

Texas Water Development Board

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March 15, 2019

Mark Evans
Region H Chair
Region H Regional Water Planning Group
c/o San Jacinto River Authority
P.O. Box 329
Conroe, Texas 77305

RE: Region H Regional Water Planning Group (RWPG) request to utilize modeled available groundwater (MAG) peak factors for the Gulf Coast Aquifer in Austin, Brazoria, Montgomery, Walker, and Waller Counties and the Sparta Aquifer in Madison County in the 2021 Region H Regional Water Plan (RWP)

Dear Mr. Evans:

The Texas Water Development Board (TWDB) has reviewed your request on behalf of the Region H RWPG dated November 14, 2018 for approval to utilize MAG peak factors for the Gulf Coast Aquifer in Austin, Brazoria, Montgomery, Walker, and Waller Counties and the Sparta Aquifer in Madison County for the purpose of establishing groundwater availability for drought condition planning in the 2021 Region H RWP. This letter confirms that the TWDB approves the request as shown in the table below:

County	Aquifer	Groundwater Conservation District (GCD)	Groundwater Management Area (GMA)	MAG Peak Factor
Austin	Gulf Coast	Bluebonnet GCD	14	123.92%
Brazoria	Gulf Coast	Brazoria Co. GCD	14	140.87%
Madison	Sparta	Mid-East Texas GCD	12	117.41%
Montgomery	Gulf Coast	Lone Star GCD	12	133.15%
Walker	Gulf Coast	Bluebonnet GCD	14	114.76%
Waller	Gulf Coast	Bluebonnet GCD	14	144.70%

Our Mission

To provide leadership, information, education, and support for planning, financial assistance, and outreach for the conservation and responsible development of water for Texas

Board Members

Peter M. Lake, Chairman | Kathleen Jackson, Board Member | Brooke T. Paup, Board Member
Jeff Walker, Executive Administrator

This approval is specific to the Gulf Coast Aquifer in Austin, Brazoria, Montgomery, Walker and Waller Counties and the Sparta Aquifer in Madison County. Any additional MAG peak factor requests for use in the Region H RWP will be subject to the TWDB's review and approval.

While the TWDB authorizes these groundwater availability estimates for development of the 2021 Region H RWP, it is the responsibility of the RWPG to ensure that the estimates of water availability are reasonable for drought planning purposes and will reflect conditions expected in the event of actual drought conditions; and in all other regards will be evaluated in accordance with the contract Exhibit C, *Second Amended General Guidelines for Fifth Cycle of Regional Water Plan Development*.

If you have any questions, please do not hesitate to contact Lann Bookout, project manager for Region H, at 512-936-9439 or via email at lann.bookout@twdb.texas.gov.

Sincerely,



Jeff Walker 
Executive Administrator

Attachment: MAG Peak Factor Information Sheet

c: Jace Houston, General Manager, San Jacinto River Authority
Jason Afinowicz, Freese and Nichols, Inc.
Philip Taucer, Freese and Nichols, Inc.
Gary Westbrook, GMA 12
John M. Martin, GMA 14
Zach Holland, Bluebonnet GCD
Kent Burkett, Brazoria County GCD
Rick Moffatt, Lone Star GCD
David Bailey, Mid-East Texas GCD
Larry French, TWDB
Sarah Backhouse, TWDB
Lann Bookout, TWDB



Modeled Available Groundwater (MAG) Peak Factor

Texas Water Code (TWC) §36.1132 requires management of groundwater production on a long-term basis to achieve applicable desired future conditions. In practice, this may include variations in pumping from year to year, for example, in response to relative wet and dry periods. Modeled available groundwater (MAG) is the amount of water that the Texas Water Development Board (TWDB) Executive Administrator determines may be produced on an average annual basis to achieve a desired future condition. Most of the MAG values were developed using groundwater availability models calibrated for long-term average, not drought of record, conditions.

In response to stakeholder concerns during the fourth cycle of regional water planning, the TWDB revised its planning rules to include a MAG Peak Factor that ensures regional water plans have the ability to fully reflect how, under current statute, groundwater conservation districts anticipate managing *groundwater production* under drought conditions.¹

What is the MAG Peak Factor?

The purpose of the MAG Peak Factor is to

- provide reasonable flexibility and temporary accommodation of increased groundwater pumping above the MAG;
- accommodate anticipated fluctuations in pumping between wet and dry periods, or to account for other shifts in the timing of pumping while remaining consistent with desired future conditions;
- allow regional water planning groups to develop plans that reflect more realistic drought condition groundwater availability and pumping, where appropriate; and
- maintain the integrity of the regional and state water planning process.

The use of proposed MAG Peak Factors requires review and approval by relevant groundwater conservation districts, groundwater management areas, regional water planning groups, and the TWDB Executive Administrator.

Subject to many factors, the MAG Peak Factor might be considered in instances, for example, where

- actual pumping in wetter years is expected to fall below the MAG, thereby allowing intermittent pumping of volumes greater than the MAG during drought; or,

- groundwater pumping in early decades is expected to consistently remain well below the MAG, thereby accommodating pumping volumes somewhat higher than the MAG in later decades—all while achieving the desired future condition.

The MAG is the amount of water that can be produced on an annual average basis, instead of the amount that can be permitted. Groundwater conservation districts must consider MAGs, along with other factors in TWC §36.1132, when issuing permits for groundwater production. Accordingly, the MAG Peak Factor reflects groundwater available for pumping, not permitting, and is utilized for regional water planning purposes only. The MAG Peak Factor is not intended as a limit to permits or as guaranteed approval or pre-approval of any future permit application.

How does the process work?

It is not a mandatory requirement that regional water planning groups utilize MAG Peak Factors in the development of their regional water plans. Rather, it is the decision of each planning group, in concurrence with the relevant groundwater conservation district and groundwater management area, to determine what, if any, MAG Peak Factor is appropriate for planning efforts. A groundwater conservation district may also initiate the use of the MAG Peak Factor. The definition specifies that a MAG Peak Factor would be expressed as a percentage of modeled available groundwater (e.g., greater than 100 percent) and would represent the quantified annual groundwater availability for planning purposes.

Regional water planning groups must request the TWDB Executive Administrator's approval of each MAG Peak Factor. Each planning group request for MAG Peak Factors must

- include written approval from both the relevant groundwater conservation district, if one exists within the particular aquifer-region-county-basin split, and representatives of the groundwater management area;
- include the technical basis for the request in sufficient detail to support groundwater conservation district, groundwater management area, and the Executive Administrator evaluation; and
- document how the MAG Peak Factor will not prevent the associated groundwater conservation district(s) from managing groundwater resources to achieve the desired future condition(s).

If approved by the Executive Administrator, each MAG Peak Factor would be applied by the TWDB to the associated modeled available groundwater volume to calculate the modified groundwater availability volume that would be used by regional water planning groups.

More Information

To learn more about regional water planning requirements, please visit: www.twdb.texas.gov/waterplanning/rwp/planningdocu/2021/current_docs.asp.

Or please contact:

Sarah Backhouse

sarah.backhouse@twdb.texas.gov

(512) 936-2387

¹ 31 TAC §357.10(20); process §357.32(d)(3). This rule change eliminated the effect of modeled available groundwater values acting as immovable, "hard caps" on groundwater pumping that could be reflected in the regional water plans.