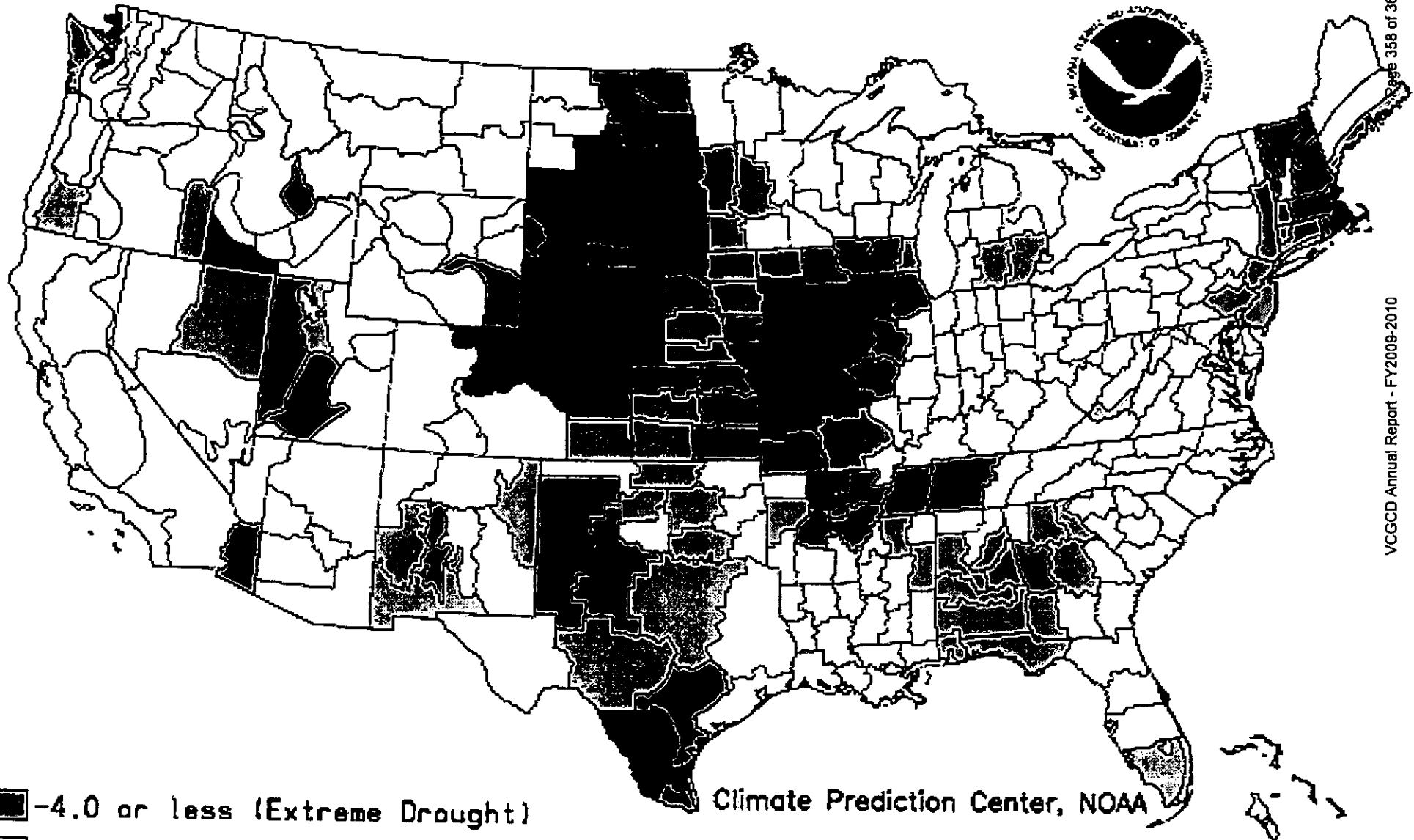
Drought Severity Index by Division  
 Weekly Value for Period Ending APR 10, 2010  
 Long Term Palmer



- |  |  |
|--|--|
| <ul style="list-style-type: none"> <li>■ -4.0 or less (Extreme Drought)</li> <li>□ -3.0 to -3.9 (Severe Drought)</li> <li>□ -2.0 to -2.9 (Moderate Drought)</li> <li>□ -1.9 to +1.9 (Near Normal)</li> </ul> | <p>Climate Prediction Center, NOAA</p> <ul style="list-style-type: none"> <li>■ +2.0 to +2.9 (Unusual Moist Spell)</li> <li>■ +3.0 to +3.9 (Very Moist Spell)</li> <li>■ +4.0 and above (Extremely Moist)</li> </ul> |
|--|--|



Drought Severity Index by Division  
 Weekly Value for Period Ending MAY 15, 2010  
 Long Term Palmer

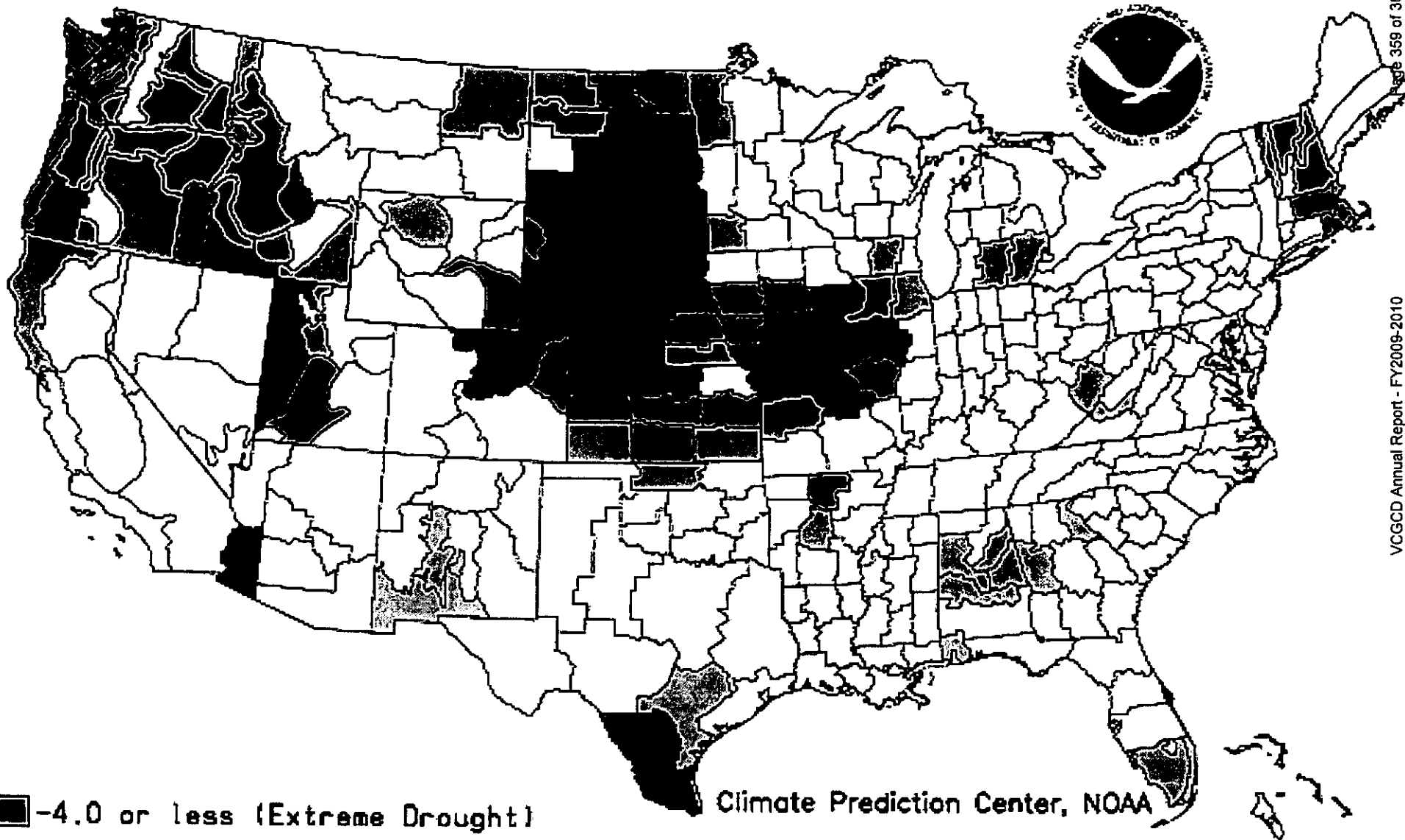


- -4.0 or less (Extreme Drought)
- -3.0 to -3.9 (Severe Drought)
- -2.0 to -2.9 (Moderate Drought)
- -1.9 to +1.9 (Near Normal)

Climate Prediction Center, NOAA

- +2.0 to +2.9 (Unusual Moist Spell)
- +3.0 to +3.9 (Very Moist Spell)
- +4.0 and above (Extremely Moist)

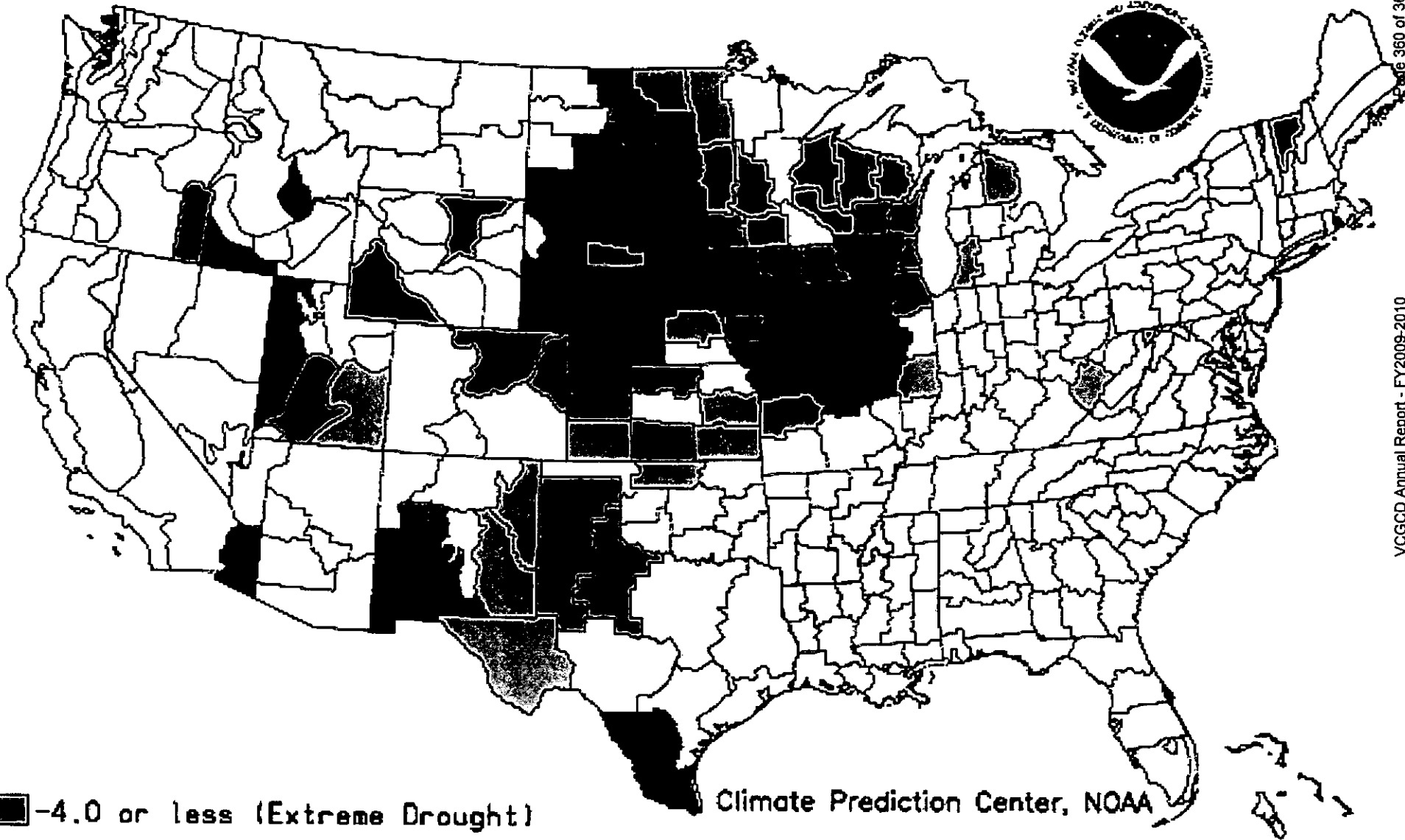
Drought Severity Index by Division  
 Weekly Value for Period Ending JUN 12, 2010  
 Long Term Palmer



- |                                   |                                      |
|-----------------------------------|--------------------------------------|
| ■ -4.0 or less (Extreme Drought)  | ■ +2.0 to +2.9 (Unusual Moist Spell) |
| ■ -3.0 to -3.9 (Severe Drought)   | ■ +3.0 to +3.9 (Very Moist Spell)    |
| ■ -2.0 to -2.9 (Moderate Drought) | ■ +4.0 and above (Extremely Moist)   |
| ■ -1.9 to +1.9 (Near Normal)      |                                      |

Climate Prediction Center, NOAA

Drought Severity Index by Division  
Weekly Value for Period Ending AUG 21, 2010  
Long Term Palmer



- -4.0 or less (Extreme Drought)
- -3.0 to -3.9 (Severe Drought)
- -2.0 to -2.9 (Moderate Drought)
- -1.9 to +1.9 (Near Normal)

Climate Prediction Center, NOAA

- +2.0 to +2.9 (Unusual Moist Spell)
- +3.0 to +3.9 (Very Moist Spell)
- +4.0 and above (Extremely Moist)

# Victoria County Groundwater Conservation District



## Directors:

Mark Meek  
*President*

Jerry Hroch  
*Vice-President*

Barbara Dietzel  
*Secretary*

Thurman Clements  
Kenneth Eller

## THE STATE OF TEXAS VICTORIA COUNTY

The Victoria County Groundwater Conservation District Board of Directors' REGULAR MEETING convened at Dr. Pattle Dodson Health Center, 2805 N. Navarro St. Room 108, Victoria, Texas 77901 on April 15, 2011 at 9:00 AM.

### Meeting Attendance:

Precinct 1:	Mr. Jerry Hroch, Vice President	Absent
Precinct 2:	Mr. Thurman Clements, Jr., Director	Present
Precinct 3:	Mrs. Barbara Dietzel, Secretary	Present
Precinct 4:	Mr. Mark Meek, President	Present
At-Large:	Mr. Kenneth Eller, Director	Present
General Manager:	Mr. Timothy Andruss	Present
Attorney:	Mr. James Allison	Present

### Agenda Items

#### 1) Call to Order and Pledge of Allegiance.

Discussion Details: Mr. Meek called the meeting to order and let the Pledge of Allegiance at 9:00 AM on April 15, 2011.

#### 2) Welcome Guests.

Discussion Details: Mr. Meek welcomed the guests. See the attached sign-in sheet for a list of attendees.

#### 3) Public Comment.

Discussion Details: No public comment was offered.

#### 4) Approval of Minutes of Previous Meetings. (Copies of documents delivered to the board prior to the meeting.)

Discussion Details:

Mr. Eller, Director moved to accept and approve the meeting minutes for the meeting held on February 18, 2011 and February 28, 2011. Mr. Clements, Director seconded the motion.

### Vote Record

Precinct 1:	Mr. Jerry Hroch, Vice President	<u>Absent</u>
Precinct 2:	Mr. Thurman Clements, Jr., Director	<u>Aye</u>
Precinct 3:	Mrs. Barbara Dietzel, Secretary	<u>Aye</u>
Precinct 4:	Mr. Mark Meek, President	<u>Aye</u>

At-Large: Mr. Kenneth Eller, Director Aye

With four (4) ayes and zero (0) nays, the motion passed.

- 5) **Approval of Financial Reports of Previous Months.** (Copies of documents delivered to the board prior to the meeting.)

Discussion Details:

Mr. Eller, Director moved to accept and approve the financial reports for February 2011 and March 2011. Mrs. Dietzel, Secretary seconded the motion.

**Vote Record**

Precinct 1: Mr. Jerry Hroch, Vice President Absent  
Precinct 2: Mr. Thurman Clements, Jr., Director Aye  
Precinct 3: Mrs. Barbara Dietzel, Secretary Aye  
Precinct 4: Mr. Mark Meek, President Aye  
At-Large: Mr. Kenneth Eller, Director Aye

With four (4) ayes and zero (0) nays, the motion passed.

- 6) **Permit Hearing on Permit Application - Mr. David R. Meek (agent) for Meek Brothers (landowner) seeks approval of an aggregate validation permit requested under registration application ARGNW-20110315-02 for grandfathered wells GW-000364, GW-000365, GW-000366, GW-000367, and GW-000368 for non-exempt uses (Irrigation, agricultural, livestock and wildlife uses) located on 2 tracts of land (1,656 acres in total) near the intersections of J-2 Ranch Rd. and Nickel Rd. and the intersection of Young Rd. and Burroughs Rd., Victoria County, Texas. The requested validation amount is 1,947.0 acre feet per year.**

Discussion Details: Mr. Mark Meek requested that Mrs. Dietzel preside over the public hearing and excused himself from the head table. Mrs. Dietzel recessed the open meeting and opened the public hearing for application ARGNW-20110315-02. Mr. Andruss provided a summary of the permit request. Mr. Allison asked the applicant to clarify which types of crops were irrigated during the historic period. Mr. David Meek explained that past irrigation was used for rice and hay production.

Mr. Eller, Director moved to close the public hearing for application ARGNW-20110315-02. Mr. Clements, Director seconded the motion.

**Vote Record**

Precinct 1: Mr. Jerry Hroch, Vice President Absent  
Precinct 2: Mr. Thurman Clements, Jr., Director Aye  
Precinct 3: Mrs. Barbara Dietzel, Secretary Aye  
Precinct 4: Mr. Mark Meek, President Abstain  
At-Large: Mr. Kenneth Eller, Director Aye

With three (3) ayes and zero (0) nays, the motion passed.

- 7) **Consideration of Permit Application - Mr. David R. Meek (agent) for Meek Brothers (landowner) seeks approval of an aggregate validation permit requested under registration application ARGNW-20110315-02 for grandfathered wells GW-000364, GW-000365, GW-000366, GW-000367, and GW-000368 for non-exempt uses (Irrigation, agricultural, livestock and wildlife uses) located on 2 tracts of land (1,656 acres in total) near the intersections of J-2 Ranch Rd. and Nickel Rd. and the intersection of Young Rd. and Burroughs Rd., Victoria County, Texas. The requested validation amount is 1,947.0 acre feet per year.**

Discussion Details: Mr. Clements requested that Mr. David Meek provide a copy of the document establishing the Meek Brothers partnership agreement to the District and title to the subject properties. Mr. Meek agreed to submit the documentation.

Mr. Eller, Director moved to approve the validation request of Mr. Meek for wells GW-000364, GW-000365, GW-000366, GW-000367, and GW-000368 and authorize the General Manager to issue an aggregate validation permit to Meek Brothers partnership for 1,947.0 acre-feet per year for irrigation, agricultural, livestock and wildlife uses contingent on the submittal of documentation of the Meek Brothers Partnership and title of the subject properties. Mr. Clements, Director seconded the motion.

#### Vote Record

Precinct 1:	Mr. Jerry Hroch, Vice President	<u>Absent</u>
Precinct 2:	Mr. Thurman Clements, Jr., Director	<u>Aye</u>
Precinct 3:	Mrs. Barbara Dietzel, Secretary	<u>Aye</u>
Precinct 4:	Mr. Mark Meek, President	<u>Abstain</u>
At-Large:	Mr. Kenneth Eller, Director	<u>Aye</u>

With three (3) ayes and zero (0) nays, the motion passed.

- 8) Permit Hearing on Permit Application - Mr. James Dodson (agent) for Mr. Matt Champion of Fordyce Holdings (landowner and operator) seeks approval of a validation permit requested under registration application ARGNW-20110224-01 for grandfathered well GW-000369 for non-exempt uses (commercial and wildlife uses) located on a 6,729.03 acre tract of land located near the intersection of State Highway 185 and Bois D Arc Rd., Victoria County, Texas. The requested validation amount is 4.78 acre feet per year.

Discussion Details: Due to the discovery of potential issues associated with the ownership of the subject properties, Mr. Andruss requested that the board postpone any action on this agenda item.

- 9) Consideration of Permit Application - Mr. James Dodson (agent) for Mr. Matt Champion of Fordyce Holdings (landowner and operator) seeks approval of a validation permit requested under registration application ARGNW-20110224-01 for grandfathered well GW-000369 for non-exempt uses (commercial and wildlife uses) located on a 6,729.03 acre tract of land located near the intersection of State Highway 185 and Bois D Arc Rd., Victoria County, Texas. The requested validation amount is 4.78 acre feet per year.

Discussion Details: Due to the discovery of potential issues associated with the ownership of the subject properties, Mr. Andruss requested that the board postpone any action on this agenda item.

- 10) Permit Hearing on Permit Application - Mr. James Dodson (agent) for Mr. Matt Champion of Fordyce Holdings (landowner and operator) seeks approval of a validation permit requested under registration application ARGNW-20110224-02 for grandfathered well GW-000370 for non-exempt uses (commercial and wildlife uses) located on a 6,729.03 acre tract of land located near the intersection of State Highway 185 and Bois D Arc Rd., Victoria County, Texas. The requested validation amount is 4.78 acre feet per year.

Discussion Details: Due to the discovery of potential issues associated with the ownership of the subject properties, Mr. Andruss requested that the board postpone any action on this agenda item.

- 11) Consideration of Permit Application - Mr. James Dodson (agent) for Mr. Matt Champion of Fordyce Holdings (landowner and operator) seeks approval of a validation permit requested under registration application ARGNW-20110224-02 for grandfathered well GW-000370 for non-exempt uses (commercial and wildlife uses) located on a 6,729.03 acre tract of land located near the intersection of State Highway 185 and Bois D Arc Rd., Victoria County, Texas. The requested validation amount is 4.78 acre feet per year.

Discussion Details: Due to the discovery of potential issues associated with the ownership of the subject properties, Mr. Andruss requested that the board postpone any action on this agenda item.

- 12) **Permit Hearing on Permit Application - Mr. James Dodson (agent) for Mr. Matt Champion of Fordyce Holdings (landowner and operator) seeks approval of a validation permit requested under registration application ARGNW-20110224-04 for grandfathered well GW-000371 for non-exempt uses (Industrial uses) located on a 6,729.03 acre tract of land located near the Intersection of State Highway 185 and Bois D Arc Rd., Victoria County, Texas. The requested validation amount is 4.78 acre feet per year.**

Discussion Details: Due to the discovery of potential issues associated with the ownership of the subject properties, Mr. Andruss requested that the board postpone any action on this agenda item.

- 13) **Consideration of Permit Application - Mr. James Dodson (agent) for Mr. Matt Champion of Fordyce Holdings (landowner and operator) seeks approval of a validation permit requested under registration application ARGNW-20110224-04 for grandfathered well GW-000371 for non-exempt uses (Industrial uses) located on a 6,729.03 acre tract of land located near the Intersection of State Highway 185 and Bois D Arc Rd., Victoria County, Texas. The requested validation amount is 4.78 acre feet per year.**

Discussion Details: Due to the discovery of potential issues associated with the ownership of the subject properties, Mr. Andruss requested that the board postpone any action on this agenda item.

- 14) **Permit Hearing on Permit Application - Mr. Trent Tacker (agent) for CDM Resource Management , LLC (landowner) seeks approval of drilling and operating permits requested under applications ADNW-20110308-01 and AONW-20110308-02 for a new, non-grandfathered well for non-exempt uses (commercial uses) located on a 5.0 acre tract of land located near the Intersection of Enterprise Dr. and NW Zac Lentz Pkwy, Victoria County, Texas. The requested production amount is 2.5 acre feet per year.**

Discussion Details: Mrs. Dietzel requested the Mr. Meek return to the head table and preside over the meeting. Mr. Meek recessed the open meeting and opened the public hearing on applications ADNW-20110308-01 and AONW-20110308-02. Mr. Andruss provided a summary of the application requests. Mr. Clements requested clarification regarding Mr. Trent Tacker's authorization to serve as the landowner's agent for the permit application. Mr. Andruss clarified that Mr. Tacker had submitted an application with his signature. The signature section of the application includes a statement that the person signing the application has legal authority to represent the landowner.

Mr. Eller, Director moved to close the public hearing on applications ADNW-20110308-01 and AONW-20110308-02 and return to the open meeting. Mrs. Dietzel, Secretary seconded the motion.

**Vote Record**

Precinct 1:	Mr. Jerry Hroch, Vice President	<u>Absent</u>
Precinct 2:	Mr. Thurman Clements, Jr., Director	<u>Aye</u>
Precinct 3:	Mrs. Barbara Dietzel, Secretary	<u>Aye</u>
Precinct 4:	Mr. Mark Meek, President	<u>Aye</u>
At-Large:	Mr. Kenneth Eller, Director	<u>Aye</u>

With four (4) ayes and zero (0) nays, the motion passed.

- 15) **Consideration of Permit Application - Mr. Trent Tacker (agent) for CDM Resource Management , LLC (landowner) seeks approval of drilling and operating permits requested under applications ADNW-20110308-01 and AONW-20110308-02 for a new, non-grandfathered well for non-exempt uses (commercial uses) located on a 5.0 acre tract of**

land located near the intersection of Enterprise Dr. and NW Zac Lentz Pkwy, Victoria County, Texas. The requested production amount is 2.5 acre feet per year.

Discussion Details: None.

Mr. Eller, Director moved to approve the drilling permit application with a requirement that the well be drilled no closer than 50 feet to any property line; and

Move to approve the operating application with the following conditions:

1. Maximum Rate of Production per Minute: 50 gpm;
2. Maximum Rate of Production per Day: 28,800 gpd;
3. Maximum Rate of Production per Year: 2.5 ac-ft/yr;
4. All existing and future wells will be permitted such that the total annual groundwater production rate will not exceed the 1/2 acre-foot per acre owned or controlled limitation; and
5. The well site shall be accessible to District representatives for the purposes of collecting groundwater samples from the permitted well and the permittee agrees to cooperate fully in any reasonable efforts to collect groundwater samples from the well by the District representatives. Mr. Clements, Director seconded the motion.

#### Vote Record

Precinct 1:	Mr. Jerry Hroch, Vice President	<u>Absent</u>
Precinct 2:	Mr. Thurman Clements, Jr., Director	<u>Aye</u>
Precinct 3:	Mrs. Barbara Dietzel, Secretary	<u>Aye</u>
Precinct 4:	Mr. Mark Meek, President	<u>Aye</u>
At-Large:	Mr. Kenneth Eller, Director	<u>Aye</u>

With four (4) ayes and zero (0) nays, the motion passed.

- 16) Permit Hearing on Permit Application - Mr. Billy Webb (agent) for Inergy Propane, LLC (landowner) seeks approval of drilling and operating permits requested under applications ADNW-20110329-01 and AONW-20110329-02 for a new, non-grandfathered well for non-exempt uses (commercial uses) located on a 2.0 acre tract of land located near the intersection of NW Zac Lentz Pkwy. and FM 236, Victoria County, Texas. The requested production amount is 1.0 acre feet per year.

Discussion Details: Mr. Meek recessed the open meeting and opened the public hearing on applications ADNW-20110329-01 and AONW-20110329-02. Mr. Andrus provided a summary of the application requests.

Mr. Eller, Director moved to close the public hearing on applications ADNW-20110329-01 and AONW-20110329-02 and return to the open meeting. Mrs. Dietzel, Secretary seconded the motion.

#### Vote Record

Precinct 1:	Mr. Jerry Hroch, Vice President	<u>Absent</u>
Precinct 2:	Mr. Thurman Clements, Jr., Director	<u>Aye</u>
Precinct 3:	Mrs. Barbara Dietzel, Secretary	<u>Aye</u>
Precinct 4:	Mr. Mark Meek, President	<u>Aye</u>
At-Large:	Mr. Kenneth Eller, Director	<u>Aye</u>

With four (4) ayes and zero (0) nays, the motion passed.

- 17) Consideration of Permit Application - Mr. Billy Webb (agent) for Inergy Propane, LLC (landowner) seeks approval of drilling and operating permits requested under applications ADNW-20110329-01 and AONW-20110329-02 for a new, non-grandfathered well for non-exempt uses (commercial uses) located on a 2.0 acre tract of land located near the intersection of NW Zac Lentz Pkwy. and FM 236, Victoria County, Texas. The



requested production amount is 1.0 acre feet per year.

Discussion Details: None.

Mr. Clements, Director moved to approve the drilling permit application with a requirement that the well be drilled no closer than 100 feet to any property line; and

Move to approve the operating application with the following conditions:

1. Maximum Rate of Production per Minute: 100 gpm;
2. Maximum Rate of Production per Day: 28,800 gpd;
3. Maximum Rate of Production per Year: 1.0 ac-ft/yr;
4. All existing and future wells will be permitted such that the total annual groundwater production rate will not exceed the 1/2 acre-foot per acre owned or controlled limitation; and
5. The well site shall be accessible to District representatives for the purposes of collecting groundwater samples from the permitted well and the permittee agrees to cooperate fully in any reasonable efforts to collect groundwater samples from the well by the District representatives. Mr. Eller, Director seconded the motion.

**Vote Record**

Precinct 1:	Mr. Jerry Hroch, Vice President	<u>Absent</u>
Precinct 2:	Mr. Thurman Clements, Jr., Director	<u>Aye</u>
Precinct 3:	Mrs. Barbara Dietzel, Secretary	<u>Aye</u>
Precinct 4:	Mr. Mark Meek, President	<u>Aye</u>
At-Large:	Mr. Kenneth Eller, Director	<u>Aye</u>

With four (4) ayes and zero (0) nays, the motion passed.

- 18) Permit Hearing on Permit Application - Mr. Peter Plank of Pinion Construction, Inc. (agent) for Great White Pressure Control, LLC (landowner) seeks approval of drilling and operating permits requested under applications ADNW-20110330-02 and AONW-20110330-03 for a new, non-grandfathered well for non-exempt uses (Industrial uses) located on a 10.14 acre tract of land located near the intersection of Enterprise Dr. and NW Zac Lentz Pkwy, Victoria County, Texas. The requested production amount is 5.0 acre feet per year.

Discussion Details: Mr. Meek recessed the open meeting and opened the public hearing on applications ADNW-20110330-02 and AONW-20110330-03. Mr. Andruss provided a summary of the application requests.

Mr. Eller, Director moved to close the public hearing on applications ADNW-20110330-02 and AONW-20110330-03 and return to the open meeting. Mr. Clements, Director seconded the motion.

**Vote Record**

Precinct 1:	Mr. Jerry Hroch, Vice President	<u>Absent</u>
Precinct 2:	Mr. Thurman Clements, Jr., Director	<u>Aye</u>
Precinct 3:	Mrs. Barbara Dietzel, Secretary	<u>Aye</u>
Precinct 4:	Mr. Mark Meek, President	<u>Aye</u>
At-Large:	Mr. Kenneth Eller, Director	<u>Aye</u>

With four (4) ayes and zero (0) nays, the motion passed.

- 19) Consideration of Permit Application - Mr. Peter Plank of Pinion Construction, Inc. (agent) for Great White Pressure Control, LLC (landowner) seeks approval of drilling and operating permits requested under applications ADNW-20110330-02 and AONW-20110330-03 for a new, non-grandfathered well for non-exempt uses (Industrial uses) located on a 10.14 acre tract of land located near the intersection of Enterprise Dr. and

NW Zac Lentz Pkwy, Victoria County, Texas. The requested production amount is 5.0 acre feet per year.

Discussion Details: Mr. Allison clarified for the board that the subject tract of land was comprised of two adjacent but separately surveyed lots. As such, if the landowner sells any portion of the tract or water rights of the tract, then modifications to the existing operating permit would be required. In addition, if any portion of the tract were to be sold and the water rights retained by the original owner, the sold property would not be eligible for non-exempt use groundwater production.

Mr. Clements, Director moved to approve the drilling permit application with a requirement that the well be drilled no closer than 100 feet to any property line; and

Move to approve the operating application with the following conditions:

1. Maximum Rate of Production per Minute: 100 gpm;
2. Maximum Rate of Production per Day: 28,800 gpd;
3. Maximum Rate of Production per Year: 5.0 ac-ft/yr;
4. All existing and future wells will be permitted such that the total annual groundwater production rate will not exceed the 1/2 acre-foot per acre owned or controlled limitation; and
5. The well site shall be accessible to District representatives for the purposes of collecting groundwater samples from the permitted well and the permittee agrees to cooperate fully in any reasonable efforts to collect groundwater samples from the well by the District representatives. Mr. Eller, Director seconded the motion.

#### Vote Record

Precinct 1:	Mr. Jerry Hroch, Vice President	<u>Absent</u>
Precinct 2:	Mr. Thurman Clements, Jr., Director	<u>Aye</u>
Precinct 3:	Mrs. Barbara Dietzel, Secretary	<u>Aye</u>
Precinct 4:	Mr. Mark Meek, President	<u>Aye</u>
At-Large:	Mr. Kenneth Eller, Director	<u>Aye</u>

With four (4) ayes and zero (0) nays, the motion passed.

- 20) Permit Hearing on Permit Application - Mr. Alfred Thomas (agent) for Crest Holdings, LLC (landowner) seeks approval of drilling and operating permits requested under applications ADNW-20110330-04 and AONW-20110330-05 for a new, non-grandfathered well for non-exempt uses (commercial uses) located on a 5.398 acre tract of land located near the intersection of US Highway 59 South and Raisin Rd., Victoria County, Texas. The requested production amount is 2.698 acre feet per year.

Discussion Details: Mr. Meek recessed the open meeting and opened the public hearing on applications ADNW-20110330-04 and AONW-20110330-05. Mr. Andrus provided a summary of the application requests.

Mr. Eller, Director moved to close the public hearing on applications ADNW-20110330-04 and AONW-20110330-05 and return to the open meeting. Mrs. Dietzel, Secretary seconded the motion.

#### Vote Record

Precinct 1:	Mr. Jerry Hroch, Vice President	<u>Absent</u>
Precinct 2:	Mr. Thurman Clements, Jr., Director	<u>Aye</u>
Precinct 3:	Mrs. Barbara Dietzel, Secretary	<u>Aye</u>
Precinct 4:	Mr. Mark Meek, President	<u>Aye</u>
At-Large:	Mr. Kenneth Eller, Director	<u>Aye</u>

With four (4) ayes and zero (0) nays, the motion passed.

- 21) Consideration of Permit Application - Mr. Alfred Thomas (agent) for Crest Holdings, LLC (landowner) seeks approval of drilling and operating permits requested under applications ADNW-20110330-04 and AONW-20110330-05 for a new, non-grandfathered well for non-exempt uses (commercial uses) located on a 5.396 acre tract of land located near the intersection of US Highway 59 South and Raisin Rd., Victoria County, Texas. The requested production amount is 2.698 acre feet per year.

Discussion Details: None.

Mr. Eller, Director moved Move to approve the drilling permit application with a requirement that the well be drilled no closer than 75 feet to any property line; and

Move to approve the operating application with the following conditions:

1. Maximum Rate of Production per Minute: 75 gpm;
2. Maximum Rate of Production per Day: 28,800 gpd;
3. Maximum Rate of Production per Year: 2.698 ac-ft/yr;
4. All existing and future wells will be permitted such that the total annual groundwater production rate will not exceed the 1/2 acre-foot per acre owned or controlled limitation; and
5. The well site shall be accessible to District representatives for the purposes of collecting groundwater samples from the permitted well and the permittee agrees to cooperate fully in any reasonable efforts to collect groundwater samples from the well by the District representatives. Mr. Clements, Director seconded the motion.

**Vote Record**

Precinct 1:	Mr. Jerry Hroch, Vice President	<u>Absent</u>
Precinct 2:	Mr. Thurman Clements, Jr., Director	<u>Aye</u>
Precinct 3:	Mrs. Barbara Dietzel, Secretary	<u>Aye</u>
Precinct 4:	Mr. Mark Meek, President	<u>Aye</u>
At-Large:	Mr. Kenneth Eller, Director	<u>Aye</u>

With four (4) ayes and zero (0) nays, the motion passed.

- 22) Discussion and Consideration of Presentation related to Identifying Spatial Locations and Establishing Temporal Sampling Frequencies for Ambient Groundwater Level Monitoring.

Discussion Details: Dr. Uddameri presented the findings of his research related to the VCGCD's groundwater monitoring network design. His work indicated that the network would need to be comprised of approximately 70 to 80 wells strategically located within Victoria County (see final report for preferred locations) in order to reliably evaluate the achievement of the current GMA 15 DFC.

- 23) Consideration of the FY09-10 Annual Report.

Discussion Details: Mr. Andruss explained that the VCGCD FY09-10 Annual Report documents the District's effort and activities related to the management of groundwater resources within Victoria Texas. The report includes sections related to the District's financial activities, management plan goals and objectives, and activities not specifically and directly to management plan and goals.

Mrs. Dietzel, Secretary moved to accept and approve the FY09-10 Annual Report. Mr. Clements, Director seconded the motion.

**Vote Record**

Precinct 1: Mr. Jerry Hroch, Vice President Absent  
 Precinct 2: Mr. Thurman Clements, Jr., Director Aye  
 Precinct 3: Mrs. Barbara Dietzel, Secretary Aye  
 Precinct 4: Mr. Mark Meek, President Aye  
 At-Large: Mr. Kenneth Eller, Director Aye

With four (4) ayes and zero (0) nays, the motion passed.

**24) Consideration of PBW Task Order 12 - Drawdown Calculation Tool.**

Discussion Details: Mr. Andruss explained that this tool would improve VCGCD's ability to evaluate permit requests and their potential impact on the groundwater resources within Victoria County.

Mr. Eller, Director moved to authorize the general manager to accept and pay for PBW Task Order 12 - Drawdown Calculation Tool in an amount not to exceed \$1,600.00 from account 5405 -Research and Consultation. Mr. Clements, Director seconded the motion.

**Vote Record**

Precinct 1: Mr. Jerry Hroch, Vice President Absent  
 Precinct 2: Mr. Thurman Clements, Jr., Director Aye  
 Precinct 3: Mrs. Barbara Dietzel, Secretary Aye  
 Precinct 4: Mr. Mark Meek, President Aye  
 At-Large: Mr. Kenneth Eller, Director Aye

With four (4) ayes and zero (0) nays, the motion passed.

**25) Consideration of Goldman, Hunt, & Notz LLC - Audit Services Invoice.**

Discussion Details: None.

Mr. Eller, Director moved to authorize the general manager to pay the GHN Invoice #31108-1 in the amount of \$6,200.00 from account 5401-Legal and Professional Services. Mr. Clements, Director seconded the motion.

**Vote Record**

Precinct 1: Mr. Jerry Hroch, Vice President Absent  
 Precinct 2: Mr. Thurman Clements, Jr., Director Aye  
 Precinct 3: Mrs. Barbara Dietzel, Secretary Aye  
 Precinct 4: Mr. Mark Meek, President Aye  
 At-Large: Mr. Kenneth Eller, Director Aye

With four (4) ayes and zero (0) nays, the motion passed.

**26) Consideration of Interlocal Agreement between Victoria County Groundwater Conservation District and County of Victoria - Office Lease.**

Discussion Details: None.

Mr. Eller, Director moved to accept and approve the interlocal agreement between the County of Victoria and the District and authorize the Board President to execute the agreement. Mr. Clements, Director seconded the motion.

**Vote Record**

Precinct 1: Mr. Jerry Hroch, Vice President Absent

Precinct 2: Mr. Thurman Clements, Jr., Director **Aye**  
 Precinct 3: Mrs. Barbara Dietzel, Secretary **Aye**  
 Precinct 4: Mr. Mark Meek, President **Aye**  
 At-Large: Mr. Kenneth Eller, Director **Aye**

With four (4) ayes and zero (0) nays, the motion passed.

**27) General Manager Report - Legislative Session Update; Region L Update; GMA 15 Update; Registration and Permitting Update; Aquifer Monitoring; Calendar of Events.**

Discussion Details:

**Legislative Session Update:** Numerous bills are currently being monitored.

**Region L Update:** The next meeting is scheduled for May 5, 2011.

**GMA 15 Update:** The next GMA 15 meeting is tentatively scheduled for May 4, 2011. The meeting may be rescheduled to May 11, 2011 to accommodate GMA 15 member schedules. The purpose of the meeting is to consider the GAM Run 10-028 MAG (draft MAG run) and take action on approving the run for the purposes of establishing the MAG.

**Registration and Permitting Update:**

	Previous Report	Current Report
Drilling Permit Applications	272	300
Operating Permit Applications	22	26
Registration Applications	241	249
Registered Wells	559	567

Mr. Jerry James of the City of Victoria provided an update to the board regarding conjunctive water use issues in particular the City's efforts to amend surface water rights held by the City. He indicated that the City was working with Dr. Hardy regarding associated environmental impacts and Dr. Brandus regarding evaporation issues associated with the its proposed conjunctive use activities.

**Aquifer Monitoring:**

Investigation of Potential Artesian Well: As of April 12, 2011, the well that was flowing due to artesian pressure has been plugged and is no longer flowing. The investigation is closed.

Drought Monitoring: see attached document

**Calendar of Events:** see attached document.

**28) Closed Meeting (If Necessary) - Close the meeting to conduct private consultation with VCGCD attorney regarding matters protected by the attorney-client privilege pursuant to V.T.C.A. Government Code 551.071 or to discuss matters regarding personnel pursuant to V.T.C.A. Government Code 551.074.**

Discussion Details: The Board did not go into closed meeting.

**29) Return to Open Meeting (If Necessary) - Return to open meeting and take any action deemed necessary based upon discussions in closed meeting pursuant to V.T.C.A. Government Code 551.102.**

Discussion Details: The Board did not go into closed meeting.

30) Discussion and Action Related to Closed Meeting (If Necessary).

Discussion Details: None.

31) Adjourn.

Discussion Details: None.

Mr. Eller, Director moved , at 12:05 PM, to adjourn the board meeting. Mr. Clements, Director seconded the motion.

**Vote Record**

Precinct 1:	Mr. Jerry Hroch, Vice President	<u>Absent</u>
Precinct 2:	Mr. Thurman Clements, Jr., Director	<u>Aye</u>
Precinct 3:	Mrs. Barbara Dietzel, Secretary	<u>Aye</u>
Precinct 4:	Mr. Mark Meek, President	<u>Aye</u>
At-Large:	Mr. Kenneth Eller, Director	<u>Aye</u>

With four (4) ayes and zero (0) nays, the motion passed.

Prepared by:



Victoria County Groundwater Conservation District Official

THE ABOVE AND FOREGOING MINUTES WERE READ AND APPROVED ON

THIS THE 10th DAY OF June A.D. 2011.

ATTEST:



Director of the Victoria County Groundwater Conservation District



Director of the Victoria County Groundwater Conservation District

2805 N. Navarro St. Suite 210, Victoria, TX 77901, Phone (361) 579-6863, Fax (361) 579-0041



VICTORIA COUNTY GROUNDWATER CONSERVATION DISTRICT

DATE: April 15, 2011

NAME	COMPANY OR ORGANIZATION	AGENDA ITEM # (If you wish to speak)
Bill Webb	Energy / IPC	16
Chuck Dault	IPC	16
David Meek	Meek Bros.	6
Chris Alenau	Foroyce Holdings, Inc.	
Ray <del>Green</del> GUDORZ	Quest LLC	8
Matt Wickham	PPW	-
Steve Almer		
SERP, JAMES	COV	
David Oertjen	keeper w.w.	
PETER PANK	PINION CONST	
mar (Lansant)	PINION CONST	