REGION H
Water Planning Group

MEETING MATERIALS

June 6, 2018

San Jacinto River Authority

Common Region H Terms and Conversion Factors

List of Abbreviations

COA	Certificate of Adjudication
CRU	Collective Reporting Unit
DCP	Drought Contingency Plan
DFC	Desired Future Condition
DOR	Drought of Record
EA	Executive Administrator
EPA	Environmental Protection Agency
FWSD	Fresh Water Supply District
GAM	Groundwater Availability Model
GCD	Groundwater Conservation District
GMA	Groundwater Management Area
GRP	Groundwater Reduction Plan
IPP	Initially Prepared Plan
MAG	Modeled Available Groundwater
MUD	Municipal Utility District
MWP	Major Water Provider
PDSI	Palmer Drought Severity Index
PWS	Public Water Supply
RHWPG	Region H Water Planning Group
ROR	Run-of-River
RWP	Regional Water Plan
RWPA	Regional Water Planning Area
RWPG	Regional Water Planning Group
SWIFT	State Water Implementation Fund for Texas
SWP	State Water Plan
TAC	Texas Administrative Code
TCEQ	Texas Commission on Environmental Quality
TPWD	Texas Parks and Wildlife Department
TWC	Texas Water Code
TWDB	Texas Water Development Board
WAM	Water Availability Model
WCID	Water Control and Improvement District
WCP	Water Conservation Plan
WMS	Water Management Strategy
WRAP	Water Rights Analysis Package
WUD	Water Utility Database
WUG	Water User Group
WWP	Wholesale Water Provider

Water Measurements

1 acre-foot (AF) = 43,560 cubic feet = 325,851 gallons

1 acre-foot per year (ac-ft/yr) = 325,851 gallons per year = 893 gallons per day

1 gallon per minute (gpm) = 1,440 gallons per day = 1.6 ac-ft/yr

1 million gallons per day (mgd) = 1,000,000 gallons per day = 1120 ac-ft/yr

Region H Water Planning Group
10:00 AM Wednesday
June 6, 2018
San Jacinto River Authority Office
1577 Dam Site Rd, Conroe, Texas 77304

AGENDA

1. Call to order.
2. Introductions.
3. Review and approve minutes of April 4, 2018 meeting.
4. **Receive public comments on specific issues related to agenda items 5 through 11**. (Public comments limited to 3 minutes per speaker)
5. Receive update from Consultant Team regarding the schedule and milestones for the development of the 2021 Region H Regional Water Plan (RWP).
6. Receive update from Consultant Team regarding draft surface water and reuse supply availability analyses.
7. Receive update from Consultant Team and Groundwater Supply Committee regarding MAG Peak Factors.
8. Receive report from Consultant Team regarding the process for allocation of existing supplies for the development of the 2021 Region H RWP.
9. Receive report from Consultant Team regarding the requirements and process for the RWP Technical Memorandum.
10. Receive report regarding recent and upcoming activities related to communications and outreach efforts on behalf of the Region H Water Planning Group.
11. Agency communications and general information.
12. **Receive public comments**. (Public comments limited to 3 minutes per speaker)
13. Next Meeting: August 1, 2018.
14. Adjourn.

Persons with disabilities who plan to attend this meeting and would like to request auxiliary aids or services are requested to contact Sonia Zamudio at (936) 588-3111 at least three business days prior to the meeting so that appropriate arrangements can be made.

Agenda Item 3

Review and approve minutes of April 4, 2018 meeting.

REGION H
Water Planning Group

REGION H WATER PLANNING GROUP
MINUTES OF REGULAR MEETING
APRIL 4, 2018

MEMBERS PRESENT: David Bailey, John Bartos, Robert Bruner, James Comin, Mark Evans, Yvonne Forrest, Bob Hebert, Art Henson, Jace Houston, Kathy Jones, Glenn Lord, Marvin Marcell, Carl Masterson, William Teer, Michael Turco, and Pudge Willcox.

DESIGNATED ALTERNATES: Alisa Max for John Blount, Brad Brunette for David Collinsworth, Bill Holder for Kevin Ward, and Paul Nelson for Jimmie Schindewolf.

MEMBERS ABSENT: Robert Istre, Ivan Langford, James Morrison, and Ruth Stultz.

NON-VOTING MEMBERS PRESENT: Lann Bookout and Kristin Lambrecht

1. **INTRODUCTIONS**

   The meeting was called to order at 10:04 a.m.

2. **REVIEW AND APPROVE MINUTES OF DECEMBER 6, 2017 MEETING**

   Mr. Henson made a motion to approve the minutes of December 6, 2017. The motion was seconded by Mr. Bruner and carried unanimously.

3. **RECEIVE PUBLIC COMMENTS ON SPECIFIC ISSUES RELATED TO AGENDA ITEMS 4 THROUGH 14**

   There were no public comments.

4. **RECEIVE NOMINATING COMMITTEE REPORT AND ELECT OFFICERS AND MEMBERS OF THE EXECUTIVE COMMITTEE OF THE REGION H WPG AND CONSIDER TAKING ACTION TO APPROVE MEMBERS TO FILL VACANCIES ON THE REGION H WPG**

   Mr. Hebert, Chair of the Nominating Committee provided a recommendation of the Nominating Committee for the election of officers and members to the Executive Committee. Mr. Henson made a motion to elect Mark Evans as Chairman, Marvin Marcell as Vice Chairman, Jace Houston as Secretary, John Bartos and Pudge Willcox as Directors. The motion was seconded by Ms. Max and carried unanimously. Mr. Hebert then made a motion to declare the river authorities' position, previously occupied by David Collinsworth, vacant and to appoint Brad Brunette to this position as a voting member representing river authorities. The motion was seconded by Mr. Langford and carried unanimously.

5. RECEIVE UPDATE FROM CONSULTANT TEAM REGARDING THE SCHEDULE AND MILESTONES FOR THE DEVELOPMENT OF THE 2021 REGION H RWP

Mr. Taucer provided an update regarding the schedule and milestones for the development of the 2021 Region H Regional Water Plan ("RWP") stating that they are at the halfway mark and on schedule. He stated that the technical memo is due in September, the Initially Prepared Plan due in March, 2020, and the Final RWP due in October, 2020. Mr. Taucer briefly discussed the major activities. Mr. Evans stated that committee assignments are on the Region H Water Planning Group website and he went on to discuss the logistics related to committee quorums, alternate member participation, and teleconference participation relative to the Open Meetings Act.

6. RECEIVE UPDATE FROM CONSULTANT TEAM AND SURFACE WATER SUPPLY COMMITTEE REGARDING DRAFT SURFACE WATER SUPPLY AVAILABILITY ESTIMATES AND CONSIDER TAKING ACTION TO AUTHORIZE THE CONSULTANT TEAM TO DEVELOP AND SUBMIT TO THE TEXAS WATER DEVELOPMENT BOARD (TWDB) A REQUEST FOR POTENTIAL EXCEPTIONS TO SURFACE WATER MODELING REQUIREMENTS

Mr. Taucer reviewed the draft surface water supply availability estimates. He stated that TWDB requires a certain methodology be applied to determine the existing supplies which is based on TCEQ's Water Availability Model ("WAM") Run 3. He went on to say that the WAM Run 3 is a water rights model that simulates all existing permanent water rights and environmental flow requirements, in priority order using historical hydrology. Mr. Taucer went on to briefly discuss the different methodologies related to reservoirs, run-of-river, municipal sole source, and local supplies. He then reviewed the draft supply numbers related to river basins which included Brazos (Run-of-River), San Jacinto-Brazos, San Jacinto (Run-of-River), Lake Conroe, Lake Houston, Trinity-San Jacinto, Trinity (Run-of-River), Lake Livingston, Neches-Trinity, and Neches. He stated that a formal request be submitted to TWDB for any changes beyond major reservoir sedimentation and the request must provide a description, justification, availability impacts, and approval by RWPG. Mr. Henson made a motion to authorize the consultant team to develop and submit to TWDB a request for potential exceptions to surface water modeling requirements. The motion was seconded by Mr. Willcox and carried unanimously.

7. RECEIVE UPDATE FROM CONSULTANT TEAM AND SURFACE WATER SUPPLY COMMITTEE REGARDING DRAFT REUSE SUPPLY AVAILABILITY ESTIMATES

Mr. Taucer provided an update related to the draft reuse supply availability estimates. He stated that reuse supplies have increased over the years in Region H, with both direct and indirect usage. He explained that reuse in not typically included in the surface water models or the groundwater models, therefore making it a challenge to find a firm amount. He explained that TWDB provides guidance on limiting the existing supply numbers for reuse to ensure it is not overstated. Mr. Taucer reviewed a list of new or additional reuse sources since the previous plan.

8. **RECEIVE UPDATE FROM CONSULTANT TEAM AND GROUNDWATER SUPPLY COMMITTEE REGARDING GROUNDWATER SUPPLY AVAILABILITY ESTIMATES AND CONSIDER TAKING ACTION TO APPROVE SUPPLY ESTIMATES**

Mr. Taucer provided an update regarding the groundwater supply availability estimates. He reviewed the GMA 11, GMA 12, and GMA 14 availabilities. He discussed the MAGs for Fort Bend, Galveston, and Harris Counties. He went on to review the Non-MAG supplies and data sources related to Carrizo, Sparta, Queen City, Yegua Jackson, and the Brazos River Alluvium. Mr. Taucer stated that the Groundwater Supply Committee recommended the approval of the groundwater supply estimates for use in the 2021 Region H RWP. Mr. Hebert made a motion to approve the groundwater supply estimates for use in the 2021 Region H RWP which includes the use of values in 2016 RWP. Mr. Turco seconded the motion and carried with all present voting aye.

9. **RECEIVE REPORT FROM CONSULTANT TEAM AND GROUNDWATER SUPPLY COMMITTEE REGARDING MAG PEAK FACTORS AND CONSIDER TAKING ACTION TO AUTHORIZE CONSULTANT TEAM TO COORDINATE WITH GROUNDWATER REGULATORY ENTITIES TO DEVELOP PEAK FACTORS FOR REGION H AND SUBMIT AN ASSOCIATED REQUEST TO TWDB**

Mr. Taucer explained that TWDB has incorporated peak factors into the planning process to assist in bridging the gap between the regional planning process and the groundwater processes. Further, he stated that a percentage factor greater than 100% can be applied to MAG volumes in order to reflect that in some circumstances, temporary increases in pumpage could be more than the MAG volume. He stated that if this factor is to be included in the plan, it will have to be applied to each decade and requires approval prior to the IPP by the GCD, GMA, and EA. Mr. Masterson made a motion to authorize the consultant team to coordinate with groundwater regulatory entities to develop peak factors for Region H and submit an associated request to TWDB. Mr. Lord seconded the motion and carried with all present voting aye.

10. **RECEIVE REPORT FROM CONSULTANT TEAM AND WATER MANAGEMENT STRATEGY (WMS) COMMITTEE REGARDING WMS ANALYSES AND CONSIDER TAKING ACTION TO APPROVE THE NOTICE-TO-PROCEED REQUEST AND AUTHORIZING THE CONSULTANT TEAM AND SAN JACINTO RIVER AUTHORITY TO SUBMIT THE REQUEST TO TWDB, COORDINATE WITH TWDB AS NEEDED ON FOLLOW-UP INFORMATION, AND EXECUTE THE SUBSEQUENT CONTRACT AMENDMENT ISSUED**

Mr. Taucer explained that the Water Management Strategies (WMS) analyses funds were allocated by TWDB under Phase 2 of the planning cycle totaling $948,695 for Region H. He stated that TWDB requires additional steps in order to obtain a Notice to Proceed, which include the documentation related to scope and fee requests for each strategy analysis. Additionally, those requests must be approved by the RWPG prior to submittal to TWDB. Mr. Taucer reviewed the scope and budget for each analyses which totaled $482,200. Mr. Bartos made a motion to approve

the notice to proceed request and authorize the consultant team and the San Jacinto River Authority to submit the request in the amount of $482,200; coordinate with TWDB as needed on follow-up information; and to execute the subsequent contract amendment issued. The motion was seconded by Mr. Masterson and carried unanimously.

11. CONSIDER AND TAKE ACTION TO AUTHORIZE THE SAN JACINTO RIVER AUTHORITY TO EXECUTE A CONTRACT AMENDMENT WITH TWDB FOR ADDITIONAL FUNDING

Mr. Taucer explained that funds for the planning cycle are allocated by TWDB. Further, a number of amendments will be executed between TWDB and SJRA for same. Mr. Hebert made a motion to authorize the San Jacinto River Authority to execute a contract amendment with TWDB for additional funding. The motion was seconded by Mr. Masterson and carried unanimously.

12. RECEIVE REPORT FROM CONSULTANT TEAM AND WMS COMMITTEE REGARDING WMS ALLOCATION SAFETY FACTORS AND CONSIDER TAKING ACTION TO DESIGNATE A SAFETY FACTOR FOR USE IN DEVELOPMENT OF THE 2021 REGION H REGIONAL WATER PLAN

Mr. Taucer explained the theory behind the calculation of the management supply factor. He stated that TWDB allows WPGs to declare a goal for management safety factor. He stated that if one is declared, it must be documented. Mr. Taucer stated that the WMS Committee recommended declining the option to set a declared goal and to allocate management strategies as have in prior years based on projects and needs. Mr. Turco made a motion to designate a WMS allocation safety factor for use in development of the 2021 Region H Regional Water Plan. The motion was seconded by Mr. Nelson and carried unanimously.

Upon further clarification and discussion, Mr. Turco made a motion to reconsider previous action taken under agenda item 12. The motion was seconded by Mr. Nelson and carried unanimously. Mr. Turco then made a motion to report safety factors as they are calculated on a project-by-project basis but decline the option to establish a goal for the safety factor. The motion was seconded by Mr. Nelson and carried unanimously.

13. RECEIVE REPORT REGARDING RECENT AND UPCOMING ACTIVITIES RELATED TO COMMUNICATIONS AND OUTREACH EFFORTS ON BEHALF OF THE REGION H WATER PLANNING GROUP

Mr. Taucer reported on the recent meeting of the Baytown Area Community Advisory Panel.

14. AGENCY COMMUNICATIONS AND GENERAL INFORMATION

Mr. Bookout reported on recent meetings of the TWDB Board.

15. RECEIVE PUBLIC COMMENTS

There were no public comments.

16. NEXT MEETING

Mr. Evans announced that the next Region H Water Planning Group meeting will take place on June 6, 2018.

17. ADJOURN

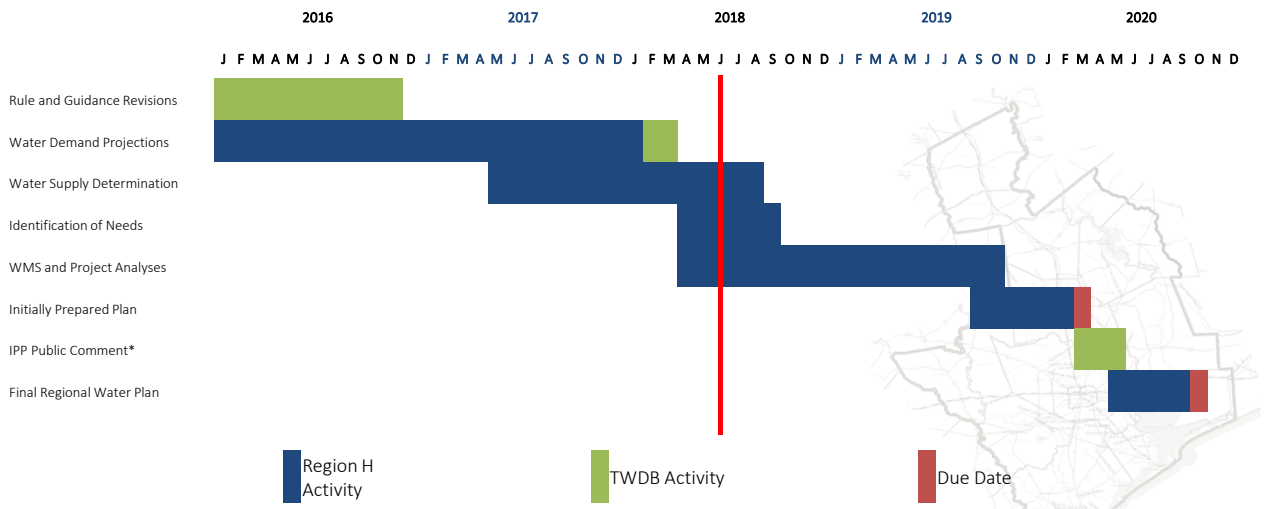
Without objection, the meeting was adjourned at 11:48 a.m.

Agenda Item 5

Receive update from Consultant Team regarding the schedule and milestones for the development of the 2021 Region H Regional Water Plan (RWP).

REGION H
Water Planning Group

Agenda Item 5
2021 RWP Schedule



*Region H accepts public comment throughout the planning cycle and at each RWPG and committee meeting.

Agenda Item 5
2021 RWP Schedule

Date	Scheduled Events/Tasks
06/2018	**RWPG Meeting**
08/2018	RWPG Meeting
09/2018	DUE DATE: Technical Memorandum
03/2020	DUE DATE: Initially Prepared Plan
10/2020	DUE DATE: FINAL RWP

Agenda Item 5
2021 RWP Schedule

- Stakeholder coordination
- Existing supply allocation
- Technical Memorandum

Agenda Item 6

Receive update from Consultant Team regarding draft surface water and reuse supply availability analyses.

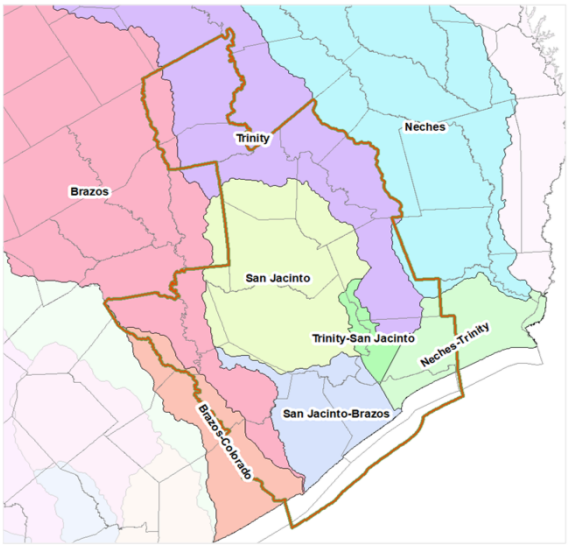
REGION H
Water Planning Group

Agenda Item 6
Surface Water and Reuse

Surface Water

- April meeting
  - Rules
  - Methodology
  - Initial results
- Exception request submitted
- Inter-Regional coordination
- Ongoing modeling

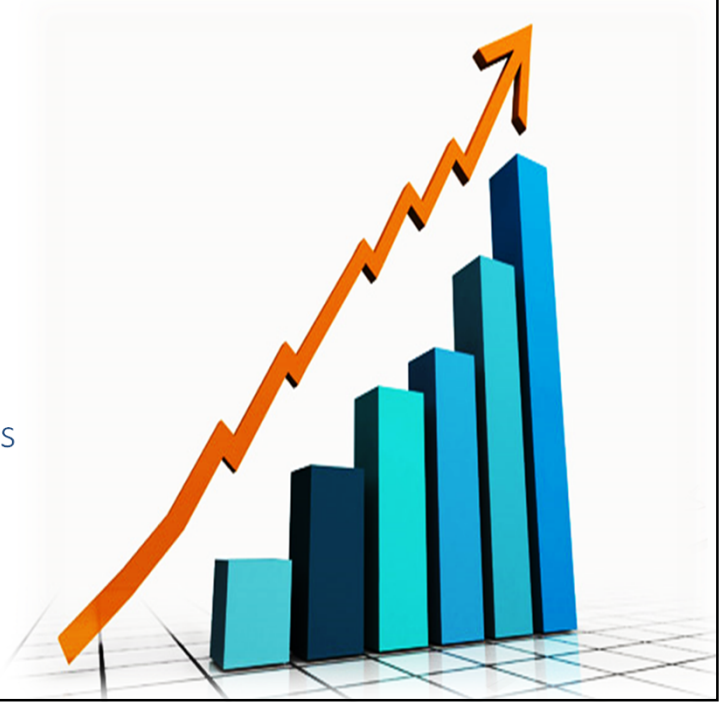
Agenda Item 6
Surface Water and Reuse



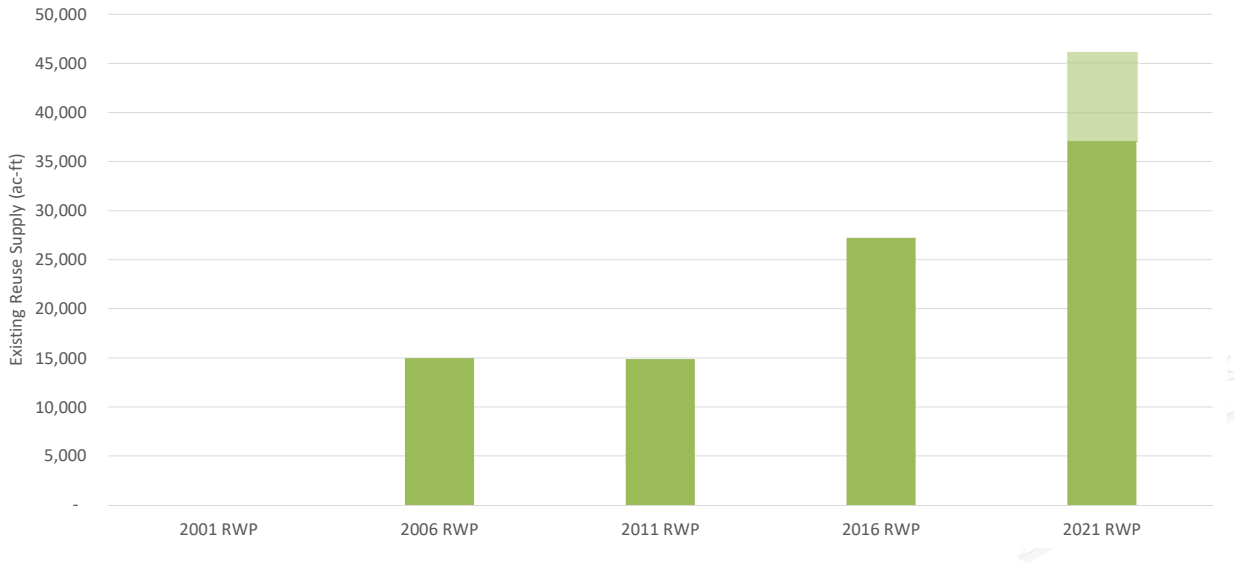
- Trinity
  - Region C analysis
  - Sedimentation
- Brazos and San Jacinto-Brazos
  - Brazos G in development
  - 2016 values in interim
- Brazos-Colorado
  - Restructured rights
  - Region K coordination
  - Increased availability

Agenda Item 6
Surface Water and Reuse

- Updates
  - Data review
  - Feedback
  - Permits
- Source-specific considerations
- Permit vs. infrastructure



Agenda Item 6
Surface Water and Reuse



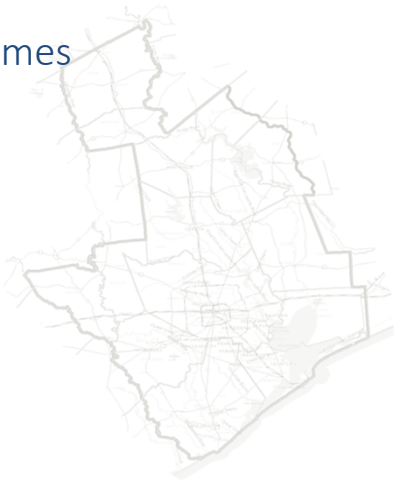
Agenda Item 7

Receive update from Consultant Team and Groundwater Supply Committee regarding MAG Peak Factors.

REGION H
Water Planning Group

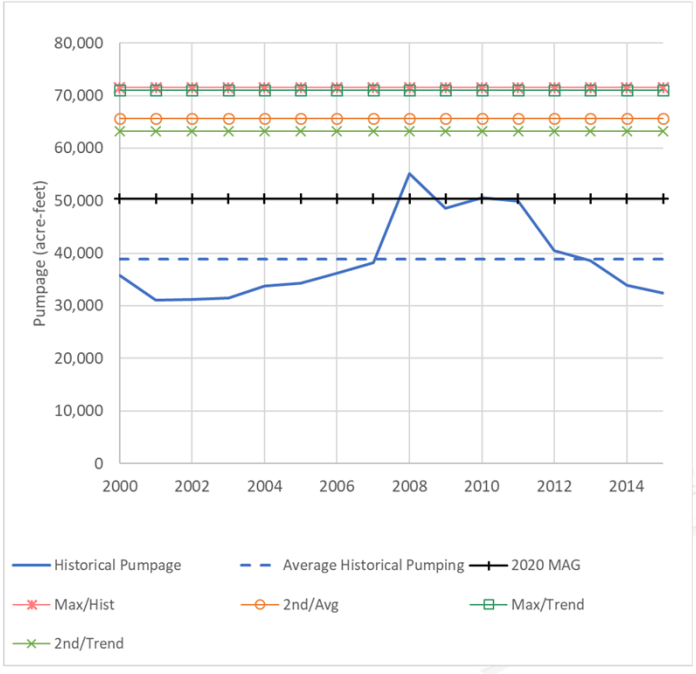
Agenda Item 7
MAG Peak Factors

- Addresses 2016 RWP concerns
- Percentage factor (>100%) applied to MAG volumes
- Applied for each decade
- Requires approval prior to IPP
  - From GCD (if applicable)
  - GMA
  - TWDB EA



Agenda Item 9
MAG Peak Factors

- Multiple options
- Current recommendation
  - Max/Trend for most
  - ≈1.06 to 1.68
- Coordination
  - Committee
  - GCD discussions



MEMORANDUM

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TO: Region H Water Planning Group Groundwater Supply Committee

FROM: Philip Taucer, P.E.

SUBJECT: MAG Peak Factors – Recommendations for Consideration by Districts

DATE: April 20, 2018

PROJECT: Region H 2021 Regional Water Plan – Supply Evaluation

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1. MAG Peak Factors

When developing Regional Water Plans (RWPs), planning groups consider water supply availability under drought-of-record conditions. Meanwhile, the joint planning process for groundwater in Texas considers long-term average conditions and determines Modeled Available Groundwater (MAG) supplies, which estimate a potential level of pumping that can be sustained to meet a Desired Future Condition (DFC) based on the most current Groundwater Availability Model (GAM) and understanding of an aquifer. Previously, the RWP process has used the MAG to estimate available groundwater supplies. However, because of the disconnect between the joint planning approach and the worst-case scenario in regional planning, MAGs can underestimate the actual, peak pumping that may occur during a drought-of-record year. Some local regulation by Groundwater Conservation Districts (GCDs) allow for short-term peak pumping while still complying with the DFC on a long-term, average basis. In these cases, application of the MAG to the RWP process excludes this regulatory flexibility and may place unnecessary limitations upon supplies used for planning purposes, thus underrepresenting the water supply available to meet projected demands.

In the 4th cycle of regional water planning, the Region H Water Planning Group (RHWPG) identified the difference between MAG volumes and allowable pumpage under current regulatory terms as a significant impact to RWP groundwater resource availability in the region. In response, the RHWPG produced estimates of Allowable Pumpage based on projected water demands and the current regulatory conditions for Fort Bend, Galveston, and Harris Counties for use in the 2016 RWP. Although this increased supply could not be used in the Plan, the projected needs produced as a result of the differences in MAG and Allowable Pumpage were not considered to warrant the development of additional Water Management Strategies (WMS).

For the 5th cycle of RWP development, the Texas Water Development Board (TWDB) has allowed the implementation of MAG peak factors, which are multipliers greater than 100% applied to long-term MAG values to estimate dry-year availability. The intent of the peak factor is to bridge the gap between joint planning and regional planning perspectives. Regional Water Planning Groups (RWPGs) are not required to use peak factors but are given the option to apply them where deemed appropriate on a county-aquifer basis. ***Attachment 1*** from the TWDB provides additional information on the use of MAG peak factors. The MAG peak factor is not intended to adjust the long-term supply as derived from the DFCs developed through joint planning process for groundwater but is, instead, intended to make the regional planning process consistent with regulations by local groundwater districts and patterns of permitted and exempt water use. MAG peak factors recommended by the RWPG must be approved by the associated GCD, Groundwater Management Area (GMA), and the TWDB Executive Administrator.

2. Peak Factors in Region H

The need for MAG peak factors in Region H was considered for each county-aquifer unit included as relevant formations in the most recent round of joint planning. When applied, a MAG peak factor is the ratio of RWP supplies (dry-year conditions) to the corresponding MAG. Therefore, historical pumping was assessed to determine the ratio of peak to long-term annual pumpage using historical pumping data from 2000 to 2015 obtained from TWDB. Four approaches were considered to estimate this ratio:

PF1 – equal to the maximum historical pumping volume divided by average historical pumping volume,

PF2 – equal to the second highest pumping volume divided by average pumping volume,

PF3 – equal to the maximum pumping volume divided by a linear approximation in the same year based on historical data points, and

PF4 – equal to the second highest pumping volume divided by the linear approximation in the same year.

Linear approximations were developed from a linear fit of the 2000 to 2015 data to account for overall trends in pumpage. For counties in which the Gulf Coast Aquifer is the only major aquifer, all pumping categorized in the TWDB datasets as "Other Aquifer" or "Unknown Aquifer" was assumed to originate from the Gulf Coast Aquifer. Additionally, the two relevant aquifers within the Region H portion of Trinity County – the Carrizo-Wilcox Aquifer and the Sparta Aquifer – were excluded from this assessment due to the lack of any historical pumping records.

After review, PF3 is the factor recommended by the consultant team for the majority of the county-aquifer units considered, with the exception of the Gulf Coast Aquifer in Galveston County. For those counties with a sharply decreasing or increasing trend in pumpage, PF1 and PF2 are not recommended because they may misrepresent the predicted ratio of peak to long-term pumping. Additionally, PF4 is not generally recommended because some county-aquifer units demonstrated peak pumping in only one year, making the second highest pumping irrelevant to the purpose of the peak factor. *Table 1* summarizes the four peak factor options, and the following sections provide additional details for each applicable county-aquifer unit.

Table 1. Summary of Peak Factor Options in Region H

GMA	County	Aquifer	Groundwater Conservation or Subsidence District	PF1	PF2	PF3	PF4
14	Austin	Gulf Coast	Bluebonnet GCD	139.2%	126.6%	123.9%	114.4%
14	Brazoria	Gulf Coast	Brazoria County GCD	141.9%	130.2%	140.9%	125.5%
14	Chambers	Gulf Coast	n/a	142.3%	124.4%	121.4%	112.8%
14	Fort Bend	Gulf Coast	Fort Bend SD	130.0%	123.3%	130.6%	123.5%
14	Galveston	Gulf Coast	Harris-Galveston SD	250.9%	201.6%	370.4%	119.2%
14	Harris (2010 - 2015)	Gulf Coast	Harris-Galveston SD	117.5%	113.3%	118.7%	107.9%
12	Leon	Carrizo-Wilcox	Mid-East Texas GCD	119.7%	116.5%	121.9%	112.1%
12	Leon	Queen City	Mid-East Texas GCD	149.2%	138.3%	106.0%	116.2%
12	Leon	Sparta	Mid-East Texas GCD	164.5%	149.5%	167.7%	148.2%
14	Liberty	Gulf Coast	n/a	129.8%	126.0%	105.8%	105.7%
12	Madison	Carrizo-Wilcox	Mid-East Texas GCD	221.0%	211.8%	150.4%	105.5%
12	Madison	Queen City	Mid-East Texas GCD	147.9%	127.7%	156.7%	116.7%
12	Madison	Sparta	Mid-East Texas GCD	131.4%	126.6%	117.4%	106.7%
12	Madison	Yegua-Jackson	Mid-East Texas GCD	215.9%	199.8%	149.0%	126.7%
14	Montgomery	Gulf Coast	Lone Star GCD	148.7%	126.3%	133.2%	109.8%
14	Polk	Gulf Coast	Lower Trinity GCD	119.8%	114.7%	113.7%	111.1%
14	San Jacinto	Gulf Coast	Lower Trinity GCD	147.8%	111.4%	138.0%	96.6%
14	Walker	Gulf Coast	Bluebonnet GCD	120.8%	120.3%	114.8%	131.0%
14	Waller	Gulf Coast	Bluebonnet GCD	128.7%	127.1%	144.7%	108.3%

**Recommended peak factors for each county and aquifer unit are shaded in light green.*

3. Counties within a Subsidence District: Fort Bend, Galveston, and Harris Counties

The available groundwater supplies set by TWDB for the 2021 RWP in Fort Bend, Galveston, and Harris Counties are approximately equal to the projections from the GMA 14 Regional Groundwater Update Project (RGUP, 2013). Maximum allowable pumping within regulated areas of the Harris Galveston Subsidence District and Fort Bend Subsidence District is based on a percentage of demand, so in dry years with high demand, MAG peak factors could be used to more appropriately represent groundwater supplies in these areas. The Allowable Pumpage projections in the 2016 RWP, which were greater than the MAG values, are based on the RWP demands and

Subsidence District regulations and consider demands during drought conditions. Peak factor options were multiplied by the decadal MAG values and recommendations have been made, partially based on a comparison of the augmented MAGs to the Allowable Pumpage determined in the previous plan.

3.1. Fort Bend County

As of 2014, Regulatory Area A of the Fort Bend Subsidence District had converted to no more than 70% of its total qualifying demand being met by groundwater. Because of the impact on total pumping, historical pumping data from 2000 to 2015 were evaluated as two separate periods of record: 2000 – 2013 and 2014 – 2015. Due to the limited period of record, data in 2014 and 2015 were excluded from the peak factor analysis. It is assumed that early conversion that occurred prior to this period has negligible impact on the peak groundwater demand trend. Potential peak factors for the Gulf Coast Aquifer in Fort Bend County are summarized in *Table 2,* with the historical data used to calculate the factors illustrated in *Figure 1*. Historical pumpage and peaked Year 2020 MAG values are shown in *Figure 2*. Based on the results of the calculations and the general recommendation discussed in *Section 2*, PF3 (*Figure 3*) is recommended for the Gulf Coast Aquifer in Fort Bend County.

Table 2. Peak Factors for the Gulf Coast Aquifer in Fort Bend County

Summary Values for 2000 - 2013		PF x 2020 MAG
Average Use 2000-2013	89,270	
Peak Use 2000-2013	113,122	
PF1	126.7%	164,447
PF2	120.2%	156,004
PF3	121.1%	157,107
PF4	117.2%	152,057

Figure 1. Historical Pumping from the Gulf Coast Aquifer in Fort Bend County

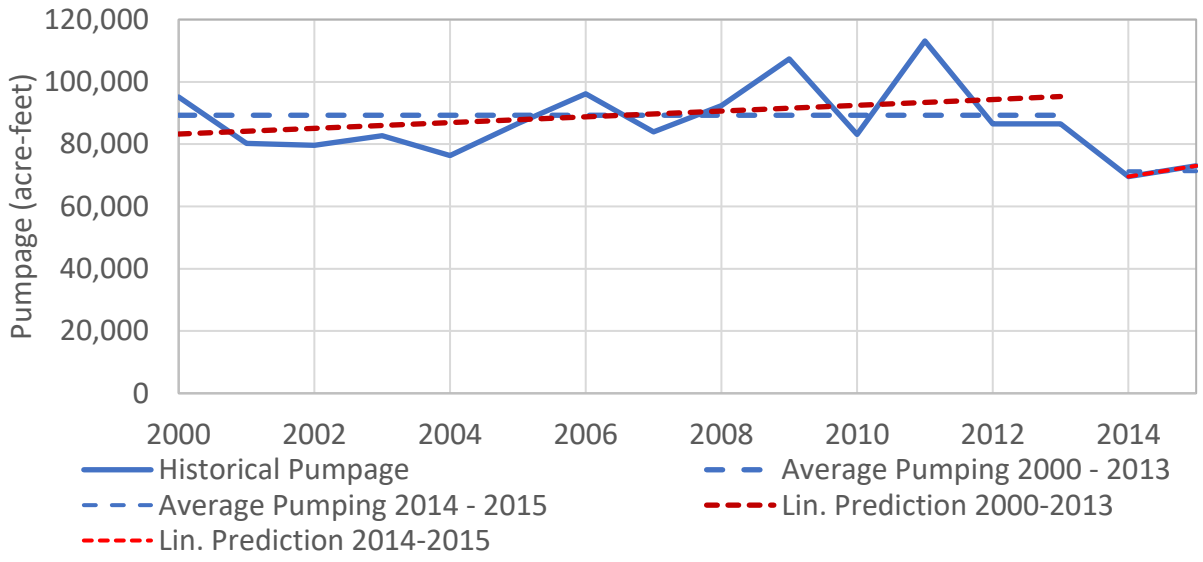


Figure 2. Historical Pumping, 2020 MAG, and 2020 MAG x Peak Factors for the Gulf Coast Aquifer in Fort Bend County

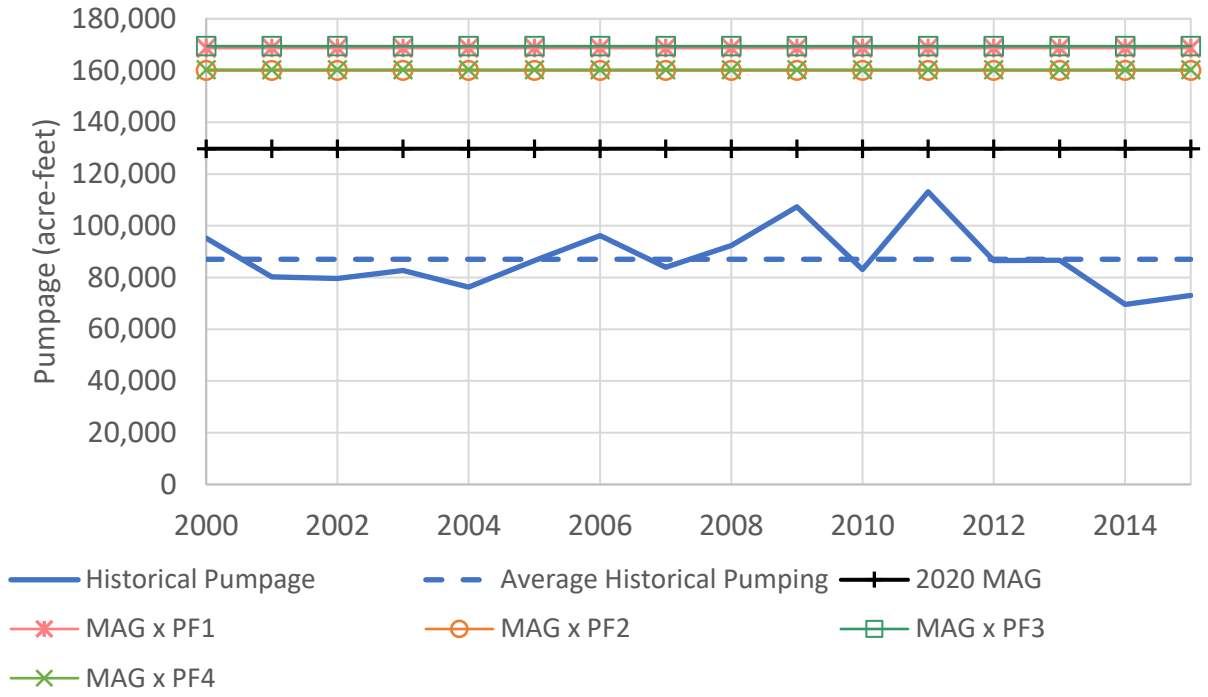
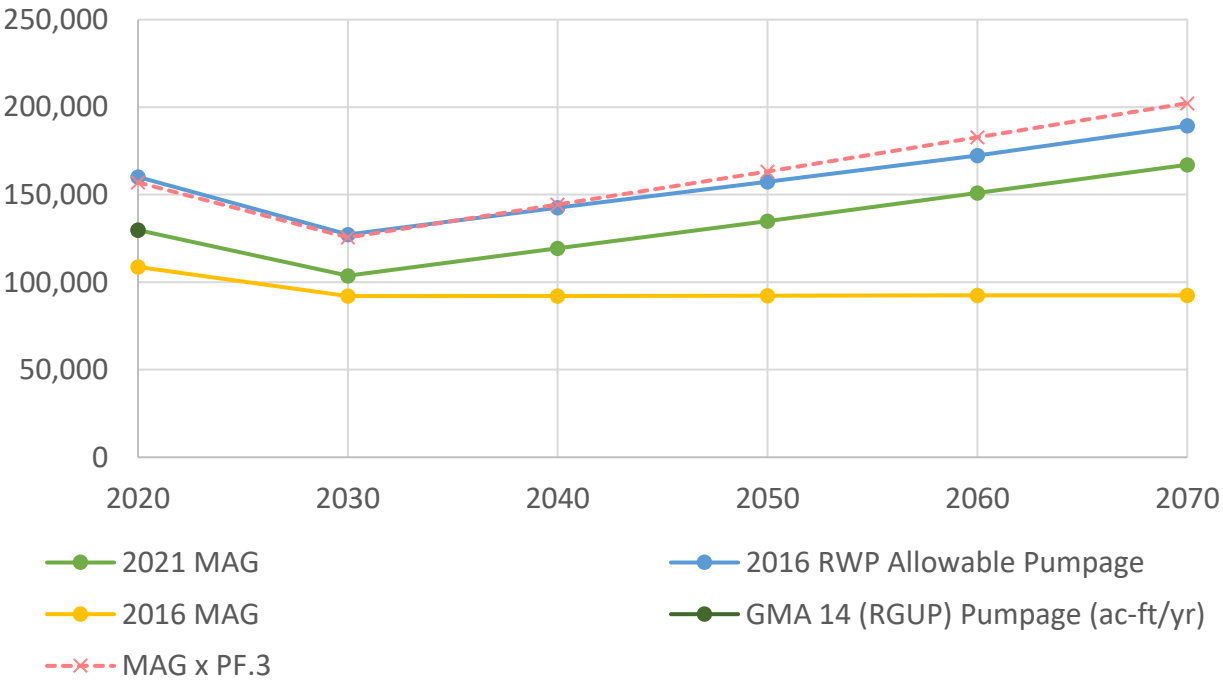


Figure 3. Allowable Pumpage, MAG, and MAG x Recommended Peak Factor for the Gulf Coast Aquifer in Fort Bend County



3.2. Galveston County

Galveston County pumping showed a significant peak in 2011, but the second highest pumpage occurred in 2000 due to the overall decreasing trend of groundwater use in the county (*Figure 4*). Potential peak factors for the Gulf Coast Aquifer in Galveston County are summarized in *Table 3;* historical pumpage and peaked Year 2020 MAG values are shown in *Figure 5*. Because of the strong trend, PF1 and PF2 are not recommended. PF3, based on the large pumping volume in 2011, generates supplies significantly larger than the estimated Allowable Pumpage from the 2016 RWP; PF4 is recommended instead (*Figure 6*). These extreme factors are generally related to the limited groundwater use within Regulatory Area 1 during typical years, in contrast to drought conditions that are stressed not only by increases in demand, but also by limitations on supplies from the Brazos River which provide for most of the county.

Table 3. Peak Factors for the Gulf Coast Aquifer in Galveston County

Summary Values for 2000 - 2015		PF x MAG
Average Use 2000-2015	4,240	
Peak Use 2000-2015	10,640	
PF1	250.9%	*15,141*
PF2	201.6%	*12,165*
PF3	370.4%	*22,350*
PF4	119.2%	*7,193*

Figure 4. Historical Pumping from the Gulf Coast Aquifer in Galveston County

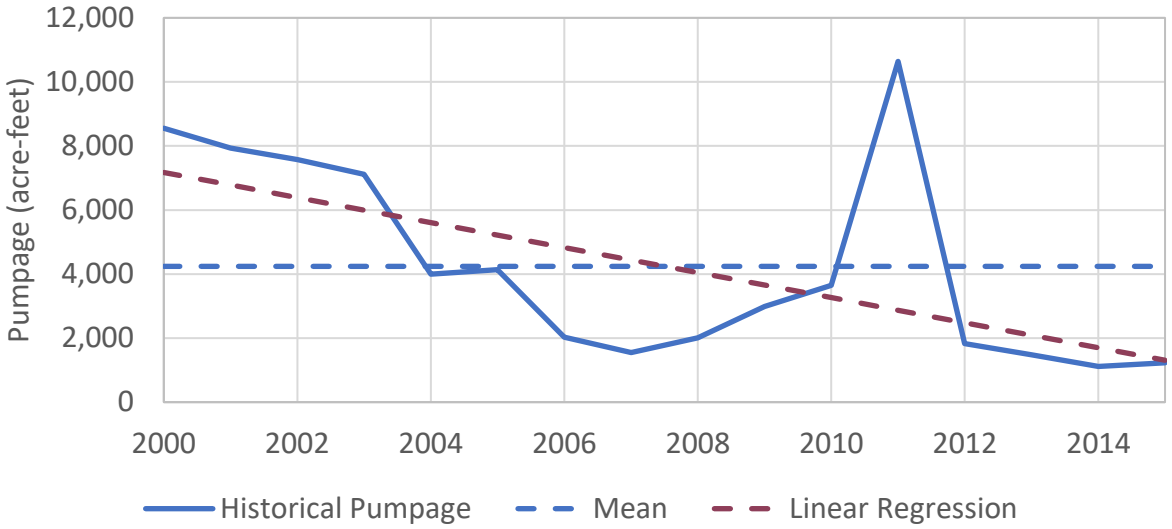


Figure 5. Historical Pumping, 2020 MAG, and 2020 MAG x Peak Factors for the Gulf Coast Aquifer in Galveston County

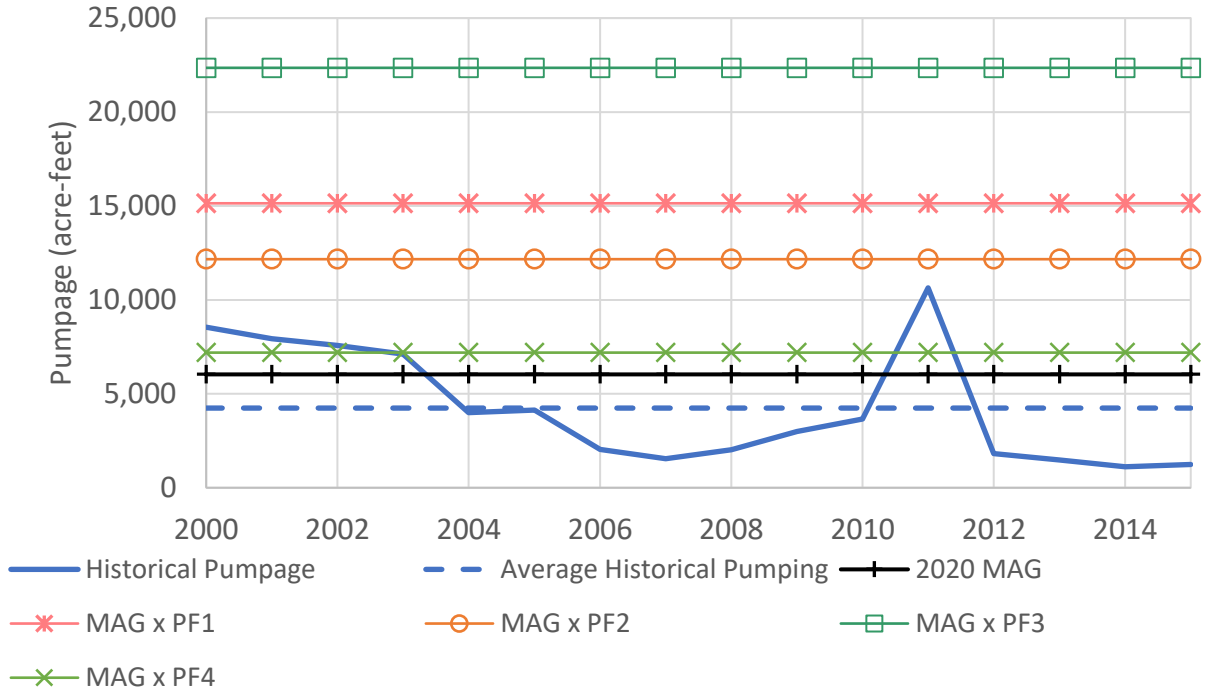
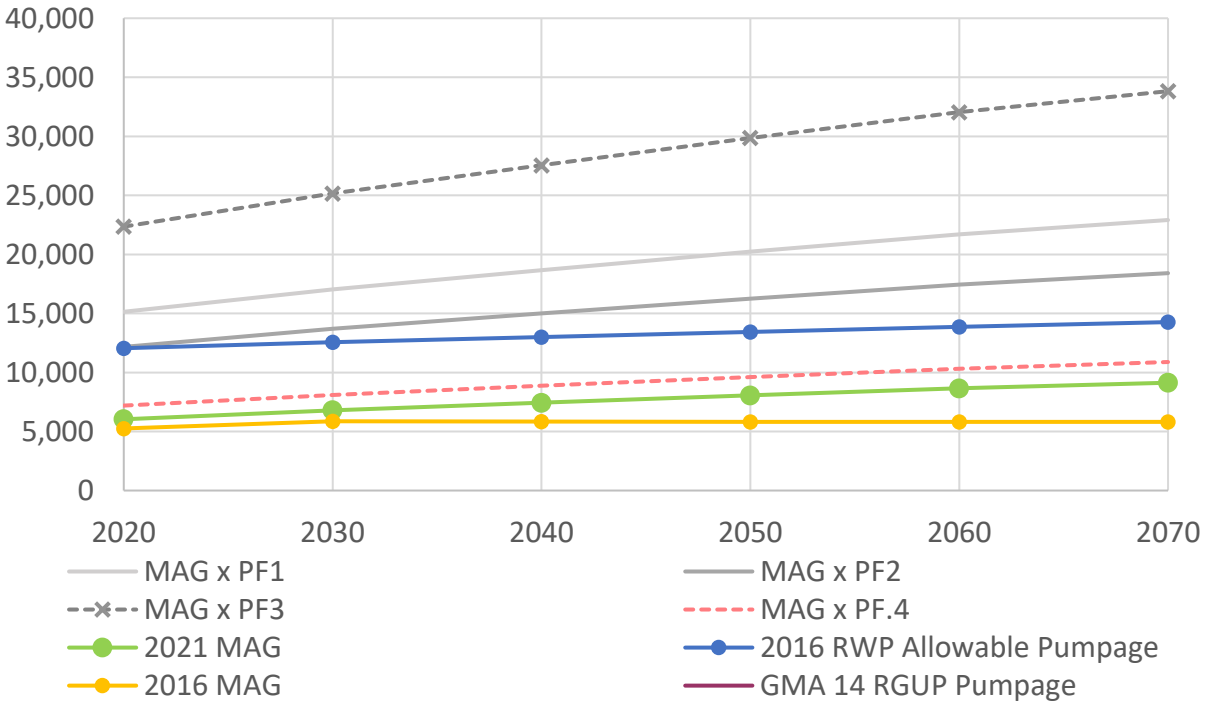


Figure 6. Allowable Pumpage, MAG, and MAG x Recommended Peak Factor for the Gulf Coast Aquifer in Galveston County



3.3. Harris County

Regulatory Area 3 of the Harris-Galveston Subsidence District, which is in Harris County, was required to have converted at least 30% of its total qualifying demand to sources other than groundwater by 2010. As Area 3 comprises a significant portion of Harris County, historical pumping data in the county were evaluated separately before and after this conversion deadline (*Figure 7*). Historical pumping data were split into two periods of record: (a) 2000 – 2009 and (b) 2010 – 2015, resulting in eight peak factor options: PF1a, PF2a, PF3a, PF4a, PF1b, PF2b, PF3b, and PF4b (*Tables 4a and 4b*). The more recent period is recommended, as it more accurately reflects the post-2010 spatial distribution of pumping following the conversions in Regulatory Area 3. Historical pumpage and peaked Year 2020 MAG values are shown in *Figure 8*. Based on the general recommendation in *Section 2*, PF3b is the recommended option (*Figure 9*).

Table 4a. Peak Factors for the Gulf Coast Aquifer in Harris County based on 2000 – 2009 Pumping Records

Summary Values 2000 - 2009		PF x MAG
Average Pumping 2000 - 2009	304,326	
Peak Pumping 2000 - 2009	385,536	
PF1a	126.7%	518,701
PF2a	111.0%	454,524
PF3a	111.2%	455,132
PF4a	112.8%	461,689

Table 4b. Peak Factors for the Gulf Coast Aquifer in Harris County based on 2010 – 2015 Pumping Records

Summary Values for 2010 - 2015		PF x MAG
Average Use 2010-2015	248,814	
Peak Use 2010-2015	292,417	
PF1b	117.5%	481,191
PF2b	113.3%	463,781
PF3b	118.7%	486,078
PF4b	107.9%	441,583

Figure 7. Historical Pumping from the Gulf Coast Aquifer in Harris County

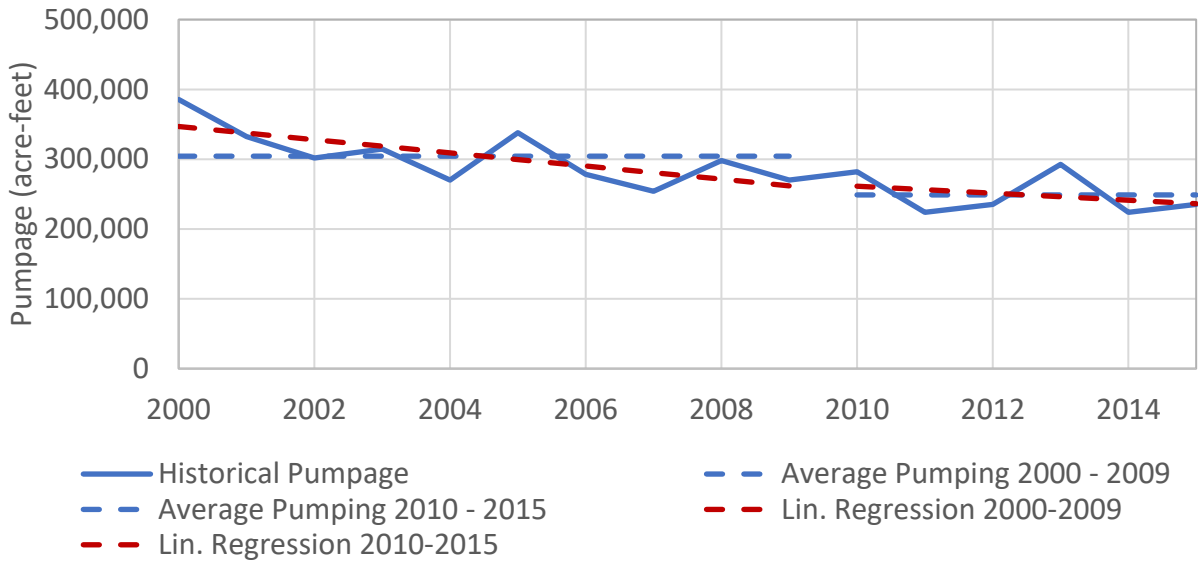


Figure 8. Historical Pumping, 2020 MAG, and 2020 MAG x Peak Factors for the Gulf Coast Aquifer in Harris County

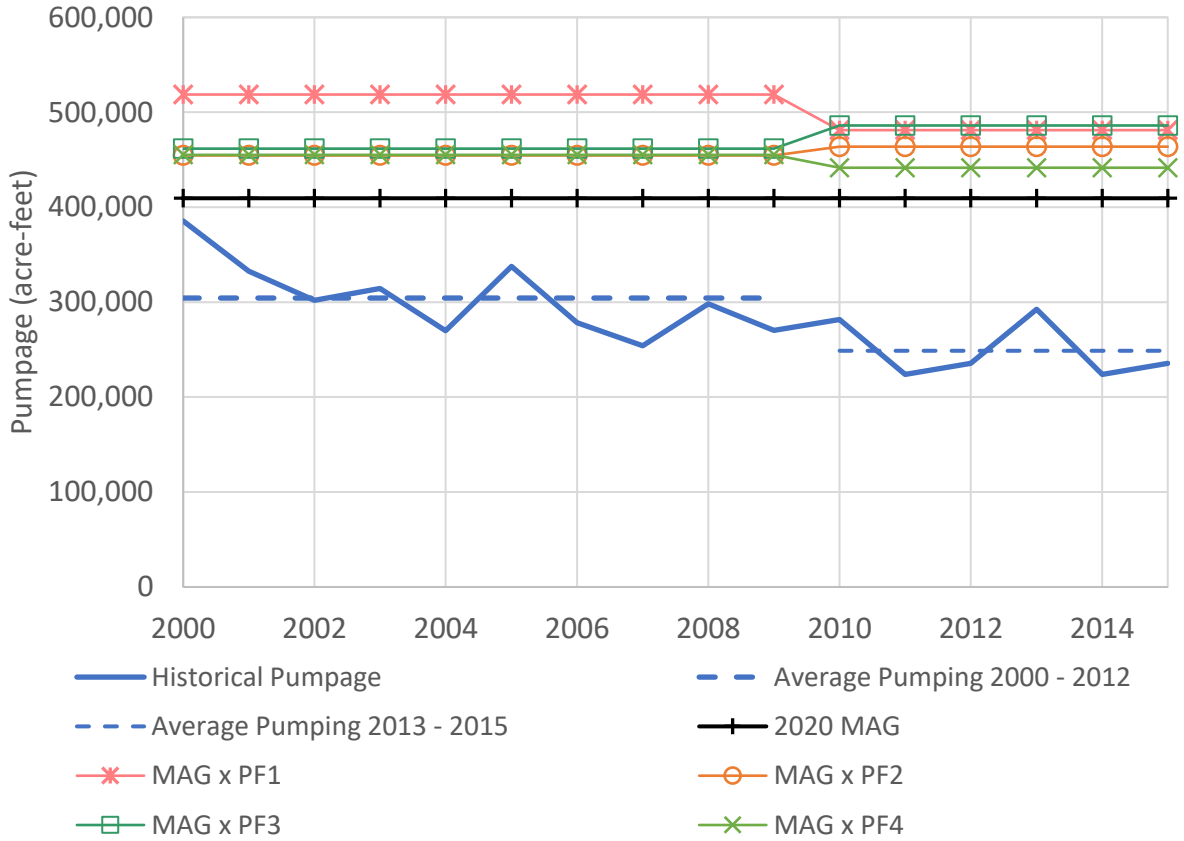
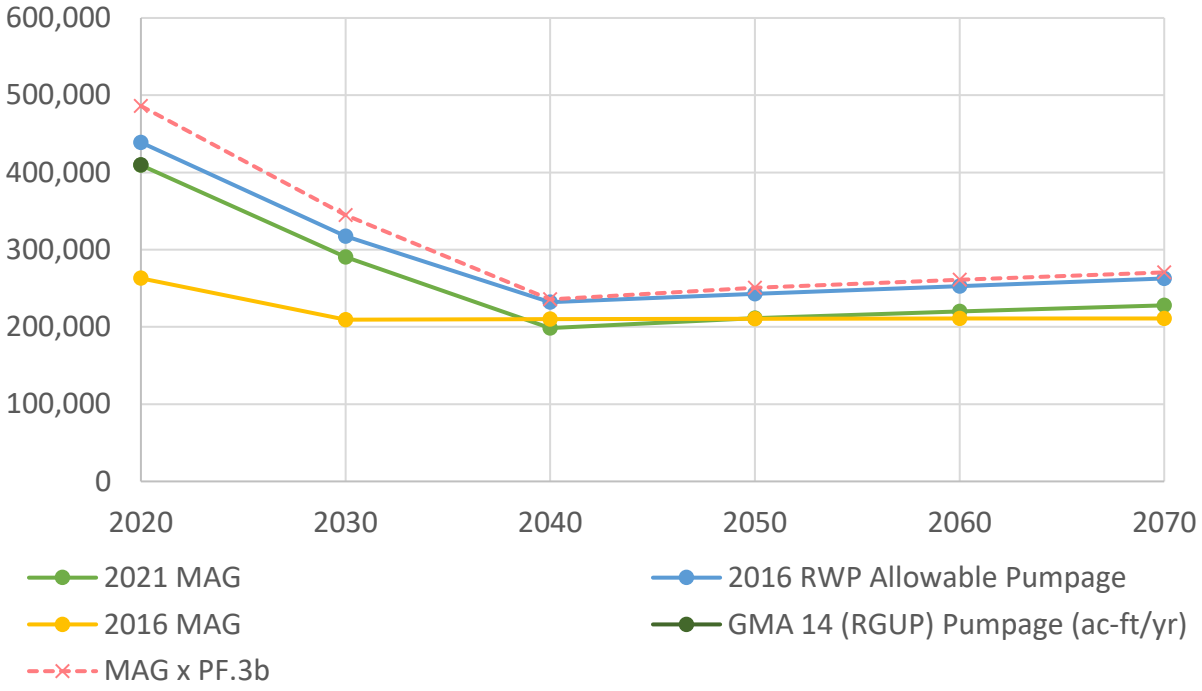


Figure 9. Allowable Pumpage, MAG, and MAG x Recommended Peak Factor for the Gulf Coast Aquifer in Harris County



4. Counties Outside of a Subsidence District

4.1. Austin County - Gulf Coast Aquifer

Potential peak factors for the Gulf Coast Aquifer in Austin County are summarized in *Table 5,* with the historical data used to calculate the factors illustrated in *Figure 10*. Historical pumpage and peaked Year 2020 MAG values are shown in *Figure 11*. Based on the results of the calculations and the general recommendation discussed in *Section 2*, PF3 is recommended for the Gulf Coast Aquifer in Austin County.

Table 5. Peak Factors for the Gulf Coast Aquifer in Austin County

Summary Values for 2000 - 2015		PF x MAG
Average Use 2000-2015	8,478	
Peak Use 2000-2015	11,800	
PF1	139.2%	31,035
PF2	126.6%	28,236
PF3	123.9%	27,631
PF4	114.4%	25,513

Figure 10. Historical Pumping from the Gulf Coast Aquifer in Austin County

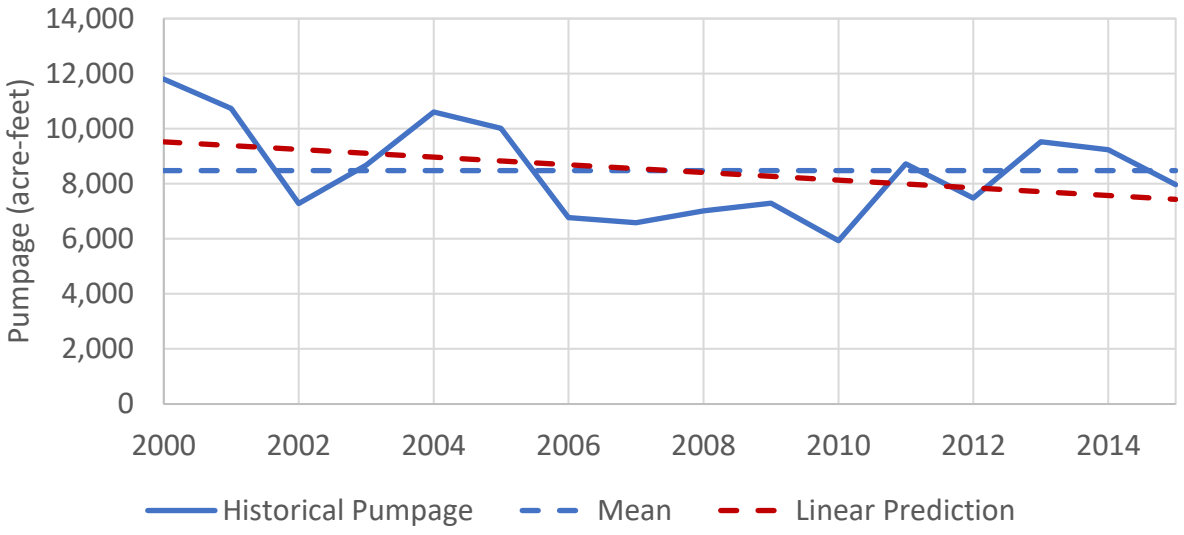
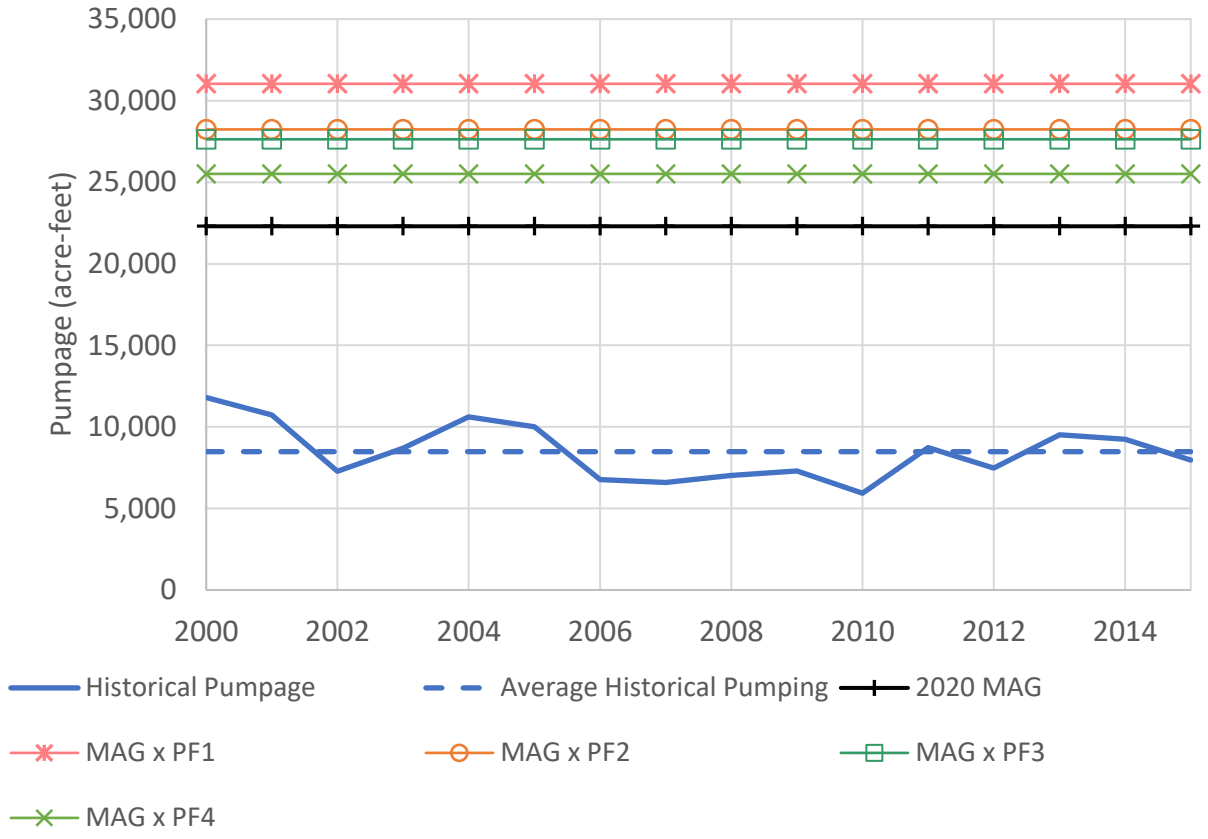


Figure 11. Historical Pumping, 2020 MAG, and 2020 MAG x Peak Factors for the Gulf Coast Aquifer in Austin County



4.2. Brazoria County – Gulf Coast Aquifer

Potential peak factors for the Gulf Coast Aquifer in Brazoria County are summarized in *Table 6,* with the historical data used to calculate the factors illustrated in *Figure 12*. Historical pumpage and peaked Year 2020 MAG values are shown in *Figure 13*. Based on the results of the calculations and the general recommendation discussed in *Section 2*, PF3 is recommended for the Gulf Coast Aquifer in Brazoria County.

Table 6. Peak Factors for the Gulf Coast Aquifer in Brazoria County

Summary Values for 2000 - 2015		PF x MAG
Average Use 2000-2015	38,864	
Peak Use 2000-2015	55,159	
PF1	141.9%	*71,557*
PF2	130.2%	*65,663*
PF3	140.9%	*71,022*
PF4	125.5%	*63,283*

Figure 12. Historical Pumping from the Gulf Coast Aquifer in Brazoria County

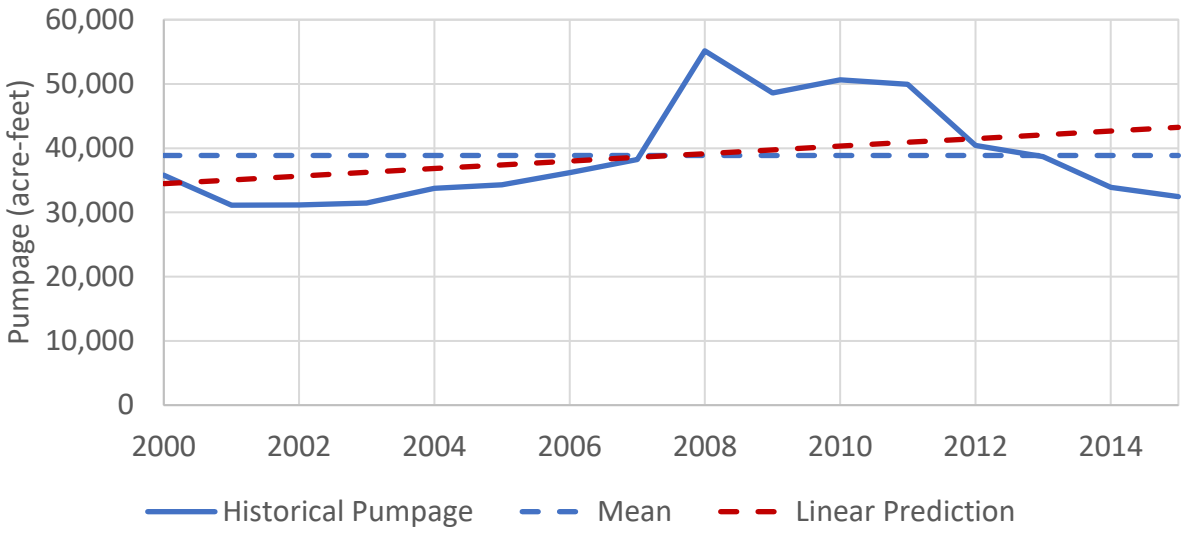
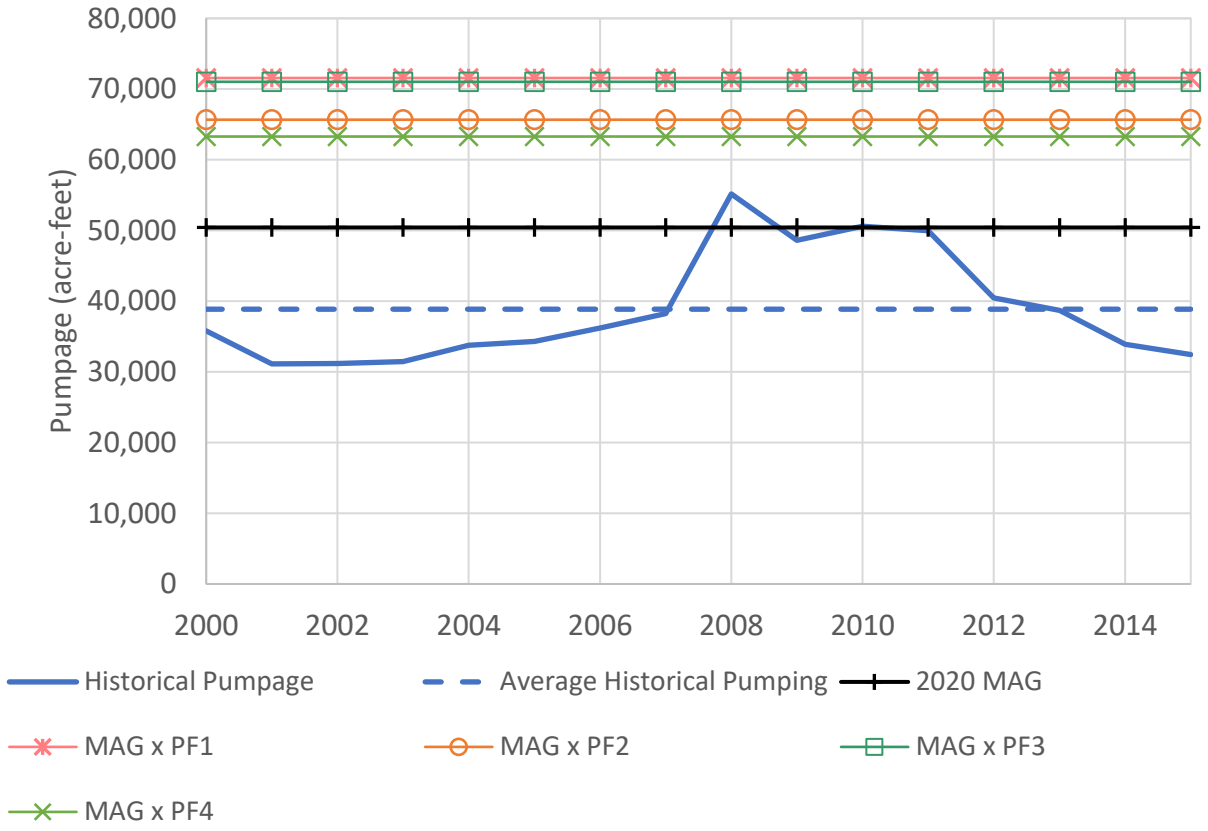


Figure 13. Historical Pumping, 2020 MAG, and 2020 MAG x Peak Factors for the Gulf Coast Aquifer in Brazoria County



4.3. Chambers County - Gulf Coast Aquifer

Potential peak factors for the Gulf Coast Aquifer in Chambers County are summarized in *Table 7,* with the historical data used to calculate the factors illustrated in *Figure 14*. Historical pumpage and peaked Year 2020 MAG values are shown in *Figure 15*. Based on the results of the calculations and the general recommendation discussed in *Section 2*, PF3 is recommended for the Gulf Coast Aquifer in Chambers County.

Table 7. Peak Factors for the Gulf Coast Aquifer in Chambers County

Summary Values for 2000 - 2015		PF x MAG
Average Use 2000-2015	3,692	
Peak Use 2000-2015	5,253	
PF1	142.3%	32,652
PF2	124.4%	28,556
PF3	121.4%	27,857
PF4	112.8%	25,883

Figure 14. Historical Pumping from the Gulf Coast Aquifer in Chambers County

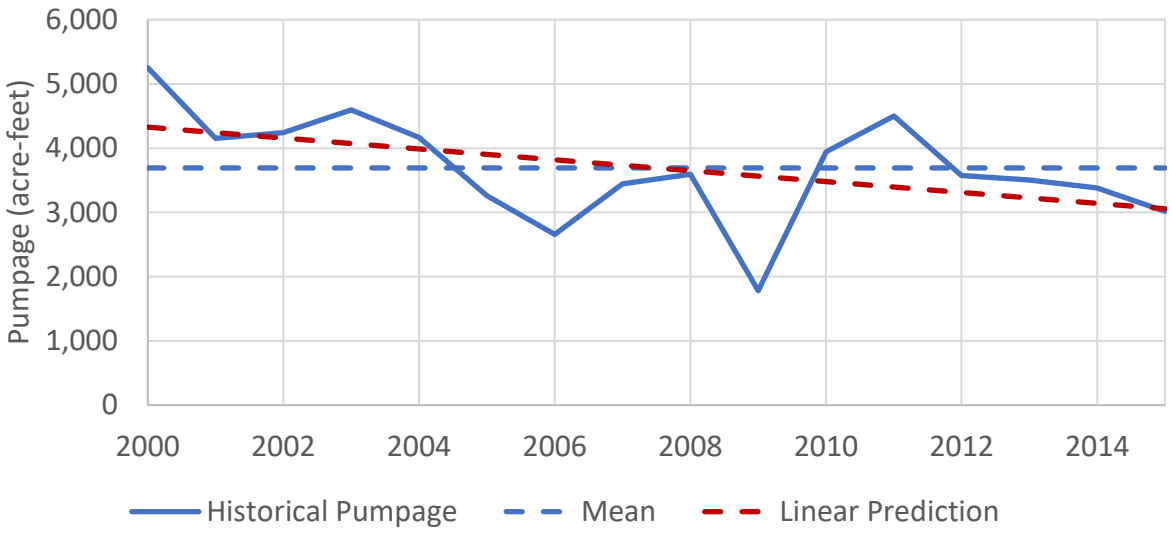
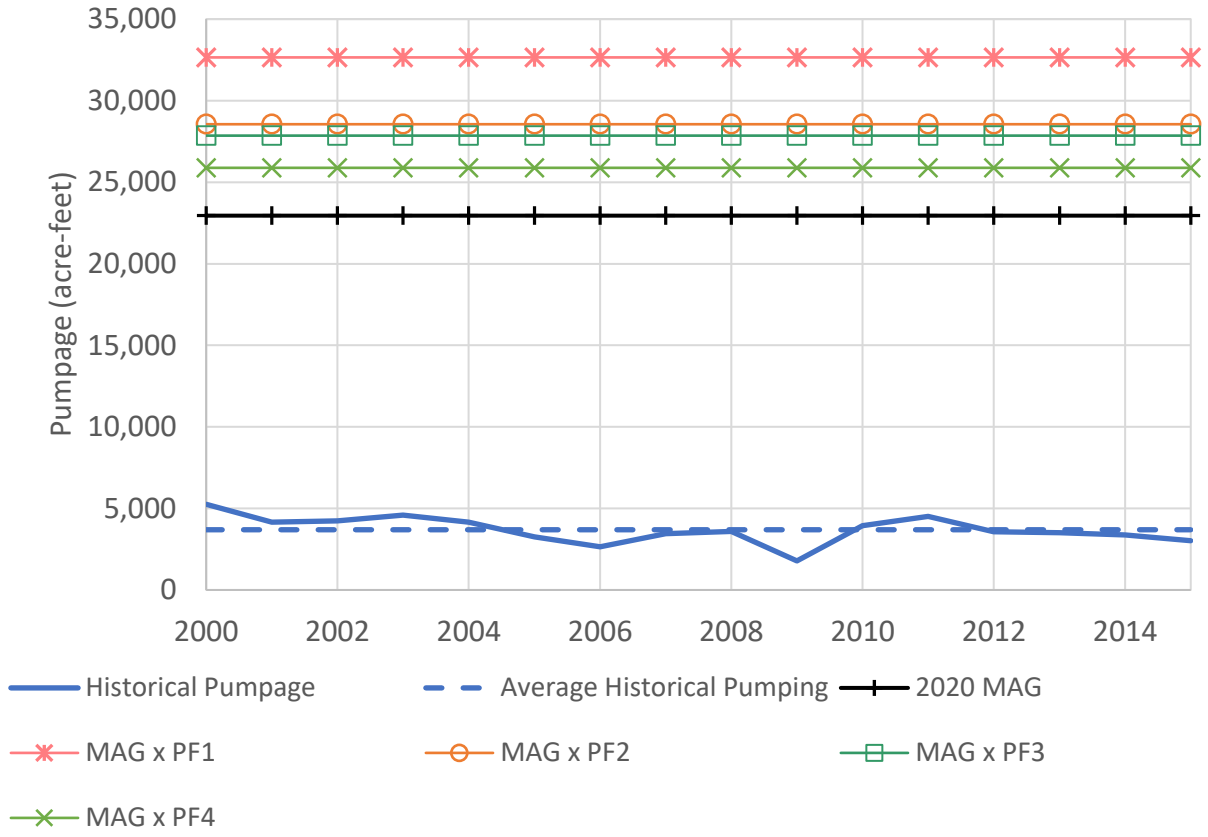


Figure 15. Historical Pumping, 2020 MAG, and 2020 MAG x Peak Factors for the Gulf Coast Aquifer in Chambers County



4.4. Leon County - Carrizo-Wilcox Aquifer

Potential peak factors for the Carrizo-Wilcox Aquifer in Leon County are summarized in *Table 8,* with the historical data used to calculate the factors illustrated in *Figure 16*. Historical pumpage and peaked Year 2020 MAG values are shown in *Figure 17*. Based on the results of the calculations and the general recommendation discussed in *Section 2*, PF3 is recommended for the Carrizo-Wilcox Aquifer in Leon County.

Table 8. Peak Factors for the Carrizo-Wilcox Aquifer in Leon County

Summary Values for 2000 - 2015		PF x MAG
Average Use 2000-2015	3,219	
Peak Use 2000-2015	3,854	
PF1	119.7%	17,106
PF2	116.5%	16,644
PF3	121.9%	17,421
PF4	112.1%	16,023

Figure 16. Historical Pumping from the Carrizo-Wilcox Aquifer in Leon County

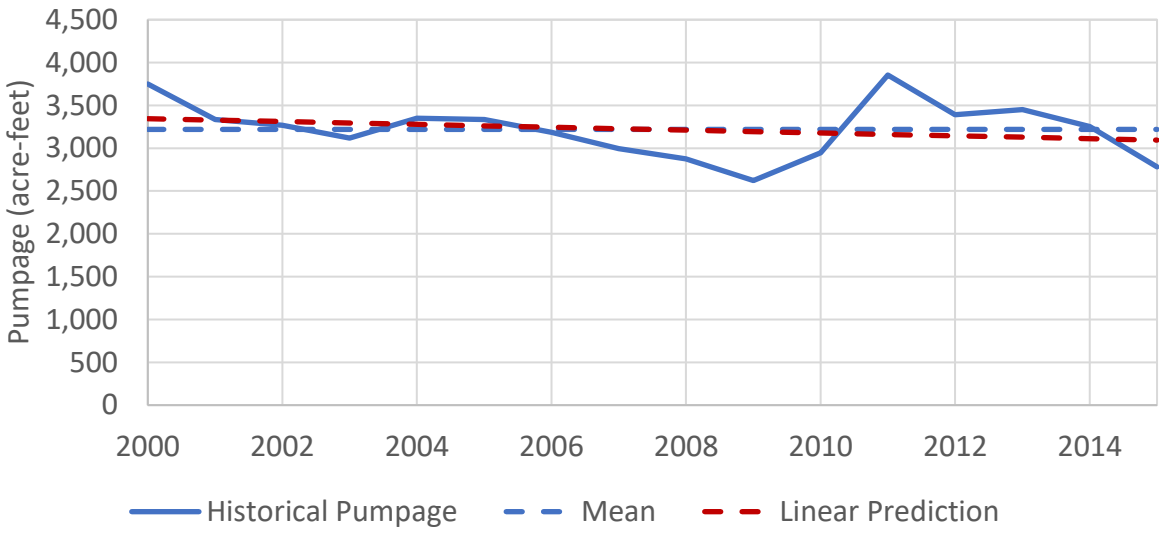
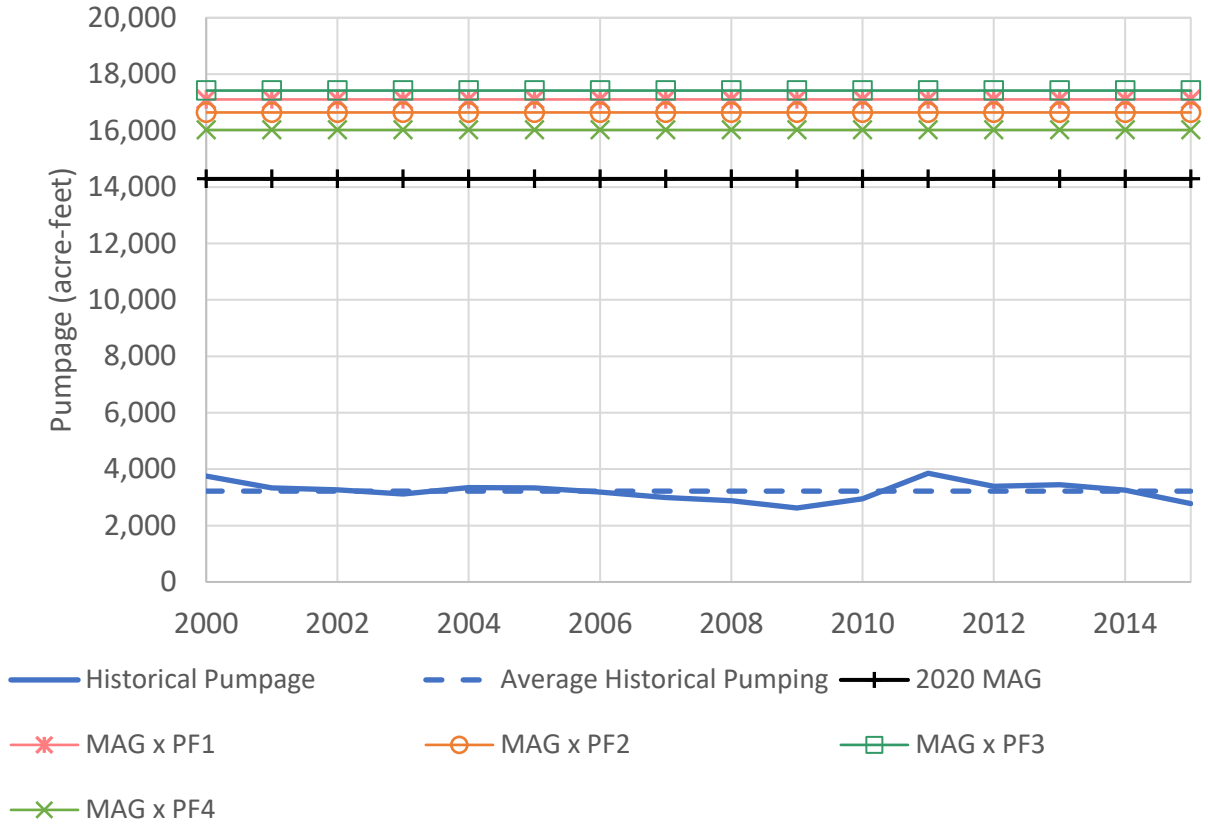


Figure 17. Historical Pumping, 2020 MAG, and 2020 MAG x Peak Factors for the Carrizo-Wilcox Aquifer in Leon County



4.5. Leon County - Queen City Aquifer

Potential peak factors for the Queen City Aquifer in Leon County are summarized in *Table 9,* with the historical data used to calculate the factors illustrated in *Figure 18*. Historical pumpage and peaked Year 2020 MAG values are shown in *Figure 19*. Based on the results of the calculations and the general recommendation discussed in *Section 2*, PF3 is recommended for the Queen City Aquifer in Leon County.

Table 9. Peak Factors for the Queen City Aquifer in Leon County

Summary Values for 2000 - 2015		PF x MAG
Average Use 2000-2015	616	
Peak Use 2000-2015	919	
PF1	149.2%	886
PF2	138.3%	821
PF3	106.0%	629
PF4	116.2%	690

Figure 18. Historical Pumping from the Queen City Aquifer in Leon County

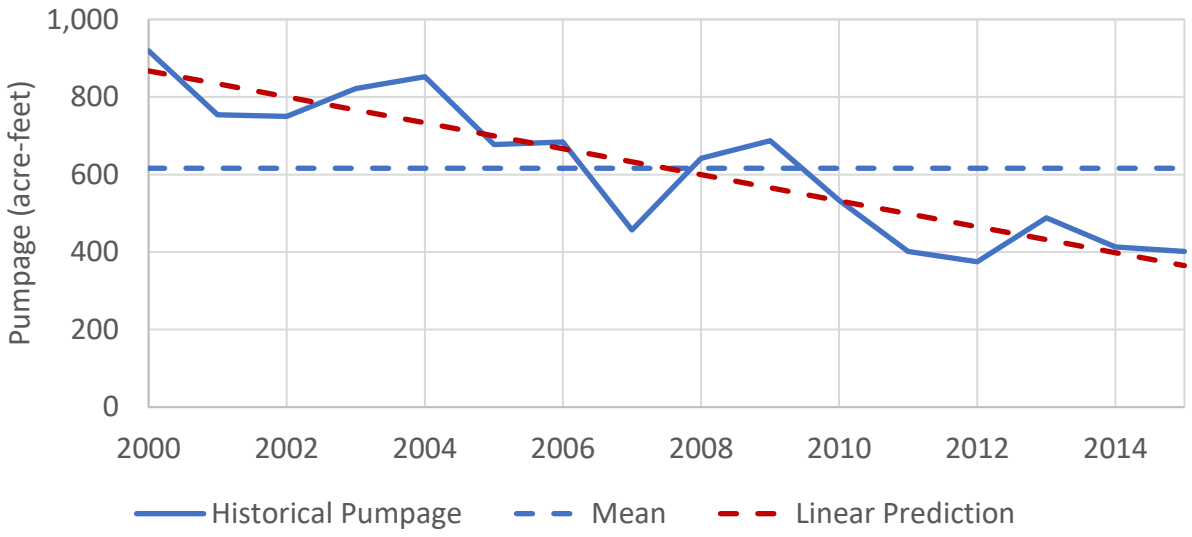
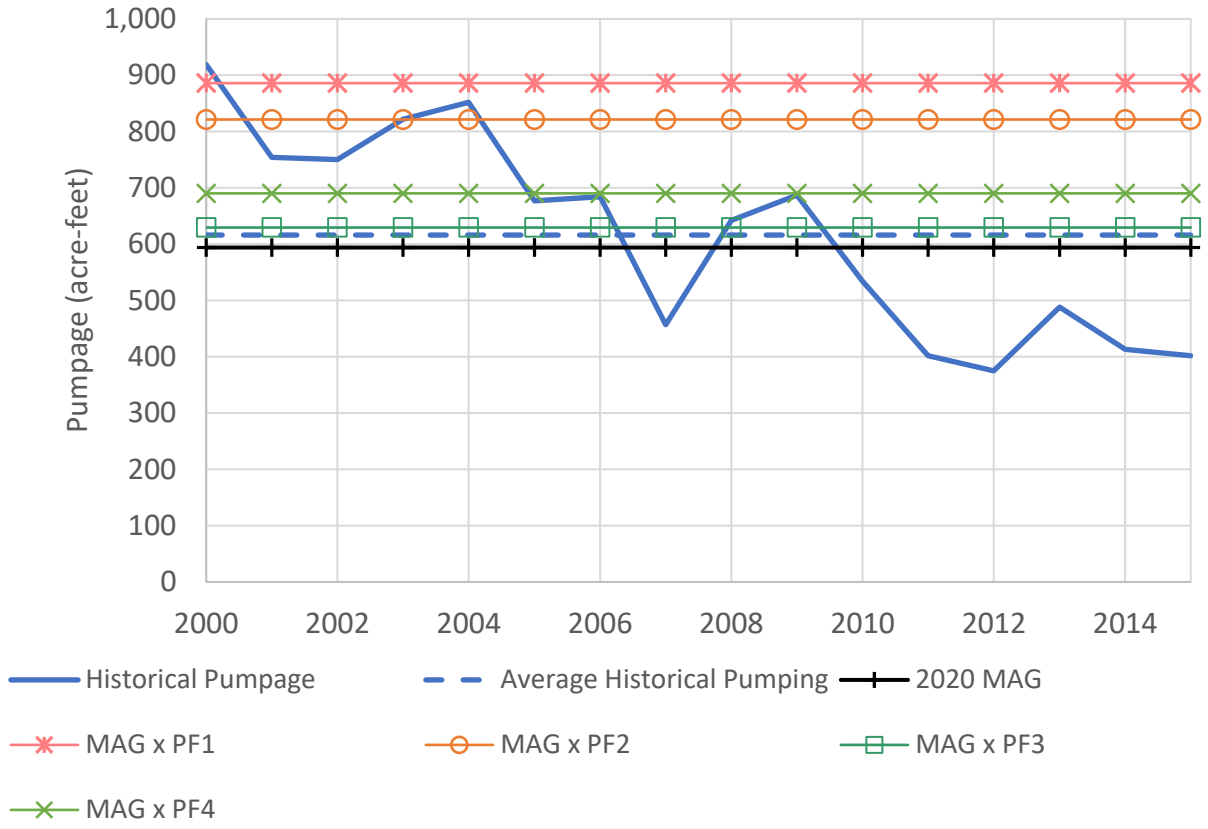


Figure 19. Historical Pumping, 2020 MAG, and 2020 MAG x Peak Factors for the Queen City Aquifer in Leon County



4.6. Leon County – Sparta Aquifer

Potential peak factors for the Sparta Aquifer in Leon County are summarized in *Table 10,* with the historical data used to calculate the factors illustrated in *Figure 20*. Historical pumpage and peaked Year 2020 MAG values are shown in *Figure 21*. Based on the results of the calculations and the general recommendation discussed in *Section 2*, PF3 is recommended for the Sparta Aquifer in Leon County.

Table 10. Peak Factors for the Sparta Aquifer in Leon County

Summary Values for 2000 - 2015		PF x MAG
Average Use 2000-2015	40	
Peak Use 2000-2015	66	
PF1	164.5%	35
PF2	149.5%	31
PF3	167.7%	35
PF4	148.2%	31

Figure 20. Historical Pumping from the Sparta Aquifer in Leon County

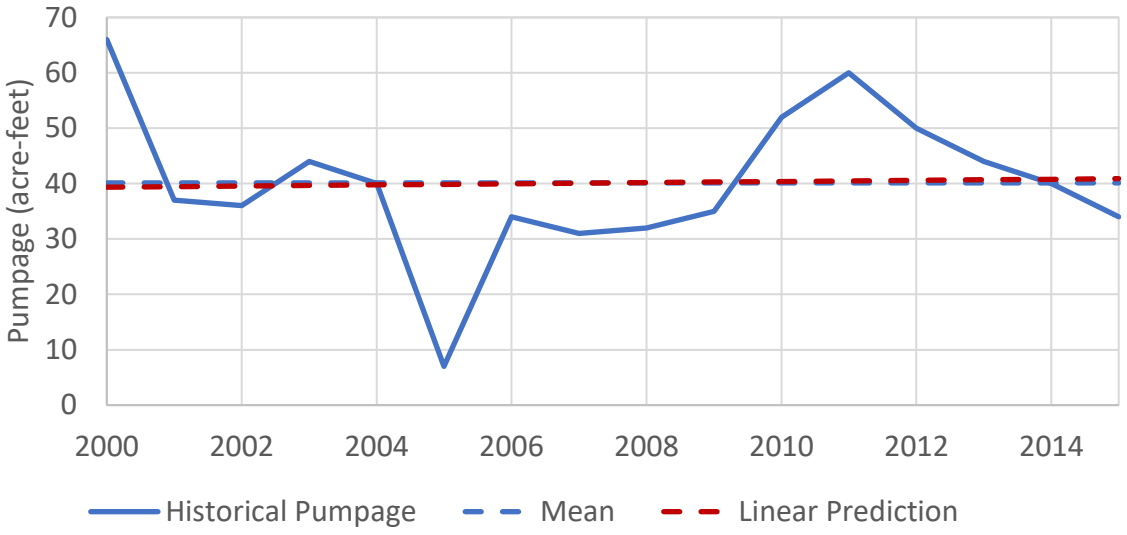
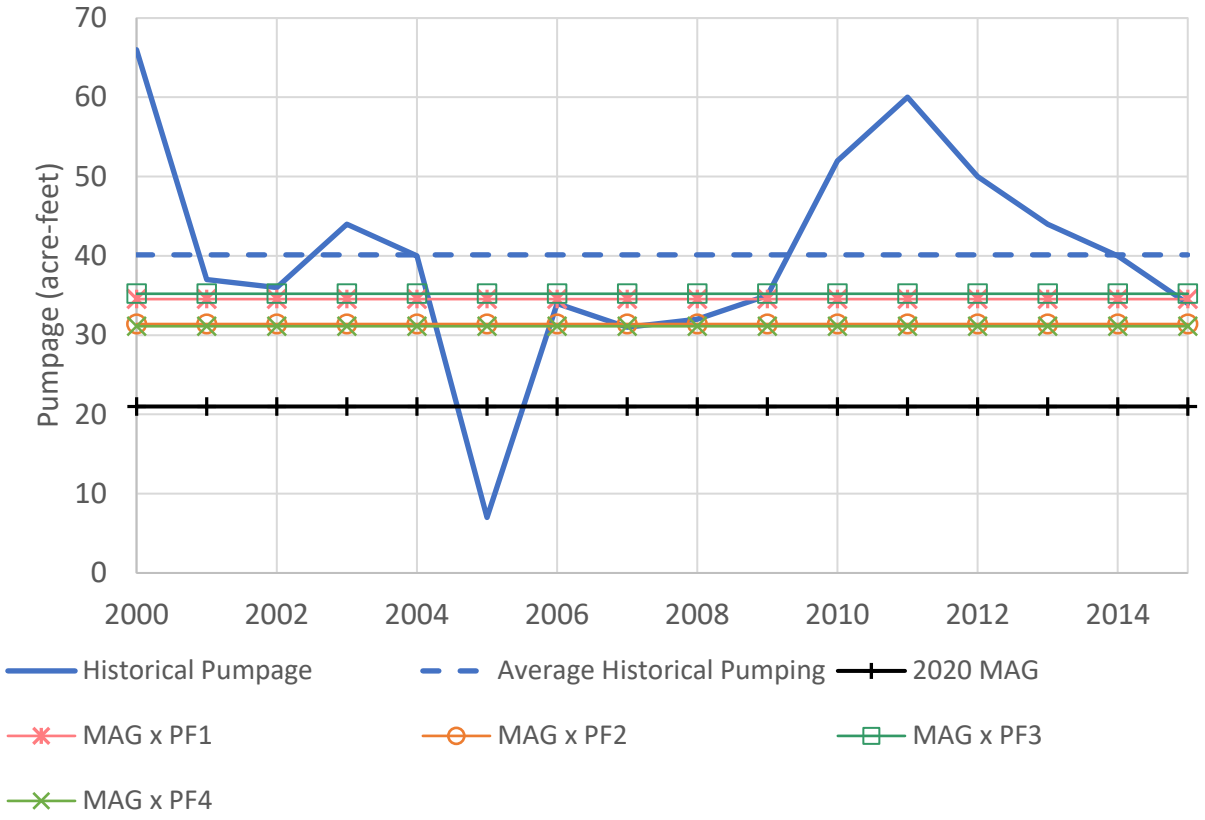


Figure 21. Historical Pumping, 2020 MAG, and 2020 MAG x Peak Factors for the Sparta Aquifer in Leon County



4.7. Liberty County - Gulf Coast Aquifer

Potential peak factors for the Gulf Coast Aquifer in Liberty County are summarized in *Table 11,* with the historical data used to calculate the factors illustrated in *Figure 22*. Historical pumpage and peaked Year 2020 MAG values are shown in *Figure 23*. Based on the results of the calculations and the general recommendation discussed in *Section 2*, PF3 is recommended for the Gulf Coast Aquifer in Liberty County.

Table 11. Peak Factors for the Gulf Coast Aquifer in Liberty County

Summary Values for 2000 - 2015		PF x MAG
Average Use 2000-2015	10,911	
Peak Use 2000-2015	14,165	
PF1	129.8%	56,123
PF2	126.0%	54,475
PF3	105.8%	45,758
PF4	105.7%	45,713

Figure 22. Historical Pumping from the Gulf Coast Aquifer in Liberty County

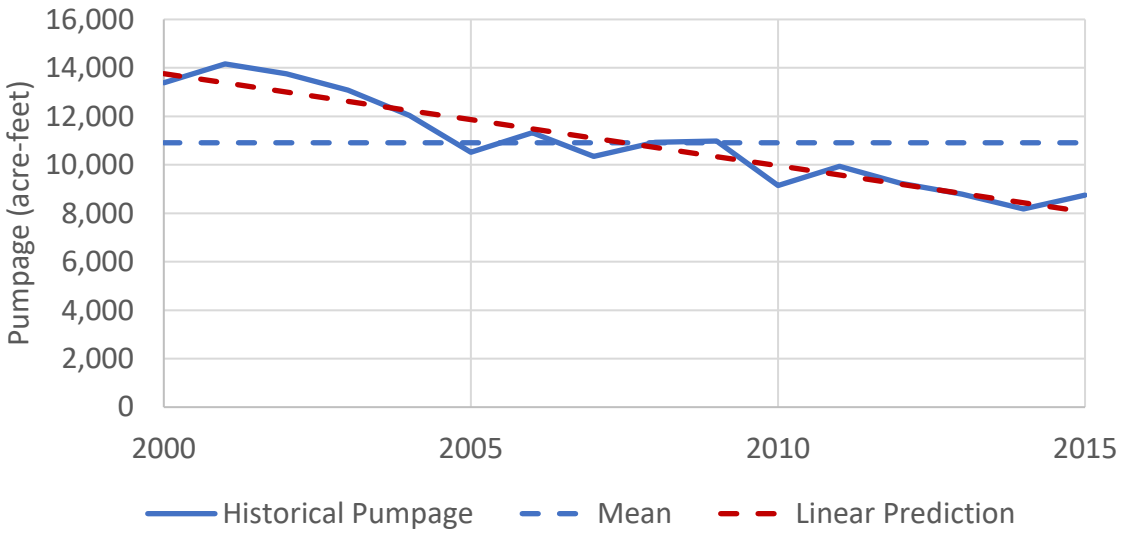
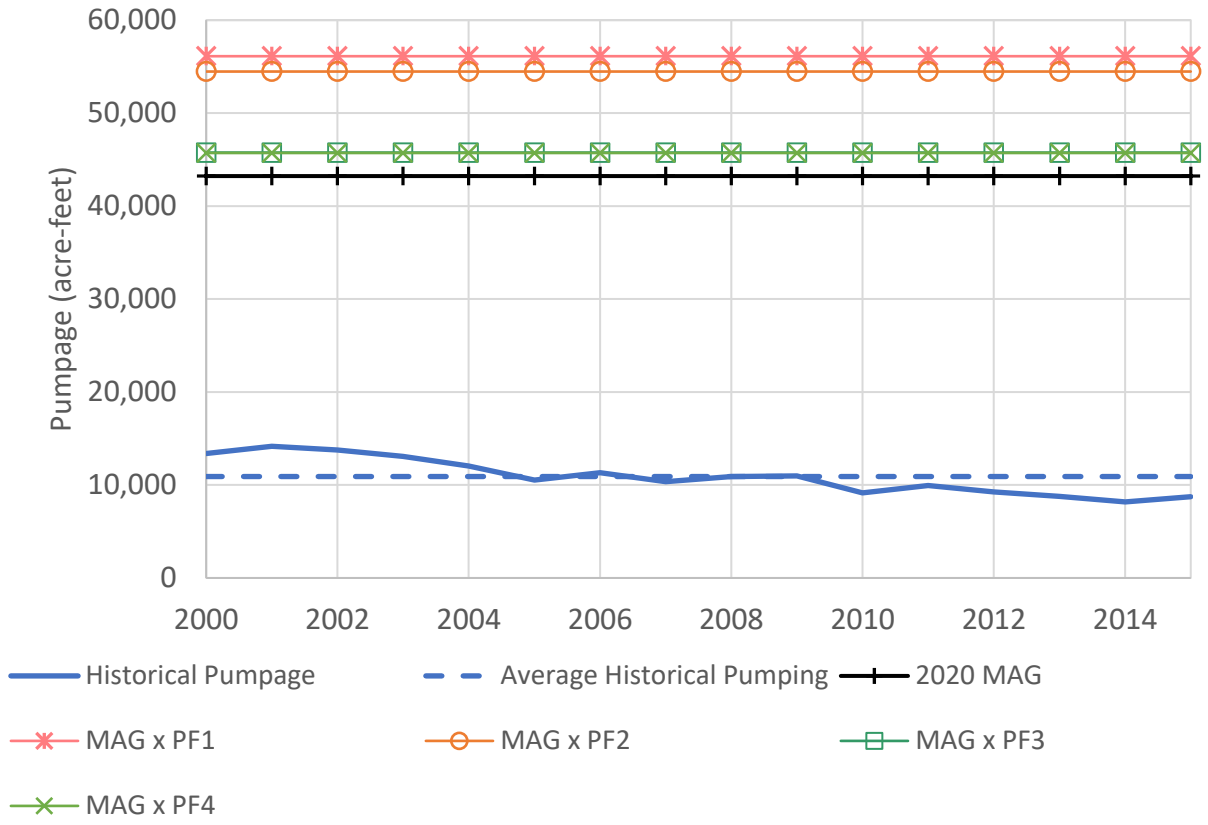


Figure 23. Historical Pumping, 2020 MAG, and 2020 MAG x Peak Factors for the Gulf Coast Aquifer in Liberty County



4.8. Madison County - Carrizo-Wilcox Aquifer

Potential peak factors for the Carrizo-Wilcox Aquifer in Madison County are summarized in *Table 12,* with the historical data used to calculate the factors illustrated in *Figure 24*. Historical pumpage and peaked Year 2020 MAG values are shown in *Figure 25*. Based on the results of the calculations and the general recommendation discussed in *Section 2*, PF3 is recommended for the Carrizo-Wilcox Aquifer in Madison County.

Table 12. Peak Factors for the Carrizo-Wilcox Aquifer in Madison County

Summary Values for 2000 - 2015		PF x MAG
Average Use 2000-2015	205	
Peak Use 2000-2015	453	
PF1	221.0%	6,326
PF2	211.8%	6,061
PF3	150.4%	4,304
PF4	105.5%	3,020

Figure 24. Historical Pumping from the Carrizo-Wilcox Aquifer in Madison County

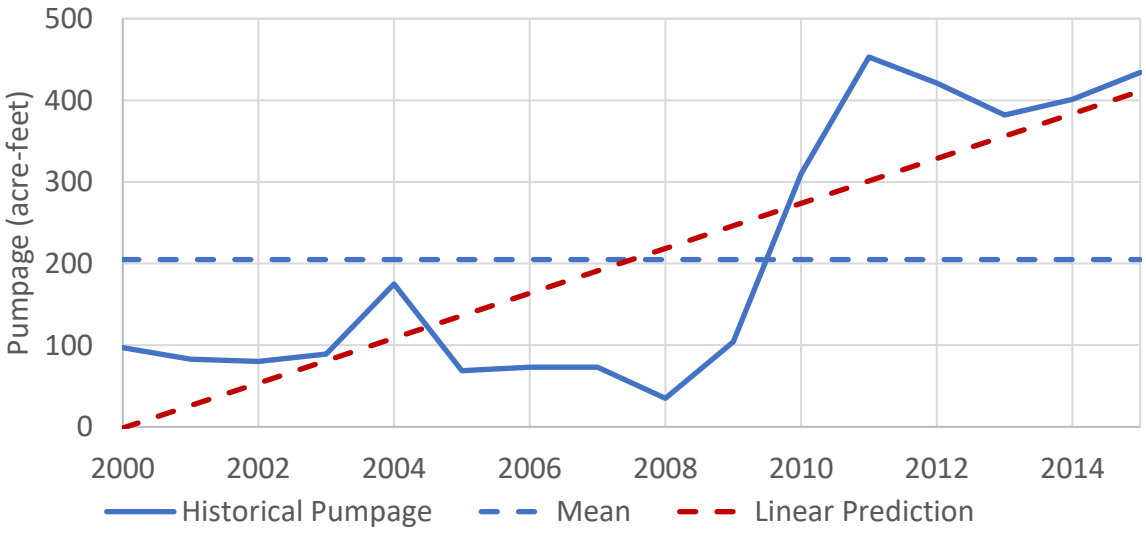
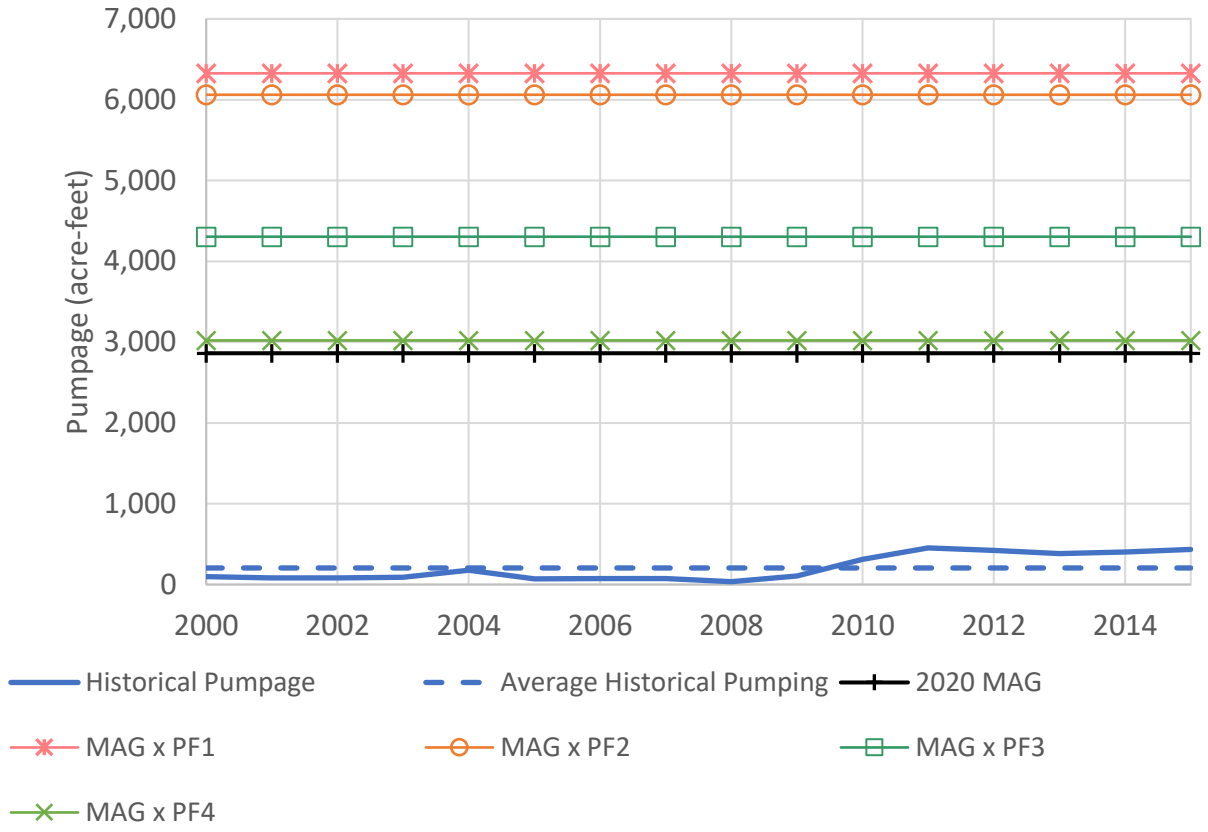


Figure 25. Historical Pumping, 2020 MAG, and 2020 MAG x Peak Factors for the Carrizo-Wilcox Aquifer in Madison County



4.9. Madison County - Queen City Aquifer

Potential peak factors for the Queen City Aquifer in Madison County are summarized in *Table 13,* with the historical data used to calculate the factors illustrated in *Figure 26*. Historical pumpage and peaked Year 2020 MAG values are shown in *Figure 27*. Based on the results of the calculations and the general recommendation discussed in *Section 2*, PF3 is recommended for the Queen City Aquifer in Madison County.

Table 13. Peak Factors for the Queen City Aquifer in Madison County

Summary Values for 2000 - 2015		PF x MAG
Average Use 2000-2015	109	
Peak Use 2000-2015	161	
PF1	147.9%	562
PF2	127.7%	485
PF3	156.7%	595
PF4	116.7%	444

Figure 26. Historical Pumping from the Queen City Aquifer in Madison County

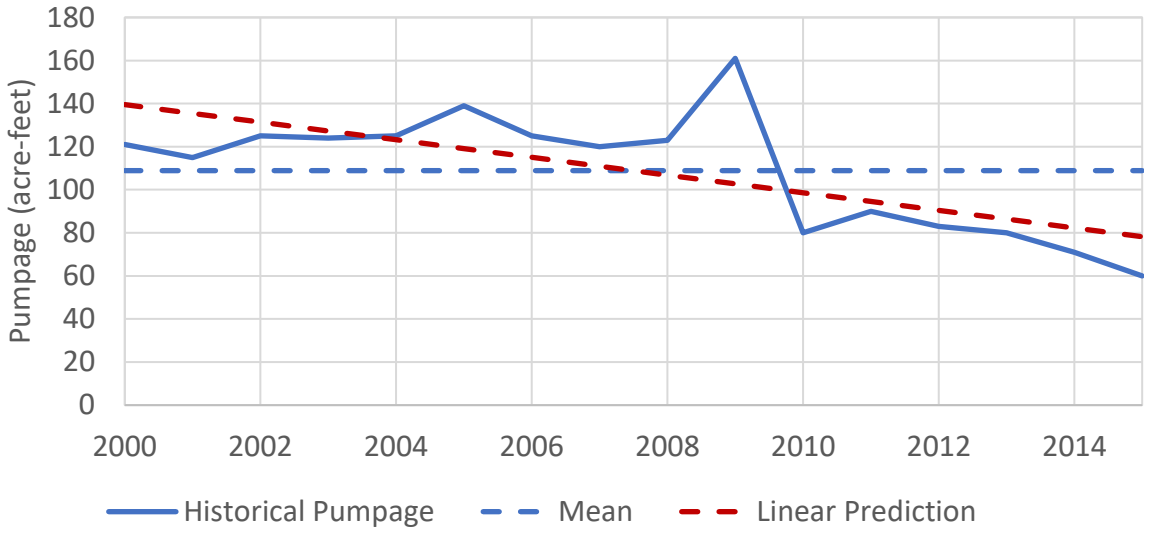
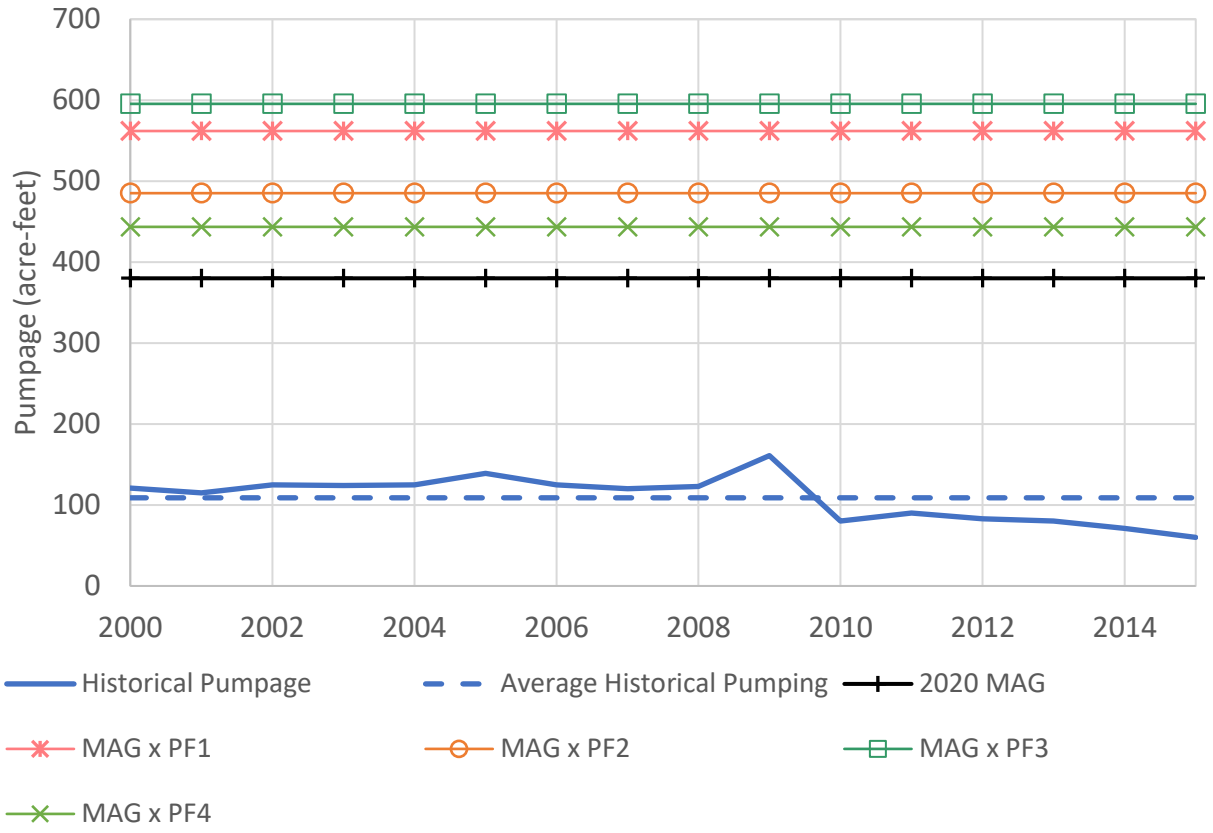


Figure 27. Historical Pumping, 2020 MAG, and 2020 MAG x Peak Factors for the Queen City Aquifer in Madison County



4.10. Madison County - Sparta Aquifer

Potential peak factors for the Sparta Aquifer in Madison County are summarized in *Table 14,* with the historical data used to calculate the factors illustrated in *Figure 28*. Historical pumpage and peaked Year 2020 MAG values are shown in *Figure 29*. Based on the results of the calculations and the general recommendation discussed in *Section 2*, PF3 is recommended for the Sparta Aquifer in Madison County.

Table 14. Peak Factors for the Sparta Aquifer in Madison County

Summary Values for 2000 - 2015		PF x MAG
Average Use 2000-2015	2,489	
Peak Use 2000-2015	3,270	
PF1	131.4%	4,361
PF2	126.6%	4,202
PF3	117.4%	3,898
PF4	106.7%	3,541

Figure 28. Historical Pumping from the Sparta Aquifer in Madison County

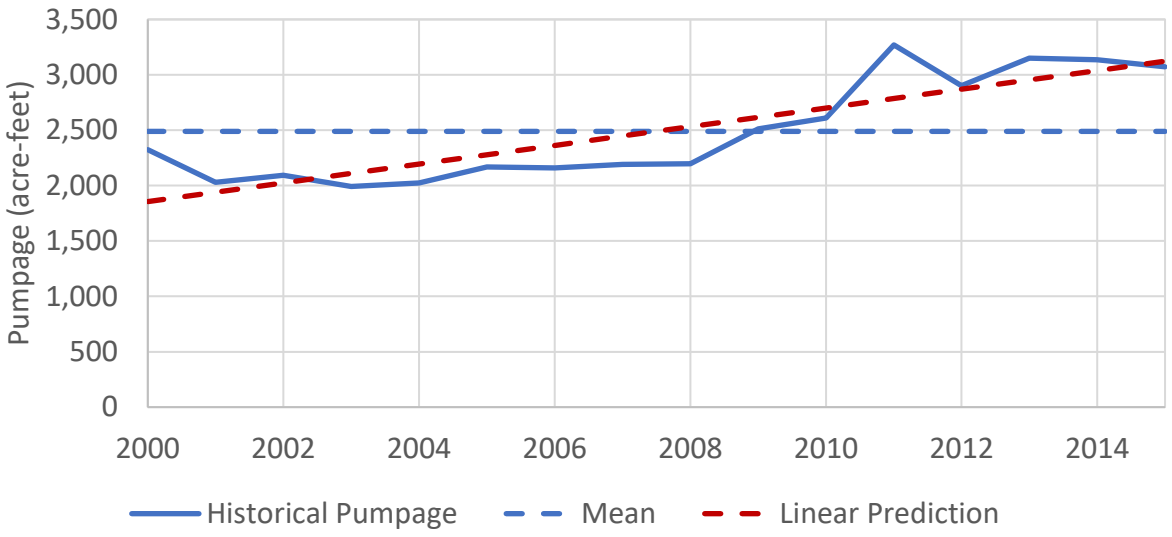
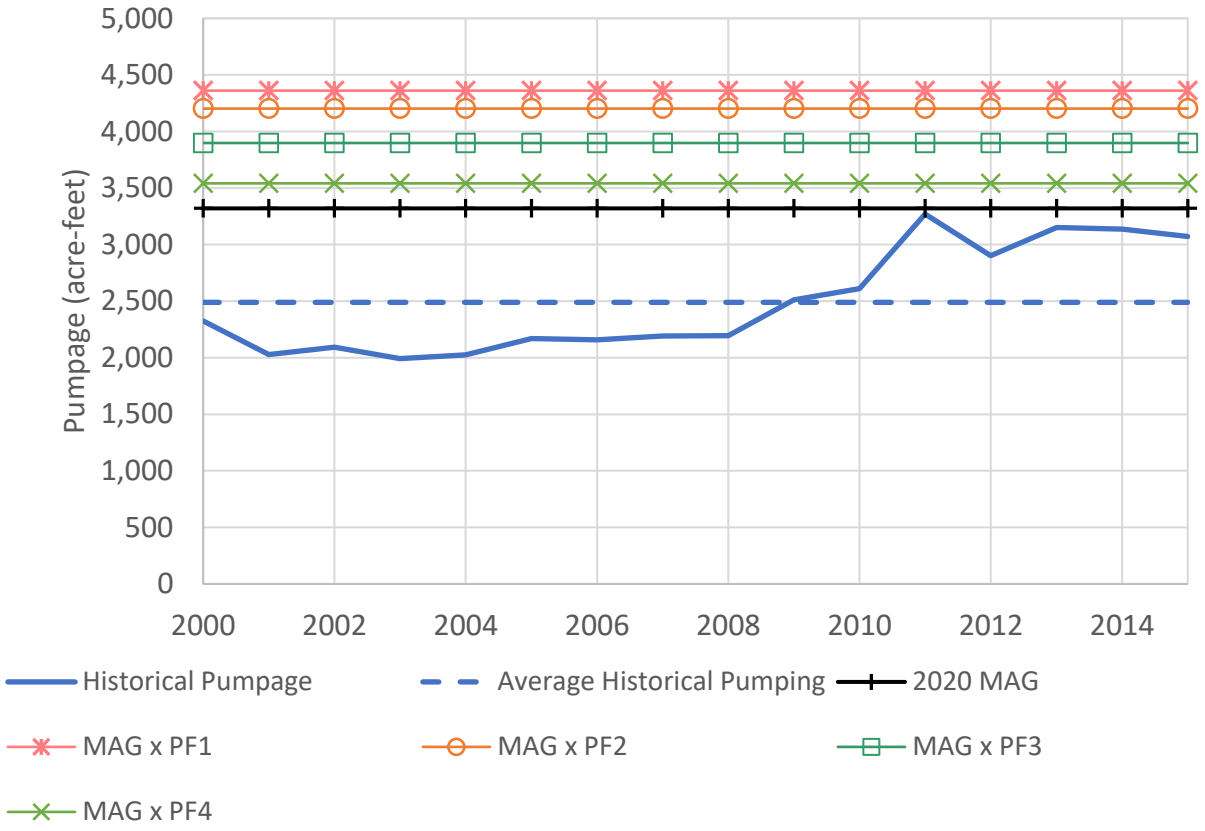


Figure 29. Historical Pumping, 2020 MAG, and 2020 MAG x Peak Factors for the Sparta Aquifer in Madison County



4.11. Madison County - Yegua-Jackson Aquifer

Potential peak factors for the Yegua-Jackson Aquifer in Madison County are summarized in *Table 15,* with the historical data used to calculate the factors illustrated in *Figure 30*. Historical pumpage and peaked Year 2020 MAG values are shown in *Figure 31*. Based on the results of the calculations and the general recommendation discussed in *Section 2*, PF3 is recommended for the Yegua-Jackson Aquifer in Madison County.

Table 15. Peak Factors for the Yegua-Jackson Aquifer in Madison County

Summary Values for 2000 - 2015		PF x MAG
Average Use 2000-2015	137	
Peak Use 2000-2015	296	
PF1	215.9%	1,748
PF2	199.8%	1,619
PF3	149.0%	1,207
PF4	126.7%	1,026

Figure 30. Historical Pumping from the Yegua-Jackson Aquifer in Madison County

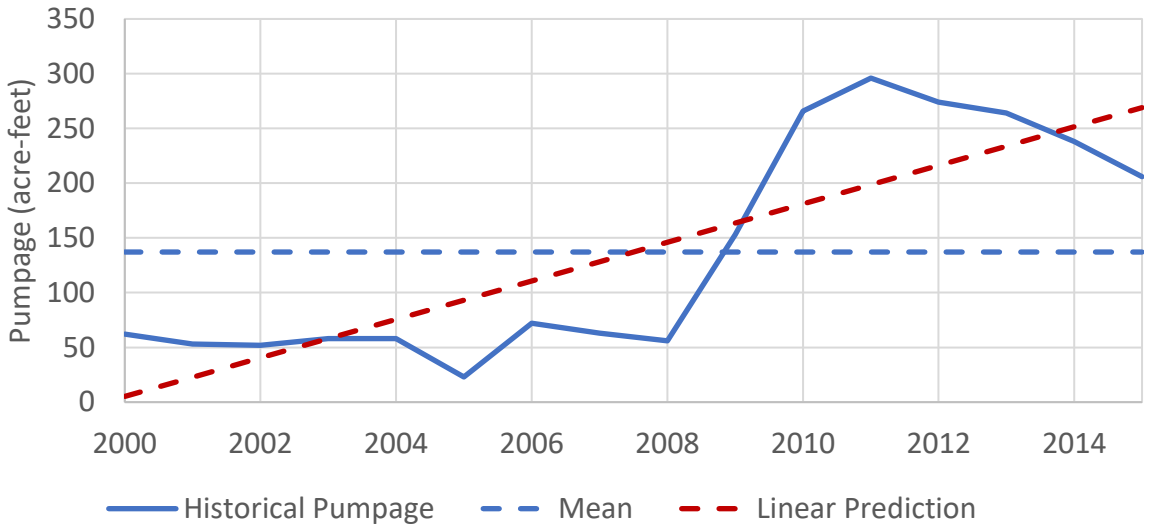
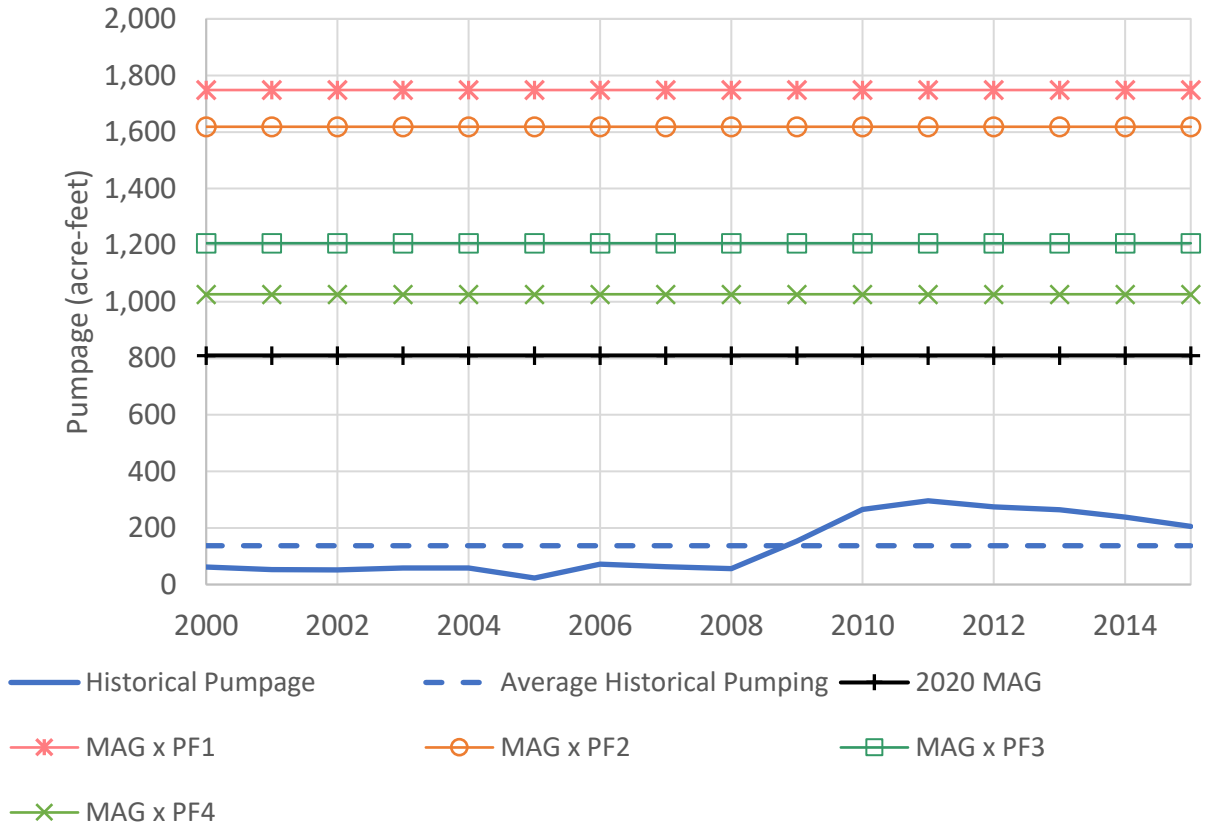


Figure 31. Historical Pumping, 2020 MAG, and 2020 MAG x Peak Factors for the Yegua-Jackson Aquifer in Madison County



4.12. Montgomery County – Gulf Coast Aquifer

Potential peak factors for the Gulf Coast Aquifer in Montgomery County are summarized in *Table 16,* with the historical data used to calculate the factors illustrated in *Figure 32*; historical pumpage and peaked Year 2020 MAG values are shown in *Figure 33*. Based on the results of the calculations and the general recommendation discussed in *Section 2*, PF3 is recommended for the Gulf Coast Aquifer in Montgomery County.

Table 16. Peak Factors for the Gulf Coast Aquifer in Montgomery County

Summary Values for 2000 - 2015		PF x MAG
Average Use 2000-2015	69,756	
Peak Use 2000-2015	103,700	
PF1	148.7%	95,151
PF2	126.3%	80,815
PF3	133.2%	85,224
PF4	109.8%	70,288

Figure 32. Historical Pumping from the Gulf Coast Aquifer in Montgomery County

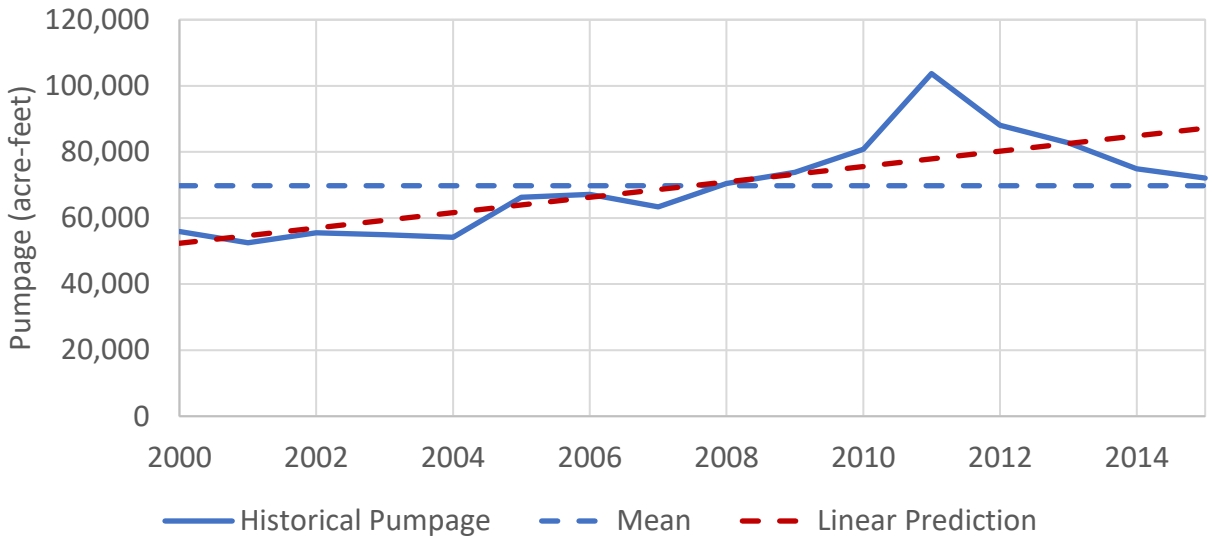
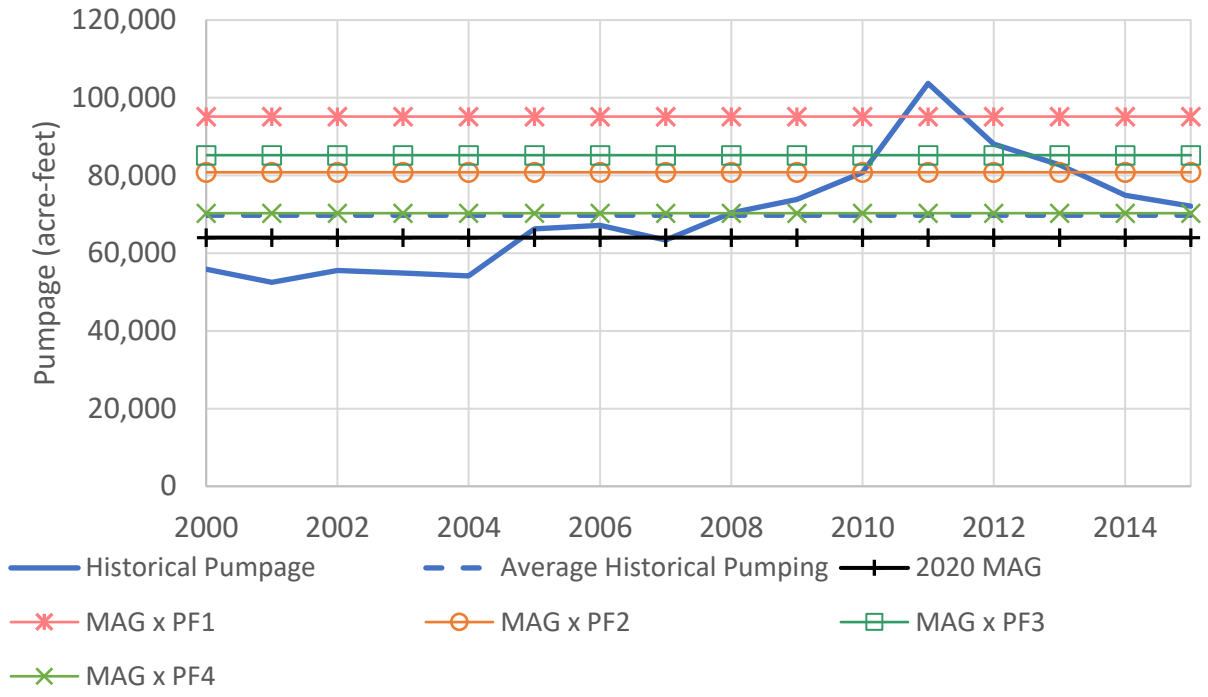


Figure 33. Historical Pumping, 2020 MAG, and 2020 MAG x Peak Factors for the Gulf Coast Aquifer in Montgomery County



4.13. Polk County - Gulf Coast Aquifer

Potential peak factors for the Gulf Coast Aquifer in Polk County are summarized in *Table 17,* with the historical data used to calculate the factors illustrated in *Figure 34*. Historical pumpage and peaked Year 2020 MAG values are shown in *Figure 35*. Based on the results of the calculations and the general recommendation discussed in *Section 2*, PF3 is recommended for the Gulf Coast Aquifer in Polk County. It should be noted that Polk County is split between Regions H and I; the peak factors shown are based on pumping for the entire county (both regions). However, the 2020 MAG indicated is for Region H only, which is the part of Polk County in the Trinity River Basin.

Table 17. Peak Factors for the Gulf Coast Aquifer in Polk County

Summary Values for 2000 - 2015		PF x MAG
Average Use 2000-2015	4,887	
Peak Use 2000-2015	5,856	
PF1	119.8%	26,134
PF2	114.7%	25,022
PF3	113.7%	24,792
PF4	111.1%	24,235

Figure 34. Historical Pumping from the Gulf Coast Aquifer in Polk County

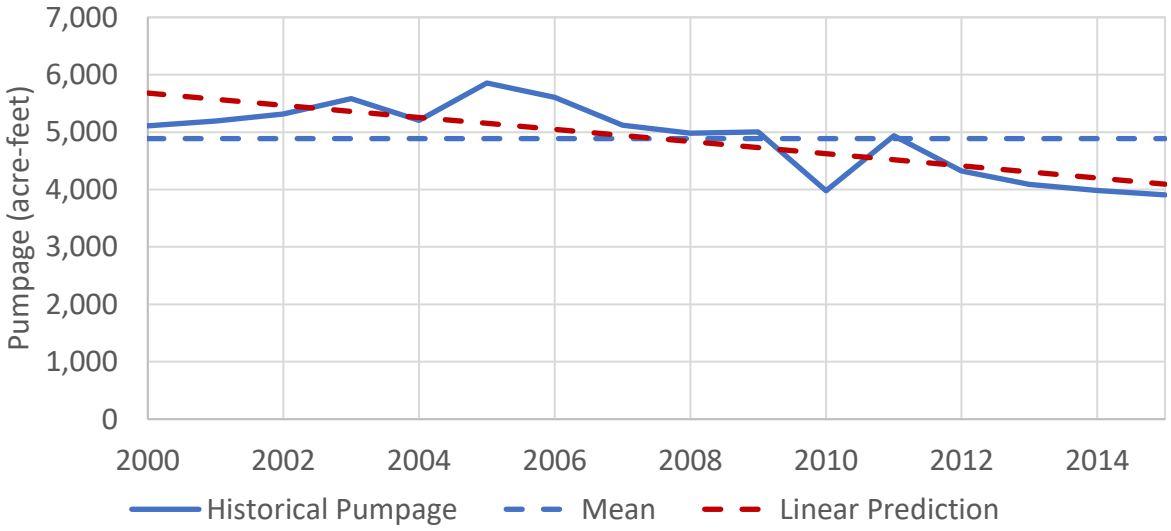
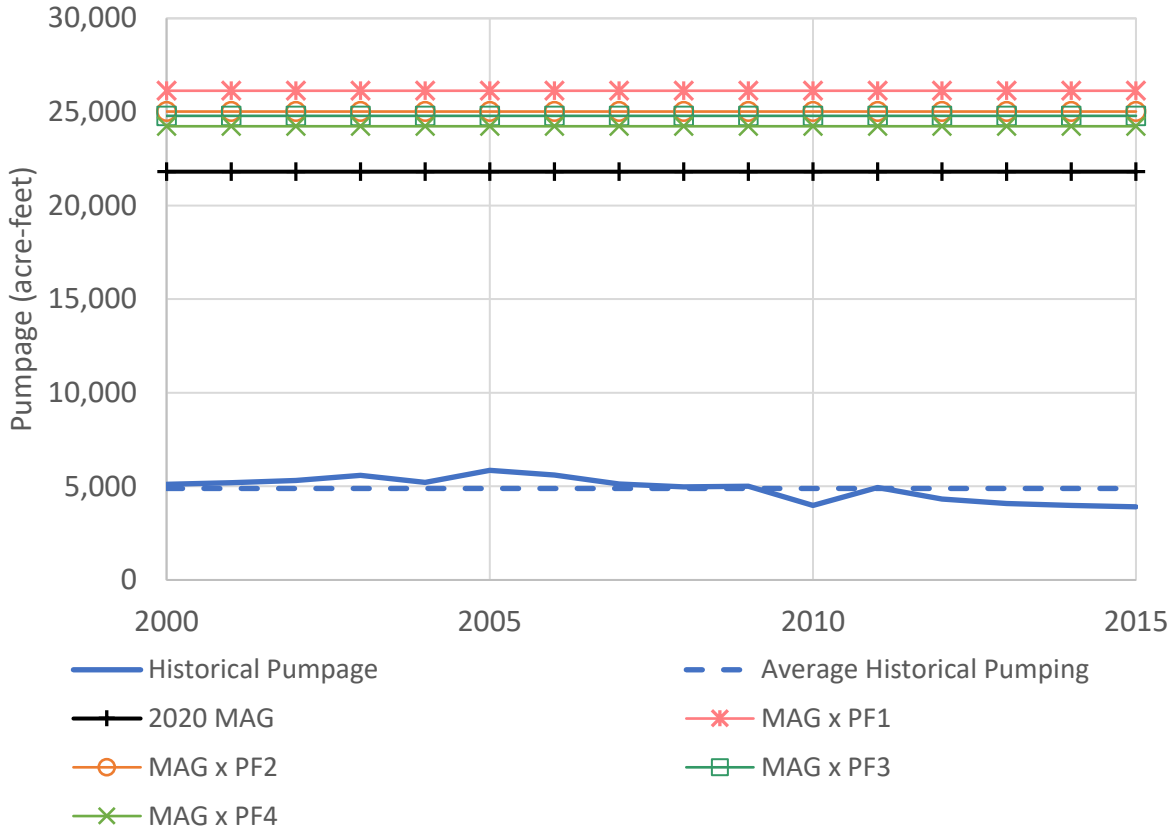


Figure 35. Historical Pumping, 2020 MAG, and 2020 MAG x Peak Factors for the Gulf Coast Aquifer in Polk County



4.14. San Jacinto County - Gulf Coast Aquifer

Potential peak factors for the Gulf Coast Aquifer in San Jacinto County are summarized in *Table 18,* with the historical data used to calculate the factors illustrated in *Figure 36*. Historical pumpage and peaked Year 2020 MAG values are shown in *Figure 37*. Based on the results of the calculations and the general recommendation discussed in *Section 2*, PF3 is recommended for the Gulf Coast Aquifer in San Jacinto County.

Table 18. Peak Factors for the Gulf Coast Aquifer in San Jacinto County

Summary Values for 2000 - 2015		PF x MAG
Average Use 2000-2015	2,958	
Peak Use 2000-2015	4,372	
PF1	147.8%	31,009
PF2	111.4%	23,371
PF3	138.0%	28,947
PF4	96.6%	20,275

Figure 36. Historical Pumping from the Gulf Coast Aquifer in San Jacinto County

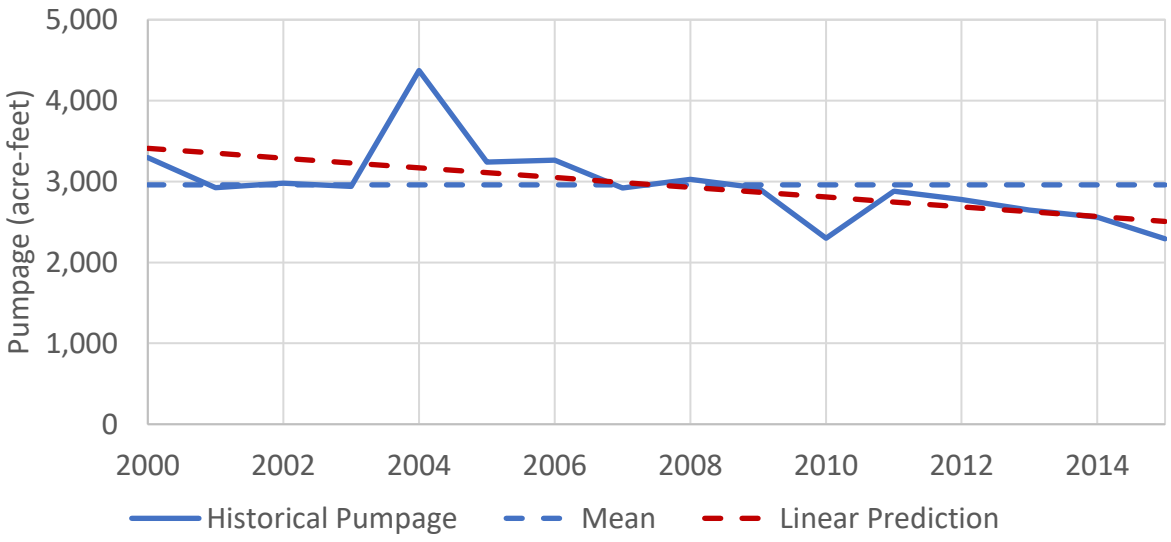
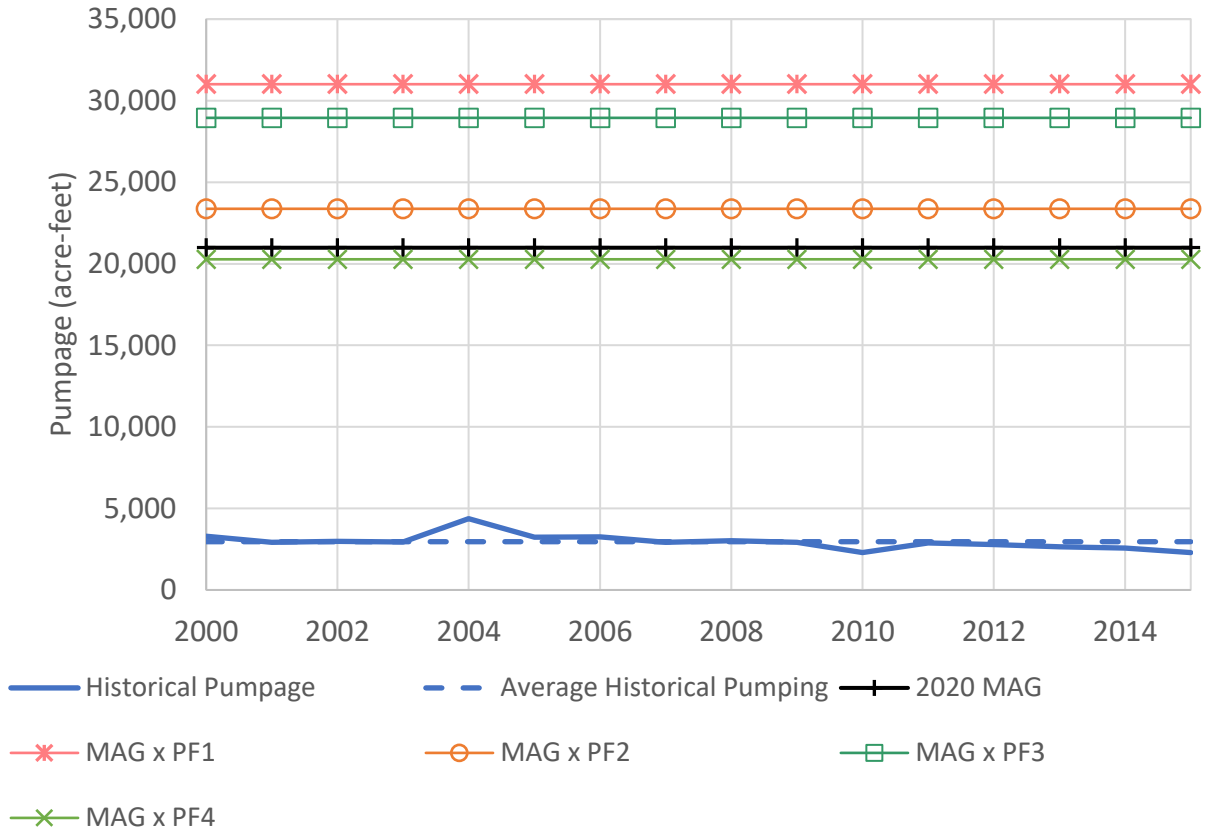


Figure 37. Historical Pumping, 2020 MAG, and 2020 MAG x Peak Factors for the Gulf Coast Aquifer in San Jacinto County



4.15. Walker County - Gulf Coast Aquifer

Potential peak factors for the Gulf Coast Aquifer in Walker County are summarized in *Table 19,* with the historical data used to calculate the factors illustrated in *Figure 38*. Historical pumpage and peaked Year 2020 MAG values are shown in *Figure 39*. Based on the results of the calculations and the general recommendation discussed in *Section 2*, PF3 is recommended for the Gulf Coast Aquifer in Walker County.

Table 19. Peak Factors for the Gulf Coast Aquifer in Walker County

Summary Values for 2000 - 2015		PF x MAG
Average Use 2000-2015	5,060	
Peak Use 2000-2015	6,110	
PF1	120.8%	21,703
PF2	120.3%	21,618
PF3	114.8%	20,626
PF4	131.0%	23,551

Figure 38. Historical Pumping from the Gulf Coast Aquifer in Walker County

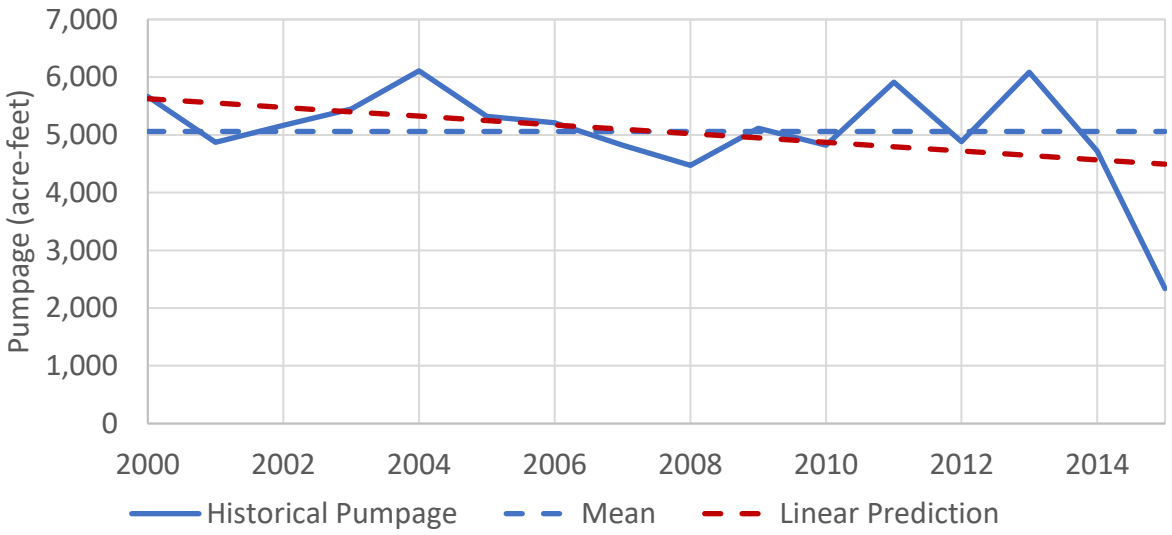
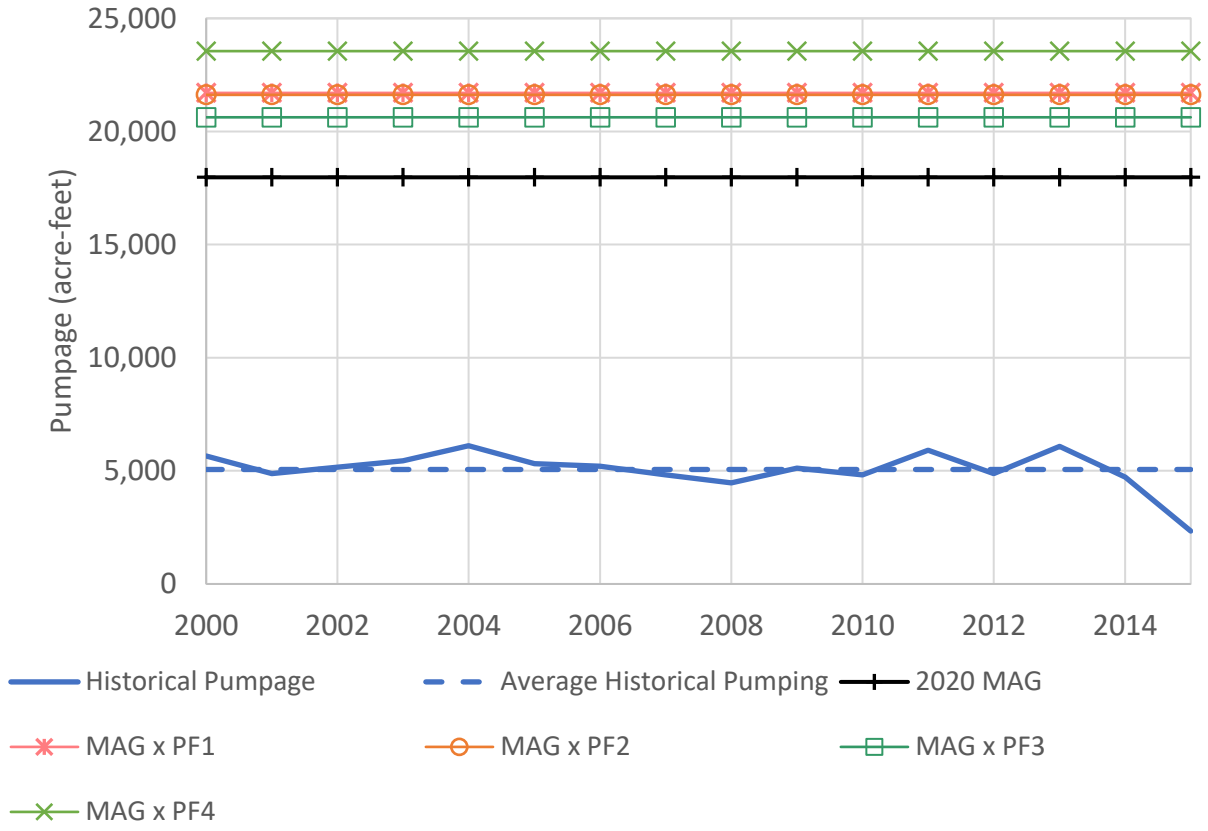


Figure 39. Historical Pumping, 2020 MAG, and 2020 MAG x Peak Factors for the Gulf Coast Aquifer in Walker County



4.16. Waller County - Gulf Coast Aquifer

Potential peak factors for the Gulf Coast Aquifer in Waller County are summarized in *Table 20,* with the historical data used to calculate the factors illustrated in *Figure 40*. Historical pumpage and peaked Year 2020 MAG values are shown in *Figure 41*. Based on the results of the calculations and the general recommendation discussed in *Section 2*, PF3 is recommended for the Gulf Coast Aquifer in Waller County.

Table 20. Peak Factors for the Gulf Coast Aquifer in Waller County

Summary Values for 2000 - 2015		PF x MAG
Average Use 2000-2015	24,238	
Peak Use 2000-2015	31,205	
PF1	128.7%	53,548
PF2	127.1%	52,853
PF3	144.7%	60,184
PF4	108.3%	45,049

Figure 40. Historical Pumping from the Gulf Coast Aquifer in Waller County

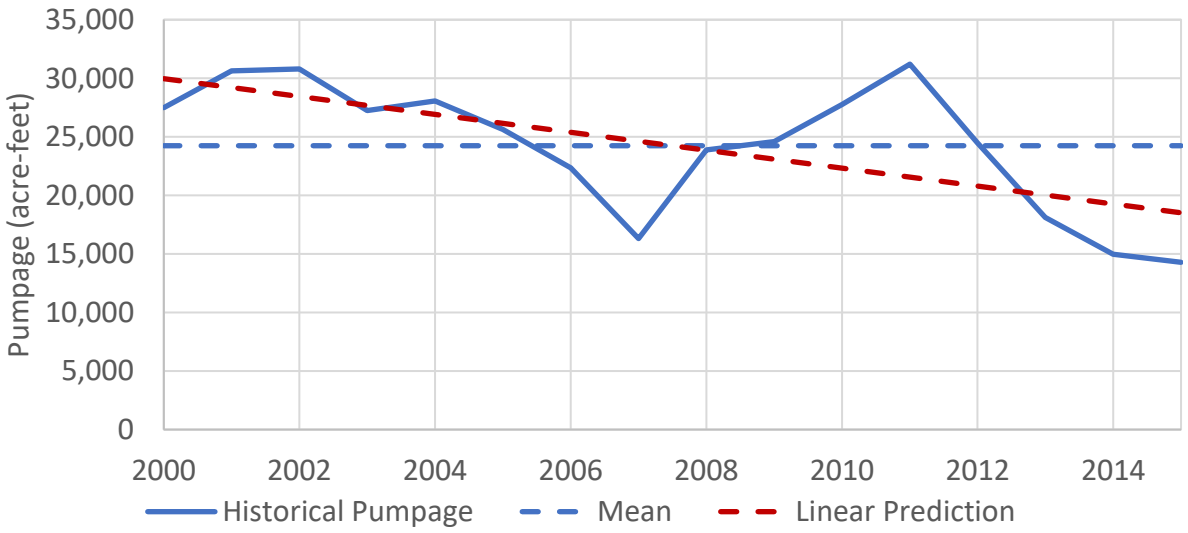
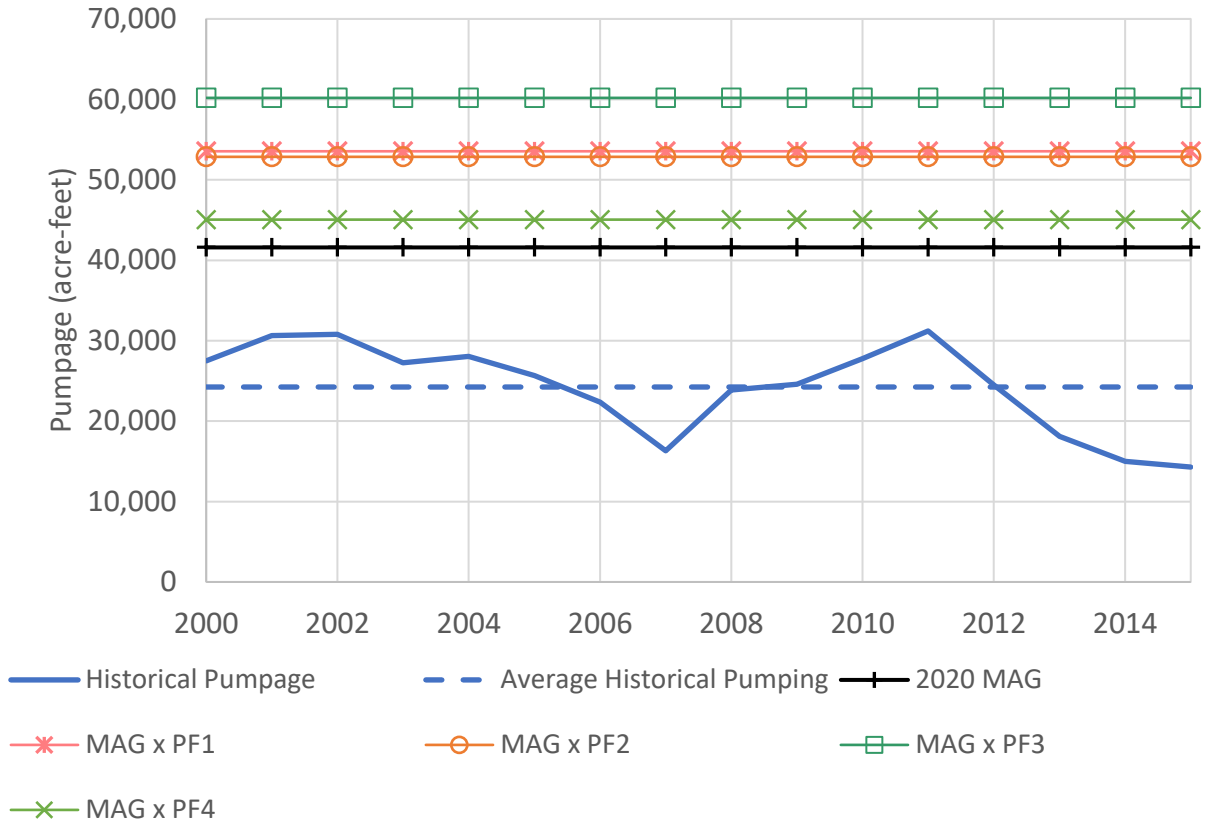


Figure 41. Historical Pumping, 2020 MAG, and 2020 MAG x Peak Factors for the Gulf Coast Aquifer in Waller County



Attachment 1

TWDB Fact Sheet on MAG Peak Factors

REGION H
Water Planning Group

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.[i]

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

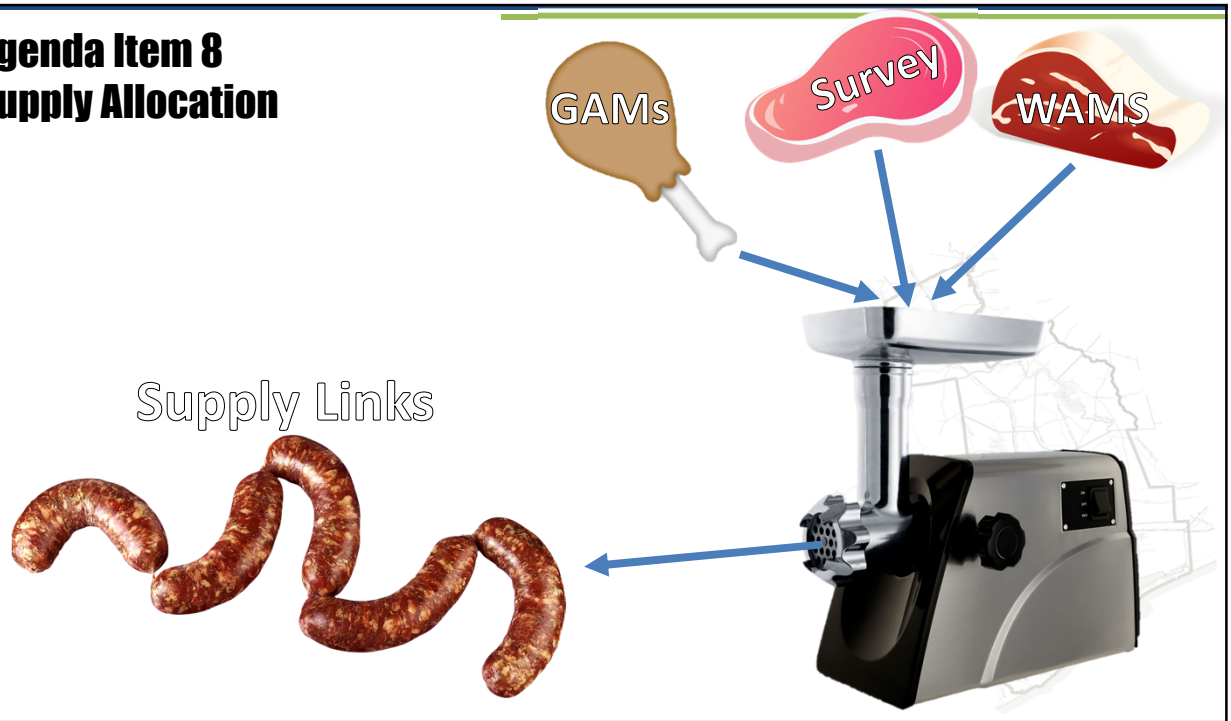
[i] *31 TAC §357.10(20); process §357.32(d)(3). This rule change eliminated the effect of modeled available groundwater values acting as immovable, "hard caps" on groundwater pumping that could be reflected in the regional water plans.*

Agenda Item 8

Receive report from Consultant Team regarding the process for allocation of existing supplies for the development of the 2021 Region H RWP.

REGION H
Water Planning Group

Agenda Item 8
Supply Allocation

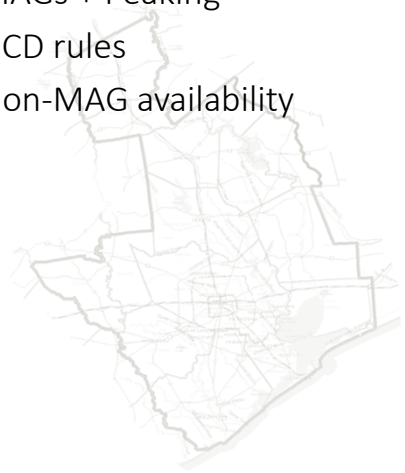


Agenda Item 8
Supply Allocation

- Source Availability
- Legal Access
- Physical Access
- Transfers
- Allocations

Agenda Item 8
Supply Allocation

- Surface Water
  - WAM
  - TCEQ database
  - Rights
- Reuse
  - TWDB
  - Survey
  - GRPs and permits
- Groundwater
  - MAGs + Peaking
  - GCD rules
  - Non-MAG availability



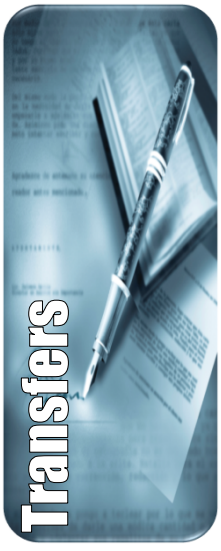
Agenda Item 8
Supply Allocation

- Varies by source type
- Straightforward for surface water and reuse
  - TCEQ
  - Rights
  - Rightholders
- Groundwater
  - GCDS
  - GRPs

Agenda Item 8
Supply Allocation

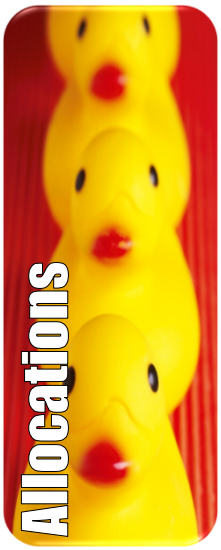
- Some is simple to find
  - Prior RWPs
  - Survey
  - Providers
- Most take some research
  - TCEQ and PUC
  - TWDB
  - GRPs
- Region H utility database
- Varies by entity - Process of elimination for some

Agenda Item 8
Supply Allocation



- Provider updates and survey
- Region H database
- Infrastructure analysis
- Default assumption of open-ended contracts

Agenda Item 8
Supply Allocation



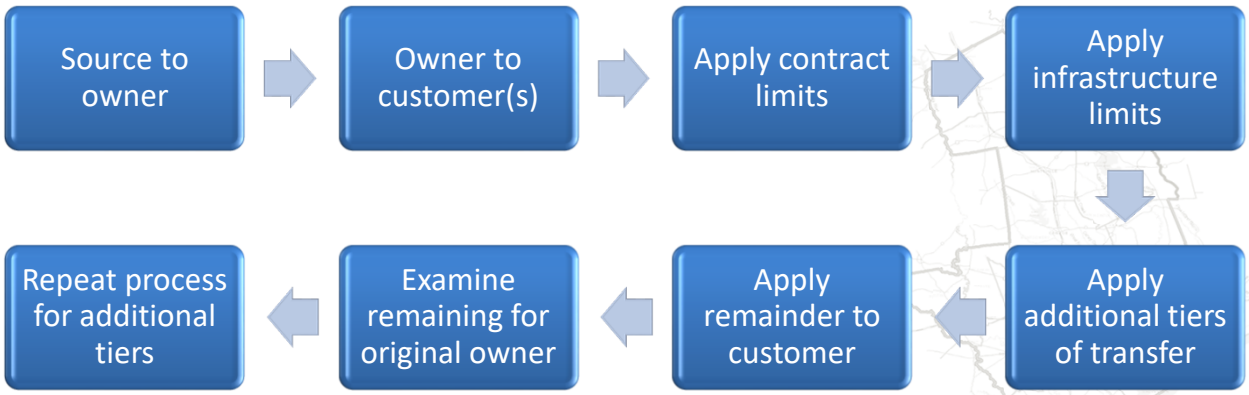
- Bringing it all together
- Straightforward for most counties
- Complex for urbanized areas
- Varies by source type and location

Agenda Item 8
Supply Allocation

- Reuse – hard to calculate, easy to allocate
- Seldom complex
- Self-supplied or simple transfer

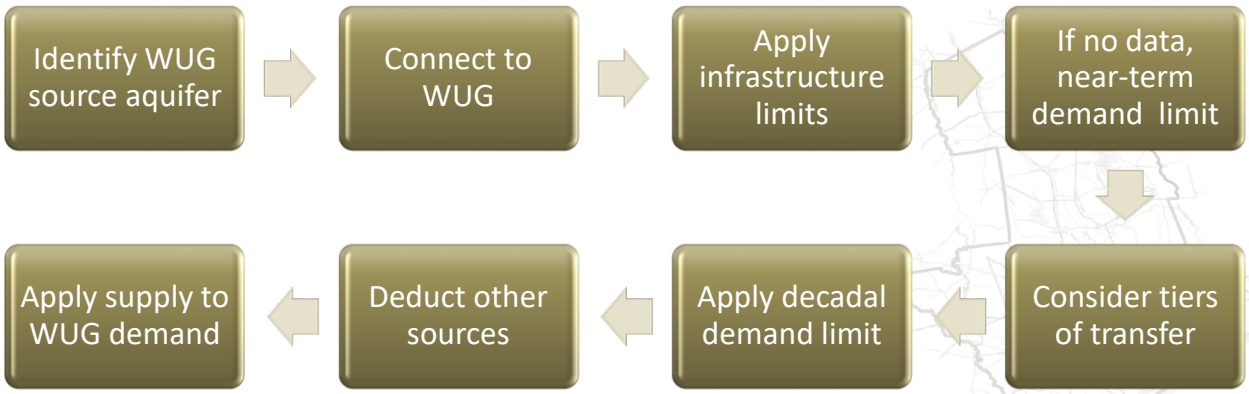
Agenda Item 8
Supply Allocation

Default Surface Water Methodology



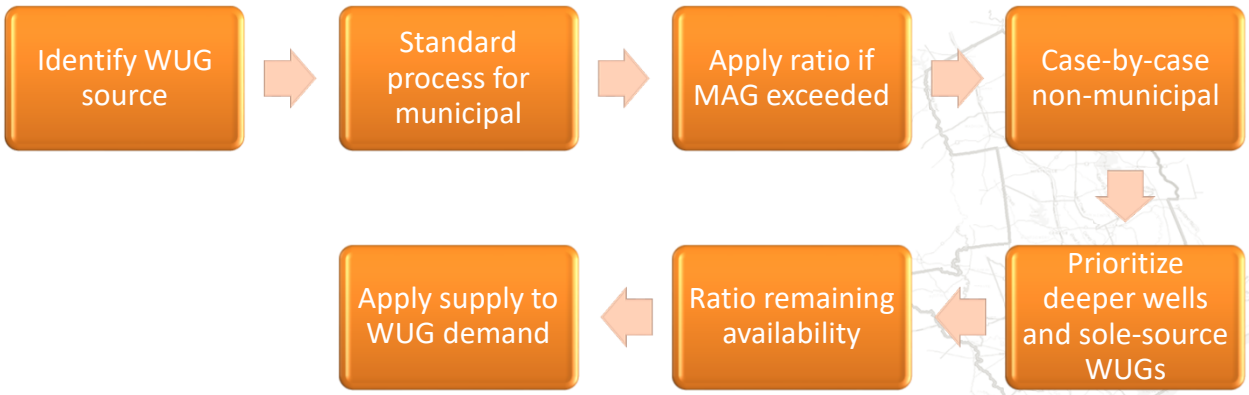
Agenda Item 8
Supply Allocation

Groundwater (Counties with Adequate Availability)



Agenda Item 8
Supply Allocation

Groundwater (Counties with Inadequate Availability)



Agenda Item 8
Supply Allocation

Groundwater Reduction Plans

- Scale model of RWP process
  - Combined supplies
  - Many entities
  - Both existing and future
  - Transfers of supply
- Starts with standard processes
- Another layer spliced in

1. Identify GRP co-participants and contracts
2. Associate demand with regulatory area(s)
3. Calculate allowable pumpage for aggregate
4. Check limits
5. Assign GW to non-converters & partial converters
6. Assign GW to converters
7. Check limits on other sources and apply

Agenda Item 8
Supply Allocation

- Linkages in DB22
- Volumes in, out, and applied against demand
- Warning flags generated by database
- Be very glad database is specific
- Output validation
- Technical memorandum

Agenda Item 9

Receive report from Consultant Team regarding the requirements and process for the RWP Technical Memorandum.

REGION H
Water Planning Group

Agenda Item 9
Technical Memorandum

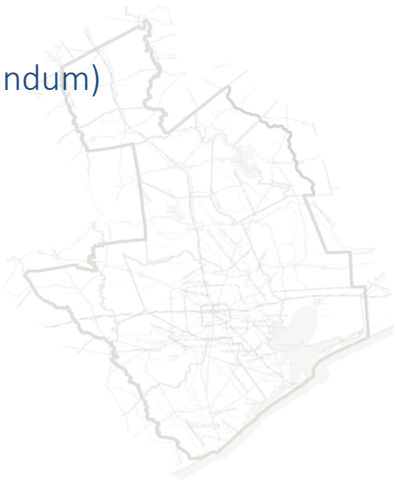
- Originated in 4th Cycle
- Codified in 31 TAC §357.21(c)
- Check on process before IPP
- Concise summary of results
- Not just first few chapters

Agenda Item 9
Technical Memorandum

- TWDB DB22 Reports
- Assumptions and unmodified values
- Model files and documentation
- Methodology for RWPG-estimated groundwater availability
- Process for potentially feasible WMS
- Latest list of potentially feasible WMS
- Declaration of intent for simplified planning

Agenda Item 9
Technical Memorandum

- 14-day notice
- Public comment during notice period
  (to be considered by RWPG prior to action on memorandum)
- Action to approve or approve with modification
- 14-day comment period after meeting
- TWDB Executive Administrator review process
- Due to TWDB by September 10, 2018



Agenda Item 10

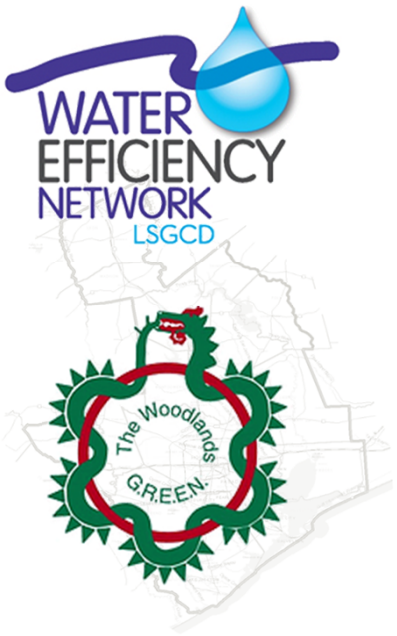
Receive report regarding recent and upcoming activities related to communications and outreach efforts on behalf of the Region H Water Planning Group.

REGION H
Water Planning Group

Agenda Item 10
Community Outreach

- Gulf Coast Water Efficiency Network
  May 24

- Woodlands G.R.E.E.N.
  May 24



Agenda Item 11

Agency communications and general information.

REGION H
Water Planning Group

April 2018

High-level summary of changes from the *Second Amended General Guidelines for Fifth Cycle of Regional Water Plan Development* (Exhibit C)

Definitions:

Added the definition of Technical Memorandum to establish a document that forms the basis for making a decision regarding implementation of simplified planning.

Section 1: Planning Area Description

Clarified data reporting requirements for Wholesale Water Providers.

Section 3.2: Evaluation of Surface Water Availability

Clarified that if an approved hydrologic variance allows for use of a different model then the Texas Commission on Environmental Quality Water Availability Model (WAM), the alternative model may be used to calculate the firm yield/diversion [guidance previously sent to planning groups via email, 8/2/17].

Clarified that if no hydrologic variance is approved, WAM RUN3 must be used [guidance previously sent to planning groups via email, 8/2/17].

Removed the table previously showing hydrologic variance reporting scenarios [guidance previously sent to planning groups via email, 8/2/17].

Moved the text describing WAM model file submittal information to the surface water availability section.

Section 3.3: System Availability and Related WMSs

Clarified requirements for reporting reservoirs as a system and reporting system gain [guidance previously sent to planning groups via email, 8/2/17].

Section 3.6: Hydrologic Variance Requests for Water Availability Determination

Specified that hydrologic assumptions and documentation of variance requests should be included in Chapter 3, or an appendix to the plan.

Section 3.6.1: Potential Groundwater Hydrologic Variance Assumptions

Clarified that unmodified modeled availability groundwater volumes must be reported in the technical memorandum, initially prepared plan, and the final adopted regional water plan (RWP).

Section 3.6.2: Potential Surface Water Hydrologic Variance Assumptions

Clarified that sufficient electronic model input/output or other model files necessary to support replication of results must be provided, instead of PDF files.

Section 4.2: Simplified Planning

Added guidance on the process for implementing simplified planning.

Section 5.1: Potentially Feasible Water Management Strategies

Added guidance that the new statutory requirement for regional water planning groups (RWPGs) to address infeasible water management strategies (WMSs) will begin with the 2026 RWPs.

Section 5.2: Water Management Strategy Evaluations

Clarified that recommended WMSs must produce a measurable yield in at least one planning decade.

Added guidance that the RWPs must document the reasons why aquifer storage and recovery, seawater desalination, and brackish groundwater desalination WMSs were not recommended.

Clarified the timing of when WMSs and WMS Projects (WMSPs) must come online in order to be given a 2020 decade.

Section 5.2.1: Surface Water Quantity and Reliability for Water Management Strategies

Clarified that exceptions to using an unmodified WAM RUN3 for WMS evaluations requires an approved hydrologic variance request.

Section 11.1: Implementation of Previous Regional Water Plan

Added guidance that RWPGs must report identified, reported implementation impediments to the development of previously recommended WMSs and WMSPs that have affected progress in meeting water needs.

Section 11.1.1: Implementation Survey Process

Added guidance that RWPGs must report identified, reported implementation impediments to the development of the previous RWP.

Section 11.2: Comparison to Previous Regional Water Plan

Added guidance that if simplified planning is implemented, RWPGs must address how simplified planning changed results from the last plan, and identify what material from the previous plan was adopted directly for use in the simplified plan.

Section 12: Prioritization of Recommended WMSPs by RWPGs

Added guidance that RWPGs that implement simplified planning must also prioritize recommended WMSPs.

April 2018

Section 13.1: Written Reports

Added guidance that RWPGs that implement simplified planning must also prepare and submit a Technical Memorandum.

13.1.1: Technical Memorandum

Added requirements to the Technical Memorandum, including a new state water planning database (DB22) Comparison Report, reporting unmodified surface water or groundwater values if approved hydrologic variances are utilized, and declaring whether or not the RWPG intends to pursue simplified planning.

Clarified that if the RWPG intends to pursue simplified planning, the Executive Administrator shall evaluate the declaration and issue written approval.

Table 13-1 – Required Regional Water Planning Application (DB22) Reports

Added a new DB22 report: *Comparison of availability, supply, demands, and needs to 2016 RWP*

Best Management Practices Guide for Regional Water Planning Group Designated Political Subdivisions

Fifth Cycle of Regional Water Planning

Water Use, Projections, & Planning Division
Regional Water Planning

Maintained and published by the Texas Water Development Board on behalf of Regional Water Planning Group administrators

Latest updates to this document as of May 11, 2018 are highlighted in yellow.

May 2018

Table of Contents

1 Introduction

The purpose of this guide is to provide an orientation to the responsibilities of acting as a regional water planning group's (RWPG) designated political subdivision and/or administrative agent, and to provide suggestions on some of the best administrative practices that may be used by a political subdivision in the execution of their duties on behalf of the RWPG. This guide has been distributed to the 16 RWPG political subdivisions for review and input.

Each five-year planning cycle, an RWPG must designate a political subdivision to act as a representative of the RWPG and apply for and receive financial assistance from the Texas Water Development Board (TWDB) to develop a regional water plan or revision pursuant to 31 Texas Administrative Code (TAC) §355, Subchapter C. Examples of designated political subdivisions include river authorities, municipalities, or councils of governments.

The political subdivision enters into a primary contract with the TWDB on behalf of the RWPG and administers the contract throughout the planning cycle. The political subdivision also executes and administers a subcontract with the primary technical consultant on behalf of the RWPG that mirrors the requirements laid out in the primary TWDB contract. Political subdivisions may expend a portion of these funds for direct costs related to public notice and other administrative costs. In addition, some planning groups also authorize their designated political subdivision to raise local funds from the region's stakeholders in order to cover expenses not eligible for reimbursement through the TWDB's grant funds.

In the capacity of serving as the RWPG's administrative agent, the political subdivision (or other identified entity) organizes the RWPG meeting locations, public notices, agendas, meeting presentations, handouts, and meeting minutes.

Political subdivisions may familiarize themselves with and utilize the RWPG administrative resources located on the TWDB's Regional Water Planning (RWP) Fifth Cycle Working Documents webpage. Hyperlinks to useful TWDB webpages and documents mentioned throughout this document are found in Section 6.

2 TWDB requirements[1]

RWPGs and their designated political subdivisions must adhere to the TWDB's rules on regional water planning and regional water planning grants, as well as requirements in the TWDB grant contracts. This section highlights the specific responsibilities within the TWDB's rules and notable contract requirements that are directly applicable to the political subdivisions.

2.1 Political subdivision and administrator responsibilities from 31 TAC §355 and §357

1. Obtain designation by the RWPG as the political subdivision in order to be eligible to apply for, receive, and administer TWDB funds on behalf of the region (§357.12(a)(4); §355.90(b)(5)).
    - This process must occur before or at the beginning of each new five-year planning cycle.

[1] See the TWDB water planning rules pamphlet (Section 6) for full rule requirements.

- The RWPG must provide a written designation to the TWDB Executive Administrator (EA) naming their authorized political subdivision.

2. Apply for planning grant funds through a formal Request for Application (RFA) process (§355.91).
    - Public notice requirements for this application are subject to §357.21(e).
    - Utilize the most up-to-date online "Regional Water Planning Public Notification Quick-Reference" document that is located on the TWDB's RWP Fifth Cycle Working Documents webpage.
    - The RFA Process typically occurs twice during the planning cycle.
    - The TWDB will provide a special webpage for application instructions and supporting documentation during each RFA process.
3. Execute contracts with the TWDB by the specified deadline (§355.93), including the following:
    - The initial TWDB/political subdivision contract that will contain initially committed grant funds.
    - All TWDB/political subdivision contract amendments that are issued during the planning cycle.
    - All political subdivision/consultant subcontracts and consultant sub-subcontracts must also be updated to reflect changes or additions to the TWDB/political subdivision contract and submitted to the TWDB for acceptance.
4. Political subdivisions must adhere to the limitations of use of contractual funds that are identified in the expense budgets footnotes and elsewhere in these contracts (§355.92).
5. Procure technical consultants at the beginning of each planning cycle in accordance with §355.92(c) and submit the required Certification of Procurement (COP) form to the TWDB.
6. Submit either RWP advance or reimbursement payment requests with all necessary backup documentation to the TWDB on a quarterly basis as stated in the TWDB contract. These funds are utilized to reimburse eligible political subdivision, consultant, and voting member expenses.
7. Ensure all meetings of the RWPG, committees, and subcommittees are posted and held in accordance with the Texas Open Meetings Act and additional Chapter 357 public notice requirements for specific RWPG activities (§357.21).
    - Post notices, meeting agendas, and materials in accordance with §357.21. An Excel file tool has been provided on the TWDB's RWP Fifth Cycle Working Documents webpage, under 'Administrative Documents', to help calculate when various notices and/or documentation should be provided for a RWPG meeting and RWPG activities.
    - Maintain and use contact lists (depending on the activity) for voting and non-voting RWPG members, any person or entity who has requested notice of RWPG activities, county clerks within the regional water planning area (RWPA) (if notices are not posted on RWPG host website), each mayor of a municipality that is located in whole or in part of the RWPA with a population of 1,000 or more or which is a county seat, and each county judge of a country located in whole or in part of the RWPA.
    - Notification lists for surface water rights holders, public water utilities, and general/special law districts and river authorities may be obtained from the TWDB's RWP Fifth Cycle Working Documents webpage.
8. Maintain RWPG membership contact information and provide membership lists to the TWDB (§357.11(f)). Since the vast majority of planning group communications occur via email, it is recommended that the political subdivision request updated email address information from planning group members at every RWPG meeting. This could be successfully accomplished by utilizing a sign-in sheet for RWPG members prefilled with their name and current email

addresses, with an adjacent space to write updated email addresses. Full contact information may be solicited on a less frequent schedule.

9. Provide copies of updated bylaws to the TWDB (§357.11(c)). It is recommended that the planning groups review and/or update their bylaws at least at the beginning of each planning cycle in order to account for legislative or other changes that may have occurred since the previous bylaws update.
10. Follow draft and final regional water plan (RWP) submittal requirements, including holding a public hearing on the initially prepared plan (IPP) (§357.50) (see the "Regional Water Planning Public Notification Quick Reference Document").

2.2 Notable contract requirements

At the beginning of each planning cycle, the TWDB will present a regional water planning contracts webinar as a refresher on important contract requirements. The current webinar is available as an on-demand video on the TWDB's RWP 5th Cycle Working Documents webpage. Some of the important items covered in the webinar include the following:

1. All contract-related question emails should be sent to the TWDB's Contracts Department (contracts@twdb.texas.gov) with the appropriate regional water planning project manager copied on the email.
2. All subcontracts must be submitted to the TWDB for review and acceptance prior to submitting invoices for reimbursement. Complete subcontracting guidelines are available on the TWDB website.
3. Consultant procurement and the COP form.
    - Every contractor and subcontractor must be listed on the COP.
    - COP responsibility resides with the entity that procures the subcontract.
    - COP forms must be submitted to the TWDB for review and acceptance prior to submitting subcontracts for review and acceptance, and invoices for reimbursement.
4. Payment request submittals, including the associated but separate task progress reports, are due on a minimum quarterly basis as part of the payment request as specified in the TWDB/political subdivision contract.
    - Advance/reimbursement request packets should be emailed to invoice@twdb.texas.gov and include copies of invoices, receipts, and statements. Provide details of travel information and proof of payment to subcontractors.
    - The TWDB will provide a payment request checklist to the political subdivision (a checklist template is available online).
    - If the political subdivision chose the "advance" method of distributing RWP funds, then these advances must be deposited into a separate interest bearing account and the "interest earned" amount must be recorded on the payment request checklist.
    - Advance requests may be submitted once 90 percent of the previous advance has been expensed.
    - Advances are distributed on a 20 percent maximum of total committed funds basis.
5. Adjustments may be applied to the TWDB/political subdivision contract task or expense budget, in line with the following contract requirements:
    - If the requested adjustment is less than 35 percent of either a task's total budget or expense line amount, there is flexibility to do so informally by notifying the TWDB of this change in writing via email to contracts@twdb.texas.gov and the region's project manager.

- If the requested adjustment exceeds the 35 percent threshold of either a task's total budget or expense line amount, the political subdivision must submit a request for a Budget Memorandum and obtain approval from the TWDB. The request must be approved by the RWPG at a regular RWPG meeting provides approval to the political subdivision to request adjustments to the TWDB/political subdivision contract task or expense budgets, then the political subdivision may send the request by email to contracts@twdb.texas.gov and the region's project manager. The request should include a written documentation of why the revision is necessary, the date the planning group approved the budget memorandum request, and a table showing the current budget and the proposed revision (contact the regional project manager, or contracts@twdb.texas.gov for a budget memorandum template).
- Please note that the TWDB considers subcontractor budgets as "working budgets" only and if revisions are needed, the political subdivision simply needs to send an email request to the TWDB contracts department providing the revised subcontract budget information. It is the discretion of the political subdivision whether subcontracts are amended following budget memorandums. Additionally, subcontracts should reflect the estimated total study cost allocated for tasks, as applicable; however, contractors are responsible for managing expenses within the committed amount. Clauses may be added to subcontracts limiting reimbursement up to committed amounts.

Please refer to the online TWDB contracts webinar for additional contract information.

It is also important to note that some task budgets may require scoping and a written "Notice to Proceed" prior to commencing reimbursable work, as noted in the contract.

3 Recommended Best Practices for Political Subdivisions

This section includes recommendations and information for political subdivisions related to communication, new member orientations, administrative costs, and web posting and newsletter distribution.

3.1 Communication with RWPG members

1. Request updated planning group member contact information at each RWPG meeting.
2. Forward all TWDB communications and data provided in emails to planning group members (the TWDB provides information to chairs, political subdivisions, and technical consultants) with the intent of creating more interest from the members and facilitating their engagement in the planning process by receiving these informational emails directly from the planning group's representative. The TWDB website has a location where all important RWPG communications are posted.
3. Forward meeting notices and agendas to neighboring planning groups via their liaisons. Liaisons should then pass along this information to their respective RWPGs.
4. During development of the draft RWPG meeting agenda, it is recommended that the political subdivision solicit comments from planning group chair and/or officers, consultants, and the TWDB project manager in order to ensure that the final agenda will meet necessary action item requirements.
    - Include a standing agenda item for updates from groundwater management area representatives, liaisons, and other non-voting members.
    - Include a standing agenda item to receive public input.

5. The Excel template on the TWDB's RWP Fifth Cycle Working Documents webpage may be used for calculating public notice deadlines for various types of meeting requirements, comment period requirements, and for scheduling political subdivision tasks prior to an RWPG meeting.
6. Encourage technical consultants to provide meeting materials to members as far in advance as possible to allow for additional time for members to review and digest the material and make informed decisions.
    - It is recommended for this to occur at least one week before the meeting via email attachments or email links to the RWPG's website.
7. Survey RWPG members occasionally to determine how frequently they feel the group should meet, within budget limitations, in order to effectively develop their regional water plan.
8. Survey RWPG members occasionally to determine the preferred location, acknowledging facility constraints, to hold planning group meetings.
9. Ensure that the RWPG's required website is kept up to date and that members are able to successfully navigate the website and access documents. Some RWPGs have the political subdivision directly perform the ongoing maintenance of the planning group's website while others delegate the maintenance to the consultants.
10. Ensure that planning group members are aware of how they can access the groups bylaws.
11. Ensure that planning group members are aware of the RWPG's terms of office and process for selecting new members.
12. Encourage all planning group members to attend committee meetings to assist with informed decision making.
13. Facilitate interregional cooperation as appropriate.

3.2 New member orientation

Planning groups have different methods of orienting new members. Many political subdivisions either call or hold meetings with new members to provide such orientations. Orientations may occur during planning group meetings, or held separately for the new members. Examples of topics covered by political subdivisions to new members include an overview of the state and regional water planning process, planning group history, open meetings requirements, groundwater and surface water law, and environmental flows. Examples of documents provided to new members include a copy of the region's bylaws, previous meeting packages or presentations, a copy of the current plan or plan summary (available online), a list of members and consultants, a map of the region, and the TWDB regional water planning rules pamphlet.

A new member guide under development by the TWDB and will include information on the regional water planning process, key roles and responsibilities, funding the planning process, required planning considerations, plan contents, and TWDB resources. The TWDB website includes a dedicated new RWPG member page, and additionally, TWDB staff is available to present regional water planning 101 as requested.

3.3 Paying for administrative costs

The TWDB RWP contracts contain Task 10 funding to cover eligible RWPG public participation activities as defined in the TWDB/political subdivision contracts. Eligible expenses are direct non-labor administrative costs as well as certain travel costs for voting members to attend RWPG meetings, if approved under §355.92(b)(1). These activities and the associated funds are reimbursable to the political subdivision and the technical consultants. As an example of the amount of time a political subdivision spends in their RWPG administrative role, Region N's political subdivision estimates 240

hours and $60,000 per year was required to cover their administrative expenses for the previous 4th cycle of planning and this cost was paid for 100% with local funds.

For planning group administrative costs that are not eligible for reimbursement with the TWDB's funds, some RWPG's (A, C, I, O, M, N, L) have obtained additional local funds that may be necessary to support the administrative work performed by the political subdivisions.

Examples of how political subdivisions account for ineligible administrative expenses include the following:

- Some political subdivisions pass through all Task 10 funds for eligible reimbursable activities to the consultant, and the political subdivision volunteers all of its time and resources that are necessary to sufficiently perform contract administrative duties that are not eligible reimbursable activities.
- Some political subdivisions pass through all Task 10 funds for eligible reimbursable activities to the consultant and the political subdivision is authorized by the planning group to solicit local funds from RWPA stakeholders to cover their ineligible administrative expenses.
- Some political subdivisions split Task 10 funds for eligible reimbursable activities with the technical consultants, and the political subdivision is also authorized by the planning group to solicit additional local funds to cover the remaining ineligible administrative activities.
- Historically, most voting members have not requested to be reimbursed with RWP funds for their meeting travel expenses. Some of these members are reimbursed by their employers while others cover these costs themselves. Reimbursement of travel expenses to an RWPG member requires RWPG approval under §355.92(b)(1) and must meet the specifications listed in the contract expense budget.

3.4 Web posting and newsletter distribution

New for the Fifth Cycle of RWP is the requirement that all RWPGs have either an external website or an RWPG-dedicated webpage on the RWPG administrator's website. The required RWPG external website content includes RWPG meeting notices, agendas, materials, and plan information. Materials could include presentations and handouts, and meeting minutes can also be posted on the RWPG website. The RWPG could post additional links to relevant materials available on the TWDB website to save the planning group time and storage space, such as links to the current adopted regional water plans, the 2017 State Water Plan, Interactive State Water Plan, current planning cycle information, and water planning data.

Also new for the Fifth Cycle of RWP is the eligibility of expenses incurred in the development, production, and distribution of an RWPG newsletter. The maximum amount of eligible expenses that can be reimbursed as stated in the contract is up to 3% of Task 10 funds, not to exceed $5,000.00.

4 Open Meetings Act and Public Information Act

Effective September 1, 2017, Senate Bill (SB) 347, 85th Legislative Session, requires that, in addition to RWPG meetings and hearings, RWPG committee and subcommittee meetings are subject to the Texas Government Code (Gov't Code) §§ 551 and 552 (Texas Open Meetings Act and the Public Information Act).

Although the TWDB is not in a position to provide legal advice to the RWPGs, an interpretation of Texas Water Code (TWC) §16.053(h)(12) (as added by SB 347) is described below. RWPG members may wish to consult with attorneys for their organizations to analyze the legislation themselves, rather than solely

relying on the TWDB's interpretation. Members who would like a more in-depth understanding of the Open Meetings Act or Public Information Act will find the Attorney General's (AG's) handbooks on the Open Meetings Act and Public Information Act helpful resources:

https://www.texasattorneygeneral.gov/files/og/OMA_handbook_2018.pdf

https://www.texasattorneygeneral.gov/files/og/PIA_handbook_2018.pdf

4.1 Training requirements

It is the TWDB's interpretation of TWC §16.053(h)(12) (as added by SB 347) that RWPG members must complete the Open Meetings Act training required by Texas Government Code (Gov't Code) §551.005 and the Public Information Act training required by Gov't Code §552.012. TWC §16.053(h)(12) states that the RWPGs themselves, not just their meetings, are "subject to" the Open Meetings Act. Gov't Code §551.005 applies to all elected or appointed officials who are members of a governmental body "subject to" the Open Meetings Act. Furthermore, TWC §16.053(h)(12) states that the RWPGs are subject to the Public Information Act. The Public Information Act applies to all elected or appointed officials who are members of a multimember governmental body. The AG's Public Information Act Handbook further explains that Public Information Act requirements apply to all governmental bodies "subject to" the Public Information Act.

The Open Meetings Act and Public Information Act both state that completing the training in one capacity satisfies the requirement in all capacities, so RWPG members who have completed these trainings as part of their outside employment with cities, water supply corporations receiving TWDB funds, groundwater conservation districts, etc., would not need to complete them again as RWPG members.

Additionally, for the Public Information Act training, the members of a governmental body may appoint a "public information coordinator" to attend training in their place so long as the designee is the person primarily responsible for the processing of open records requests for the governmental body.

It is the TWDB's interpretation that these training requirements only apply to voting members of the RWPGs and their alternates. However, the RWPGs may wish to require all members of the RWPGs and their alternates to attend or watch the training. The RWPGs may wish to consult with the attorneys for their organizations to discuss this question further. Each RWPG may have different rules and customs regarding non-voting members. Any individual who wishes to take the training may do so.

Because SB 347 becomes effective on September 1, 2017, it is the TWDB's interpretation that RWPG members have 90 days from that date to complete the Open Meetings Act and Public Information Act trainings. Individuals may comply with the requirements by watching training videos on the AG's website and printing completion certificates:

https://www.texasattorneygeneral.gov/og/oma-training

https://www.texasattorneygeneral.gov/og/pia-training

RWPGs shall maintain and make available for public inspection the record of its members' completion of training.

4.2 Meeting minutes and committee quorums

It is the TWDB's interpretation of TWC §16.053(h)(12) (as added by SB 347) that the RWPGs are required to either keep minutes or make a recording of each open meeting of the RWPG or its committees and subcommittees, in accordance with Gov't Code §551.021. According to Gov't Code §551.022, the minutes or recordings are public records, and the RWPGs would be required to keep these minutes or recordings available for public inspection. It does not appear that the Open Meetings Act requires the RWPGs to post these minutes or recordings anywhere; they are simply required to keep them and make them available for inspection if requested. The Open Meetings Act does not require minutes or recordings of closed (executive) sessions, but rather requires a certified agenda of those meetings. Please keep in mind that the regional water planning contracts also require contractors to "develop, provide, and archive minutes."

With regards to whether committees and subcommittees must keep minutes, note that meetings of less than a quorum of a governmental body are not subject to the Open Meetings Act. However, when a governmental body appoints a committee that includes less than a quorum of the parent body and grants it authority to supervise or control public business or public policy, the committee may itself be a governmental body subject to the Open Meetings Act. In other words, if a committee or subcommittee meets and this group constitutes less than a quorum of the RWPG as a whole, the meeting could still be subject to the Open Meetings Act if the committee or subcommittee has authority to supervise or control public business or public policy. If that is the case, a quorum is determined based on a quorum of the committee or subcommittee, not a quorum of the RWPG as a whole.

Furthermore, TWC §16.053(h)(12) (as added by SB 347) states that each RWPG and any committee or subcommittee of a RWPG are subject to the Open Meetings Act. Therefore, quorums should be calculated based on the membership of the committee or subcommittee, **not the RWPG as a whole**.

For example, an RWPG has 30 members and a committee has 5 members. The committee has control over the public business or public policy of the RWPG. For a deliberation of committee to constitute a "meeting" under the Open Meetings Act, a quorum of 3 people must be present (not the RWPG quorum of 16).

Please see Section V(D) of the AG's Open Meetings Act Handbook for more information on this subject.

4.3 Additional guidance

The following information is based on questions TWDB staff has received.

1. Would a conference call (generally to discuss agenda setting) with Executive Committee members be subject to the Open Meetings Act?

    - According to Gov't Code §551.125, an RWPG may not conduct meetings subject to the Open Meetings Act by telephone conference unless a statute expressly authorizes it to do so. The TWDB knows of no statute that would expressly authorize a RWPG to meet by telephone or conference. The RWPGs may wish to consult with attorneys for their organizations on this question. If the call constitutes a "meeting" subject to the Open Meetings Act, it can only be held by telephone conference call in limited circumstances (such as an emergency) and subject to procedures that may include special requirements for notice, record-keeping, and two-way communication between meeting locations. Video conference calls are addressed in a different section of the Open Meetings Act than telephone conference calls. These requirements are included in §551.127 and allow video conference calls in certain situations. Please see Section VI(G) of the AG's Open Meetings Act Handbook for more

information on the issue of both telephone and video conference calls, including references to cases and AG Opinions that may be helpful.

- A call would be a meeting subject to the Open Meetings Act if it meets the definition of "meeting" in Gov't Code §551.001(4). This analysis also requires an analysis of the definition of "deliberation" in Gov't Code §551.001(2). Please see Section VI of the AG's Open Meetings Act Handbook and the cases and AG Opinions cited in that section for more information on this issue. Section VI(E) provides important information on "walking quorums," which are serial meetings of less than a quorum.

2. Is having a pre-meeting "huddle" with Executive Committee members to discuss how the meeting will be run subject to the Open Meetings Act?

    - A pre-meeting "huddle" with Executive Committee members to discuss how the meeting will be run is subject to the Open Meetings Act if it meets the definition of "meeting" in Gov't Code §551.001(4). This analysis also requires an analysis of the definition of "deliberation" in Gov't Code §551.001(2). Please see Section VI of the AG's Open Meetings Act Handbook and the cases and AG Opinions cited in that section for more information in this issue. Section VI(E) provides important information on "walking quorums," which are serial meetings of less than a quorum.

3. Are email discussions subject to the Open Meetings Act, if all member emails are visible in the "to" or "cc" fields?

    - An email discussion is subject to the Open Meetings Act if it meets the definition of "meeting" in Gov't Code §551.001(4). This analysis also requires an analysis of the definition of "deliberation" in Gov't Code §551.001(2). The Open Meetings Act does not provide that the words exchanged must be spoken in person; members of a governmental body need not be in each other's physical presence to constitute a quorum. A deliberation may include an exchange of written materials or electronic mail. The definition of meeting reaches gatherings of a quorum of a governmental body even when the members of the quorum do not participate in deliberations among themselves or third parties; the governmental body may be subject to the Open Meetings Act when it merely listens to a third party speak at a gathering the governmental body conducts or for which the governmental body is responsible. An email discussion could be a meeting subject to the Open Meetings Act if a quorum of the RWPG (or committee/subcommittee) were in the to, cc, or bcc fields. Please see Section VI of the AG's Open Meetings Act Handbook and the cases and AG Opinions cited in that section for more information in this issue. Section VI(E) provides important information on "walking quorums," which are serial meetings of less than a quorum.
    - Note: Attorney General Opinion GA-0896 specifically discusses questions regarding email exchanges.

4. What are record-keeping expectations for RWPGs now that they are fully subject to the Public Information Act?

    - The Public Information Act states that "a governmental body… may determine a time for which information that is not currently in use will be preserved, subject to any applicable rule or law governing the destruction and other disposition of state and local government records or public information" (Gov't Code §552.004). The Public Information Act goes on to state that except for social security numbers, "the confidentiality provisions of [the PIA], or other law, information that is not confidential but is excepted from required disclosure

under Subchapter C is public information and is available to the public on or after the 75th anniversary of the date the information was originally created or received by the governmental body" (Gov't Code §552.0215). The RWPGs should consult with the attorneys for their organizations to determine whether any other laws or rules governing the preservation of records would apply to the RWPG. Please see Section IX of the AG's Public Information Act Handbook and the cases and AG Opinions cited in that section for more information on this issue.

5. Can staff from the RWPG's designated political subdivision be appointed as the Public Information Act public information coordinator?

   - The Public Information Act states that "A public official may designate a public information coordinator to satisfy the training requirements of this section for the public official if the public information coordinator is primarily responsible for administering the responsibilities of the public official or governmental body under this chapter…" (Gov't Code §552.012). It is the discretion of the RWPG who they choose to be the designated coordinator, if one is designated. It is also up to the RWPGs if they desire additional individuals to complete the training than required by the Public Information Act.

6. Can older training certificates be accepted for maintaining the record of members' completion of training?
   - The Open Meetings Act and Public Information Act both state that completing the training in one capacity satisfies the requirement in all capacities, so RWPG members who have completed these trainings as part of their outside employment with cities, water supply corporations receiving TWDB funds, groundwater conservation districts, etc., would not need to complete them again as RWPG members. The Acts simply require public officials to complete the training within 90 days of taking office/assuming responsibilities as a member of the governmental body; it does not specify repeat training requirements.

7. Would a notarized statement affirming training completion be acceptable if a member has taken the training but cannot locate the completion certificate?

   - It will be up to the RWPGs to prove compliance with the Act if they're questioned on it. It is up to the RWPG to prove compliance however they see fit.

8. May RWPGs meet via telephone conference calls?

   - A governmental body may only hold a meeting by telephone conference call if (1) an emergency or public necessity exists within the meaning of Gov't Code §551.045; and (2) the convening at one location of a quorum of the governmental body is difficult or impossible; or (3) the meeting is held by an advisory board (Gov't Code §551.125(b)). If an entity holds an emergency meeting pursuant to §551.125, and a quorum is physically present at the meeting place, other members may not telephone in (Tex. Att'y Gen. Op. No. JC-0352 (2001)). "Difficult or impossible" contemplates meetings by telephone conference call in extraordinary circumstances and not merely when attending a meeting at short notice would inconvenience members of the governmental body.
   - https://www.texasattorneygeneral.gov/opinions/opinions/49cornyn/op/2001/pdf/jc0352.pdf

9. Are "workgroups" formed by the RWPG subject to the Open Meetings Act?
    - The AG's Open Meetings Act Handbook states that when a governmental body appoints a committee that includes less than a quorum of the parent body and grants it authority to supervise or control public business or public policy, the committee may itself be a governmental body subject to the Act (see Section V(D) and (E) of the AG's Open Meetings Act Handbook). It further states that the fact that a committee is called an advisory committee does not necessarily mean it is considered an advisory committee under the Act. Based on the language in the AG's Open Meetings Act Handbook, the TWDB believes the more conservative interpretation would be to treat a workgroup in the same way as a committee.

Below are informational resources for the AG and links to the Open Meetings Act and Public Information Act.

- Texas Open Meetings Act
- Texas Public Information Act
- Office of the Attorney General's open government hotline: 877-673-6839 (OPENTEX)

5 Contacts

Below is a list of RWPG political subdivision administrator contacts and the associated TWDB project managers.

Region	Political Subdivision Point of Contact	TWDB Project Manager
A	Dustin Meyer (PRPC) dmeyer@theprpc.org	William Alfaro william.alfaro@twdb.texas.gov
B	Randy Whiteman (RRA) randy.whiteman@rra.texas.gov	Connie Townsend connie.townsend@twdb.texas.gov
C	Howard Slobodin (TRA) slobodinh@trainityra.org	Connie Townsend connie.townsend@twdb.texas.gov
D	Walt Sears (NETMWD) netmwd@aol.com	Ron Ellis (Team Lead) ron.ellis@twdb.texas.gov
E	Annette Gutierrez (RGCOG) annetteg@riocog.org	Tom Barnett thomas.barnett@twdb.texas.gov
F	Kevin Krueger (CRMWD) kwkrueger@crmwd.org	Elizabeth McCoy elizabeth.mccoy@twdb.texas.gov
G	Steve Hamlin (BRA) stephen.hamlin@brazos.org	Tom Barnett thomas.barnett@twdb.texas.gov
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O	Kelly Davila (SPAG) Kdavila@spag.org	Tom Barnett thomas.barnett@twdb.texas.gov
P	Karen Gregory (LNRA) kgregory@lnra.org	Elizabeth McCoy elizabeth.mccoy@twdb.texas.gov

6 Useful TWDB webpage and document links

Rules and contract related links

- 31 Texas Administrative Code (TAC) §355, Subchapter C
- 31 Texas Administrative Code §357
- Water Planning Rules and Texas Statute Reference Pamphlet
- Regional Water Planning Public Notification Quick-Reference Document
- TWDB Subcontracting Guidelines
- Certification of Procurement Form
- Regional Water Planning Advance Request Checklist
- TWDB Regional Water Planning Contracts Webinar

State and regional water planning related links

- Fifth Cycle of Regional Water Planning homepage
- Fifth Cycle Working Documents Page
- Planning Group Communications page
- 2016 Approved Regional Water Plans
- 2017 State Water Plan
- Interactive State Water Plan
- Water Planning Data
- Water Supply & Infrastructure Staff Contact List
- Regional Water Planning Groups
- New RWPG Member page