

**RESOLUTION TO ADOPT DESIRED FUTURE CONDITIONS  
FOR AQUIFERS IN GROUNDWATER MANAGEMENT AREA 12**

THE STATE OF TEXAS                     §  
  §  
GROUNDWATER MANAGEMENT AREA 12    §  
  §  
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 12 (“GMA 12”), as designated by the Texas Water Development Board, as of the date of this resolution are as follows: Brazos Valley Groundwater Conservation District, Fayette County Groundwater Conservation District, Lost Pines Groundwater Conservation District, Mid-East Texas Groundwater Conservation District, and Post Oak Savannah Groundwater Conservation District (collectively hereinafter “the GMA 12 Districts”);

**WHEREAS**, the GMA 12 Districts are each a local government operating under Chapter 36, Texas Water Code and their specific enabling act;

**WHEREAS**, the GMA 12 Districts desire to fulfill the requirements of Texas Water Code §36.108 through mutual cooperation and joint planning efforts;

**WHEREAS**, the GMA 12 Districts have had numerous public meetings, including stakeholder meetings for the specific purpose of receiving comments and input from stakeholders within GMA 12, and they have engaged in joint planning efforts to promote comprehensive management of the aquifers located in whole or in part in Groundwater Management Area 12;

**WHEREAS**, GMA 12 held meetings on July 25, 2013; December 19, 2013; June 6, 2014; June 27, 2014; December 4, 2014; February 26, 2015; March 27, 2015; April 30, 2015; May 28, 2015; June 25, 2015; August 13, 2015; September 24, 2015; October 22, 2015; December 17, 2015; February 4, 2016; March 24, 2016; April 15, 2016; October 11, 2016, December 1, 2016; April 27, 2017, May 25, 2017; **and September 20, 2017**, in compliance with its statutory duty to publicly consider the desired future conditions considerations listed in § 36.108(d);

**WHEREAS**, the GMA 12 Districts have considered the following factors, listed in §36.108(d), in establishing the desired future conditions for the aquifer(s):

- (1) groundwater availability models and other data or information for the management area;
- (2) aquifer uses or conditions within the management area, including conditions that differ substantially from one geographic area to another;
- (3) the water supply needs and water management strategies included in the state water plan;

- (4) hydrological conditions, including for each aquifer in the management area the total estimated recoverable storage as provided by the Texas Water Development Board Executive Administrator and the average annual recharge inflows, and discharge;
- (5) other environmental impacts, including impacts on spring flow and other interactions between groundwater and surface water;
- (6) the impact of subsidence;
- (7) socioeconomic impacts reasonably expected to occur;
- (8) the impact 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 §36.002;
- (9) the feasibility of achieving the desired future conditions; and
- (10) any other information relevant to the specific desired future conditions **including comments received from the Texas Water Development Board regarding initially submitted desired future conditions;**

**WHEREAS**, the desired future conditions provide a balance between the highest practicable level of groundwater production and the conservation, preservation, protection, recharging, and prevention of waste of groundwater in the management area;

**WHEREAS**, after considering the factors listed in 36.108(d), Texas Water Code, the GMA 12 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 12; or (2) each geographic area overlying an aquifer in whole or in part or subdivision of an aquifer within the boundaries of GMA 12;

**WHEREAS**, the GMA 12 Districts recognize that GMA 12 includes a geographically and hydrologically diverse area with a variety of land uses and a diverse mix of water users;

**WHEREAS**, at least two-thirds of the GMA 12 Districts had a voting representative in attendance at the April 15, 2016, meeting in accordance with Section 36.108, Texas Water Code; and the following districts had a voting representative in attendance at the meeting: Brazos Valley Groundwater Conservation District, Fayette County Groundwater Conservation District, Lost Pines Groundwater Conservation District, Mid-East Texas Groundwater Conservation District, and Post Oak Savannah Groundwater Conservation District, and;

**WHEREAS**, the member GCDs in which the Carrizo-Wilcox, Queen City, Sparta, **Yegua Jackson and Brazos River Alluvium** aquifers are relevant for joint planning purposes held open meetings within each said district between **April 18, 2016 and July 20, 2016** to take public comment on the proposed DFCs for that district during the minimum ninety (90) public comment period of **April 18, 2016 through July 20, 2016, and;**

**WHEREAS**, on December 1, 2016, the district representatives reconvened to review the reports and consider any district-suggested revisions to the proposed desired future conditions;

**WHEREAS**, on **September 20, 2017**, the district representatives reconvened to review the **comments made by the Texas Water Development Board staff concerning calculated**

drawdowns in the Sparta, Queen City, Carrizo, Simsboro and Hooper aquifers and consider any district-suggested revisions to the proposed desired future conditions;

**WHEREAS**, on this day of **September 20, 2017**, at an open meeting duly noticed and held in accordance with law in the Post Oak Savannah Groundwater Conservation District Office, Milano, Texas, the GCDs within GMA 12, having considered at this meeting comments submitted to the individual districts during the comment period and at this meeting, have voted, \_\_\_\_\_ districts in favor, \_\_\_\_\_ districts opposed, to adopt the following DFCs for in the following counties and districts through the year 2070 as follows:

**NOW, THEREFORE, BE IT RESOLVED BY THE AUTHORIZED VOTING REPRESENTATIVES OF THE GMA 12 DISTRICTS AS FOLLOWS:**

1. The above recitals are true and correct.
2. The authorized voting representatives of the GMA 12 Districts hereby establish the desired future conditions of the aquifer(s) as set forth in Attachment B by the vote reflected in the above recitals.
3. The authorized voting representatives of the GMA 12 Districts declare that the Gulf Coast aquifer in Brazos County is non-relevant for the purpose of adopting Desired Future Conditions in Groundwater Management Area 12, as the districts determined that aquifer characteristics, groundwater demands, and current groundwater uses do not warrant adoption of a desired future condition. Technical justification of the non-relevant aquifers, as required by 31 Tex. Admin. Code §356.31, is set forth in Attachment C.
4. The GMA 12 Districts and their agents and representatives, individually and collectively, are further authorized to take all actions necessary to implement this resolution.
5. The desired future conditions of the aquifer(s) adopted by the GMA 12 Districts and attached hereto, along with the explanatory report, and proof of the notice of the meeting in which desired future conditions adoption occurred, shall be submitted to the Texas Water Development Board and sent to the GMA 12 Districts, as required by Section 36.108(d-3), Texas Water Code.

AND IT IS SO ORDERED. PASSED AND ADOPTED on this **20<sup>th</sup> day of September**, 2017.

ATTEST:

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Brazos Valley Groundwater Conservation District

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Fayette County Groundwater Conservation District

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Lost Pines Groundwater Conservation District

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Mid-East Texas Groundwater Conservation District

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Post Oak Savannah Groundwater Conservation

**ATTACHMENTS**

- A: Copies of notices of April 27, 2017, meeting
- B: Desired Future Conditions
- C: Non-relevant Aquifer

## **Attachment A**

**Attachment B**  
**GMA 12 DESIRED FUTURE CONDITIONS**

**A. Sparta, Queen City, Carrizo, Calvert Bluff, Simsboro, and Hooper Aquifers**

The Sparta, Queen City, and Carrizo aquifers are present and used in all GCDs within GMA 12. Therefore, all GCDs submitted DFCs for these aquifers. The Calvert Bluff, Simsboro, and Hooper aquifers are present in all GCDs but not used in Fayette County. Therefore, GMA 12 declared these aquifers not relevant for Fayette County, and Fayette County GCD did not submit a DFC for these aquifers. For the purpose of establishing DFCs, the Groundwater Availability Model (GAM) for the Queen City and Sparta Aquifers (Kelley and others, 2004) was used to determine the compatibility and physical possibility of the DFCs proposed by each GCD. Note that this GAM also includes the Carrizo-Wilcox Aquifer. The DFCs proposed by each GCD for these six aquifers are provided in **Table 2-1**, as well as the DFC adopted by GMA 12 as a whole. The DFC is based on the average drawdown from January 2000 through December 2069. **Note that the DFCs for Fayette County GCD in the Sparta, Queen City, and Carrizo aquifers are for all of Fayette County, and not just the portion of Fayette County within GMA 12. This is because GMA 15 has declared these aquifers not relevant for Fayette County, and all joint groundwater planning for these aquifers is done through GMA 12.**

Table 2-1 Adopted DFCs for the Sparta, Queen City, Carrizo, Calvert Bluff, Simsboro, and Hooper Aquifers

GCD or County	Average Aquifer Drawdown (ft) measured from January 2000 through December 2069					
	Sparta	Queen City	Carrizo	Calvert Bluff	Simsboro	Hooper
Brazos Valley GCD	12	12	61	125	295	207
Fayette County GCD	47*	64*	110*	--	--	--
Lost Pines GCD	5	15	62	100	240	165
Mid-East Texas GCD	5	2	80	90	138	125
Post Oak Savannah GCD	28	30	67	149	318	205
Falls County	--	--	--	--	-2	27
Limestone County	--	--	--	11	50	50
Navarro County	--	--	--	-1	3	3
Williamson County	--	--	--	-11	47	69
<b>GMA-12</b>	<i>16</i>	<i>16</i>	<i>75</i>	<i>114</i>	<i>228</i>	<i>168</i>

\* Fayette County GCD DFCs are for all of Fayette County.

Based on the principle of using the GAM as a joint planning tool and the fact that the GAM predictions contain uncertainty, GMA 12 considered the DFCs to be compatible and physically possible if the difference between modeled drawdown results and the DFC drawdown targets are within a 10 percent or 5-foot variance, whichever is greater, for all aquifers in the Queen City-Sparta/Carrizo-Wilcox GAM with the exception of the Simsboro, which would be held within a

5 percent or 5-foot variance, whichever is greater, of the GAM simulation. Factors considered for determining tolerance criteria include:

- model calibration results and statistics;
- information used to calibrate the GAM;
- aquifer and recharge information collected since the GAM was developed;
- sensitivity of the GAM calibration and GAM predictions to change in the model parameters; and
- range of uncertainty in the model parameters including historical and future pumping, temporal variation in recharge distribution and magnitude.

Reference:

Kelley, V.A., Deeds, N.E. Fryar, D.G., and Nicot, J.P., 2004. Groundwater Availability Models for the Queen City and Sparta Aquifers, prepared for the Texas Water Development Board, Austin, Texas.

**Attachment C**  
**NON-RELEVANT AQUIFER: GULF COAST AQUIFER IN BRAZOS COUNTY**