



**Clearwater Underground Water Conservation District**

P.O. Box 729, Belton, Texas 76513

Phone: 254/933-0120 Fax: 254/770-2360

www.clearwaterdistrict.org

*Horace Grace, President*

*Wallace Biskup*

*Leland Gersbach*

*Judy Parker*

*John Mayer*

RECEIVED

JUN 10 2008

June 9, 2008

TWDB

J. Kevin Ward, Executive Administrator  
Texas Water Development Board  
1700 N. Congress Avenue  
Austin, TX 78701

Re: Desired Future Conditions Submittal for GMA 8

Dear Mr. Ward:

The Clearwater Underground Water Conservation District is the administrator for Groundwater Management Area 8 (GMA 8). On behalf of GMA 8, we are submitting desired future conditions (DFC) for three of the nine major and minor aquifers within our boundary. The aquifers for which DFCs have recently been adopted are as follows: Ellenburger-San Saba; Hickory; and Marble Falls.

Our submittal includes the following information:

- 1) Desired Future Conditions Report for the 3 aquifers above.
- 2) Copies of agendas announcing the meeting at which the DFCs were adopted from each of the groundwater conservation districts in GMA 8. Approved minutes are not currently available but will be provided when approved at the next GMA 8 meeting.
- 3) A signed resolution adopting the desired future conditions and recording the member votes. The resolution references "Appendix B" which includes a 2-D spread sheet model developed by TCB, Inc. and various hydrogeologic reports and other studies used in developing the DFCs. These have not been included in this submittal but are available upon request.

Please note that the adopted DFCs reflect future aquifer conditions anticipated as a result of pumping from both exempt and non-exempt wells. When the managed available groundwater (MAG) figures are developed, they will reflect the amount of water available for use; however, if this full amount is permitted the desired future conditions will not be maintained because exempt well owners are also pumping groundwater. Therefore, it is our understanding that the groundwater conservation districts may reserve water for exempt well use which would result in a permitting figure that is less than the full MAG.

J. Kevin Ward  
June 9, 2008  
Page 2

Please feel free to contact me if you have any questions or need additional information.

Sincerely,

A handwritten signature in cursive script that reads "Cheryl Maxwell".

Cheryl Maxwell, AICP  
Clearwater Underground Water Conservation District Manager  
GMA 8 Administrator

cm  
attachments

**RESOLUTION TO ADOPT DESIRED FUTURE CONDITIONS  
FOR AQUIFER(S) IN GROUNDWATER MANAGEMENT AREA 8**

THE STATE OF TEXAS

GROUNDWATER MANAGEMENT AREA 8

GROUNDWATER CONSERVATION DISTRICTS

§  
§  
§  
§  
§

**WHEREAS**, Texas Water Code § 36.108 requires the groundwater conservation districts located in whole or in part in a groundwater management area (“GMA”) designated by the Texas Water Development Board to adopt desired future conditions for the relevant aquifers located within the management area;

**WHEREAS**, the groundwater conservation districts located wholly or partially within Groundwater Management Area 8 (“GMA 8”), as designated by the Texas Water Development Board, as of the date of this resolution are as follows: Central Texas Groundwater Conservation District, Clearwater Underground Water Conservation District, Fox Crossing Water District, McLennan County Groundwater Conservation District, Middle Trinity Groundwater Conservation District, Northern Trinity Groundwater Conservation District, Post Oak Savannah Groundwater Conservation District, Saratoga Underground Water Conservation District, Tablerock Groundwater Conservation District, and Upper Trinity Groundwater Conservation District (collectively hereinafter “the GMA 8 Districts”);

**WHEREAS**, the GMA 8 Districts are each governmental agencies and bodies politic and corporate operating under Chapter 36, Water Code;

**WHEREAS**, the GMA 8 Districts desire to fulfill the requirements of Texas Water Code § 36.108 through mutual cooperation and joint planning efforts;

**WHEREAS**, the GMA 8 Districts have had numerous public meetings at which they have engaged in joint planning efforts to promote more comprehensive management of the aquifers located in whole or in part in Groundwater Management Area 8;

**WHEREAS**, the GMA 8 Districts may establish different desired future conditions for: (1) each aquifer, subdivision of an aquifer, or geologic strata located in whole or in part within the boundaries of GMA 8; or (2) each geographic area overlying an aquifer in whole or in part or subdivision of an aquifer within the boundaries of GMA 8;

**WHEREAS**, the GMA 8 Districts recognize that GMA 8 includes a geographically and hydrologically diverse area with a variety of land uses and a diverse mix of water users;

**WHEREAS**, the GMA 8 Districts have considered the relevant aquifers, subdivisions thereof, and geologic strata located in whole or in part within the boundaries of GMA 8, and have further considered the hydrogeologic characteristics of the same, as well as the various uses and users of groundwater produced from such aquifers, subdivisions, and strata;



**WHEREAS**, GMA 8 Districts held a meeting, which was open to the public, at 10:00 a.m. on Monday, May 19, 2008, in the Bellmead City Hall located at 3015 Bellmead Drive, Bellmead, Texas;

**WHEREAS**, notice of said May 19, 2008, meeting was properly given by each and all of the GMA 8 Districts in accordance with Chapter 36, Water Code, and Chapter 551, Government Code, and a true and correct copy of each of the notices has been attached hereto in Appendix A and is incorporated herein for all purposes;

**WHEREAS**, at least two-thirds of the GMA 8 Districts had a voting representative in attendance at said May 19, 2008, meeting in accordance with Section 36.108(d-1), Texas Water Code; to wit, the following districts had a voting representative in attendance at said meeting: Central Texas Groundwater Conservation District, Clearwater Underground Water Conservation District, Fox Crossing Water District, McLennan County Groundwater Conservation District, Middle Trinity Groundwater Conservation District, Northern Trinity Groundwater Conservation District, Post Oak Savannah Groundwater Conservation District, Saratoga Underground Water Conservation District, Tablerock Groundwater Conservation District, and Upper Trinity Groundwater Conservation District;

**WHEREAS**, it is the intent and purpose of the GMA 8 Districts by adoption of this resolution to fulfill the requirements of Texas Water Code § 36.108, including establishing “desired future conditions for the relevant aquifers” within GMA 8 for the specific aquifer(s) and desired future conditions described under “Appendix B” attached hereto and incorporated herein for all purposes;

**WHEREAS**, at said May 19, 2008, meeting, after motions were duly made and seconded that the GMA 8 Districts adopt this resolution establishing desired future conditions for the aquifer(s) described under “Appendix B”, the motions prevailed by the following vote:

Ellenburger-San Saba, Hickory, Marble Falls:                      10 Ayes and 0 Nays;

**WHEREAS**, in establishing these desired future conditions for the aquifer(s) set forth under Appendix B, the GMA 8 Districts have considered all of the criteria required by Chapter 36 of the Texas Water Code and other information, including without limitation groundwater availability models and runs of those models to determine the effects of various conditions and parameters, hydrogeologic reports available for the relevant aquifers, and other technical data and information;

**WHEREAS**, many of the groundwater availability models, runs, hydrogeologic reports, and other technical data and information considered and determined to be reliable sources of information by the GMA 8 Districts in establishing these desired future conditions for the aquifer(s) have been attached hereto or referenced in the documents attached hereto under Appendix B;

**WHEREAS**, in establishing these desired future conditions for the aquifer(s) set forth under Appendix B, the GMA 8 Districts have considered the uses and conditions of the aquifer(s) in different geographic areas within GMA 8 and what the effects and impacts of adopting such desired future conditions will have upon the condition of the aquifer(s) and the uses and users of groundwater from the aquifer(s) both now and in the future;

**WHEREAS**, after considering such anticipated effects and impacts these desired future conditions will have on the aquifer(s), uses, and users of groundwater, and considering all of the other criteria required by Chapter 36 of the Texas Water Code, including without limitation the groundwater resource management duties and responsibilities of the GMA Districts individually and collectively, the GMA 8 Districts have determined that the desired future conditions for the aquifer(s) set forth under Appendix B are reasonable;

**NOW, THEREFORE, BE IT RESOLVED BY THE AUTHORIZED VOTING REPRESENTATIVES OF THE GMA 8 DISTRICTS AS FOLLOWS:**

1. The above recitals are true and correct.
2. The authorized voting representatives of the GMA 8 Districts hereby establish the desired future conditions of the aquifer(s) as set forth in Appendix B by the vote reflected in the above recitals.
3. The GMA 8 Districts and their agents and representatives, individually and collectively, are further authorized to take any and all actions necessary to implement this resolution.
4. The desired future conditions of the aquifer adopted by the GMA 8 Districts and attached hereto shall be effective immediately and shall continue in effect until amended, superseded, or repealed.

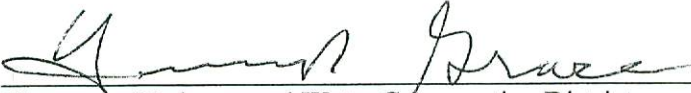
AND IT IS SO ORDERED.

PASSED AND ADOPTED on this 19th day of May, 2008.

ATTEST:



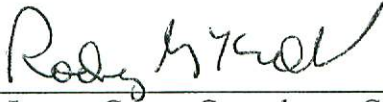
Central Texas Groundwater Conservation District ✓



Clearwater Underground Water Conservation District ✓



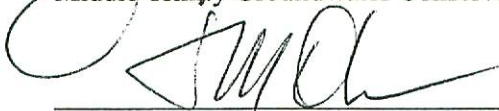
Fox Crossing Water District ✓



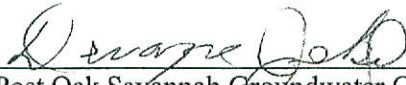
McLennan County Groundwater Conservation District



Middle Trinity Groundwater Conservation District ✓



Northern Trinity Groundwater Conservation District ✓



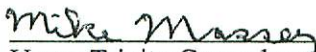
Post Oak Savannah Groundwater Conservation District ✓

Saratoga Underground Water Conservation District ✓



Tablerock Groundwater Conservation District ✓



Upper Trinity Groundwater Conservation District ✓

ATTACHMENTS

Appendix A: Copies of notices of May 19, 2008, meeting

Appendix B: Adopted Desired Future Conditions and supporting information



## Appendix A

**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, consisting of the Central Texas Groundwater Conservation District, Clearwater Underground Water Conservation District, Fox Crossing Water District, McLennan County Groundwater Conservation District, Middle Trinity Groundwater Conservation District, Northern Trinity Groundwater Conservation District, Post Oak Savannah Groundwater Conservation District, Saratoga Underground Water Conservation District, Tablerock Groundwater Conservation District, and Upper Trinity Groundwater Conservation District will hold a *Joint Planning meeting at 10:00 A.M. on Monday, May 19, 2008, in the Bellmead City Hall located at 3015 Bellmead Drive, Bellmead, Texas 76705.* 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 December 17, 2007 GMA 8 meeting.
6. Update from the Texas Water Development Board on the GMA joint planning process.
7. Presentation on proposed desired future conditions for the following minor aquifers within GMA 8: Ellenburger-San Saba, Hickory, and Marble Falls.
8. Public hearing on proposed desired future conditions for the minor aquifers described above.
9. Discussion and possible action to adopt proposed desired future conditions for the minor aquifers described above.
10. Discussion regarding status of desired future conditions for the Trinity aquifer.
11. Update on managed available groundwater figures for the Edwards BFZ aquifer.
12. Discussion and possible action to amend contract to approve additional work previously conducted by TCB, Inc. to develop the desired future conditions for the aquifers in GMA 8.
13. Committee member comments.
14. Discuss agenda items for next meeting.
15. Set date, time, and place of next meeting.
16. Closing comments.
17. Adjourn.

Dated this 6th day of May, 2008.



Richard S. Bowers, General Manager  
Central Texas Groundwater Conservation District

**POSTED**  
*May 6th 2008*  
\_\_\_\_\_  
Janet Parker  
County Clerk - Burnet County, Texas  
By *[Signature]* Deputy

The Central Texas Groundwater Conservation District is committed to compliance with the Disabilities Act (ADA). Reasonable accommodations and equal opportunity for effective communications will be provided upon request. Please contact the District office at 512-756-4900 at least 24 hours in advance if accommodation is needed.

During the meeting, the Committee reserves the right to go into executive session for any of the purposes authorized under V.T.C.A., Government Code, Chapter 551, for any item on the above agenda or as otherwise authorized by law.



**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, consisting of the Central Texas Groundwater Conservation District, Clearwater Underground Water Conservation District, Fox Crossing Water District, McLennan County Groundwater Conservation District, Middle Trinity Groundwater Conservation District, Northern Trinity Groundwater Conservation District, Post Oak Savannah Groundwater Conservation District, Saratoga Underground Water Conservation District, Tablerock Groundwater Conservation District, and Upper Trinity Groundwater Conservation District will hold a *Joint Planning meeting at 10:00 A.M. on Monday, May 19, 2008*, in the Bellmead City Hall located at 3015 Bellmead Drive, Bellmead, Texas 76705. 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 December 17, 2007 GMA 8 meeting.
6. Update from the Texas Water Development Board on the GMA joint planning process.
7. Presentation on proposed desired future conditions for the following minor aquifers within GMA 8: Ellenburger-San Saba, Hickory, and Marble Falls.
8. Public hearing on proposed desired future conditions for the minor aquifers described above.
9. Discussion and possible action to adopt proposed desired future conditions for the minor aquifers described above.
10. Discussion regarding status of desired future conditions for the Trinity aquifer.
11. Update on managed available groundwater figures for the Edwards BFZ aquifer.
12. Discussion and possible action to amend contract to approve additional work previously conducted by TCB, Inc. to develop the desired future conditions for the aquifers in GMA 8.
13. Committee member comments.
14. Discuss agenda items for next meeting.
15. Set date, time, and place of next meeting.
16. Closing comments.
17. Adjourn.

Dated this 5 day of May, 2008

Horace Grace, CUWCD President

By: Cheryl Maxwell  
Cheryl Maxwell, CUWCD Asst. Secretary

FILED FOR RECORD  
2008 MAY -5 PM 12:38  
CLERK OF DISTRICT  
CITY OF BELL CO. TX

The Clearwater Underground Water Conservation District is committed to compliance with the Americans with Disabilities Act. Reasonable accommodations and equal opportunity for effective communications will be provided upon request. Please contact the District office at 254-933-0120 at least 24 hours in advance if accommodation is needed.

During the meeting, the Committee reserves the right to go into executive session for any of the purposes authorized under V.T.C.A., Government Code, Chapter 551, for any item on the above agenda or as otherwise authorized by law.

**FOX CROSSING WATER DISTRICT  
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, consisting of the Central Texas Groundwater Conservation District, Clearwater Underground Water Conservation District, Fox Crossing Water District, McLennan County Groundwater Conservation District, Middle Trinity Groundwater Conservation District, Northern Trinity Groundwater Conservation District, Post Oak Savannah Groundwater Conservation District, Saratoga Underground Water Conservation District, Tablerock Groundwater Conservation District, and Upper Trinity Groundwater Conservation District will hold a *Joint Planning meeting at 10:00 A.M. on Monday, May 19, 2008*, in the Bellmead City Hall located at 3015 Bellmead Drive, Bellmead, Texas 76705. The meeting will be open to the public. The following items of business will be discussed:

FILED FOR RECORD  
At 2:22 O'clock 1 M

1. Invocation.
2. Call meeting to order and establish quorum.
3. Welcome and introductions.
4. Public comment.
5. Approve minutes of December 17, 2007 GMA 8 meeting.
6. Update from the Texas Water Development Board on the GMA joint planning process.
7. Presentation on proposed desired future conditions for the following minor aquifers within GMA 8: Ellenburger-San Saba, Hickory, and Marble Falls.
8. Public hearing on proposed desired future conditions for the minor aquifers described above.
9. Discussion and possible action to adopt proposed desired future conditions for the minor aquifers described above.
10. Discussion regarding status of desired future conditions for the Trinity aquifer.
11. Update on managed available groundwater figures for the Edwards BFZ aquifer.
12. Discussion and possible action to amend contract to approve additional work previously conducted by TCB, Inc. to develop the desired future conditions for the aquifers in GMA 8.
13. Committee member comments.
14. Discuss agenda items for next meeting.
15. Set date, time, and place of next meeting.
16. Closing comments.
17. Adjourn.

MAY 08 2008

CAROLYN FOSTER  
County and District Clerk  
Mills County, Texas  
By [Signature] Deputy

Dated this 5th day of May, 2008

Rodney Carlisle FCWD President

By: [Signature]  
Jerry Priddy, FCWD Secretary

The Clearwater Underground Water Conservation District is committed to compliance with the Americans with Disabilities Act. Reasonable accommodations and equal opportunity for effective communications will be provided upon request. Please contact the District office at 254-933-0120 at least 24 hours in advance if accommodation is needed.

During the meeting, the Committee reserves the right to go into executive session for any of the purposes authorized under V.T.C.A., Government Code, Chapter 551, for any item on the above agenda or as otherwise authorized by law.



**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, consisting of the Central Texas Groundwater Conservation District, Clearwater Underground Water Conservation District, Fox Crossing Water District, McLennan County Groundwater Conservation District, Middle Trinity Groundwater Conservation District, Northern Trinity Groundwater Conservation District, Post Oak Savannah Groundwater Conservation District, Saratoga Underground Water Conservation District, Tablerock Groundwater Conservation District, and Upper Trinity Groundwater Conservation District will hold a *Joint Planning meeting at 10:00 A.M. on Monday, May 19, 2008*, in the Bellmead City Hall located at 3015 Bellmead Drive, Bellmead, Texas 76705. 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 December 17, 2007 GMA 8 meeting.
6. Update from the Texas Water Development Board on the GMA joint planning process.
7. Presentation on proposed desired future conditions for the following minor aquifers within GMA 8: Ellenburger-San Saba, Hickory, and Marble Falls.
8. Public hearing on proposed desired future conditions for the minor aquifers described above.
9. Discussion and possible action to adopt proposed desired future conditions for the minor aquifers described above.
10. Discussion regarding status of desired future conditions for the Trinity aquifer.
11. Update on managed available groundwater figures for the Edwards BFZ aquifer.
12. Discussion and possible action to amend contract to approve additional work previously conducted by TCB, Inc. to develop the desired future conditions for the aquifers in GMA 8.
13. Committee member comments.
14. Discuss agenda items for next meeting..
15. Set date, time, and place of next meeting.
16. Closing comments.
17. Adjourn.

Dated this 5th day of May, 2008

Horace Grace, CUWCD President

By   
S.G. Radcliffe

The Clearwater Underground Water Conservation District is committed to compliance with the Americans with Disabilities Act. Reasonable accommodations and equal opportunity for effective communications will be provided upon request. Please contact the District office at 254-933-0120 at least 24 hours in advance if accommodation is needed.

During the meeting, the Committee reserves the right to go into executive session for any of the purposes authorized under V.T.C.A., Government Code, Chapter 551, for any item on the above agenda or as otherwise authorized by law.



**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, consisting of the Central Texas Groundwater Conservation District, Clearwater Underground Water Conservation District, Fox Crossing Water District, McLennan County Groundwater Conservation District, Middle Trinity Groundwater Conservation District, Northern Trinity Groundwater Conservation District, Post Oak Savannah Groundwater Conservation District, Saratoga Underground Water Conservation District, Tablerock Groundwater Conservation District, and Upper Trinity Groundwater Conservation District will hold a *Joint Planning meeting at 10:00 A.M. on Monday, May 19, 2008*, in the Bellmead City Hall located at 3015 Bellmead Drive, Bellmead, Texas 76705. 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 December 17, 2007 GMA 8 meeting.
6. Update from the Texas Water Development Board on the GMA joint planning process.
7. Presentation on proposed desired future conditions for the following minor aquifers within GMA 8: Ellenburger-San Saba, Hickory, and Marble Falls.
8. Public hearing on proposed desired future conditions for the minor aquifers described above.
9. Discussion and possible action to adopt proposed desired future conditions for the minor aquifers described above.
10. Discussion regarding status of desired future conditions for the Trinity aquifer.
11. Update on managed available groundwater figures for the Edwards BFZ aquifer.
12. Discussion and possible action to amend contract to approve additional work previously conducted by TCB, Inc. to develop the desired future conditions for the aquifers in GMA 8.
13. Committee member comments.
14. Discuss agenda items for next meeting.
15. Set date, time, and place of next meeting.
16. Closing comments.
17. Adjourn.

Dated this 14<sup>th</sup> day of May, 2008

  
Joe Cooper, General Manager, MTGCD

The Middle Trinity Groundwater Conservation District is committed to compliance with the Americans with Disabilities Act. Reasonable accommodations and equal opportunity for effective communications will be provided upon request. Please contact the District office at 254-965-6705 at least 24 hours in advance if accommodation is needed.

During the meeting, the Committee reserves the right to go into executive session for any of the purposes authorized under V.T.C.A., Government Code, Chapter 551, for any item on the above agenda or as otherwise authorized by law.

PUBLISHED  
A.M. 12:40 P.M.

MAY 14 2008

GWINDA JONES, COUNTY CLERK  
ERATH COUNTY, TEXAS  
BY TMS DEPUTY

**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, consisting of the Central Texas Groundwater Conservation District, Clearwater Underground Water Conservation District, Fox Crossing Water District, McLennan County Groundwater Conservation District, Middle Trinity Groundwater Conservation District, Northern Trinity Groundwater Conservation District, Post Oak Savannah Groundwater Conservation District, Saratoga Underground Water Conservation District, Tablerock Groundwater Conservation District, and Upper Trinity Groundwater Conservation District will hold a *Joint Planning meeting at 10:00 A.M. on Monday, May 19, 2008*, in the Bellmead City Hall located at 3015 Bellmead Drive, Bellmead, Texas 76705. 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 December 17, 2007 GMA 8 meeting.
6. Update from the Texas Water Development Board on the GMA joint planning process.
7. Presentation on proposed desired future conditions for the following minor aquifers within GMA 8: Ellenburger-San Saba, Hickory, and Marble Falls.
8. Public hearing on proposed desired future conditions for the minor aquifers described above.
9. Discussion and possible action to adopt proposed desired future conditions for the minor aquifers described above.
10. Discussion regarding status of desired future conditions for the Trinity aquifer.
11. Update on managed available groundwater figures for the Edwards BFZ aquifer.
12. Discussion and possible action to amend contract to approve additional work previously conducted by TCB, Inc. to develop the desired future conditions for the aquifers in GMA 8.
13. Committee member comments.
14. Discuss agenda items for next meeting.
15. Set date, time, and place of next meeting.
16. Closing comments.
17. Adjourn.

Handwritten signature and stamp: *Mark Mendez*  
Stamp: *Mark Mendez - 1 10 08*

*The Northern Trinity Groundwater Conservation District is committed to public access. To request an accommodation for a person with a disability who wishes to attend the meeting, contact Mark Mendez at 817-884-2729 at least one business day prior to the posted meeting.*



---

---

## NOTICE OF MEETING GROUNDWATER MANAGEMENT AREA 8

May 19, 2008 – 10:00 a.m.

Bellmead City Hall  
3015 Bellmead Drive  
Bellmead, Texas 76705

---

### AGENDA

---

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, consisting of the Central Texas Groundwater Conservation District, Clearwater Underground Water Conservation District, Fox Crossing Water District, McLennan County Groundwater Conservation District, Middle Trinity Groundwater Conservation District, Northern Trinity Groundwater Conservation District, Post Oak Savannah Groundwater Conservation District, Saratoga Underground Water Conservation District, Tablerock Groundwater Conservation District, and Upper Trinity Groundwater Conservation District will hold a *Joint Planning meeting at 10:00 A.M. on Monday, May 19, 2008*, in the Bellmead City Hall located at 3015 Bellmead Drive, Bellmead, Texas 76705. 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 December 17, 2007 GMA 8 meeting.
6. Update from the Texas Water Development Board on the GMA joint planning process.
7. Presentation on proposed desired future conditions for the following minor aquifers within GMA 8: Ellenburger-San Saba, Hickory, and Marble Falls.
8. Public hearing on proposed desired future conditions for the minor aquifers described above.
9. Discussion and possible action to adopt proposed desired future conditions for the minor aquifers described above.
10. Discussion regarding status of desired future conditions for the Trinity aquifer.
11. Update on managed available groundwater figures for the Edwards BFZ aquifer.
12. Discussion and possible action to amend contract to approve additional work previously conducted by TCB, Inc. to develop the desired future conditions for the aquifers in GMA 8.
13. Committee member comments.
14. Discuss agenda items for next meeting.
15. Set date, time, and place of next meeting.
16. Closing comments.
17. Adjourn.

Filed 8<sup>th</sup> day of May  
in 2008, At 8:05 A.M.  
BARBARA VANSA  
County Clerk, Milam County, Texas  
By [Signature]  
Deputy

Signed this 7th day of May, 2008.

[Signature]  
Gary Westbrook, General Manager, POSGCD



**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, consisting of the Central Texas Groundwater Conservation District, Clearwater Underground Water Conservation District, Fox Crossing Water District, McLennan County Groundwater Conservation District, Middle Trinity Groundwater Conservation District, Northern Trinity Groundwater Conservation District, Post Oak Savannah Groundwater Conservation District, Saratoga Underground Water Conservation District, Tablerock Groundwater Conservation District, and Upper Trinity Groundwater Conservation District will hold a ***Joint Planning meeting at 10:00 A.M. on Monday, May 19, 2008***, in the Bellmead City Hall located at 3015 Bellmead Drive, Bellmead, Texas 76705. 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 December 17, 2007 GMA 8 meeting.
6. Update from the Texas Water Development Board on the GMA joint planning process.
7. Presentation on proposed desired future conditions for the following minor aquifers within GMA 8: Ellenburger-San Saba, Hickory, and Marble Falls.
8. Public hearing on proposed desired future conditions for the minor aquifers described above.
9. Discussion and possible action to adopt proposed desired future conditions for the minor aquifers described above.
10. Discussion regarding status of desired future conditions for the Trinity aquifer.
11. Update on managed available groundwater figures for the Edwards BFZ aquifer.
12. Discussion and possible action to amend contract to approve additional work previously conducted by TCB, Inc. to develop the desired future conditions for the aquifers in GMA 8.
13. Committee member comments.
14. Discuss agenda items for next meeting.
15. Set date, time, and place of next meeting.
16. Closing comments.
17. Adjourn.

Dated this \_\_16th\_\_ day of May, 2008

David B. Hamilton, Chairman SUWCD



The Saratoga Underground Water Conservation District is committed to compliance with the Americans with Disabilities Act. Reasonable accommodations and equal opportunity for effective communications will be provided upon request. Please contact the District office at 512-556-8271 at least 24 hours in advance if accommodation is needed.

During the meeting, the Committee reserves the right to go into executive session for any of the purposes authorized under V.T.C.A., Government Code, Chapter 551, for any item on the above agenda or as otherwise authorized by law.

**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, consisting of the Central Texas Groundwater Conservation District, Clearwater Underground Water Conservation District, Fox Crossing Water District, McLennan County Groundwater Conservation District, Middle Trinity Groundwater Conservation District, Northern Trinity Groundwater Conservation District, Post Oak Savannah Groundwater Conservation District, Saratoga Underground Water Conservation District, Tablerock Groundwater Conservation District, and Upper Trinity Groundwater Conservation District will hold a *Joint Planning meeting at 10:00 A.M. on Monday, May 19, 2008*, in the Bellmead City Hall located at 3015 Bellmead Drive, Bellmead, Texas 76705. 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 December 17, 2007 GMA 8 meeting.
6. Update from the Texas Water Development Board on the GMA joint planning process.
7. Presentation on proposed desired future conditions for the following minor aquifers within GMA 8: Ellenburger-San Saba, Hickory, and Marble Falls.
8. Public hearing on proposed desired future conditions for the minor aquifers described above.
9. Discussion and possible action to adopt proposed desired future conditions for the minor aquifers described above.
10. Discussion regarding status of desired future conditions for the Trinity aquifer.
11. Update on managed available groundwater figures for the Edwards BFZ aquifer.
12. Discussion and possible action to amend contract to approve additional work previously conducted by TCB, Inc. to develop the desired future conditions for the aquifers in GMA 8.
13. Committee member comments.
14. Discuss agenda items for next meeting.
15. Set date, time, and place of next meeting.
16. Closing comments.
17. Adjourn.

Dated this 5<sup>th</sup> day of May, 2008

W. H. Ament

Wyllis H. Ament  
President  
Tablerock Groundwater Conservation District  
Coryell County

FILED  
AT 4:00 O'CLOCK P.M.

MAY 05 2008

Barbara Simpson  
COUNTY CLERK, CORYELL CO., TEXAS

During the meeting, the Committee reserves the right to go into executive session for any of the purposes authorized under V.T.C.A., Government Code, Chapter 551, for any item on the above agenda or as otherwise authorized by law.





## Open Meeting Submission

***Success!***  
**Row inserted**

**TRD:** 2008003564  
**Date Posted:** 05/05/2008  
**Status:** Accepted  
**Agency Id:** 1005  
**Date of Submission:** 05/05/2008  
**Agency Name:** Upper Trinity Groundwater Conservation District  
**Board:** Groundwater Management Area 8 Groundwater Conservation Districts  
**Liaison Id:** 1  
**Date of Meeting:** 05/19/2008  
**Time of Meeting:** 10:00 AM (###:## AM Local Time)  
**Street Location:** Bellmead City Hall, 3015 Bellmead Drive  
**City Location:** Bellmead  
**State Location:** TX  
**Liaison Name:** Jason Hill  
**Additional Information Obtained From:** Cheryl Maxwell, GMA 8 Administrator, (254)933-0120

**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, consisting of the Central Texas Groundwater Conservation District, Clearwater Underground Water Conservation District, Fox Crossing Water District, McLennan County Groundwater Conservation District, Middle Trinity Groundwater Conservation District, Northern Trinity Groundwater Conservation District, Post Oak Savannah Groundwater Conservation District, Saratoga Underground Water Conservation District, Tablerock Groundwater Conservation District, and Upper Trinity Groundwater Conservation District will hold a Joint Planning meeting at 10:00



A.M. on Monday, May 19, 2008, in the Bellmead City Hall located at 3015 Bellmead Drive, Bellmead, Texas 76705. The meeting will be open to the public. The following items of business will be discussed:

- Agenda:**
1. Invocation.
  2. Call meeting to order and establish quorum.
  3. Welcome and introductions.
  4. Public comment.
  5. Approve minutes of December 17, 2007 GMA 8 meeting.
  6. Update from the Texas Water Development Board on the GMA joint planning process.
  7. Presentation on proposed desired future conditions for the following minor aquifers within GMA 8: Ellenburger-San Saba, Hickory, and Marble Falls.
  8. Public hearing on proposed desired future conditions for the minor aquifers described above.
  9. Discussion and possible action to adopt proposed desired future conditions for the minor aquifers described above.
  10. Discussion regarding status of desired future conditions for the Trinity aquifer.
  11. Update on managed available groundwater figures for the Edwards BFZ aquifer.
  12. Discussion and possible action to amend contract to approve additional work previously conducted by TCB, Inc. to develop the desired future conditions for the aquifers in GMA 8.
  13. Committee member comments.
  14. Discuss agenda items for next meeting.
  15. Set date, time, and place of next meeting.
  16. Closing comments.
  17. Adjourn.

The Upper Trinity Groundwater Conservation District is committed to compliance with the Americans with Disabilities Act. Reasonable accommodations and equal opportunity for effective communications will be provided upon request. Please contact the GMA 8 Administrator at 254-933-0120 at least 24 hours in advance if accommodation is needed.

During the meeting, the GMA 8 Committee reserves the right to go into executive session for any of the purposes authorized under V.T.C.A., Government Code, Chapter 551, for any item on the above agenda or as otherwise authorized by law.

New

[HOME](#) | [TEXAS REGISTER](#) | [TEXAS ADMINISTRATIVE CODE](#) | [OPEN MEETINGS](#) |

## Appendix B



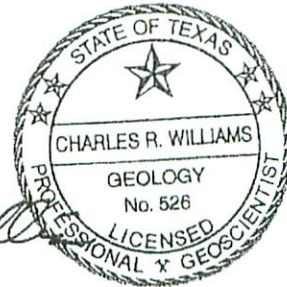
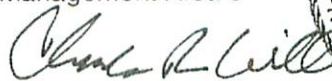
TCB

TCB  
400 West 15th Street, Suite 500, Austin, Texas 78701  
T 512.472.4519 F 512.472.7519 www.tcb.aecom.com

## Memorandum

To: Cheryl Maxwell, Administrative Manager  
Clearwater Underground Water Conservation District  
Administrative Agent for Groundwater Management Area 8

From: Charles R. Williams, P.G. No. 526



Date: June 9, 2008

Re: Adopted Desired Future Conditions of the Ellenburger-San Saba, Hickory and Marble Falls Aquifers

### Introduction

Groundwater Management Area 8 (GMA-8) is a groundwater management area of the State of Texas as defined by Statute with responsibility for developing a desired future condition (DFC) for aquifers within an approximately 46-County area. Membership of the GMA is composed of the groundwater conservation districts (GCDs) that occur all or in part within the GMA boundary. (Fig. 1) At the request of GMA-8, TCB Inc. (TCB) developed statements describing DFCs for the portions of the Ellenburger-San Saba, Hickory and Marble Falls Aquifers recognized by the Texas Water Development Board (TWDB) to occur in whole or in part within GMA-8. (Fig. 2)

### Methodology

To predict the effects of pumping on the Ellenburger-San Saba and Marble Falls aquifers in Burnet and Lampasas Counties and the Hickory aquifer in Burnet County, TCB developed 2-D spreadsheet models. The models use estimates of the recharge area, annual rainfall, recharge rate, the saturated thickness of the aquifer and the effective porosity (specific yield) to predict the percentage of saturated thickness maintained after a specified time period for a range of simulated pumping amounts. Predictions may be made on a by-County basis or for the aquifer as a whole aquifer. The estimates of the recharge area for each aquifer are taken from the TWDB geographic information system (GIS) coverages. Estimates of the annual rainfall for each county were taken from National Oceanic and Atmospheric Agency (NOAA) data. Estimates of the recharge rates saturated thicknesses are from TWDB publications on the occurrence and availability of groundwater. (Muller and Price, 1979 and Bluntzer, 1992) Estimates of

effective porosities are based on representative value for aquifers of similar materials. (Driscoll, 1986) The time period for the predictions is 50 years.

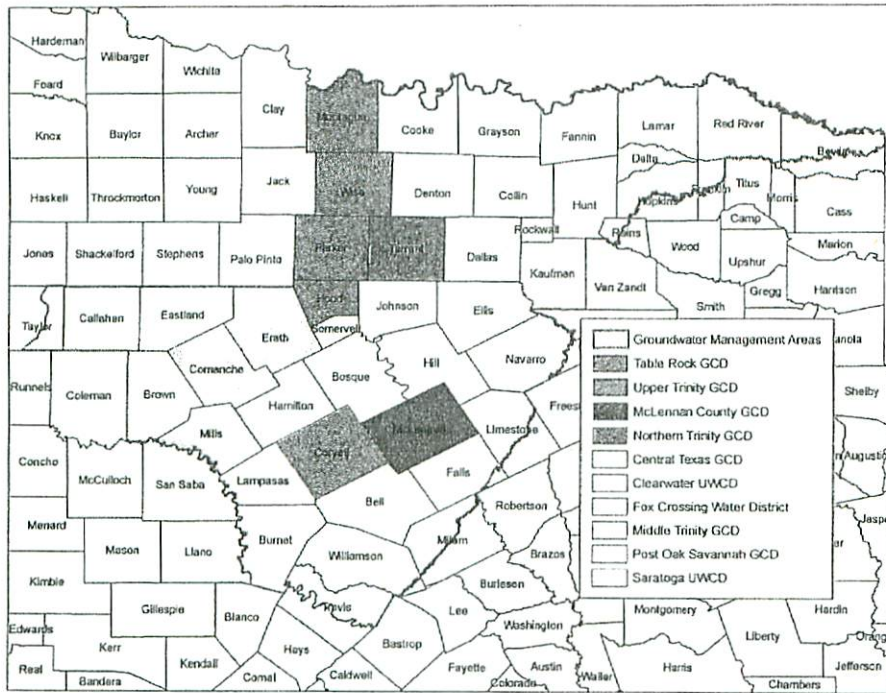


Figure 1, the Boundaries and Member GCDs of GMA-8

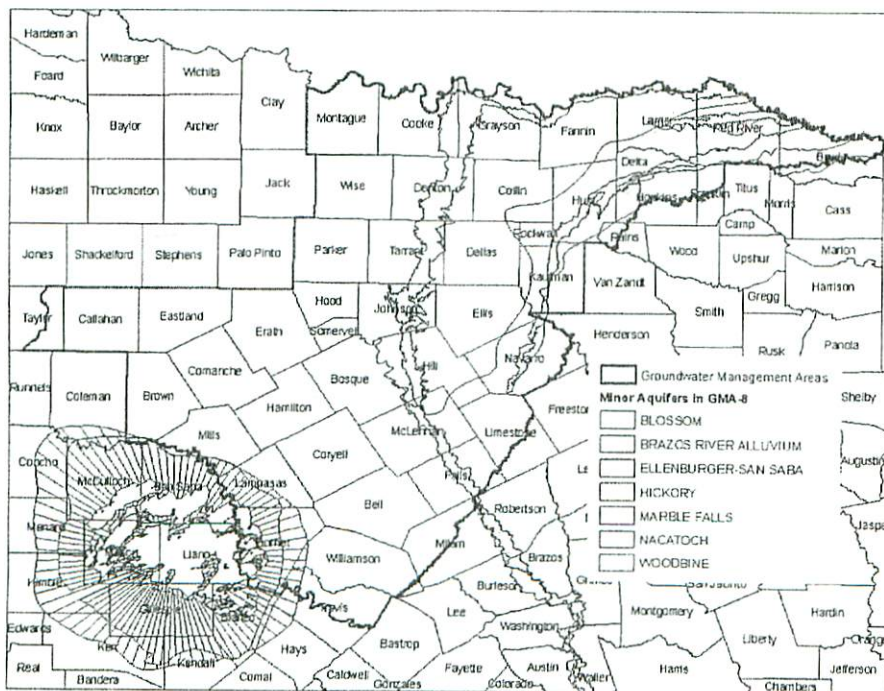


Figure 2, the Minor Aquifers of GMA-8



Where possible, for the portions of the Ellenburger-San Saba, Hickory and Marble Falls aquifers occurring within a GCD; the GCD selected the preferred percentage of aquifer saturated thickness to be maintained in the portion of the aquifer within its management. A DFC statement was developed describing the selected condition. For the portions of the Hickory aquifer outside of a GCD; no DFC was developed. The occurrence of the Hickory in those Counties is extremely deep and at the down-dip margin of the recognition of the aquifer; the Regional Water Plan (RWP) does not include an availability value for those areas.

## Discussion

The purpose of the 2-D models is to conveniently predict the potential results of a range of predictive pumping amounts over time for aquifers where a TWDB GAM is not available. An assumption of the 2-D models is the aquifer is in unconfined condition. However, the 2-D models may be reasonably applicable to aquifers that have both an unconfined and a confined component if: either the confined (artesian pressured) portion of the aquifer is relatively limited in area or if pumping in the aquifer is reasonably confined to near the aquifer recharge zone for the area of interest. The Marble Falls aquifer is either in unconfined condition or pumping is believed to be limited to areas relatively near the recharge zone or outcrop area where it occurs in GMA-8. The Ellenburger-San Saba aquifer has recharge zone areas occurring in Burnet and Lampasas Counties of GMA-8; pumping is considered to be limited largely to the recharge zone and nearby vicinity due to the depth of the aquifer in down-dip areas. The 2-D model was applied to the Ellenburger-San Saba aquifer in Burnet and Lampasas Counties but was not applied to Mills County. The aquifer recharge zone does not occur in Mills County; only the extremely deep down-dip extent of the aquifer occurs in Mills County. The 2-D model was applied to the Hickory in Burnet County but was not applied to Mills and Lampasas Counties. The aquifer recharge zone does not occur in either Mills or Lampasas County; only the extremely deep down-dip extent of the aquifer occurs in these Counties.

The 2-D models project the effects of pumping using the following relationships:

The term Groundwater Availability is used to express the annual amount of pumping in the area of interest and is composed of two components;

Groundwater Availability = Groundwater Availability<sub>Storage</sub> + Groundwater Availability<sub>Recharge</sub>

$$\mathbf{GWA = GWAS + GWA R}$$

Where:

GWA = Groundwater availability (ac-ft/yr)

GWAS = Groundwater availability from storage (ac-ft/yr)

GWA R = Groundwater availability from recharge (ac-ft/yr)

$$\mathbf{GWAS = (1-DD)*B*A*N/Y/43560}$$

Where:

DD = average percentage of drawdown maintained (%)

B = average saturated thickness of aquifer (ft)

A = area of aquifer (ft<sup>2</sup>)

N = effective porosity  
 Y = time duration (yrs)

$$GWAR = P \cdot A \cdot R / 43560$$

Where:

P = average yearly precipitation (ft/yr)  
 R = % precipitation that infiltrates into groundwater system

$$\text{Equation: } GWA = GWAS + GWAR = (1-DD) \cdot B \cdot A \cdot N / Y / 43560 + P \cdot A \cdot R / 43560$$

### DFC Development Approach

In GMA-8, the Marble Falls Aquifer occurs in 2 Counties. A GCD exists in both of the Counties. A County-specific model was applied for each GCD. After reviewing the model results the GCD selected the preferred percentage of aquifer saturated thickness to be maintained in the portion of the aquifer under its management. (Figs 3-6) A DFC statement was developed describing the selected condition for each County. Due to uncertainty regarding the inventory of springs producing water from the Marble Falls aquifer in Burnet County, the Central Texas GCD (CTGCD) preferred to maintain the saturated thickness of the aquifer by using only approximately 80 percent of the estimated annual recharge. (Table 1)

% of saturated thickness maintained	GW availability from storage (ac-ft/yr)	GW availability from recharge (ac-ft/yr)	Total GW availability (ac-ft/yr)
100%	0	1974	1974
99%	76	1974	2050
98%	152	1974	2125
97%	227	1974	2201
96%	303	1974	2277
95%	379	1974	2353
94%	455	1974	2429
93%	531	1974	2504
92%	606	1974	2580
91%	682	1974	2656
90%	758	1974	2732

Sat. Thickness	160	(ft)	
Recharge Area	15790	(acres)	=
Effective porosity	0.15	(fraction)	
Time	50	(yr)	
Rainfall Rate	2.5	(ft/yr)	
Recharge Rate	0.05	(fraction)	

Figure 3, Model Input Values and Tabular Results for the Marble Falls Aquifer in Burnet County (Central Texas GCD)



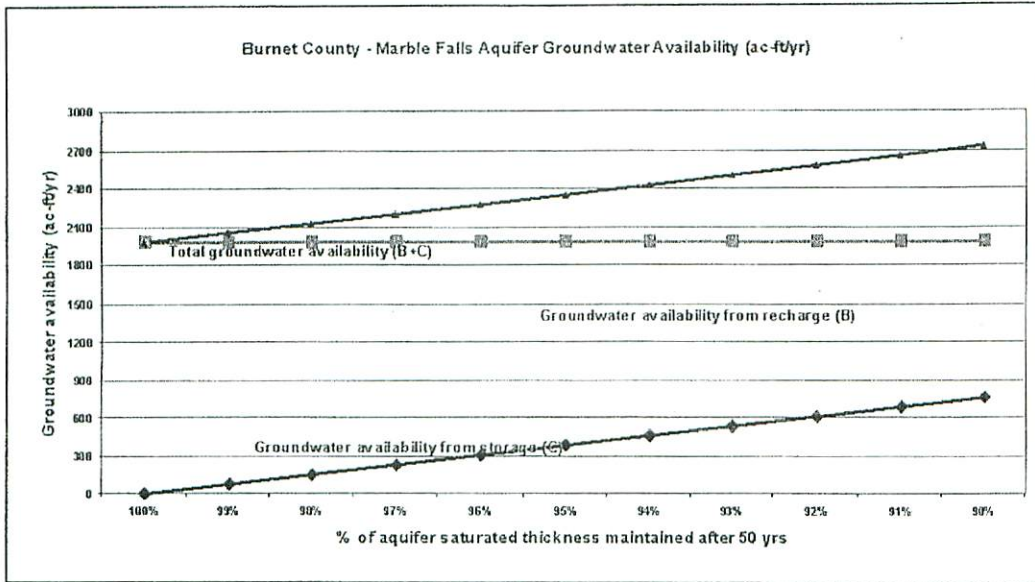


Figure 4, Graphic Results for the Marble Falls Aquifer in Burnet County (Central Texas GCD)

% of saturated thickness maintained	GW availability from storage (ac-ft/yr)	GW availability from recharge (ac-ft/yr)	Total GW availability (ac-ft/yr)
100%	0	2095	2095
99%	78	2095	2173
98%	155	2095	2251
97%	233	2095	2328
96%	311	2095	2406
95%	388	2095	2484
94%	466	2095	2561
93%	544	2095	2639
92%	621	2095	2717
91%	699	2095	2794
90%	777	2095	2872

Sat. Thickness	160	(ft)
Recharge Area	16180	(acres) =
Effective porosity	0.15	(fraction)
Time	50	(yr)
Rainfall Rate	2.59	(ft/yr)
Recharge Rate	0.05	(fraction)

Figure 5, Model Input Values and Tabular Results for the Marble Falls Aquifer in Lampasas County (Saratoga UWCD)

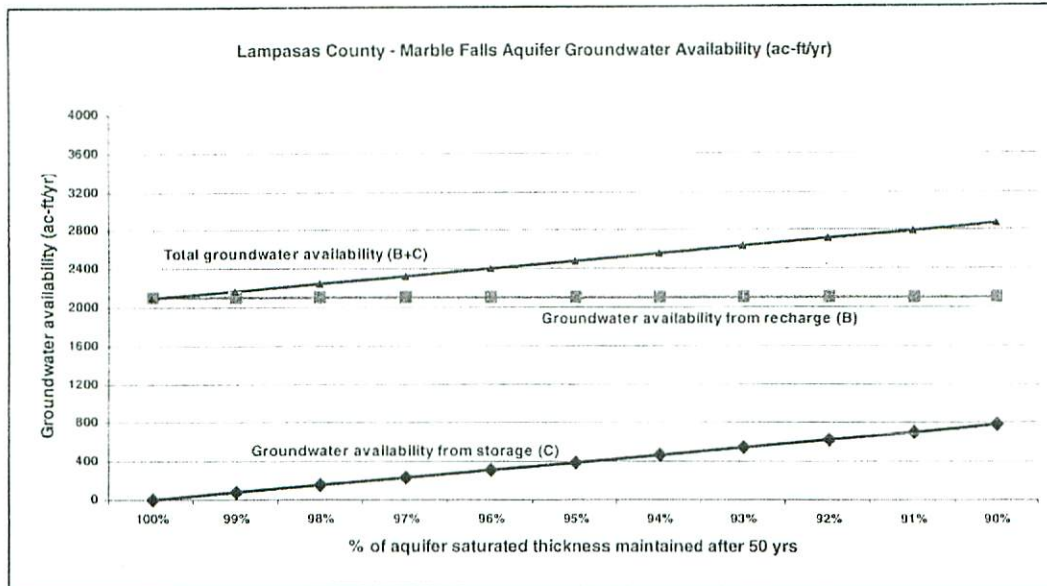


Figure 6, Graphic Results for the Marble Falls Aquifer in Lampasas County (Saratoga UWCD)

County	GMA-8 Marble Falls Aquifer Estimated Recharge (acre-feet per year)
Burnet	1,974
<b>80%</b>	<b>1,579</b>

Table 1, Estimated Recharge for the Marble Falls Aquifer in Burnet County

In GMA-8, the Ellenburger-San Saba Aquifer occurs in 4 Counties. A GCD exists in 3 of the 4 Counties. A County-specific model was applied for the CTGCD (Burnet County) and the Saratoga GCD (SUWCD) (Lampasas County). No model was developed for the aquifer in Mills County (Fox Crossing Water District) and Brown County because they are at the extreme down-dip edge of the aquifer. After reviewing the model results the CTGCD and SUWCD selected the preferred percentage of aquifer saturated thickness to be maintained in the portion of the aquifer under its management. (Figs 7-10) A DFC statement was developed describing the selected condition for each County. Due to uncertainty regarding the inventory of springs producing water from the Ellenburger-San Saba aquifer in Burnet County, CTGCD chose to maintain the saturated thickness of the aquifer by using approximately 80 percent of the estimated annual recharge. (Table 2)



% of saturated thickness maintained	GW availability from storage (ac-ft/yr)	GW availability from recharge (ac-ft/yr)	Total GW availability (ac-ft/yr)
100%	0	5521	5521
99%	1656	5521	7177
98%	3312	5521	8833
97%	4969	5521	10489
96%	6625	5521	12145
95%	8281	5521	13802
94%	9937	5521	15458
93%	11593	5521	17114
92%	13250	5521	18770
91%	14906	5521	20426
90%	16562	5521	22083

Sat. Thickness	500	(ft)
Recharge Area	110,413	(acres) =
Effective porosity	0.15	(fraction)
Time	50	(yr)
Rainfall Rate	2.5	(ft/yr)
Recharge Rate	0.02	(fraction)

Figure 7, Model Input Values and Tabular Results for the Ellenburger-San Saba Aquifer in Burnet County (Central Texas GCD)

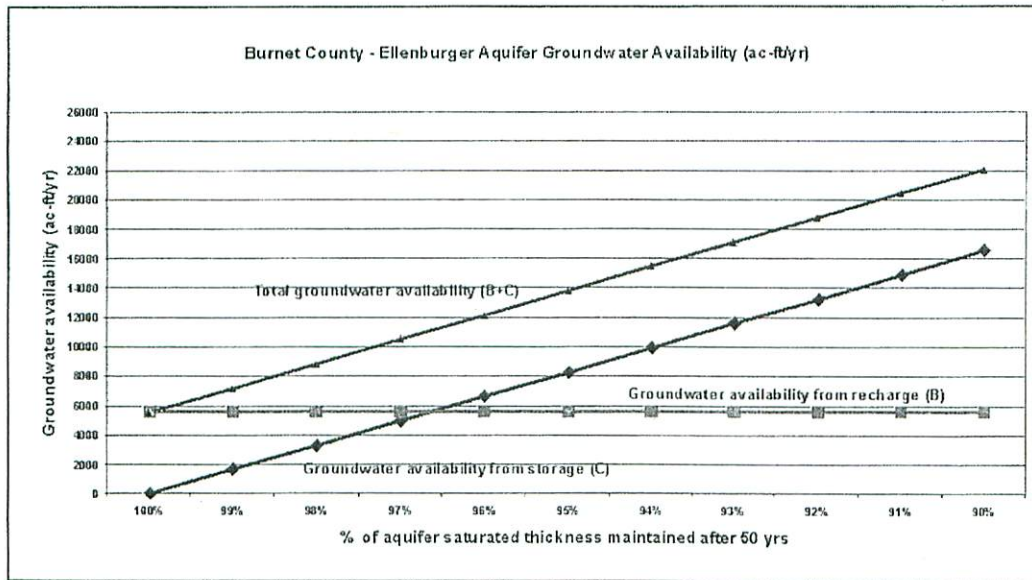


Figure 8, Graphic Results for the Ellenburger-San Saba Aquifer in Burnet County (Central Texas GCD)

County	GMA-8 Ellenburger-San Saba Aquifer Estimated Recharge (acre-feet per year)
Burnet	5,521
80%	4,417

Table 2, Estimated Recharge for the Ellenburger-San Saba Aquifer in Burnet County

% of saturated thickness maintained	GW availability from storage (ac-ft/yr)	GW availability from recharge (ac-ft/yr)	Total GW availability (ac-ft/yr)
100%	0	601	601
99%	174	601	775
98%	348	601	949
97%	522	601	1123
96%	696	601	1297
95%	870	601	1471
94%	1044	601	1645
93%	1218	601	1819
92%	1392	601	1993
91%	1566	601	2167
90%	1740	601	2341

Sat. Thickness	500	(ft)
Recharge Area	11599	(acres) =
Effective porosity	0.15	(fraction)
Time	50	(yr)
Rainfall Rate	2.59	(ft/yr)
Recharge Rate	0.02	(fraction)

Figure 9, Model Input Values and Tabular Results for the Ellenburger-San Saba Aquifer in Lampasas County (Saratoga UWCD)

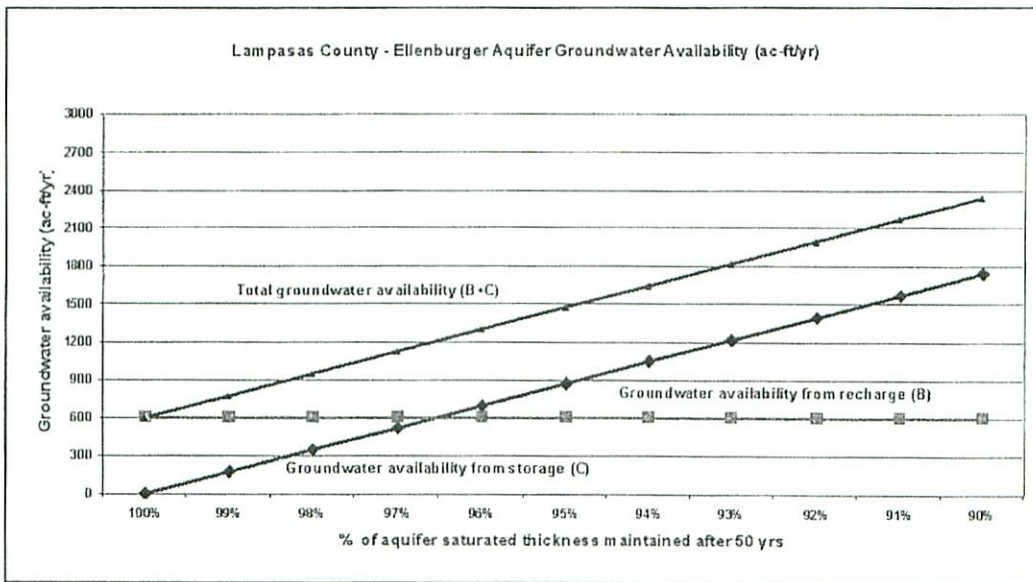


Figure 10, Graphic Results for the Ellenburger-San Saba Aquifer in Lampasas County (Saratoga UWCD)

In GMA-8, the Hickory Aquifer occurs in 6 Counties. A GCD exists in 3 of the 6 Counties. A County-specific model was applied for the CTGCD (Burnet County). No model was developed for the aquifer in Mills County (Fox Crossing Water District), Lampasas County (SUWCD), Brown, Travis and Williamson Counties because these areas are at the extreme down-dip edge of the aquifer. After reviewing the model results CTGCD

selected the preferred percentage of aquifer saturated thickness to be maintained in the portion of the aquifer under its management. (Figs. 11, 12) A DFC statement was developed describing the selected condition for each County. Due to uncertainty regarding the inventory of springs producing water from the Hickory aquifer in Burnet County, the CTGCD preferred to maintain the saturated thickness of the aquifer by using approximately 80 percent of the estimated annual recharge. (Table 3)

% of saturated thickness maintained	GW availability from storage (ac-ft/yr)	GW availability from recharge (ac-ft/yr)	Total GW availability (ac-ft/yr)
100%	0	4503	4503
99%	86	4503	4589
98%	173	4503	4676
97%	259	4503	4762
96%	346	4503	4849
95%	432	4503	4935
94%	519	4503	5021
93%	605	4503	5108
92%	692	4503	5194
91%	778	4503	5281
90%	865	4503	5367

Sat. Thickness	160	(ft)
Recharge Area	18011	(acres) =
Effective porosity	0.15	(fraction)
Time	50	(yr)
Rainfall Rate	2.5	(ft/yr)
Recharge Rate	0.1	(fraction)

Figure 11, Model Input Values and Tabular Results for the Hickory Aquifer in Burnet County (Central Texas GCD)

County	GMA-8 Hickory Aquifer Estimated Recharge (acre-feet per year)
Burnet	4,503
<b>80%</b>	<b>3,602</b>

Table 3, Estimated Recharge for the Ellenburger-Hickory Aquifer in Burnet County



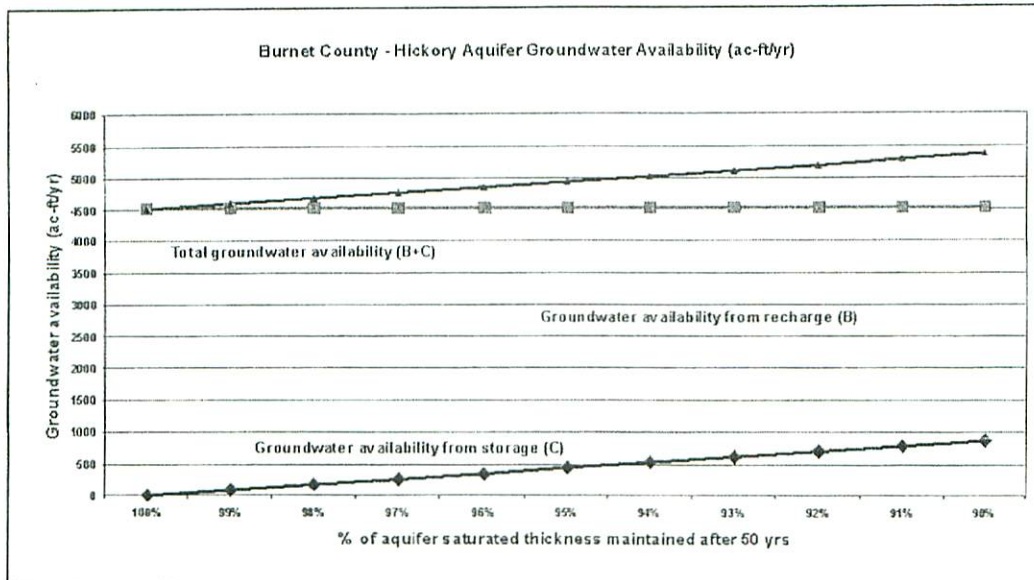


Figure 12, Graphic Results for the Hickory Aquifer in Burnet County (Central Texas GCD)

GMA-8 recognized the limitations of the 2-D models in being applied to the extreme down-dip portion of the aquifer in confined condition under artesian pressure. As a result, GMA-8 considered several options for adoption of a DFC for the Hickory aquifer in Brown, Lampasas (Saratoga UWCD), Mills (Fox Crossing Water District), Travis and Williamson Counties. The same options for DFC adoption were considered for the Ellenburger-San Saba aquifer in Brown, Lampasas (Saratoga UWCD) and Mills (Fox Crossing Water District) Counties. The options for DFC adoption considered by GMA-8 were as follows:

1. The GMA could designate the areas that could not be addressed by the 2-D models as "down-dip slivers" of the aquifer and decline to specify a DFC for those areas of the Ellenburger-San Saba and Hickory aquifers.
2. The GMA could opt to follow (or extend) the DFC that may be adopted for the Ellenburger-San Saba and Hickory aquifers by GMA-7 at such time as a DFC for those aquifers may be adopted by GMA-7.
3. The GMA could opt to follow (or extend) the DFC that may be adopted for the Ellenburger-San Saba and Hickory aquifers by GMA-7 with exception of Burnet and Lampasas Counties in the Ellenburger-San Saba aquifer and Burnet County in the Hickory aquifer. In Burnet and Lampasas Counties; the 2-D model based DFCs previously developed by GMA-8 would be used.
4. The GMA could determine that the 2-D model-based DFCs previously developed by GMA-8 for the Ellenburger-San Saba aquifer in Burnet and Lampasas Counties and Burnet County in the Hickory aquifer would be used. The GMA could then specify a DFC (or DFCs) for the remaining areas in the Ellenburger-San Saba and Hickory aquifers to be submitted to TWDB. TWDB would then determine the Managed Available Groundwater (MAG) based on the DFC or DFCs specified for each aquifer using a methodology other than the 2-D models.

After holding a public hearing and consideration of the 4 identified options in a public meeting; GMA-8 selected option 4 for submittal of DFCs for the Paleozoic-age minor aquifers. After selecting the method of DFC submittal GMA-8 then deliberated on the aquifer measure to be used in describing a DFC for the Paleozoic-age minor aquifers. GMA-8 considered and selected maintenance of a specified percentage of the available draw down of the Hickory and Ellenburger-San Saba aquifers after 50-years in the applicable counties or GCDs. Having selected maintenance of a specified the aquifer available draw down after 50-years; GMA-8 then considered the percentage of the aquifer available draw down to be maintained. After deliberation, GMA-8 determined that 90 percent of the available draw down in the Hickory and Ellenburger-San Saba aquifers in the applicable counties or GCDs should be maintained after 50-years.

### GMA-8 Desired Future Conditions for the Marble Falls Aquifer

- Burnet County should maintain approximately 100 percent of the saturated thickness after 50 years by using approximately 80 percent of the estimated recharge.
- Lampasas County should maintain approximately 90 percent of the saturated thickness after 50 years.

### GMA-8 Desired Future Conditions for the Ellenburger-San Saba Aquifer

- Burnet County should maintain approximately 100 percent of the saturated thickness after 50 years by using approximately 80 percent of the estimated recharge.
- Lampasas County should maintain approximately 90 percent of the saturated thickness after 50 years.
- Brown and Mills Counties should maintain approximately 90 percent of the available draw down after 50 years.

### GMA-8 Desired Future Conditions for the Hickory Aquifer

- Burnet County pumping should maintain approximately 100 percent of the saturated thickness after 50 years by using approximately 80 percent of the estimated recharge.
- Brown, Lampasas, Mills, Travis and Williamson Counties should maintain approximately 90 percent of the available draw down after 50 years.

**Note:** The observations and assessments made in this report were based on data supplied by CUWCD, TWDB or available from referenced published sources available at the time the report preparation. The conclusions drawn in the report are based on the available data and reasonable methods of assessment. The Desired Future Conditions presented in this report reflect policy decisions made by GMA-8. If new or different data is made available the conclusions of this report may change.

## Bibliography

Bluntzer, Robert, 1992; evaluation of the Ground-Water Resources of the Paleozoic and Cretaceous Aquifers in the Hill County of Central Texas, Texas Water Development Board Report 339

Driscoll, Fletcher, 1986; Groundwater and Wells, Second Edition; Johnson Division; ISBN 0-9616456-0-1

Muller, Daniel and Price, Robert, 1979; Ground-Water Availability in Texas; Texas Water Development Board Report 238