

# LONE STAR GROUNDWATER CONSERVATION DISTRICT

OCTOBER 13, 2015

## MINUTES OF SPECIAL MEETING

The Board of Directors of the Lone Star Groundwater Conservation District (“District”) held a “Special Meeting,” open to the public, in the Lone Star GCD – James B. “Jim” Wesley Board Room located at 655 Conroe Park North Drive, Conroe, Texas, within the boundaries of the District on October 13, 2015.

President Tramm called the meeting to order at 9:05 a.m., announcing that it was now open to the public.

The roll was called of the members of the Board of Directors, to wit:

Sam Baker  
John D. Bleyl, PE  
Jace Houston  
Roy McCoy, Jr.  
Rick J. Moffatt  
Jim Stinson, PE  
Richard J. Tramm  
M. Scott Weisinger, PG  
W. B. Wood

All members of the Board were present, with the exception of Director Baker, thus constituting a quorum of the Board of Directors. Also, in attendance at said meeting were Kathy Turner Jones, District General Manager; Paul R. Nelson, Assistant General Manager, Brian L. Sledge, General Counsel; District staff; and members of the public. *Copies of the public sign-in sheets are attached hereto as Exhibit “A”.*

After a proper and legally sufficient announcement to the public by Director Tramm, the Board of Directors went into a Closed Executive Session at 9:06 a.m. pursuant to Texas Government Code, Sections 551.071, to consult with the District's attorney regarding pending or contemplated litigation, settlement offers, or on matters in which the duty of the attorney to the governmental body under the Texas Disciplinary Rules of Professional Conduct of the State Bar of Texas clearly conflicts with the Texas Open Meetings Act, Chapter 551, Government Code.

Following Executive Session, the Board reconvened in Open Session and President Tramm declared it open to the public at 10:09 a.m.

No action was taken on matters discussed in Executive Session and President Tramm adjourned the meeting at 10:09 a.m.

PASSED, APPROVED, AND ADOPTED THIS 10<sup>th</sup> DAY OF NOVEMBER, 2015.

  
Rick Moffatt, Board Secretary



# SIGN IN SHEET

October 13, 2015  
Board Meeting

Do you wish to speak on an agenda item?	NAME	CITY, STATE, ZIP	E-Mail
	Kandice Cubets	77355 Kandicec@quadst.com	
	Rex CAMBERN	77356	
	Mike Thornhill	Rurus Rock, TX 76664	
No	JACK PATTON	Montgomery City MUD 8	patt.jack@gmail.com
No	BILL BERAN	MONTGOMERY, TX 77356	ubem@consolidated.net
	Anthony Larchel	The Woodlands TX 77381	Alarchel@BentleyConstruction.com
	John Swift out	Plano, TX	
N	Greg Ellis	League City, TX 77573	
	Sen. Nichols' office Jaime Hancock		
	Kenny Eichelberg	Shenandoah, TX 77381	KEICHELBERG@SHENANDOAH-TX-US
	David Brown	4565	dsbrown@usgs.gov

# LONE STAR GROUNDWATER CONSERVATION DISTRICT

OCTOBER 13, 2015

## MINUTES OF PUBLIC HEARING ON AMENDMENTS TO PERMITS TO ESTABLISH TOTAL QUALIFYING DEMAND UNDER THE DISTRICT REGULATORY PLAN

The Board of Directors of the Lone Star Groundwater Conservation District (“District”) met in regular session, open to the public, in the Lone Star GCD – Board Room located at 207 W. Phillips Street, Suite 300, Conroe, Texas, within the boundaries of the District on October 13, 2015.

President Tramm called to order the Public Hearing on amendments to permits to establish total qualifying demand under the District Regulatory Plan at 10:20 a.m.

The roll was called of the members of the Board of Directors, to wit:

Sam W. Baker  
John Bleyl, PE  
Jace Houston  
Roy McCoy  
Rick Moffatt  
Jim Stinson, PE  
Richard J. Tramm  
Scott Weisinger, PG  
W. B. Wood

All members of the Board were present, except Director Baker, thus constituting a quorum of the Board of Directors. Also, in attendance at said meeting were Kathy Turner Jones, District General Manager; Paul R. Nelson, Assistant General Manager; Brian L. Sledge, General Counsel; Mark Lowry, District Consultant; District staff; and members of the public. *Copies of the public sign-in sheets are attached hereto as Exhibit “A”.*

President and Presiding Officer Tramm called to order the Public Hearing on Amendments to Permits to Establish Total Qualifying Demand under the District Regulatory Plan and appointed Brian L. Sledge, District General Counsel, to serve as Co-Presiding Officer for the limited purpose of conducting the preliminary hearing and ruling on procedural issues and legal matters. The Co-Presiding Officer observed that the following notice requirements had been met:

- (1) The General Manager timely published the appropriate notice in the newspaper;

- (2) The General Manager provided notice of the proposed permit amendments and hearing to each permit applicant and each person who requested a special notice under the District Rule; and posted it at the District Office and at the County Courthouse.

Brian Sledge, General Counsel, reminded the Board that after last month's hearing, there was one application for T & W Water Services which was postponed pending further research by District staff. Mr. Sledge allowed the opportunity for the public to contest the permit amendment. There being no applicant or interested parties present to contest, Mr. Sledge asked the Board consider the matter uncontested and move forward.

**RECEIVE PERMIT HEARING REPORT FROM GENERAL MANAGER AND/OR DISTRICT ENGINEER ON PROPOSED PERMIT AMENDMENTS AND TECHNICAL REVIEWS ON THE PERMITS LISTED IN THE FOLLOWING TABLE TO ESTABLISH THE FINAL CALENDAR YEAR 2009 PRODUCTION AUTHORIZATION FOR THE PERMITS FOR PURPOSES OF ESTABLISHING THEIR TOTAL QUALIFYING DEMAND UNDER THE DISTRICT REGULATORY PLAN (DRP):**

PERMIT(S) NUMBER	PERMITTEE NAME & ADDRESS	LOCATION OF WELL(S) / PURPOSE OF USE	GENERAL MANAGER'S RECOMMENDED TOTAL QUALIFYING DEMAND UNDER THE DRP
OP03-0074	T & W Water Services (Sun Rise Ranch) P.O. Box 2927 Conroe, TX 77305	2 well located at Reserve A Sun Rise Ranch, Montgomery, Public Supply (PWS) Use	5,844,000 gallons

A motion was made by Director Stinson, and seconded by Director Houston to approve the permit amendment in accordance with the recommendation of the General Manager. The motion passed unanimously.

There being no further permit amendments for action and no need to schedule a continuation of contested hearings, the Public Hearing on Amendments to Permits to Establish Total Qualifying Demand under the District Regulatory Plan was adjourned at 10:22 a.m.

**PASSED, APPROVED, AND ADOPTED THIS 10<sup>TH</sup> DAY OF NOVEMBER, 2015.**

  
 \_\_\_\_\_  
 Rick Moffatt, Board Secretary



# SIGN IN SHEET

October 13, 2015  
Board Meeting

Do you wish to speak on an agenda item?	NAME	CITY, STATE, ZIP	E-Mail
	Kandice Cubets	77355 Kandicec@quodvst.com	
	Rex CAMBERN	77356	
	Mike Thornhill	Round Rock, TX 78664	
No	Jack Patton	Montgomery City MUD 8	patt.jack@gmail.com
No	Bill BERAN	MONTGOMERY, TX 77356	uberan@comcast.net
	Anthony Carabel	The Woodlands TX 77381	Acandiel@BrentsCarabel.com
N	John Spifant	Plano, TX	
	Greg Ellis	League City TX 77573	
	Sen. Nicholas' office Lynn Hancock		
	Kenny Eikelberg	Stewartbath, TX 77381	KEICKELEBERG@STEWARTBATH-TX-US
	David Brown	4505	dsbrown@usgs.gov



# LONE STAR GROUNDWATER CONSERVATION DISTRICT

OCTOBER 13, 2015

## MINUTES OF PUBLIC HEARING ON PERMIT APPLICATIONS

The Board of Directors of the Lone Star Groundwater Conservation District (“District”) met in regular session, open to the public, in the Lone Star GCD – Board Room located at 655 Conroe Park North Drive, Conroe, Texas, within the boundaries of the District on October 13, 2015.

### CALL TO ORDER:

President Tramm called to order the Public Hearing on Permit Applications at 10:22 a.m., announcing the meeting open to the public.

### ROLL CALL:

The roll was called of the members of the Board of Directors, to wit:

Sam W. Baker  
John D. Bleyl, PE  
Jace Houston  
Roy McCoy, Jr.  
Rick J. Moffatt  
Jim Stinson, PE  
Richard J. Tramm  
M. Scott Weisinger, PG  
W. B. Wood

All members of the Board were present, with the exception of Director Baker, thus constituting a quorum of the Board of Directors. Also, in attendance at said meeting were Kathy Turner Jones, General Manager; Paul R. Nelson, Assistant General Manager; Brian L. Sledge, General Counsel; Mark Lowry, District Consultant; District staff; and members of the public. *Copies of the public sign-in sheets are attached hereto as Exhibit “A”.*

Item #1, **Montgomery County MUD #105** - Applicant is requesting an amendment to an Operating Permit for an increase in production authorization in the amount of 5,000,000 gallons for 2015 and 35,000,000 gallons for 2016 and annually thereafter. Based on technical review of the



information supplied, it is the General Manager's recommendation to approve that which is being requested.

Item #2, **Rusted Rock Barn, LLC dba Big Sky Barn** - Applicant is requesting registration of a new well and production authorization in the amount of 120,000 gallons for 2015 and 1,600,000 gallons for 2016 and annually thereafter. Based on technical review of the information supplied, it is the General Manager's recommendation to approve that which is being requested.

Item #3, **Montgomery County MUD #139** - Applicant is requesting an amendment to an Operating Permit for an increase in production authorization in the amount of 2,000,000 gallons for 2015 and annually thereafter. Based on technical review of the information supplied, it is the General Manager's recommendation to approve that which is being requested.

Item #4, **Craig A. Gorewitz** - Applicant is requesting registration of a new well and production authorization in the amount of 300,000 gallons for 2015 and 1,000,000 gallons for 2016 and annually thereafter. Based on technical review of the information supplied, it is the General Manager's recommendation to approve that which is being requested.

A motion was made by Director Houston, and seconded by Director Wood to approve item #1-4 in accordance with the General Manager's recommendations. The motion passed unanimously.

President Tramm adjourned the public hearing on permit applications at 10:23 a.m.

**PASSED, APPROVED, AND ADOPTED THIS 10<sup>TH</sup> DAY OF NOVEMBER, 2015.**

  
\_\_\_\_\_  
Rick Moffatt, Board Secretary



# SIGN IN SHEET

October 13, 2015  
Board Meeting

Do you wish to speak on an agenda item?	NAME	CITY, STATE, ZIP	E-Mail
	Kandice Cubets	77355 Kandicec@quodmst.w	
	Rex CAMBER	77356	
	Mike Thornhill	Round Rock, TX 76664	
No	JACK PATTON	Montgomery City MUD 8	pat.jack@gmail.com
No	BILL BERAN	MONTGOMERY, TX 77356	u@beran-ex.com
	Anthony Cardiel	The Woodlands TX 77381	Anthony@BentsCardiel.com
N	John Spifant	Plano, TX	
	Greg Ellis	League City TX 77573	
	Sen. Nicholas' office Lynne Hancock		
	Kenny Eikelberg	Stewart Creek, TX 77381	KEICKELBERG@SHERMAN.DDAH.TX-US
	David Brown	USGS	dsbrown@usgs.gov

# LONE STAR GROUNDWATER CONSERVATION DISTRICT

OCTOBER 13, 2015

## MINUTES OF REGULAR MEETING

The Board of Directors of the Lone Star Groundwater Conservation District ("District") met in regular session, open to the public, in the Lone Star GCD - James B. "Jim" Wesley Board Room located at 655 Conroe Park North Drive, Conroe, Texas, within the boundaries of the District on October 13, 2015.

### CALL TO ORDER:

President Tramm called to order the regular Board of Directors meeting at 10:25 a.m. announcing that it was open to the public.

### ROLL CALL:

The roll was called of the members of the Board of Directors, to wit:

Sam Baker  
John D. Bleyl, PE  
Jace Houston  
Roy McCoy, Jr.  
Rick J. Moffatt  
Jim Stinson, PE  
Richard J. Tramm  
M. Scott Weisinger, PG  
W. B. Wood

All members of the Board were present, with the exception of Director Baker, thus constituting a quorum of the Board of Directors. Also, in attendance at said meeting were Kathy Turner Jones, General Manager; Paul R. Nelson, Assistant General Manager; Brian L. Sledge, General Counsel; Mark Lowry, P.E., District Engineer; District staff; and members of the public. *Copies of the public sign-in sheets are attached hereto as Exhibit "A".*

### PUBLIC COMMENT:

There were no public comments to report.

## APPROVAL OF THE MINUTES:

President Tramm stated the Board would consider all meeting minutes listed as one item. Ms. Jones suggested that due to comments received from several board members this morning that the minutes of the September 8, 2015 Regular Board of Directors Meeting be removed, amended, and re-listed for approval at next month's meeting. With no further discussion, a motion was made by Director Stinson, seconded by Director Moffatt, and unanimously carried, to approve the meeting minutes listed below, with the exception of the September 8, 2015 Regular Board Meeting Minutes. *Copies of the minutes are attached hereto as Exhibit "B"*

- a) September 8, 2015, Special Board Meeting
- b) September 8, 2015, Public Hearing on Permit Applications
- c) September 8, 2015, Public Hearing on Amendments to 2009 Permits
- ~~d) September 8, 2015, Regular Board of Directors Meeting~~
- e) September 17, 2015, Public Hearing on Proposed DFCs

## COMMITTEE REPORTS:

### **A. Executive Committee – Richard J. Tramm, President**

- 1) Brief the Board on the Committee's activities since the last regular Board meeting – President Tramm stated that there was nothing new to report.
- 2) Defense of the following lawsuit: City of Conroe et al. v. Lone Star Groundwater Conservation District (and the District's directors and general manager in their official capacities) - President Tramm stated that advice was received from counsel during the executive committee session.

### **B. Water Awareness and Conservation Committee – Billy Wood, Chair**

- 1) Brief the Board on the Committee's activities since the last regular Board meeting – Director Wood stated that the committee met on Thursday, October 8, 2015 and asked that Paul Nelson further update the Board on activities since the September board meeting.
- 2) Update on water efficiency, conservation efforts and public outreach – Paul R. Nelson – Mr. Nelson stated that several events took place since the last board meeting. September 24<sup>th</sup>, the Water Efficiency Network meeting was held; September 26<sup>th</sup>, LSGCD displayed the education trailer at the Woodlands Landscaping Event; and on October 8<sup>th</sup>, the Water Awareness and Conservation Committee met. Directors Moffatt and Wood, Ms. Jones, and Mr. Nelson were in attendance and discussed an outreach program for 5<sup>th</sup> grade students throughout Montgomery County, developed by Resource Action Programs. The program would include educational information for both students and teachers. Mr. Nelson noted that the committee was in

agreement to implement a program and tasked Mr. Nelson with gathering additional information. The San Jacinto River Authority expressed an interest in participating and are willing to help share the costs of a new educational program. Last, Mr. Nelson stated that Dr. Andres A. Salazar will be speaking at the Water Efficiency Network Meeting on October 22<sup>nd</sup>, an email reminder has been sent out. Mr. Nelson is hoping to see as many people as possible in attendance. Dr. Salazar will be discussing the development of Springwoods Village at the Woodlands Township.

- 3) Update on redevelopment of onsite detention project – Paul R. Nelson – Mr. Nelson stated that the committee reviewed and suggested revisions, which have been addressed. A meeting will be scheduled for later in October, at which point he will have the request of qualifications completed and sent out for bids.

**C. Rules Development and Bylaws Committee – Richard J. Tramm**

- 1) Brief the Board on the Committee's activities since the last regular Board meeting – President Tramm stated that there was a meeting on September 8<sup>th</sup>, to discuss a variety of items. A follow up meeting has been scheduled for October 22<sup>nd</sup> at 9 a.m. Director Weisinger asked for clarification that his email submission to clarify the September 8<sup>th</sup> committee meeting summary was received. Ms. Jones confirmed she had forwarded it on to the committee members.

**D. Policy and Personnel Development Committee – Sam W. Baker, Chair**

- 1) Brief the Board on the Committee's activities since the last regular Board meeting – Director Baker was not present. President Tramm stated that there was no meeting held since last month. Ms. Jones confirmed that was correct. Director McCoy inquired into the status the Committee's review of management following the July 13, 2015 special meeting. President Tramm stated that he could not speak on behalf of Director Baker but he would follow-up with him.

**E. Findings and Review Committee – Richard J. Tramm, Chair**

- 1) Brief the Board on the Committee's activities – President Tramm stated that there was a meeting on October 6, 2015 to discuss the final draft of Task 1 of the Strategic Water Resources Planning Study.
- 2) Summary Presentation of final draft technical memorandum for Task 1 of the Strategic Water Resources Planning Study – John Seifert - Mr. Seifert gave a PowerPoint presentation on the "Summary of Technical Memorandum Regarding Groundwater Production and Water-Level Monitoring Program".

In summary:

- Groundwater production and well water-level monitoring program has been adequate.
- Additional effort is recommended in Montgomery County to correlate groundwater production by well with the source of the withdrawal, whether Chicot, Evangeline or Jasper aquifers.
- The static water-level (artesian heads) monitoring program is instrumental in assessing the effects of pumping on the aquifers, has provided valuable data in the evaluation both in and outside Montgomery County and should be expanded, including the addition of some shallow monitoring wells in anticipation of groundwater pumping occurring in additional areas.
- Largest increase in groundwater pumping since 2000 occurred in Montgomery County, while pumping in surrounding counties has generally decreased since 2000.
- In recent years, groundwater production in surrounding counties has had a limited effect on artesian heads in the Chicot and Evangeline aquifer screened wells in Montgomery County and a small effect on artesian heads in the Jasper Aquifer in Montgomery County. *Copies of the presentation are attached hereto as Exhibit "C".*

- 3) Discuss, consider, and possible action to accept "Technical Memorandum Regarding Groundwater Production and Water-Level Monitoring Program" for Task 1 of the SWRPS as recommended by the Findings and Review Committee – It is the Committee's recommendation to accept this report. A motion was made by Director Bleyl, and seconded by Director Moffatt to accept the "Technical Memorandum Regarding Groundwater Production and Water-Level Monitoring Program" for Task 1 of the SWRPS. Motion was unanimous.
- 4) Groundwater Management Area 14 (GMA 14) – Consider any possible suggested revisions the District may want to recommend to GMA 14 regarding the adopted proposed DFCs – Director Bleyl began by thanking the staff for compiling the Draft Summary. He made reference to page 141 in the Summary Report. In summary, Director Bleyl stated, "the growth of the county needs to be considered." Following further discussion by the Board, Director Bleyl motioned to send a revised DFC to GMA 14 requesting that there be no more than a two percent reduction of storage in the Jasper aquifer over 50 years, and a one percent reduction in storage in the Evangeline and Chicot aquifers over 50 years. Director McCoy seconded the motion. Directors voting in favor: Bleyl, McCoy and Weisinger. Opposed: Directors Houston, Moffatt, Stinson, Tramm, and Wood. Motion failed.
- 5) Consider any possible guidance the board may want to give the District's representative to GMA 14 regarding development and adoption of DFCs – Director Moffatt stated that while he was eager to see the results from the

strategic planning study, he did not believe that changing the DFCs now, without seeing those results, would benefit the District. A motion was made by Director Moffatt that the District approve forwarding the Summary Report as presented today to GMA 14, as required by law, and authorize the General Manager to notify the GMA that the District does not have any substantial changes to the proposed DFCs at this time. Director Houston seconded the motion. Director Weisinger asked that the record to show that he felt Director Moffatt's move would be a step in the wrong direction. "My comment is the District is currently permitted more than what we're doing and I think our board did not take that into consideration and stay with what you're recommending is not the spirit of what our groundwater district and our board should be presenting," Weisinger said. "Our current history that we have is exceeding that, and it does not look like there's a detriment to the aquifer, with somewhere in the neighborhood around 100,000 acre-feet. To me, I think that we're going backward." Director Bleyl stated that he agreed with Director Weisinger and agreed with Director Moffatt, in that he was eager to see the study results and would like to see the study be taken off hold. Further, he does not believe that we can reach our DFC based on what we are currently permitted for. Director Houston commented that when he last checked with District staff, the actual pumpage has been roughly 70,000 – 75,000 acre-feet for the last 5 years, except for 2011. He continued that most of the permits are over permitted based on what they are pumping, which is typical. He believes that based on those numbers that after conversion we could get pretty close to the 64,000 acre-feet DFC. President Tramm called for a show of hands in support of the motion. Directors voting in favor: Houston, Moffatt, Stinson, Tramm, and Wood. Voting against: Bleyl, McCoy, and Weisinger. Motion passed.

Director McCoy exited the meeting at 11:19 a.m.

**F. Budget and Finance Development Committee – Jim Stinson, Chair**

- 1) Brief the Board on the Committee's Activities – Director Stinson reported that there was a meeting on October 9, 2015 to discuss audit proposals.
- 2) Review of Monthly Financial Reports - Director Stinson reported that the financial statement indicated an actual income of \$2.36 million compared to year to date budget of \$2.95 million, and actual expenses are at \$1.40 million, compared to year to date of \$1.648 million.
- 3) Review 3rd Quarterly Investment Report 2015 – Director Stinson noted that the third quarterly investment report is in the Board packets.
- 4) Discuss, consider, and possible action regarding approval of Resolution amending authorized representatives for Texas Local Government Investment Pool (TexPool). A motion was made by Director Stinson to approve the

resolution to remove former bookkeeping staff and update to reflect the District's current bookkeeper, Kay Martin. Stinson noted that this authorization allows inquires only and does not authorize this person to initiate transfers. Director Houston seconded the motion. Motion was unanimously. *Copies of the resolution are attached hereto as Exhibit D.*

- 5) Discuss, consider, and take action to approve Budget and Finance Committee's recommendation of audit firm to serve as the District's auditor for the fiscal years of 2015 and 2016. – Director Stinson stated that 3 firms submitted proposals. The lowest bid was submitted by BrooksCardiel, PLLC, for \$8,000 for 2015-2016, the second bid was submitted by Herford, Lynch, Sellars & Kirkham was for \$9,800, and the third was submitted by BKD for \$14,000. Mr. Anthony Cardiel introduced and gave some detail on his background to the Board. A motion was made by Director Wood, and seconded by Director Bleyl to hire Mr. Cardiel for a two year term. The motion passed unanimously.

**G. Professional Services Review Committee – Rick Moffatt, Chair**

- 1) Brief the Board on the Committee's activities - Director Moffatt stated that there was nothing new to report at this time though he anticipated scheduling a meeting soon.

**ENGINEERING REPORT:**

Mark Lowry, District Consultant, reported that most of his activity during the month was routine, and a copy of his report is included in the Board's packet. He affirmed there is an error on #2 of the report. The correct date should be September, not August.

**GENERAL MANAGER'S REPORT:**

Ms. Jones stated that the majority of items included in her report had been discussed under earlier items on the agenda and she had nothing further to report or add at this time.

**GENERAL COUNSEL'S REPORT:**

Mr. Sledge commented working with co-counsel in Defense of the District's lawsuit with the City of Conroe et al. He added that the Lieutenant Governor issued his first round of interim charges to the Senate Committee, which included charges to the State Affairs, Senate Natural Resources and Economic Development and Senate Agriculture, Water and Rural Affairs Committees. The water charges were submitted primarily to Senator Perry's Ag, Water and Rural Affairs Committee. He continued that the significance of that was that there had been rumors that the water charges were going to go back to the Natural Resources Committee but that does not seem to be the case. For the first time in a few years, the water charges were



minimal and included a general charge reviewing the ownership production and transfer of surface water and groundwater and a charge to monitor the TWDB's identification and designation of brackish groundwater production zones (from last session) and a general charge on making recommendations on approving the process on developing and executing the state water plan. Mr. Sledge stated that the Senate Natural Resources Committee also had a charge to review agency permitting procedures to try to streamline them, which is an ongoing activity involving TCEQ.

Shauna Fitzsimmons followed with an update on injection disposal well activity in Montgomery County. She stated there were two injection well applications filed. The first on August 3<sup>rd</sup> by Denbury Onshore and the second on September 1<sup>st</sup> by Wheeler Operating Corporation. The District protested due to groundwater concerns and the potential for contamination. Since the filing, there were negotiations with the applicants to address those concerns, with Denbury Onshore withdrawing their application last month, followed by Wheeler Operating, who withdrew their application last week. There are currently no applications pending.

**PUBLIC COMMENT:**

There was no public comment.

**NEW BUSINESS:**

President Tramm addressed Director McCoy's earlier comment regarding the Policy and Personnel Committee. He clarified that there was a meeting scheduled for this past August, but Director Weisinger requested it be cancelled. He further explained that although he cannot speak for Director Baker, he is aware that there have been scheduling issues amongst committee members. President Tramm stated that he will make sure Director McCoy receives the additional information and will also follow up on the development and report back to the Board.

There being no further business, Director Weisinger made a motion to adjourn the meeting; Director Bleyl seconded the motion, therefore the meeting was adjourned at 11:29 a.m.

**PASSED, APPROVED, AND ADOPTED THIS 10TH DAY OF NOVEMBER, 2015.**

  
Rick Moffatt, Board Secretary





# SIGN IN SHEET

October 13, 2015  
Board Meeting

Do you wish to speak on an agenda item?	NAME	CITY, STATE, ZIP	E-Mail
	Kandice Cubets	77355 Kandicec@quadst.com	
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No	BILL BERAN	MONTGOMERY, TX 77356	u@com-consolidated.net
	Anthony Cardiel	The Woodlands TX 77381	Acardiel@BentleyCardiel.com
	John Spifant	Plano, TX	
N	Greg Ellis	League City TX 77573	
	Sen. Nicholas' office Lynn Hancock		
	Kenny Eikelberg	Stewart Coah, TX 77381	KEICKELBERG@STEWARTCOAH.TX.US
	David Brown	4565	dsbrown@usgs.gov

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# SUMMARY OF TECHNICAL MEMORANDUM REGARDING GROUNDWATER PRODUCTION AND WATER-LEVEL MONITORING PROGRAM

Presented to:  
Lone Star Groundwater Conservation District  
Board of Directors  
October 13, 2015



By  
LBG-Guyton Associates  
Houston - Austin



10/13/2015

2

## TASK 1 PRIMARY OBJECTIVES

- Collect and analyze groundwater production, and water-level data from public and private sources for the Chicot, Evangeline, Jasper and Catahoula aquifers in Montgomery County and evaluate the adequacy of the current monitoring and groundwater production reporting program. Provide recommendations for improvements to the program.
- Subordinate to effort in Montgomery County, collect and review groundwater production and well water-level data in surrounding counties and provide recommendations for its utilization as applicable to Montgomery County groundwater resources evaluation.

10/13/2015

## TASK 1 PRIMARY COMPONENTS

### (cont'd)

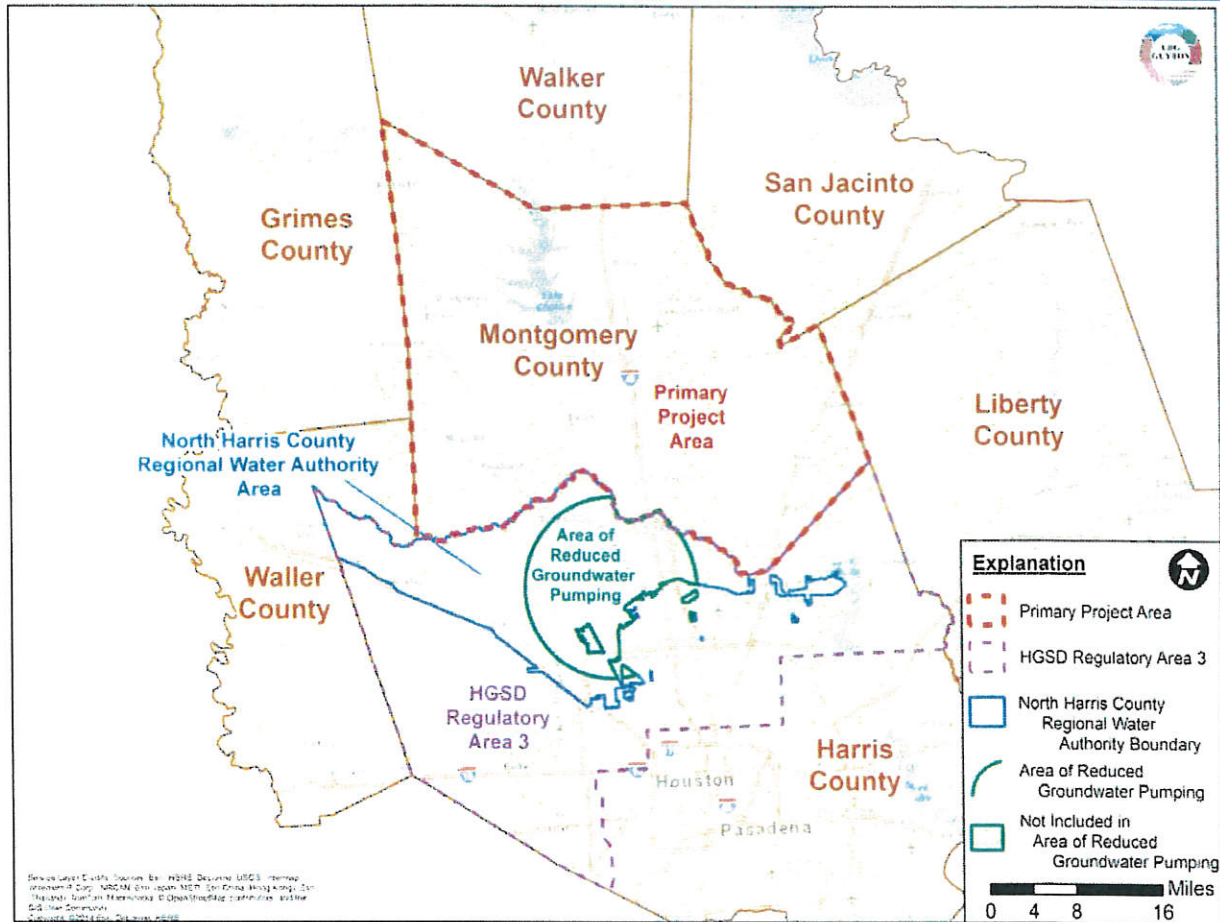
- Compile and analyze static water level (artesian head) and groundwater production data and surface water use in part of the NHCRWA area. Provide conclusions regarding aquifer response to the reduction in groundwater pumping.
- Review production and monitoring data for Montgomery County for about one year after January 1, 2016 scheduled conversion and provide results regarding aquifer response due to conversion.

10/13/2015

## TASK 1

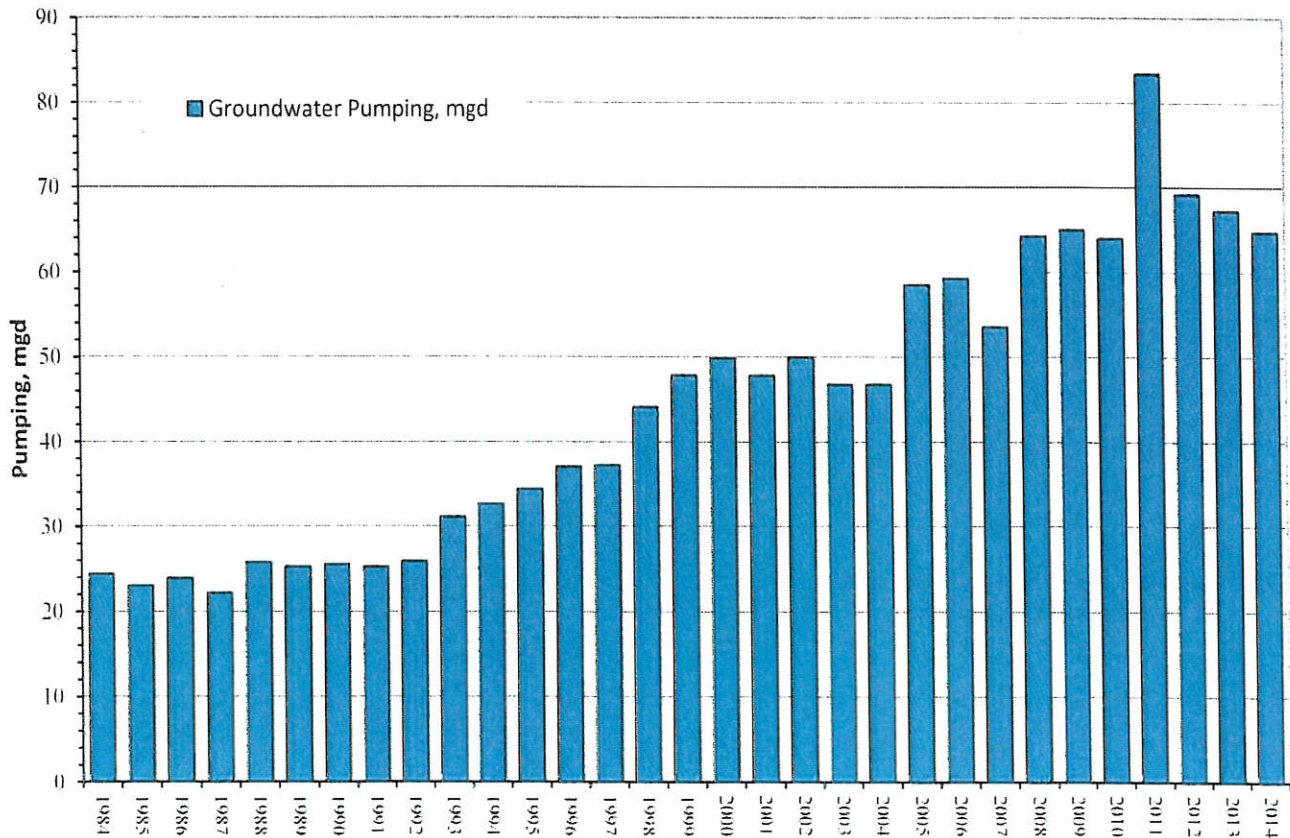
- Draft Technical Memorandum submitted, June 17
- Memo reviewed by Findings and Review Committee and revised based on comments, June 19 – July 9
- Stakeholder comments received and addressed in Technical Memorandum, July 14 – September 2
- Final Technical Memorandum submitted and ready for submission to Board of Directors, September 4
- Technical Memorandum referred by Findings and Review Committee to the Board of Directors for approval, October 6

10/13/2015



10/13/2015

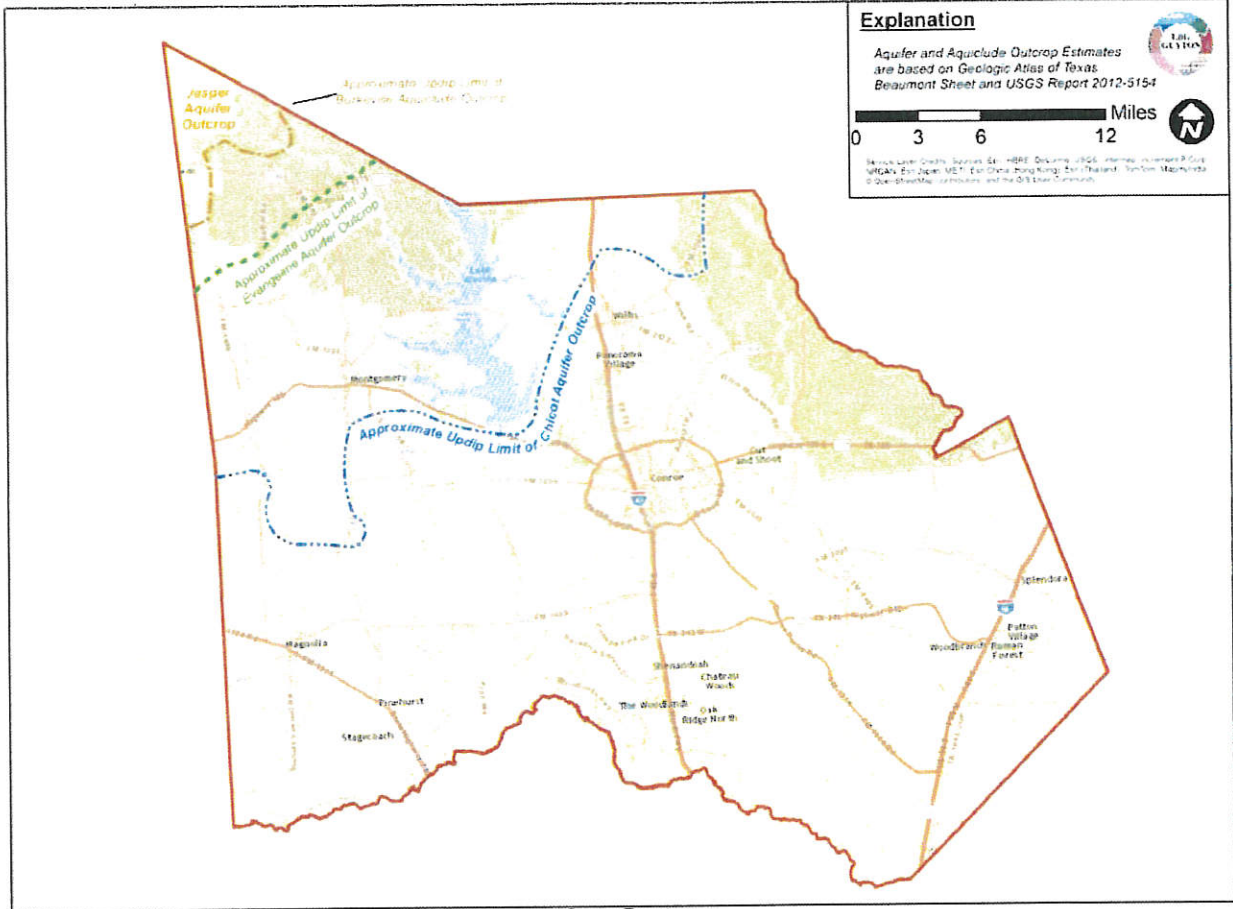
Montgomery and Surrounding Counties



Data Sources: TWDB and Lone Star Groundwater Conservation District

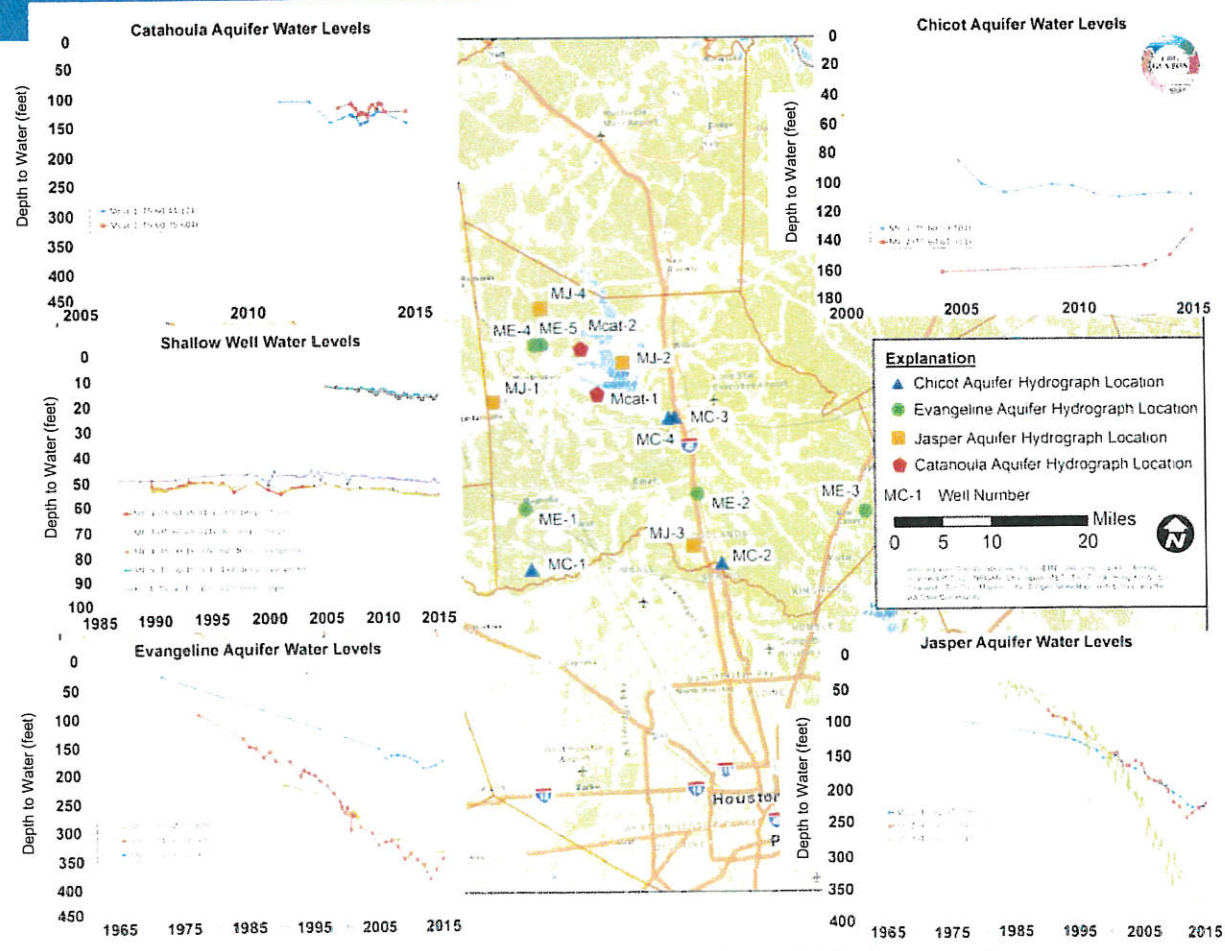
10/13/2015

Montgomery County Groundwater Pumping



**Aquifer Outcrops**

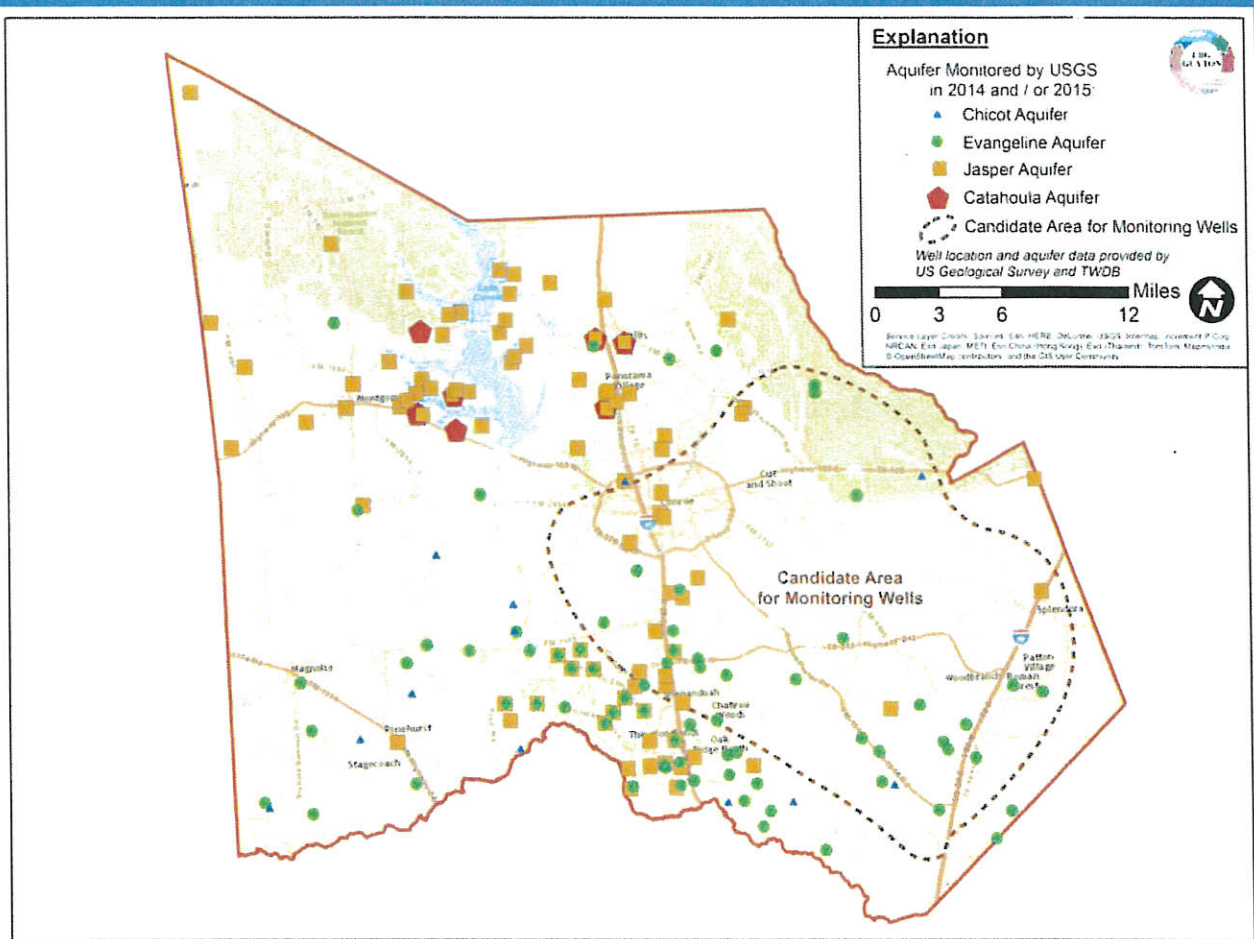
10/13/2015



**Montgomery County Water-Level Hydrographs**

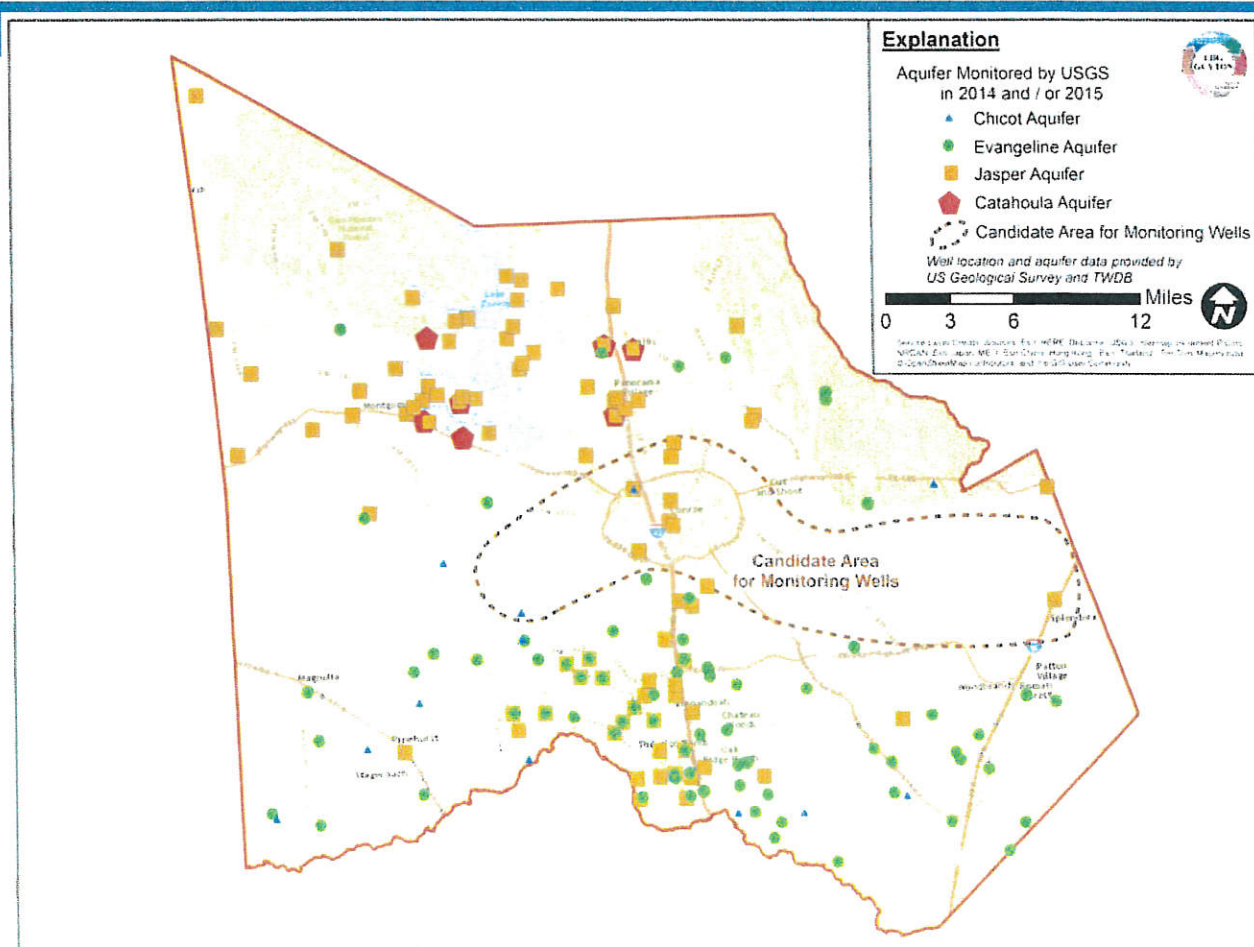
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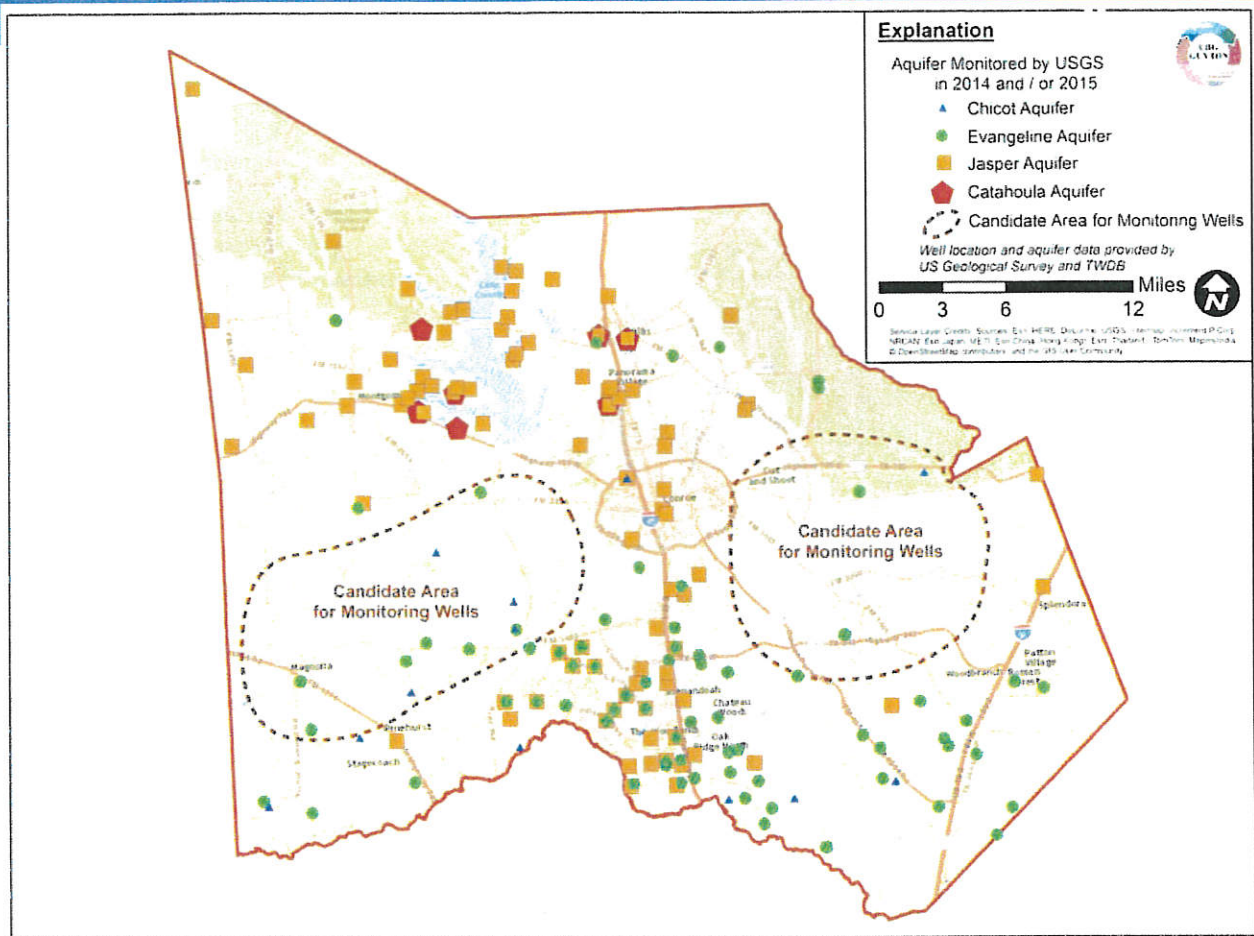
**Area for Additional Wells and Monitoring Water Levels in the Chicot Aquifer**

10/13/2015



**Area for Additional Wells and Monitoring Water Levels in the Evangeline Aquifer**

10/13/2015



**Area for Additional Wells and Monitoring Water Levels in the Jasper Aquifer**

10/13/2015

## SUMMARY OF RESULTS

- Groundwater production and well water-level monitoring program has generally been adequate.
- Additional effort is recommended in Montgomery County to correlate groundwater production by well with the source of the withdrawal, whether Chicot, Evangeline or Jasper aquifers.
- The static water-level (artesian heads) monitoring program is instrumental in assessing the effects of pumping on the aquifers, has provided valuable data in the evaluation both in and outside Montgomery County and should be expanded, including the addition of some shallow monitoring wells in anticipation of groundwater pumping occurring in additional areas.

## SUMMARY OF RESULTS (cont'd)

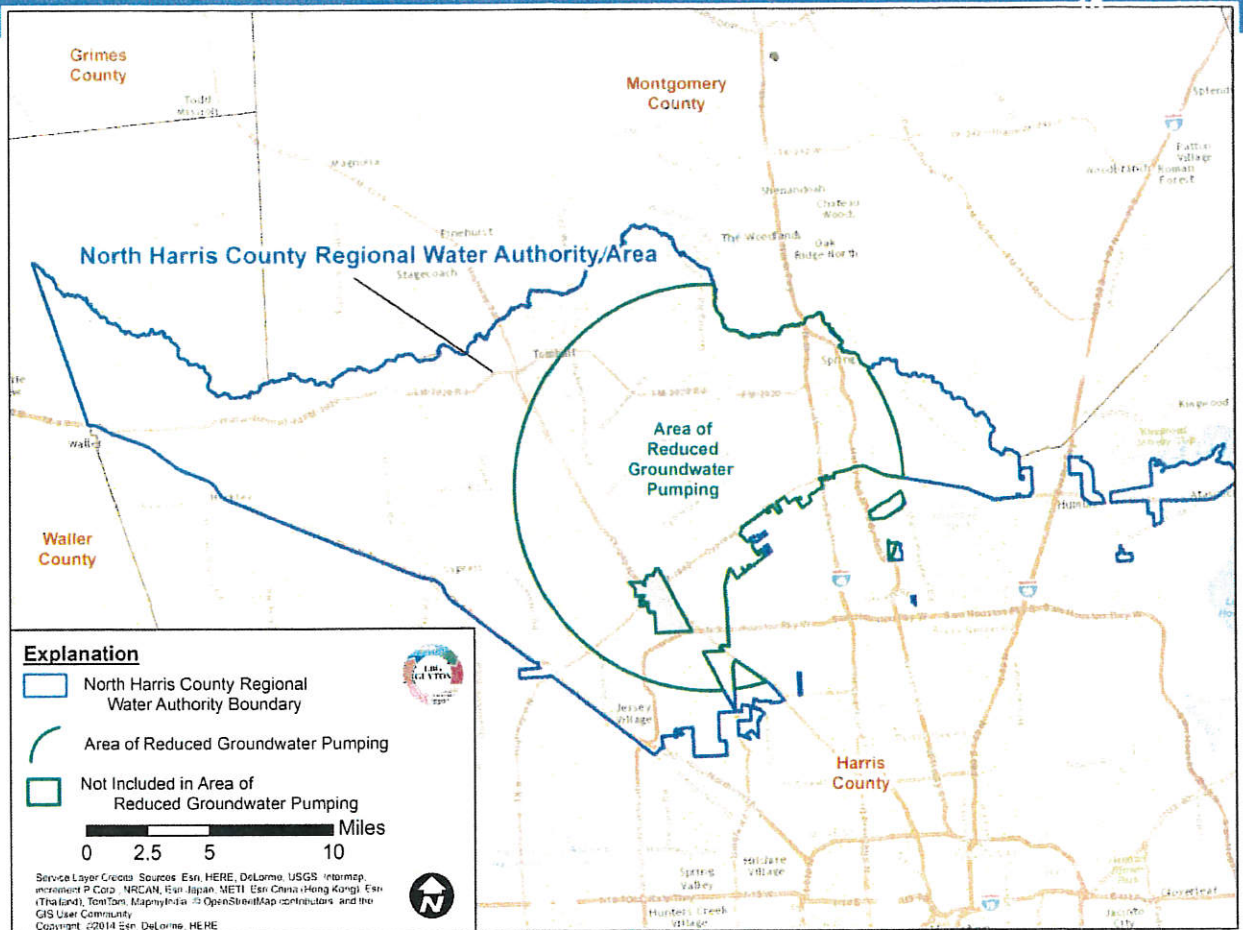
- Largest increase in groundwater pumping since 2000 occurred in Montgomery County.
- Pumping in surrounding counties has generally decreased since 2000.
- In recent years, groundwater production in surrounding counties has had a limited effect on artesian heads in the Chicot and Evangeline aquifer screened wells in Montgomery County and probably a small effect in artesian heads in the Jasper Aquifer in Montgomery County.

10/13/2015

## SUMMARY OF RESULTS (cont'd)

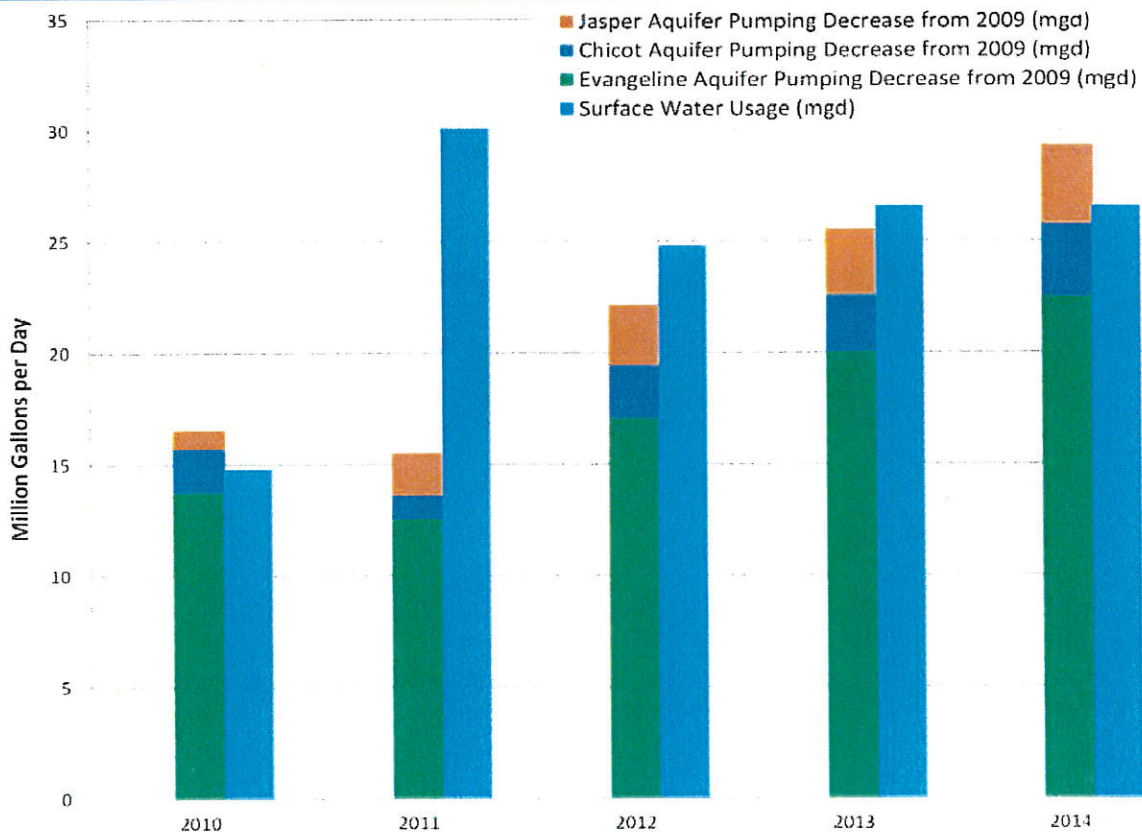
Aquifer	Additional Monitor Wells In Artesian Areas of the Aquifers	Additional Shallow Monitor Wells in Outcrop Area
Chicot	10 -15	20
Evangeline	10 <sup>1</sup>	5 - 10
Jasper	10 - 15 <sup>1</sup>	3

<sup>1</sup> Potentially relinquish some monitor wells in areas with numerous, closely spaced wells and replace them with monitor wells in recommended areas



### Area of Reduced Groundwater Pumping in NHCRWA

10/13/2015

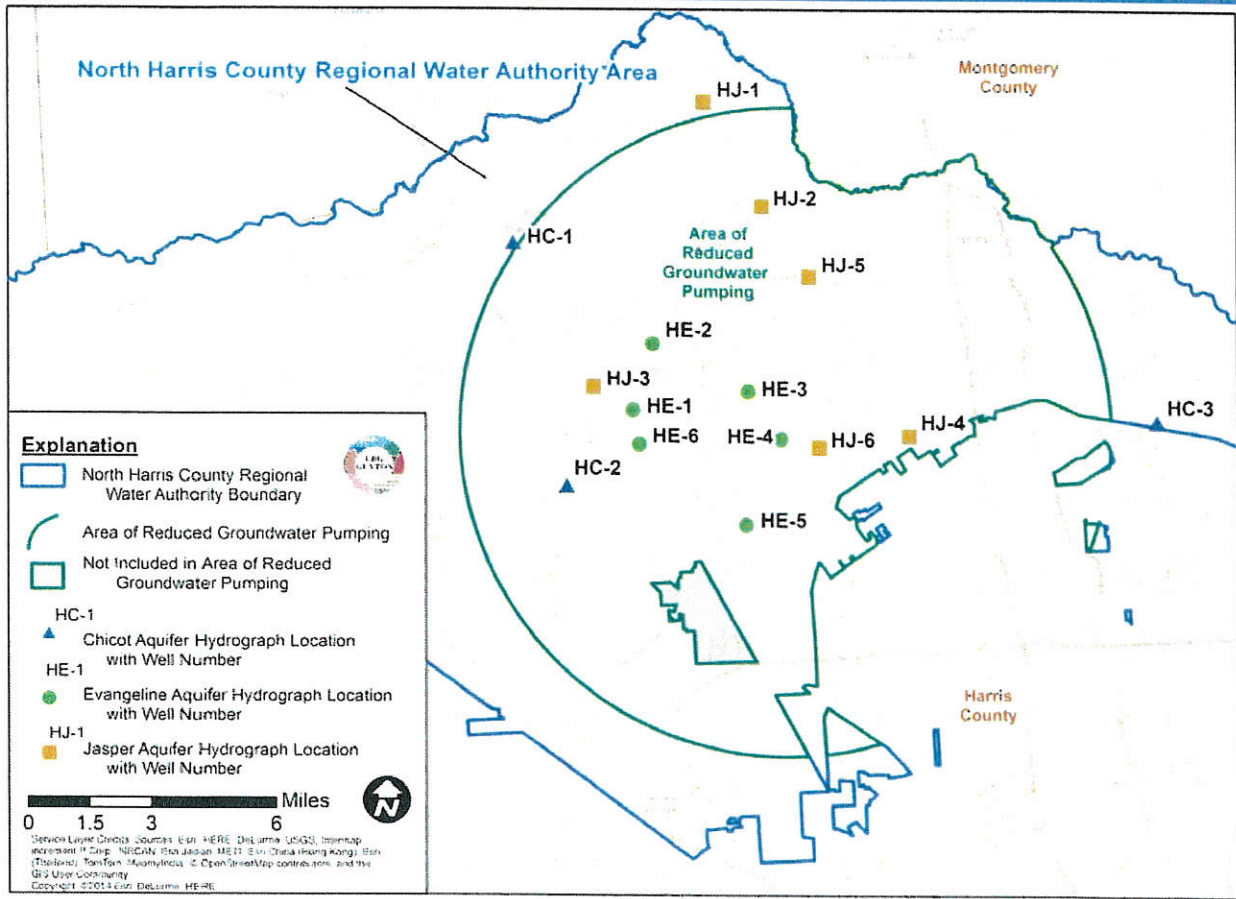


The reduction in groundwater pumping in a year should about equal the surface water usage and that is the case for all years except for 2011. High water demand due to below normal precipitation lead to higher surface water usage.

Data Sources: North Harris County Regional Water Authority and LBG-Guyton Associates

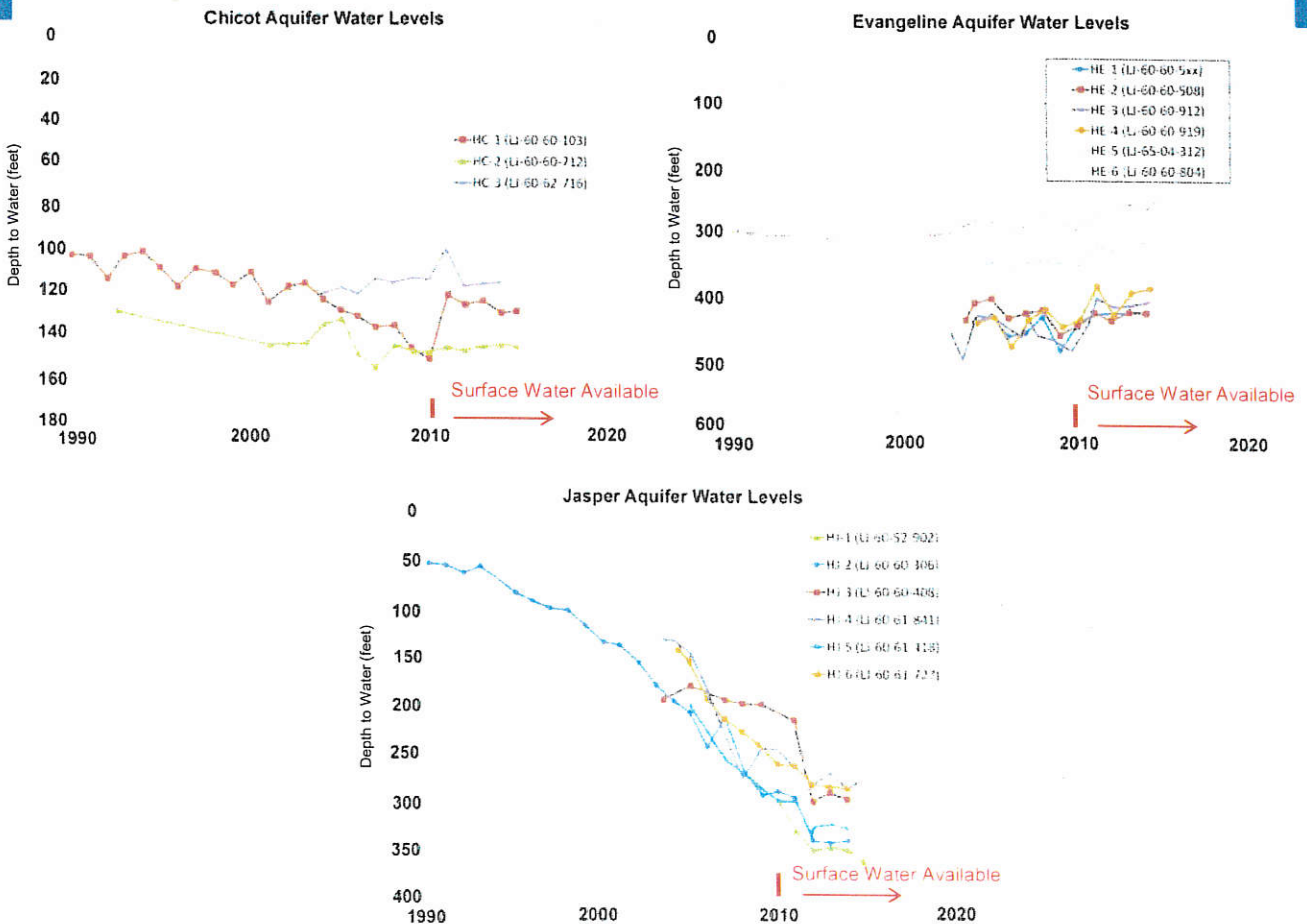
### Decrease in Groundwater Pumping Since 2009 and Surface Water Usage in the NHCRWA Area of Reduced Groundwater Pumping

10/13/2015



North Harris County Static Water-Level Hydrograph Locations

10/13/2015



Harris County Water-Level Hydrographs

10/13/2015

## RESULTS OF REDUCTION IN GROUNDWATER PUMPING IN NORTH HARRIS COUNTY

- By 2014 reductions averaged 3.3, 22.5 and 3.6 mgd from the Chicot, Evangeline and Jasper aquifers, respectively, in the NHCRWA.
- Influence of reductions in pumping evident in three aquifers.
- The effects of the reductions in groundwater pumping were most evident in the immediate areas of the reductions.

10/13/2015

## RESULTS OF REDUCTION IN GROUNDWATER PUMPING

- Chicot Aquifer artesian heads stabilized to potential rise
- Evangeline Aquifer artesian heads recovered 20 to 60 feet
- Jasper Aquifer artesian heads decline reduced from 15 feet per year to 5 or less feet per year

10/13/2015

## RESULTS OF REDUCTION IN GROUNDWATER PUMPING (cont'd)

- Artesian heads in the Chicot, Evangeline and Jasper aquifers will recover or rise in **Montgomery County** in response to future reductions in groundwater pumping as a surface water supply is introduced in the county.
  - Magnitude of artesian head recoveries will be greatest in areas of reduced groundwater pumping
  - Magnitude of recoveries will vary directly with the amount of reduction in groundwater pumping

10/13/2015

## SUMMARY OF MAJOR COMMENTS

Comments did not disagree with the recommendations for future groundwater production and water-level monitoring improvements

Comments did not disagree with assessment of aquifers response to reductions in pumpage in North Harris County.

- C: Recommendation for general grid spacing for monitor wells.
  - A: Even distribution of monitoring wells is an objective in spacing of wells.

10/13/2015

## SUMMARY OF MAJOR COMMENTS

### (cont'd)

- C: Request for a micro review of pumpage and water-level data.
  - A: This is a study to review the adequacy of the monitoring program, not a micro-scale study.
- C: Request monitoring network outside Montgomery County.
  - A: Wells, as available outside Montgomery County, are/will be used.
- C: Request for expansion of water-level monitoring in aquifer outcrops.
  - A: Expansion recommended.

10/13/2015

## SUMMARY OF MAJOR COMMENTS

### (cont'd)

- C: Request for groundwater availability study of the Catahoula Aquifer and added water-level monitoring outside county.
  - A: Groundwater availability study beyond scope of this study. Water-level monitoring data outside the county will be reviewed.
- C: Request for development of pumping amounts by aquifer.
  - A: Will be addressed in Tasks 2 and 3.

10/13/2015





# Resolution Amending Authorized Representatives

Please use this form to amend or designate Authorized Representatives.

This document supersedes all prior Authorized Representative forms.

\* Required Fields

## 1. Resolution

WHEREAS,

Lone Star Groundwater Conservation District

Participant Name\*

7 | 8 | 8 | 4 | 2

Location Number\*

("Participant") is a local government of the State of Texas and is empowered to delegate to a public funds investment pool the authority to invest funds and to act as custodian of investments purchased with local investment funds; and

WHEREAS, it is in the best interest of the Participant to invest local funds in investments that provide for the preservation and safety of principal, liquidity, and yield consistent with the Public Funds Investment Act; and

WHEREAS, the Texas Local Government Investment Pool ("TexPool/ Texpool Prime"), a public funds investment pool, were created on behalf of entities whose investment objective in order of priority are preservation and safety of principal, liquidity, and yield consistent with the Public Funds Investment Act.

NOW THEREFORE, be it resolved as follows:

- A. That the individuals, whose signatures appear in this Resolution, are Authorized Representatives of the Participant and are each hereby authorized to transmit funds for investment in TexPool / TexPool Prime and are each further authorized to withdraw funds from time to time, to issue letters of instruction, and to take all other actions deemed necessary or appropriate for the investment of local funds.
- B. That an Authorized Representative of the Participant may be deleted by a written instrument signed by two remaining Authorized Representatives provided that the deleted Authorized Representative (1) is assigned job duties that no longer require access to the Participant's TexPool / TexPool Prime account or (2) is no longer employed by the Participant; and
- C. That the Participant may by Amending Resolution signed by the Participant add an Authorized Representative provided the additional Authorized Representative is an officer, employee, or agent of the Participant;

List the Authorized Representative(s) of the Participant. Any new individuals will be issued personal identification numbers to transact business with TexPool Participant Services.

1. Kathy Turner Jones

Name

General Manager

Title

936-494-3436 kjones@lonestargcd.org

Phone/Fax/Email

Signature

2. Jim Stinson

Name

Lone Star Groundwater Conservation Board Treasurer

Title

281-850-9344 jstinson@wjpa.org

Phone/Fax/Email

Signature



**12 Resolution (continued)**

3.   
 Name   
 Title   
 Phone/Fax/Email   
 Signature

4.   
 Name   
 Title   
 Phone/Fax/Email   
 Signature

List the name of the Authorized Representative listed above that will have primary responsibility for performing transactions and receiving confirmations and monthly statements under the Participation Agreement.

Name

In addition and at the option of the Participant, one additional Authorized Representative can be designated to perform only inquiry of selected information. This limited representative cannot perform transactions. If the Participant desires to designate a representative with inquiry rights only, complete the following information.

Name

Title

Phone/Fax/Email

D. That this Resolution and its authorization shall continue in full force and effect until amended or revoked by the Participant, and until TexPool Participant Services receives a copy of any such amendment or revocation. This Resolution is hereby introduced and adopted by the Participant at its regular/special meeting held on the 13 day October, 20 15

Note: Document is to be signed by your Board President, Mayor or County Judge and attested by your Board Secretary, City Secretary or County Clerk.

Name of Participant\*

SIGNED

Signature\*

Printed Name\*

Title\*

ATTEST

Signature\*

Printed Name\*

Title\*

**17 Mailing Instructions**

The completed Resolution Amending Authorized Representatives can be faxed to TexPool Participant Services at 1-866-839-3291, or mailed to:

TexPool Participant Services  
1001 Texas Avenue, Suite 1400  
Houston, TX 77002

ORIGINAL SIGNATURE AND DOCUMENT REQUIRED

TEX-REP

2 OF 2

TexPool Participant Services  
1001 Texas Avenue, Suite 1400 • Houston, TX 77002  
Phone: 1-866-TEXPOOL (839-7665) • Fax: 1-866-839-3291 • www.texpool.com

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G45340-17 (7/15)

