

**GROUNDWATER  
MANAGEMENT  
AREA 8**

**JOINT PLANNING MEETING**

**CLEBURNE CONFERENCE CENTER  
1501 W. HENDERSON ST  
CLEBURNE, TX 76033**

**TUESDAY  
APRIL 22, 2014  
10:00 AM**

AGENDA

**NOTICE OF MEETING  
GROUNDWATER MANAGEMENT AREA 8**

Notice is hereby given that the groundwater conservation districts located wholly or partially within Groundwater Management Area (GMA) 8, as designated by the Texas Water Development Board (TWDB), consisting of the Central Texas Groundwater Conservation District, Clearwater Underground Water Conservation District, Middle Trinity Groundwater Conservation District, North Texas Groundwater Conservation District, Northern Trinity Groundwater Conservation District, Post Oak Savannah Groundwater Conservation District, Prairielands Groundwater Conservation District, Red River Groundwater Conservation District, Saratoga Underground Water Conservation District, Southern Trinity Groundwater Conservation District, and Upper Trinity Groundwater Conservation District will hold a ***Joint Planning meeting at 10:00 A.M. on Tuesday, April 22, 2014***, at the Cleburne Conference Center located at 1501 W. Henderson St., Cleburne, TX 76033. The meeting will be open to the public. The following items of business will be discussed:

1. Invocation.
2. Call meeting to order and establish quorum.
3. Welcome and introductions.
4. Public comment.
5. Approve minutes of January 21, 2014 GMA 8 meeting.
6. Consideration and possible action regarding the designation of an Administrative District, a Chair and Vice-Chair for the GMA 8 in accordance with the adopted administrative procedures.
7. Update and possible action on the Northern Trinity/Woodbine Aquifer GAM Overhaul Project.
8. Update and possible action regarding the development of Desired Future Conditions (DFCs).
9. Receive update on groundwater related legislation and other matters.
10. Set date, time, and place of next meeting and discuss agenda items.
11. Closing comments.
12. Adjourn.

Dated this 3<sup>rd</sup> day of April, 2014

Eddy Daniel, Chair  
Groundwater Management Area 8

*The above agenda schedules represent an estimate of the order for the indicated items and is subject to change at any time. These public meetings are available to all persons regardless of disability. If you require special assistance to attend the meeting, please call (855) 426-4433 at least 24 hours in advance of the meeting to coordinate any special physical access arrangements.*

At any time during the meeting or work session and in compliance with the Texas Open Meetings Act, Chapter 551, Government Code, Vernon's Texas Codes, Annotated, the Groundwater Management Area 8 may meet in executive session on any of the above agenda items or other lawful items for consultation concerning attorney-client matters (§551.071); deliberation regarding real property (§551.072); deliberation regarding prospective gifts (§551.073); personnel matters (§551.074); and deliberation regarding security devices (§551.076). Any subject discussed in executive session may be subject to action during an open meeting.

ATTACHMENT 5

*Meeting of the*  
**Groundwater Management Area 8**  
*January 21, 2014 in Cleburne, TX*

*Minutes*

The Groundwater Management Area 8 district representatives (referred to herein collectively as “the Committee” for easy reference), which consists of representatives from the Central Texas Groundwater Conservation District, Clearwater Underground Water Conservation District, Fox Crossing Water District, Middle Trinity Groundwater Conservation District, North Texas Groundwater Conservation District, Northern Trinity Groundwater Conservation District, Post Oak Savannah Groundwater Conservation District, Prairielands Groundwater Conservation District, Red River Groundwater Conservation District, Saratoga Underground Water Conservation District, Southern Trinity Groundwater Conservation District, and Upper Trinity Groundwater Conservation District (GCD), held a *Joint Planning meeting at 10:00 A.M. on Tuesday, January 21, 2014*, in the Cleburne Conference Center in Cleburne, Texas.

*Groundwater District Representatives Present:*

Central Texas GCD: Charles Shell  
Clearwater UWCD: Judy Parker  
Fox Crossing WD: None  
Middle Trinity GCD: Joe Cooper  
North Texas GCD: Eddy Daniel  
Northern Trinity GCD: Craig Schkade

Post Oak Savannah GCD: Gary Westbrook  
Prairielands GCD: Charles Beseda  
Red River GCD: David Gattis  
Saratoga UWCD: None  
Southern Trinity GCD: Scooter Radcliff  
Upper Trinity GCD: Mike Massey

**1. *Invocation***

Eddy Daniel, North Texas GCD presided over the meeting and provided the invocation.

**2. *Call meeting to order and establish quorum.***

The Groundwater Management Area 8 (GMA 8) meeting was called to order at 10:08 AM at the Cleburne Conference Center in Cleburne, TX. Mr. Daniel welcomed the new members, took roll and established that a quorum was present. 9 Districts were present at the time of roll call, with Fox Crossing WD, Red River GCD and Saratoga UWCD absent.

**3. *Welcome and introductions.***

The members present introduced themselves. Mr. Daniel introduced Mr. Jerry Chapman, Mr. Drew Satterwhite and Mrs. Carmen Catterson who work with the North Texas GCD and Red River GCD. Mr. Daniel also introduced representatives from Lloyd Gosselink, Sledge Fancher, PLLC, the Texas Water Development Board (TWDB), and the USGS. Mr. Daniel thanked all visitors for attending the meeting.

**4. *Public Comments.***

No public comments were received.

**5. *Approve minutes of September 24, 2013 GMA 8 meeting.***

The minutes were provided for review. No changes were proposed.

Charles Beseda, Prairielands GCD moved to approve the minutes of the September 24, 2013 GMA 8, seconded by Mike Massey, Upper Trinity GCD. The motion carried unanimously, 10-0.

**6. *Additional information/clarification on regional draw down concerns presented by MTGCD at the September 24, 2013 GMA 8 meeting***

Joe Cooper, Middle Trinity GCD explained that at the previous meeting he provided information on Desired Future Conditions (DFCs) and felt recommending any changes was very premature. Mr. Cooper explained that he would like to comment on DFCs that are causing conflict. Mr. Cooper explained that the information provided were not McLennan County studies, but were predictive studies. He apologized if it caused any conflict due to his mislabeling the slides.

**7. *Southern Trinity GCD – Conservation Efforts, Scientific Investigations, and Modeling of Aquifer Conditions***

Scooter Radcliff, Southern Trinity GCD explained that they have an all-volunteer Board and operates without taxes. Dr. Al Blair, the engineer for Southern Trinity GCD provided a presentation on their permitting and enforcement procedures.

**8. *Update and possible action on the Northern Trinity/Woodbine Aquifer GAM Overhaul Project and the development of proposed Desired Future Conditions (DFCs)***

Bill Mullican provided an update on the GAM overhaul project. The project is currently on time and in budget. He explained that the project is being overseen by representatives from the four funding groundwater districts, as well as the TWDB. Last June the draft conceptual model was released for review and comment. A review of the comments was conducted after the previous GMA 8 meeting. The model has now largely been constructed and a calibrated simulation has been conducted. The model is now being refined with a historical pumping package and because of the size of the model some of the modeling scripts are being refined to be as efficient as possible. The draft model will be delivered on April 30<sup>th</sup> and the next meeting of Technical Advisory Group should be held immediately thereafter. The TWDB review of the model should occur by August 2014. Hopefully their approval will be secured.

Mr. Mullican also explained that the GAM overhaul contract was formed with the possibility of two predictive scenarios to help the GMA 8 understand how the DFCs will be revised. For this to happen, information must be provided to the contract management team by April 30<sup>th</sup>. Mr. Daniel clarified that the first scenario will be based on the existing Modeled Available Groundwater (MAG) numbers.

David Gattis, Red River GCD arrived at 10:56 AM.

Mr. Mullican recommended that each District would be provided within the next month or so a list of data requested for consultants to review and provide as much information as is possible by April 30<sup>th</sup> to utilize in the one or two predictive scenarios. The first item provided would be historical information on a county by county basis. A second item for consideration is the total water use in the 2011 regional water plan and the ratio of surface to groundwater. Mr. Mullican recommended that each district take advantage of the opportunity being provided. Any further scenarios would need to be paid for by the requesting district.

Mr. Daniel explained that the project committee will put together a letter requesting specific information. The estimated date of delivery of the letter should be by mid-February.

The model will not differentiate between exempt and non-exempt use. The model will include all available groundwater, which will be separated by the districts. Mr. Daniel recommended that the districts provide a reasonable estimate of exempt use to make sure that the use is included in the model. Each district must determine their own amount of exempt use. The committee discussed different methodology for determining exempt use.

**9. Update and possible action regarding the process for the development of Desired Future Conditions (DFCs) including the consideration and possible approval of consulting services**

Mr. Daniel explained that this item was included after discussion at the previous meeting of the process of developing new DFCs. The timeline was the result of meetings being scheduled on a quarterly basis. Mr. Mullican has provided an estimated cost of providing consulting services. The scope and cost estimate was provided in the meeting packet. Mr. Daniel expressed that he did not see how the GMA 8 could handle the process without a consultant working for all of GMA 8. Mike Massey, Upper Trinity GCD asked how Mr. Mullican expected to receive payment for the process. Mr. Mullican replied that he could send out bills twice a year or annually. The total cost would be approximately \$96,000. The cost per district would be approximately \$3,500 per year. Mr. Massey requested that each member provide an expectation of participation. Upper Trinity GCD, Prairielands GCD, Northern Trinity GCD, North Texas GCD, Clearwater UWCD, Central Texas GCD and Post Oak Savannah all stated that their boards would consider and most likely assist with the funding. The other districts all agreed to take the matter before their boards to consider funding the consultant.

Mr. Mullican stated that the amount of hours outlined in the scope is most likely low, but the fee would remain as is suggested. Bill Purcell, Red River GCD stated that he had already discussed leveraging technology with his Board. For example, hosting meetings virtually, which could potentially save money and time. Charles Shell, Central Texas GCD asked when the first installment would be due. Mr. Mullican explained that he would most likely invoice in the middle of 2014 for the first installment.

**10. Receive update on groundwater related legislation and other matters.**

Robert Bradley, TWDB explained that Doug Shaw is now the TWDB agricultural and rural project manager. He also commented that exempt use information is being collected and will be provided back to the groundwater districts. In the event there are any questions, they may be addressed to [Robert.Bradley@twdb.texas.gov](mailto:Robert.Bradley@twdb.texas.gov). Larry French, TWDB also commented that the latest report for aquifers with DFCs is available as of January 21<sup>st</sup>. The TWDB is also nearly ready to conduct a meeting to begin the Brazos River Alluvium model. Mike Massey, Upper Trinity GCD commented that his district is working with INTERA to develop information on the Paleozoic aquifers in his district in order to develop a GAM.

Kristen Fancher, Sledge Fancher, PLLC provided an update to the legislature. She explained the Lieutenant Governor entered some interim charges. These include use brackish water, regulation of water supply, environmental permitting delays, and implementation of legislation including HB 4. Mrs. Fancher also explained that the Texas Water Conservation Association (TWCA) Groundwater Committee has several representatives in the GMA 8 area and is meeting twice a month to deal with the issues. These committees are working to develop legislation for the TWCA to consider and hopefully adopt and file the next session. Texas Alliance of Groundwater Districts (TAGD) has created subcommittees and is working to review the same issues the TWCA is considering.

**11. Set date, time, and place of next meeting and discuss agenda items.**

The next meeting was scheduled for April 22, 2014 at 10:00 AM at the Cleburne Conference Center. Agenda items will include an update on the GAM, the consultant contract. Mr. Daniel requested that each district present the consulting contract to their boards and then provide an update on their desire to participate to the North Texas GCD. Craig Schkade, Northern Trinity GCD requested that a participation resolution be provided at the next GMA 8 meeting. Discussion of total estimated recoverable storage, which is a subset of Task 2C-3.

**12. Closing comments.**

Mr. Daniel requested all visitors and GMA 8 committee members to sign in confirming they attended the meeting.

**13. Adjourn.**

The Committee unanimously agreed to adjourn the meeting at 11:56 AM.

The GMA 8 Committee unanimously approved the minutes on this \_\_\_\_\_ day of \_\_\_\_\_, 2014.

\_\_\_\_\_  
Recording Secretary

\_\_\_\_\_  
Chairman

DRAFT



ATTACHMENT 6

**RESOLUTION ESTABLISHING ADMINISTRATIVE PROCEDURES FOR  
GROUNDWATER MANAGEMENT AREA 8**

**WHEREAS**, the undersigned Groundwater Conservation Districts (Member Districts) are located wholly or partially within the boundaries of Groundwater Management Area 8 (GMA 8); and

**WHEREAS**, the Member Districts are authorized by Chapter 36, Texas Water Code, to engage in joint planning activities for the coordinated management of the aquifers located in GMA 8 and, in that regard, are required through their Member District Representatives to hold joint planning meetings and to establish “desired future conditions for the relevant aquifers” within GMA-8 (DFCs); and

**WHEREAS**, the Member Districts desire to fulfill the requirements of Texas Water Code § 36.108 through mutual cooperation; and

**WHEREAS**, the Member Districts recognize that GMA-8 includes a geographically and hydrogeologically diverse area with a variety of land uses and a diverse mix of water users ranging from municipal, industrial, and irrigation to domestic and livestock; and

**WHEREAS**, the Member Districts recognize the importance of coordinating their joint planning activities and sharing the expense of such activities where necessary or appropriate so as to minimize the costs of such activities to the citizens of Texas;

**NOW, THEREFORE**, it is agreed and understood among the Member Districts as follows:

**SECTION ONE**  
**INTENT AND PURPOSES**

1.01 It is the intent and purpose of the Member Districts to carry out and fulfill the joint planning activities and requirements of Chapter 36, Texas Water Code, including coordinating with one another regarding the sharing of information, posting of notices of public meetings, sharing expenses to reduce costs to Texas citizens where necessary or appropriate, undertaking joint studies or research where necessary or appropriate, and establishing “desired future conditions for the relevant aquifers” within GMA-8.

**SECTION TWO**  
**PARTICIPATION IN GROUNDWATER MANAGEMENT PLANNING**

2.01 Each Member District shall be subject to these administrative procedures.

2.02 A Member District’s Board President or the President’s designee shall be the Member District Representative for GMA 8 planning activities. In the event that the Board

President chooses to appoint a designee as the representative or alternate representative of the Member District, evidence of the appointment shall be required to the GMA 8 Administrator either by letter or by copy of the minutes of the meeting at which the President made the appointment. If GMA 8 has been notified that the designee shall serve as an alternate to the President, no further notice to GMA 8 is needed for the alternate to represent the Member District at a GMA 8 meeting. At any time a Member District changes Presidents or designees, the Member District shall notify the GMA 8 Administrator in writing within 60 days of the change.

2.03 Only a Member District Representative or alternate representative appointed pursuant to Section 2.02 may vote or take action on GMA 8 activities. For any action, only one representative from each Member District may vote. However, each Member District Representative shall obtain approval from his respective District board of directors for the following decisions:

- a. Any commitment of District funds for GMA 8 joint planning activities.
- b. Decisions related to the establishment of DFCs in instances where such decisions are required by Chapter 36 to be made by the boards of directors of the districts rather than by the Member District Representatives.

2.04 Each Member District of GMA 8 shall endeavor to participate and contribute in good faith in joint planning activities and to satisfy the joint planning requirements of Chapter 36, Water Code. In adopting an annual budget or establishing an equitable method for the Member Districts to fund their coordinated joint planning activities within the annual budget or special costs that arise outside of the annual budget, the Member Districts shall strive to ensure that all districts who benefit from the activities or expenses contribute to the financing of those activities or expenses while recognizing that Member Districts have widely disparate means and abilities to participate in such financing. At times, all Member Districts will benefit from such expenses and activities, while at other times it will become apparent that certain expenses are caused by, or accrue to the benefit of, only one Member District or a smaller number of Member Districts. The Member Districts will attempt to take such circumstances under consideration when determining whether an item should be funded by the Member Districts as a group as part of joint planning activities or rather to be funded by one or more districts on their own accord, as well as in establishment of equitable financing methods. Such budgeting and equitable financing method decisions shall be established by a two-thirds majority vote as set forth under Section 3.04. Once decided by a two-thirds vote, actual commitments of funds from each Member District must nonetheless be obtained by approval from their respective District boards of directors as set forth under Section 2.03. Once approved by its respective District board of directors, each Member District has a continuing duty to honor its financial commitment to the other Member Districts.

2.05 The GMA 8 Member Districts, as a group to engage in joint planning activities, shall have only the power granted by Chapter 36, Water Code, that relates to joint planning activities.

2.06 The GMA 8 Member Districts shall provide support by resolution of the Member Districts, motion of support reflected in the joint meeting minutes, or other appropriate means for the activities of each other in pursuing independent or joint studies or research for the betterment of information related to the water resources located wholly or partially within GMA 8, conservation or educational studies, and similar undertakings when such support is needed for one or more Member Districts in pursuing grants, loans, or other financial or technical assistance from state or federal agencies, other local governments, or private institutions.

### **SECTION THREE**

#### **OPEN GOVERNMENT; MEETINGS; DECISION MAKING**

3.01 GMA 8 joint planning meetings must be held in accordance with the Texas Open Meetings Act, Chapter 551, Government Code. The Member Districts agree that notice of meetings shall be provided in accordance with the requirements of Chapter 36, Texas Water Code. Section 36.108(e) authorizes the Member Districts to elect one Member District to be responsible for providing the notice of joint meetings that would otherwise be required of each of them. By adopting these administrative procedures, the Member Districts elect the Administrator described under Section 4 to serve as the district authorized to provide notice of joint meetings under Section 36.108(e), Water Code. All Member Districts shall cooperate with the Administrator to help ensure that meeting notices are properly and timely posted within the boundaries of their individual districts, including posting a meeting notice at the district office upon request by the Administrator as contemplated under Section 36.108(e)(3), Water Code. .

3.02 Each Member District shall comply with the Texas Public Information Act, Chapter 552, Government Code, with regard to joint planning activities. However, the Administrator described under Section 4 shall serve as the primary governmental entity to which requestors of public information related to joint planning activities are generally referred by the Member Districts, as set forth under Section 4.04.

3.03 A simple majority of the total number of GMA 8 Member Districts present through their Member District Representatives or alternative representatives shall constitute a quorum of the Member District Representatives sufficient to engage in GMA 8 joint planning activities as contemplated under Chapter 36, Water Code. A quorum shall be necessary to conduct business on behalf of the GMA 8 Member Districts. A majority of the total number of Member Districts shall be necessary for a motion to prevail at a joint planning meeting, rather than a simple majority of the number of Member Districts actually present at a meeting, except as set forth in Section 3.04 for decisions that require a two-thirds majority. Meetings of a committee of Member District Representatives to discuss joint planning activities where less than a quorum of the total number of GMA 8 Member Districts is present through their Member District Representatives or alternative representatives is not subject to Chapter 551, Government Code.

3.04 A two-thirds majority of the total number of Member Districts, voting through their Member District Representatives, shall be necessary for a motion to prevail at a joint planning meeting to approve any of the following items:

- a. approval of proposed DFCs or adoption of DFCs as contemplated under Section 36.108(d),(d-2), or (d-3), Water Code;
- b. adoption of an annual budget, establishment of a fiscal year, or establishment of an equitable method for the Member Districts to fund their coordinated joint planning activities within the annual budget or special costs that arise outside of the annual budget; and
- c. approval or amendment of these administrative procedures.

#### **SECTION FOUR** **ADMINISTRATION**

4.01 The Member Districts of GMA 8 shall select one Member District to serve as an Administrator for GMA 8 joint planning activities to perform such administrative duties as set forth herein or as otherwise requested by the Member Districts and agreed to by the Administrator. The Administrator may collect funds necessary, reasonable and available from the Member Districts by appropriations made and approved by the Member Districts for GMA 8 joint planning activities and serve as a contracting and administrative agency for such purposes. The Administrator may account for its labor and direct expenses associated with administering GMA 8 business. The Administrator shall provide the Member Districts with periodic accounting reports of its administrative costs and expenses for purposes of seeking reimbursement or for explaining expenditures made from funds previously collected from the Member Districts for joint planning activities.

4.02 The Administrator may, as authorized by the Member Districts, contract for technical or legal services as necessary to fulfill the requirements of Chapter 36 and implement these administrative procedures. If the Administrator is contracting for technical or legal services on behalf of the Member Districts, the Member Districts shall, by agreement, determine how the services will be acquired and an equitable structure for the funding necessary for payment of the services.

4.03 The Administrator shall provide notice of joint planning meetings under Section 36.108(e), Water Code, on behalf of the Member Districts and shall request assistance from the Member Districts as the Administrator deems necessary or appropriate in providing or posting such notice. The Administrator shall include agenda items for inclusion in meeting notices at the direction of the Chair or as requested by a majority of the Member Districts in writing or by a majority vote under "New Business" at a prior joint meeting.

4.04 The Administrator shall serve as the primary governmental entity to which requestors of public information related to joint planning activities are generally referred by the Member Districts for information of a nature that can be best described as relating to joint planning activities rather than the activities of individual districts. Such joint planning information may include notices, meeting minutes, reports, and similar supporting information for joint planning meetings or DFC development that are provided or kept by the Administrator.

4.05 The Member Districts shall elect a Chair and Vice-Chair, annually. An individual must be a Member District Representative to serve as an officer. Each officer shall be a Representative of a different Member District. The Chair shall preside at GMA 8 joint planning meetings. The Vice-Chair shall fulfill the duties of the Chair in the absence of the Chair.

**SECTION FIVE**  
**DEFINITIONS**

These terms shall have the following meaning when used herein:

Desired Future Condition or DFC: The desired future conditions for the relevant aquifers within GMA-8 established in accordance with Chapter 36, Texas Water Code.

GMA-8: Groundwater Management Area 8 as designated by the Texas Water Development Board and as may be amended from time to time.

Member District: A groundwater conservation district subject to Texas Water Code Chapter 36 that is located in whole or in part inside GMA-8 . If the creation of a particular district requires confirmation through an election, the district shall not be a Member District until it is confirmed.

Member District Representative: The President of the Board of Directors of a Member District or his designee, if authorized as set forth under § 2.02.

NOW, THEREFORE, BE IT RESOLVED BY THE MEMBER DISTRICTS OF GROUNDWATER MANAGEMENT AREA 8:

- 1) Each of the affirmations and recitals set forth herein are true and correct;
- 2) The authorized voting representatives of the GMA 8 Member Districts have approved by a two-thirds vote of the total number of Member Districts in GMA 8 the administrative procedures set forth herein; and
- 3) Any previous administrative procedure agreed to by the Member Districts that is in conflict with the administrative procedures set forth herein is superseded by the administrative procedures set forth in this resolution for future actions of the Member Districts.

AND IT IS SO ORDERED.

PASSED AND ADOPTED on this 16<sup>th</sup> day of November, 2011.

ATTEST:

Central Texas Groundwater Conservation District

*Judy Parker*

Clearwater Underground Water Conservation District

*Joe Harner*

Fox Crossing Water District

*Lee B Cooper*

Middle Trinity Groundwater Conservation District

*Eddy W Daniel*

North Texas Groundwater Conservation District

*Fiona M Allen*

Northern Trinity Groundwater Conservation District

*Mark West*

Post Oak Savannah Groundwater Conservation District

*Charles Baeber*

Prairielands Groundwater Conservation District

*Butch Henderson*

Red River Groundwater Conservation District

Saratoga Underground Water Conservation District

*Rodney Hall*

Southern Trinity Groundwater Conservation District

*Mike Massey*

Upper Trinity Groundwater Conservation District

ATTEST:

Central Texas Groundwater Conservation District

*Judy Parker*

Clearwater Underground Water Conservation District

*Jack Garner*

Fox Crossing Water District

*W.B. Cooper*

Middle Trinity Groundwater Conservation District

*Eddy W. Daniel*

North Texas Groundwater Conservation District

*Fiona M. Allen*

Northern Trinity Groundwater Conservation District

*Mary West*

Post Oak Savannah Groundwater Conservation District

*Charles Ford*

Prairielands Groundwater Conservation District

*Butch Henderson*

Red River Groundwater Conservation District

Saratoga Underground Water Conservation District

*Reddy 15200*

Southern Trinity Groundwater Conservation District

*Mike Massey*

Upper Trinity Groundwater Conservation District



ATTACHMENT 8

**Mullican and Associates**  
19212 Luedtke Lane  
Pflugerville, TX 78660

December 6, 2013

Eddy Daniel  
Chairman  
Groundwater Management Area 8  
C/o North Texas Groundwater  
Conservation District  
PO Box 508  
Gainesville, TX 76241  
VIS EMAIL: [eddy@dbiconsultants.com](mailto:eddy@dbiconsultants.com)

Dear Mr. Daniel,

Per your request, I am providing this scope of professional services proposal for Groundwater Management Area 8. This scope is to provide professional services, as described in the attached documents, for the ongoing joint-planning process for Groundwater Management Area 8. This scope of professional services is based on a detailed analysis of the tasks and efforts required to meet the statutory requirements of Texas Water Code Section 36.108.

This proposal is based on the assumption that the North Texas Groundwater Conservation District will continue to provide administrative support to this process with respect to the distribution of meeting notices and coordination with Mullican and Associates on preparation of draft meeting minutes.

This scope of professional services proposal is based on an estimate that this process will require 10 public meetings of Groundwater Management Area 8. If however, the process requires more or less meetings, the scope of professional services for Task 2-A and Task 3-C will be adjusted accordingly. Also, I anticipate that this process will cover the majority of 34 months to complete. As such, the proposed budget should be equally divided into 3 budget years (February 2014 – November 2016). For budget purposes, dividing the total fee equally over the three year process would be appropriate.

Please let me know if you have any questions or need additional information on this proposal.

Sincerely,



William F. Mullican III

Task No.	Task Description	Hours	Unit Cost
1	Development of Proposed Desired Future Conditions (DFCs)		
1-A	<p>Research, assemble, and present supporting information including current estimates of modeled available groundwater (MAG) on an aquifer/county basis, water demand projections from the 2011 regional water plans, and historic groundwater use estimates on an aquifer/county basis. Consultant will work with District Representatives to resolve outstanding issues. At a subsequent meeting of GMA 8, consultant will facilitate discussion with District Representatives to achieve agreement on the interim approach for proposed DFCs that will be utilized in subsequent considerations (see Task 2).</p>	24	\$3,960
1-B	<p>Consultant will coordinate work efforts for the GMA 8 joint-planning process with the ongoing Northern Trinity/Woodbine Aquifer GAM Project (NTWGAM Project). This effort will focus on working with INTERA, Inc., to develop 1 – 2 pumping scenarios, based on the agreed to approach for draft DFCs (achieved at conclusion of Task 1A), to be utilized during predictive simulations to be performed as part of the NTWGAM Project. Results from these predictive simulations, in the form of predicted drawdowns in specified aquifers and corresponding estimates of MAG, along with other basic water budget information will be compiled as part of this subtask and presented to the District Representatives. If necessary, a process for requesting additional predictive simulations will be developed.</p>	16	\$2,640
1-C	<p>It is anticipated that District Representatives will want to develop DFCs for other aquifers in GMA 8 (in addition to the aquifers for which DFCs are already adopted). Consultant will work with District Representatives to identify any aquifers for which DFCs have not been adopted historically but for which a need is now recognized. Research will be conducted to identify analytical tools available for quantifying MAGs for these aquifers. This effort will include meeting with the TWDB Groundwater Resources Division to evaluate approach and availability of tools. Results of this effort will be presented to District Representatives for their concurrence or revision.</p>	24	\$3,960

2		The Consideration Process		
2-A	Consultant will work with GMA 8 administrator at North Texas GCD to develop meeting schedules, agendas, postings, and meeting minutes necessary to ensure efficient and timely joint-planning process and preparation of complete Explanatory Report. These three elements, meeting agendas, meeting postings, and meeting minutes, will serve as the primary documentation in the Explanatory Report that all requirements of Texas Water Code Section 36.108 (d) (1 - 9) have been successfully met.	160	\$26,400	
2-B	Consultant will prepare interim draft resolution for proposed DFCs, including summary of DFCs for consideration in subsequent phases of analysis.	16	\$2,640	
2-C	Consideration of provisions in Texas Water Code §36.108(d) (1-9).			
2-C.1	TWC Section 36.108 (d) (1) requires the consideration of aquifer uses or conditions within GMA 8, including conditions that differ substantially from one geographic area to another. Consultant will; assemble and present information from GCDs, ongoing Northern Trinity/Woodbine Aquifer GAM Project, 2012 State Water Plan (SWP), and draft information from the 2016 regional water plans to characterize current levels of groundwater use in each county, characterize variation in usage patterns across GMA 8, and prepare materials characterizing use and conditions for inclusion in the Explanatory Report.	32	\$5,280	
2-C.2	TWC Section 36.108 (d) (2) requires the consideration of water supply needs and water management strategies included in the 2012 Texas Water Plan. Consultant will prepare information and presentation for each county and by water use sector, for water demands projections and water supply needs. In addition, consultant will identify water management strategies recommended in the 2012 SWP for meeting water supply needs as part of this consideration and prepare materials documenting water supply needs and WMS for discussion with GMA 8 and inclusion in Explanatory Report.	20	\$3,300	

2-C.3	<p>TWC Section 36.108 (d) (3) requires the consideration of hydrologic conditions of groundwater resources including estimates of total recoverable storage. Consultant will, for interim purposes, compile required information from current Northern Trinity/Woodbine GAM (2004 version), coordinate with INTERA, Inc., to compile information from the updated Northern Trinity/Woodbine GAM, including estimates of the annual amount of recharge from precipitation to the groundwater resources within the aquifers, annual volume of water that discharges from the aquifer to springs and any surface water bodies, including lakes, streams, and rivers; and the annual volume of flow into and out of the aquifers. Consultant will coordinate with and receive estimates of total estimated recoverable storage from the TWDB and prepare materials documenting hydrological conditions for discussion with GMA 8 and inclusion in Explanatory Report. Upon adoption of the Northern Trinity/Woodbine GAM update by the TWDB, all information assembled for interim purposes will be updated for presentation to District Representatives and inclusion in the Explanatory Report.</p>	40	\$6,600
2 - C.4	<p>TWC 36.108 (d) (4) requires the consideration of other environmental impacts, including impacts on spring flow and other interactions between groundwater and surface water. Consultant will review existing sources of information to determine the potential for interaction between groundwater formations and surface water, identify potential impacts of proposed DFCs on the environment including surface and groundwater interactions, and prepare materials documenting other environmental impacts for discussion with District Representatives and inclusion in Explanatory Report.</p>	20	\$3,300
2-C.5	<p>TWC Section 36.108 (d) (5) requires that as part of the joint-planning process, District Representatives shall consider the impact of proposed DFCs on subsidence. Consultant will prepare a technical memorandum for inclusion in the Explanatory Report regarding the geological framework of GMA 8 and statement of "not applicable".</p>	6	\$990

2-C.6	TWC Section 36.108 (d) (6) requires District Representatives to consider the socioeconomic impacts reasonably expected to occur as a result of the proposed DFCs. To accomplish this task, consultant will review and compile information on the socioeconomic impacts of not meeting water supply needs included in the 2012 State Water Plan, review and compile information on other socioeconomic studies applicable to GMA 8 and water resources issues, and prepare materials documenting socioeconomic impacts for discussion with the GMA 8 District Representatives and inclusion in Explanatory Report.	24	\$3,960
2-C.7	TWC Section 36.108 (d) (7) requires District Representatives to consider the impact of proposed DFCs on the interests and rights in private property. To accomplish this task, consultant will prepare a presentation for District Representatives regarding foundational aspects of this requirement, and facilitate discussions with District Representatives with respect to this requirement. This effort may include presentations from selected legal experts in the field of private property rights protections. These discussions will be captured in detail in meeting minutes and summarized in a Technical Memorandum that will be included in the Explanatory Report.	12	\$1,980
2-C.8	TWC Section 3.6.108 (d) (8) requires District Representatives to consider the feasibility of achieving the proposed DFCs. To accomplish this task, consultant will prepare a presentation for District Representatives consideration regarding potential approaches to be taken to meet this requirement. Based on agreed to approach, conduct analysis and research necessary to evaluate the feasibility of achieving proposed DFCs.	24	\$3,960
2-C.9	As part of the consideration process prescribed in TWC Section 36.108 (d) (1-9), District Representatives are also directed to consider any other information relevant to the specific proposed DFCs. To accomplish this task, Consultant will work with District Representatives on any areas where the need for additional information is agreed to.	8	\$1,320
<b>Task 3</b>	<b>Program/Process Management</b>		
3-A	Consultant will provide monthly progress reports to GMA 8 District Representatives on status of required elements of the joint-planning process.	34	\$5,610

3-B	Consultant will prepare the draft and final Explanatory Report, including formal descriptions of DFCs adopted and any written materials necessary to synthesize the required but somewhat disparate elements of the Explanatory Report.	40	\$6,600
3-C	Consultant will strategically schedule, organize and prepare necessary materials for all GMA 8 joint-planning meetings throughout the current cycle of planning. Pre- and post-meeting preparations are described in Task 2A. This task is strictly for travel and time at meetings.	80	\$13,200

	Budget
Task 1	\$10,560
Task 2	\$59,730
Task 3	\$25,410
Project Total	\$95,700

## Groundwater Management Area 8

### Scope of Services

Organization, facilitation, analysis, and process management for joint-planning process and preparation of Explanatory Report as required by Texas Water Code Section 36.108 (d) for Groundwater Management Area 8.

The joint-planning process, as required by Texas Water Code §36.108, will be accomplished through a very deliberate and facilitated dialogue with District Representatives in Groundwater Management Area 8 (GMA 8) designed to adopt updated Desired Future Conditions (DFCs) and to address all statutory requirements for the process. In general, Bill Mullican, Principal of Mullican and Associates (Consultant), will serve as the process manager to accomplish all tasks described below throughout the current joint-planning effort. Specific tasks to be performed include:

#### Task 1 Development of proposed Desired Future Conditions (DFCs)

Task 1-A Due to the timing of the ongoing Northern Trinity/Woodbine Aquifer GAM Project (NTWGAM Project), it will be necessary for GMA 8 District Representatives to agree conceptually to an approach for addressing required “considerations” included in Texas Water Code Section 36.108 (d)(1-9) before the updated model is available for predictive simulations. This GMA 8 approach could be, for example, to utilize historic water use information from individual groundwater conservation districts (GCDs) and draft water demand projections being developed as part of the regional water planning process to, on an interim basis, quantify anticipated estimates of MAG and draft DFCs. To meet this requirement, Consultant will research, assemble, and present supporting information including current estimates of modeled available groundwater (MAG) on an aquifer/county basis, water demand projections from the 2011 regional water plans, and historic groundwater use estimates on an aquifer/county basis. At the conclusion of the presentation of this information, District Representatives will be asked to review groundwater use and water demand projection estimates for their respective GCDs for concurrence or revision. Consultant will work with District Representatives to resolve outstanding issues. At a subsequent meeting of

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Draft Scope of Work

Joint-Planning Process for GMA 8

Prepared by Mullican and Associates



GMA 8, Consultant will facilitate discussion with District Representatives to achieve agreement on the interim approach for proposed DFCs that will be utilized in subsequent considerations.

Task 1-B Coordination of work efforts for the GMA 8 joint-planning process with the ongoing Northern Trinity/Woodbine Aquifer GAM Project (NTWGAM Project). This effort will focus on working with INTERA, Inc., to develop 1 – 2 pumping scenarios, based on the agreed to approach for draft DFCs (achieved at conclusion of Task 1A), to be utilized during predictive simulations to be performed as part of the NTWGAM Project. Results from these predictive simulations, in the form of predicted drawdowns in specified aquifers and corresponding estimates of MAG, along with other basic water budget information will be compiled as part of this subtask and presented to the District Representatives. If necessary, a process for requesting additional predictive simulations will be developed.

Task 1-C On the basis of recent discussions, it is anticipated that District Representatives will want to develop DFCs for other aquifers in GMA 8. Although these aquifers may not have officially been designated as major or minor aquifers by the Texas Water Development Board (TWDB) to this point, recent demographic developments have resulted in the recognition by certain GCDs that these aquifers will also need to be managed in the future, and thus there is a need for DFCs and estimates of MAG. Consultant will work with District Representatives to identify any aquifers for which DFCs have not been adopted historically but for which a need is now recognized. Research will be conducted to identify analytical tools available for quantifying MAGs for these aquifers. This effort will include meeting with the TWDB Groundwater Division to evaluate approach and availability of tools. Results of this effort will be presented to District Representatives for their concurrence or revision.

Task 2The “Considerations” process

Task 2-A Consultant will work with GMA 8 administrator at North Texas GCD to develop meeting schedules, agendas, postings, and meeting minutes necessary

to ensure efficient and timely joint-planning process and preparation of complete Explanatory Report.

Task 2-B Consultant will prepare interim draft resolution for proposed DFCs, including summary of DFCs for consideration in subsequent phases of analysis.

Task 2-C Consideration of provisions in Texas Water Code §36.108(d)(1-9).

Task 2-C-1 District Representatives shall consider aquifer uses or conditions within GMA 8, including conditions that differ substantially from one geographic area to another. To accomplish this task, Consultant will:

- i. Assemble and present information from GCDs, 2012 State Water Plan (SWP), and draft information from the 2016 regional water plans to characterize current levels of groundwater use in each county.
- ii. Characterize variation in usage patterns across GMA 8.
- iii. Prepare materials characterizing use and conditions for inclusion in the Explanatory Report.

Task 2-C-2 District Representatives shall consider water supply needs and water management strategies (WMS) in the 2012 State Water Plan (SWP). To accomplish this task, Consultant will:

- i. For each county and by water use sector, water demands projected in the 2012 SWP and water supply needs will be compiled.
- ii. Identify WMS recommended in the 2012 SWP for meeting water supply needs.
- iii. Prepare materials documenting water supply needs and WMS for discussion with GMA 8 and inclusion in Explanatory Report.

Task 2-C-3 District Representatives shall consider hydrological conditions, including for each aquifer in GMA 8 the total estimated recoverable storage as provided by the TWDB Executive Administrator, and the average annual recharge, inflows, and discharge. To accomplish this task, Consultant will:

- i. For interim purposes, compile required information from current Northern Trinity/Woodbine GAM (2004 version).

- ii. Coordinate with INTERA, Inc., to compile information from the updated Northern Trinity/Woodbine GAM as soon as it is available. This information will include:
  - a. The annual amount of recharge from precipitation to the groundwater resources within the aquifers;
  - b. The annual volume of water that discharges from the aquifer to springs and any surface water bodies, including lakes, streams, and rivers; and
  - c. The annual volume of flow into and out of the aquifers.
- iii. Coordinate with and receive estimates of total estimated recoverable storage from TWDB.
- iv. Prepare materials documenting hydrological conditions for discussion with GMA 8 and inclusion in Explanatory Report.

Task 2-C-4 District Representatives shall consider other environmental impacts, including impacts on spring flow and other interactions between groundwater and surface water. To accomplish this task, Consultant will:

- i. Review existing sources of information to determine the potential for interaction between groundwater formations and surface water.
- ii. Identify potential impacts of proposed DFCs on the environment including surface and groundwater interactions.
- iii. Prepare materials documenting other environmental impacts for discussion with the GMA 8 and inclusion in Explanatory Report.

Task 2-C-5 District Representatives shall consider the impact of proposed DFCs on subsidence. To accomplish this task, Consultant will:

- i. Prepare a technical memorandum for inclusion in the Explanatory Report regarding the geological framework of GMA 8 and statement of “not applicable”.

Task 2-C-6 District Representatives shall consider the socioeconomic impacts reasonably expected to occur as a result of the proposed DFCs. To accomplish this task, Consultant will:

- i. Review and compile information on the socioeconomic impacts of not meeting water supply needs included in the 2012 State Water Plan.
- ii. Review and compile information on other socioeconomic studies applicable to GMA 8 and water resources issues.
- iii. Prepare materials documenting socioeconomic impacts for discussion with the GMA 8 and inclusion in Explanatory Report.

Task 2-C-7 District Representatives shall consider the impact of proposed DFCs on the interests and rights in private property, including ownership and the rights of management area landowners and their lessees and assigns in groundwater as recognized under Texas Water Code Section 36.002. To accomplish this task, Consultant will:

- i. Prepare a presentation for District Representatives regarding foundational aspects of this requirement.
- ii. Facilitate discussions with District Representatives with respect to how proposed DFCs will potentially impact private property rights. These discussions will be captured in detail in meeting minutes and summarized in a Technical Memorandum that will be included in the Explanatory Report.

Task 2-C-8 District Representatives shall consider the feasibility of achieving the proposed DFCs. To accomplish this task, Consultant will:

- i. Prepare a presentation for District Representatives regarding potential approaches to be taken to meet this requirement.
- ii. Based on agreed to approach, conduct analysis and research necessary to evaluate the feasibility of achieving proposed DFCs.

Task 2-C-9 District Representatives shall consider any other information relevant to the specific proposed DFCs (uses or conditions of an aquifer within GMA 8 that

differ substantially from one geographic area to another). To accomplish this task, Consultant will:

- i. Prepare a presentation for District Representatives regarding any other information deemed to be relevant to specific proposed DFCs.

#### Task 3 Program Management

Task 3-A Provide routine progress reports to GMA 8 District Representatives on status of required elements of the joint-planning process.

Task 3-B Prepare the draft and final Explanatory Report, including formal descriptions of DFCs adopted and any written materials necessary to synthesize the required but somewhat disparate elements of the Explanatory Report.

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