REGION H
Water Planning Group

MEETING MATERIALS

September 4, 2019

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
GPCD	Gallons Per Capita Per Day
GRP	Groundwater Reduction Plan
IPP	Initially Prepared Plan
MAG	Modeled Available Groundwater
MPC	Master Planned Community
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
UCM	Unified Costing Model
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
September 4, 2019
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 5, 2019 meeting.
4. **Receive public comments on specific issues related to agenda items 5 through 15**. (Public comments limited to 3 minutes per speaker)
5. Receive financial report from Region H administrative agency.
6. Receive update from Consultant Team regarding the schedule and milestones for the development of the 2021 Region H RWP.
7. Receive update from Consultant Team regarding status of investigation of water supply alternatives for the 2021 Region H RWP.
8. Receive presentation from Consultant Team regarding current water conservation planning in Region H and discuss conservation planning recommendations.
9. Receive presentation from Consultant Team regarding current drought contingency planning in Region H and discuss drought contingency recommendations.
10. Receive presentation from Consultant Team regarding emergency interconnect facilities in Region H and consider taking action authorizing submittal of a confidential report to the Texas Water Development Board.
11. Receive update from the Region H Legislative Committee and discuss potential legislative and policy recommendations for the 2021 Region H RWP.
12. Discuss and consider taking action to nominate one or more RHWPG members for the Interregional Planning Council.
13. Review and take action to amend the budget for the development of the 2021 Regional Water Plan.
14. Receive report regarding recent and upcoming activities related to communications and outreach efforts on behalf of the RHWPG.
15. Agency communications and general information.
16. **Receive public comments**. (Public comments limited to 3 minutes per speaker)
17. Next Meeting: November 6, 2019.
18. 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 5, 2019 meeting.

REGION H
Water Planning Group

REGION H WATER PLANNING GROUP
MINUTES OF REGULAR MEETING
JUNE 5, 2019

MEMBERS PRESENT: David Bailey, W.R. Baker, John Bartos, Robert Bruner, Mark Evans, Bob Hebert, Art Henson, Jace Houston, Robert Istre, Ivan Langford, Glenn Lord, William Teer, Michael Turco, and Pudge Willcox.

DESIGNATED ALTERNATES: Alisa Max for John Blount, Aaron Abel for Brad Brunett, Veronica Osegueda for Yvonne Forrest, Ken Kramer for Carl Masterson, Jun Chang for Jimmie Schindewolf, Robert Thompson for Marvin Marcell, and Jim Sims for Kevin Ward.

MEMBERS ABSENT: James Comin and James Morrison.

NON-VOTING MEMBERS PRESENT: Kristen Lambrecht, Glen Sutton, and Lann Bookout.

1. CALL TO ORDER

The meeting was called to order at 1:03 p.m.

2. INTRODUCTIONS

There were not introductions.

3. REVIEW AND APPROVE MINUTES OF FEBRUARY 6, 2019 MEETING

Mr. Hebert made a motion to approve the minutes of February 6, 2019. The motion was seconded by Mr. Bartos and carried unanimously.

4. RECEIVE PUBLIC COMMENTS ON SPECIFIC ISSUES RELATED TO AGENDA ITEMS 5 THROUGH 12

There were no public comments.

5. DISCUSS VACANCIES ON THE REGION H WATER PLANNING GROUP (RHWPG) AND CONSIDER TAKING ACTION TO APPROVE MEMBERS TO FILL VACANCIES ON THE PLANNING GROUP

Mr. Evans announced that Ruth Stultz resigned her position representing Small Business and reiterated the current vacancy for Electric Generating Utilities. Mr. Evans stated that the vacant positions needed to be posted on the website and that the discussion related to filling the two vacancies would be discussed and possibly considered at the next meeting.

6. DISCUSS AND CONSIDER AUTHORIZING SAN JACINTO RIVER AUTHORITY TO CONSIDER AND EXECUTE A TWDB CONTRACT AMENDMENT TO INCREASE COMMITTED FUNDS

Mr. Bookout explained the process for the biennial disbursement of TWDB funds and stated that the funds would be disbursed following the execution of an amendment to the contract. Mr. Bookout projected the funds to be approximately $332,000. Mr. Hebert made a motion to authorize the San Jacinto River Authority to execute a contract amendment with TWDB to increase committed funds. The motion was seconded by Mr. Lord and carried unanimously.

7. 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 information related to the milestones for the development of the 2021 Region H Regional Water Plan by stating that they are currently in the WMS stage of the project. He reviewed upcoming due dates for scheduled events and tasks.

8. RECEIVE UPDATE FROM CONSULTANT TEAM REGARDING STATUS OF INVESTIGATION OF WATER SUPPLY ALTERNATIVES FOR THE 2021 REGION H RWP

Mr. Taucer provided an overview of the water supply alternatives for the 2021 Region H RWP. He provided information for each strategy, summarizing pertinent information for each.

9. RECEIVE UPDATE FROM CONSULTANT TEAM REGARDING UNIFORM STANDARDS FOR PROJECT PRIORITIZATION

Mr. Taucer explained that each WPG prioritizes all recommended Water Management Strategy Projects (MSPs) in their regional water plan using uniform standards. He explained that the minimum criteria to be considered by the RWPGs regarding prioritization are the decade of need, and the feasibility, viability, sustainability, and cost-effectiveness of each project. He explained that the list of recommended WMSPs for each RWPG is submitted to the TWDB along with the final adopted regional water plan and the regional prioritization of each project is incorporated into the state prioritization based on its relative percentile within the overall rankings of all other projects within the region.

10. RECEIVE UPDATE FROM REGION H LEGISLATIVE COMMITTEE

Mr. Evans stated that Mr. Marcell was not in attendance but will discuss specific legislation at the next meeting. Mr. Evans provided a brief overview of Senate Bills 7 and 8, related to flood planning, mitigation, and infrastructure projects and state and regional flood planning, respectively. Mr. Bookout commented on HB 807 relating to the state and regional water planning process. Mr. Evans stated that a more in-depth update by the Legislative Committee will take place at the next meeting.

11. RECEIVE REPORT REGARDING RECENT AND UPCOMING ACTIVITIES RELATED TO COMMUNICATIONS AND OUTREACH EFFORTS ON BEHALF OF THE RHWPG

Mr. Taucer reported on meetings with the HGAC Natural Resources Advisory Committee providing an update to the 2021 Region H Plan and the Brazoria County Groundwater Conservation District presenting Regional Water Planning: What Exactly Is It?

12. AGENCY COMMUNICATIONS AND GENERAL INFORMATION

Mr. Bookout provided information related to the Unified Costing Model. He also stated that the Drought Preparedness Council approved recommendations of the RWPG.

13. RECEIVE PUBLIC COMMENTS

Ms. Laura Norton and Mr. Neil Gainer spoke in reference to the recent changes in the Lone Star Groundwater Conservation District.

14. NEXT MEETING

Mr. Evans announced that the next Region H Water Planning Group meeting will take place on September 4, 2019.

15. ADJOURN

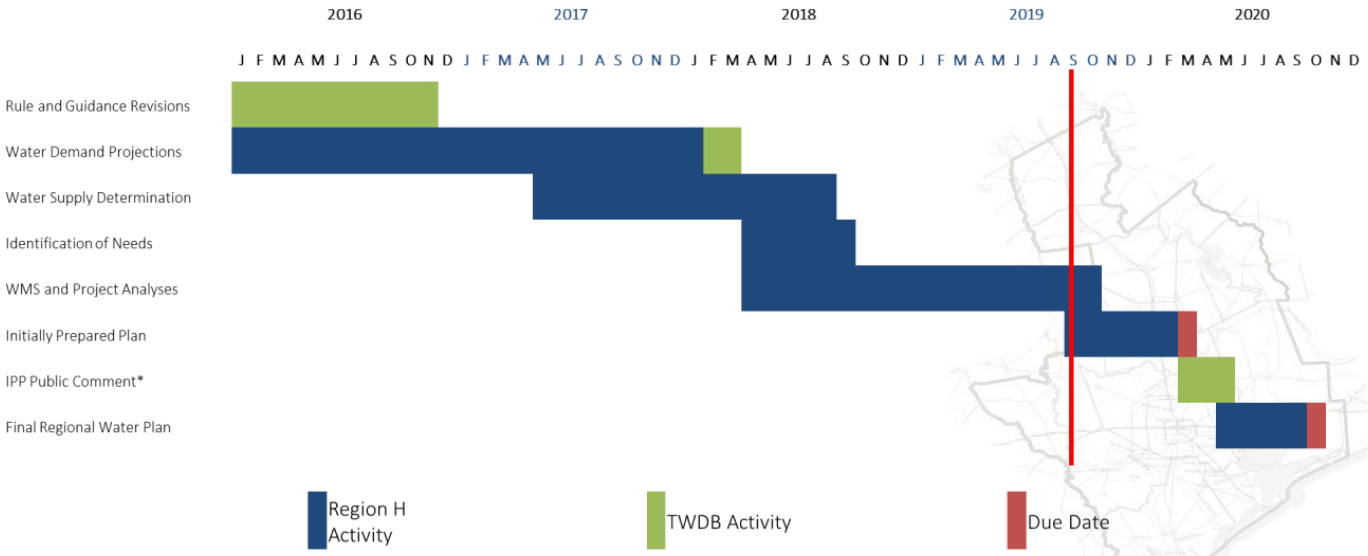
Without objection, the meeting was adjourned at 2:12 p.m.

Agenda Item 6

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 6
2021 RWP Schedule



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

Agenda Item 6
2021 RWP Schedule

Date	Scheduled Events/Tasks
09/2019	**RWPG Meeting & WMS Committee Meeting**
11/2019	RWPG Meeting & WMS Committee Meeting
01/2020	RWPG Meeting & WMS Committee Meeting
02/2020	RWPG Meeting
03/2020	DUE DATE: Initially Prepared Plan
10/2020	DUE DATE: FINAL RWP

Agenda Item 6
2021 RWP Schedule

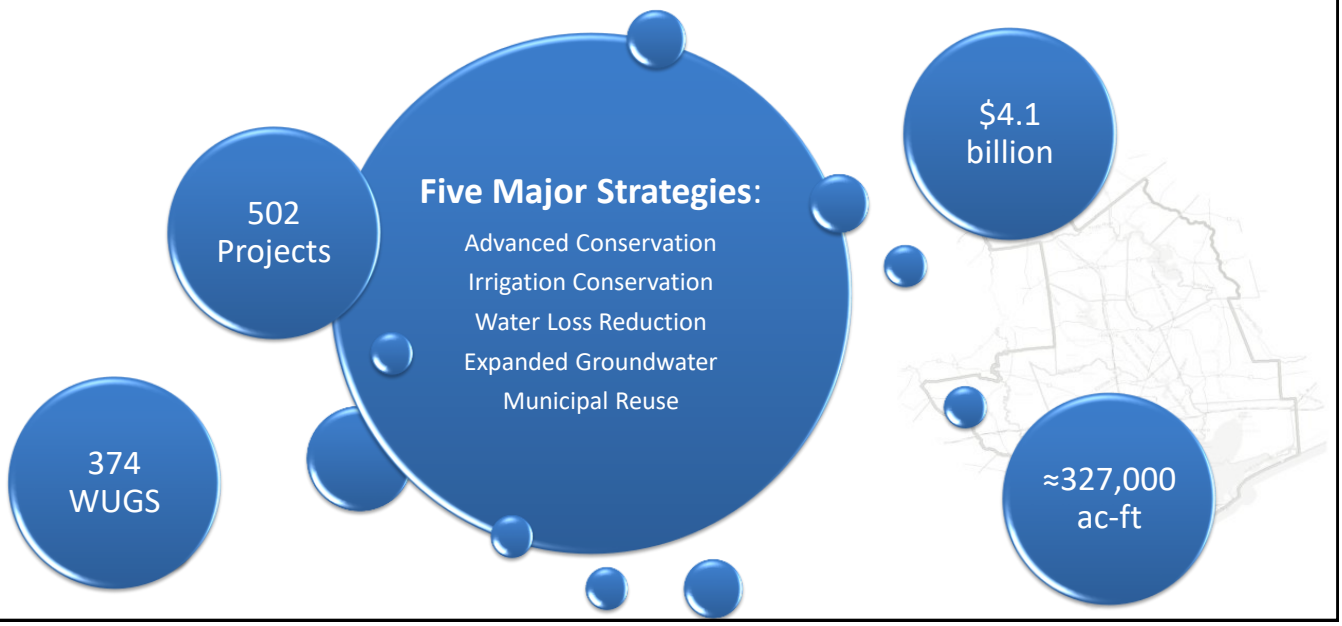
- Ongoing
  - WMS
  - Drought recommendations
  - Legislative recommendations
- Long Term
  - Infrastructure Finance Report
  - Project prioritization

Agenda Item 7

Receive update from Consultant Team regarding status of investigation of water supply alternatives for the 2021 Region H Regional Water Plan.

REGION H
Water Planning Group

Agenda Item 7
Water Supply Alternatives



Agenda Item 7
Water Supply Alternatives

- Large infrastructure and GRP
- Stakeholder input
  - BRA
  - BWA
  - CHCRWA
  - COH
  - COSL
  - Dow
  - GCWA
  - NFBWA
  - NHCRWA
  - WHCRWA

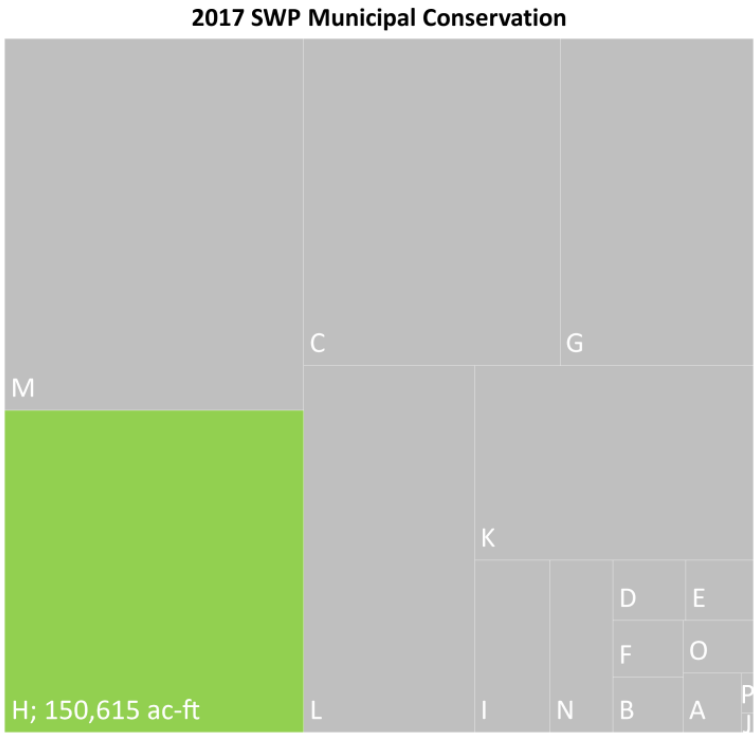
Agenda Item 8

Receive presentation from Consultant Team regarding current water conservation planning in Region H and discuss conservation planning recommendations.

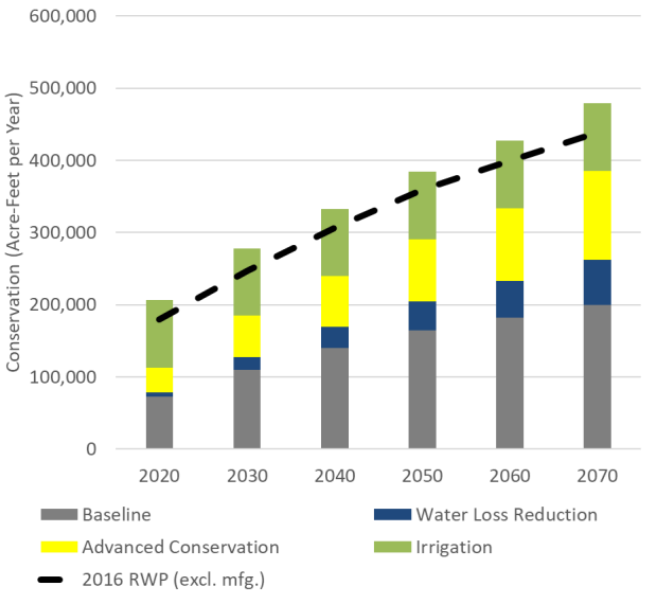
REGION H
Water Planning Group

Agenda Item 8
Water Conservation Planning

- RWP includes Conservation Subchapter
- Current planning
- RWP recommendations

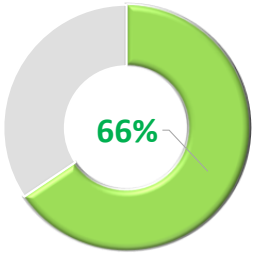


Agenda Item 8
Water Conservation Planning – Recommended WMS

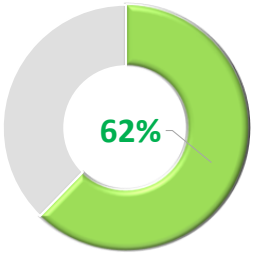


- Similar baseline
- Similar magnitude
- New approach to Advanced Municipal Conservation
- No Industrial Conservation
- Outdoor focus

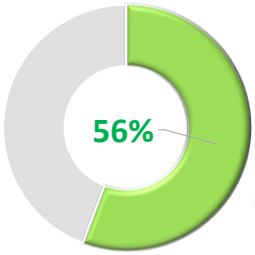
Agenda Item 8
Water Conservation Planning – Implemented



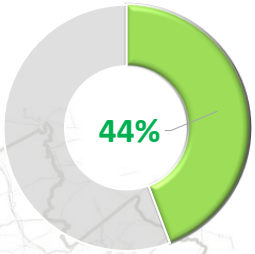
Public Information



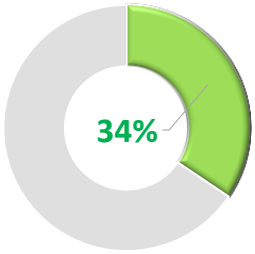
Sys. Audit / Loss Control



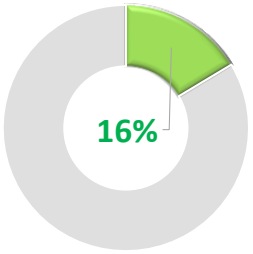
Metering



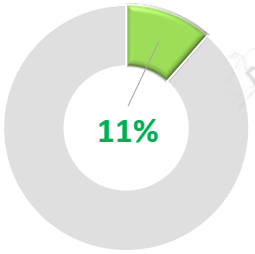
School Education



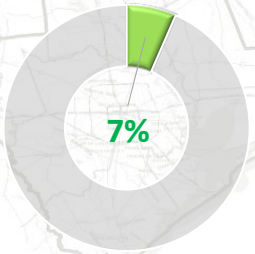
Conservation Pricing



Conservation Coord.

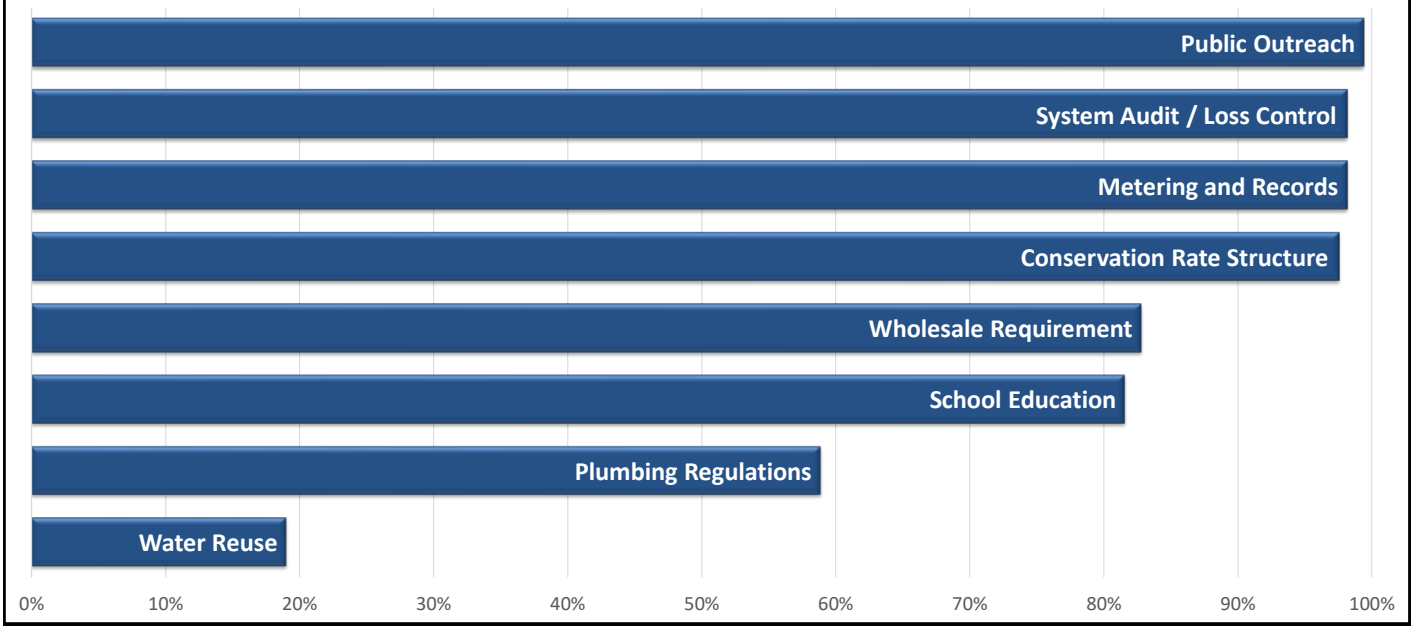


Park Conservation



Residential Survey

Agenda Item 8
Water Conservation Planning – New WCPs



Agenda Item 8
Water Conservation Planning – Recommendations

- RWPG supports vigorous conservation
- Advanced Conservation and Water Loss WMS
- HB 807 requires quantified GPCD goals

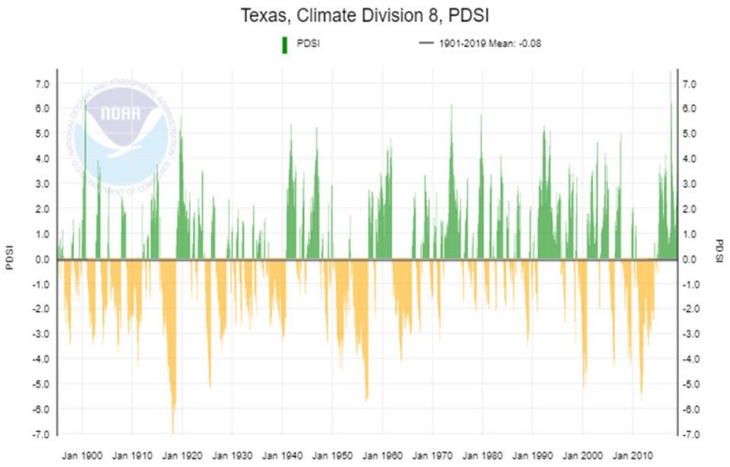
Agenda Item 9

Receive presentation from Consultant Team regarding current drought contingency planning in Region H and discuss drought contingency recommendations.

REGION H
Water Planning Group

Agenda Item 9
Drought Contingency Planning

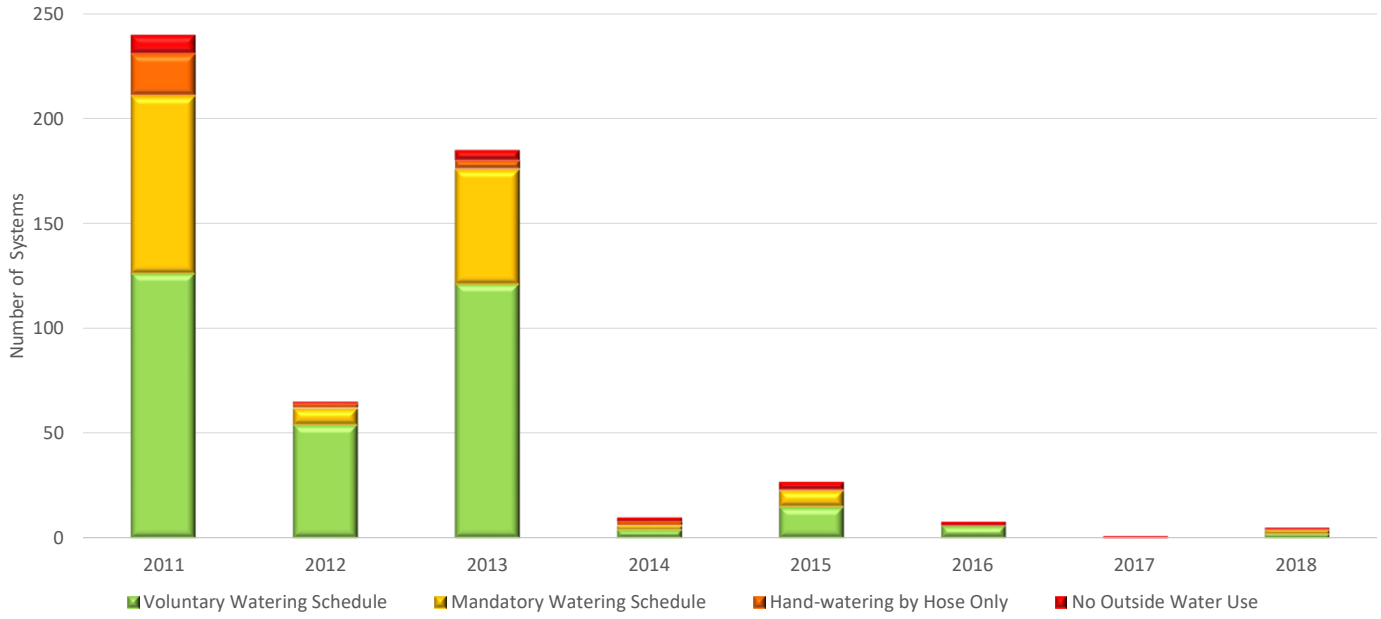
- Documented in RWP Chapter 7
  - Drought history
  - Current preparations
  - Recommendations
- Multiple references
  - 253 new DCPs
  - 77 survey responses
  - TCEQ drought records



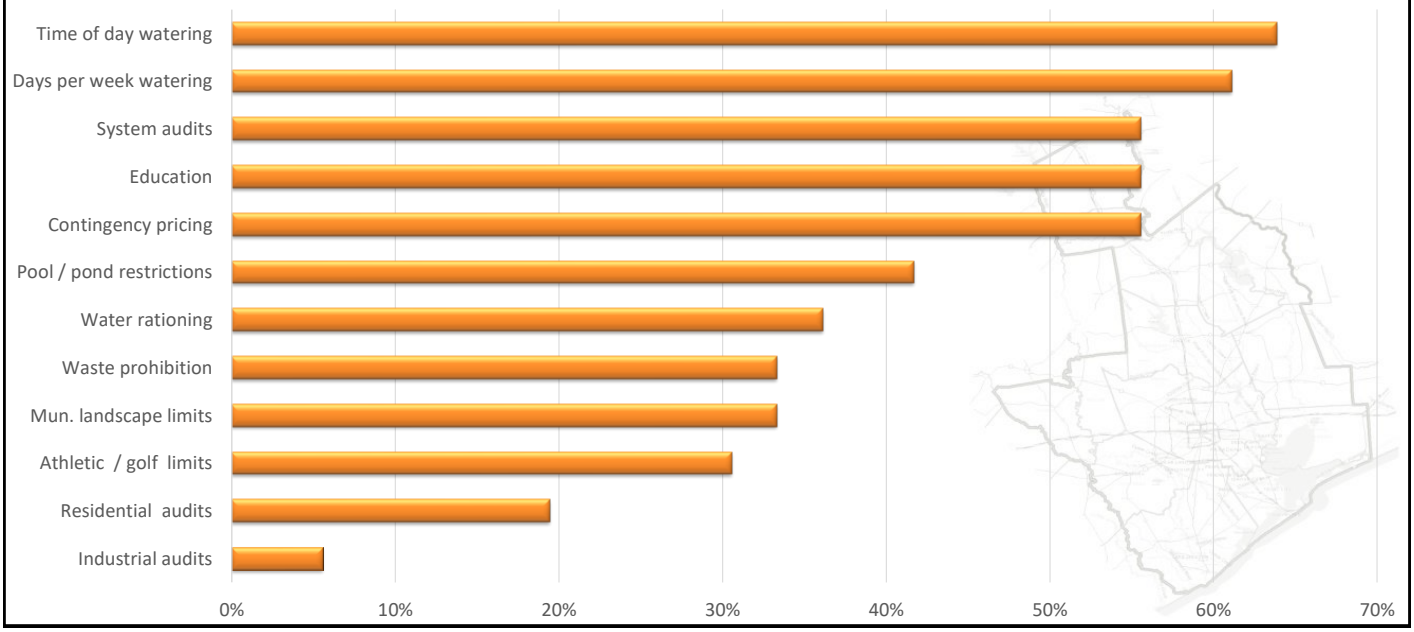
Agenda Item 9
Drought Contingency Planning - Overview

- TCEQ requirement
  - PWS
  - Wholesale providers
  - Irrigation districts
  - Some water right holders
- Five-year cycle
- Most due May 1, 2019

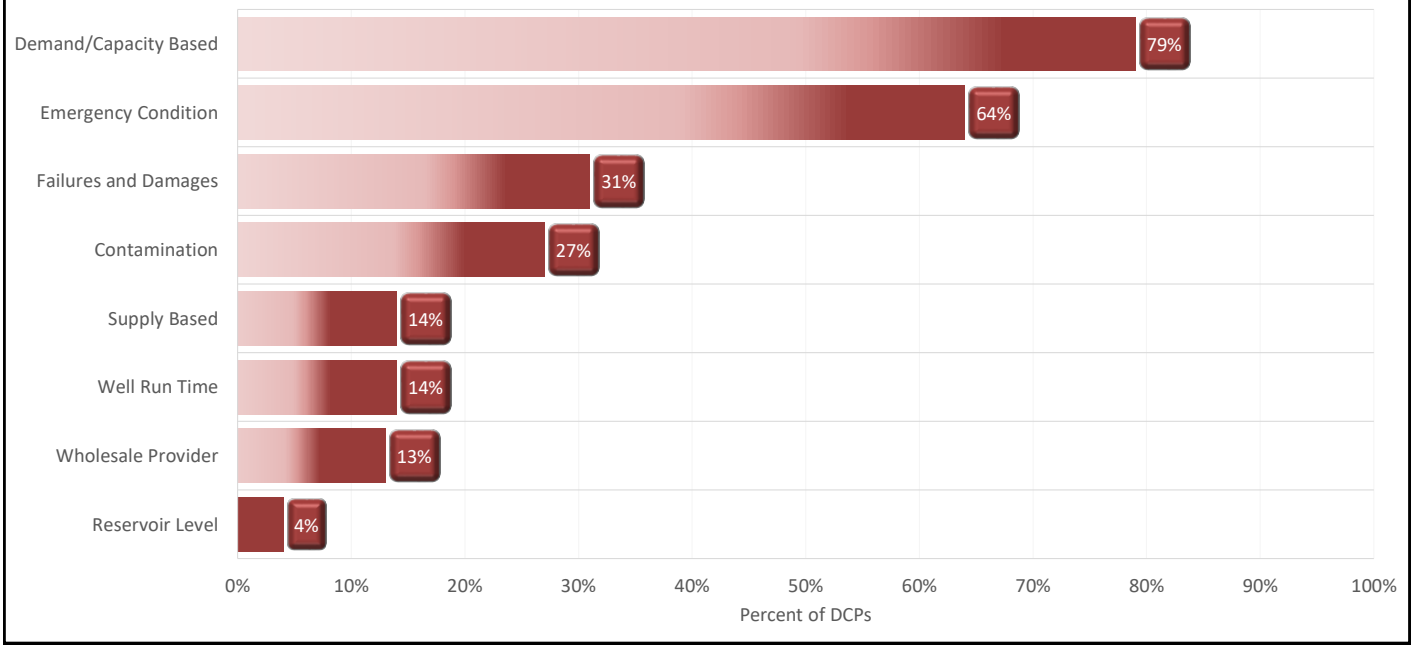
Agenda Item 9
Drought Contingency Planning – Recent History



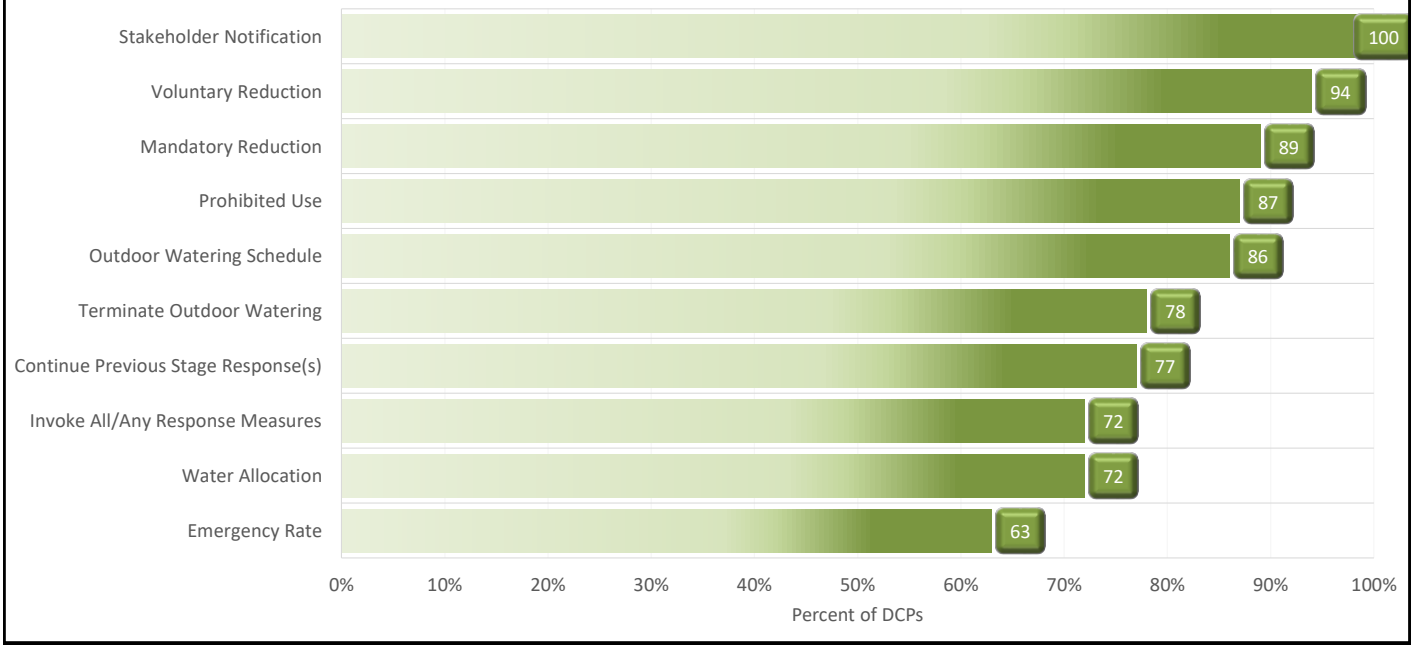
Agenda Item 9
Drought Contingency Planning – WUG Survey



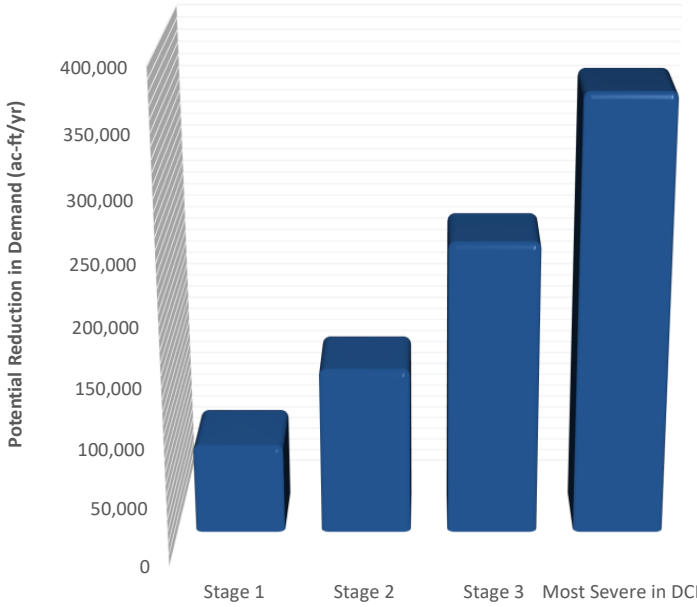
Agenda Item 9
Drought Contingency Planning – Triggers



Agenda Item 9
Drought Contingency Planning – Responses



Agenda Item 9
Drought Contingency Planning – Potential WMS Application



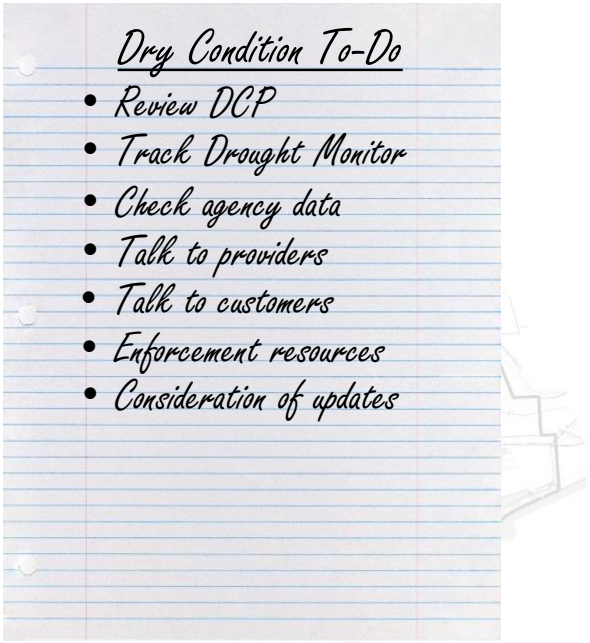
- RWPGs must consider
- Region H supports DCPs
- Potentially large <u>if</u>:
  - Everyone enters
  - Prolonged stage
  - Measures work
  - 100% compliance

Agenda Item 9
Drought Contingency Planning – Potential WMS Application

- Major considerations
- Temporary (non-firm) measure
- Difficult to quantify
  - Dependent on individual drought
  - Delay – maybe not prevent
- Projections based on years with stages active

Agenda Item 9
Drought Contingency Planning – Recommendations

- Additional Recommendations
- Systems best suited to understanding local conditions
- Surface water – rightholder DCPs
- Groundwater and other – local and supplier DCPs



Agenda Item 10

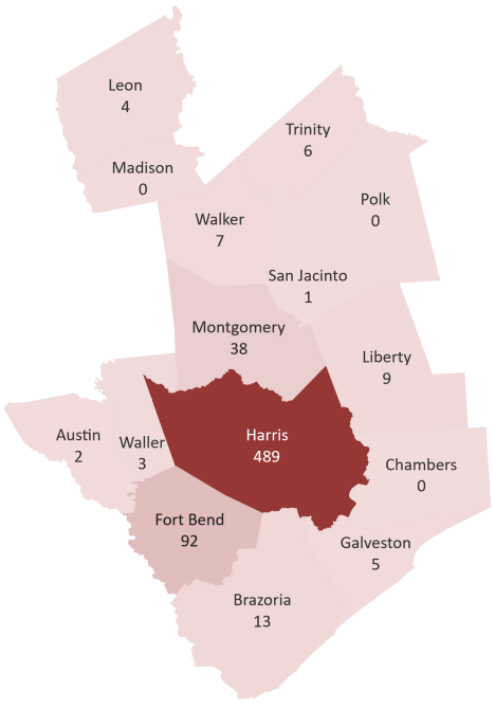
Receive presentation from Consultant Team regarding emergency interconnect facilities in Region H and consider taking action authorizing submittal of a confidential report to the Texas Water Development Board.

REGION H
Water Planning Group

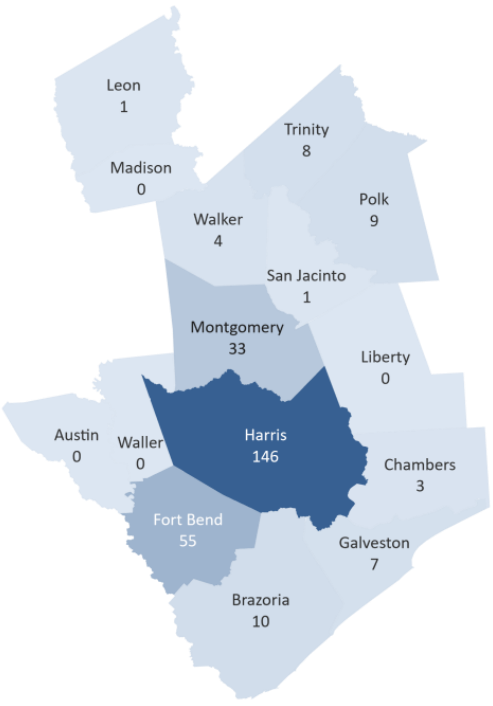
Agenda Item 10
Emergency Interconnects

- Started with 2016 RWP
- Summary of interconnect infrastructure
- Confidential report to Executive Administrator
- Separate from RWP

Emergency



Permanent



Agenda Item 10
Emergency Interconnects

Action:

Approve authorizing Consultant Team to submit a confidential emergency interconnect report to the Texas Water Development Board.

Agenda Item 11

Receive update from the Region H Legislative Committee and discuss potential legislative and policy recommendations for the 2021 Region H RWP.

REGION H
Water Planning Group

Agenda Item 11
Legislative and Policy Recommendations

- HB 721 – TWDB ASR analysis
- HB 723 – WAM Updates
- HB807
  - Interregional Planning Council
  - Drought response
  - ASR studies
  - GPCD goals
  - Regionalization
  - Legislative recommendations

Agenda Item 11
Legislative and Policy Recommendations

Chapter 8

- Unique Stream Segments
- Unique Reservoir Sites
- Legislative Recommendations
- Regulatory, Administrative, and Finance Recommendations

Agenda Item 11
Legislative and Policy Recommendations

- Key item for next meeting
- 2016 RWP appendix in packet
- Legislators and agencies are interested
- Success stories
  - WAM updates
  - RWP groundwater methodology
  - GAM updates
  - TWDB conservation studies

REGION H
Water Planning Group

Mission of the Region H Water Planning Group:

- Recognize the water supply needs of one of the largest economic and population centers in the nation
- Identify cost-effective and environmentally responsible strategies for meeting tomorrow's water needs
- Facilitate open discussion of water-related issues among key stakeholders
- Provide a platform for public input to our water supply future

Politically:

15	14	6	3	100s
Counties	River and Water Authorities	Groundwater-Regulating Bodies	Councils of Governments	Water Utilities

Economically:

2/3	1/3	2nd	Population of 7.3
US Petrochemical Production	US Petroleum Industries	Busiest Port in the US	Million (2010)

Water Supply:

3
River Basins

2
Major Aquifers

3
Major Reservoirs

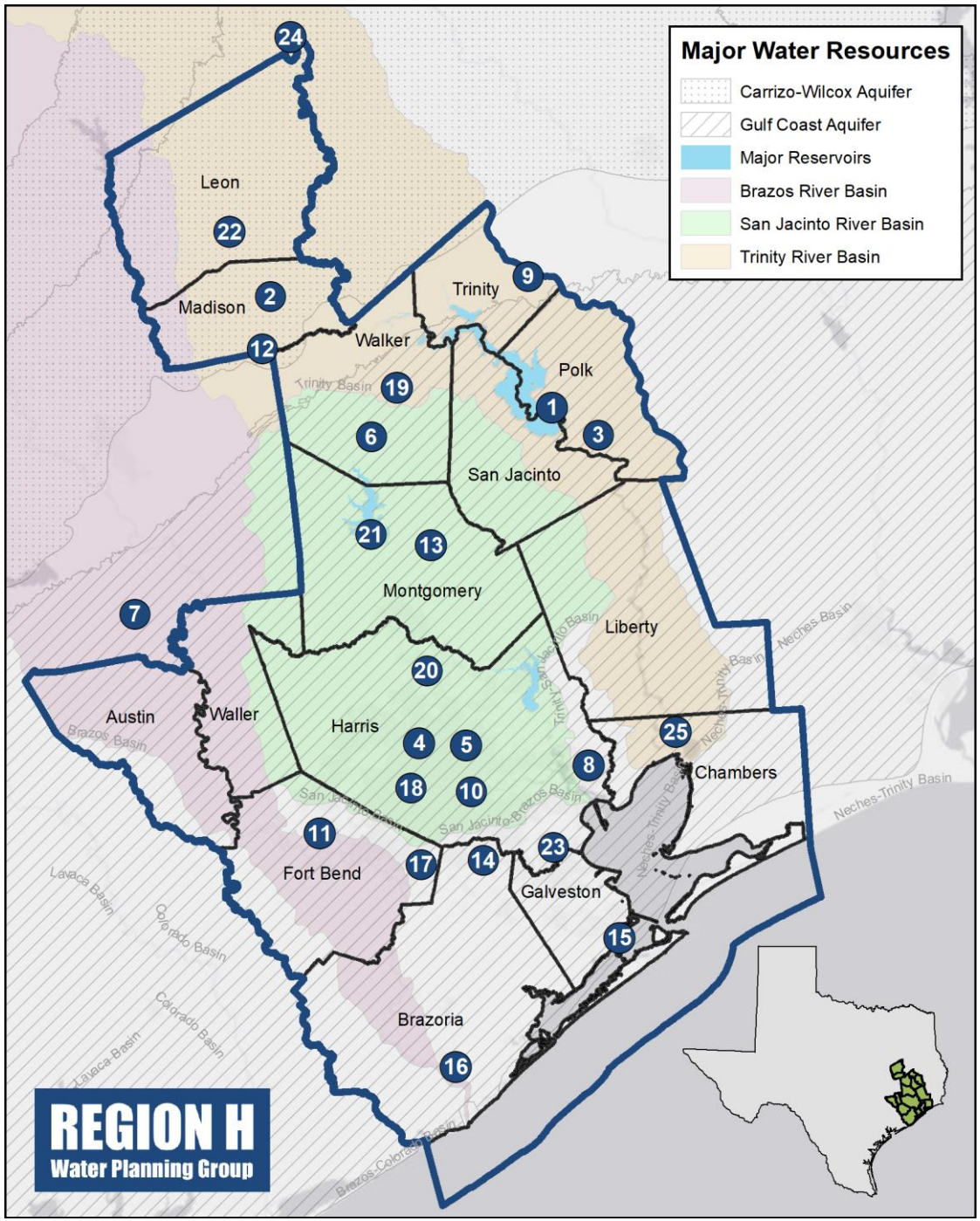
Planning Group:

26
Voting Members

12
Interest Groups

The 2016 Region H Water Plan:

Population of 11.7 Million (2070)	60% Population Growth	Irrigation 345+ Thousand Acre-Feet per Year
Industry 750+ Thousand Acre-Feet per Year	705 Projects Planned	$10.9 Billion Planned for Infrastructure



No.	Name	County	Representing
1	Gary Ashmore	Polk	GMA 14
2	David Bailey	Madison	GMA 12
3	W.R. Baker	Polk	Small Business
4	John R. Bartos	Harris	Environmental
5	John Blount	Harris	Counties
6	Robert Bruner	Walker	Agriculture
7	Brad Brunett		River Authorities
8	James Comin	Harris	Industries
9	Mark Evans	Trinity	Counties
10	Yvonne Forrest	Harris	Municipalities
11	Bob Hebert	Fort Bend	Small Business
12	Art Henson	Madison	Counties
13	Jace Houston	Montgomery	River Authorities
14	Robert Istre	Harris	Municipalities
15	Ivan Langford	Galveston	Water Utilities
16	Glenn Lord	Brazoria	Industries
17	Marvin Marcell	Fort Bend	Water Districts
18	Carl Masterson	Harris	Public
19	James Morrison	Walker	Water Utilities
20	Jimmie Schindewolf	Harris	Water Districts
21	Ruth Stultz	Montgomery	Small Business
22	William Teer	Leon	Water Utilities
23	Michael Turco	Galveston/Harris	Water Districts
24	J. Kevin Ward		River Authorities
25	Pudge Willcox	Chambers	Agriculture
	VACANT		Electric Gen. Utilities

APPENDIX 8-A

DETAILED DISCUSSION OF OTHER REGULATORY, ADMINISTRATIVE, AND LEGISLATIVE RECOMMENDATIONS

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Recommendation	Type
Quantitative Environmental Analysis	Regulatory and Administrative

Discussion:

The Regional Water Planning Guidelines require that the evaluation of potentially feasible water management strategies include a quantitative analysis of environmental factors including effects on wildlife habitat, cultural resources, and effect of upstream development on bays, estuaries, and arms of the Gulf of Mexico (31TAC357.7.(a)(8)(A)). The TWDB has provided detailed guidance on specific study methods to be used in determining population, water demand, project costs, socioeconomic impacts and yield from current and proposed supply sources, but it has not provided similar guidance in the area of environmental impacts. This lack of specificity is resulting in different methods being used in different regions. Additionally, it places the planning groups at risk of needing to conduct additional analysis after state agencies review the Initially Prepared Plans, and add those results to the report after the public review period has closed.

Recommendation:

The Region H Water Planning Group recommends that the TWDB determines, in conjunction with the TCEQ and TPWD, which specific environmental studies and analysis are required for each category of management strategy (i.e., new water right, new reservoir, etc.). Furthermore, the guidance should be added to the Planning Guidelines, so that RWPGs can reflect the cost of those requirements in their budgets and scopes of work. Adding environmental guidelines will also make water plans consistent across the State.

Recommendation	Type
TPDES Permitting of Wastewater Reclamation Facilities	Regulatory and Administrative

Discussion:

Existing Texas Pollutant Discharge Elimination System (TPDES) permit requirements do not encourage, and in fact discourage, wastewater reuse and reclamation. This recommendation relates solely to issues in the TPDES permitting process and not rules directly applicable to the use of reuse and reclaimed water outlined in TCEQ Section 210. Authorization of reclaimed water use may require a new or amended permit when the treatment results in a discharge of wastewater into waters within the state. This effectively double-counts the waste load from a facility and could potentially provide a regulatory obstacle for some wastewater reuse projects.

In terms of wastewater reuse (e.g., without further treatment), a violation of an end-user's discharge permit could be caused by using effluent to replace or supplement another water source. An example would be an industry, whose discharge is close to its permitted limit for a given constituent, exceeding that limit by virtue of its use of effluent from a separate wastewater treatment plant.

In terms of wastewater reclamation (e.g., with further treatment), permitting the discharge from a wastewater reclamation facility could be difficult and unnecessarily expensive in certain cases. Wastewater reclamation often entails advanced treatment of wastewater discharged from one or more treatment facilities for industrial use. If this advanced treatment facility is separate, it may require a separate TPDES permit. Under current TCEQ rules for consolidated permits, discharges from a new facility are considered as occurring in addition to all currently permitted discharges for the purpose of assessing the collective effect on the receiving stream. While this is the correct procedure for evaluating a discharge from a new waste source, it effectively double-counts the waste load from a reclamation facility; once at the original plant, and again at the additional treatment facility. Designing a reclamation facility to sufficiently mitigate this double-counting is unneeded and may be cost-prohibitive. In actuality, the waste load should be divided between the applicable facilities depending upon the reuse and reclamation demands.

Therefore, the permitting process should be modified to address both reuse and reclamation projects that draw effluent from existing wastewater plants, so that daily loads may be accurately assessed on a combined maximum daily load and maximum daily concentration basis. Wastewater plants should be permitted accordingly.

Recommendation:

The Region H Water Planning Group recommends that the TCEQ clarify the TPDES rules for wastewater permitting so that the environmental impacts of reuse and reclamation facility discharges are assessed in conjunction with appurtenant reductions in discharges for their source water facilities. This will eliminate double-counting of waste loads and remove a potential obstacle for some wastewater reuse projects in the State.

Recommendation	Type
Access to Current Water Availability Models	Regulatory and Administrative

Discussion:

Water Availability Models (WAMs) are a core component of the regional water planning process and, furthermore, are required by TWDB's rules for plan development. During the development of the 2016 RWP, TWDB's rules required the use of the most current Run 3 (Full Authorization) WAM and also the consideration of environmental flows standards as adopted by TCEQ for each applicable basin. However, model versions for the San Jacinto and Brazos River Basins including environmental flows standards were not made available in a reasonable timeline for use in the development of the RWP despite the adoption of these standards in 2011 and 2014, respectively. The absence of these models required the Regional Water Planning Groups working in these basins to develop representative models themselves in an effort to account for TWDB-mandated requirements to consider environmental flows. This produced not only an undue burden on the Planning Groups, but also introduced an opportunity for inconsistency across Groups and between the Groups and the State regarding their interpretation and application of the environmental flow standards. In addition, models for various models throughout the state were often not available through TCEQ's website during this planning process with the only explanation provided as "WAM files for this basin are being updated and are currently unavailable." Finally, due to extreme hydrologic conditions, many basins throughout Texas have experienced new drought of record in recent years that are not included in the historic period of the current WAMs. To date, no timeline has been proposed for the extension of these periods in order to cover these conditions which has also placed additional burden on the development of RWPs in these regions. Due to the critical nature of these models for both regional planning and water rights analyses, it is imperative that a more robust system be implemented for maintaining these models and making them available to the public.

Recommendation:

The Region H Water planning Group recommends that TCEQ rules be amended to include a reasonable timeline for the update of WAMs based associated with significant changes to water rights conditions in each basin and also on a routine basis as the historical period of record grows over time. Furthermore, these rules should require that the most recent model for each basin be made available through the TCEQ website for use by both the RWPGs and the public.

Recommendation	Type
Availability of Groundwater within Jurisdictions of Groundwater-Regulating Entities	Legislative

Discussion:

During the development of the 2016 Region H Regional Water Plan, it was recognized that the approach to groundwater availability required by TWDB's rules may place an unrealistic limit on groundwater production for various reasons, including:

- Although GCDs are bound to the DFCs adopted by GMAs, they are not required to use the MAG as a means of achieving that goal.
- The perspectives of the GMA and RWP processes are inherently different. Where pumpage estimates used in GMA planning represent long-term levels of groundwater production, the demands and supplies used by RWPGs must represent dry-year conditions. Strict adherence to the MAG prevents the use of flexibility in dealing with short-term supply needs.
- The requirement that RWPs be developed using the MAGs as the sole source of groundwater supply information may create an undue burden to the GMA process. As demands in Region H change over time, so does the allowable level of groundwater pumpage, requiring the GMA process to regularly

The result of this requirement has been the undue unrealistic water needs in excess of 200,000 ac-ft/yr along with costs that are not consistent with the actual, long-term water supply strategy for the region.

Recommendation:

Allow Regional Water Planning Groups to work with local regulatory bodies to develop appropriate, dry-year groundwater supplies for use in regional water planning that are consistent with local conditions and regulation.

Recommendation	Type
Interbasin Transfers	Legislative

Discussion:

Senate Bill One states that water rights developed as a result of an interbasin transfer become junior to other water rights granted before the interbasin transfer permit. Senate Bill One made obtaining a permit for interbasin transfer significantly more problematic than it was under prior law and thus, it discouraged the use of interbasin transfers for water supply. This is undesirable for several reasons.

First, current supplies greatly exceed projected demands in some basins, and the supplies already developed in those basins can only be used via interbasin transfers (e.g. Trinity Basin within Region H).

Second, interbasin transfers have been used extensively in Texas and are an important part of the State's current water supply. For example, three of the five Region H Major Water Providers (City of Houston, Trinity River Authority, and San Jacinto River Authority) maintain current permits for interbasin transfers collectively of over 1,000,000 acre-feet per year. A substantial portion of future water demands within the San Jacinto basin (Harris County in particular) of Region H must rely on interbasin transfers.

Third, emerging regional water supply plans for major metropolitan areas in Texas (Dallas-Fort Worth and San Antonio) rely on interbasin transfers as a key component of their plans. It is difficult to envision developing a water supply for these areas without significant new interbasin transfers.

Recommendation:

The Region H Water Planning Group recommends that the legislature revise the current law on interbasin transfers and remove the unnecessary and counterproductive barriers to such transfers that now exist.

Recommendation	Type
Texas Bays and Estuaries Program Funding	Legislative
Discussion:	
The Texas 80th Legislature established the current process of assessing the environmental quality of riverine and estuarine systems and applying the "best available science" in prescribing actions to preserve these systems. These recommendations have, in turn, been incorporated into the Regional Water Planning process and serve as a critical standard for the evaluation of future water management strategies. However, the current levels of funding within the State of Texas Bay & Estuary program are insufficient to continue the needed monitoring, study, and development of management strategies for the bay.	
Recommendation:	
The Region H Water Planning Group recommends establishment of additional and dedicated funding to pursue necessary future efforts of the Galveston Bay & Estuary program.	

Recommendation	Type
Rule of Capture	Legislative
Discussion:	
Groundwater is a vital resource within Region H. This is especially true within the rural counties of the region that are predominantly dependent on groundwater. Current groundwater law based on the Rule-of-Capture has facilitated orderly development of groundwater systems throughout the State of Texas and, barred the intrusion of private interests, and it could continue to serve the water usage interests throughout the state. It appears that the Rule-of-Capture could continue per the status quo to serve the groundwater interests within the region.	
Recommendation:	
The Region H Water Planning Group supports continued usage of the Rule-of-Capture as the basis of groundwater law throughout the State of Texas except as modified through creation of certified groundwater conservation districts.	

Recommendation	Type
Groundwater Conservation Districts	Legislative
Discussion:	
Region H communities, particularly those within the rural areas of the region, are dependent on groundwater supplies. Groundwater is a very valuable resource to this region. Region H contains counties, specifically Austin, Leon and Madison, where some municipalities, water supply corporations, and property owners believe Groundwater Conservation Districts (GCD) are needed to retain long-term groundwater supplies within their respective counties. Region H also has several counties, including Brazoria, Waller and Montgomery, where groundwater supplies will, in theory, reach their maximum sustainable yield due solely to projected in-county water usage rates. A GCD is a potential vehicle for these counties to manage and protect groundwater supplies from over-development within each respective county. Senate Bill 2 of the 77th Legislature authorized the formation of four new GCDs in Region H (Bluebonnet, Brazoria County, Lone Star, and Mid-East Texas) to manage and protect groundwater resources.	
Recommendation:	
The Region H Water Planning Group supports creation of GCDs, as necessary, by local subarea water interests. The RHWPG supports development of truly regional GCDs as opposed to single county districts to recognize the regional expansiveness of underground aquifers and to provide the greatest degree of regional water supply protections.	

Recommendation	Type
Water Supply Project Financing Mechanism	Legislative

Discussion:

The Region H Regional Water Plan includes development of several surface water reservoirs and other supply projects. The capital cost to develop these projects is significantly higher than the historic cost of water supply projects. The high projected costs dissuade local communities from making a financial commitment to support future projects. These financing issues will delay the implementation of needed projects.

The 80th Texas Legislature (2007) appropriated funding to enable issuance of $440 million in bonds for the Water Infrastructure Fund (WIF) to fund water plan projects. The program is designed with a maximum repayment period of 20 years, which may not be adequate for financing larger projects such as surface water reservoirs.

In 2013, the Texas Legislature created the State Water Implementation Fund for Texas (SWIFT) which was approved by Texas voters to provide $2 billion dollars for the creation of a new loan program for the implementation of the State Water Plan. This program offers low-interest and deferred loan with maturities up to 30 years which enhances the opportunity for finding large, capital projects that are critical to the SWP. In addition, the program also funds the option of State ownership in projects as another alternative for development.

Recommendation:

The Region H Water Planning Group wishes to recognize the Legislature's efforts in implementing the SWIFT program and also supports ongoing and expanded support for financing methods by the State of Texas for development of water supply projects recommended within adopted RWPs.

Recommendation	Type
Groundwater Availability Modeling Funding	Legislative
Discussion:	
Many areas of Region H are totally dependent on groundwater to support the long-term viability of these areas. The current Groundwater Availability Modeling (GAM) effort is supported since it is the most comprehensive groundwater assessment and analysis effort of the previous 20 years. The current GAM effort, however, is omitting minor aquifers and other groundwater considerations that are vital for certain local communities.	
Recommendation:	
The Region H Water Planning Group supports continued funding for the GAM effort and recommends comprehensive analysis of all groundwater resources within the state.	

Recommendation	Type
Agricultural and Irrigation Conservation Funding	Legislative
Discussion:	
The Region H water management plan includes a number of irrigation conservation based water management strategies. It is apparent that adoption of irrigation conservation practices may benefit the irrigation and agricultural industry in addition to local communities that may take advantage of water supply savings resulting from irrigation conservation. Additionally, the RHWPG supports further research and development of water-efficient and drought-resistant crop and species.	
Recommendation:	
The Region H Water Planning Group supports funding of research and development studies associated with the efficient usage of irrigation technologies and practices.	

Recommendation	Type
Water Conservation	Legislative
Discussion:	
The RHWPG strongly supports water conservation at all levels. The RHWPG has incorporated water conservation in the regional water plan as a management strategy. However, realizing advanced conservation savings in municipal county-other areas may be difficult, as these practices require some management, funding, and oversight. While the RHWPG does not advocate a one-size-fits-all conservation program for the State of Texas, they recommend that the legislature address water conservation and provide some guidance and ability for county and local governments to implement these programs. The 78th Legislature appointed a Water Conservation Task Force to study water conservation policies and best management practices, and to report their results to the 79th Legislature in 2005. The 80th Legislature passed Senate Bill 3 creating a Water Conservation Advisory Council consisting of 23 members to provide a resource with expertise in water conservation.	
Recommendation:	
Region H Water Planning Group supports water conservation and recommends that the legislature continue to address and improve water conservation activities in the state.	

Recommendation	Type
Water Conservation Research Funding	Legislative
Discussion:	
The Water Conservation Implementation Task Force identified numerous best management practices in TWDB Report 362 – Water Conservation Best Management Practices Guide. The Best Management Practices outlined in the report were developed using information compiled from past research and studies along with information provided by the task force members. Additional water-saving technologies may still be developed in the future.	
Recommendation:	
The Region H Water Planning Group recommends that the State fund research into advanced conservation technologies.	

Recommendation	Type
Flood Liability of Water Supply Reservoirs	Legislative

Discussion:

Flood control reservoirs are generally drawn down at the beginning of the annual wet season so that when large rain events occur, the runoff may be captured and later released more slowly into the receiving stream. These reservoirs therefore reduce downstream flood levels and prevent inundation in low areas. In contrast, water supply reservoirs are operated to capture and retain as much stream flow as allowable under their permits in order to have supply available during periods of high demand. This practice results in less available storage volume to capture runoff during major storms. When a major storm event occurs upstream or above a water supply reservoir, the reservoir operator must sometimes release flood flows during and after the event to prevent flooding upstream of the reservoir or to prevent damage to the dam and other facilities associated with the reservoir. Although this flood flow can contribute to downstream flooding, most reservoirs actually reduce the amount of flooding which could have occurred had the reservoir not been constructed.

In recent years, plaintiffs with property in the downstream floodplains have brought multiple lawsuits against major water supply reservoir operators. Some recent court decisions have held the operators liable for damages to the downstream properties. If this trend is allowed to continue, it will increase insurance rates for these entities and will force operational changes to occur that may result in less available water supply for periods of need. The net effect to water users will be an increase in the cost of surface water throughout the state.

Recommendation:

Consider State legislation clarifying the liability exposure of reservoir operators for passing storm flows through water supply reservoirs.

Recommendation	Type
Incorporation of Technology Advancements in Projections	Legislative
Discussion:	
Current population projections based on traditional historic growth patterns may not accurately reflect the changes likely to occur in the future as digital connectivity continues to alter our economic, educational, and social institutions.	
Recommendation:	
The Region H Water Planning Group recommends that the State direct the State Demographer's office to explore the potential changes in population distribution made possible by rapid advancements in information technology.	

Recommendation	Type
Ongoing RWPG Activities	Legislative

Discussion:

It is apparent that the RWPGs will have to meet periodically to address changed conditions related to the adopted regional water management plans. Ongoing activities will include, but not be limited to:

1. Consideration of additions and modifications to the adopted plans
2. Serving as communications liaisons with the water user communities within each region
3. Assisting in the reconciliation of inter-regional water issues

It will be necessary to consider additional and adequate funding to support maintenance of the RWPGs. Also, the administrative provisions of Senate Bill One and the subsequent policies that have been enacted should be reviewed to determine if the appropriate organizational structure exists to accomplish the work of the RWPGs. Additional funding should be developed to support technical studies necessary to support the needs of the RWPGs.

Recommendation:

The Region H Water Planning Group recommends that the TWDB request additional and adequate funding and the adoption of the appropriate administrative procedures from the legislature to facilitate ongoing activities of the RWPGs. Funding should be made available throughout the entirety of the planning cycle without funding "gaps" that make it difficult for planning groups to accomplish their ongoing efforts.

Recommendation	Type
Board Participation Program for regional water and wastewater projects	Infrastructure Finance

Discussion:

This program enables the Water Development Board to assume a temporary ownership interest in a regional project when the local sponsors are unable to assume debt for an optimally sized facility. Payments on the funds provided by the State are deferred until a customer base grows into the capacity it funded. The deferred interest payments do not accrue additional interest. By funding up to 50% of a project, the program helps the local sponsors optimize facility sizes and avoid later expansions and replacements.

This program will be extremely important for the development of the recommended water management strategies, as well as for water treatment and distribution systems. Large projects, particularly reservoirs, must be developed in anticipation of future demands due to the long periods of time required for planning, permitting, property acquisition, and construction. For example, Allens Creek Reservoir is estimated to cost over $316 million. The current customer base cannot support this high cost. The Board Participation program is one of the few programs available to assist local sponsors with this water management strategy. Other reservoir projects within Region H could also experience similar financing issues.

The Board Participation Program will also be important during the expansion of surface water service into areas affected by subsidence. As areas develop and implement Groundwater Reduction Plans, it is expected that communities will develop plans for regional treatment and distribution systems to reduce costs. Board participation in these facilities will allow them to be optimally sized at their inception. The Board Participation Program offers the important advantage of reducing the unit costs for water service for both existing and future water users of the optimally sized facility.

Recommendation:

Increase funding of the Board Participation Program as needed to allow development of these water supply projects.

Recommendation	Type
State Revolving Fund Programs (Drinking Water State Revolving Fund and Clean Water State Revolving Fund)	Infrastructure Finance

Discussion:

These programs provide loans at subsidized interest rates for the construction of water treatment and distribution systems and for source water protection (DWSRF) and for wastewater collection and treatment systems (CWSRF). As the loans are paid off, the TWDB uses the funds to make new loans (thus the name Revolving Fund). State funds for the program receive a federal match through the Environmental Protection Agency. These loans are intended for projects to bring existing systems into compliance with rules and regulations, and are available to political subdivisions, water supply corporations, and privately-owned water systems. Applications are collected at the beginning of each year, given a priority ranking, and funded to the extent possible. Projects not funded in a given year may carry forward into the next year's ranking.

These programs are important in that they assist sub-standard water systems in attaining the minimum water quality mandated by Federal and State regulations, but they are not intended to fund system expansions due to projected growth. However, these programs may apply to individual systems in the Region experiencing water quality declines, or to those systems affected by the changed standard for Arsenic. The SRF Fund may also provide assistance to water providers with aging treatment systems and transmission lines.

Recommendation:

Increase the funding of the State Revolving Funds Program in future decades, and expand the program to include coverage for system capacity increases to meet projected growth for communities.

Recommendation	Type
State Loan Program	Infrastructure Finance
Discussion:	
The State Loan Program provides loans to Political Subdivisions and Water Supply Corporations for water, wastewater, flood control, and municipal solid waste projects. Payments are not deferred in this program as they are under the State Participation Program, and the interest rates are not subsidized as they are in the Revolving Fund Programs. These loans are available for both local projects and for the local sponsors of regional projects. Acquisition and construction of water treatment and distribution systems are eligible for funding. Loans are made on a first come, first served basis. This program will be heavily utilized in groundwater-served areas introducing surface water to meet current and projected demands. The ready availability of groundwater across the region has allowed development to occur outside existing surface water service areas. As the limits of available groundwater are reached (sustainable yields and/or regulatory limits), surface water treatment and transmission systems must be constructed to meet future demands. The costs are significant in that they are required in a short time span, instead of initiated and expanded over time as they are in areas originally served by surface water. Where local rate payers cannot afford to directly pay for transition costs, State loans offer a significant cost advantage over most commercial and many public funding options, using the State's high bond rating rather than the rating of the local sponsor.	
Recommendation:	
Increase funding of the State Loan Program to meet near-term infrastructure cost projections.	

Recommendation	Type
Agricultural Water Conservation Loan Program	Infrastructure Finance

Discussion:

This program provides loans to soil and water conservation districts, underground water conservation districts and districts authorized to supply water for irrigation. These districts may further lend the funds to private individuals for equipment and materials, labor, preparation, and installation costs to improve water-use efficiency related to irrigation of their private lands. There is also a grant program for equipment purchases by eligible districts for the measurement and evaluation of irrigation systems and agricultural water conservation practices, and for efficient irrigation and conservation demonstration projects, among others. However, these grants are not available to individual irrigators. Similar Federal loan and grant programs are available, but require a 25% to 50% local match.

In the Region H Water Plan, irrigation conservation is a recommended strategy in eight counties (Austin, Brazoria, Chambers, Fort Bend, Galveston, Harris, Liberty, and Waller). In some cases, the conservation of water through these agricultural programs provides additional water for use by municipalities that also sue groundwater supplies. As it is unlikely that municipalities will seek out and fund irrigation conservation projects, the task of encouraging conservation will fall to the wholesale water providers and those government entities with jurisdiction in those counties. Even with Agricultural Water Conservation Loan Program assistance, irrigators will be slow to invest in water-conserving equipment until water rates increase, making it economically advantageous to do so. The difficulty increases in areas where groundwater is the primary supply source for irrigation.

Additionally, irrigators in Region H also find it difficult to access funding programs as these typically require ownership of the irrigated property. Much of the production within the region is performed by farmers who lease land from others, making them ineligible for these programs.

Eligible districts will need to act as conservation brokers, identifying those irrigators with the potential to reduce water demand through equipment improvements, and matching them with available loans. By reducing usage in this manner, water suppliers will be able to provide the saved portion of their supply to new customers. To assist with the immediate adoption of these improved conservation practices, a one-time grant or subsidy program for water-efficient equipment purchases may help by reducing the loans amounts required by each irrigator. If the requirements of an existing Federal loan or grant program could be met, the State could provide all or part of the local matching share. Since the methods used by irrigators vary across the state, such a program would need to be flexible, with local oversight provided by those districts currently eligible for the Agricultural Water Conservation Loan Program. Consistency with the applicable Regional Water Plan may be included as a prerequisite for this program, as it is for other State grants and loans.

Recommendation:

Provide a mechanism to leverage Federal grant programs for agriculture by providing the local matching share. Increase funding of associated loan programs and consider adding a one-time grant or subsidy component to stimulate early adoption of conservation practices by individual irrigators. Provide opportunities for joint cooperation between growers and land owners to facilitate the use of funding programs for property under long-term lease agreements.

Recommendation	Type
Texas Community Development Program	Infrastructure Finance
Discussion:	
The federal Community Development Block Grant program provides grants and loans to low-income communities for certain projects, including water and wastewater infrastructure. It is administered in Texas under the Office of Rural Community Affairs as the Texas Community Development Program. The Small Town Environment Program (STEP) under the TCDP provides water and sewer system grants to cities and counties not eligible for funding under the Colonias or Economically Disadvantaged Areas Programs (EDAP). Within Region H, there are no Colonias or EDAP-eligible communities, but STEP grants may be obtained.	
Recommendation:	
Continue State and Federal support of the Texas Community Development Program, and increase the allocation of funds for the Small Town Environment Program.	

Recommendation	Type
Regional Water Supply and Wastewater Facilities Planning Program	Infrastructure Finance

Discussion:

This program provides planning grants to Political Subdivisions for studies and analyses to determine feasible alternatives for regional water supply and wastewater facility needs. The planning must include more than one service area or political subdivision to be considered regional. Grants are generally limited to 50% of the total cost, and cannot be applied to the preparation of state and federal permits, administrative or legal proceedings of regulatory agencies, or the preparation of engineering plans and specifications.

This grant program can assist in planning for local areas, particularly the unincorporated areas of each county. Local sponsors investigating the best means to serve their populations may join with neighboring communities and water providers and request a planning grant, thus reducing their individual planning costs. Determination of the optimal institutional arrangement between political subdivisions is one of the eligible study areas under this program. Should a regional facility prove to be the best solution for the group, they may elect to pursue additional support from the State Loan and Participation programs.

One limitation of the program is that it cannot be applied to the detailed facility planning or preliminary engineering design of the proposed facility. These early engineering phase costs can represent as much as 30% of the cost of the facility, and generally must be completed before accurate financial requirements can be defined. Inclusion of these costs in either the planning grant or pre-project loan programs would better help these small communities develop the projects they need.

Recommendation:

Increase funding of the Regional Water Supply and Wastewater Facilities Planning Program in anticipation of upcoming development throughout the state, and expand the program to include the preliminary engineering design costs for recommended facilities.

Recommendation	Type
Water and Waste Disposal Loans and Grants from the USDA Rural Utilities Service	Infrastructure Finance

Discussion:

This Federal program provides loans and grants in rural areas and communities of up to 10,000 people for water, wastewater, storm water, and municipal solid waste projects. The program is intended for communities that cannot obtain commercial loans at reasonable rates. Loans are made at or below market rates, depending upon the eligibility of the recipient. Grants can cover up to 75% of project costs when required to reduce user costs to a reasonable level. A separate program of Emergency Community Water Assistance Grants (up to $500,000 per project) is also available to communities experiencing rapid declines in water quality or quantity.

This program is similar to the state loan and revolving fund programs. It offers another option to small communities and rural areas unable to finance required infrastructure without assistance. However, this is a nationwide program, and the competition for available funds is correspondingly greater. Colonias and border areas are specifically identified as target areas for the grant portion of this program, and it is therefore in the State's interest to support its continued funding.

The TWDB was recently authorized by the 77th Texas legislature to establish a similar program at the state level. The Rural Water Assistance Fund will provide low-interest loans to municipalities, water districts, and non-profit water supply corporations. The program is still under development and has not yet been funded.

Recommendation:

Support continued and increased funding of Water and Waste Disposal Loans and Grants from USDA Rural Utilities Service at the Federal level, and fund the State Rural Water Assistance Fund.

Recommendation	Type
Desalination Research and Demonstration Projects	Infrastructure Finance
Discussion:	
House Bill 1370 of the 78th Texas legislature directed the Texas Water Development Board to "undertake or participate in research, feasibility and facility planning studies, investigations and surveys as it considers necessary to further the development of cost-effective water supplies from seawater desalination in the state." The TWDB has concluded desalination site assessments, and is preparing to assist in the construction of three demonstration facilities along the Texas Gulf Coast. The Region H Water Planning Group supports this demonstration project.	
Recommendation:	
Provide research grants for the study of current and upcoming desalination technologies available to wholesale and retail water suppliers. Continue to fund appropriate demonstration facilities to develop a customer base, and pursue Federal funding for desalination programs. Focus particular attention to "near-term" efforts such as brackish groundwater desalination as a way of bridging current and long-term seawater desalination alternatives.	

Recommendation	Type
Water Research Program - Agriculture	Infrastructure Finance
Discussion:	
The Texas Water Development Board offers research grants to individuals or political subdivisions for water research on topics published in the Board's Request for Proposals. Eligible topics include product and process development. In the Region H Water Plan, one recommendation to the legislature is to establish funding for agricultural research in the areas of efficient irrigation practices and the development of water-efficient and drought-resistant crop and species. Irrigators cannot generally afford the increased cost of water when new supplies are developed in today's market. By reducing demand in a cost-efficient manner, small irrigators may be able to continue farming. This is another potential topic for the Water Research Program.	
Recommendation:	
Provide increased research grants to study and better develop drought-resistant crop species and efficient irrigation practices.	

Recommendation	Type
Regionalization	Infrastructure Finance

Discussion:

As communities assess the growing costs of water infrastructure, economies of scale can be realized by combining the needs of water user groups into larger, more efficient water supply, treatment and distribution facilities. Regional facilities offer interconnections between existing systems, which can increase overall reliability. The individual system connections to these systems can be phased over time to meet regional demands with less impact on individual systems than each individually trying to expand. In areas where groundwater limits are being reached, regional groups can identify areas where surface water supply is most needed, and allow other areas to remain on groundwater systems. Sharing costs across a wide customer base keeps rates comparable between service areas.

A range of cooperative options exists, including formation of regional authorities, inter-local agreements, public-private partnerships, local government corporations, and public contracting with a private regional supplier. The optimal arrangement between political subdivisions depends upon the specific project and the goals of the parties. Partnerships with private investors through public-private partnerships and direct contracting with privately-owned facilities offer an advantage of using private financing to meet part of the initial planning and construction costs. The regulations governing these partnerships must protect the public represented by the partnership, but if too restrictive, may prevent the partnership from realizing potential cost savings through the use of private-sector procurement and construction practices.

Consideration should be given to reducing procurement restrictions for Local Government Corporations to encourage the pooling of resources for funding regional projects. Also, existing assistance programs should remain available when political subdivisions enter into public/public or public/private partnerships.

Recommendation:

Region H supports the forming of regional partnerships and encourages the State to allow them the greatest possible latitude for financing in their governing regulations. Additionally, the State Participation Program should be made available to these public/private partnerships and to private nonprofit water supply corporations.

Agenda Item 12

Discuss and consider taking action to nominate one or more RHWPG members for the Interregional Planning Council.

REGION H
Water Planning Group

Agenda Item 12
Interregional Planning Council

- New requirement under HB 807
- Intended to
  - Improve coordination
  - Facilitate dialog on WMS
  - Share knowledge
- Nominated by RWPG
- Appointed by TWDB
- Serves until new SWP adopted

Agenda Item 12
Interregional Planning Council

Action:

Nominate one or more RHWPG members for the Interregional Planning Council.

Agenda Item 13

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

REGION H
Water Planning Group

Agenda Item 13
Budget Amendment

- No change in overall budget
- Shift in WSP task and expense
- WMS subtask – NTP issue
- Added subcontractor

Scope Task	Current	Proposed	Change
1	$24,694	$24,694	$0
2A	$37,385	$37,385	$0
2B	$80,371	$80,371	$0
3	$142,997	$127,997	($15,000)
4A	$23,332	$23,332	$0
4B	$60,943	$60,943	$0
4C	$36,647	$36,647	$0
5A	$948,695	$963,695	$15,000
5B	$81,615	$81,615	$0
6	$80,355	$80,355	$0
7	$109,918	$109,918	$0
8	$10,212	$10,212	$0
9	$33,590	$33,590	$0
10	$296,820	$296,820	$0
11	$56,430	$56,430	$0
12	$46,822	$46,822	$0
TOTAL	**$2,070,826**	**$2,070,826**	**$0**

Agenda Item 13
Budget Amendment

Action:

Approve amendment of the budget for the development of the 2021 Regional Water Plan.

Agenda Item 14

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 14
Community Outreach

- IPP outreach coming up in 2020

- May 2020 – AlCheE South Texas Section
  Presentation on Region H Water Plan

Agenda Item 15

Agency communications and general information.

REGION H
Water Planning Group

REGION H Water Planning Group

The 86th Texas Legislature: Updates Relevant to Regional Water Planning*

Lann Bookout
Water Use, Projections, & Planning
Texas Water Development Board
DATE

**Unless specifically noted, this presentation does not necessarily reflect official Board positions or decisions.*

REGION H Water Planning Group

Legislative Update

During the regular session, the Legislature passed three bills directly relevant to regional water planning and significant bills related to flood planning and project funding. This update covers the following bills:

- HB 807
- HB 721
- HB 723
- SB 7 and SB 8 (flood)

www.twdb.texas.gov www.facebook.com/twdboard @twdb
Texas Water Development Board

REGION H Water Planning Group

House Bill 807

- TWDB required to appoint an interregional planning council (based on RWPG nominations) consisting of one member from each RWPG during each five-year planning cycle prior to the adoption of a new state water plan.
- Adds several new requirements to the development of RWPs (listed on next slide).

REGION H Water Planning Group

House Bill 807

1. Identify unnecessary or counterproductive variations in drought response strategies.
2. Provide a specific assessment for ASR projects to meet significant water needs identified in the RWPA.
3. Set specific GPCD goals for each decade for municipal WUGs.
4. Assess the progress in encouraging cooperation between WUGs to develop WMSs that achieve economies of scale and benefit the entire region.
5. Recommend legislative changes to improve the water planning process.

REGION H Water Planning Group

House Bill 807

Implementation:

- TWDB is currently working on the logistics for the planning council nomination process and will send more information soon.
- Rulemaking will be initiated to address HB 807 requirements.
- Preliminary input on rulemaking will be solicited from RWPG stakeholders.

REGION H Water Planning Group

House Bill 807

- **Texas Water Code (TWC) §16.053(e)(3)(E) —** Unnecessary or counterproductive variations in drought response strategies
- **TWDB Guidance**
  - *RWPGs should review information collected through current requirements outlined in 31 TAC §357.42(c) and (i) and Section 7.5 of Exhibit C.*
  - *Drought response strategies determined to be "unnecessary or counterproductive" should be documented in Chapter 7 of the RWP.*

REGION H Water Planning Group

House Bill 807

- **TWC §16.053(e)(10)** — Specific assessment of Aquifer Storage and Recovery (ASR) potential if significant identified needs
- **TWDB Guidance**
  - *The threshold(s) for "significant" identified water needs are to be defined by the RWPG.*
  - *RWPGs must clearly articulate in their RWP how they determined the threshold of significant water needs for this requirement.*
  - *If significant needs, the RWPG shall generally assess ASR potential to the best of its ability.*
  - *TWDB will provide a list of the agency's currently available and relevant information on ASR for the RWPGs to consider.*

REGION H Water Planning Group

House Bill 807

- **TWC §16.053(e)(11)** — Setting Gallons Per Capita Daily (GPCD) goal(s) for each planning decade
- **TWDB Guidance**
  - *TWDB will provide a list of municipal WUGs in each RWPG as well as supporting information.*
  - *GPCD goals may be a specific GPCD, or ranges of GPCD; may be based on specific municipal WUGs, or groupings of municipal WUGs as determined appropriate by the RWPG.*
  - *To be included in Subchapter 5B of the RWP.*

REGION H Water Planning Group

House Bill 807

- **TWC §16.053(e)(12)** — Assess progress of "regionalization"
- **TWDB Guidance**
  - *RWPGs shall include documentation of the RWPG's general assessment of progress of the RWPA in encouraging cooperation between WUGs for the purpose of achieving economies of scale and otherwise incentivizing strategies that benefit the entire region.*
  - *To be included in Chapter 11 of the RWP.*

REGION H Water Planning Group

House Bill 807

- **TWC §16.053(i)** — Recommendations on process improvements
- **TWDB Guidance**
  - *RWPGs should include any legislative recommendations that members of the planning group believe would improve the regional and state water planning process.*
  - *To be included in Chapter 8 of the RWP.*

REGION H Water Planning Group

House Bill 721

Requires TWDB to:

1. Conduct studies of ASR projects and aquifer recharge projects in the SWP or identified by interested persons, and report on the results of those studies to RWPGs and interested persons.
2. Conduct a statewide survey to identify the relative suitability of various major and minor aquifers for use in ASR projects or aquifer recharge projects and prepare a report of the survey.

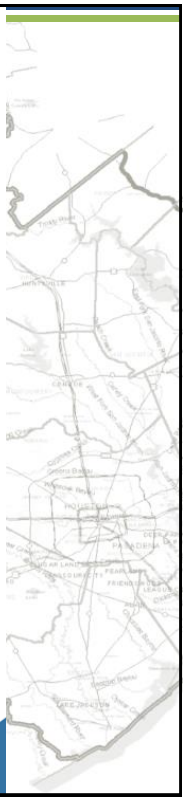
REGION H Water Planning Group

House Bill 721

Anticipated Implementation:

– Complete first feasibility study by September 2020.

– Statewide survey report due to state leadership December 15, 2020.



REGION H Water Planning Group

House Bill 723

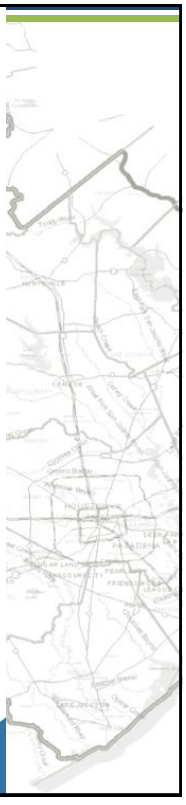
- Requires the Texas Commission on Environmental Quality (TCEQ) to obtain or develop updated WAMs for the Brazos, Neches, Red, and Rio Grande River Basins.
- TCEQ to obtain or develop WAM updates by December 1, 2022.

REGION H Water Planning Group

Senate Bill 7 (Flood Funding)

Aimed at providing funding through multiple funds and accounts for:

- Flood planning/protection/mitigation
- Data collection and modeling
- Hurricane Harvey Projects (through TDEM)



REGION H Water Planning Group

Senate Bill 8 (Flood Planning)

- Establishes a state and regional flood planning process administered by TWDB.
- Flood planning regions will be by river basin.
- First regional flood plans due January 10, 2023.
- First state flood plan due September 1, 2024.
- Requires the State Soil and Water Conservation Board to prepare a 10-year dam repair, rehabilitation, and maintenance plan for flood control dams under their jurisdiction.

REGION H Water Planning Group

Flood Stakeholder Input

- TWDB is planning stakeholder meetings around the state to gather preliminary input on SB7 and SB 8 implementation.
- These meetings will provide input for rulemaking.
- Contact Flood@twdb.texas.gov with questions.
- Sign up for TWDB updates to keep informed:

http://www.twdb.texas.gov/newsmedia/signup.asp

REGION H Water Planning Group

Questions?

TWDB is hiring!

http://www.twdb.texas.gov/jobs/index.asp

Lann Bookout
Project Manager
Water Use, Projections, & Planning
Texas Water Development Board
Lann.bookout@twdb.texas.gov
(512)936-9439

July 2019

Current TWDB Aquifer Storage and Recovery (ASR) Resources for Regional Water Planning Groups

General Resources

- TWDB-funded ASR projects home page: www.twdb.texas.gov/innovativewater/asr/projects.asp
- TWDB documents on ASR: www.twdb.texas.gov/innovativewater/asr/docs.asp

Project Specific Resources

- Corpus Christi Aquifer Storage and Recovery Feasibility: www.twdb.texas.gov/innovativewater/asr/projects/Corpus/index.asp
- Victoria Aquifer Storage and Recovery Demonstration Project: www.twdb.texas.gov/innovativewater/asr/projects/Victoria/index.asp
- New Braunfels Aquifer Storage and Recovery Demonstration Project: www.twdb.texas.gov/publications/reports/contracted_reports/doc/1600011957.pdf?d=1561044576667
- Aquifer Storage and Recovery in Texas: www.twdb.texas.gov/publications/reports/technical_notes/doc/TechnicalNote15-04.pdf
- Geological Characterization of and Data Collection in the Corpus Christi Aquifer Storage and Recovery Conservation District and Surrounding Counties: www.twdb.texas.gov/publications/reports/Open-File/doc/Open-File12-01.pdf?d=1561045291303
- An Assessment of Aquifer Storage and Recovery in Texas: www.twdb.texas.gov/publications/reports/contracted_reports/doc/0904830940_AquiferStorage.pdf?d=1561044481756
- Identification of Geographic Areas in Texas Suitable for Groundwater Banking: www.twdb.texas.gov/publications/reports/contracted_reports/doc/IndividualReportPages/2001483388.asp

ASR Well Log Data

Much of the well log data collected through TWDB's ASR project specific studies have been added to the Brackish Resources Aquifer Characterization System (BRACS) Database.

- The BRACS Database can be downloaded: http://www.twdb.texas.gov/innovativewater/bracs/doc/dbBracs_Public_03122019.zip or
- Individual digital well logs can be downloaded from the Groundwater Data Viewer: https://www2.twdb.texas.gov/apps/WaterDataInteractive/GroundwaterDataViewer/?map=bracs
- Please contact John Meyer at 512-463-8010 with questions on utilizing this database.

Gallons Per Capita per Day (GPCD) Descriptions

The intent of this document is to provide a description of the per-person water use (Gallons Per Capita per Day or GPCD) calculated for Regional Water Planning Water User Group (WUG) Utilities, the Water Loss Audit, and the Annual Conservation Report. These definitions may assist with the understanding by your planning group members as you consider multiple information sources while establishing conservation goals. These terms come from the Guidance and Methodology for Reporting on Water Conservation and Water Use, as developed by TWDB and the TCEQ, in consultation with the Water Conservation Advisory Council. The four standardized types of GPCD include Regional Water Planning GPCD, Total GPCD, Residential GPCD, and Water Loss GPCD.

Regional Water Planning GPCD - This is the value reported in the regional water planning process. It is the annual volume of water pumped, diverted, or purchased minus the volume exported (sold) to other water systems or large industrial facilities divided by 365 and divided by the permanent population of the Municipal WUG. Coastal saline and reused/recycled water are not included in this volume. This data is primarily collected through the TWDB's annual survey of water use and is stored in the TWDB's water use database. The population values include only permanent population and are estimated using 1) the population-served reported in returned water use surveys, 2) utility service area population estimated based on the U.S. Census block group data and utility service area boundaries, or 3) number of connections times the average household size from the most recent census, depending on the data availability and quality. Then the population estimates are calibrated with county or state level annual population totals provided by the Texas Demographic Center.

Total GPCD – This is a value reported in the conservation annual reports. This is the total amount of water treated for potable use divided by the total permanent population divided by 365. This volume includes water produced plus wholesale water imported minus wholesale water exported, all adjusted by self-reported meter accuracy estimates. Retail volumes sold to large industrial facilities are included in Total GPCD. Permanent population may reside in single-family or multi-family dwellings or in group quarters (nursing homes, prisons, group homes, etc.). It should include only those served directly by the system. It does not include wholesale customer populations.

Residential GPCD – This is a value reported in the conservation annual reports. Residential GPCD is calculated as the volume of water metered to residential and multi-family connections, divided by the total residential population served divided by 365. The residential water use is reported through the water use survey. The residential population is the total residential population of the service area including only the residential population housed in single family and multi-family housing.

Water Loss GPCD - Calculated as the sum of (Real Losses plus Apparent Losses), divided by the retail population, divided by 365.

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June 3, 2019

Mr. Mark Evans, Chair
Region H Regional Water Planning Group
North Harris County Regional Water Authority
P.O. Box 2342
Trinity, Texas 75862

Dear Mr. Evans,

Please replace Bill Balboa with Glen Sutton as the TPWD non-voting member to the Region H Regional Water Planning Group. Glen can be contacted directly by email at Glen.Sutton@tpwd.texas.gov or by regular mail at:

Glen Sutton
Galveston Bay Ecosystem Leader
Coastal Fisheries Division
Texas Parks and Wildlife Department
1502 FM 517 East
Dickinson, TX 77539

Sincerely,

Cindy Loeffler, Chief
Water Resources Branch
Texas Parks and Wildlife Department

cc: Glen Sutton, TPWD
Lann Bookout, TWDB

4200 SMITH SCHOOL ROAD
AUSTIN, TEXAS 78744-3291
512.389.4800
www.tpwd.texas.gov

SOUTHEAST TEXAS GROUNDWATER CONSERVATION DISTRICT

P.O. BOX 1407
JASPER, TEXAS 75951

June 19, 2019

Mark Evans, Chairman
Region H Water Planning Committee
3648 Cypress Creek Pkwy.
Suite 110
Houston, TX 77068
VIA Email: mevans@nhcrwa.com

Re: GMA 14 Representative(s) to Region H Water Planning Group

Dear Mr. Evans,

I hope this letter finds you well. I write to inform the Region H Water Planning Group that Groundwater Management Area 14 (GMA 14) acted to appoint new representative(s) to the Region H Membership. At the March 27, 2019 GMA 14 meeting the GMA members chose to appoint Mr. Gary Ashmore as its representative to the Region H Water Planning Group, and Ms. Sherry Plentl as the alternate should Mr. Ashmore be unavailable.

I have enclosed a draft of the March 27, 2019 GMA 14 meeting minutes (expected to be signed on June 26, 2019). Should you wish to have a signed copy for your files please let me know and I'll forward same after approval by the GMA 14 Members.

Sincerely,

John M Martin

John Martin
General Manager

cc: Jace Houston, via email at: jhouston@sjra.net
Cynthia A. Bowman, via email at: cbowman@sjra.net
Gary Ashmore, via email at: groundwater@livingston.net
Sherry Plentl, via email at: splentl@bcgroundwater.org

UPPER GULF COAST AQUIFER PLANNING AREA
(GMA 14)

Joint Planning Group Meeting

Wednesday, March 27, 2019
9:00 AM

MEETING MINUTES

A regular meeting of GMA 14 was held Wednesday, March 27, 2019, at 9:02 AM, in the board room of the Lone Star Groundwater Conservation District located at 655 Conroe Park North Drive, Conroe, Texas.

The meeting was called to order by John Martin (Southeast Texas GCD) at 9:02 AM with a roll call of District representatives and Interlocal Agreement Participants. Districts represented included: Sherry Plentl, Brazoria County GCD, Zach Holland, Bluebonnet GCD, Harry Hardman, Lone Star GCD, Gary Ashmore, Lower Trinity GCD and John Martin, Southeast Texas GCD. Interlocal Agreement Participants included: Commissioner Kirk Hanath (joined at 9:05AM), Washington County Commissioner; Pudge Willcox, Chambers County, Robert Thompson, Fort Bend Subsidence District; and Mike Turco, Harris-Galveston Subsidence District. Also, in attendance at the meeting were Larry French, Texas Water Development Board (TWDB); Mr. Wade Oliver, Intera, Inc.; Ms. Jenny Biwater, CDM Smith; a quorum of the Lone Star GCD Board of Directors; and members of the public. (*see* ***Attachment "A" for a list of attendees***).

Mr. Martin called for and opened the floor to public comment. Mark Smith representing San Jacinto River Authority was recognized for public comment related to LSGCD Management Plan adopted and submitted to TWDB earlier in the month.

Mr. Martin proceeded with requests for and receipt of posted notices from District Representatives. Mr. Martin then asked for consideration of the approval of the minutes from the GMA 14 meeting on January 30, 2019. After discussion and upon a motion by Ms. Plentl, seconded by Mr. Ashmore, the minutes for the January 30, 2019 meeting were approved unanimously.

Mr. Martin called for an update from the Texas Water Development Board and discussion of items of interest to the GMA. Mr. French provided general information from TWDB, including announcements of Region H MAG peak factor approval and a request by TWDB to proof presented data.

Meeting convened as a meeting of the GMA 14 Joint Planning Interlocal Agreement Participants.
The GMA 14 Joint Planning Interlocal Agreement Participants meeting was called to order at 9:09 AM.

Mr. Martin called for a presentation and discussion by districts or Interlocal Agreement Participants of recent activities of interest to or impacting the GMA 14 planning group. Mr. Martin provided a summary on the February 25, 2019 consultant meeting. Mr. Turco provided an update to the HGSD Regulatory Plan Update being initiated and the overall timeline for 2019-2023. Mr. Ashmore provided an update of annual groundwater level measurements from his district.

Mr. Martin called for the presentation, discussion and possible action regarding Lone Star Groundwater Conservation District's request for an alternative approach to the 3rd Round of Desired Future Conditions Planning. Mr. Hardman and Mr. Webb Melder, President of the LSGCD Board provided background and layout to the alternative approach. Mr. Mike Thornhill of Thornhill Group LLC, representing LSGCD, gave a presentation. (*see **Attachment "B" for LSGCD Presentation***). There was considerable discussion between GMA 14 participants, and LSGCD board members.

Mr. Martin called for the presentation by the USGS regarding the Coastal Lowland Aquifer System (CLAS) model (locally known as the Gulf Coast Aquifer/HAGM model. Mr. Martin recognized Mr. John Ellis of USGS to present to the group. (*see **Attachment "C" for USGS Presentation***)

Mr. Martin called for a discussion and consideration of the water supply needs and water management strategies included in the state water plan (as required by Texas Water Code 36.108(d)(2)). Ms. Jenny Biwater of CDM Smith was given the floor to provide a presentation (*see **Attachment "D" for DemandsStrategies Presentation***). There was considerable discussion between Lone Star GCD consultants and Board Members and GMA 14 participants

Mr. Martin called for discussion and possible action regarding the DFCs including by not limited to pursuit of Run D as a DFC option, and the path forward for GMA 14 to accomplish statutory mandates for Round 3 Joint Planning. Mr. Turco motioned for GMA Consultant to evaluate the LSGCD Presentation and return options within the approved scope of work and any additional scope of work and associated costs necessary for consideration to frame the path forward, seconded by Mr. Holland. Motion carried unanimously. Mr. Hardman motioned to remove Run D from consideration as a future methodology and from scope of work for Round 3 joint planning process, seconded by Mr. Holland. Motion carried unanimously.

Mr. Martin recognized Mr. Turco to provide the GMA 14 Interlocal Agreement Financial Report to include an update and status reports from participants on interlocal participation. Mr. Turco

noted all are on track with their interlocal participation agreements and finalizing with Chambers County's agreement and schedule.

With no further comments from the participants, Mr. Martin adjourned the meeting of the GMA 14 Interlocal Agreement Participants and reconvening the Joint Planning Group meeting at 11:10 AM.

Meeting of the GMA 14 Joint Planning Interlocal Agreement Participants adjourned.

Mr. Martin reconvened the GMA 14 meeting and called for the review, discussion and, possible action regarding the "Resolution Establishing Administrative Procedures for the Consideration, Proposal, and Adoption of Desired Future Conditions for Groundwater Management Area 14" (adopted November 18, 2014). Mr. Holland made a motion to void and remove the administrative procedures from the joint planning process. After the motion failed to receive a second, the item was agreed to be placed on the next agenda and within the participant's portion of the agenda.

Mr. Martin called for discussion and possible action to appoint GMA 14 Member and alternate as representative to the Region H Water Planning Group. Mr. Holland made the motion to appoint Mr. Ashmore as the GMA 14 Representative and Ms. Plentl as alternate to the Region H Water Planning Group, seconded by Mr. Hardman. The motion carried unanimously.

Mr. Martin called for other business before GMA 14. With no business brought before the group, Mr. Martin called for discussion of next meeting date, location, and agenda items. The next meeting was set for May 29, 2019 at 10:00 AM to be held at the offices of the Harris-Galveston Subsidence District, located at 1660 W. Bay Area Blvd., Friendswood, Texas 77546.

Without further discussion or comment and there being no further business, the meeting was adjourned at 11:25 AM.

PASSED, APPROVED, AND ADOPTED THIS _29__ day of ___May, 2019_____

_____

Chairman

ATTEST:

_____

Secretary

910 Louisiana
Houston, TX 77002

August 13, 2019

Mark Evans, Chair Region H WPG
c/o San Jacinto River Authority
P.O. Box 329
Conroe, TX 77305

Subject: Vacancy for Region H Water Planning Group,
Member Representing Electric Generating Utilities

Dear Mr. Evans,

I, Carl Burch of NRG Energy would like to submit my name for consideration in the filling the open vacancy for the voting member representing the electric generating utilities.

I have worked in the electric utility industry for over 30 years in the environmental field, after graduating from the University of Houston/Clear Lake with a BS in Environmental Management. Responsibilities over my career include, wastewater permitting and compliance, regulatory compliance for waste and overseeing the water use program for the company. In my role overseeing the company's water use program, I have regular interface with the TCEQ Brazos River Watermaster and with the Brazos River Authority.

Should you have any questions or require additional information, please contact me at 713-537-2333 or carl.burch@nrg.com.

Sincerely,

Carl Burch
Environmental Manager, Regulatory Compliance
NRG Energy