

# **REGION H**

## **Water Planning Group**

### **MEETING MATERIALS**

**August 1, 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**  
**August 1, 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 June 6, 2018 meeting.
4. **Receive public comments on specific issues related to agenda items 5 through 13.** (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 and Groundwater Supply Committee regarding existing supply availability and Modeled Available Groundwater (MAG) Peak Factors.
7. Receive update from Consultant Team regarding the Catahoula Formation of the Gulf Coast Aquifer in Montgomery County and consider taking action to direct the Consultant Team to update the source availability for the Catahoula Formation.
8. Receive update from Consultant Team regarding non-MAG available groundwater supplies in the Gulf Coast Aquifer in Trinity County and consider taking action to authorize the Consultant Team to request a new source to reflect this availability.
9. Discuss the process and requirements for simplified planning and consider taking action to forgo pursuit of simplified planning for the 2021 Region H RWP.
10. Receive update from the Consultant Team regarding the Region H Technical Memorandum and consider authorizing the Consultant Team to prepare and submit the required documentation to Texas Water Development Board.
11. Review and take action to amend the budget for the development of the 2021 Regional Water Plan.
12. Receive report regarding recent and upcoming activities related to communications and outreach efforts on behalf of the Region H Water Planning Group.
13. Agency communications and general information.
14. **Receive public comments.** (Public comments limited to 3 minutes per speaker)
15. Next Meeting: September 5, 2018.
16. 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 June 6, 2018 meeting.





**REGION H WATER PLANNING GROUP  
MINUTES OF REGULAR MEETING  
JUNE 6, 2018**

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**MEMBERS PRESENT:** David Bailey, John Bartos, Robert Bruner, Brad Brunett, James Comin, Mark Evans, Yvonne Forrest, Jace Houston, Kathy Jones, Glenn Lord, Marvin Marcell, Carl Masterson, William Teer, Michael Turco, Kevin Ward, and Pudge Willcox.

**DESIGNATED ALTERNATES:** Alisa Max for John Blount and Jun Chang for Jimmie Schindewolf.

**MEMBERS ABSENT:** Bob Hebert, Art Henson, Robert Istre, Ivan Langford, James Morrison, and Ruth Stultz.

**NON-VOTING MEMBERS PRESENT:** Kristen Lambrecht, Scott Hall, and Lann Bookout.

**1. Call to order**

The meeting was called to order at 10:05 a.m.

**2. INTRODUCTIONS**

Mr. Evans welcomed Director Kathleen Jackson with the Texas Water Development Board. She thanked everyone for the work that is being done relative to the Regional Water Planning process. Mr. Evans also welcomed former Region H Water Planning Group member David Collinsworth.

**3. REVIEW AND APPROVE MINUTES OF APRIL 4, 2018 MEETING**

Mr. Bartos made a motion to approve the minutes of April 4, 2018, with the suggested change to the spelling of Mr. Brunett. The motion was seconded by Mr. Chang and carried unanimously.

**4. RECEIVE PUBLIC COMMENTS ON SPECIFIC ISSUES RELATED TO AGENDA ITEMS 5 THROUGH 11**

There were no public comments.

**5. RECEIVE UPDATE FROM CONSULTANT TEAM REGARDING THE SCHEDULE AND MILESTONES FOR THE DEVELOPMENT OF THE 2021 REGION H REGIONAL WATER PLAN (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 it is moving along well. He stated that the first

major submittal after the population demand projections will be prior to September 10, 2018, which will be presented and considered by the planning group at the August Region H Water Planning Group meeting. Mr. Taucer stated the analysis of the existing supply is moving along and they are wrapping up the examination of supply availability contracts. He stated that the next meeting is scheduled for August 1, 2018, whereby several issues will be considered, however one large issue is the consideration and approval of a technical memorandum required for the process.

**6. RECEIVE UPDATE FROM CONSULTANT TEAM REGARDING DRAFT SURFACE WATER AND REUSE SUPPLY AVAILABILITY ANALYSES**

Mr. Taucer provided a recap of the last meeting's update related to the rules, methodology, and initial results for the surface water assessment for each of the basins and coastal basins, as well as potential exceptions to modeling under development for several of the basins. He stated that since that time, the request has been developed and submitted and continued by asking for exceptions relative to the default model for the Trinity, Brazos, and Brazos-Colorado Coastal Basins. He explained that there has been substantial inter-regional coordination, and detailed the efforts between Region H, Region C, Region G, and Region K, to finalize the models. Mr. Taucer stated that based on incoming data, reuse has grown over every planning cycle and asserted a review of that analysis continues. Mr. Taucer explained that the increase in reuse is mainly due to municipal use.

**7. RECEIVE UPDATE FROM CONSULTANT TEAM AND GROUNDWATER SUPPLY COMMITTEE REGARDING MAG PEAK FACTORS**

Mr. Taucer stated this is a new concept for this planning cycle. He explained that this does not change the modeled available groundwater determined for the counties in the region, however for planning purposes, it allows a multiplier to be applied greater than 100% and, based on various district rules, the ability to go over the Modeled Available Groundwater ("MAG") temporarily while still meeting the Desired Future Conditions ("DFCs"), going a long way to making the regulatory availability and the ability to do short-term peaking during dry periods line up better with the availability shown in the plan. Mr. Taucer explained that this concept needs to be approved by Groundwater Conservation Districts ("GCDs"), Groundwater Management Area ("GMA"), and TWDB Executive Administrator and staff. Mr. Taucer stated that based on the analysis and by reviewing the peak factors in the Region H area, the potential peak factor spans between the 1.2 to 1.3 range. Further, he explained that this will be a non-issue for areas where the projected demand is well below the base availability without applying a multiplier. He stated that coordination with the GCDs continues for committee review and comment.

**8. RECEIVE UPDATE FROM CONSULTANT TEAM REGARDING THE PROCESS FOR ALLOCATION OF EXISTING SUPPLIES FOR THE DEVELOPMENT OF THE 2021 REGION H RWP.**

Mr. Taucer provided a detailed overview of the various factors involved in the process for allocation of existing supplies for the development of the 2021 RWP. He stated that the process is arduous, however the end result is an accurate reflection of existing supplies. Finally, he stated that once all of the individual pieces are compiled, it is replicated in the State's database.

**9. RECEIVE REPORT FROM CONSULTANT TEAM REGARDING THE REQUIREMENTS AND PROCESS FOR THE RWP TECHNICAL MEMORANDUM.**

Mr. Taucer explained that this step is intended to be a check on the planning process prior to the Initially Prepared Plan (“IPP”). He stated that the technical memorandum contains TWDB DB22 reports, assumptions and unmodified values, model files and documentation, methodology for RWPG-estimated groundwater availability, process for potentially feasible WMS, the latest list of potentially feasible WMS, and declaration of intent for simplified planning. Mr. Taucer explained the process for public input, approval by the Region H WPG, public comment period, TWDB Executive Administrator review process, and the due date for TWDB to receive same.

**10. 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 two community outreach presentations given on May 24, 2018, to the Gulf Coast Water Efficiency Network and The Woodlands G.R.E.E.N.

**11. AGENCY COMMUNICATIONS AND GENERAL INFORMATION**

Mr. Bookout reported on various topics that were adopted by TWDB earlier this year. Ms. Alisa Max introduced Eric Stone, Drew Keiffer, and Jose Alvares, civil engineering and political science interns attending the University of Houston and Rice University.

**12. RECEIVE PUBLIC COMMENTS**

There were no public comments.

**13. NEXT MEETING**

Mr. Evans announced that the next Region H Water Planning Group meeting will take place on August 1, 2018.

**14. ADJOURN**

Without objection, the meeting was adjourned at 11:14 a.m.

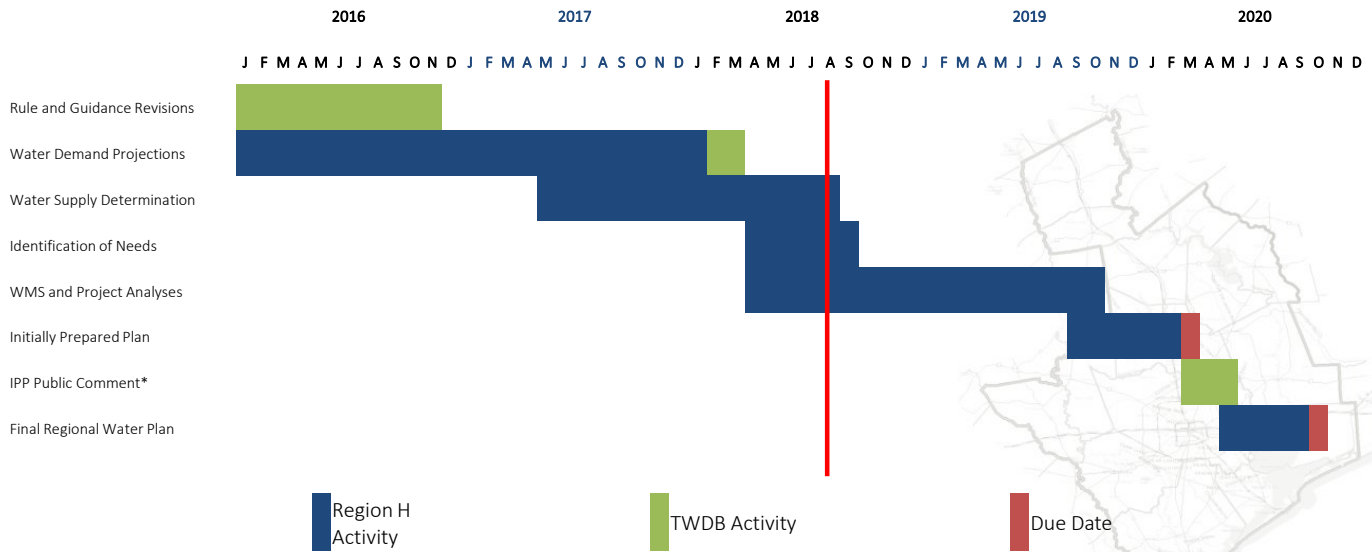


## Agenda Item 5

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



# Agenda Item 5 2021 RWP Schedule



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

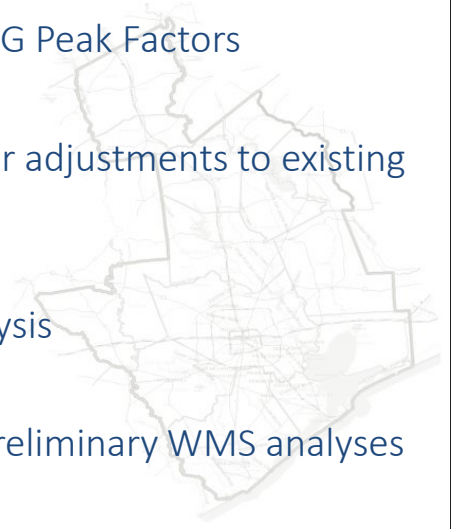
# Agenda Item 5 2021 RWP Schedule

Date	Scheduled Events/Tasks
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



- Technical Memorandum submittal
- Finalize MAG Peak Factors
- Other minor adjustments to existing supply
- Needs analysis
- Continue preliminary WMS analyses





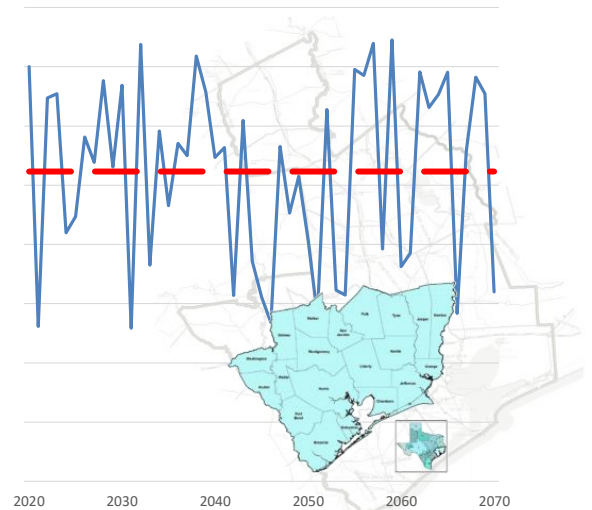
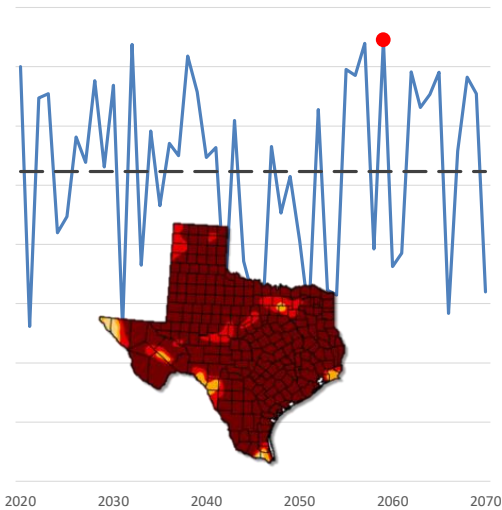
## Agenda Item 6

Receive update from Consultant Team and Groundwater Supply Committee regarding existing supply availability and Modeled Available Groundwater (MAG) Peak Factors.



## Agenda Item 6 MAG Peak Factors

A difference in planning...



## Agenda Item 6 MAG Peak Factors

- Percentage factor (>100%) applied to MAG volumes
- Applied for each decade
- Requires approval prior to IPP
  - From GCD (if applicable), GMA, and EA
- Should not prevent GCDs from achieving DFCs



## Agenda Item 6 MAG Peak Factors

	Austin	Brazoria	Chambers	Fort Bend	Galveston	Harris	Leon	Liberty	Madison	Montgomery	Polk	San Jacinto	Trinity	Walker	Waller
Groundwater Limited?		✓	✓	✓	✓	✓			✓	✓					
Peak Factor	1.239	1.409	1.214	1.306	1.192	1.187	1.219 <sup>a</sup>	1.058	1.174 <sup>b</sup>	1.332	1.137	1.38	N/A	1.148	1.447
2020 MAG	22,298	50,417	22,951	129,773	6,034	409,440	10,676 <sup>a</sup>	43,229	3,320 <sup>b</sup>	64,005	21,810	20,983	N/A	17,973	41593
2020 MAG w/ Peak	27,631	71,022	27,857	169,422	7,193	486,078	13,017 <sup>a</sup>	45,758	3,898 <sup>b</sup>	85,224	24,792	28,947	N/A	20,626	60,184
District Response		Approved	N/A					N/A		Approved	Declined	Declined	N/A		

a. Example for Carrizo-Wilcox.

b. Sparta Aquifer

## Agenda Item 6 MAG Peak Factors

- Lower Trinity GCD: declined
- Lone Star GCD: approved
- Brazoria County GCD: approved
- Harris-Galveston SD to consider
- Fort Bend SD to consider
- Bluebonnet GCD to consider
- Mid-East Texas GCD to consider



## **Agenda Item 6**

### **MAG Peak Factors**

- GMAs to consider
- RWPG to consider
- Submit to TWDB Executive Administrator
- Incorporate into 2021 Region H Regional Water Plan





## Agenda Item 7

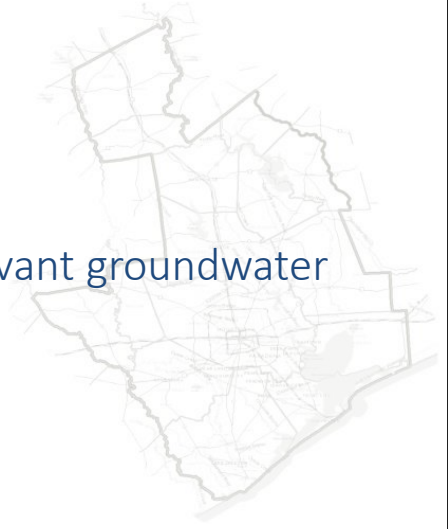
Receive update from Consultant Team regarding the Catahoula Formation of the Gulf Coast Aquifer in Montgomery County and consider taking action to direct the Consultant Team to update the source availability for the Catahoula Formation.





## **Agenda Item 7 Catahoula Formation**

- Montgomery County supply
- New source for 2016 RWP
- Limited data on long-term reliability
- Anticipated use in 2016 RWP
- Prior approval of 2016 RWP values for non-relevant groundwater
- 2021 - availability based on current permits
- Total permit allocations = 8,761 ac-ft/yr.



## **Agenda Item 7 Catahoula Formation**

### **Action:**

Authorize Consultant Team to update the source availability for the Catahoula Formation.





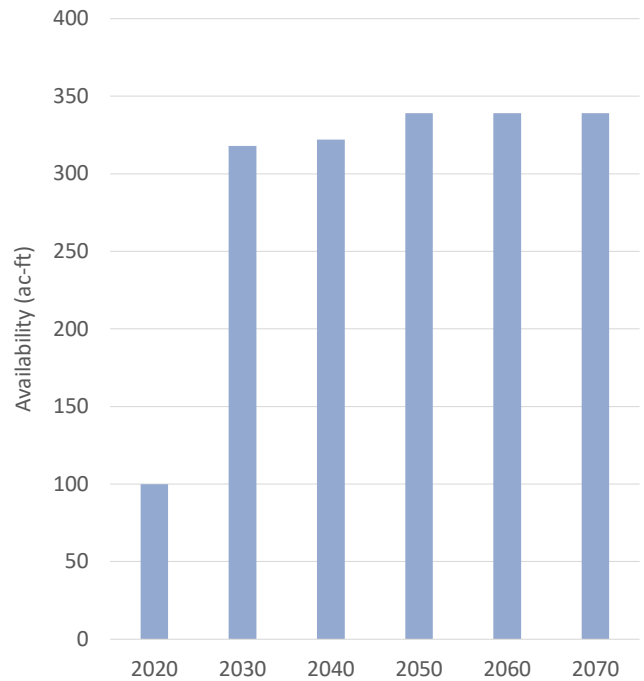
## Agenda Item 8

Receive update from Consultant Team regarding non-MAG available groundwater supplies in the Gulf Coast Aquifer in Trinity County and consider taking action to authorize the Consultant Team to request a new source to reflect this availability.



## Agenda Item 8 Trinity County Groundwater

- Gulf Coast Aquifer in Trinity basin portion of Trinity County
- Non-relevant in GMA process
- No availability in 2016 RWP
- GAM Run 16-024 shows some
- As non-relevant, requires RWPG approval



## Agenda Item 8 Trinity County Groundwater

### Action:

Authorize Consultant Team to a request a new source to reflect non-MAG availability of the Gulf Coast Aquifer in Trinity County.





## Agenda Item 9

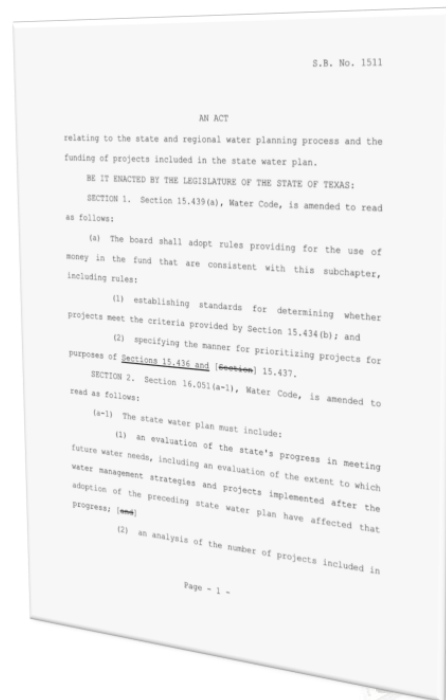
Discuss the process and requirements for simplified planning and consider taking action to forgo pursuit of simplified planning for the 2021 Region H RWP.





## Agenda Item 9 Simplified Planning

- Established by SB 1511, 85<sup>th</sup> Legislative Session
- Option if no significant changes
  - Availability
  - Supplies
  - Demands
- RWPG request
- Technical memorandum documentation



## Agenda Item 9 Simplified Planning

### Process to Request

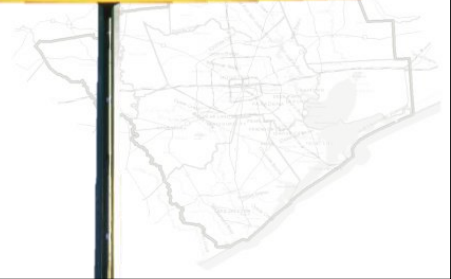
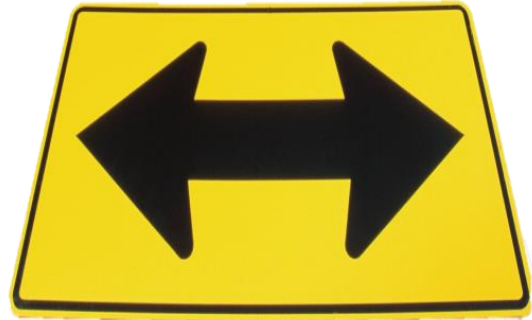
- RWPG public hearing and comment
- TWDB EA evaluation
- RWPG public meeting
  - Consideration of comments
  - Final declaration
- Renegotiation of scope and funds
- Task 5A notice-to-proceed
- Can't rescind after amended contract

### Requirements

- Applicable revisions to WMS and WMSP details or volumes
- At minimum, update to costs
  - Index date
  - Interest rates and debt service
  - Power cost
- RWPG may re-adopt some materials
- IPP and final RWP still required

## Agenda Item 9 Simplified Planning

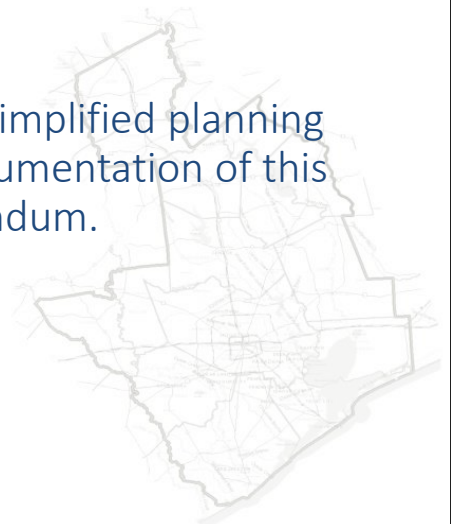
- Considerations for implementing in Region H
- Source availability changes
  - Updated surface supply modeling
  - MAG updates and peak factors
  - Contracts
- WMS analyses already initiated
- Potential challenges for new WMS.



## Agenda Item 9 Simplified Planning

### **Action:**

Confirm RHWPG's intent to forgo pursuit of simplified planning for the 2021 Region H RWP and approve documentation of this action in the Technical Memorandum.



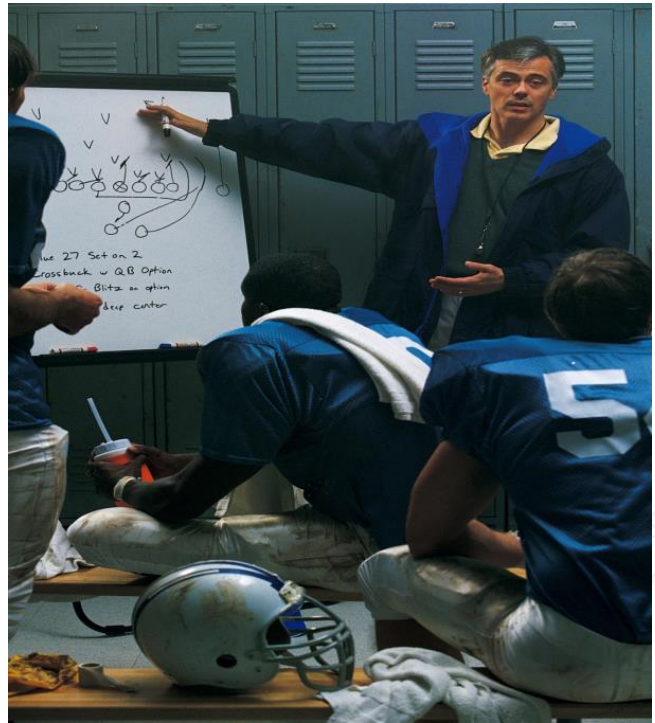
## Agenda Item 10

Receive update from the Consultant Team regarding the Region H Technical Memorandum and consider authorizing the Consultant Team to prepare and submit the required documentation to Texas Water Development Board.

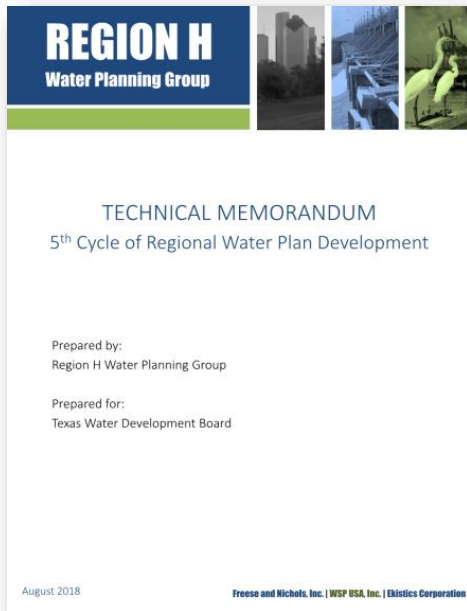


## Agenda Item 10 Technical Memorandum

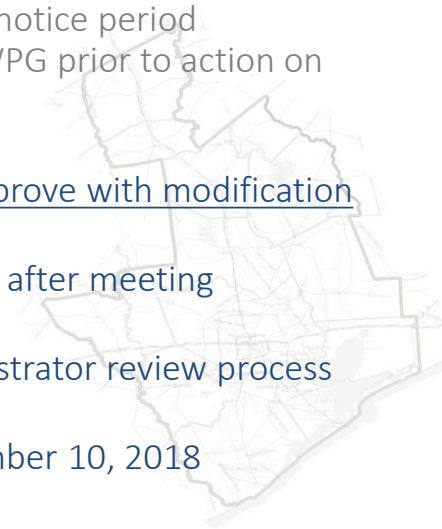
- Chance to review the game plan
- Summarizes progress
  - Population and demand
  - Source availability
  - Existing supplies
  - Needs
- Draft data
- Documents processes
- Simplified planning intent



## Agenda Item 10 Technical Memorandum

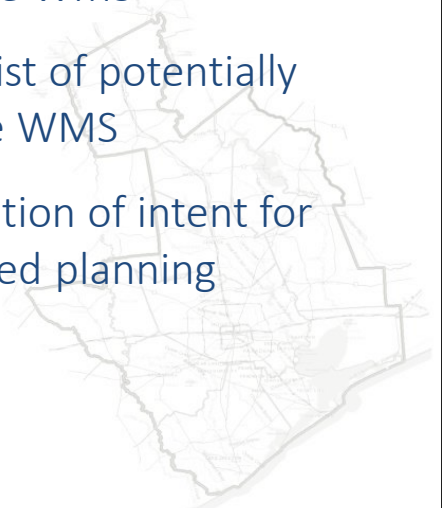


- 14-day notice
- Public comment during notice period (to be considered by RWPG prior to action on memorandum)
- Action to approve or approve with modification
- 14-day comment period after meeting
- TWDB Executive Administrator review process
- Due to TWDB by September 10, 2018

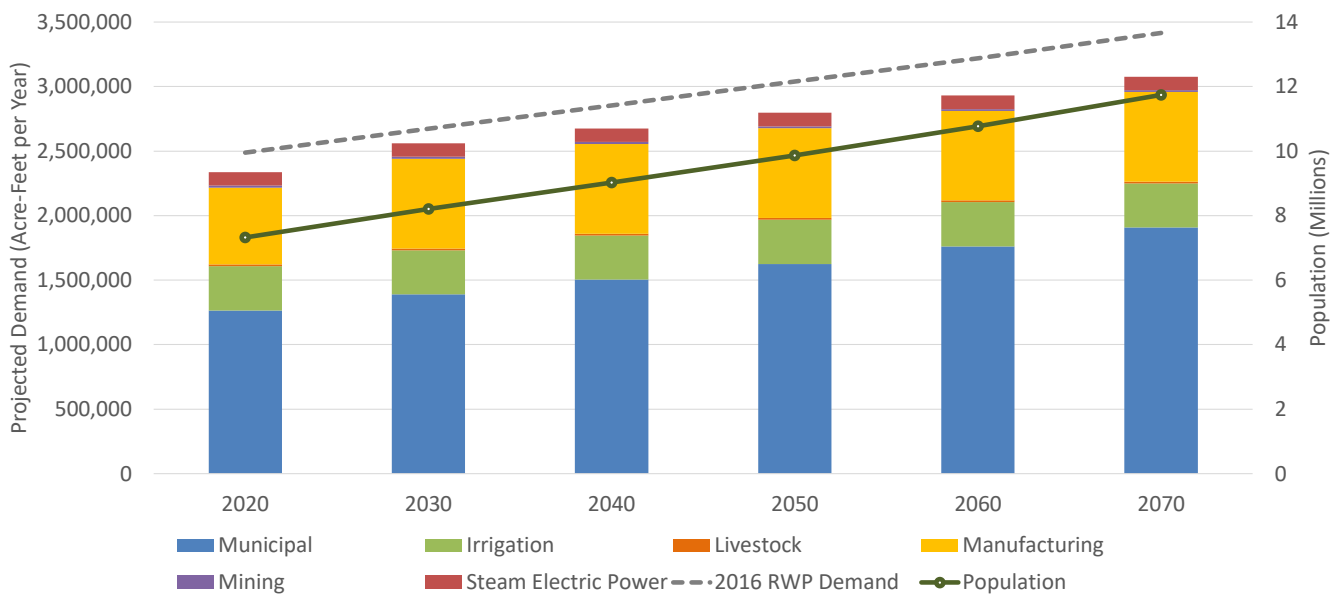


## Agenda Item 10 Technical Memorandum

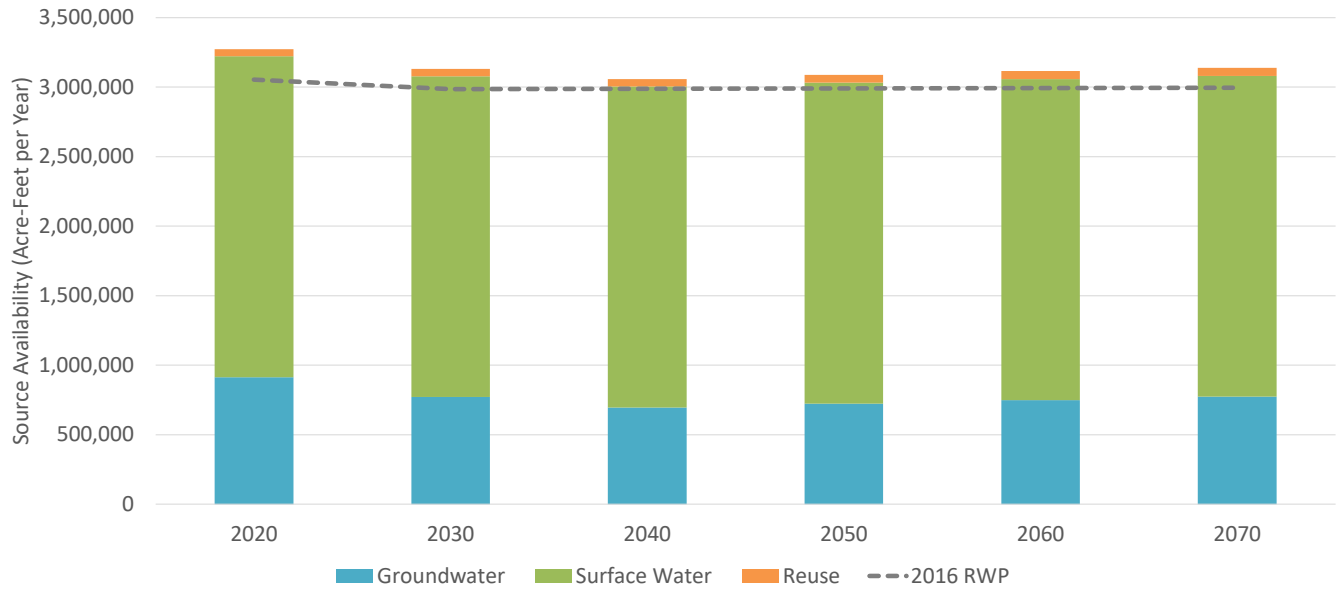
- ✓ Summary memorandum
- ✓ TWDB DB22 Reports
- ✓ MWP reports
- ✓ Methodology for RWPG-estimated groundwater availability
- ✓ Surface water modeling assumptions and unmodified values
- ✓ Variance documentation
- ✓ Process to identify and evaluate WMS
- ✓ Latest list of potentially feasible WMS
- ✓ Declaration of intent for simplified planning



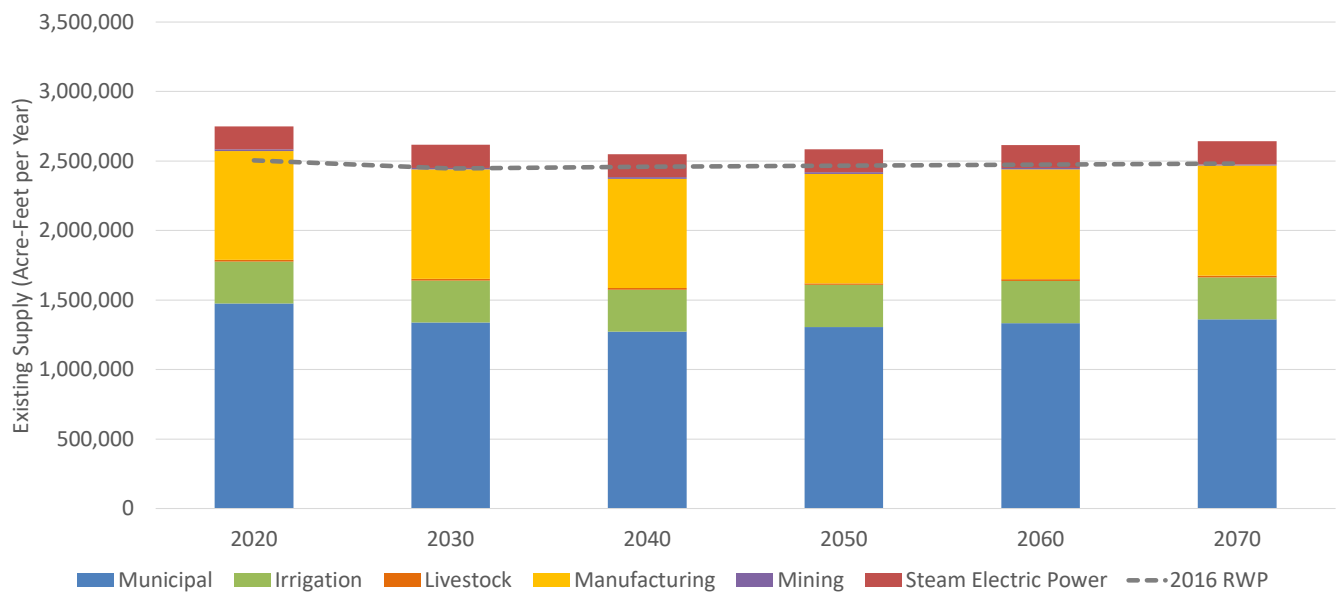
## Agenda Item 10 Technical Memorandum



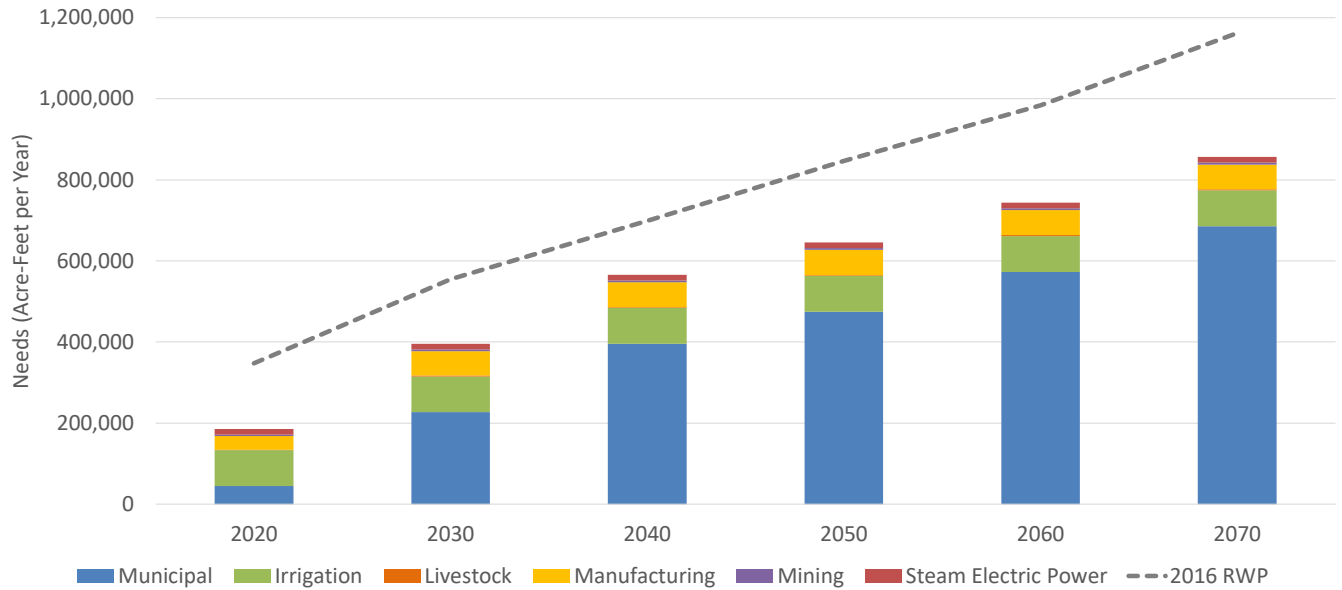
# Agenda Item 10 Technical Memorandum



# Agenda Item 10 Technical Memorandum



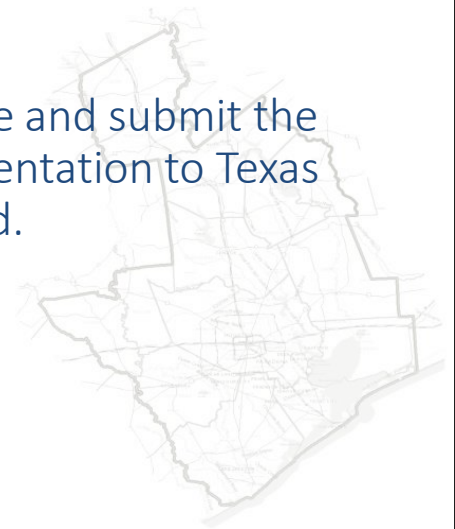
## Agenda Item 10 Technical Memorandum



## Agenda Item 10 Technical Memorandum

### Action:

Authorize the Consultant Team to prepare and submit the required Technical Memorandum documentation to Texas Water Development Board.





## Agenda Item 11

Review and take action to amend the budget for the development of the 2021 Regional Water Plan.



## Agenda Item 11 Budget

- TWDB sets
- RWPG can adjust
  - Change by task
  - >35% requires amendment
- Needed for Region H
- No change in overall budget
- No change to expense budget

Scope Task		Current	Proposed	Change
100	RWPA Description	\$ 24,694.00	\$ 24,694.00	\$ -
02A0	Non-Pop Demands	\$ 28,385.00	\$ 37,385.00	\$ 9,000.00
02B0	Pop Demands	\$ 60,371.00	\$ 80,371.00	\$ 20,000.00
300	Supply	\$ 107,997.00	\$ 142,997.00	\$ 35,000.00
04A0	ID Needs	\$ 23,332.00	\$ 23,332.00	\$ -
04B0	ID WMS	\$ 60,943.00	\$ 60,943.00	\$ -
04C0	Tech Memo	\$ 36,647.00	\$ 36,647.00	\$ -
05A0	WMS	\$ 948,695.00	\$ 948,695.00	\$ -
05B0	Water Conservation	\$ 81,615.00	\$ 81,615.00	\$ -
600	Impacts of RWP	\$ 106,355.00	\$ 80,355.00	\$ (26,000.00)
700	Drought Response	\$ 130,918.00	\$ 109,918.00	\$ (21,000.00)
800	Recommendations	\$ 14,212.00	\$ 10,212.00	\$ (4,000.00)
900	WIF Report	\$ 46,590.00	\$ 33,590.00	\$ (13,000.00)
1000	Adoption	\$ 296,820.00	\$ 296,820.00	\$ -
1100	Implementation	\$ 56,430.00	\$ 56,430.00	\$ -
1200	Prioritization	\$ 46,822.00	\$ 46,822.00	\$ -
<b>TOTAL</b>		<b>\$ 2,070,826.00</b>	<b>\$ 2,070,826.00</b>	<b>\$ -</b>

## Agenda Item 11 Budget

### Action:

Approve budget amendment for 2021 round of Regional Water Planning.





## Agenda Item 13

Agency communications and general information.



# Texas Water Development Board

P.O. Box 13231, 1700 N. Congress Ave.  
Austin, TX 78711-3231, [www.twdb.texas.gov](http://www.twdb.texas.gov)  
Phone (512) 463-7847, Fax (512) 475-2053

July 6, 2018

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

RE: Region H Regional Water Planning Group (RWPG) request for approval to modify existing surface water availability hydrologic assumptions for development of the 2021 Region H Regional Water Plan (RWP)

Dear Mr. Evans:

The Texas Water Development Board (TWDB) has reviewed your request dated May 29, 2018 for approval of alternative water supply assumptions to be used in determining existing surface water availability. This letter confirms that the TWDB approves the following requests:

1. Use of the modified Trinity River Basin Water Availability Model (WAM) approved for use by the Region C RWPG in analysis of Trinity River Basin water rights.
2. Include a limited quantity of return flows in the Trinity River Basin.
3. Use of the modified Brazos River Basin WAM approved for use by the Region G RWPG, for analysis of the Brazos River and San Jacinto-Brazos Coastal Basins.
4. Modify the Colorado WAM RUN3 to adjust multiple water rights within the Brazos-Colorado Coastal Basin.

Through subsequent clarification of the submitted letter from the RWPG consultant, it was determined that the requested variance to modify reservoir conservation pool elevation levels for the San Jacinto River Basin is not being used. The RWPG must submit a follow up hydrologic variance request with additional details on this specific exception, should Region H determine this variance to be necessary at a later date.

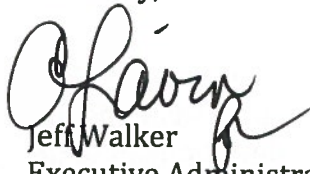
For the purpose of evaluating potentially feasible water management strategies, the appropriate Texas Commission on Environmental Quality's WAM RUN3 is to be used, unless a hydrologic variance request for future surface water source availabilities is submitted and approved.

Mark Evans  
July 6, 2018  
Page 2

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

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

Sincerely,



Jeff Walker  
Executive Administrator

- c: Jace Houston, General Manager, San Jacinto River Authority  
Jason Afinowicz, Freese and Nichols, Inc.  
Lann Bookout, Project Manager  
David Dunn, HDR, Inc. (Region G)  
Amy Kaarlela, Freese and Nichols, Inc. (Region C)