

# **REGION H**

## **Water Planning Group**

### **MEETING MATERIALS**

**December 6, 2017**

**San Jacinto River Authority**



**Region H Water Planning Group**  
**10:00 AM Wednesday**  
**December 6, 2017**  
**San Jacinto River Authority Office**  
**1577 Dam Site Rd, Conroe, Texas 77304**

**AGENDA**

1. Introductions.
2. Review and approve minutes of November 1, 2017 meeting.
3. **Receive public comments on specific issues related to agenda items 4 through 12.** (Public comments limited to 3 minutes per speaker)
4. Receive presentation from Consultant Team regarding the proposed application by the City of Manvel to amend the 2016 Region H Regional Water Plan (RWP) and consider approving the submittal of the application package to TWDB for the determination of minor amendment status.
5. Receive update from Consultant Team regarding the schedule and milestones for the development of the 2021 Region H RWP.
6. Receive update from Consultant Team and Water Management Strategy Committee regarding a process for identifying and evaluating potentially feasible Water Management Strategies and consider taking action to approve the process for use in 2021 Region H RWP.
7. Receive update from Consultant Team and Non-Population Demands Committee regarding recommended revisions to draft TWDB projections for the 2021 Region H RWP and consider approving submittal to TWDB.
8. Receive update from Consultant Team and Population Demands Committee regarding recommended revisions to draft TWDB projections for the 2021 Region H RWP and consider approving submittal to TWDB.
9. Receive update from Consultant Team regarding evaluation of existing water supplies and upcoming supply committee activities.
10. Discuss meeting sites and consider taking action to designate a list of approved sites for Regional Water Planning Group and committee meetings.
11. Receive report regarding recent and upcoming activities related to communications and outreach efforts on behalf of the Region H Water Planning Group.
12. Agency communications and general information.
13. **Receive public comments.** (Public comments limited to 3 minutes per speaker)
14. Next Meeting: TBD.
15. 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 2

Review and approve minutes of November 1, 2017 meeting.



**REGION H WATER PLANNING GROUP  
MINUTES OF REGULAR MEETING  
NOVEMBER 1, 2017**

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A regular meeting of the Region H Water Planning Group was held at 10:00 a.m., November 1, 2017, at the San Jacinto River Authority General and Administration Building, a notice of said meeting was posted as required by law.

**MEMBERS PRESENT:** David Bailey, John Bartos, Robert Bruner, Mark Evans, Bob Hebert, Art Henson, Jace Houston, Kathy Jones, Ivan Langford, Glenn Lord, Marvin Marcell (joined meeting at 10:23 a.m.), Michael Turco, and Pudge Willcox

**DESIGNATED ALTERNATES:** Tom Michel for William Teer, Alisa Max for John Blount, Brad Burnett for David Collinworth, Jun Chang for Jimmie Schindewolf, Jim Sims for Kevin Ward, Ken Kramer for Carl Masterson, and Robert Thompson for Marvin Marcell (Mr. Marcell joined the meeting at 10:23 a.m.)

**MEMBERS ABSENT:** James Comin, Robert Istre, James Morrison, and Ruth Stultz,

**1. INTRODUCTIONS**

The meeting was called to order at 10:01 a.m.

**2. REVIEW AND APPROVE MINUTES OF JUNE 7, 2017 MEETING**

Mr. Henson made a motion to approve the minutes of June 7, 2017, Region H Water Planning Group meeting. The motion was seconded by Mr. Chang and carried unanimously.

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

There were no public comments.

**4. CONSIDER AND TAKE ACTION ON THE SELECTION OF YVONNE FORREST AS A VOTING MEMBER OF THE REGION H WATER PLANNING GROUP REPRESENTING MUNICIPALITIES.**

Mr. Bartos made a motion to appoint Yvonne Forrest to represent municipalities for the Region H Water Planning Group. The motion was seconded by Mr. Hebert and carried unanimously. Ms. Forrest was welcomed by the group and provided a brief overview of her duties and responsibilities at the City of Houston.

**5. ACCEPT THE RESIGNATION OF GENE FISSELER AS A VOTING MEMBER OF THE REGION H WATER PLANNING GROUP REPRESENTING ELECTRIC GENERATING UTILITIES.**

Mr. Evans reported that Mr. Gene Fisseler submitted his resignation as a member of the Region H Water Planning Group effective August 23, 2017. Mr. Chang made a motion to accept Mr. Gene Fisseler's resignation. The motion was seconded by Mr. Michael Turco and carried unanimously. Mr. Evans stated that Mr. Fisseler recommended Mr. Craig Eckberg, NRG's regional environmental director, be appointed to the Region H Water Planning Group as the voting member representing electric generating utilities. Mr. Evans stated appointments due to this vacancy would be considered at a future meeting.

**6. RECEIVE PRESENTATION FROM TEXAS WATER DEVELOPMENT BOARD ON RECENT LEGISLATION IMPACTING THE REGIONAL WATER PLANNING PROCESS.**

Mr. Lann Bookout, Texas Water Development Board, presented an overview of the 85<sup>th</sup> Legislative Session, in particular, legislation relative to regional water planning. He discussed details related to Senate Bill 347, House Bill 2215, and Senate Bill 1511.

**7. DISCUSS REQUIREMENTS REGARDING TEXAS OPEN MEETING ACT AND PUBLIC INFORMATION ACT TRAINING FOR REGIONAL WATER PLANNING GROUP MEMEBERS.**

Mr. Evans explained that Senate Bill 347 stipulates that each regional water planning group (RWPG), committee, and subcommittee of the RWPG are subject to the Open Meetings Act and the Public Information Act. Mr. Houston explained that RWPG members must complete the Open Meetings Act training required by Texas Government Code, Section 551.005 and the Public Information Act training required by Government Code, Section 552.012. Further, he explained, the Open Meetings Act and Public Information Act both state that completing the training in one capacity satisfies the requirement in all capacities, so RWPG members who have completed these trainings as part of their outside employment would not need to complete them again as RWPG members. Discussion ensued and a consensus was had that alternate voting members would also complete the training. Mr. Houston suggested that all completed certificates be provided to the Region H Water Planning Group Secretary's designee for official filing to comply with the bill prior to December 1, 2017. Discussion ensued related to the requirement for members to take the Public Information Act training. Mr. Houston along with Mr. Bookout explained that the interpretation of the Act is that the RWPG could designate a person to complete the Public Information Act training which would satisfy the requirement of the Act. Mr. Langford made a motion to designate Jace Houston, Secretary, as the designated official Public Information Act training certificate holder of the Region H Water Planning Group. The motion was seconded by Mr. Chang and carried unanimously.



**8. RECEIVE UPDATE FROM CONSULTANT TEAM REGARDING THE SCHEDULE AND MILESTONE FOR THE DEVELOPMENT OF THE 2021 REGION H WATER PLAN.**

Mr. Afinowicz provided an update related to the 2021 Regional Water Plan schedule referencing upcoming meetings, events, and tasks.

**9. RECEIVE UPDATE FROM CONSULTANT TEAM AND NON-POPULATION DEMANDS COMMITTEE REGARDING DRAFT NON-MUNICIPAL DEMAND PROJECTIONS FOR THE 2021 REGION H WATER PLAN.**

Mr. Afinowicz provided an update regarding the draft non-municipal demand projections for the 2021 Region H Water Plan. He stated that the Non-Population Demands Committee met on September 22, 2017, to review and make recommendations related to irrigation, livestock, manufacturing, mining, and steam electric power. He stated that the committee recommended gathering a maximum historical use from 2010 to 2015 in order to view a longer range of data. Mr. Afinowicz stated that the final recommendation will be considered at the December meeting in order to meet the Texas Water Development Board's January 12, 2018, deadline.

**10. RECEIVE UPDATE FROM CONSULTANT TEAM AND POPULATION DEMANDS COMMITTEE REGARDING DRAFT MUNICIPAL POPULATION AND WATER DEMAND PROJECTIONS FOR THE 2021 REGION H REGIONAL WATER PLAN.**

Mr. Taucer provided an update related to the draft municipal population and water demands projections for the 2021 Region H Water Plan. He stated that committee convened in June and reviewed projections to confirm the overall approach. It was stated that the consensus of the committee is that no out-of-line growth will be experienced compared to what was previously planned. He stated that coordination will continue with the Texas Water Development Board with due date being January 12, 2018.

**11. RECEIVE UPDATE FROM CONSULTANT TEAM REGARDING IDENTIFICATION OF MAJOR WATER PROVIDERS FOR REGION H AND CONSIDER TAKING ACTION DIRECTING THE CONSULTANT TEAM TO SUBMIT A LIST OF RECOMMENDED MAJOR WATER PROVIDERS TO THE TEXAS WATER DEVELOPMENT BOARD.**

Mr. Taucer provided an update related to Major Water Providers (MWP), stating that the MWP's largely replace Wholesale Water Providers (WWP). He stated that the Population and Non-Population Committees reviewed a methodology to identify MWPs relative to volumetric breakpoints. It was suggested by the Population Committee that anything below 25,000 acre feet would not be considered a MWP. Mr. Taucer then explained that using this methodology would comprise a new list of MWPs. Mr. Langford made a motion to accept the recommendation of designating 25,000 acre feet and above as MWPs. The motion was seconded by Mr. Bruner and carried unanimously.

**12. DISCUSS MEETING SITES AND CONSIDER TAKING ACTION TO DESIGNATE A LIST OF APPROVED SITES FOR REGIONAL WATER PLANNING GROUP AND COMMITTEE MEETINGS.**

Mr. Evans discussed the possibility of designating specific sites for committee meetings to be held. It was decided that this item be postponed to a later meeting for further discussion.

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

There were no recent or upcoming activities to report.

**14. AGENCY COMMUNICATIONS AND GENERAL INFORMATION**

Mr. Bookout discussed the upcoming public comment period related to changes in the rules.

**15. RECEIVE PUBLIC COMMENTS**

Mr. John Jones commented on youth water conservation efforts and programs.

**16. MEETING: DECEMBER 6, 2017**

Mr. Evans announced that the next Region H Water Planning Group meeting will take place on December 6, 2017.

**17. ADJOURN**

Without objection, the meeting was adjourned at 11:22 a.m.

## Agenda Item 4

Receive presentation from Consultant Team regarding the proposed application by the City of Manvel to amend the 2016 Region H Regional Water Plan (RWP) and consider approving the submittal of the application package to TWDB for the determination of minor amendment status.



## Mustang Bayou Water Right Proposed Amendment to the 2016 Region H Water Plan

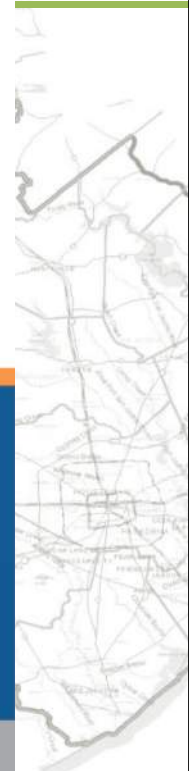
Jordan Furnans, PhD, PE, PG  
LRE Water, LLC



on behalf of  
**City of Manvel, TX**



December 6, 2017



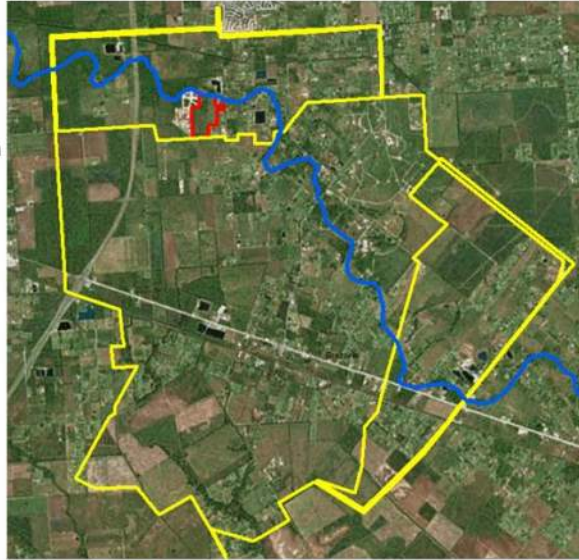
## City of Manvel - Introduction

- Northern Brazoria County
  - South of Houston via HW 288
- Historically Rural – Large acre homesteads
- Typically individual groundwater wells
- HDR 2016-2017 Master Water Plan Study
  - City connections:
    - 295 Currently
    - 30,288 at build-out
  - MUD Connections: 18,000 at built out
  - Build-Out Demand: **17.4 MGD**
- Potential Subsidence Concerns w/  
groundwater usage
  - FTBSD (30% Total Usage Limit)
  - HGSD (20% Total Usage Limit)
  - TWDB Pending Statewide subsidence risk study



## City of Manvel - Introduction

- Mustang Bayou runs through City limits
  - Existing Water Rights Downstream
    - City of Alvin
    - Gulf Coast Water Authority
  - State of TX WAM Model
    - Water is available
- City of Manvel Sand Pit Reservoir



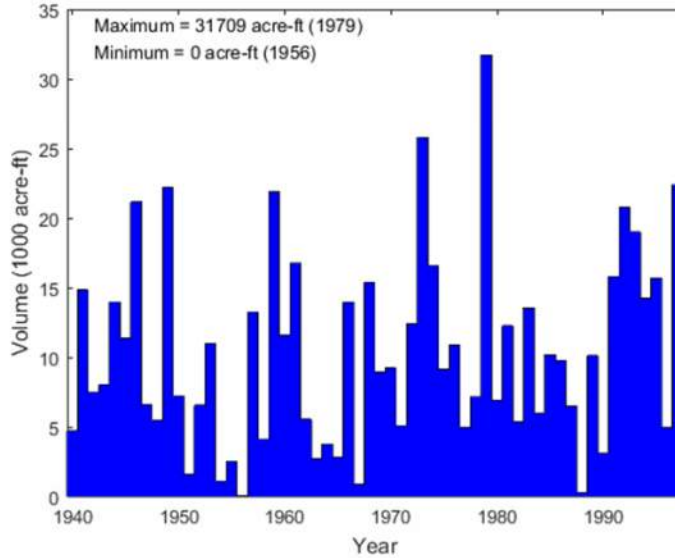
## City of Manvel – Sand Pit Reservoir Site

- Sand Pit Reservoir Site
  - Purchased Prior to 2015
  - Approx. 1,300 acre-ft Storage
  - Groundwater Infilling
    - Approx. 5 years to fill
    - Modeled by INTERA/LRE
- Mustang Bayou
  - Northern Edge of Property
  - Water Source
  - Onsite Treatment & Distribution
  - Potential Storage in reservoir
- Potential Connections to GCWA
  - Canal A System
  - L-10 Canal System



## WAM Modeling – Mustang Bayou @ Manvel

- Preliminary Discussions with TCEQ
- No Watermaster Jurisdiction
- No WAM Revisions Pending on Mustang Bayou



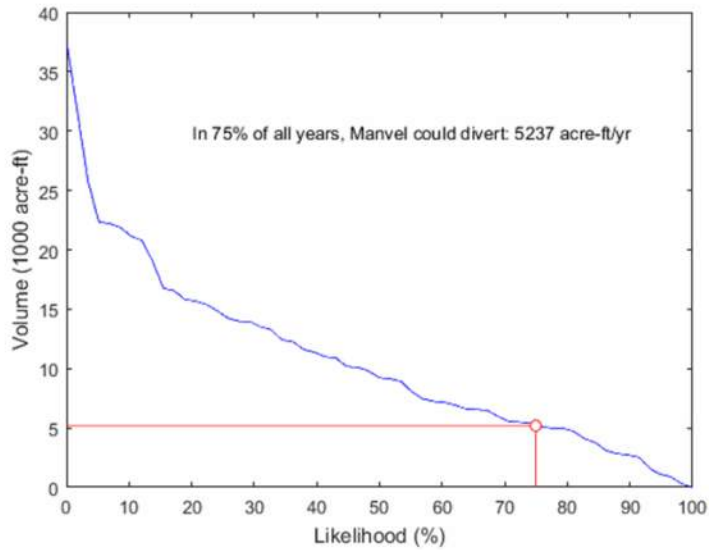
## WAM Modeling – Mustang Bayou @ Manvel

Water Right Request:  
5,237 acre-ft/yr

Subject to GCWA & Alvin seniority

Backup & Storage in Sand Pit Reservoir

Potential Backup from GCWA



## Requested Action Today

Authorize Freese and Nichols to:

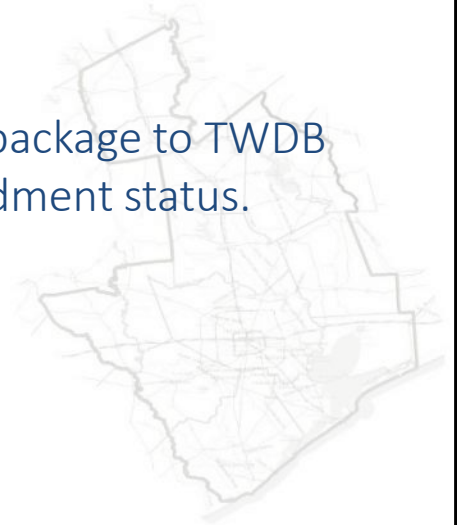
- Coordinate preparation of amendment materials with City of Manvel and LRE Water
- Submit proposed amendment materials to TWDB to determine if a major or minor amendment
- Schedule public hearing for proposed amendment if a major amendment (TWDB determination)
- Consider approving amendment at first meeting following end of public hearing process



## Agenda Item 4 Manvel Amendment

### Action:

Approve the submittal of the application package to TWDB for the determination of minor amendment status.



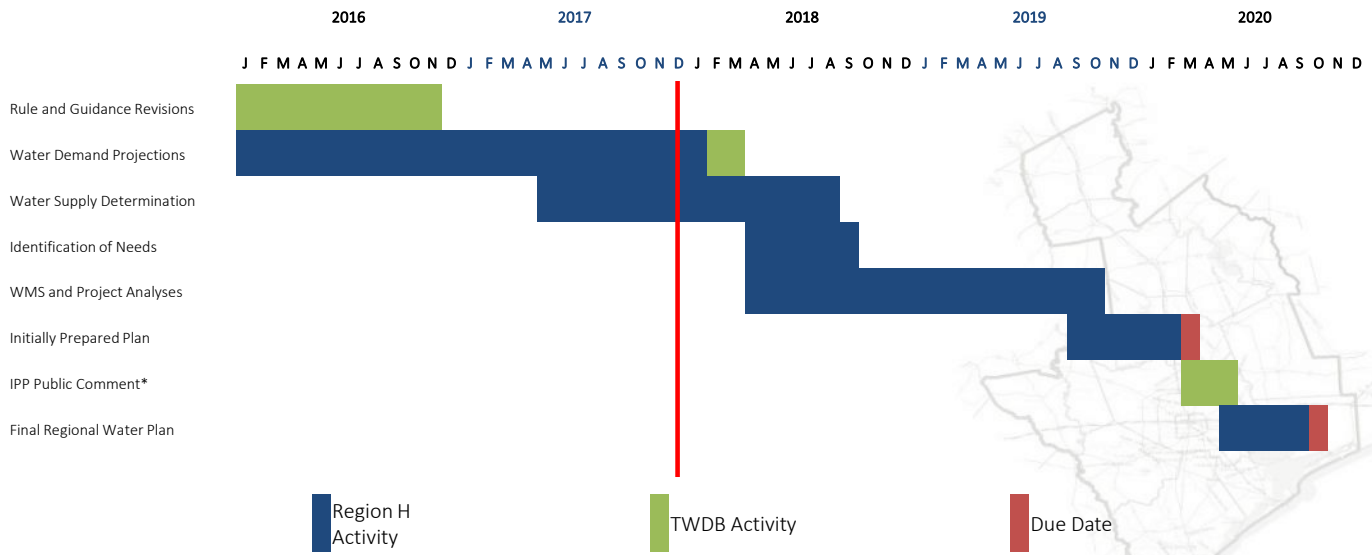


## Agenda Item 5

Receive update from Consultant Team regarding the schedule and milestones for the development of the 2021 Region H 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
12/2017	RWPG Meeting
01/2018	Due date for projection adjustment requests to TWDB
03/2018	Estimated adoption date for projections
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



- Wrapping up projections
- Supply analyses continuing
- Stakeholder coordination
- WMS focus areas and scoping

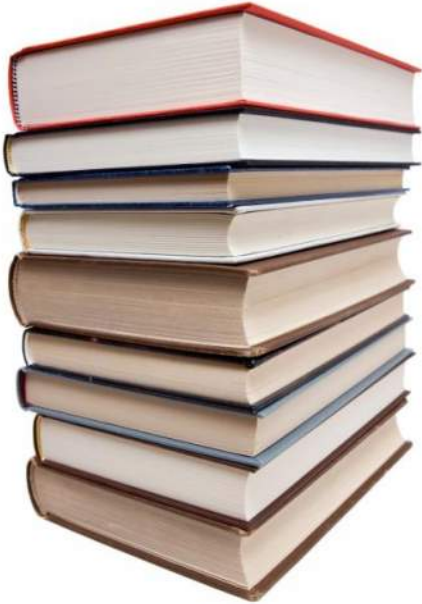


## Agenda Item 6

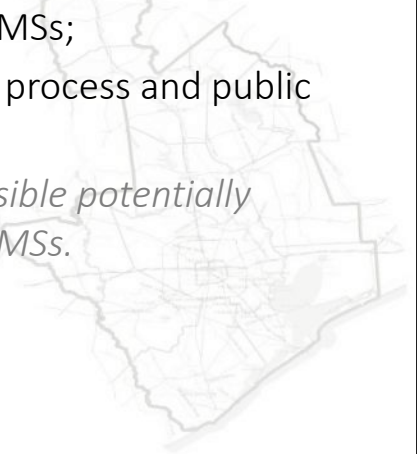
Receive update from Consultant Team and Water Management Strategy Committee regarding a process for identifying and evaluating potentially feasible Water Management Strategies and consider taking action to approve the process for use in 2021 Region H RWP.



## Agenda Item 6 Identifying and Evaluating WMS



- 31 TAC 357.12(b)
  - Public meeting to determine the process for identifying potentially feasible WMSs;
  - Document process and public input
  - *List all possible potentially feasible WMSs.*

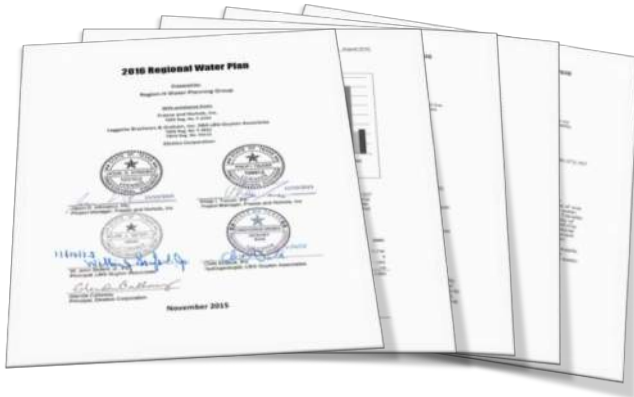


## Agenda Item 6 Identifying and Evaluating WMS

- TWDB allows RWPGs considerable flexibility in selecting method
- Criteria determined by RWPG
- Should receive public comment on proposed process

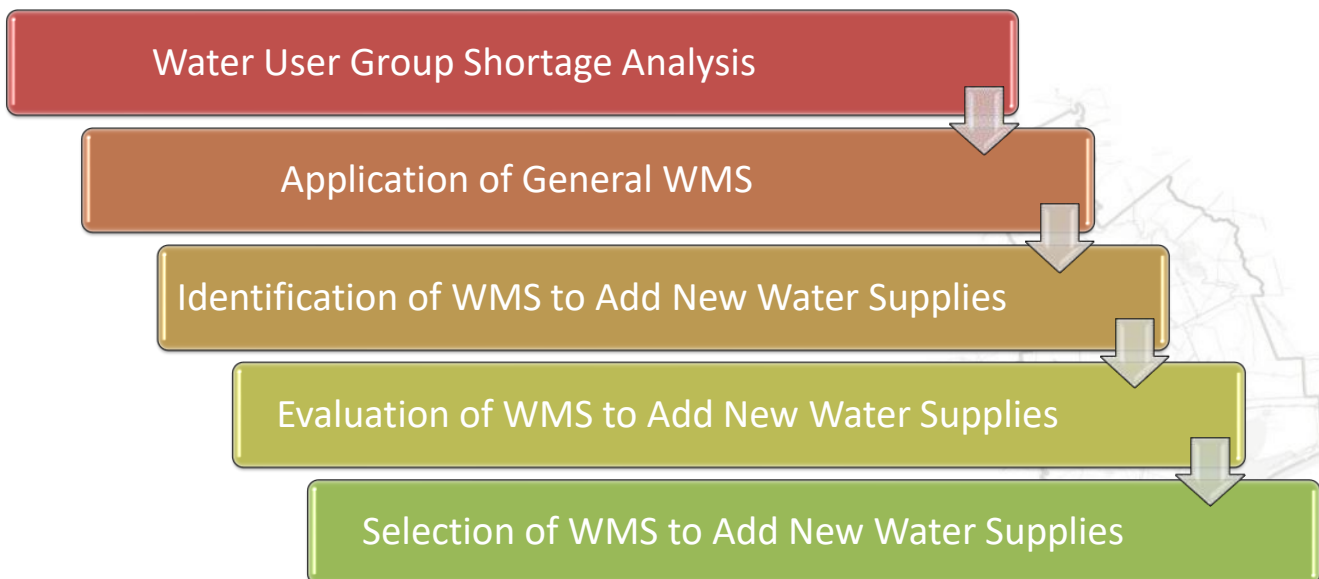


## Agenda Item 6 Identifying and Evaluating WMS



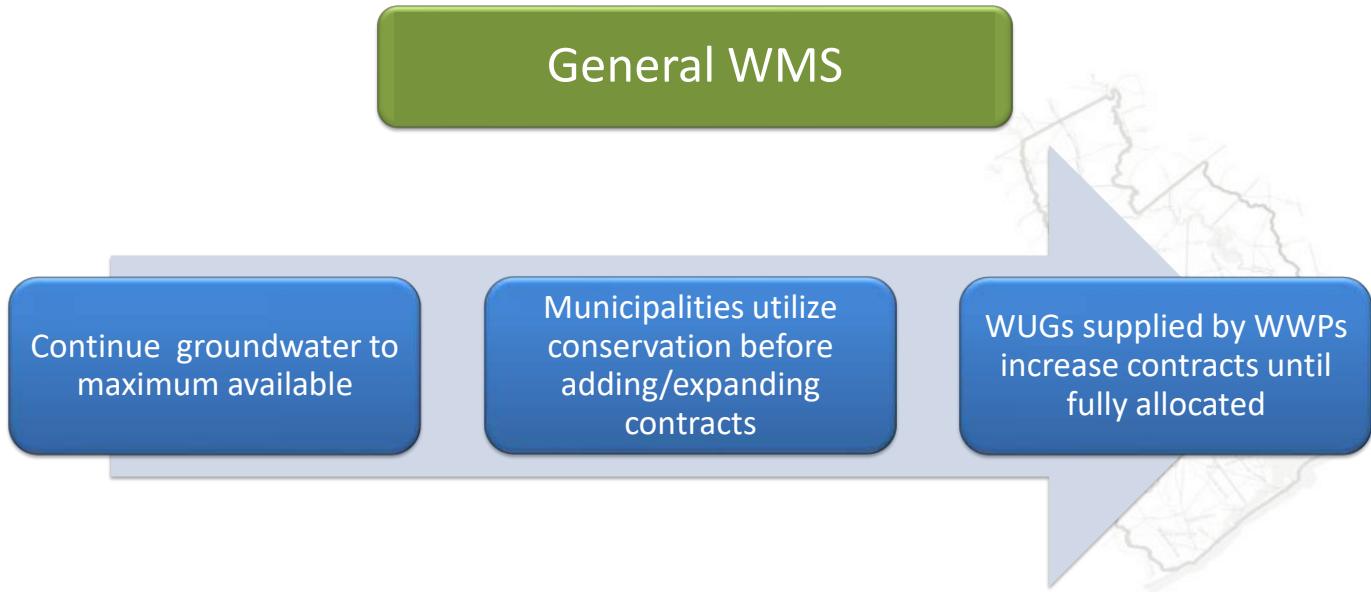
- Three-step ID process
  - Strategies from prior RWP
  - New from scope development
  - Request for inclusion
- Some added later in process
- Statutory categories (20+)

## Agenda Item 6 Identifying and Evaluating WMS



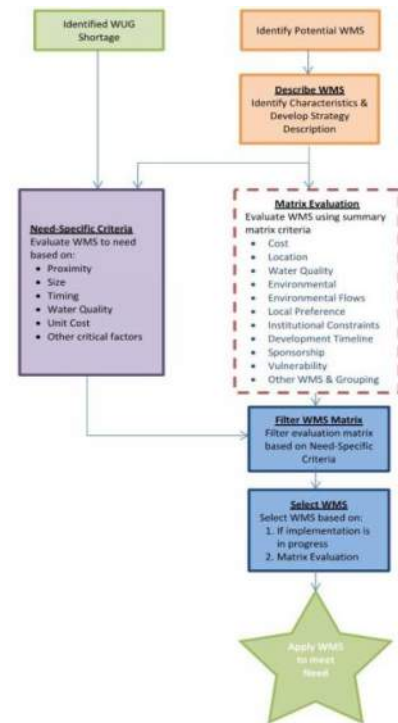


## Agenda Item 6 Identifying and Evaluating WMS



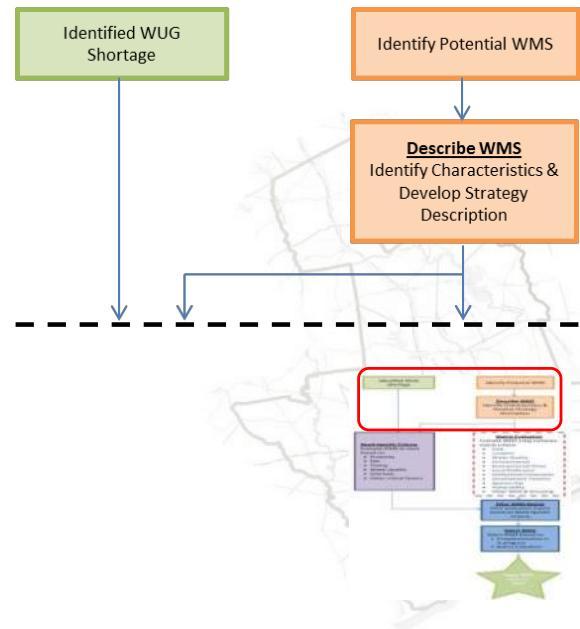
## Agenda Item 6 Identifying and Evaluating WMS

- Two-track process
- Major steps
  - Identification/definition of needs and WMS
  - Need-centered evaluation
  - WMS-centered evaluation
  - Filtering, selection, and application
- Only evaluating where a need exists



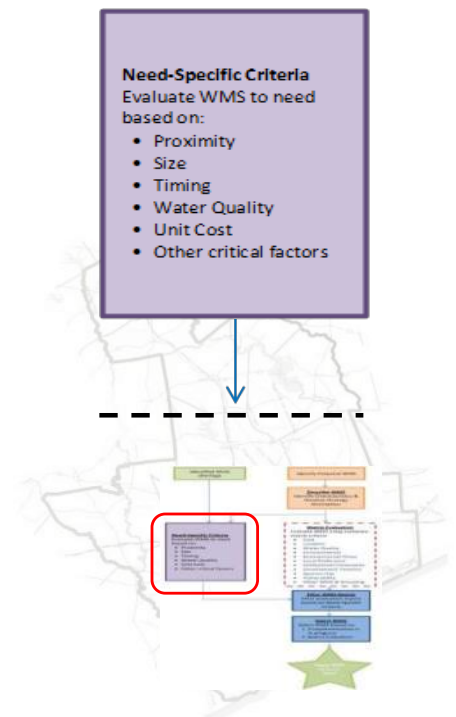
## Agenda Item 6 Identifying and Evaluating WMS

- Inputs into evaluation
- Identified shortages
- List of identified potentially-feasible WMS
- Must develop detailed WMS descriptions before evaluating



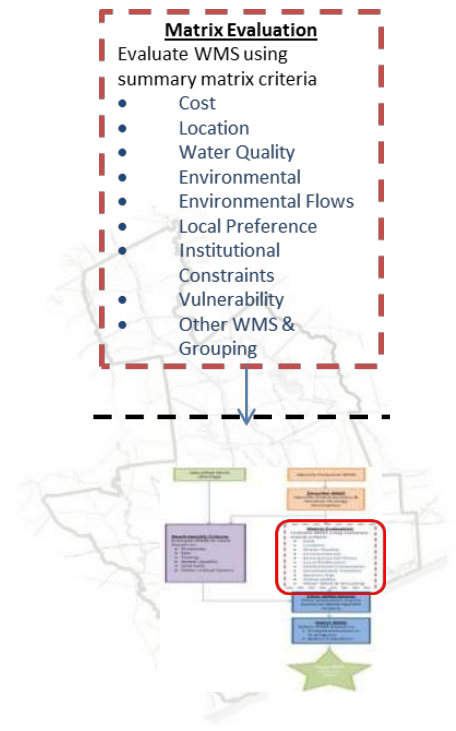
## Agenda Item 6 Identifying and Evaluating WMS

- First WMS evaluation phase focused on specific needs
- Need-specific questions
  - Reasonable proximity to need?
  - Right-sized or easily combined?
  - **Timing of WMS vs. need**
  - Unit cost supportable?
  - Known flaws?



## Agenda Item 6 Identifying and Evaluating WMS

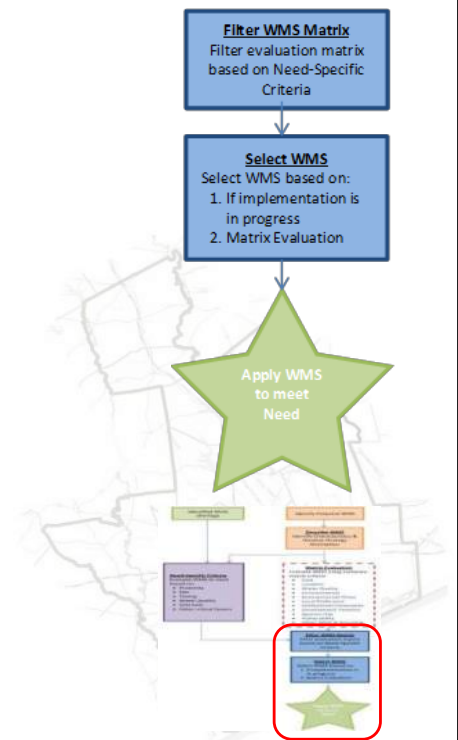
- Second evaluation phase focused on WMS
- Evaluation based on criteria matrix
- Utilizes a scoring system from 1 to 5 for each criterion
  - Allows more range per criterion
  - Avoids unnecessary bias from +/- system



Category	Rating Criteria				
	1	2	3	4	5
Cost	>\$1000/ac-ft	\$750 to \$1000/ac-ft	\$500 to \$750/ac-ft	\$250 to \$500/ac-ft	<\$250/ac-ft
Location	IBT required, long distance or outside Region H.	IBT & Conveyance required for use to meet significant needs.	IBT required for some need centers. Conveyance required.	Some conveyance required to need centers.	No IBT required. Relatively near centers of high demand.
Water Quality	Quality of supply is reduced significantly.	Quality of supply is reduced.	No known water quality issues.	Quality of supply is improved.	Existing water quality problems are reduced.
Environmental Land & Habitat	Significant environmental issues and opposition.	Some environmental issues and opposition.	Environmental impacts can be mitigated. Limited concerns.	Minimal mitigation of impacts needed. Minimal concerns.	Limited or no known impacts.
Impacts on Environmental Flows	Significantly reduces instream or B&E flows.	Reduces instream or B&E flows.	No impact.	Increases instream or B&E flows.	Significantly increases instream or B&E flows.
Local Preference	No local support. Significant opposition.	Minimal local support. Some opposition.	Some local support. Limited opposition.	Local support. Minimal opposition.	Widespread local support. Multi-use benefits likely.
Institutional Constraints / Risk of Implementability	Permits opposed. Significant property required.	Some permit opposition. Some property acquisition necessary.	Permits expected with minimal problems. Property available.	Permit application in progress. Property acquired or under acquisition.	Permits issued. Facilities or land owned. Water available.
Vulnerability	Significant risk from natural and man-made disasters.	Substantial risk from natural and man-made disasters.	Moderate risk from natural and man-made disasters.	Slight risk from natural and man-made disasters.	Minimal risk from natural and man-made disasters.
Impacts on Other Management Strategies	Significant negative impacts.	Some negative impacts and/or little chance of grouping.	No impact.	Some positive impacts.	Significant positive impacts.

## Agenda Item 6 Identifying and Evaluating WMS

- Matrix filtered for each need – list of WMS available
- Strategies in progress selected first
- If need remains, select additional WMS based on matrix
- Apply results to plan and database



## Agenda Item 6 Identifying and Evaluating WMS

### Action:

Approve process for identifying and evaluating potentially feasible Water Management Strategies in 2021 Region H RWP.



**TO:** Lann Bookout (TWDB)

**CC:** Region H Water Planning Group, General Distribution

**FROM:** Philip I. Taucer, P.E.

**SUBJECT:** Potential Water Management Strategies (WMS)  
Identification and Selection

**DATE:** December 6, 2017

## **Memo Purpose**

Pursuant to TAC 357.12(b), the Region H Water Planning Group (RHWPG) is required to document its process for identifying and selecting Water Management Strategies (WMS) for development of the 2021 Regional Water Plan (RWP). This process shall be presented to the public for comment at a public meeting. This document proposes a WMS selection methodology for consideration and adoption by the RHWPG.

The primary goal of the WMS selection methodology is to pair WMS with a water shortage (in the terminology of the RWP process, a need) of a particular water user group (WUG). Subsequent portions of this memorandum detail this pairing process.

Potential WMS will be defined based on a determination of needs developed from a comparison of projected demands and existing supplies. These strategies are to be analyzed at the Major Water Provider (MWP) or WUGs. A detailed technical memorandum will be prepared for each of the management strategies selected.

## **Shortage Analysis**

The regional water planning process begins with identifying current and projected future water demands. After water demands are identified for all WUGs, water supplies available to Region H are identified and allocated to WUGs and MWPs based on current usage and contracts. By matching the supplies and the demands, projected surpluses and shortages are determined. MWP supplies and contracts will be reviewed to determine their respective surplus or shortage during the planning period.

## **Application of General WMS**

The selection of WMS begins with the identification of certain “general WMS” that are readily available. Such alternatives can provide simple, cost-effective solutions to shortage without the development of new, major water projects. These strategies include the use of groundwater where available, the expansion or extension of existing contracts for water supplies between WUGs and MWPs, and the reduction of demand through water conservation.

In evaluating the general WMS, the RHWPG would make three assumptions. First, water user groups would continue to develop groundwater until it is fully utilized. This is based upon the observed pattern of development in the region, where the Gulf Coast aquifer is available in all of the southern counties.

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The supply of groundwater will not be allocated in excess of regulation set forth by subsidence or groundwater conservation districts, or other entities that have regulatory power over the consumption of groundwater.

Second, those WUGs currently receiving water from MWP would be able to increase their contract amounts until the MWP supplies were fully allocated. This assumes the use of existing supplies conveyed through existing infrastructure wherever possible.

Finally, the RHWPG will assume that every municipal WUG with a projected shortage would utilize conservation before seeking out or increasing a MWP contract. This is pursuant to the language of 357.34(g)(2).

### **Identification of Potential WMS to Add New Water Supplies**

Potential WMS will include but are not limited to the strategies considered in the 2016 RWP. These strategies, plus additional strategies formulated since the completion of the 2016 RWP are included as *Attachment 1* to this memorandum.

### **WMS Selection Process**

For the 2021 RWP, a dual-phased WMS selection process is proposed. Inputs into the dual-phase process include the identified WUG shortages (after the application of General WMS) and the potential WMS. The output is the application of WMS(s) to meet a WUG need. *Figure 1* presents a flow chart of the proposed WMS selection process.

Prior to the dual-phases, the proposed strategies will be described in detail. Within the dual-phases, the first phase (the Need-Specific Criteria phase) focuses on evaluation of the WMS for a specific need. It should be noted that a single WUG may have multiple needs which require more than one WMS. During this phase, questions such as the following must be addressed for a given WMS to be considered acceptable to apply to meet a need:

- Is the strategy within reasonable proximity to location of water need?
- Is the strategy right-sized or easily paired with another WMS?
- Is the timing of supply availability from the WMS applicable to the need?
- Is the expected water quality produced by the strategy significantly different from existing water quality at the WUG?
- Is the unit cost (and capital if no WWP is present) supportable by the target WUG?
- Has any other flaw relating to the WMS and WUG been identified?

The second phase (the Matrix Evaluation phase) focuses on the evaluation of the WMS. In this phase, each WMS will be evaluated based on the matrix criteria presented in *Table 1*. Each WMS will be given a score from one to five for each analysis criterion, and the phase will ultimately develop a matrix of rated WMS. The analysis criteria include the following:

- Cost – Evaluates the unit cost of the water produced by the strategy.
- Location – Evaluates the degree of Interbasin transfer or conveyance required to move the water to significant demand centers within Region H.
- Water Quality – Evaluates the strategy's impact on water quality.
- Environmental Land & Habitat – Evaluates the degree of environmental land impacts and the degree of public opposition expected by the strategy.
- Environmental Flows – Evaluates the degree of impact to environmental flows to bays and estuaries.

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- Local Preference – Evaluates the local preference and likelihood for public support or opposition created by the strategy.
- Institutional Constraints/Risk of Implementability – Evaluates the potential for factors such as permitting and land acquisition to affect the strategy.
- Development Timeline – Evaluates the amount of time necessary to implement the strategy.
- Sponsorship – Evaluates if a sponsor is identifiable and committed to implementing the strategy.
- Vulnerability – Evaluates the risk to the strategy's ability to deliver water from natural or man-made disasters such as hurricanes, climate change, or terrorism.
- Other WMS/Grouping Potential – Evaluates the likelihood of the strategy to impact other WMS and the potential for the strategy to be grouped with other WMS.

After the dual phase description, the emphasis of the methodology shifts to the identification and selection of WMS to meet the particular need of interest. To accomplish this process, the evaluation matrix is filtered for each WUG need, such that all WMS that meet the Need-Specific Criteria are available for selection. WMS will be evaluated only where a need exists or is anticipated to exist.

Selection of the WMS will first occur by selecting any strategies that are already in progress. This is intended to make the planning process parallel with ongoing developments within Region H while still allowing for thorough quantitative evaluation of each strategy under consideration. Subsequent selections of WMS will be made, as needed, based on the filtered Matrix Evaluation. After WMS selection, the selected WMS are applied to meet needs.

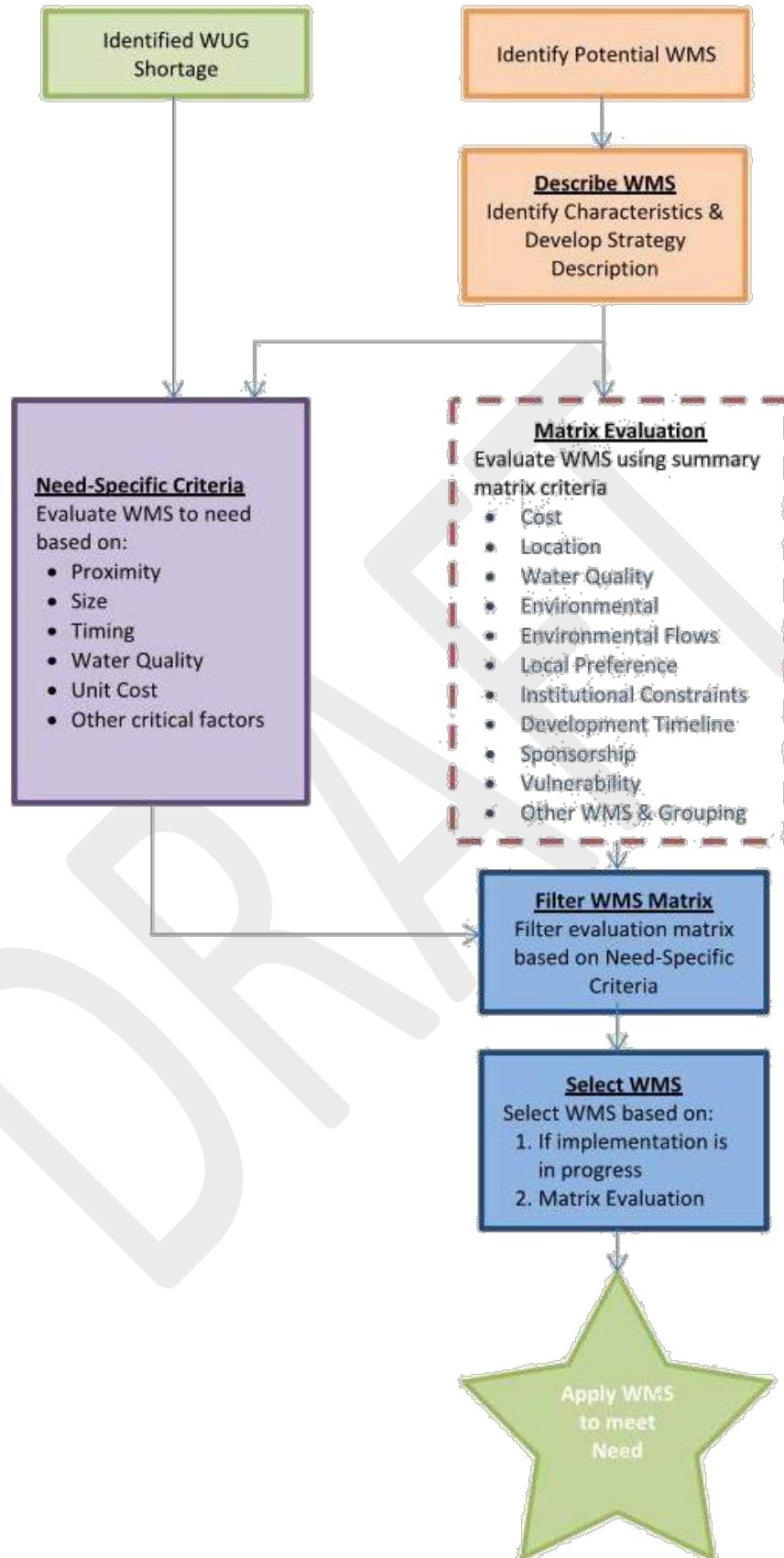


Figure 1. WMS Selection Process Flowchart



**Table 1. Evaluation Criteria**

Category	Rating Criteria				
	1	2	3	4	5
Cost	>\$1000/ac-ft IBT required, long distance or outside Region H. Quality of supply is reduced significantly.	\$750 to \$1000/ac-ft IBT & Conveyance required for use to meet significant needs. Quality of supply is reduced.	\$500 to \$750/ac-ft IBT required for some need centers. Conveyance required. No known water quality issues.	\$250 to \$500/ac-ft Some conveyance required to need centers. Quality of supply is improved.	<\$250/ac-ft No IBT required. Relatively near centers of high demand. Existing water quality problems are reduced.
Location	Quality of supply is reduced significantly.	Quality of supply is reduced.	No known water quality issues.	Quality of supply is improved.	Existing water quality problems are reduced.
Water Quality	Significant environmental issues and opposition.	Some environmental issues and opposition.	Environmental impacts can be mitigated. Limited concerns.	Minimal mitigation of impacts needed. Minimal concerns.	Limited or no known impacts.
Environmental Land & Habitat	Significant environmental issues and opposition.	Some environmental issues and opposition.	Environmental impacts can be mitigated. Limited concerns.	Minimal mitigation of impacts needed. Minimal concerns.	Limited or no known impacts.
Impacts on Environmental Flows	Significantly reduces instream or B&E flows.	Reduces instream or B&E flows.	No impact.	Increases instream or B&E flows.	Significantly increases instream or B&E flows.
Local Preference	No local support. Significant opposition.	Minimal local support. Some opposition.	Some local support. Limited opposition.	Local support. Minimal opposition.	Widespread local support. Multi-use benefits likely.
Institutional Constraints / Risk of Implementability	Permits opposed. Significant property required.	Some permit opposition. Some property acquisition necessary.	Permits expected with minimal problems. Property available.	Permit application in progress. Property acquired or under acquisition.	Permits issued. Facilities or land owned. Water available.
Development Timeline	>35 years	25-35 years	15-25 years	5-15 years	0-5 years
Sponsorship	No sponsor readily identifiable.	Sponsor identifiable, but uncommitted.	Sponsor(s) identified, commitment level uncertain.	Sponsor(s) are identified and committed to strategy.	Sponsors identified and strategy is in development.
Vulnerability	Significant risk from natural and man-made disasters.	Substantial risk from natural and man-made disasters.	Moderate risk from natural and man-made disasters.	Slight risk from natural and man-made disasters.	Minimal risk from natural and man-made disasters.
Impacts on Other Management Strategies	Significant negative impacts.	Some negative impacts and/or little chance of grouping.	No impact.	Some positive impacts, potential synergistic effects.	Significant positive impacts, synergy achieved.



**Region H**  
**DRAFT Potentially Feasible WMS and Key Projects**

**Conservation**

Industrial Conservation  
Irrigation Conservation  
Municipal Conservation

**Contractual Transfer**

TRA to COH Transfer

**Conveyance**

CHCRWA Transmission and Distribution Expansion  
COH, NHCRWA, and CHCRWA Shared Transmission  
East Texas Transfer  
GCWA Treated Water from LNVA<sup>1</sup>  
Jersey Village Second Connection<sup>2</sup>  
Lake Livingston to SJRA Transfer  
Luce Bayou Interbasin Transfer  
NFBWA Phase 2 Distribution Segments  
NHCRWA Distribution Expansion  
NHCRWA Transmission Line  
Old Galveston Road Transmission Improvements  
WHCRWA Distribution Expansion  
WHCRWA/NFBWA Transmission Line

**Groundwater Development**

Aquifer Storage and Recovery<sup>1</sup>  
Brackish Groundwater Development  
BWA Brackish Groundwater  
Conroe Brackish Groundwater Desalination  
Expanded Use of Groundwater  
Forestar Houston County Project<sup>1</sup>  
Forestar Liberty County Project<sup>1</sup>  
Groveton Groundwater Expansion  
SJRA Catahoula Aquifer Supplies

**Groundwater Reduction Plans**

CHCRWA GRP  
City of Houston GRP  
City of Missouri City GRP  
City of Richmond GRP  
City of Rosenberg GRP  
City of Sugar Land GRP  
Fort Bend County MUD 25 GRP  
Fort Bend County WC&ID No. 2 GRP  
NFBWA GRP  
NHCRWA GRP  
Panorama Village and Shenandoah Joint GRP  
Porter SUD Joint GRP  
River Plantation and East Plantation Joint GRP  
SJRA GRP  
WHCRWA GRP

**Region H**  
**DRAFT Potentially Feasible WMS and Key Projects**

**Reuse**

City of Conroe Reuse  
City of Houston Reuse  
City of Pearland Reuse  
GCWA Reclaimed Water from COH  
Grand Lakes Reclaimed Water System  
Montgomery County MUDs #8 and #9 Reuse  
San Jacinto Basin Regional Return Flows  
SJRA Conroe Reuse Project  
Wastewater Reclamation for Industry<sup>1</sup>  
Wastewater Reclamation for Municipal Irrigation  
WHCRWA Reuse<sup>2</sup>

**Surface Water Development**

Allens Creek Reservoir  
BRA System Operation Permit  
Dow Reservoir and Pump Station Expansion  
Freeport Seawater Desalination  
Lake Somerville Augmentation<sup>1</sup>  
Little River Off-Channel Reservoir<sup>1</sup>  
Lone Star Lake<sup>1</sup>

**Treatment**

BWA Treatment Plant Expansion  
City of Houston Treatment Expansion  
CLCND West Chambers System  
Northeast Water Purification Plant Expansion  
Pearland Surface Water Treatment Plant

**Other Infrastructure**

Brazos Saltwater Barrier

Notes:

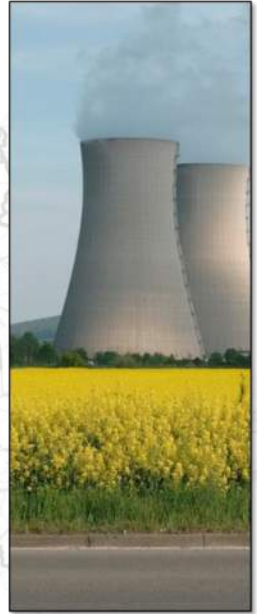
1. *Considered but not recommended in the Region H 2016 RWP.*
2. *Requested through the 2017 Region H WUG survey.*

## Agenda Item 7

Receive update from Consultant Team and Non-Population Demands Committee regarding recommended revisions to draft TWDB projections for the 2021 Region H RWP and consider approving submittal to TWDB.



## Agenda Item 7 Non-Population Demands



## Agenda Item 7 Non-Population Demands



- Review by Non-Population Demands Committee
- Local stakeholder data and expertise
- Presented to RWPG in November
- Due to TWDB by January 12.
- Consider for approval

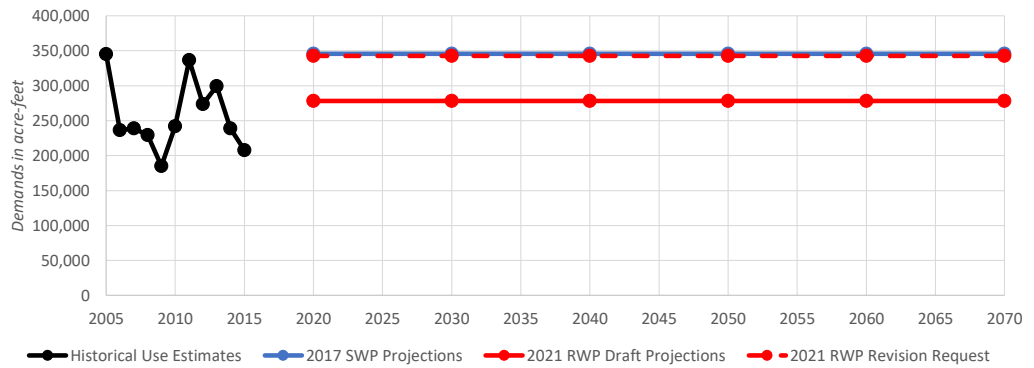


# Agenda Item 7 Non-Population Demands



## Committee Analysis and Recommendations

- Incorporate 2015
- Use the second highest demand from 2010-2015

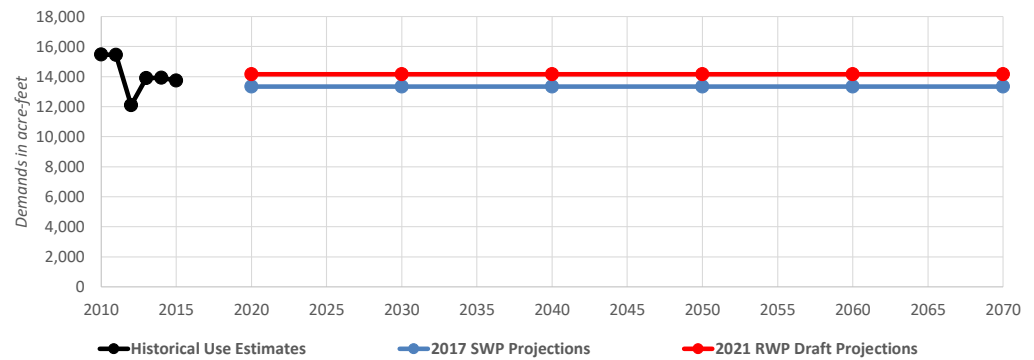


# Agenda Item 7 Non-Population Demands



## Committee Analysis and Recommendations

- No requested revisions for livestock demands for this round



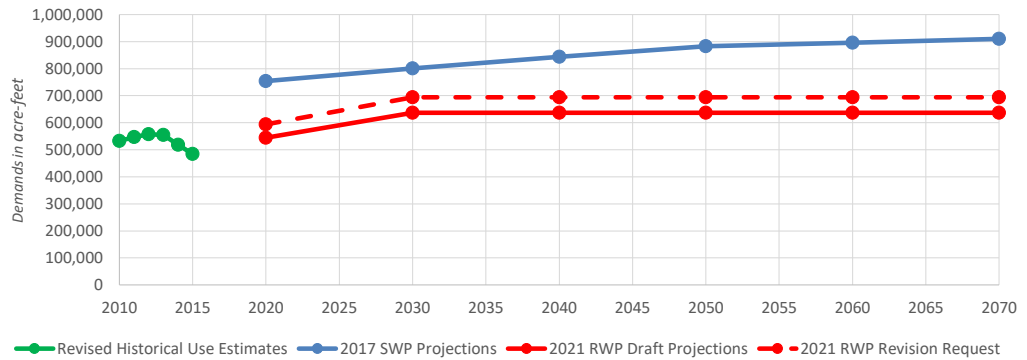


# Agenda Item 7 Non-Population Demands



## Committee Analysis and Recommendations

- Adjust historical for Galveston County (GCWA)
- New baseline - Use max 2010-2015 + unaccounted for
- TWDB growth rate from 2020 to 2030 applied to new baseline.

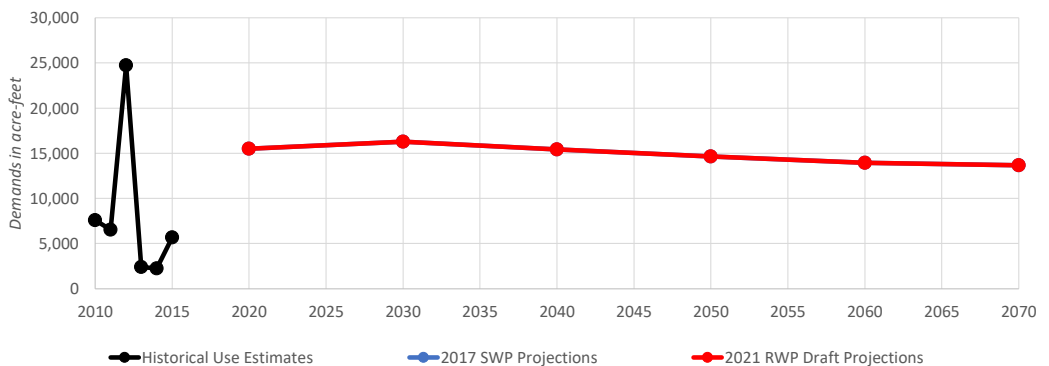


# Agenda Item 7 Non-Population Demands



## Committee Analysis and Recommendations

- No requested revisions for mining demands for this round

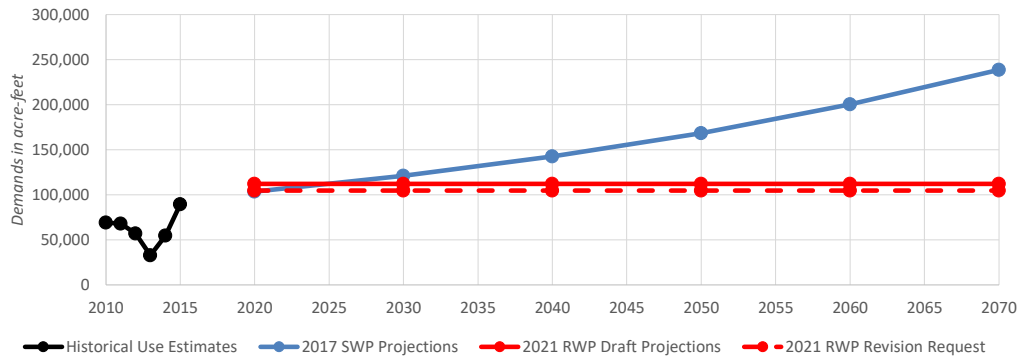


## Agenda Item 7 Non-Population Demands



### Committee Analysis and Recommendations

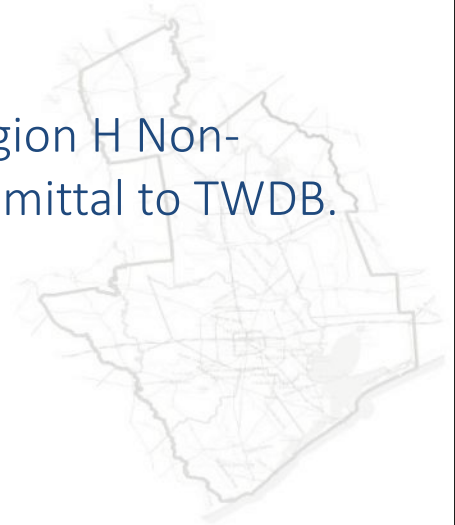
- Use max historical use (2010-2015) by generation facility and summing the total for the county
- All cogeneration should be removed from steam electric power projections



## Agenda Item 7 Non-Population Demands

### Action:

Approve proposed revisions to Region H Non-Population demand projections for submittal to TWDB.



December 6, 2017

**Agricultural**

Robert Bruner  
Pudge Willcox,  
Executive Committee

**Counties**

John Blount  
Judge Mark Evans, Chair  
Judge Art Henson

**Electric Generating Utilities**

Vacant

**Environmental**

John R. Bartos,  
Executive Committee

**Groundwater Management Areas**

David Bailey  
Kathy Jones

**Industries**

James Comin  
Glenn Lord

**Municipalities**

Yvonne Forrest  
Robert Istre

**Public**

Carl Masterson

**River Authorities**

David Collinsworth  
Jace Houston, Secretary  
Kevin Ward

**Small Businesses**

Judge Bob Hebert  
Ruth Stultz  
Vacant

**Water Districts**

Marvin Marcell  
Mike Turco  
Jimmie Schindewolf

**Water Utilities**

Ivan Langford  
James Morrison  
William Teer

Jeff Walker  
Executive Administrator  
Texas Water Development Board  
1700 North Congress Av.  
Austin, Texas 78701

**Re:** Region H Non-Population Demand Revision Request

Dear Mr. Walker:

For the 2021 Regional Plans the Texas Water Development Board (TWDB) developed new methodology for non-municipal demand projections for four categories.

- Irrigation
- Livestock
- Manufacturing
- Steam Electric

The methodology and projections for mining were not changed from the 2016 Regional Plans.

The Region H Water Planning Group (RHWPG) developed draft projections that were considered by the Non-Population Water Demands Committee at a meeting on September 22, 2017. Based on input from that meeting and local data provided by several industries and wholesale water providers, the RHWPG has developed proposed demand revisions. The purpose of this memorandum is to detail how the proposed demand revisions were developed and as documentation for the spreadsheet "RegionH\_Non-Municipal Draft Projections\_2021.xlsx". Each section will detail the 2016 projection methodology, 2021 TWDB methodology and projections and the Region H proposed methodology and revision request.

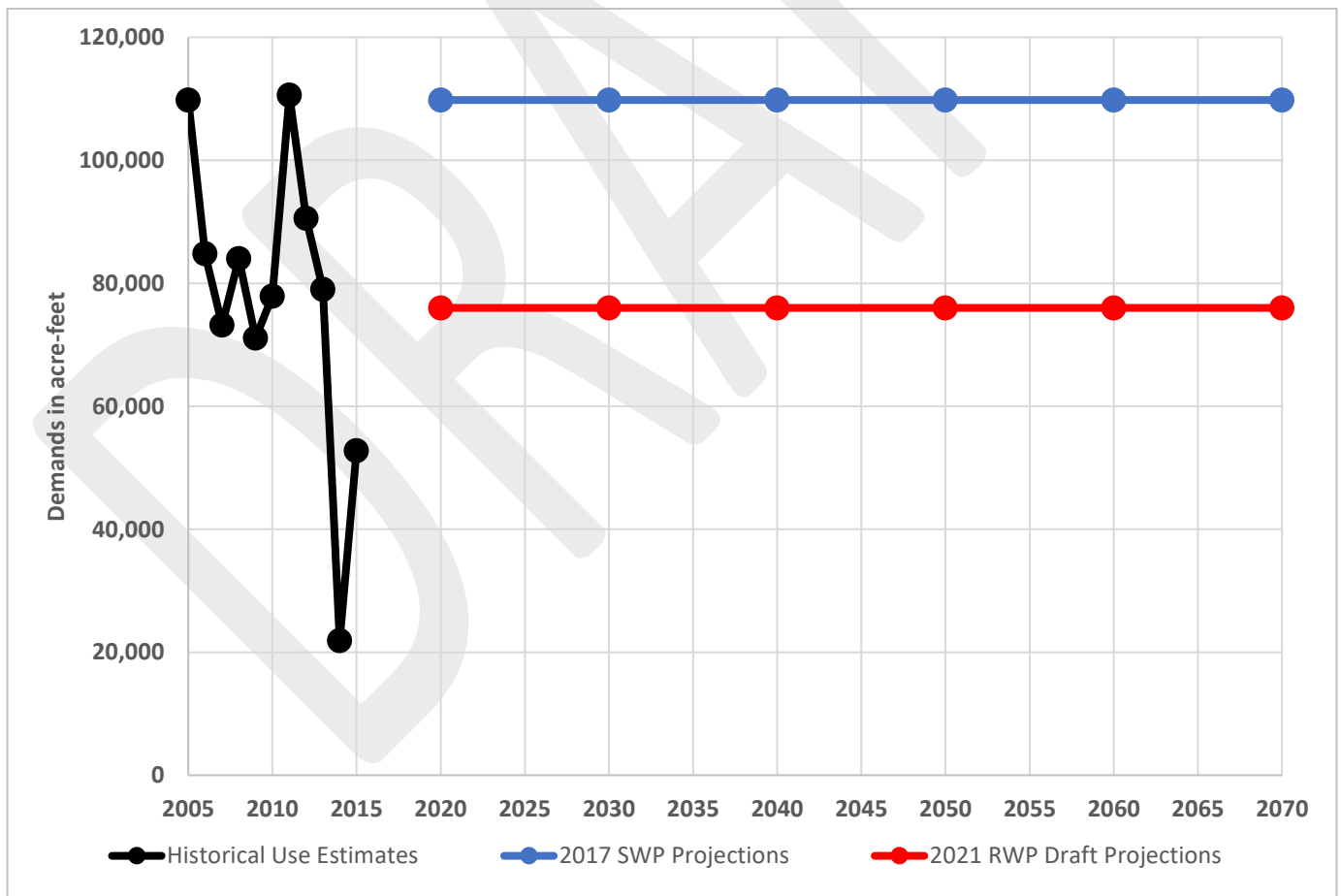
### Irrigation

In the 2016 Region H Plan, the irrigation demands were based on the maximum 2005-2009 water use. The TWDB annual use estimates were developed by multiplying the crop acreage by crop type provided by the Farm Service Agency (FSA). These estimates were then sent to local irrigation districts or groundwater conservation districts for review. The baseline projections were then held constant from 2020-2070.

For the 2021 Regional Plans the TWDB used the average of the 2010-2014 use as the baseline projection. The irrigation water use from 2010-2014 also included reuse volumes. The 2020-2070 projections were held constant from the baseline. The RHWPG has the following concerns with the TWDB methodology.

- Using an average of the annual water use is not reflective of a dry year demand. During hot, dry, periods irrigators require additional water to produce their crops. In some cases, using the average led to four out of the five years from 2010-2014 exceeding the average (see *Figure 1*).
- During drought periods while the demand may still be high, curtailments may be required by the wholesale provider or even by TCEQ during a priority call artificially suppressing demands (see *Figure 1*).
- 2015 water use estimates are now available and should be used in any methodology.

Figure 1: Brazoria County Irrigation Use and Projections



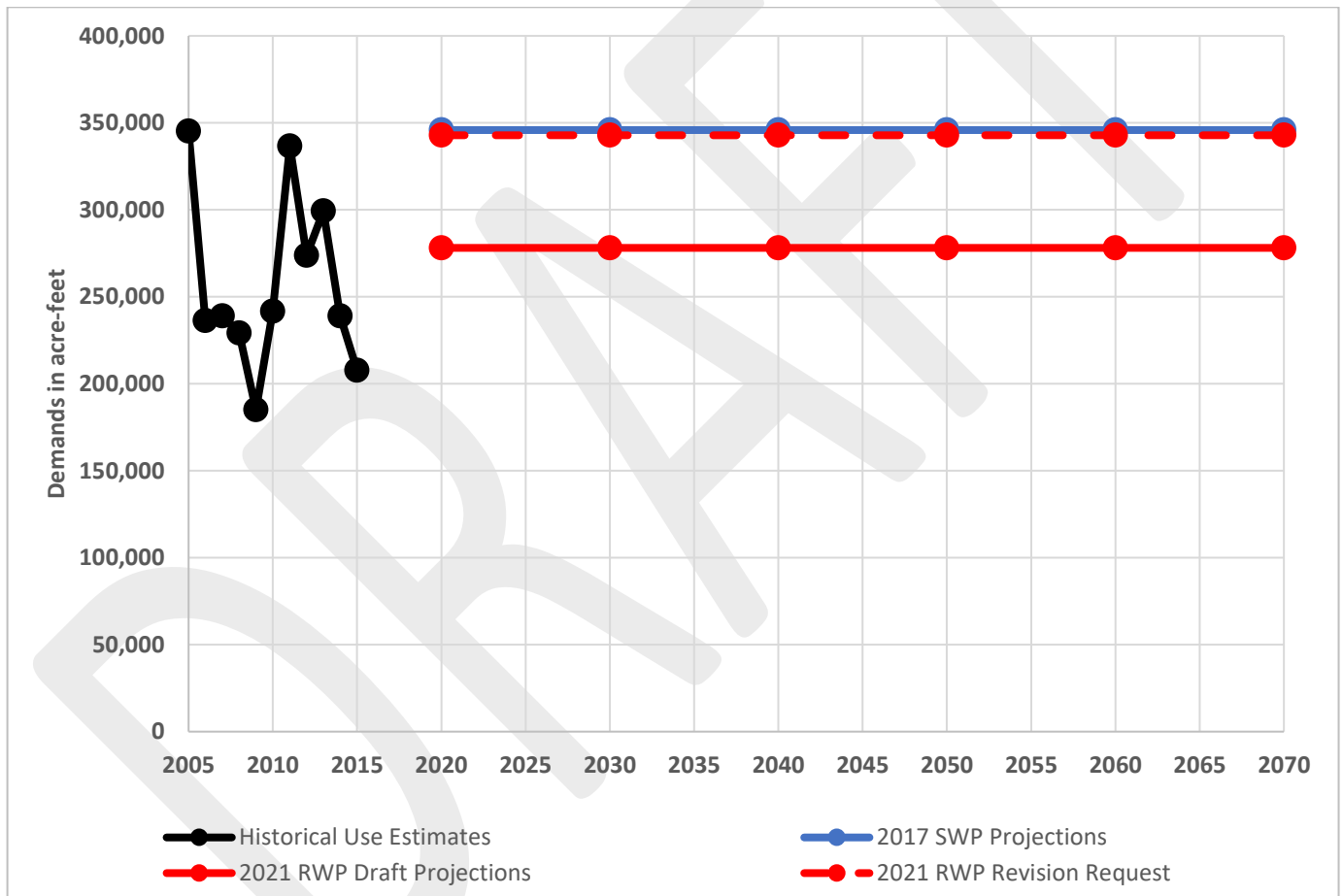
The RHWPG proposed the following alternative methodology to the non-population demands committee which was approved and is included in this revision request.

**RHWPG Recommendation**

- Use the second highest demand from 2010-2015.

At least one year exceeds this demand and could be an outlier. The 2<sup>nd</sup> largest value is more conservative than the maximum but is still reflective of a dry year demand. This results in a similar total for the Region as the 2016 projections, although individual counties vary. The total Region H irrigation demand is shown in *Figure 2* and the individual counties are shown in *Table 1*.

**Figure 2: Region H Irrigation Use and Projections**





### Livestock

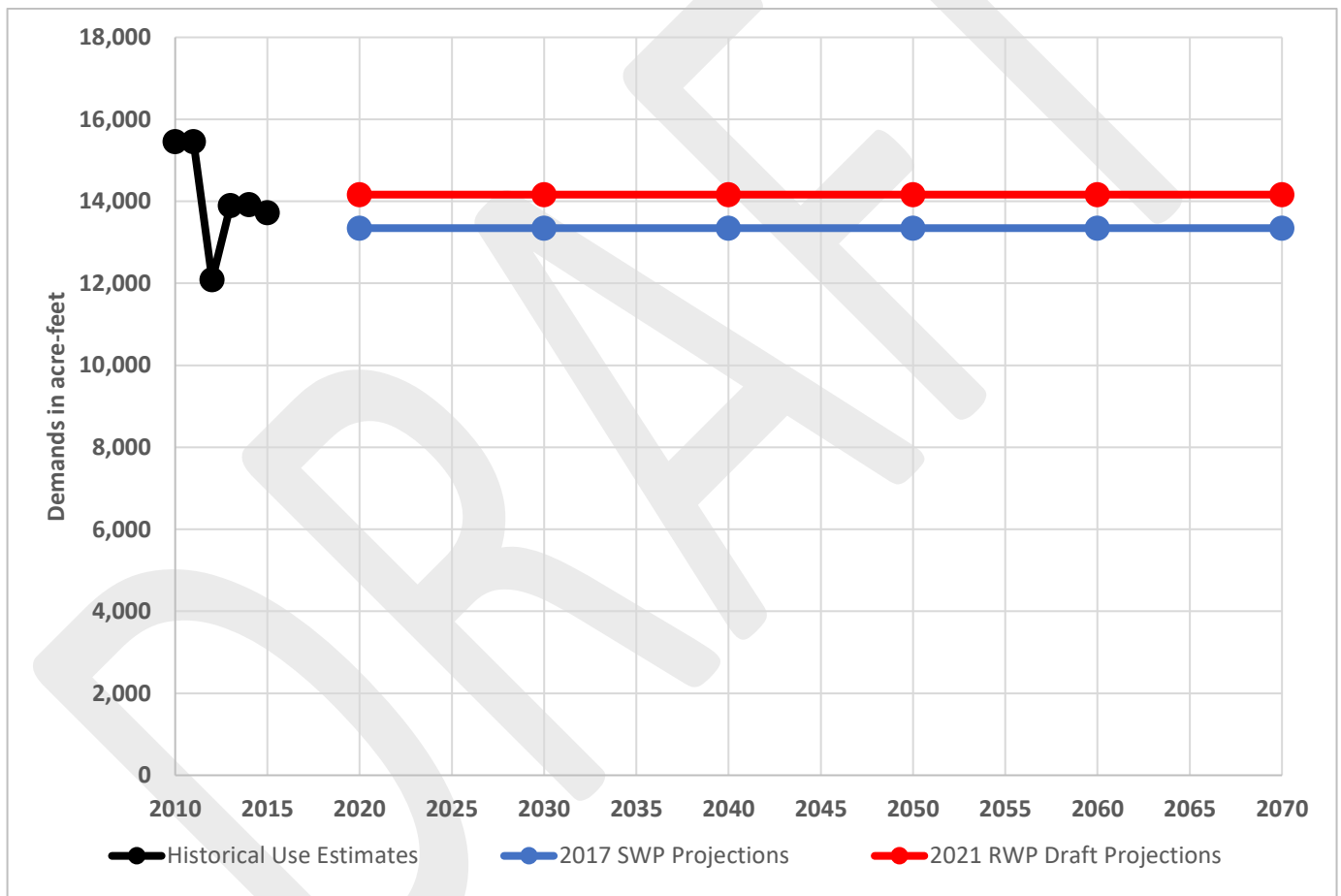
In the 2016 Plan, livestock projections were based on the average water use from 2005-2009. Annual use estimates were based on the number of head of livestock of each species from the Texas Agricultural Statistics Service (TASS) multiplied by per-head water use by species. For the 2021 Plan, the TWDB projection methodology was similar except the average from 2009-2014 was used and a different chicken per-head water use was applied.

### RHWPG Recommendation

- There are no requested revisions for livestock demands for this round of planning.

Figure 3 shows the historical mining water use and projections.

Figure 3: Region H Livestock Use and Projections



### Manufacturing

In the 2016 Region H Plan, manufacturing demands were based on 2004-2008 water use plus estimates of under-surveyed water use. The growth trend from the 2011 Region H Plan was used for the projections.

For the 2021 Region H plan the TWDB used the highest single-year county water use from 2010-2014. The growth trend from 2020 to 2030 was based on the Texas Workforce Commission (TWC) employment projections from 2014 to 2024. Growth from 2030 to 2070 was held constant. The RHWPG identified the following concerns while reviewing the TWDB data and projections.

- Based on information provided by the non-population committee the historical use numbers provided by TWDB for Brazoria (Figure 4) and Galveston Counties (Figure 5) are not correct.
- Holding growth constant after 2030 does not reflect reality of the growing manufacturing sector in Region H. It is unlikely that reductions in water use per production will offset all growth in this sector.
- 2015 water use estimates are now available and should be used in any methodology.

**Figure 4: Brazoria County Manufacturing Use and Projections**

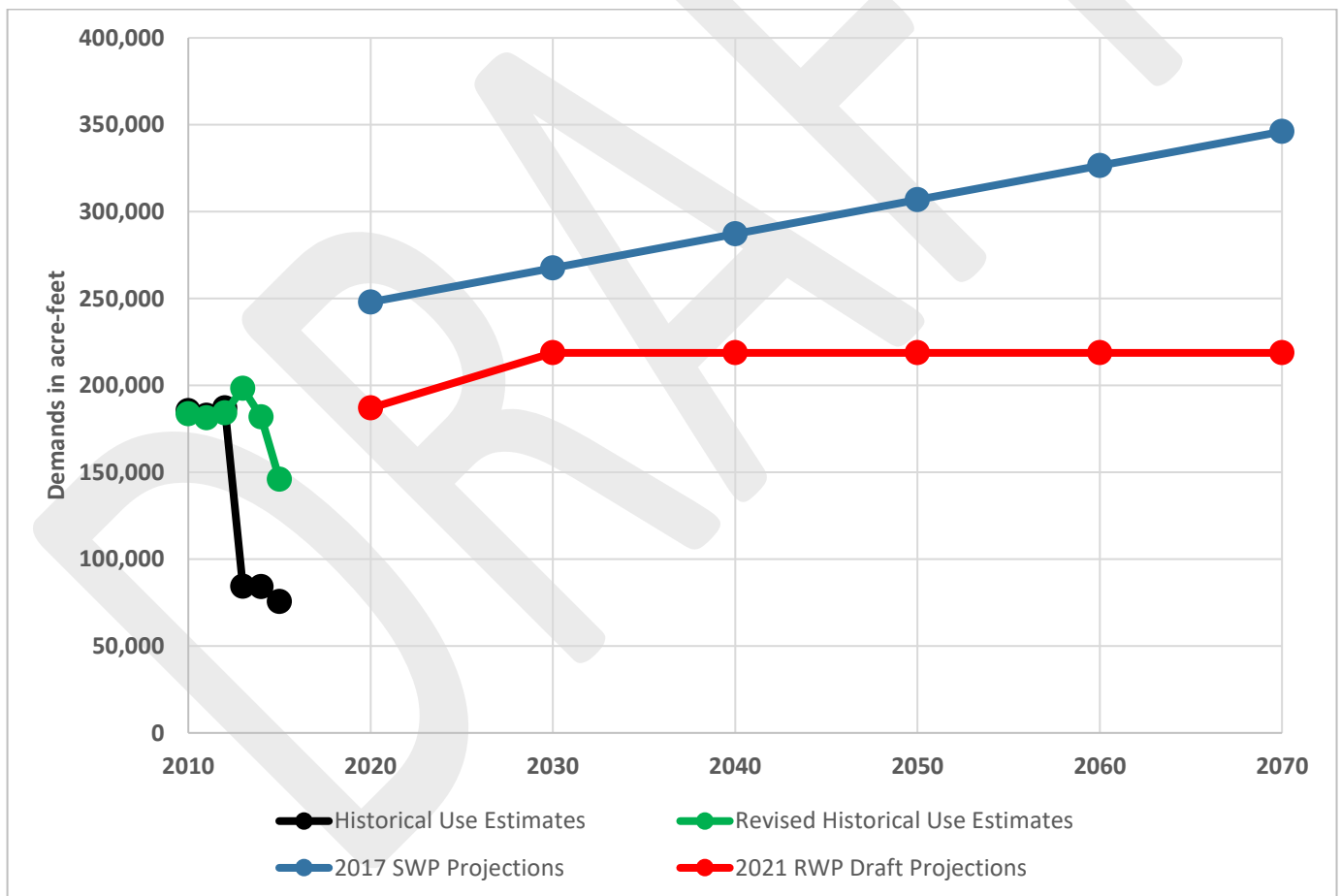
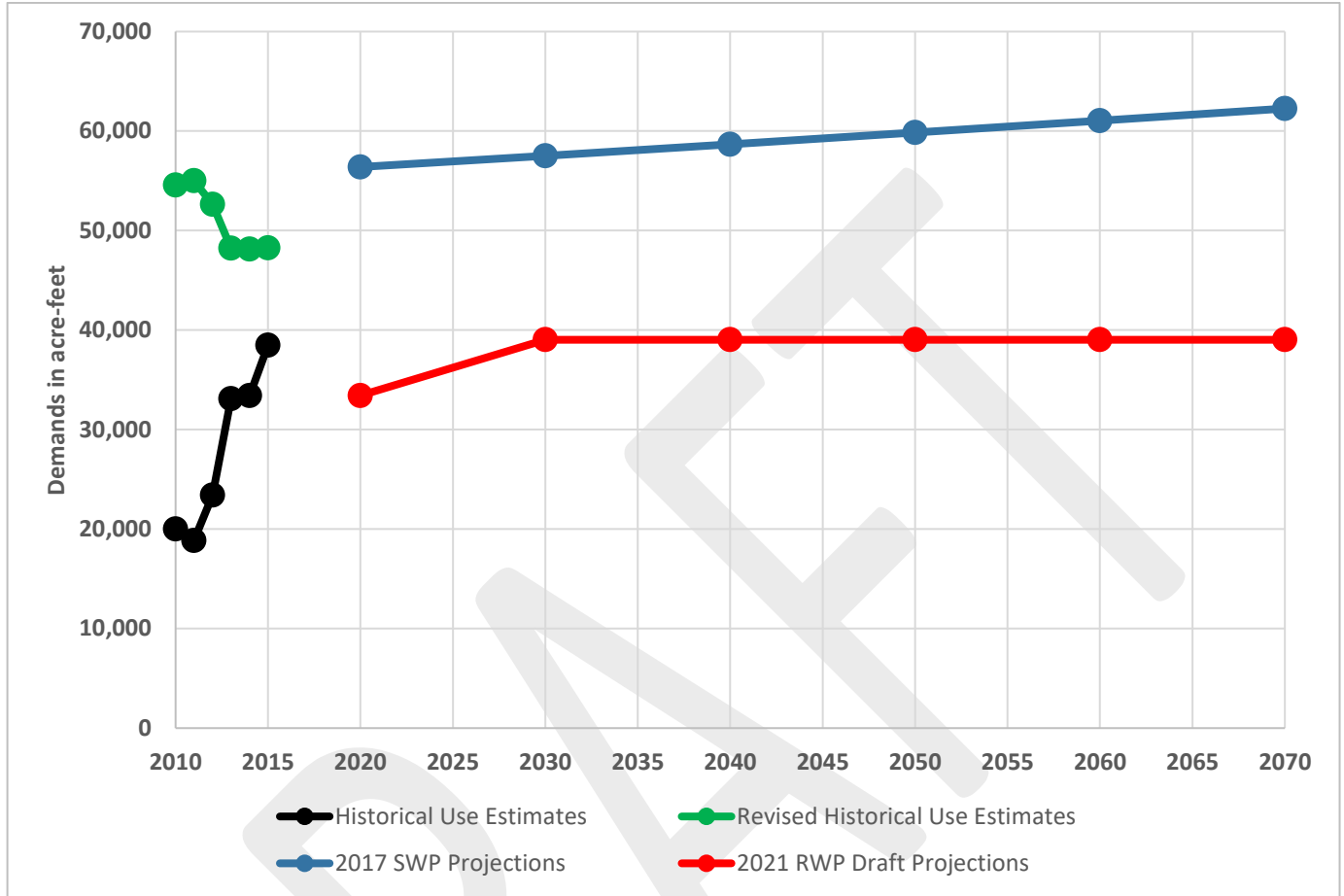




Figure 5: Galveston County Manufacturing Use and Projections



The RHWPG proposed the following alternative methodology to the non-population demands committee which was approved and is included in this revision request.

RHWPG Recommendation

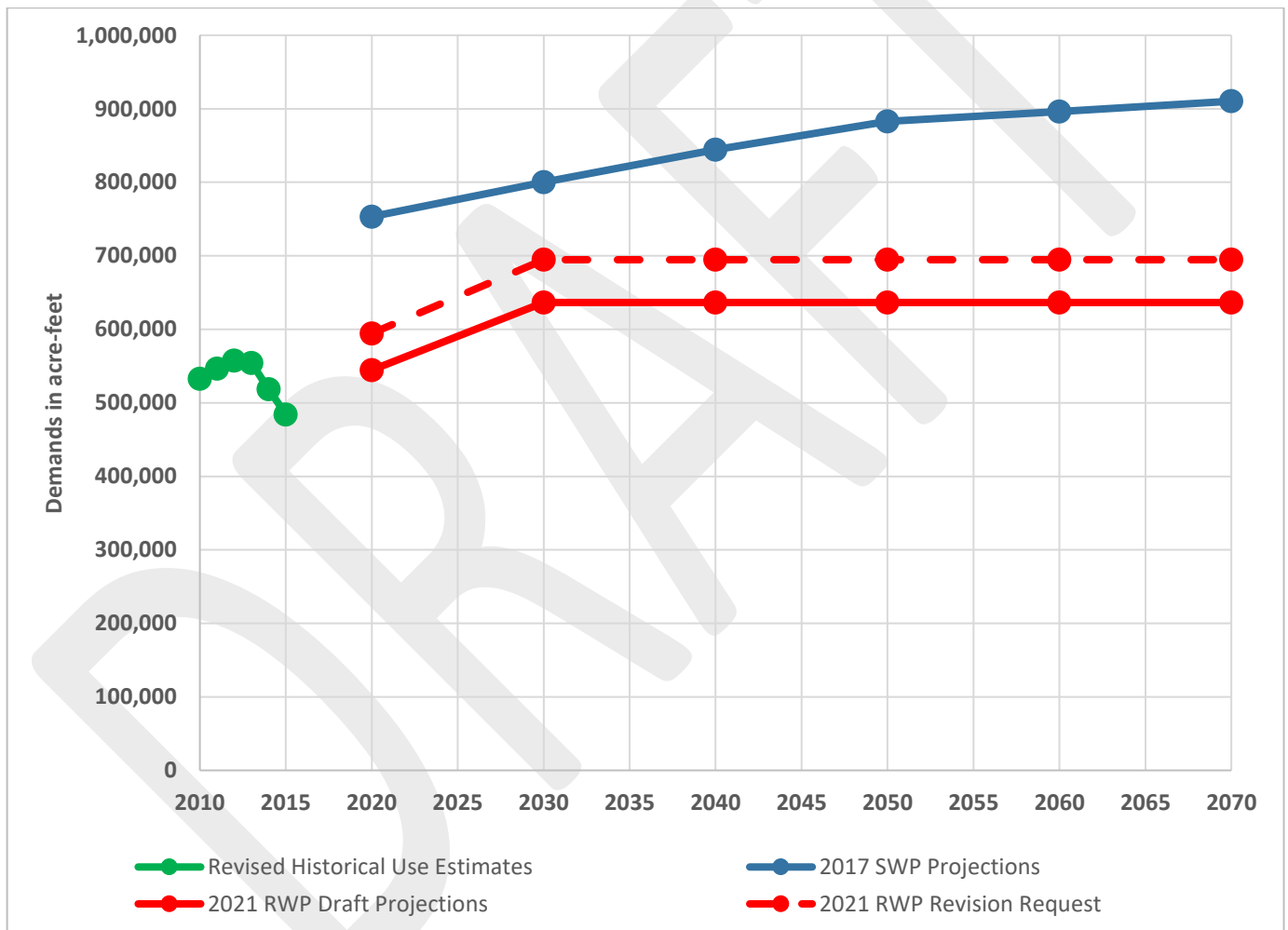
- Use the maximum historical use (2010-2015) for the county.
- Include the potential unaccounted manufacturing water use provided by TWDB.
- Use TWDB growth rate from 2020 to 2030 applied to the new baseline.
- Historical use data for Brazoria County was corrected for 2010-2015 based on water use survey data available from the TWDB on their website. This corrected usage is consistent with data provided by Dow Chemical and GCWA.
- Historical use data from the Gulf Coast Water Authority (GCWA) provided sales to manufacturing for Galveston County which were used. The data provided by GCWA is included as *Table 2*.

**Table 2: GCWA Water Use in Galveston County**

	Annual Water Use (Ac-Ft)					
	2010	2011	2012	2013	2014	2015
GCWA reported use	54,563	55,003	52,629	48,229	48,137	48,262
TWDB Historical MFG Use	20,008	18,860	23,429	33,120	33,429	38,470

The total Region H manufacturing demand is shown in *Figure 6* and the individual counties are shown in *Table 3*.

**Figure 6: Region H Manufacturing Use and Projections**



**Table 3: 2021 RWP Draft Manufacturing Water Demand Projections (Acre-Feet)**

County	Revised Historical Use Estimates										2017 SWP Projections					
	2010	2011	2012	2013	2014	2015	2020	2030	2040	2050	2060	2070				
AUSTIN	106	51	35	28	23	14	108	117	126	133	145	158				
BRAZORIA	183,658	181,354	184,065	198,315	181,742	145,906	247,938	267,567	287,195	306,824	326,452	346,081				
CHAMBERS	19,073	18,956	16,354	15,604	17,584	20,182	11,043	11,919	12,792	13,577	14,591	15,681				
FORT BEND	4,118	4,101	3,988	3,521	2,468	2,341	8,971	9,306	9,576	9,755	9,233	8,739				
GALVESTON	54,563	55,003	52,629	48,229	48,137	48,262	56,394	57,522	58,672	59,846	61,042	62,263				
HARRIS	268,865	285,096	298,253	286,783	266,708	265,873	424,761	449,218	470,881	487,094	478,957	470,956				
LEON	563	846	733	694	676	581	834	958	1,083	1,196	1,301	1,415				
LIBERTY	144	110	168	111	188	166	440	508	578	641	696	756				
MADISON	0	0	0	0	0	0	226	247	268	287	311	337				
MONTGOMERY	1,299	724	737	704	553	649	2,135	2,388	2,640	2,863	3,107	3,372				
POLK	0	5	5	5	5	5	0	0	0	0	0	0				
SAN JACINTO	5	5	5	8	9	8	11	12	13	14	15	16				
TRINITY	0	0	0	0	0	0	0	0	0	0	0	0				
WALKER	249	207	216	244	230	228	312	312	312	312	312	312				
WALLER	56	56	64	77	70	29	134	149	164	177	192	208				
<b>Region Total</b>	<b>532,699</b>	<b>546,514</b>	<b>557,252</b>	<b>554,323</b>	<b>518,393</b>	<b>484,244</b>	<b>753,307</b>	<b>800,223</b>	<b>844,300</b>	<b>882,719</b>	<b>896,354</b>	<b>910,294</b>				

County	2021 RWP Draft Projections						2021 RWP Revision Request					
	2020	2030	2040	2050	2060	2070	2020	2030	2040	2050	2060	2070
AUSTIN	106	114	114	114	114	114	106	114	114	114	114	114
BRAZORIA	186,924	218,713	218,713	218,713	218,713	218,713	198,410	232,153	232,153	232,153	232,153	232,153
CHAMBERS	19,073	22,227	22,227	22,227	22,227	22,227	20,182	23,519	23,519	23,519	23,519	23,519
FORT BEND	4,118	4,528	4,528	4,528	4,528	4,528	5,403	5,941	5,941	5,941	5,941	5,941
GALVESTON	33,429	39,028	39,028	39,028	39,028	39,028	55,104	64,333	64,333	64,333	64,333	64,333
HARRIS	298,253	348,713	348,713	348,713	348,713	348,713	311,627	364,350	364,350	364,350	364,350	364,350
LEON	846	1,069	1,069	1,069	1,069	1,069	846	1,069	1,069	1,069	1,069	1,069
LIBERTY	188	222	222	222	222	222	245	289	289	289	289	289
MADISON	0	0	0	0	0	0	0	0	0	0	0	0
MONTGOMERY	1,299	1,468	1,468	1,468	1,468	1,468	2,135	2,413	2,413	2,413	2,413	2,413
POLK	5	5	5	5	5	5	5	5	5	5	5	5
SAN JACINTO	9	10	10	10	10	10	9	10	10	10	10	10
TRINITY	0	0	0	0	0	0	0	0	0	0	0	0
WALKER	249	303	303	303	303	303	249	303	303	303	303	303
WALLER	77	78	78	78	78	78	134	136	136	136	136	136
<b>Region Total</b>	<b>544,576</b>	<b>636,478</b>	<b>636,478</b>	<b>636,478</b>	<b>636,478</b>	<b>636,478</b>	<b>594,455</b>	<b>694,634</b>	<b>694,634</b>	<b>694,634</b>	<b>694,634</b>	<b>694,634</b>

### Mining

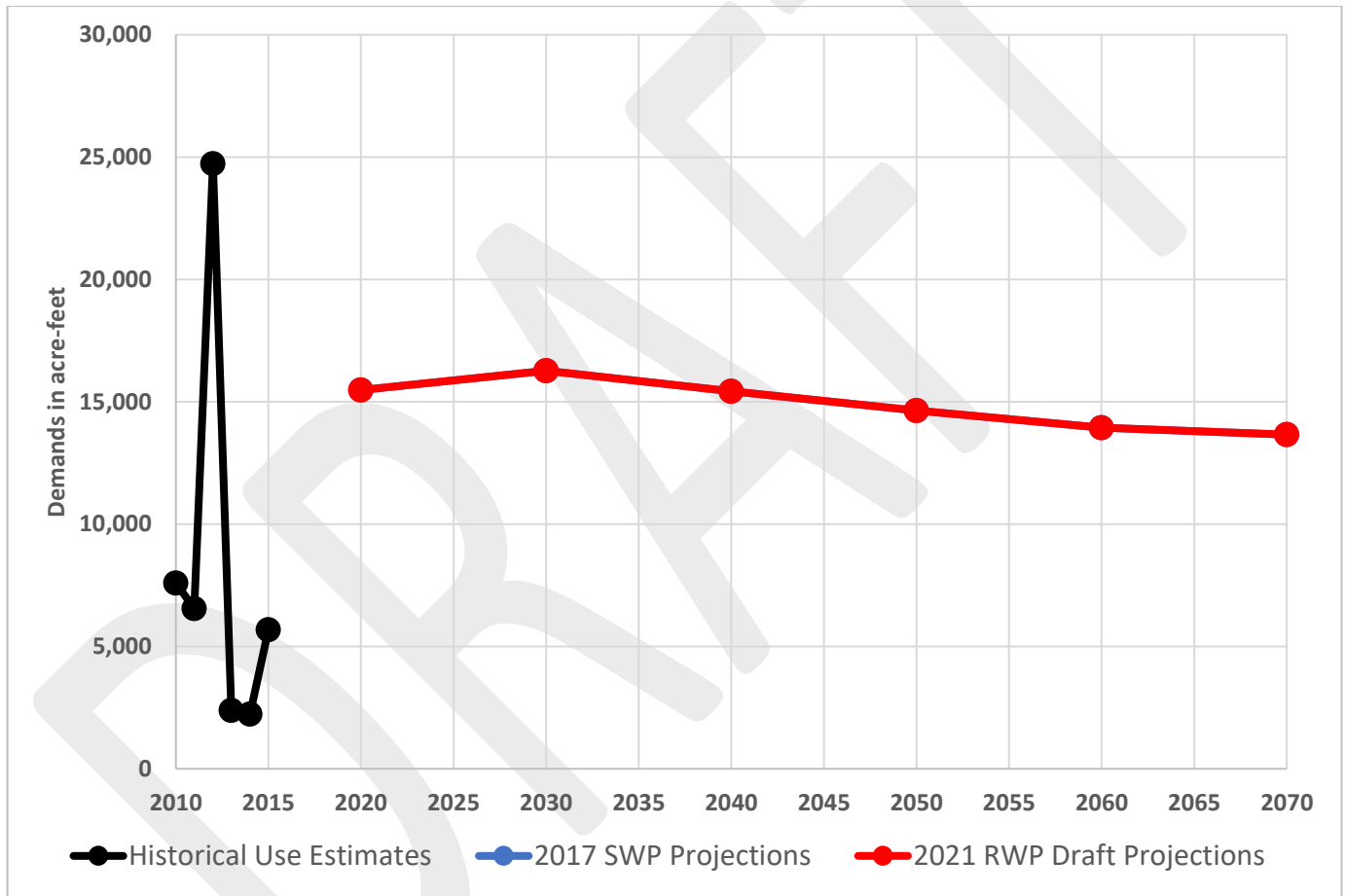
The methodology and projections for mining were not changed from the 2016 Regional Plans. Projections for the 2016 Plan were based on the 2011 UT Bureau of Economic Geology (BEG) Report and 2012 update. Region H requested revisions under the last plan which were approved.

#### RHWPG Recommendation

- There are no requested revisions for mining demands for this round of planning.

Figure 7 shows the historical mining water use and projections.

**Figure 7: Region H Mining Use and Projections**



### **Steam Electric Power**

In the 2016 Region H Plan, steam electric power demands were based on historical water use by facility, anticipated facility changes or new proposed facilities. This was in part based on a University of Texas (UT) Bureau of Economic Geology (BEG) report published in 2008.

For the 2021 Region H plan the TWDB used the highest single-year county water use from 2010-2014. Growth from 2020 to 2070 was held constant. The RHWPG identified the following concerns while reviewing the TWDB data and projections.

1. While the highest single-year county use approximates the highest aggregate steam electric use in a year, individual generation facilities may not have overlapping highest year use.
2. Cogeneration demand should not be included in steam electric power demand but as manufacturing demands.
3. Holding growth constant from 2020-2070 does not reflect reality of the growing electricity demands in Region H.
4. 2015 water use estimates are now available and should be used in any methodology.

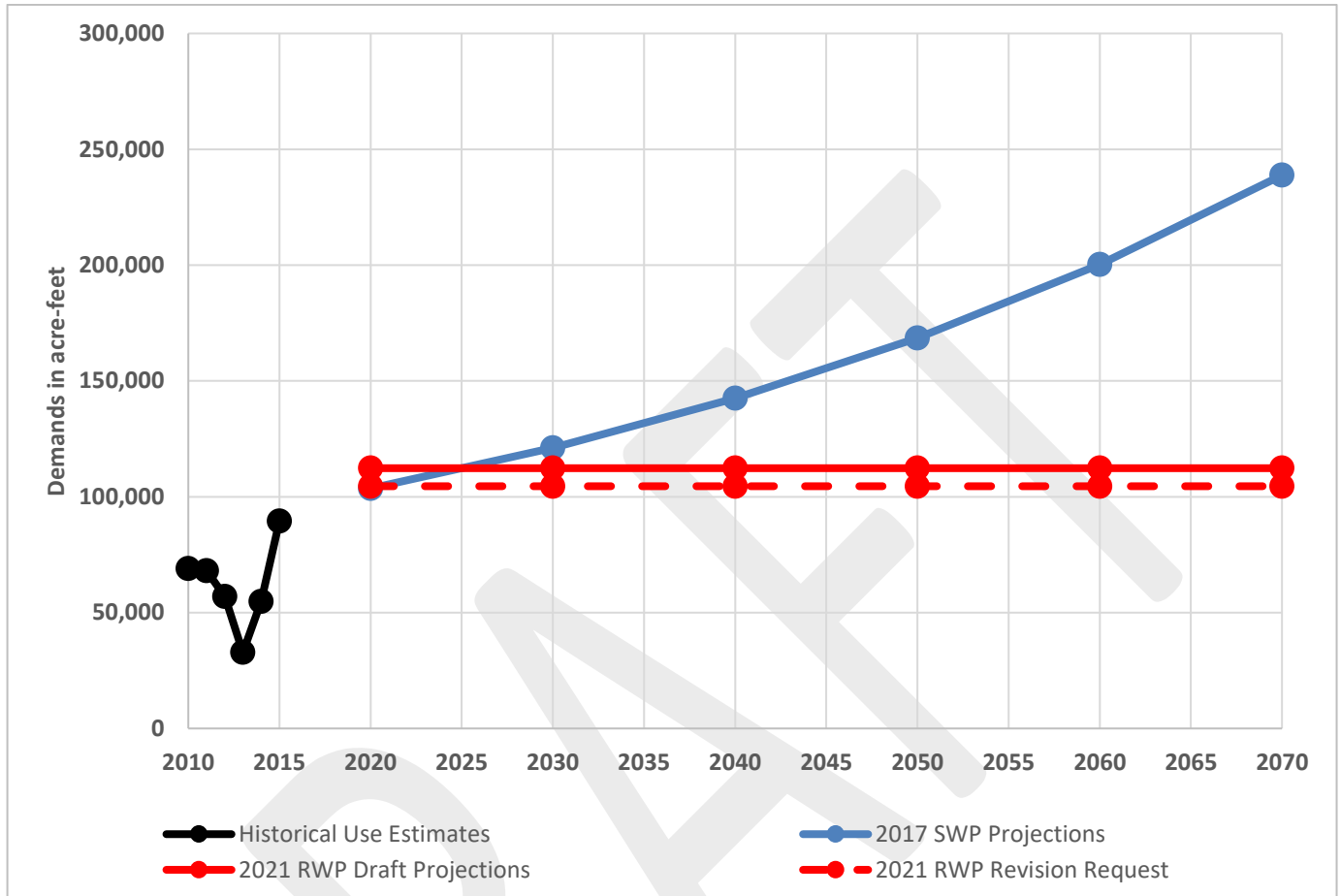
The RHWPG proposed the following alternative methodology to the non-population demands committee which was approved and is included in this revision request.

#### RHWPG Recommendation

- Use the maximum historical use (2010-2015) by generation facility and summing the total for the county.
- All cogeneration should be removed from the steam electric power projections.

The total Region H steam electric power demand is shown in *Figure 8* and the individual counties are shown in *Table 4*.

**Figure 8: Region H Total Steam Electric Power Use and Projections**



**Table 4: 2021 RWP Draft Steam Election Power Water Demand Projections (Acre-Feet)**

County	Historical Use Estimates										2017 SWP Projections				
	2010	2011	2012	2013	2014	2015	2020	2030	2040	2050	2060	2070			
AUSTIN															
BRAZORIA															
CHAMBERS	607	496	190	769	905	6,328	3,536	4,134	4,863	5,751	6,834	7,573			
FORT BEND	59,057	56,565	47,089	24,467	46,929	51,631	67,762	79,220	93,191	110,219	130,977	156,964			
GALVESTON	33	0	0	0	0	2,725									
HARRIS	6,101	6,431	7,307	4,270	4,003	24,039	23,556	27,540	32,396	38,316	45,532	54,106			
LEON															
LIBERTY															
MADISON							238	278	327	387	459	546			
MONTGOMERY	3,258	4,597	2,339	3,294	2,976	4,842	8,537	9,981	11,741	13,886	16,502	19,611			
POLK															
SAN JACINTO															
TRINITY															
WALKER															
WALLER															
<b>Region Total</b>	<b>69,056</b>	<b>68,089</b>	<b>56,925</b>	<b>32,800</b>	<b>54,813</b>	<b>89,565</b>	<b>103,629</b>	<b>121,153</b>	<b>142,518</b>	<b>168,559</b>	<b>200,304</b>	<b>238,800</b>			

County	2021 RWP Draft Projections										2021 RWP Revision Request				
	2020	2030	2040	2050	2060	2070	2020	2030	2040	2050	2060	2070			
AUSTIN															
BRAZORIA	2,540	2,540	2,540	2,540	2,540	2,540	0	0	0	0	0	0			
CHAMBERS	8,706	8,706	8,706	8,706	8,706	8,706	8,706	8,706	8,706	8,706	8,706	8,706			
FORT BEND	62,017	62,017	62,017	62,017	62,017	62,017	62,017	62,017	62,017	62,017	62,017	62,017			
GALVESTON	4,654	4,654	4,654	4,654	4,654	4,654	0	0	0	0	0	0			
HARRIS	29,840	29,840	29,840	29,840	29,840	29,840	28,993	28,993	28,993	28,993	28,993	28,993			
LEON															
LIBERTY															
MADISON															
MONTGOMERY	4,597	4,597	4,597	4,597	4,597	4,597	4,845	4,845	4,845	4,845	4,845	4,845			
POLK															
SAN JACINTO	1	1	1	1	1	1	0	0	0	0	0	0			
TRINITY															
WALKER															
WALLER															
<b>Region Total</b>	<b>112,355</b>	<b>112,355</b>	<b>112,355</b>	<b>112,355</b>	<b>112,355</b>	<b>112,355</b>	<b>104,561</b>	<b>104,561</b>	<b>104,561</b>	<b>104,561</b>	<b>104,561</b>	<b>104,561</b>			

Region H Non-Population Demand Revision Request  
December 6, 2017

The RHWPG appreciates this opportunity to comment on draft projections for the 2021 Region H Regional Water Plan. Please feel free to contact myself or Jason Afinowicz of Freese and Nichols with any questions regarding this submittal.

Sincerely,

Mark Evans  
Chair, Region H Water Planning Group

cc: Lann Bookout, TWDB

DRAFT



## Agenda Item 8

Receive update from Consultant Team and Population Demands Committee regarding recommended revisions to draft TWDB projections for the 2021 Region H RWP and consider approving submittal to TWDB.



## Agenda Item 8 Population Demands

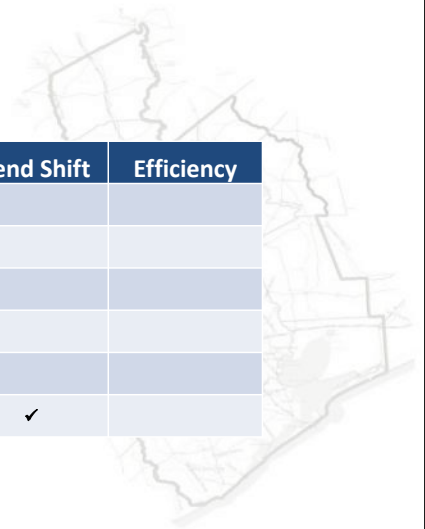
- Survey
- RWPG analysis
- 16 WUGs identified
- Revised in context of TWDB guidance
  - Retail utility area
  - Current or near-term
- Other WUGs impacted
  - County-Other
  - Annexed WUGs

WUG Name	Baseline	Growth Rate	Build-Out	Service Area
CONCORD-ROBBINS WSC	✓	✓		
FIRST COLONY MUD 9			✓	
FLO COMMUNITY WSC	✓	✓		
FORT BEND COUNTY MUD 121			✓	
FORT BEND COUNTY MUD 129	✓	✓	✓	
FORT BEND COUNTY MUD 140	✓	✓	✓	
FORT BEND COUNTY MUD 187		✓		
FRIENDSWOOD		✓		
FULSHEAR		✓	✓	✓
GALVESTON COUNTY WCID 1	✓	✓		
HARRIS COUNTY WCID 1	✓			
HARRIS COUNTY WCID 74	✓		✓	✓
MSEC ENTERPRISES	✓	✓		✓
PEARLAND	✓			✓
PHELPS SUD	✓			✓
SUGAR LAND			✓	✓

## Agenda Item 8 Population Demands

- Baseline per-capita adjustment for six WUGs
- WUS and WUG data to justify changes
- Annexation resulting in composite value

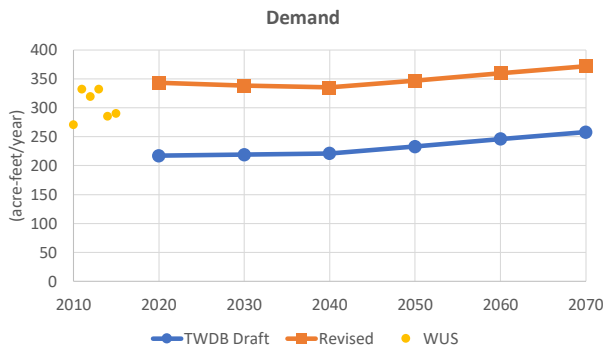
WUG Name	Other Year	Data Error	Abnormality	Trend Shift	Efficiency
FLO COMMUNITY WSC		✓			
FORT BEND COUNTY MUD 187	✓				
HARRIS COUNTY WCID 74		✓			
MSEC ENTERPRISES		✓			
PHELPS SUD		✓			
SUGAR LAND				✓	



## Agenda Item 8 Population Demands

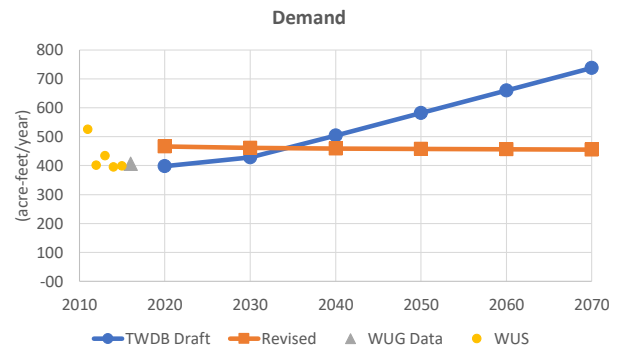
### Concord-Robbins WSC

- Adjust near-term pop based on WUS data



### Fort Bend County MUD 121

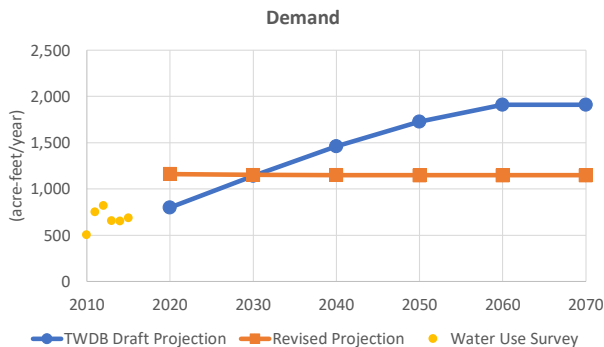
- Already built out



## Agenda Item 8 Population Demands

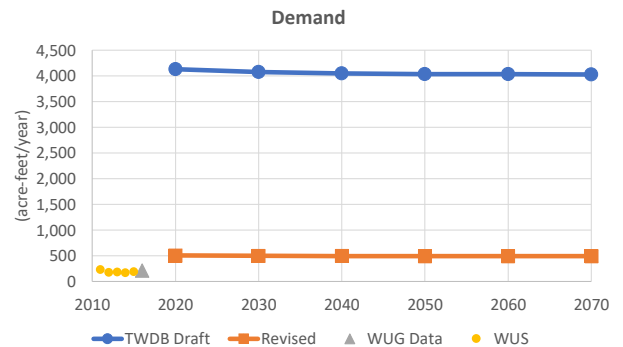
### Fort Bend County MUD 129

- Adjust from WUS and WUG data



### Fort Bend County MUD 140

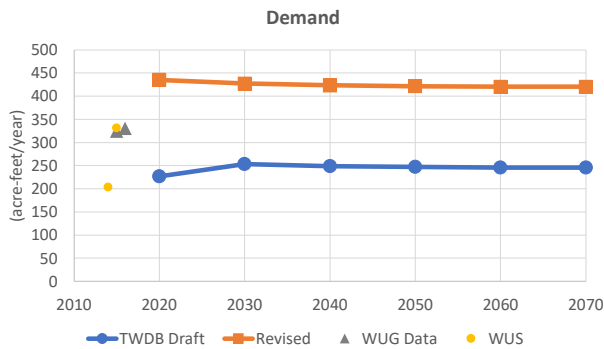
- Issue identified by RWPG review
- Adjust for WUS and WUG data



## Agenda Item 8 Population Demands

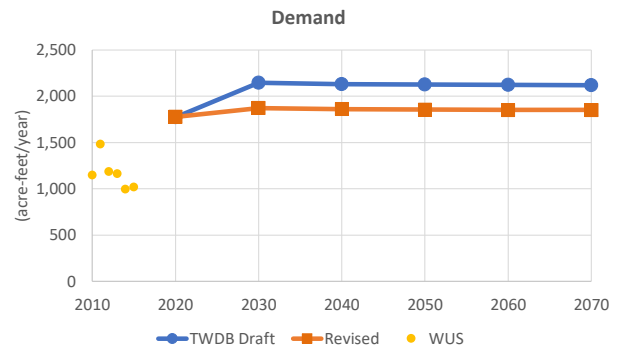
### Fort Bend County MUD 187

- Buildout within the next year
- 2015 data to estimate per-capita



### First Colony MUD 9

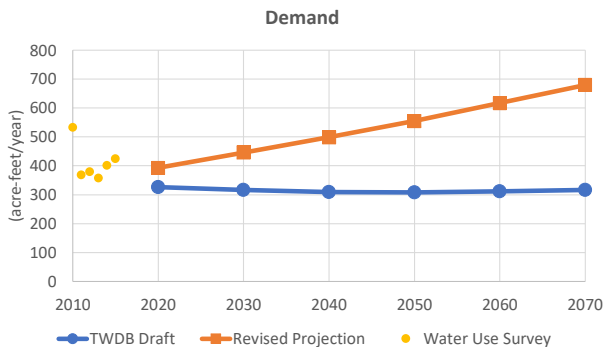
- Nearly built out



## Agenda Item 8 Population Demands

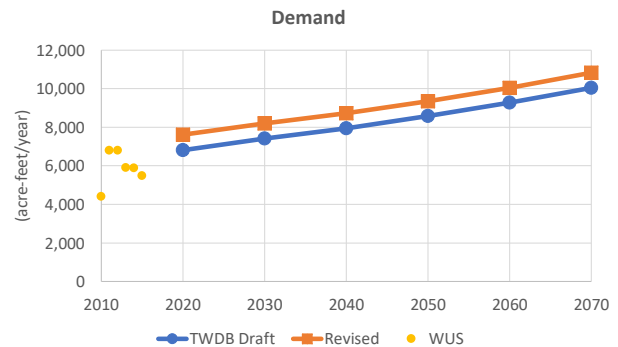
### Flo Community WSC

- WUG data and request
- Adjust per-capita from 2011 data



### Friendswood

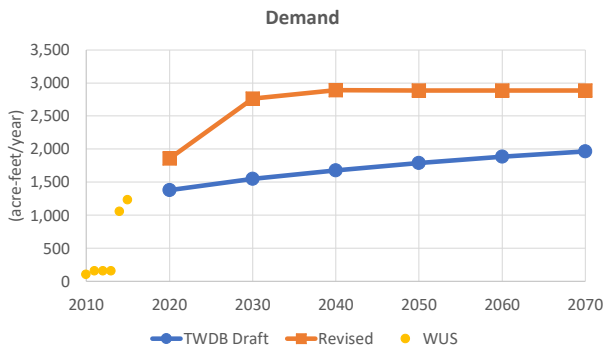
- Growth exceeds projection – shift curve upward



# Agenda Item 8 Population Demands

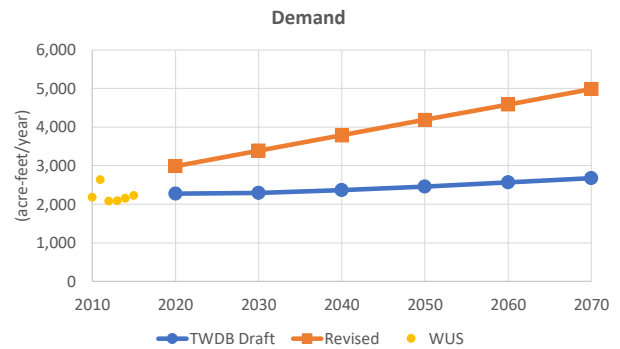
## Fulshear

- Recent service area increases
- WUG projects more rapid growth



## Galveston County WCID 1

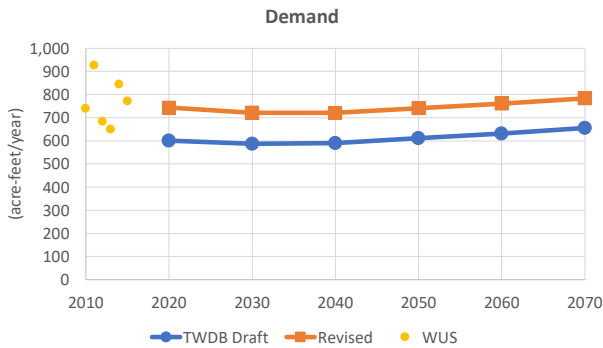
- WUG study and historical data



# Agenda Item 8 Population Demands

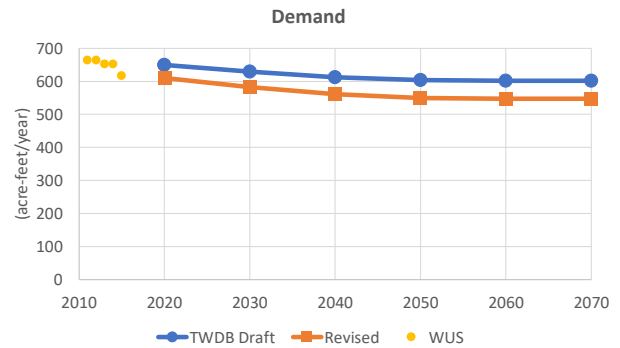
## Harris County WCID 1

- Data exceeds draft projection – shift curve upward



## Harris County WCID 74

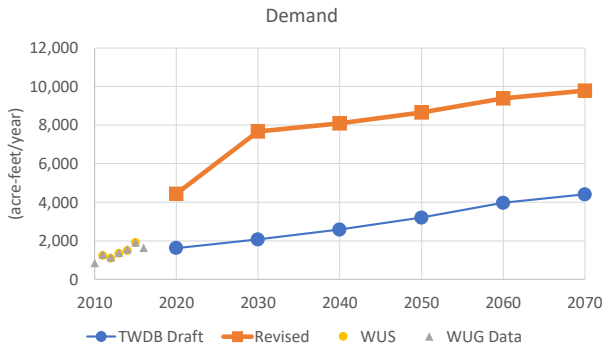
- Adjust based on WUG data - near built out
- Adjust per-capita from 2011 data



# Agenda Item 8 Population Demands

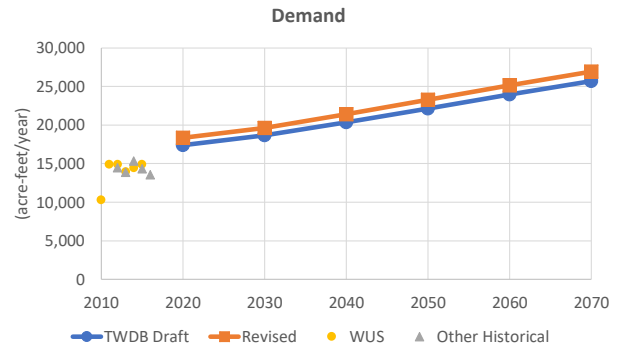
## MSEC Enterprises

- Growth exceeds projection
- Assume current rate through 2030
- Adjust per-capita



## Pearland

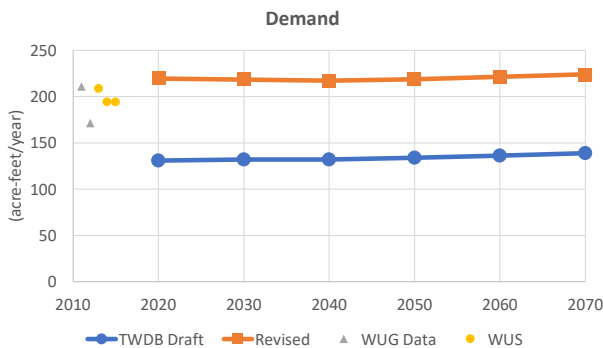
- Growth exceeds projection
- Additional service area



# Agenda Item 8 Population Demands

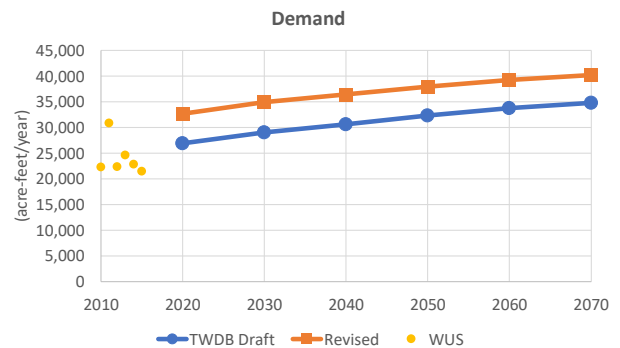
## Phelps SUD

- Adjust based on WUS and WUG data
- Adjust per-capita from 2011 data



## Sugar Land

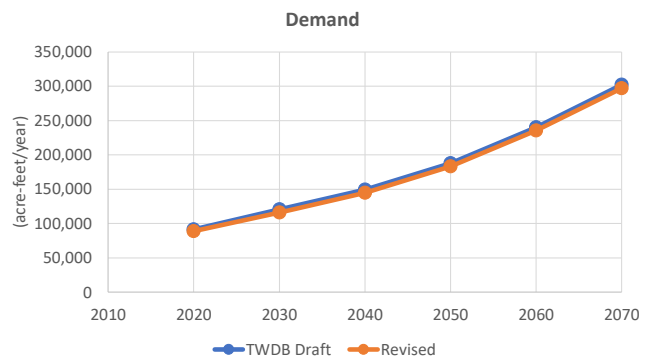
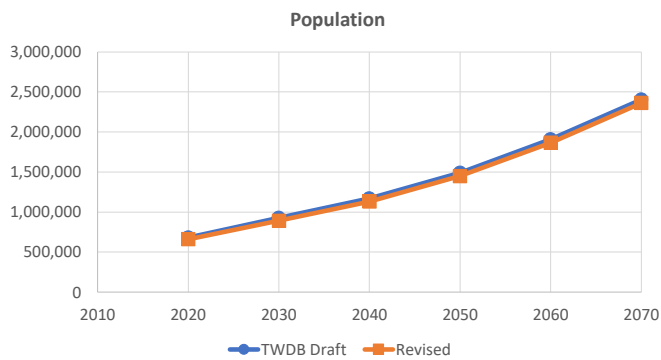
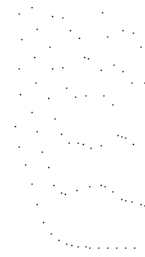
- Incorporating Greatwood and New Territory
- Composite baseline per-capita



## Agenda Item 8 Population Demands

### County-Other

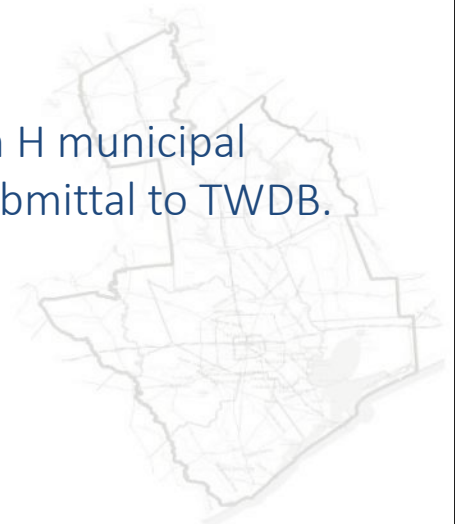
- Adjusted to maintain county totals
- Primarily within same basin split



## Agenda Item 8 Population Demands

### Action:

Approve proposed revisions to Region H municipal population and demand projections for submittal to TWDB.





December 6, 2017

#### **Agricultural**

Robert Bruner  
Pudge Willcox,  
Executive Committee

#### **Counties**

John Blount  
Judge Mark Evans, Chair  
Judge Art Henson

#### **Electric Generating Utilities**

Vacant

#### **Environmental**

John R. Bartos,  
Executive Committee

#### **Groundwater Management Areas**

David Bailey  
Kathy Jones

#### **Industries**

James Comin  
Glenn Lord

#### **Municipalities**

Yvonne Forrest  
Robert Istre

#### **Public**

Carl Masterson

#### **River Authorities**

David Collinsworth  
Jace Houston, Secretary  
Kevin Ward

#### **Small Businesses**

Judge Bob Hebert  
Ruth Stultz  
Vacant

#### **Water Districts**

Marvin Marcell  
Mike Turco  
Jimmie Schindewolf

#### **Water Utilities**

Ivan Langford  
James Morrison  
William Teer

Jeff Walker  
Executive Administrator  
Texas Water Development Board  
1700 North Congress Av.  
Austin, Texas 78701

**Re:** Region H Population and Municipal Demand Revision Request

Dear Mr. Walker:

The Texas Water Development Board (TWDB) developed projections of population and municipal water demand at the Water User Group (WUG) level for the 2021 Regional Water Plans (RWPs). These projections were based on the projected population and demands in the 2017 State Water Plan and were adjusted to align with utility boundaries based on TWDB Water Use Survey (WUS) data, Public Water Systems reporting data, GIS analyses, and 2010 Census data. Based on the First Amended General Guidelines for Fifth Cycle of Regional Water Plan Development (Exhibit C), regional water planning groups may request revisions to these draft projections. Exhibit C also outlines the criteria for consideration of revisions.

In July 2017, the Region H Water Planning Group (RHWPG) issued a survey to the 342 WUGs in the region, in which WUGs were asked to review the draft population and demand projections for their entity. Based on the responses to this survey and the Planning Group's own analyses, the RHWPG has identified 16 named municipal WUGs for which it recommends revisions to draft projections. Based on data provided by WUG representatives and other available information, the RHWPG has developed proposed revisions to population and municipal demand projections.

The purpose of this memorandum is to detail how the requested revisions were developed and what Exhibit C criteria are available to support each revision. A summary table of these recommendations is followed by a qualitative description of the draft projections and proposed revisions for each WUG. The memo also includes a brief discussion of the effect of these recommended revisions on population projections for "County-Other" WUGs. All of the recommended revisions to the population and water demand projections discussed here are incorporated into the fixed-format spreadsheet provided by the TWDB, included with this submission as "Region H\_Draft Pop-Mun-Projections\_revision\_request.xlsx". Supporting calculations and for the proposed revisions are included in spreadsheet "Revision\_request\_summary\_201711.xlsm" included electronically along with this request.

**Summary of Recommended Revisions and Supporting Data**

Exhibit C defines the criteria for adjusting projections of WUG populations as falling into four categories, one or more of which must be significantly different from the values in the TWDB draft projections: 2010 permanent population served, recent (2011-2015) growth rate, expected maximum population due to build-out, or service area. Each of the 16 WUGs discussed in this memo can be shown to differ from the draft projections by at least one of these criteria, as shown in **Table 1**.

**Table 1. Summary of Recommended Revisions for Population in Region H**

WUG NAME	Criteria for Revisions to Population			
	2010 Baseline	Recent growth rate	Build-out	Service Area
CONCORD-ROBBINS WSC	✓	✓		
FIRST COLONY MUD 9			✓	
FLO COMMUNITY WSC	✓	✓		
FORT BEND COUNTY MUD 121			✓	
FORT BEND COUNTY MUD 129	✓	✓	✓	
FORT BEND COUNTY MUD 140	✓	✓	✓	
FORT BEND COUNTY MUD 187		✓		
FRIENDSWOOD		✓		
FULSHEAR		✓	✓	✓
GALVESTON COUNTY WCID 1	✓	✓		
HARRIS COUNTY WCID 1	✓			
HARRIS COUNTY WCID 74	✓		✓	✓
MSEC ENTERPRISES	✓	✓		✓
PEARLAND	✓			✓
PHELPS SUD	✓			✓
SUGAR LAND*			✓	✓

*\* Changes to population for Sugar Land are based on combining population projections of existing WUGs subject to near-term annexation, with limited adjustment based on build-out.*

Additionally, Exhibit C specifies that in order to change the baseline per capita municipal water demand for a WUG, it must be demonstrated that dry-year demand is more appropriately represented by a year other than 2011, that historical data was erroneous, that the historical dry-year is not a normal reflection of WUG behavior, or that the WUG has experienced a substantial change in usage. Additionally, documentation of 2010 – 2015 water-efficient fixture installations may be used to support a requested change to baseline demand. The RHWPG has identified seven named municipal WUGs for which it recommends revisions to baseline per capita demands. Five of these are related to Exhibit C criteria, as shown in **Table 2**; the sixth is associated with combination of WUGs with varying baseline per-capita demands into the Sugar Land WUG.

**Table 2. Summary of Recommended Revisions for Baseline Per-Capita Use in Region H**

WUG NAME	Criteria for Revisions to Baseline Per-Capita Demand				
	Different dry-year	Error in data	Dry-year abnormal	Change in trend	Efficiency
FLO COMMUNITY WSC		✓			
FORT BEND COUNTY MUD 187	✓				
HARRIS COUNTY WCID 74		✓			
MSEC ENTERPRISES		✓			
PHELPS SUD		✓			
SUGAR LAND*				✓	

\* The proposed change to the baseline per-capita demand for Sugar Land is associated with the combination of WUGs with varying baseline per-capita demands into the Sugar Land WUG.

**Concord-Robbins WSC**

Baseline 2010 population and near-term population growth for Concord-Robbins WC, as reported in the WUS, are higher than the values in the draft projections. Proposed adjustments to population and water demand projections are shown in the tables below as well as in **Figure 1** and **Figure 2**.

RHWPG Recommendation: Population

- Adjust the baseline 2010 population to match population reported in the 2010 WUS.
- Increase the 2010 – 2020 growth rate to match the growth seen from 2010 to 2015 in the WUS.
- Maintain the same decadal increase in population as in the TWDB draft projections for 2020 – 2070.

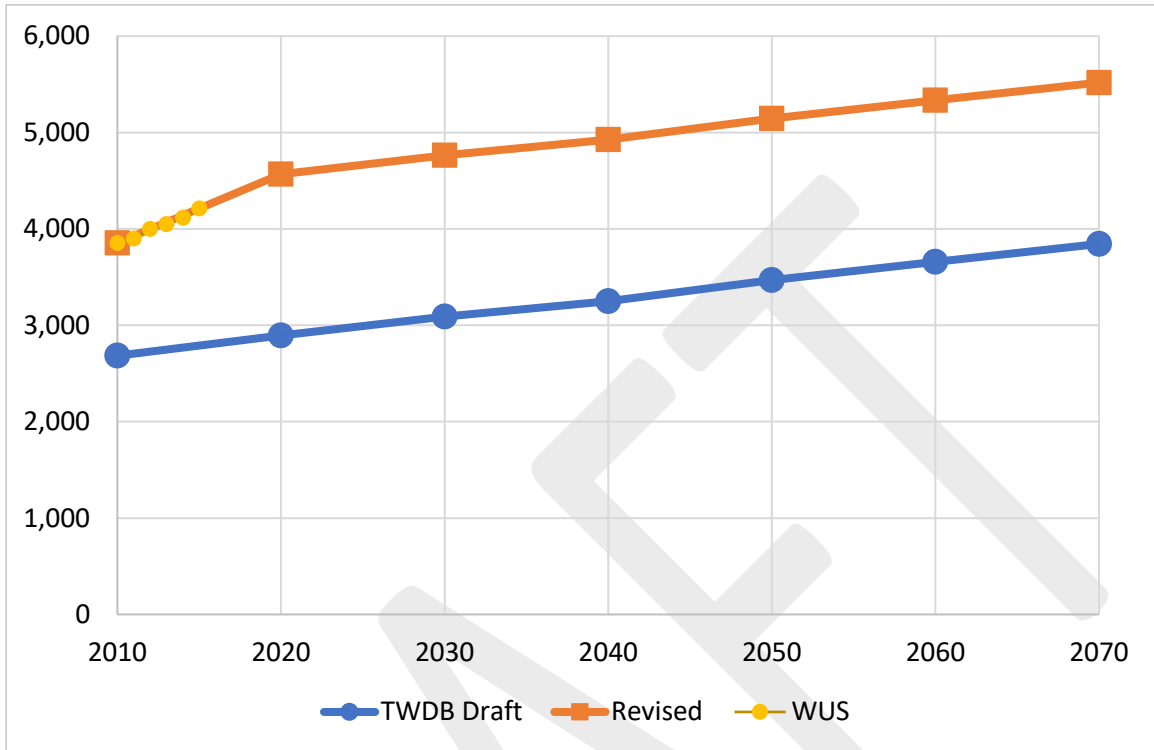
RHWPG Recommendation: Municipal Demand

- There are no requested revisions to the baseline per capita demand for this WUG.

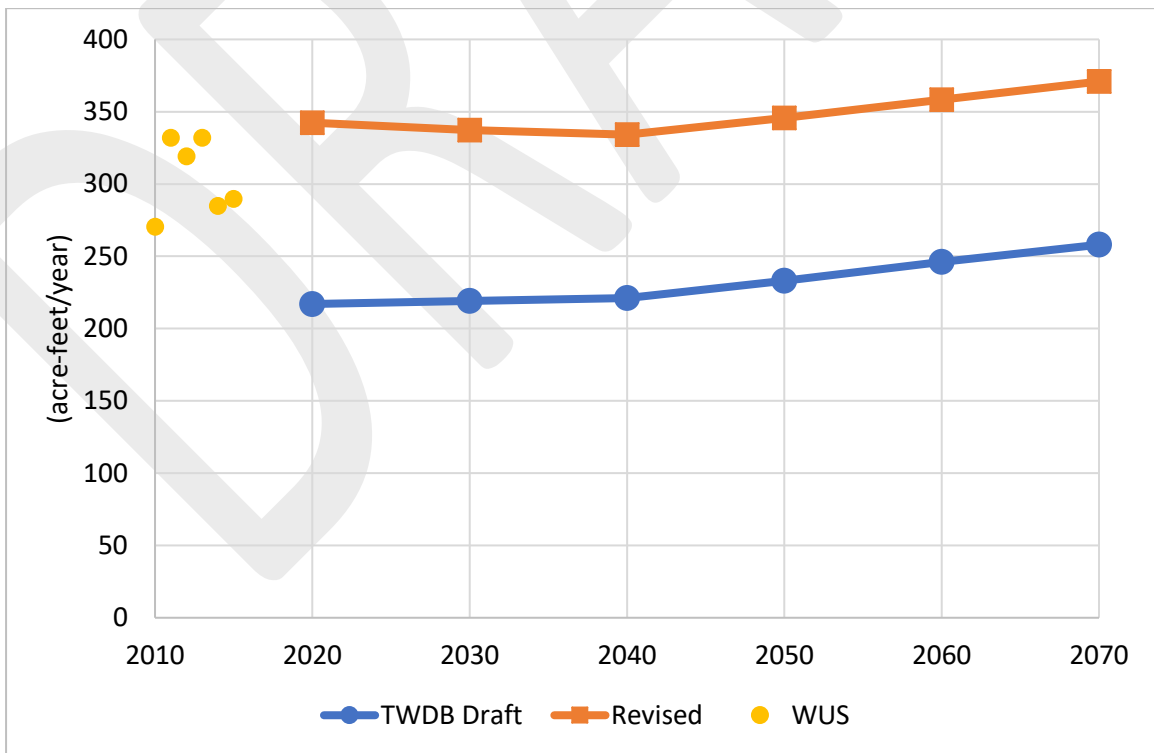
Projected Population	2020	2030	2040	2050	2060	2070
TWDB Draft	2,895	3,091	3,251	3,470	3,659	3,844
Region H Recommendation	4,569	4,765	4,925	5,144	5,333	5,518

Projected Demand (ac-ft/year)	2020	2030	2040	2050	2060	2070
TWDB Draft	217	219	221	233	246	258
Region H Recommendation	342	337	334	346	358	371

**Figure 1. Population Projections for Concord-Robbins WSC**



**Figure 2. Municipal Demand Projections for Concord-Robbins WSC**



**Fort Bend County MUD 121**

Fort Bend County MUD 121 informed the RHWPG that it is already built out at a population of 3,762. Proposed adjustments to population and water demand projections are shown in the tables below as well as in **Figure 3** and **Figure 4**.

RHWPG Recommendation: Population

- Revise the 2020 through 2070 population projections to be 3,762.

RHWPG Recommendation: Municipal Demand

- There are no recommended revisions to the baseline per capita demand for this WUG.

Projected Population	2020	2030	2040	2050	2060	2070
TWDB Draft	3,227	3,503	4,143	4,798	5,454	6,110
Region H Recommendation	3,762	3,762	3,762	3,762	3,762	3,762

Projected Demand (ac-ft/year)	2020	2030	2040	2050	2060	2070
TWDB Draft	398	428	504	582	659	738
Region H Recommendation	464	460	458	456	455	454

**Figure 3. Population Projections for FBC MUD 121**

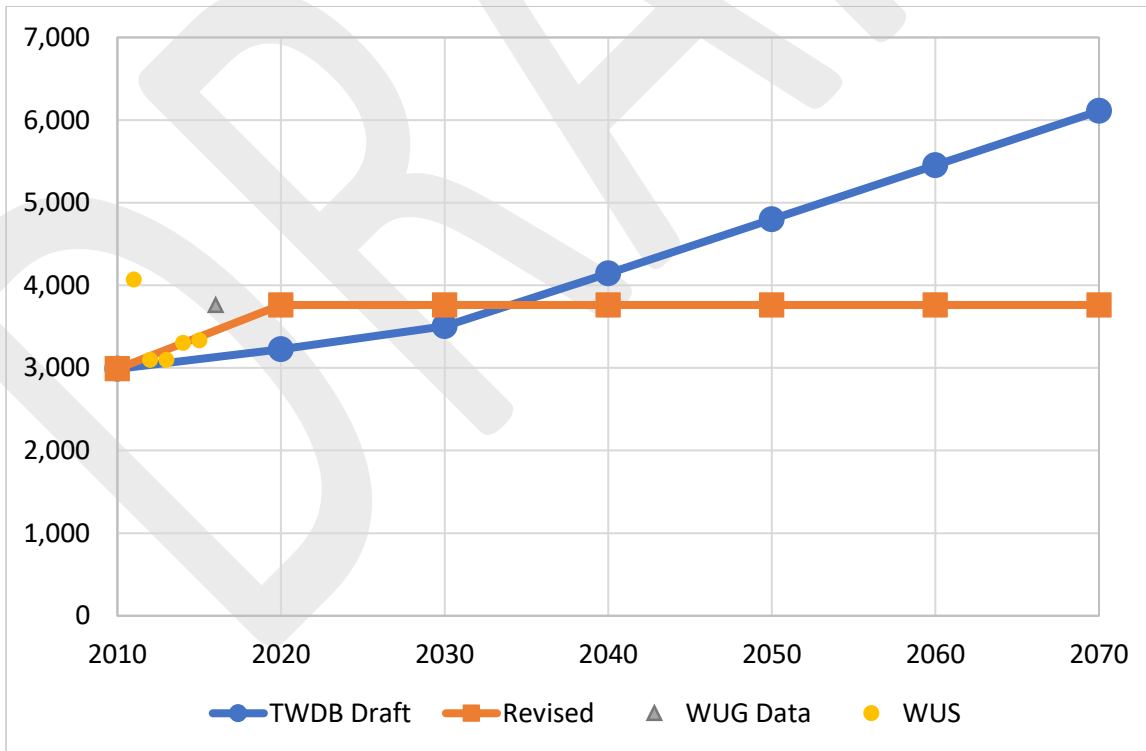
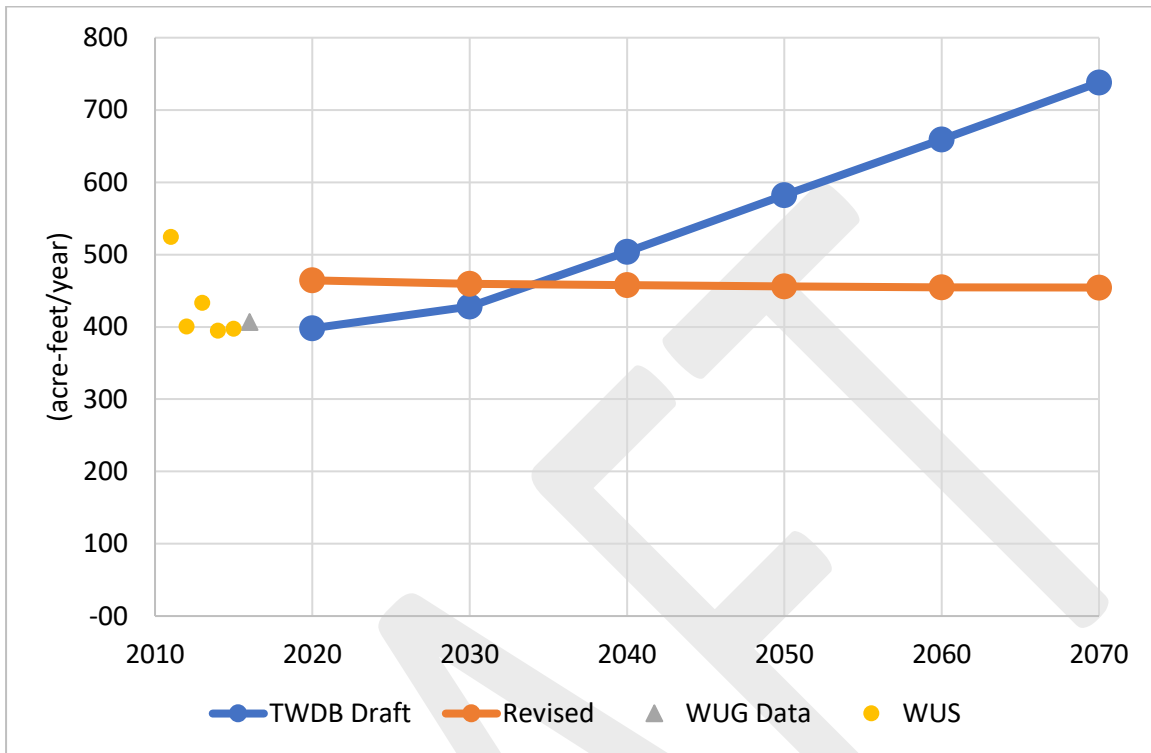


Figure 4. Municipal Demand Projections for FBC MUD 121



**Fort Bend County MUD 129**

Fort Bend County MUD 129 informed the RHWPG that it has a current population of 4,071, with room for 50 more connections (150 additional people) plus one apartment complex which will accommodate 450 people. Build-out for this total population of 4,671 is anticipated to occur in the near future. Proposed adjustments to population and water demand projections are shown in the tables below as well as in *Figure 5* and *Figure 6*.

RHWPG Recommendation: Population

- Adjust the baseline 2010 population to match population reported in the 2010 WUS.
- Increase near-term growth rate such that the maximum population occurs in 2020. Based on current population and remaining capacity, estimated maximum population is 4,671.

RHWPG Recommendation: Municipal Demand

- There are no recommended revisions to the baseline per capita demand for this WUG.

Projected Population	2020	2030	2040	2050	2060	2070
TWDB Draft	3,230	4,637	5,945	7,036	7,798	7,803
Region H Recommendation	4,671	4,671	4,671	4,671	4,671	4,671

Projected Demand (ac-ft/year)	2020	2030	2040	2050	2060	2070
TWDB Draft	800	1,141	1,459	1,725	1,910	1,911
Region H Recommendation	1,157	1,149	1,147	1,145	1,144	1,144

Figure 5. Population Projections for FBC MUD 129

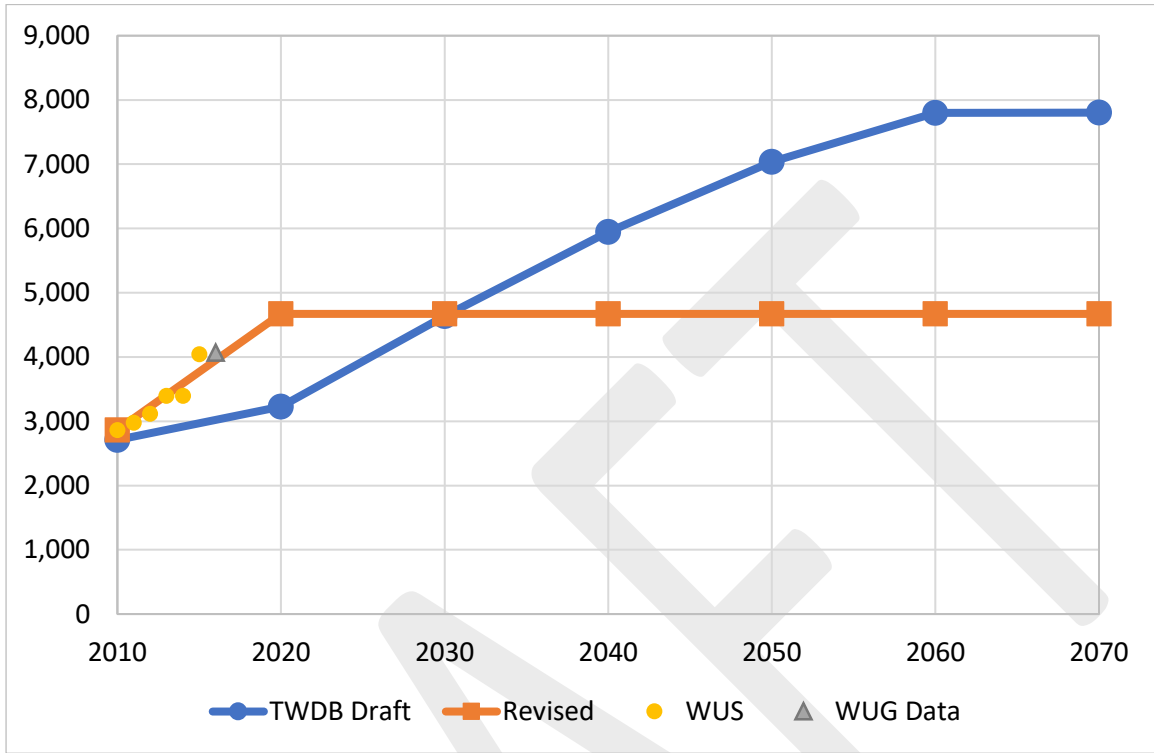
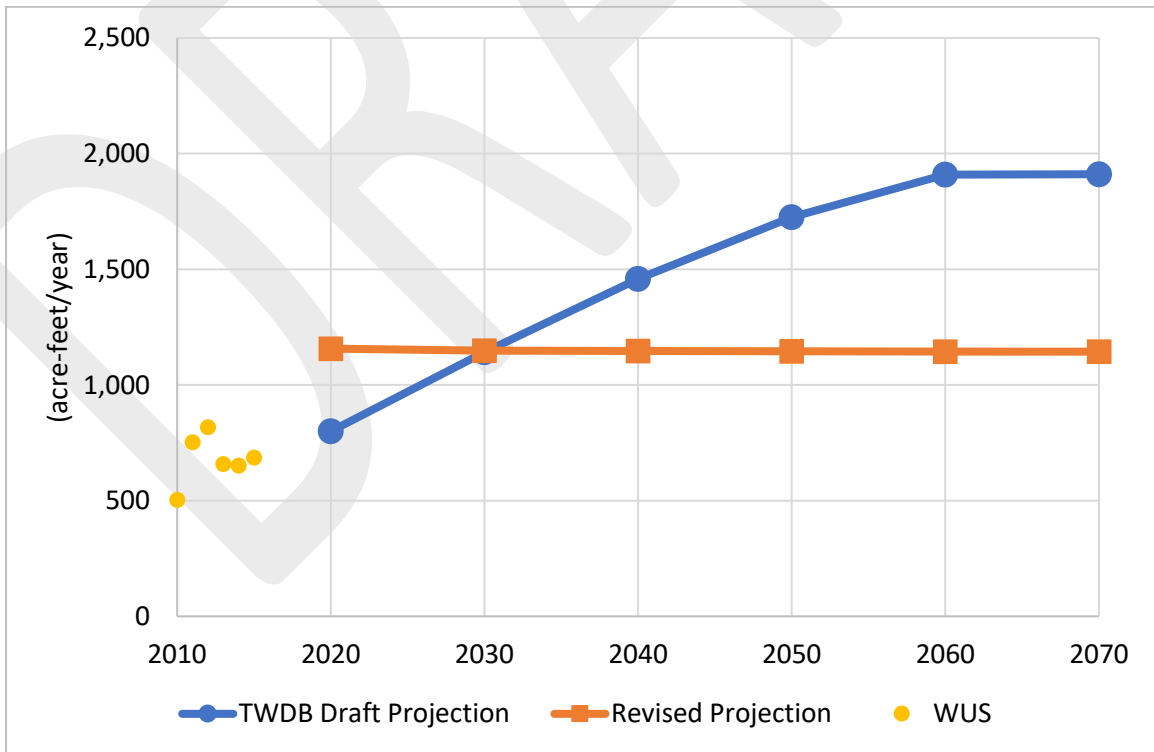


Figure 6. Municipal Demand Projections for FBC MUD 129



**Fort Bend County MUD 140**

Data from the WUS and information provided by Fort Bend County MUD indicated much lower population values than those shown in the draft projections. The WUG has reported a year 2016 population of 2,244 and expects to reach an estimated maximum population of 3,000 by 2020. Proposed adjustments to population and water demand projections are shown in the tables below as well as in *Figure 7* and *Figure 8*.

RHWPG Recommendation: Population

- Adjust 2010 baseline population to align with 2011 – 2015 WUS data.
- Reduce 2010 – 2020 growth rate to reflect values reported by the WUG and in the WUS.
- Reflect built-out population at 3,000 in 2020.

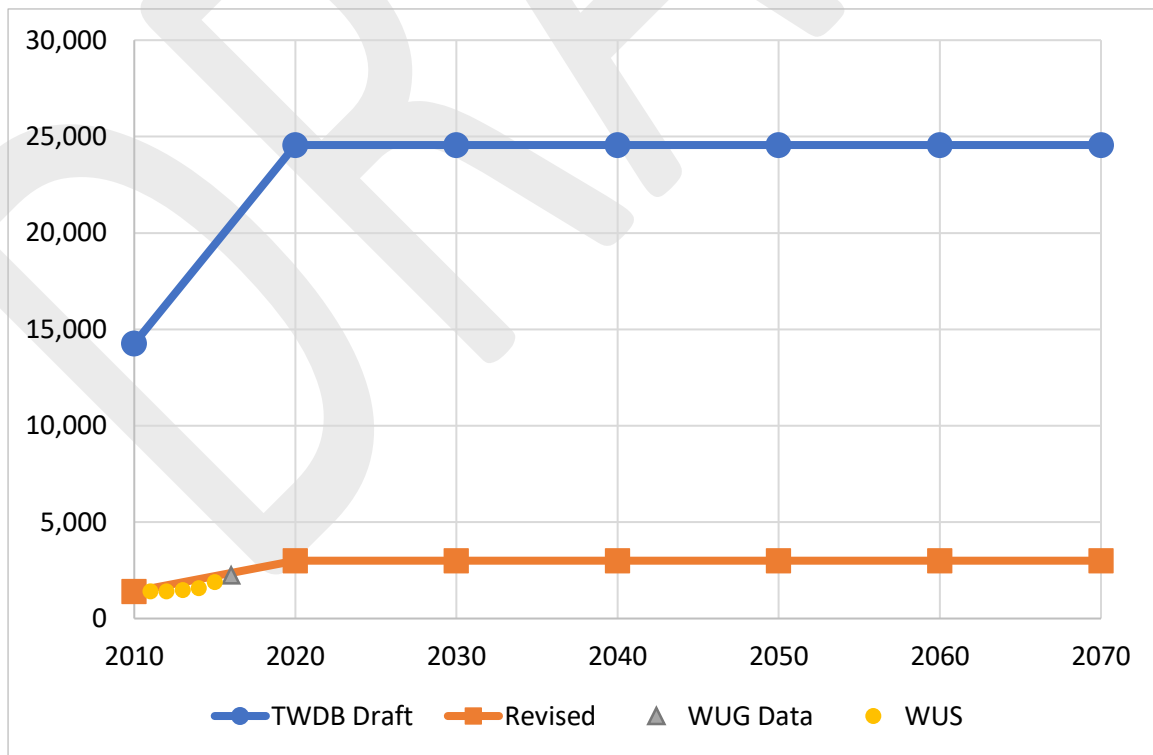
RHWPG Recommendation: Municipal Demand

- There are no recommended revisions to the baseline per capita demand for this WUG.

Projected Population	2020	2030	2040	2050	2060	2070
TWDB Draft	24,562	24,562	24,562	24,562	24,562	24,562
Region H Recommendation	3,000	3,000	3,000	3,000	3,000	3,000

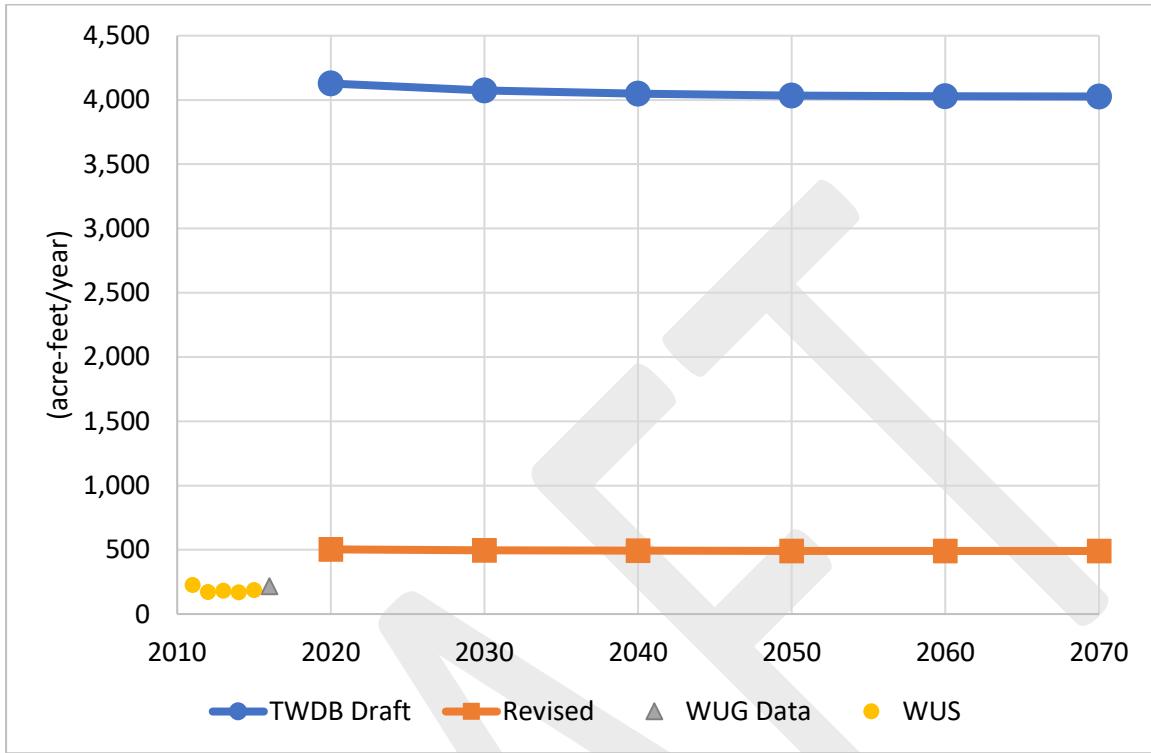
Projected Demand (ac-ft/year)	2020	2030	2040	2050	2060	2070
TWDB Draft	4,128	4,074	4,048	4,035	4,029	4,027
Region H Recommendation	503	497	493	492	491	491

**Figure 7. Population Projections for FBC MUD 140**





**Figure 8. Municipal Demand Projections for FBC MUD 140**



**Fort Bend County MUD 187**

Data from Fort Bend County MUD 187 indicates that recent growth has exceeded the draft projections for 2010 – 2015. The WUG anticipates reaching build-out within the next year. It should be noted that reporting for this WUG was included as part of the City of Richmond until recently, so usage data is only available for 2014 – 2016. Proposed adjustments to population and water demand projections are shown in the tables below as well as in **Figure 9** and **Figure 10**.

RHWPG Recommendation: Population

- Increase the 2010 – 2020 growth rate so that the population reaches the projected maximum of 3,632 by 2020 instead of 2030.

RHWPG Recommendation: Municipal Demand

- Use 2015 data as a proxy for dry-year demand, as this year experienced the highest per capita demand, based on data from the WUS and directly from the WUG. Change baseline demand to 114 GPCD.

Projected Population	2020	2030	2040	2050	2060	2070
TWDB Draft	3,160	3,632	3,632	3,632	3,632	3,632
Region H Recommendation	3,632	3,632	3,632	3,632	3,632	3,632

Projected Demand (ac-ft/year)	2020	2030	2040	2050	2060	2070
TWDB Draft	227	253	249	247	246	246
Region H Recommendation	434	426	422	420	419	419

Figure 9. Population Projections for FBC MUD 187

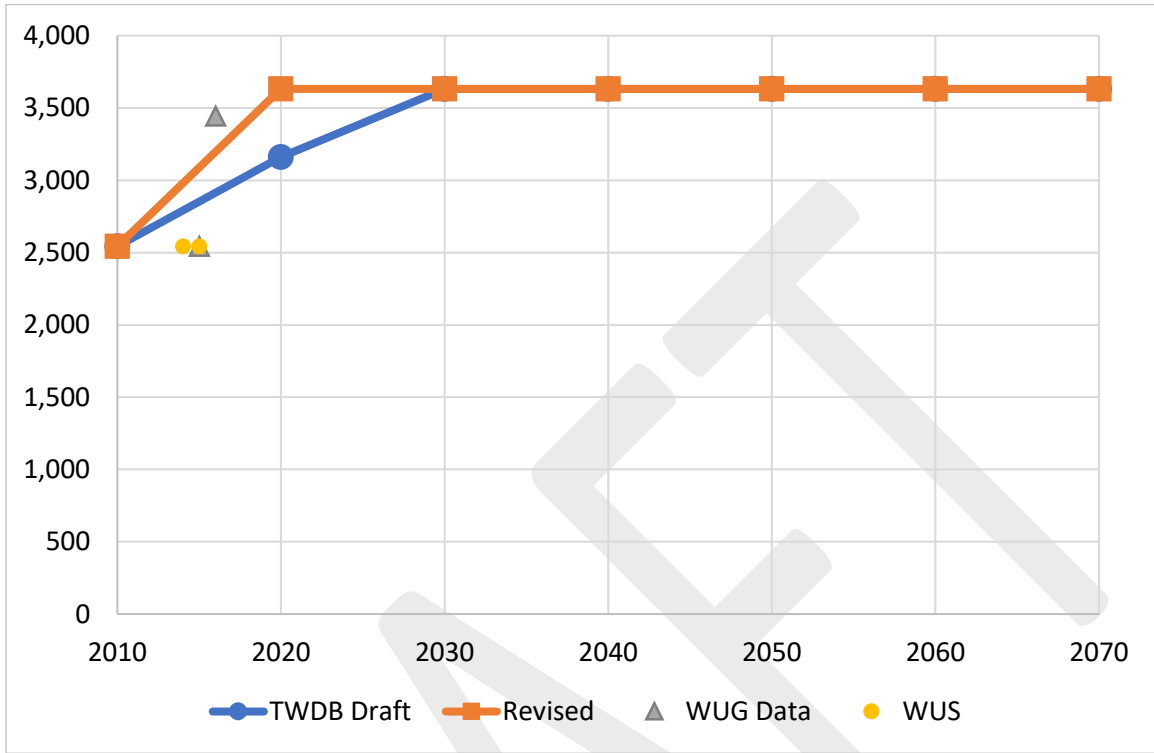
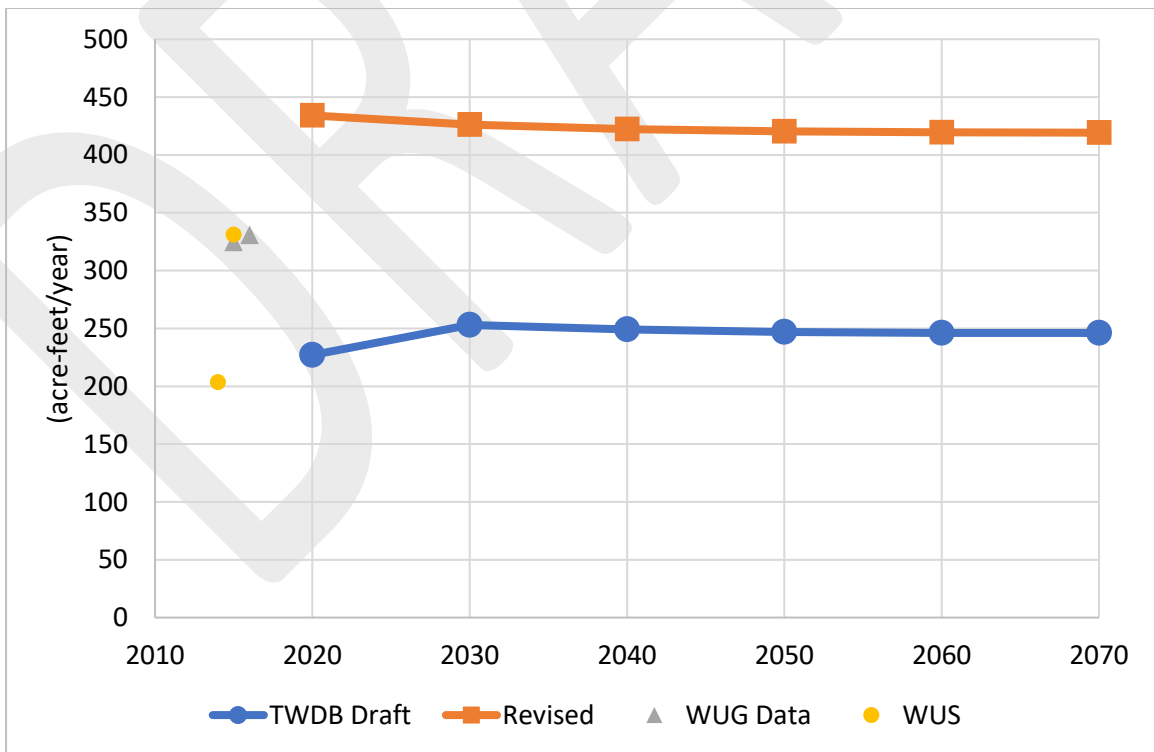


Figure 10. Municipal Demand Projections for FBC MUD 187



**First Colony MUD 9**

First Colony MUD 9 has indicated that it is already close to build-out at an estimated population of 10,700, lower than maximum population shown in the draft projections. Proposed adjustments to population and water demand projections are shown in the tables below as well as in *Figure 11* and *Figure 12*.

RHWPG Recommendation: Population

- Maintain the draft projection 2020, but reduce the maximum population for subsequent years to 10,700 as estimated by the WUG.

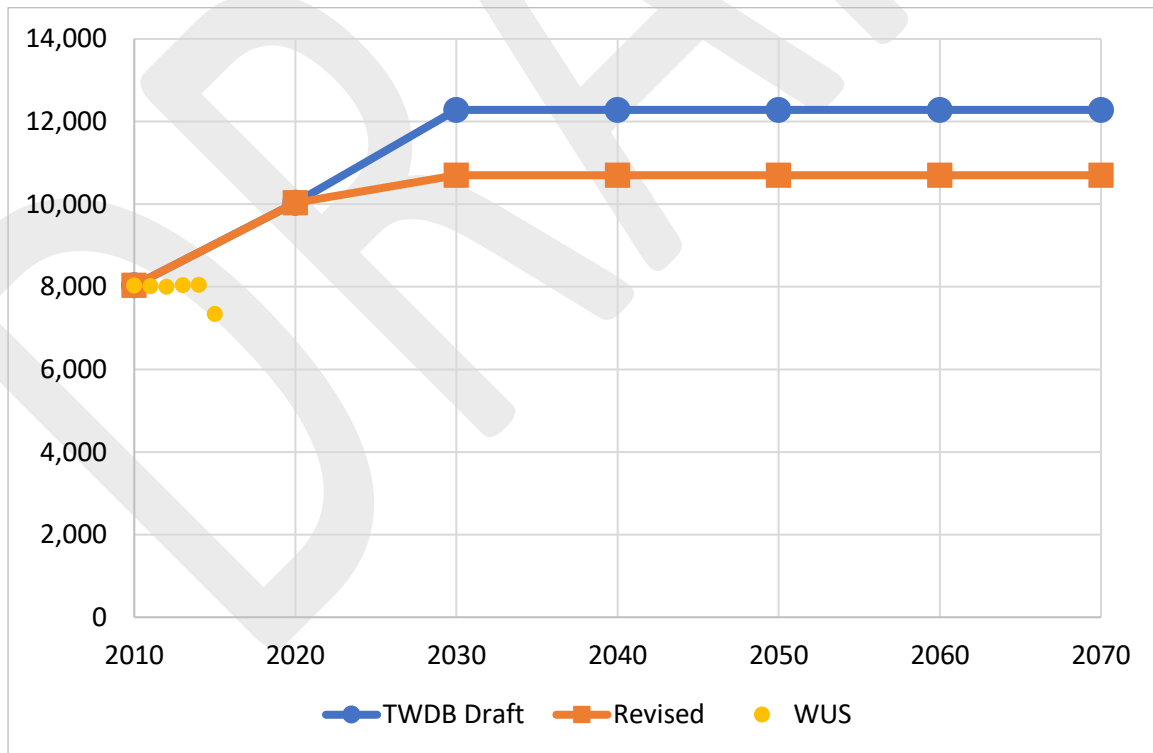
RHWPG Recommendation: Municipal Demand

- There are no recommended revisions to the baseline per capita demand for this WUG.

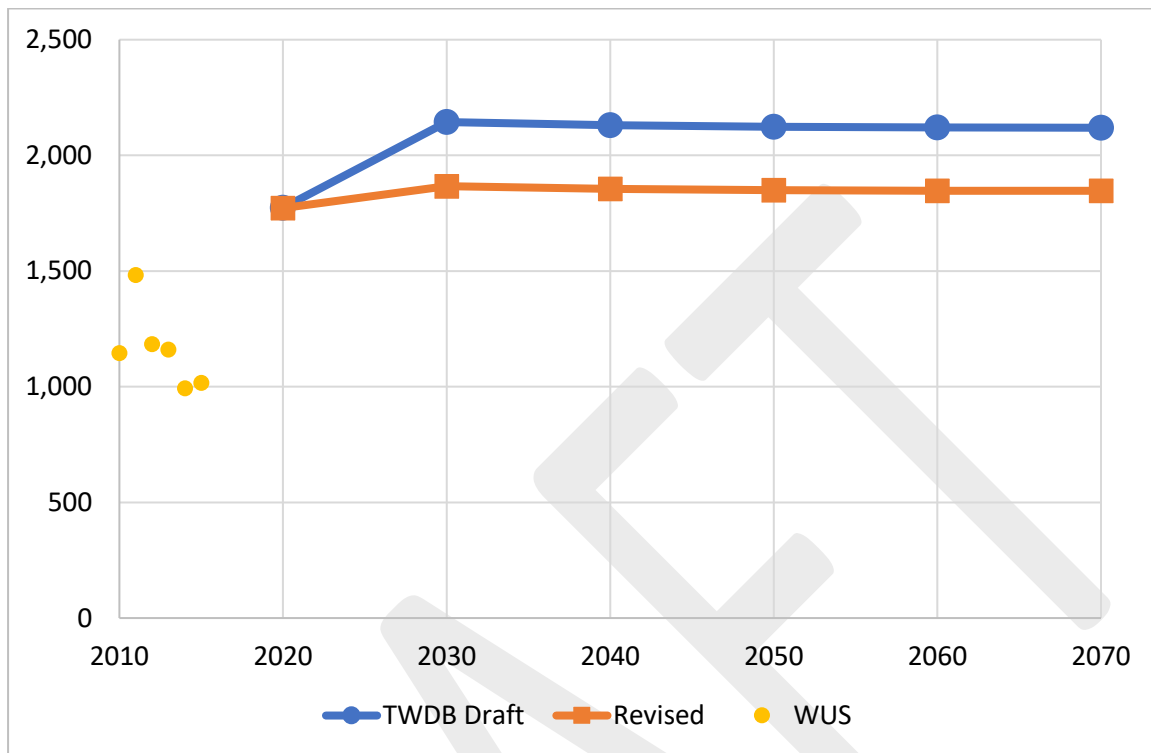
Projected Population	2020	2030	2040	2050	2060	2070
TWDB Draft	10,032	12,282	12,282	12,282	12,282	12,282
Region H Recommendation	10,032	10,700	10,700	10,700	10,700	10,700

Projected Demand (ac-ft/year)	2020	2030	2040	2050	2060	2070
TWDB Draft	1,773	2,144	2,131	2,124	2,121	2,120
Region H Recommendation	1,773	1,867	1,855	1,849	1,847	1,846

**Figure 11. Population Projections for First Colony MUD 9**



**Figure 12. Municipal Demand Projections for First Colony MUD 9**



### Flo Community WSC

Flo Community WSC, which is located primarily in Leon County, indicated that a recent survey found that the average number of persons per home in the county is 1.87. The WUG has seen an average increase of 21 connections per year for the last 3.5 years. The WUG has recommended continuing this trend for use in the Region H projections, with an assumed future density of 2.5 persons per connection. RHWPG recommended revisions use recalculated 2010 – 2015 population and per capita demand through an adjustment from an estimated 3 to 1.87 persons per connection to correct historical data. This results in a corrected population for year 2015 of 2,934, close to the year 2017 population of 2,921. This adjustment also results in a revision to the year 2011 per-capita demand used as a baseline for the WUG. Flo Community WSC is shared by Leon County (Region H) and Freestone County (Region C). However, the majority of the WUG population and service area occurs in Leon County. As such, recommended changes to population have been constrained to occur in Region H only. Proposed adjustments to population and water demand projections are shown in the tables below as well as in **Figure 13** and **Figure 14**.

#### RHWPG Recommendation: Population

- Adjust the baseline 2010 population from 3,762 to 2,345.
- Adjust the 2020 population to reflect 21 new connections per year, at 2.5 persons/connection, starting from the 2017 population of 2,921.
- Revise the 2020 – 2070 growth rate to reflect the recent trend of 21 new connections per year, and use a conservative estimate of 2.5 persons per connection in future decades.
- Attribute all changes in population to Leon County (Region H); do not adjust Freestone County (Region C) population projections.

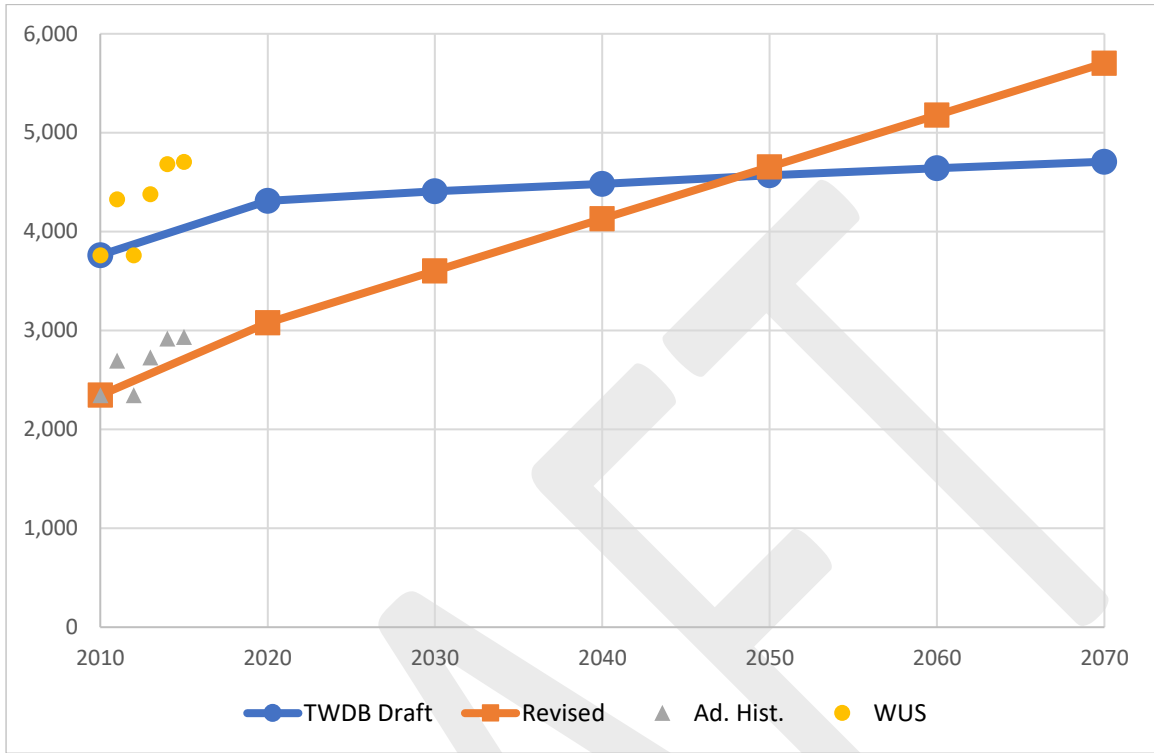
RHWPG Recommendation: Municipal Demand

- Use the recalculated 2011 population to derive a corrected per capita demand of 122 GPCD.
- Recalculate projected demands for the WUG-county splits based on the revised populations and per capita demands.

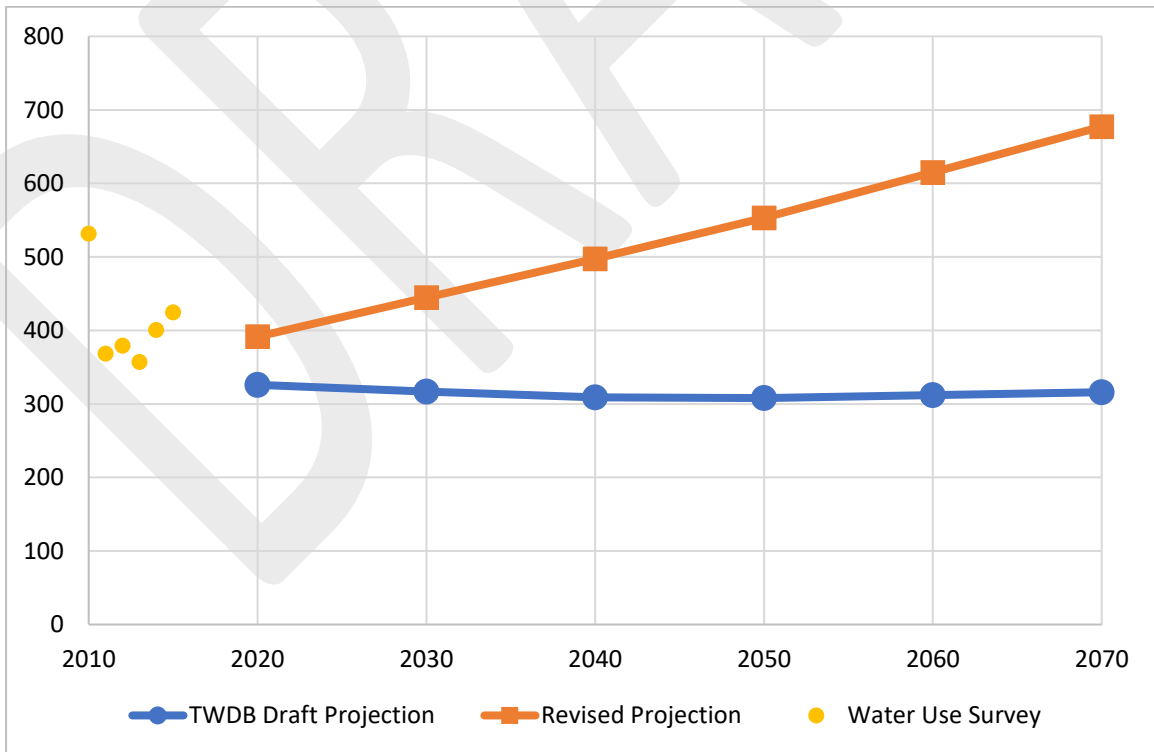
Projected Population	2010	2020	2030	2040	2050	2060	2070
TWDB Draft							
Leon County / Region H	3,762	3,858	3,919	3,969	4,036	4,095	4,152
Freestone County / Region C	441	454	489	513	532	545	555
<b>Flo Community WSC, Total</b>	<b>4,203</b>	<b>4,312</b>	<b>4,408</b>	<b>4,482</b>	<b>4,568</b>	<b>4,640</b>	<b>4,707</b>
Region H Recommendation							
Leon County / Region H	1,904	2,625	3,115	3,616	4,122	4,634	5,149
Freestone County / Region C	441	454	489	513	532	545	555
<b>Flo Community WSC, Total</b>	<b>2,345</b>	<b>3,079</b>	<b>3,604</b>	<b>4,129</b>	<b>4,654</b>	<b>5,179</b>	<b>5,704</b>

Projected Demand (ac-ft/year)	Baseline GPCD	2020	2030	2040	2050	2060	2070
TWDB Draft							
Leon County / Region H	<b>76</b>	292	282	274	272	275	279
Freestone County / Region C	<b>76</b>	34	35	35	36	37	37
<b>Flo Community WSC, Total</b>	<b>76</b>	<b>326</b>	<b>317</b>	<b>309</b>	<b>308</b>	<b>312</b>	<b>316</b>
Region H Recommendation							
Leon County / Region H	<b>122</b>	334	384	436	490	550	611
Freestone County / Region C	<b>122</b>	58	61	61	63	65	66
<b>Flo Community WSC, Total</b>	<b>122</b>	<b>392</b>	<b>445</b>	<b>497</b>	<b>553</b>	<b>615</b>	<b>677</b>

**Figure 13. Population Projections for Flo Community WSC**



**Figure 14. Municipal Demand Projections for Flo Community WSC**



## Friendswood

Friendswood indicated on the Region H WUG survey that it disagreed with the draft projections for the Friendswood WUG. Data from the TWDB WUS shows that recent growth (2013–2015) has already exceeded the draft population projected for 2020. Proposed adjustments to population and water demand projections are shown in the tables below as well as in *Figure 15* and *Figure 16*.

### RHWPG Recommendation: Population

- Offset the population curve by 4,412, which is the difference in reported 2015 population in the WUS and the interpolated 2015 population on the draft projection curve.
- Split revised populations between counties proportionally to county splits in the TWDB draft projections.

### RHWPG Recommendation: Municipal Demand

- There are no recommended revisions to the baseline per capita demand for this WUG.

Projected Population	2020	2030	2040	2050	2060	2070
TWDB Draft						
Friendswood - Galveston	27,216	29,113	31,273	33,627	36,210	39,062
Friendswood - Harris	11,473	13,988	15,621	17,458	19,075	20,868
<b>Friendswood Total</b>	<b>38,689</b>	<b>43,101</b>	<b>46,894</b>	<b>51,085</b>	<b>55,285</b>	<b>59,930</b>
Region H Recommendation						
Friendswood - Galveston	31,628	33,525	35,685	38,039	40,622	43,474
Friendswood - Harris	11,473	13,988	15,621	17,458	19,075	20,868
<b>Friendswood Total</b>	<b>43,101</b>	<b>47,513</b>	<b>51,306</b>	<b>55,497</b>	<b>59,697</b>	<b>64,342</b>

Projected Demand (ac-ft/year)	2020	2030	2040	2050	2060	2070
TWDB Draft						
Friendswood - Galveston	4,792	5,010	5,299	5,653	6,075	6,550
Friendswood - Harris	2,020	2,407	2,647	2,935	3,200	3,499
<b>Friendswood Total</b>	<b>6,812</b>	<b>7,417</b>	<b>7,946</b>	<b>8,588</b>	<b>9,275</b>	<b>10,049</b>
Region H Recommendation						
Friendswood - Galveston	5,569	5,769	6,047	6,395	6,815	7,290
Friendswood - Harris	2,020	2,407	2,647	2,935	3,201	3,499
<b>Friendswood Total</b>	<b>7,589</b>	<b>8,176</b>	<b>8,694</b>	<b>9,330</b>	<b>10,016</b>	<b>10,789</b>

Figure 15. Population Projections for Friendswood

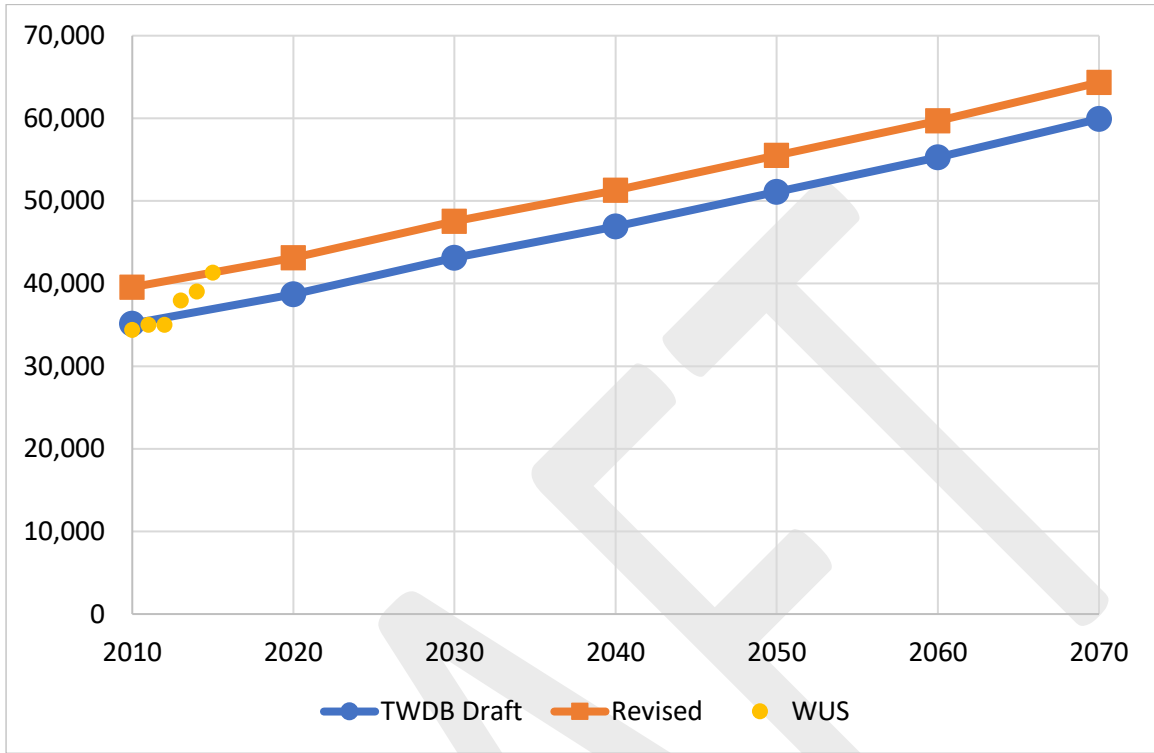
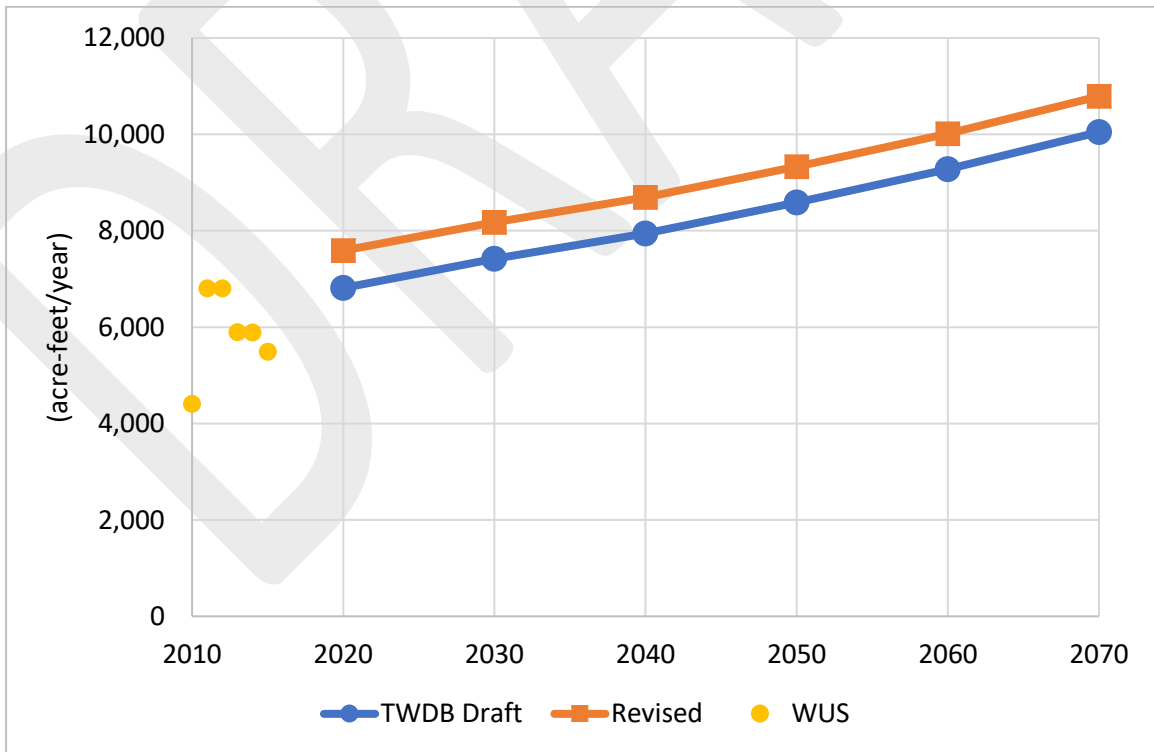


Figure 16. Municipal Demand Projections for Friendswood





**Fulshear**

The City of Fulshear has experienced rapid growth since 2010, with this growth anticipated to exceed draft TWDB projections. Freese and Nichols, Inc. provided draft 2017-2036 population projections developed as part of an ongoing study by Fulshear. These projections correspond approximately with Fulshear’s current service area and were used to estimate 2020 - 2040 population projections, with population held constant after 2040. The growth shown within the revised projections is expected to occur primarily in the Cross Creek Ranch and Fulbrook areas. Additional development beyond these values is anticipated to be predominantly outside of Fulshear’s existing retail service area. It should be noted that the city limits and retail service area of Fulshear have increased in recent years and include areas not incorporated into TWDB’s utility WUG geospatial dataset. After updating the service area boundaries, the Fulshear WUG includes approximately 180 acres in the San Jacinto River Basin. Projected population for this area was based on an assumed 4 connections per acre at 3 persons per connection, with buildout assumed by 2040. Remaining population adjustments were apportioned to the remaining basin splits based on an estimate of additional acreage. Proposed adjustments to population and water demand projections are shown in the tables below as well as in *Figure 17* and *Figure 18*.

RHWPG Recommendation: Population

- Update service area boundaries.
- Revise population based on projections through 2036 for updated service area.
- Hold population constant 2040 – 2070.

RHWPG Recommendation: Municipal Demand

- There are no recommended revisions to the per capita demand for this WUG.

<b>WUG Projected Population</b>	<b>2020</b>	<b>2030</b>	<b>2040</b>	<b>2050</b>	<b>2060</b>	<b>2070</b>
TWDB Draft	12,106	13,755	14,932	15,925	16,784	17,543
Region H Recommendation	16,311	24,554	25,728	25,728	25,728	25,728

<b>Projected Demand (ac-ft/year)</b>	<b>2020</b>	<b>2030</b>	<b>2040</b>	<b>2050</b>	<b>2060</b>	<b>2070</b>
TWDB Draft	1,377	1,549	1,678	1,788	1,883	1,966
Region H Recommendation	1,856	2,765	2,891	2,888	2,887	2,884

Figure 17. Population Projections for Fulshear

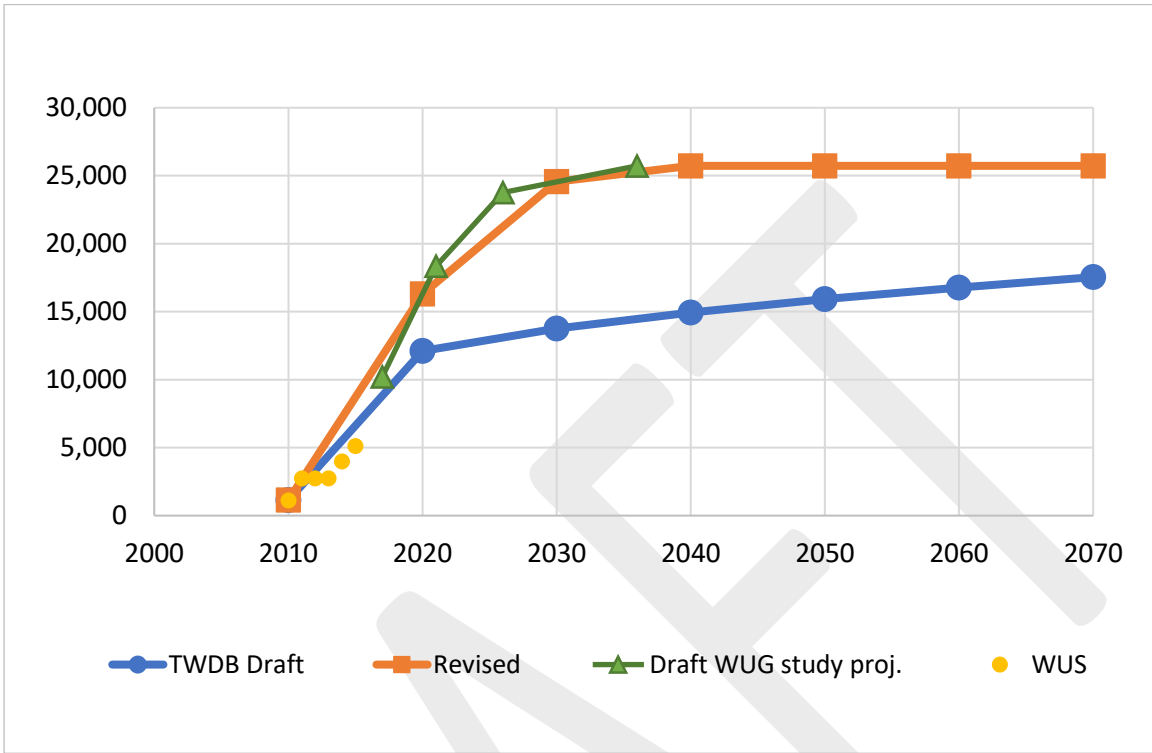
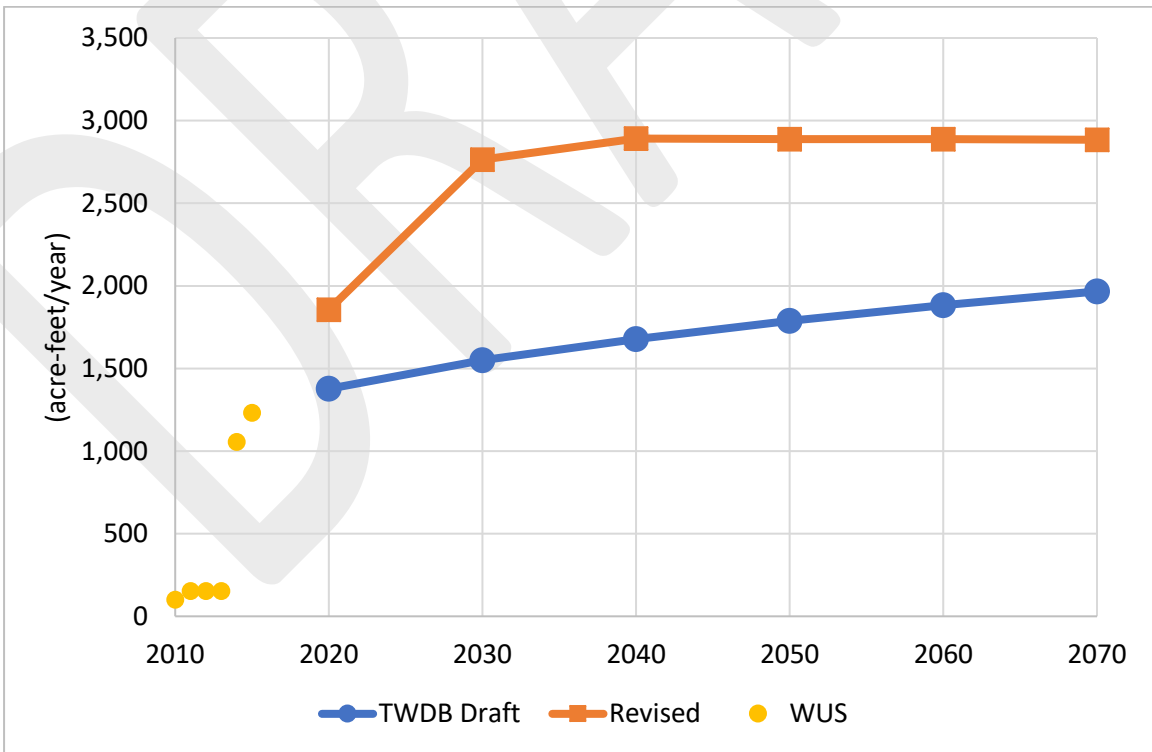


Figure 18. Municipal Demand Projections for Fulshear



**Galveston County WCID 1**

Galveston County WCID 1 submitted its own population and demand projections for 2020 – 2070, as prepared by HDR, Inc., to the RHWPG. The revised population curve is more consistent with historical data (provided by the WUG) than are the draft projections. Because the per capita demand used in the WUG’s analysis (100 GPCD) is similar to the baseline per-capita demand (109 GPCD) in the draft projections, the RHWPG is not recommending revising per-capita demands for this WUG. Proposed adjustments to population and water demand projections are shown in the tables below as well as in *Figure 19* and *Figure 20*.

RHWPG Recommendation: Population

- Incorporate projected populations as requested by Galveston County WCID 1.

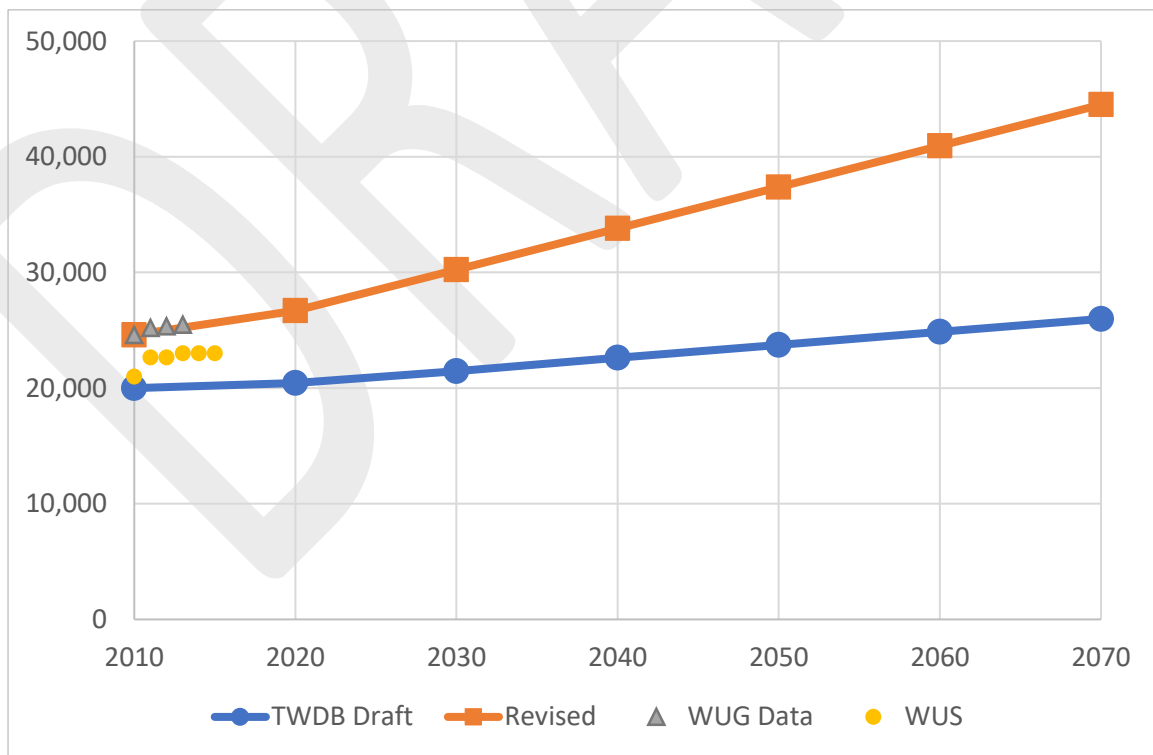
RHWPG Recommendation: Municipal Demand

- There are no recommended revisions to the per capita demand for this WUG.

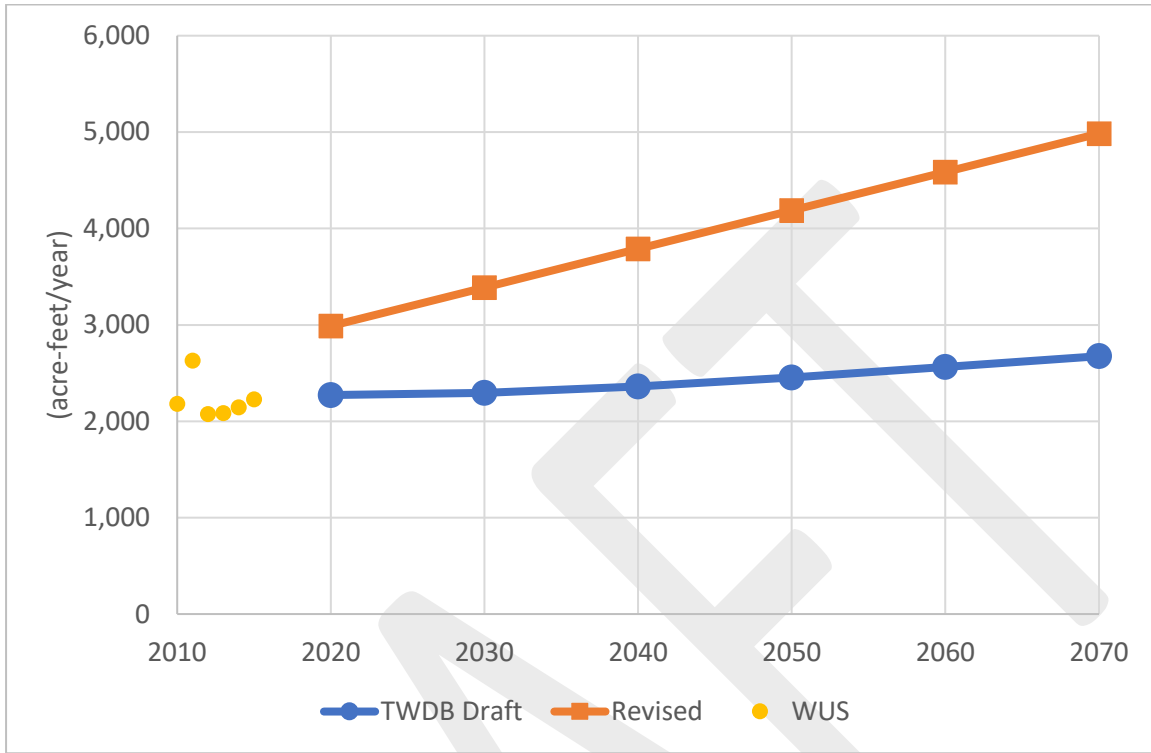
Projected Population	2020	2030	2040	2050	2060	2070
TWDB Draft	20,448	21,459	22,608	23,737	24,858	25,977
Region H Recommendation	26,675	30,240	33,805	37,370	40,935	44,500

Projected Demand (ac-ft/year)	2020	2030	2040	2050	2060	2070
TWDB Draft	2,272	2,294	2,362	2,453	2,562	2,675
Region H Recommendation	2,966	3,237	3,536	3,867	4,223	4,588

**Figure 19. Population Projections for Galveston County WCID 1**



**Figure 20. Municipal Demand Projections for Galveston County WCID 1**



**Harris County WCID 1**

Harris County WCID 1 population values reported in the WUS for 2010 – 2015 exceed the 2070 population in the draft projections. Additionally, the WUG has separately reported a current (2017) population of 7,494, which is consistent with the WUS data for 2013 – 2015. Based on this, the revised population projection is shifted to align with the WUS data for 2013 – 2015. Proposed adjustments to population and water demand projections are shown in the tables below as well as in **Figure 21** and **Figure 22**.

RHWPG Recommendation: Population

- Offset the population curve by 1,389, which is the difference in reported 2013 population in the WUS and the interpolated 2013 population on the draft projection curve.

RHWPG Recommendation: Municipal Demand

- There are no recommended revisions to the baseline per capita demand for this WUG.

Projected Population	2020	2030	2040	2050	2060	2070
TWDB Draft	5,963	6,159	6,411	6,663	6,916	7,168
Region H Recommendation	7,352	7,548	7,800	8,052	8,305	8,557

Projected Demand (ac-ft/year)	2020	2030	2040	2050	2060	2070
TWDB Draft	601	587	591	611	632	655
Region H Recommendation	741	719	719	739	759	782

Figure 21. Population Projections for Harris County WCID 1

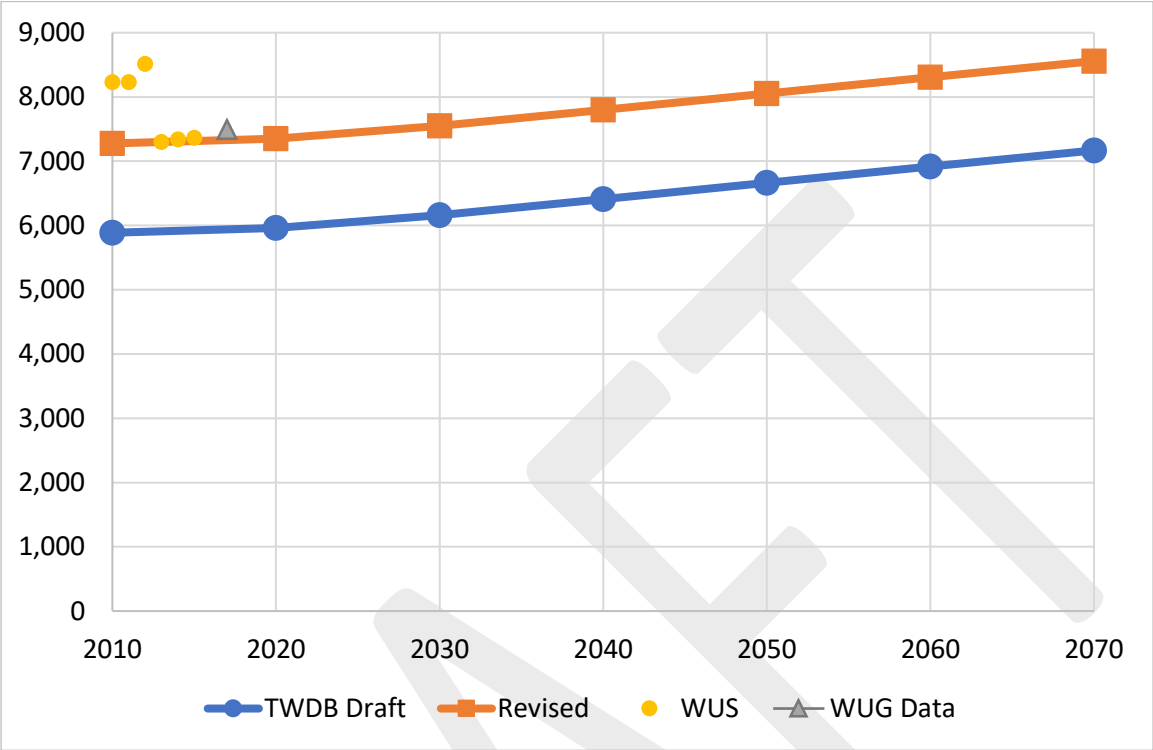
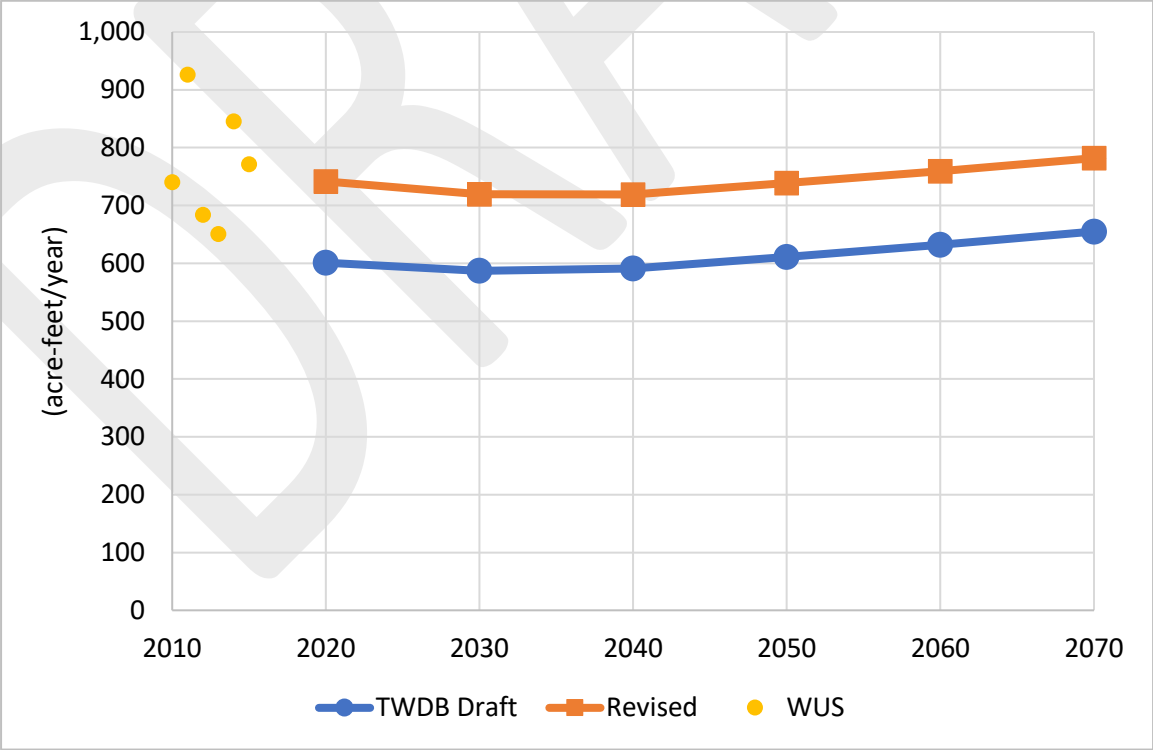


Figure 22. Municipal Demand Projections for Harris County WCID 1



**Harris County WCID 74**

Harris County WCID 74 has indicated to the RHWPG that its population served has been approximately 5,500 since 2013 and that it does not expect more than 10% additional growth. This estimate is based on a review of meter data and census tract block data. Based on this estimate, and a comparison with WUS data for 2010 – 2015, it appears that the data reported for the WUS may have underestimated population for 2010 – 2014. A revised baseline per-capita water demand is therefore recommended for the WUG. Proposed adjustments to population and water demand projections are shown in the tables below as well as in **Figure 23** and **Figure 24**.

RHWPG Recommendation: Population

- Maintain the zero-growth curve from the draft projections.
- Adjust the baseline 2010 population so that the population is 5,500 for 2010 – 2070.

RHWPG Recommendation: Municipal Demand

- Use a recalculated value of 108 GPCD for the baseline per capita demand, based on the WUS data for usage in 2011 and an adjusted 2011 population of 5,500.

Projected Population	2020	2030	2040	2050	2060	2070
TWDB Draft	4,181	4,181	4,181	4,181	4,181	4,181
Region H Recommendation	5,500	5,500	5,500	5,500	5,500	5,500

Projected Demand (ac-ft/year)	2020	2030	2040	2050	2060	2070
TWDB Draft	650	629	612	604	602	602
Region H Recommendation	609	581	559	548	546	546

**Figure 23. Population Projections for Harris County WCID 74**

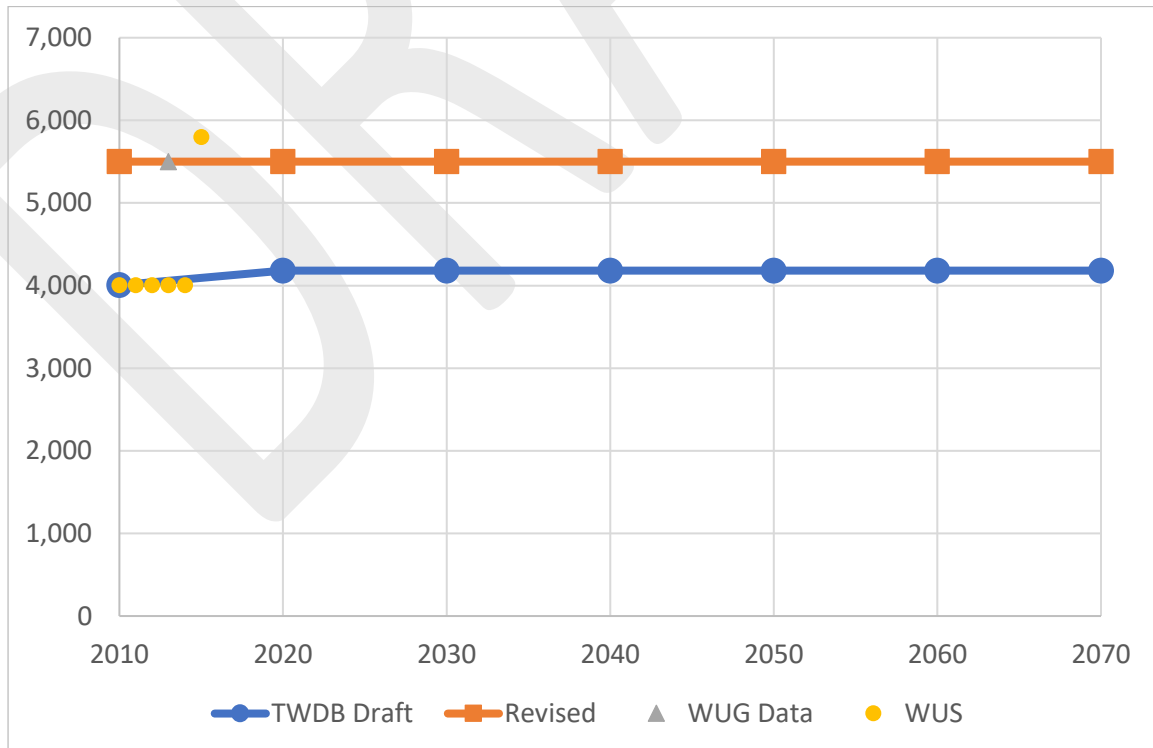
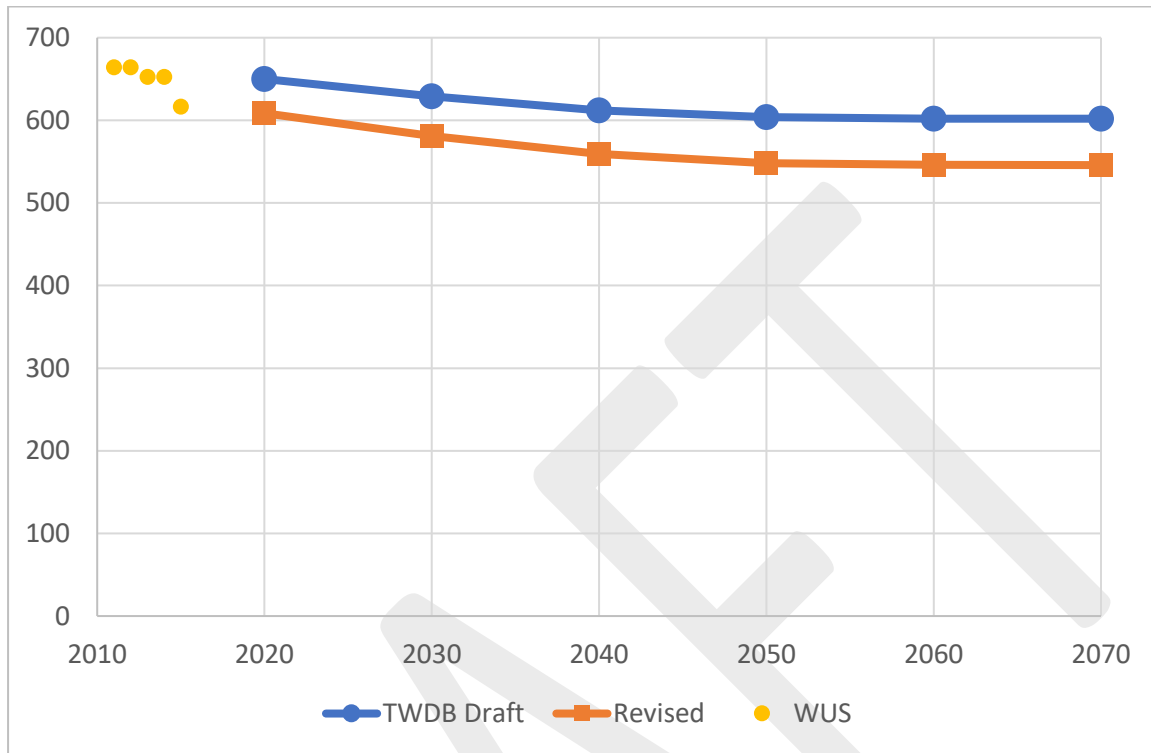


Figure 24. Municipal Demand Projections for Harris County WCID 74



### MSEC Enterprises

MSEC Enterprises, has recently grown at a much greater rate than captured in the draft projections, based on data provided by the WUG. Limited data is available regarding location and timing for future growth. Based on the expectation of additional developments which will add connections to this WUG, the RHWPG recommends maintaining the recent observed growth rate through 2030, with decadal growth after that point following the pattern from TWDB’s draft projections. Additionally, the data provided by the WUG for 2006 – 2016 shows a lower per capita demand for 2011 than was reflected in the WUS. Proposed adjustments to population and water demand projections are shown in the tables below as well as in **Figure 25** and **Figure 26**.

#### RHWPG Recommendation: Population

- Adjust baseline 2010 population to match data provided by MSEC Enterprises.
- Change growth rate for 2010 – 2030 to match the overall rate of growth between 2010 and 2017.
- From 2030 – 2070, extend the curve at the same slope as used in the TWDB draft projections.

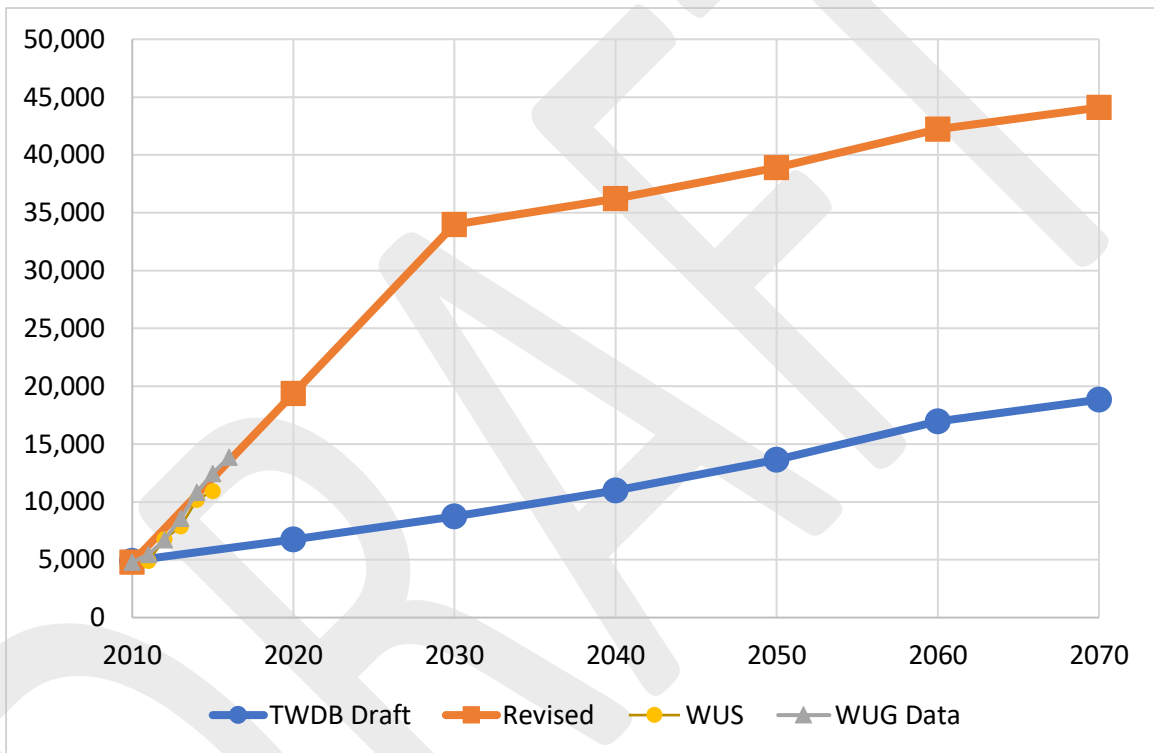
#### RHWPG Recommendation: Municipal Demand

- Reduce baseline demand from 224 GPCD to 213 GPCD.

WUG Projected Population	2020	2030	2040	2050	2060	2070
TWDB Draft	6,763	8,736	10,977	13,656	16,972	18,842
Region H Recommendation	19,382	33,987	36,228	38,907	42,223	44,093

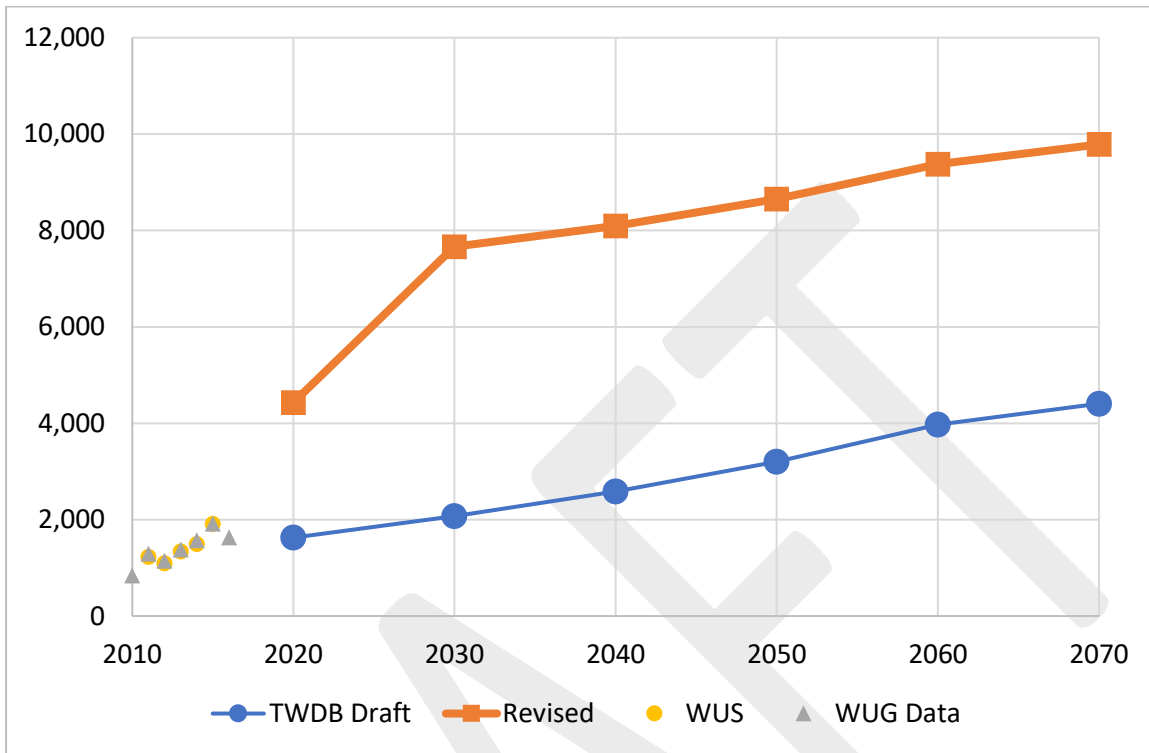
Projected Demand (ac-ft/year)	2020	2030	2040	2050	2060	2070
TWDB Draft	1,627	2,073	2,582	3,199	3,970	4,406
Region H Recommendation	4,431	7,660	8,092	8,651	9,375	9,786

Figure 25. Population Projections for MSEC Enterprises





**Figure 26. Municipal Demand Projections for MSEC Enterprises**



**Pearland**

Based on population data reported in the Water Use Survey, near-term population growth has exceeded the rate shown in the draft projections. Population for 2017, as reported by the City of Pearland, has been used to shift the curve upward. Additionally, a review of the *Draft* Impact Fee Service Area for the City of Pearland revealed areas that were excluded from the TWDB utility WUG boundaries, but which are served by Pearland. Population estimates for these areas have been added as well. Proposed adjustments to population and water demand projections are shown in the tables below as well as in **Figure 27** and **Figure 28** Figure 26.

RHWPG Recommendation: Population

- Adjust the 2010 population to the value reported in the Water Use Survey.
- Offset the projected populations for 2020 – 2070 by 5,383, which is the difference in 2017 population reported by the City and the interpolated 2017 population on the draft projection curve. Split this offset amount between counties proportional to the area of Pearland within each county.
- Add population for new areas identified in Pearland’s service area to the appropriate county splits.

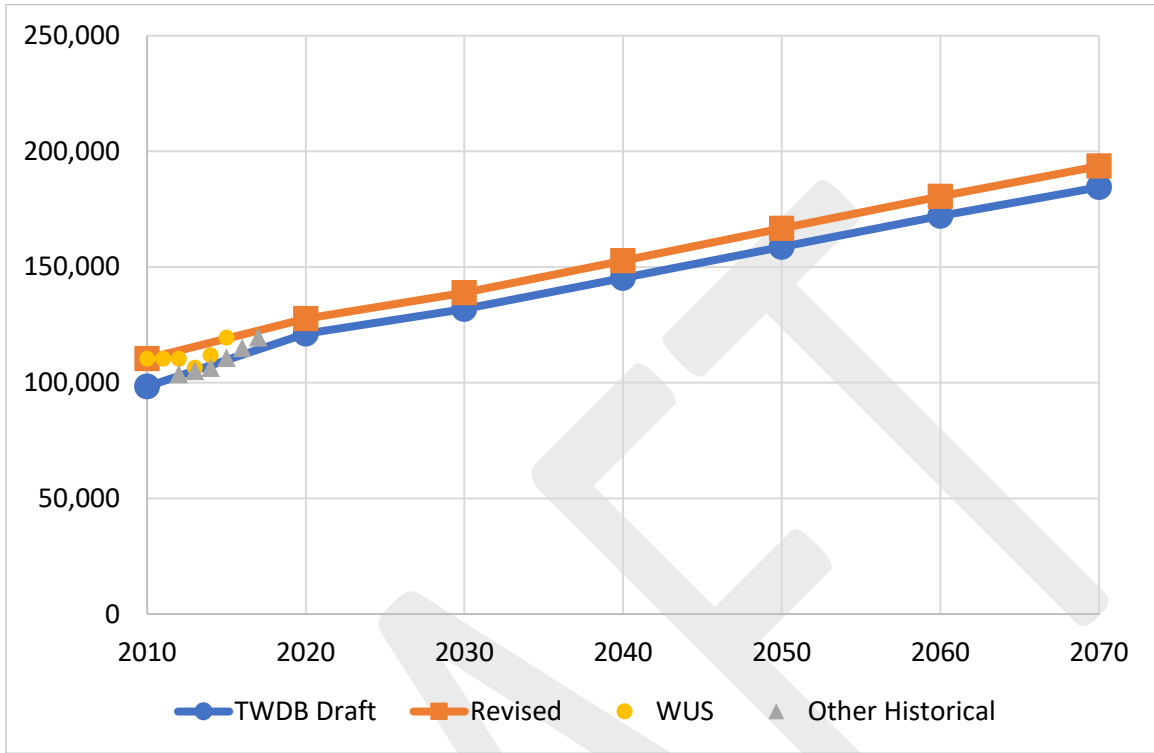
RHWPG Recommendation: Municipal Demand

- There are no requested revisions to the baseline per capita demand for this WUG.

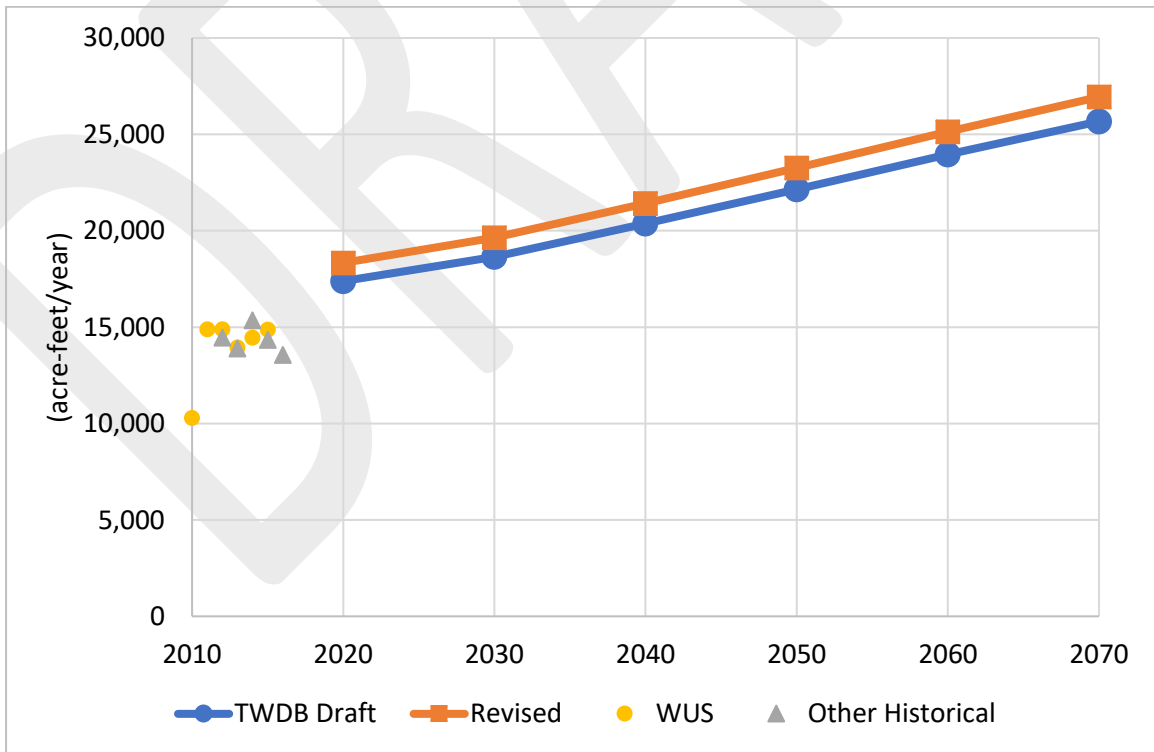
<b>WUG Projected Population</b>	<b>2020</b>	<b>2030</b>	<b>2040</b>	<b>2050</b>	<b>2060</b>	<b>2070</b>
TWDB Draft						
Pearland - Brazoria	102,874	109,713	118,462	127,921	138,280	148,098
Pearland - Fort Bend	3,686	3,972	4,947	5,922	6,901	8,038
Pearland - Harris	14,601	18,210	21,867	24,826	26,856	28,362
<b><i>Pearland Total</i></b>	<b>121,161</b>	<b>131,895</b>	<b>145,276</b>	<b>158,669</b>	<b>172,037</b>	<b>184,498</b>
Region H Recommendation						
Pearland - Brazoria	108,826	115,751	124,750	134,516	145,261	155,560
Pearland - Fort Bend	3,811	4,097	5,072	6,047	7,026	8,163
Pearland - Harris	15,113	19,037	22,958	26,112	28,286	29,900
<b><i>Pearland Total</i></b>	<b>127,750</b>	<b>138,885</b>	<b>152,780</b>	<b>166,675</b>	<b>180,573</b>	<b>193,623</b>

<b>WUG Projected Demand</b>	<b>2020</b>	<b>2030</b>	<b>2040</b>	<b>2050</b>	<b>2060</b>	<b>2070</b>
TWDB Draft						
Pearland - Brazoria	14,765	15,514	16,611	17,850	19,252	20,607
Pearland - Fort Bend	529	562	694	826	961	1,118
Pearland - Harris	2,096	2,575	3,066	3,464	3,739	3,946
<b><i>Pearland Total</i></b>	<b>17,390</b>	<b>18,651</b>	<b>20,371</b>	<b>22,140</b>	<b>23,952</b>	<b>25,671</b>
Region H Recommendation						
Pearland - Brazoria	15,619	16,368	17,492	18,770	20,224	21,645
Pearland - Fort Bend	547	579	711	844	978	1,136
Pearland - Harris	2,169	2,692	3,220	3,643	3,938	4,161
<b><i>Pearland Total</i></b>	<b>18,335</b>	<b>19,639</b>	<b>21,423</b>	<b>23,257</b>	<b>25,140</b>	<b>26,942</b>

**Figure 27. Population Projections for Pearland**



**Figure 28. Municipal Demand Projections for Pearland**



**Phelps SUD**

Population values for Phelps SUD reported in the WUS and by the WUG for 2011–2017 exceeded the 2070 population in the draft projections. The WUG also provided production and sales data for 2011 and 2012. Phelps SUD does not sell water to any other entities, so demand is attributed to water pumped. The RHWPG recommends adjusting projections upward to reflect current population and revising the baseline per-capita demands based on available historical population and production data. Proposed adjustments to population and water demand projections are shown in the tables below as well as in *Figure 29* and *Figure 30*.

RHWPG Recommendation: Population

- Offset the population curve by 651, which is the difference in 2017 population reported by the WUG and the interpolated 2017 population on the draft projection curve.

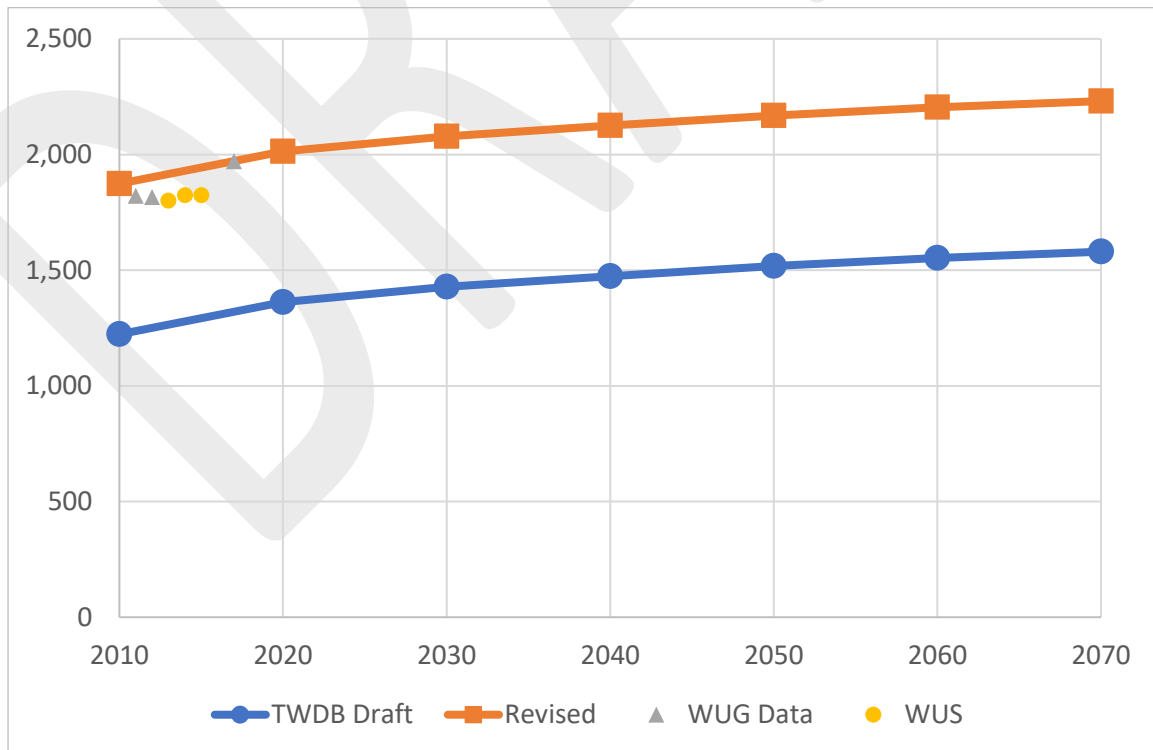
RHWPG Recommendation: Municipal Demand

- Increase baseline demand to 106 GPCD, based on amount pumped in 2011.

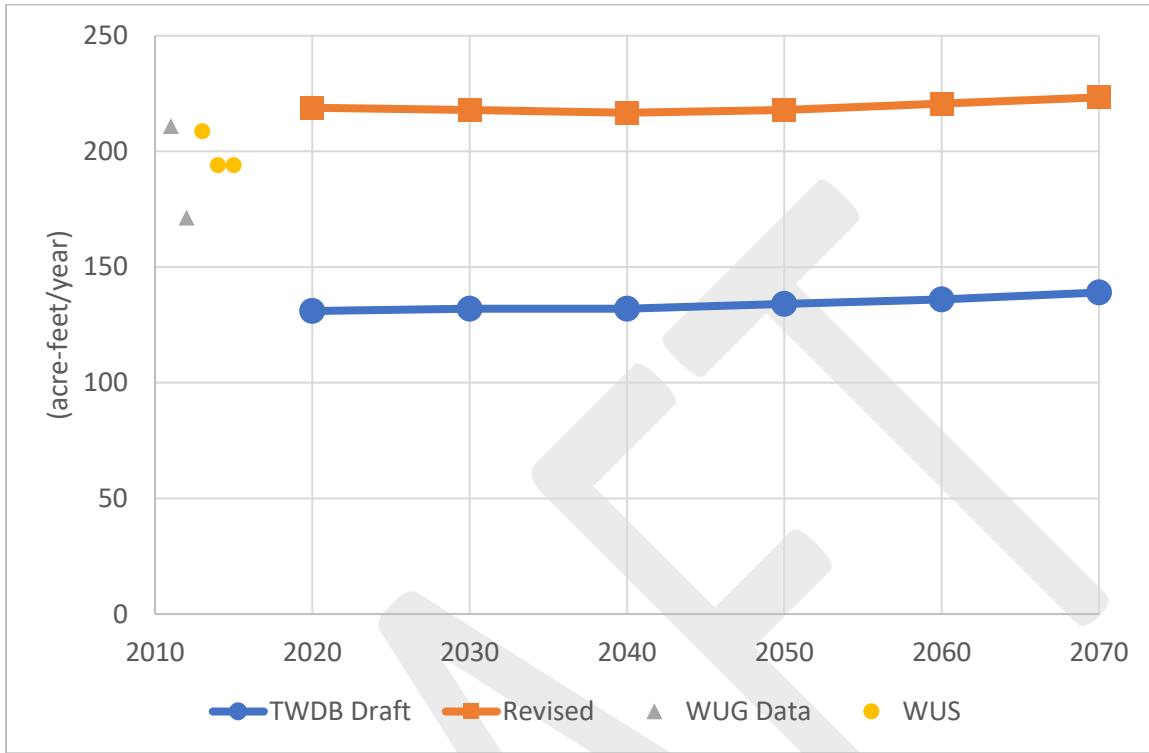
Projected Population	2020	2030	2040	2050	2060	2070
TWDB Draft	1,362	1,428	1,474	1,518	1,553	1,580
Region H Recommendation	2,013	2,079	2,125	2,169	2,204	2,231

Projected Demand (ac-ft/year)	2020	2030	2040	2050	2060	2070
TWDB Draft	131	132	132	134	136	139
Region H Recommendation	219	218	217	218	221	223

**Figure 29. Population Projections for Phelps SUD**



**Figure 30. Municipal Demand Projections for Phelps SUD**



**Sugar Land**

The City of Sugar Land is anticipated to annex the Greatwood and New Territory areas by the end of December 2017. Demands for these areas are currently represented by six separate WUGs: Fort Bend County MUDs 67, 68, 69, 111, and 112 (all in New Territory), and the Greatwood CRU. Greatwood has reported that it is already built out at an approximate population of 13,000. The RHWPG recommend incorporating projected population and demand for these six WUGs as part of the Sugar Land WUG and removing them from the list of individual WUGs. Proposed adjustments to population and water demand projections are shown in the tables below as well as in **Figure 31** and **Figure 32**.

RHWPG Recommendation: Population

- Change population for Greatwood CRU to 13,000 for 2020 – 2070.
- Combine draft projected population for Fort Bend County MUDs 111, 112, 67, 68, and 69 and the Greatwood CRU and include as part of Sugar Land WUG.

RHWPG Recommendation: Municipal Demand

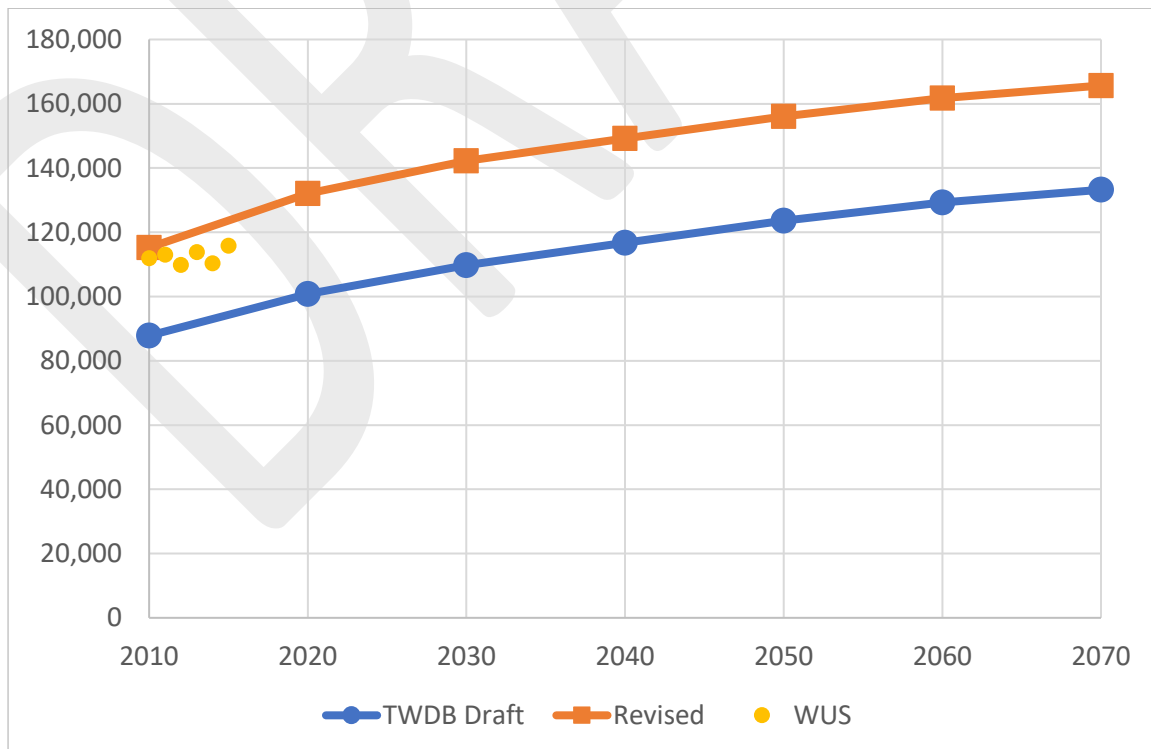
- Revise projected demands for Greatwood, based on updated build-out population and using the baseline demand and efficiency savings in the draft projections for Greatwood.
- Use a composite baseline demand value (229 GPCD), calculated by averaging baseline demand values, weighted by 2010 population for each of the seven component WUGs.
- Make projected demands equal to the combined demand of the seven WUGs and slightly revise water efficiency savings values for each decade to reflect the composite demand.

Projected Population	2020	2030	2040	2050	2060	2070
TWDB Draft						
Greatwood CRU	12,265	12,730	12,799	12,867	12,935	13,002
New Territory	18,281	19,447	19,447	19,447	19,447	19,447
Sugar Land	100,817	109,789	116,761	123,583	129,298	133,226
<b>Total (seven WUGs)</b>	<b>131,363</b>	<b>141,966</b>	<b>149,007</b>	<b>155,897</b>	<b>161,680</b>	<b>165,675</b>
Region H Recommendation						
<b>Sugar Land</b>	<b>132,098</b>	<b>142,236</b>	<b>149,208</b>	<b>156,030</b>	<b>161,745</b>	<b>165,673</b>

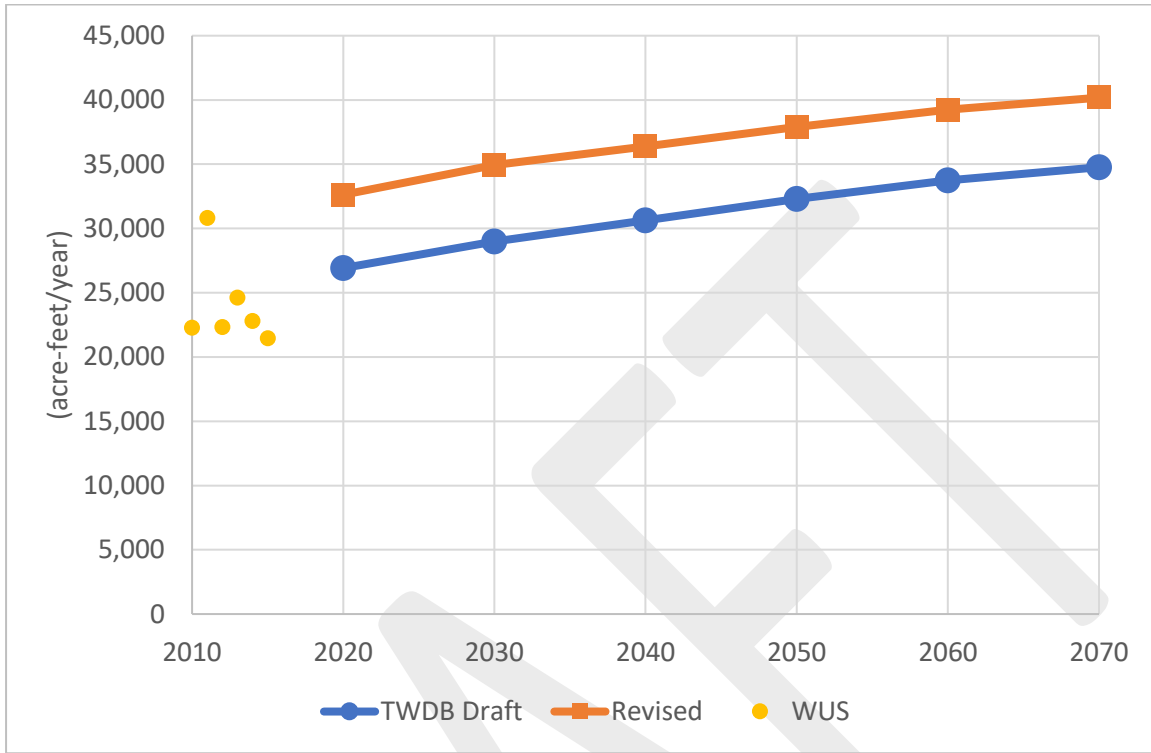
Projected Demand (ac-ft/year)	2020	2030	2040	2050	2060	2070
TWDB Draft						
Greatwood CRU	1,484	1,506	1,492	1,486	1,490	1,497
New Territory	4,380	4,588	4,568	4,557	4,552	4,552
Sugar Land	26,919	28,995	30,626	32,292	33,744	34,764
<b>Total (seven WUGs)</b>	<b>32,783</b>	<b>35,089</b>	<b>36,686</b>	<b>38,335</b>	<b>39,786</b>	<b>40,813</b>
Region H Recommendation						
<b>Sugar Land</b>	<b>32,872</b>	<b>35,121</b>	<b>36,709</b>	<b>38,350</b>	<b>39,793</b>	<b>40,813</b>

Revised Eff. Savings (GPCD)	2020	2030	2040	2050	2060	2070
Weighted Average by Pop.	6.85	8.57	9.36	9.57	9.36	9.08

Figure 31. Population Projections for Sugar Land



**Figure 32. Municipal Demand Projections for Sugar Land**



**Impact of Recommended Revisions on County-Other WUG Populations**

According to Exhibit C, “Any adjustments to a WUG population projection must involve a justifiable redistribution of projected populations within the relevant county so that the county total remains the same unless an adjustment to the county total is also justified and approved.” No county-level population revisions are being recommended. All adjustments to projected WUG populations that have been recommended will be balanced by a corresponding change in the population of the “County-Other” WUG for the appropriate county. Should the Executive Administrator approve all of the revisions which Region H has recommended, the population attributed to each County-Other WUG will be impacted as shown below. The most significant changes can be attributed to MUD 140 in Fort Bend County, which was greatly overestimated in the draft projections, and to MSEC Enterprises in Montgomery County, which anticipates much higher growth than shown in the draft projections.

**Table 3. Draft Population Projections in County-Other WUGs**

County	Draft Projected Population in County-Other WUG					
	2020	2030	2040	2050	2060	2070
Brazoria	106,199	141,512	175,650	214,152	256,447	303,409
Fort Bend	93,038	135,253	171,261	248,414	348,457	472,899
Galveston	20,073	21,847	23,765	25,605	27,420	29,186
Harris	122,436	156,972	170,185	175,358	206,259	235,280
Leon	2,695	3,022	3,284	3,644	3,953	4,260
Montgomery	195,382	312,008	450,581	627,185	851,059	1,126,570
Walker	14,469	14,722	14,888	15,020	15,115	15,181

**Table 4. Population Projections in County-Other WUGs After Recommended Revisions**

County	Projected Population in County-Other WUG after Revisions					
	2020	2030	2040	2050	2060	2070
Brazoria	100,247	135,474	169,362	207,557	249,466	295,947
Fort Bend	107,087	146,910	184,938	264,898	367,286	493,215
Galveston	9,434	8,654	8,156	7,560	6,931	6,251
Harris	119,216	153,437	166,386	171,364	202,121	231,034
Leon	2,254	2,152	1,963	1,884	1,740	1,589
Montgomery	182,763	286,757	425,330	601,934	825,808	1,101,319
Walker	13,818	14,071	14,237	14,369	14,464	14,530

**Explanation of Supplemental Spreadsheet**

Submitted with this memo is the spreadsheet “Revision\_request\_summary\_H\_SPLITS.xlsm.” Tabs include a Table of Contents, which links to each subsequent tab, a summary of Exhibit C, a reference tab containing unit conversion constants, and a tab for each of the WUGs with recommended revisions. Each WUG worksheet contains tables of:

- TWDB draft projections,
- Water Use Survey data for 2010–2015 (if available),
- Any other historical data provided through correspondence with the WUG,
- Any additional relevant tabular data, and
- Proposed revised population and demand projections.

Recommended revisions for WUG-basin splits are calculated in the supplemental spreadsheet and are included in the fixed format spreadsheet summarizing all recommendations. County and basin split populations were generally developed based on the original ratios between basin-split populations in the TWDB draft projections or relative to specific area estimates, with WUG-specific assumptions applied where deemed appropriate. All of the recommended revisions to the population and water demand projections discussed here are incorporated into the fixed-format spreadsheet provided by the TWDB, included with this submission as “Region H\_Draft Pop-Mun-Projections\_revision\_request.xlsx”. Supporting documents regarding WUG build-out and annexations are included as **Attachment 1** to this memorandum, with applicable maps related to service areas included in **Attachment 2**.

The RHWPG appreciates this opportunity to comment on draft projections for the 2021 Region H Regional Water Plan. Please feel free to contact myself or Philip Taucer of Freese and Nichols with any questions regarding this submittal.

Sincerely,

Mark Evans  
 Chair, Region H Water Planning Group

cc: Lann Bookout, TWDB



## Agenda Item 9

Receive update from Consultant Team regarding evaluation of existing water supplies and upcoming supply committee activities.



## Agenda Item 9 Existing Supply



*Here comes  
the science!*

## Agenda Item 9 Existing Supply



Source Availability: How much is there in a repeat of the DOR?



Legal Access: Who has ownership or authorization?



Physical Access: Can the water physically get to the destination?



Transfers: Who's selling, who's buying, and what is the source?



TWDB Database: Because it all has to tie together.

## Agenda Item 9 Existing Supply



### Basis

- TCEQ WAM Run 3
- Minimum annual (ROR)
- Firm (Reservoir)

### New this time

- Sediment ALL major reservoirs
- ROR language change
- Stricter exception process

---

### Status and Activities

- Reviewing WAMs and model analyses
- Western basins not released – Region G coordination
- Anticipate exception request letter for Trinity WAM
- Committee review and input

## Agenda Item 9 Existing Supply



### Basis

- MAG
- GCD rules
- Groundwater reduction plans

### New this time

- Expanded guidance
- MAG peaking factor

---

### Status and Activities

- Base availability from MAG values
- Exception request needed for MAG peaking factor
- Analyses and GMA coordination
- Committee review and input

## Agenda Item 9 Existing Supply



### Basis

- Infrastructure and permits
- Population and demand
- Historical data

### New this time

- Expanded guidance
- More defined approach

---

### Status and Activities

- Analysis in progress
- Approx. 50 WUGS and other large entities
- Wide range of supply
- Region H applies a conservative approach



## Agenda Item 9 Existing Supply



### Basis

- Prior RWP
- Stakeholder data
- Agency data

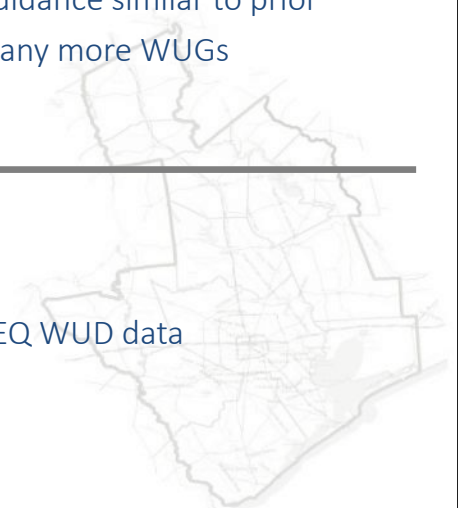
### New this time

- Guidance similar to prior
- Many more WUGs

---

### Status and Activities

- Ongoing stakeholder coordination
- Developed connection database from TCEQ WUD data



## Agenda Item 9 Existing Supply



### Basis

- All the other data
- Because it's required
- It's the foundation of the Plan

### New this time

- Pre-existing structure
- Bulk upload and download
- Adapted to new concepts

---

### Status and Activities

- Reviewing and updating RWPG's data management approach
- Well begun is half done: Building a kinda-sorta database-type thing
- TWDB coordination and guidance on background structure

## Agenda Item 11

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





**Agenda Item 11**  
**Community Outreach**



***STILL ACCEPTING  
HOLIDAY PARTY  
BOOKINGS!***



## Agenda Item 12

Agency communications and general information.



**TO:** Board Members

**THROUGH:** Jeff Walker, Executive Administrator  
Todd Chenoweth, General Counsel  
Jessica Zuba, Deputy Executive Administrator, Water Supply & Infrastructure

**FROM:** Temple McKinnon, Director, Water Use, Projections & Planning

**DATE:** November 21, 2017

**SUBJECT:** Proposed Rulemaking – 31 Texas Administrative Code Chapter 355 relating to Regional Water Planning Grants and Chapter 357 relating to Regional Water Planning.

**ACTION REQUESTED**

Consider authorizing publication of the proposed amendments and new provisions to 31 Texas Administrative Code Chapter 355 relating to Regional Water Planning Grants and Chapter 357 relating to Regional Water Planning.

**BACKGROUND**

The proposed amendments and new provisions will implement legislative changes from House Bill (HB) 2215 and Senate Bills (SB) 347 and 1511 from the 85<sup>th</sup> (R) Legislative Session; address certain stakeholder concerns; and clarify rules to make them more understandable. These amendments affect the state’s regional water planning process and its associated funding application process and expense eligibilities.

On August 28, 2017, a request for preliminary input was sent to regional water planning stakeholders accompanied by potential factors for consideration when implementing a simplified planning process as described in SB 1511. Comments were received through October 2, 2017 and compiled for discussion at a Board work session held with regional water planning group chairs on October 17, 2017. The proposed amendments to 31 Texas Administrative Code (TAC) Chapters 355 and 357 were developed with consideration given to discussion held and comments received.

<p style="text-align: center;"><b>Our Mission</b></p> <p>To provide leadership, information, education, and support for planning, financial assistance, and outreach for the conservation and responsible development of water for Texas</p>	<p>⋮</p> <p>⋮</p> <p>⋮</p> <p>⋮</p> <p>⋮</p> <p>⋮</p> <p>⋮</p>	<p style="text-align: center;"><b>Board Members</b></p> <p>Bech Bruun, Chairman   Kathleen Jackson, Board Member   Peter Lake, Board Member</p> <p>Jeff Walker, Executive Administrator</p>
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## **KEY ISSUES**

### **31 TAC Chapter 355:**

1. A correction is made to a Subsection 355.91 reference to public notice requirements for funding applications in a separate chapter of TAC (31 TAC §357.21(d)).
2. Clarifications are made within Subsection 355.91 as to the role of the regional water planning group or their designated political subdivision in the funding application and planning processes.
3. Subsection 355.92 is revised to allow the eligibility of certain travel expenses associated with planning group activities as authorized by the regional water planning group and the Executive Administrator.

### **31 TAC Chapter 357:**

Significant proposed changes to this chapter include the following topics.

Implementation of requirements from SB 1511:

1. Adding an ex-officio member to each regional water planning group that is a representative of the State Soil and Water Conservation Board.
2. Holding certain public meetings or hearings associated with the planning process at a central location readily accessible to the public.
3. Amending regional water plans to exclude water management strategies or projects that cease to be feasible.
4. Implementing simplified planning no more often than every other five-year planning cycle.
5. Assess impediments to project implementation in the state water plan as assisted by information collected by the regional water planning groups.

Implementation of requirements from SB 347:

6. Requiring that regional water planning group and any committee or subcommittee of the group are subject to Chapters 551 and 552, Government Code.

Implementation of requirements from HB 2215:

7. Requiring that regional water plans shall be consistent with desired future conditions in the regional water planning area as of the most recent deadline for the board to adopt the state water plan.

Responding to certain stakeholder concerns from prior rulemaking:

8. Including consideration of water conservation best management practices as a requirement during the development of regional water plans.

Clarification of existing rules:

9. Clarifying notice requirements for approving revision requests to draft population and water demand projections and substitutions of alternative water management strategies.

10. Clarifying the requirement that regional water planning groups should assess the role of the state in financing recommended strategies and projects, including proposed increases in the level of state participation.

**RECOMMENDATION**

The Executive Administrator recommends approval of the publication of the attached proposal that, if adopted, would add amendments and new provisions to 31 TAC Chapters 355 and 357 to clarify existing rules and implement legislative changes.

- Attachments:
1. Preamble and Proposed Amendments to 31 TAC Chapter 355.
  2. Preamble and Proposed Amendments to 31 TAC Chapter 357.

The Texas Water Development Board (“TWDB” or “board”) proposes amendments to §355.91 relating to regional water planning grant notice of funds and submission and review of applications and §355.92 relating to use of funds.

## BACKGROUND AND SUMMARY OF THE FACTUAL BASIS FOR THE PROPOSED AMENDMENT.

The purpose of the amendment is to correct an administrative rule reference related to a previous rule revision, clarify the roles of the regional water planning group and its designated political subdivision during the funding application process, and to revise eligibility requirements for travel expenses associated with regional water planning. The specific provisions being amended or added and the reasons for the amendments are addressed in more detail below.

## SECTION BY SECTION DISCUSSION OF PROPOSED AMENDMENTS.

### *Subchapter C. Regional Water Planning Grants.*

#### *Section 355.91. Notice of Funds and Submission and Review of Applications.*

In Section 355.91, Subsection 355.91(c) is revised to clarify the role of who is providing notice from the regional water planning group (RWPG) to the RWPG’s designated political subdivision and correct a reference to notice requirements from 31 Texas Administrative Code §357.21(d) to the correct reference of §357.21(e).

Subsection 355.91(d) is revised to clarify the role of who is providing information on the funding application from the RWPG to the RWPG’s designated political subdivision.

Subsection 355.91(e)(7) is revised to clarify the role of who conducts the planning effort from the RWPG’s designated political subdivision to the RWPG.

#### *Section 355.92. Use of Funds.*

Subsection 355.92(b)(1) is revised to allow eligibility of travel expenses associated with RWPG activities as authorized by the RWPG and Executive Administrator and by the General Appropriations Act.

## FISCAL NOTE: COSTS TO STATE AND LOCAL GOVERNMENTS

Ms. Rebecca Trevino, Chief Financial Officer, has determined that there will be no significant fiscal implications for state or local governments as a result of the proposed rulemaking. For the first five years these rules are in effect, there are not expected to be additional costs to state or local governments resulting from their administration.

These rules are not expected to result in reduction in costs to local governments. These rules are not expected to result in reductions in costs to state government.

These rules are not expected to have any impact on state or local revenues. The rules do not require any increase in expenditures for state or local governments as a result of administering these rules.

Because these rules will not impose a cost on regulated persons, the requirement included in Texas Government Code Section 2001.0045 to repeal a rule does not apply. The requirement in Section 2001.0045 does not apply because this rule is amended to correct an internal citation reference.



## PUBLIC BENEFITS AND COSTS

Ms. Rebecca Trevino also has determined that for each year of the first five years the proposed rulemaking is in effect, there will be no impact to the public.

## LOCAL EMPLOYMENT IMPACT STATEMENT

The board has determined that a local employment impact statement is not required because the proposed rule does not adversely affect a local economy in a material way for the first five years that the proposed rule is in effect because it will impose no new requirements on local economies. The board also has determined that there will be no adverse economic effect on small businesses, micro-businesses, or rural communities as a result of enforcing this rulemaking. The board also has determined that there is no anticipated economic cost to persons who are required to comply with the rulemaking as proposed. Therefore, no regulatory flexibility analysis is necessary. These rules are designed to clarify language by correcting a reference.

## DRAFT REGULATORY IMPACT ANALYSIS DETERMINATION

The board reviewed the proposed rulemaking in light of the regulatory analysis requirements of Texas Government Code §2001.0225, and determined that the rulemaking is not subject to Texas Government Code, §2001.0225, because it does not meet the definition of a “major environmental rule” as defined in the Administrative Procedure Act. A "major environmental rule" is defined as a rule with the specific intent to protect the environment or reduce risks to human health from environmental exposure, a rule that may adversely affect in a material way the economy or a sector of the economy, productivity, competition, jobs, the environment, or the public health and safety of the state or a sector of the state. The intent of the rulemaking is to correct a reference regarding the TWDB’s rules related to regional water planning grant funding.

Even if the proposed rule were a major environmental rule, Texas Government Code, §2001.0225 still would not apply to this rulemaking because Texas Government Code, §2001.0225 only applies to a major environmental rule, the result of which is to: 1) exceed a standard set by federal law, unless the rule is specifically required by state law; 2) exceed an express requirement of state law, unless the rule is specifically required by federal law; 3) exceed a requirement of a delegation agreement or contract between the state and an agency or representative of the federal government to implement a state and federal program; or 4) adopt a rule solely under the general powers of the agency instead of under a specific state law. This rulemaking does not meet any of these four applicability criteria because it: 1) does not exceed federal law; 2) does not exceed an express requirement of state law; 3) does not exceed a requirement of a delegation agreement or contract between the state and an agency or representative of the federal government to implement a state and federal program; and 4) is not proposed solely under the general powers of the agency, but rather Texas Water Code §§6.101 and 16.053. Therefore, this proposed rule does not fall under any of the applicability criteria in Texas Government Code, §2001.0225.

The board invites public comment regarding this draft regulatory impact analysis determination. Written comments on the draft regulatory impact analysis determination may be submitted to the contact person at the address listed under the Submission of Comments section of this preamble.

## TAKINGS IMPACT ASSESSMENT

The board evaluated this proposed rule and performed an analysis of whether it constitutes a taking under Texas Government Code, Chapter 2007. The specific purpose of this rule is to correct a reference from a previous rulemaking.

The board's analysis indicates that Texas Government Code, Chapter 2007 does not apply to this proposed rule because this is an action that is reasonably taken to fulfill an obligation mandated by state law, which is exempt under Texas Government Code §2007.003(b)(4). The board is the agency that administers the regional water planning process in order to develop a state water plan.

Nevertheless, the board further evaluated this proposed rule and performed an assessment of whether it constitutes a taking under Texas Government Code, Chapter 2007. Promulgation and enforcement of this proposed rule would be neither a statutory nor a constitutional taking of private real property. Specifically, the subject proposed regulation does not affect a landowner's rights in private real property because this rulemaking does not burden nor restrict or limit the owner's right to property and reduce its value by 25% or more beyond that which would otherwise exist in the absence of the regulation. In other words, this rule requires compliance with state law regarding the state water planning process. Therefore, the proposed rule does not constitute a taking under Texas Government Code, Chapter 2007.

## GOVERNMENT GROWTH IMPACT STATEMENT

The board reviewed the proposed rulemaking in light of the government growth impact statement requirements of Texas Government Code §2001.0221 and has determined, for the first five years the proposed rule would be in effect, the proposed rule will not: (1) create or eliminate a government program; (2) require the creation of new employee positions or the elimination of existing employee positions; (3) require an increase or decrease in future legislative appropriations to the agency; (4) require an increase or decrease in fees paid to the agency; (5) create a new regulation; (6) expand, limit, or repeal an existing regulation; (7) increase or decrease the number of individuals subject to the rule's applicability; or (8) positively or adversely affect this state's economy. The proposed rule provides greater clarity on the regional water planning process and is required to implement legislative changes.

## SUBMISSION OF COMMENTS

Written comments on the proposed rulemaking may be submitted by mail to Mr. Todd Chenoweth, Office of General Counsel, Texas Water Development Board, P.O. Box 13231, Austin, Texas 78711-3231, by email to [rulescomments@twdb.texas.gov](mailto:rulescomments@twdb.texas.gov), or by fax to (512) 475-2053. Comments will be accepted until 5:00 p.m. on January 31, 2018.

## STATUTORY AUTHORITY

This rulemaking is proposed under the authority of Texas Water Code §§6.101 and 16.053.

The proposed rulemaking affects Chapter 16 of the Texas Water Code.

<rule>

§355.91. Notice of Funds and Submission and Review of Applications.

(a) The EA will publish notice in the *Texas Register* advising RWPGs that funds are available and that applications will be accepted from eligible applicants for grants to develop a scope of work or to develop or revise regional water plans. The notice will describe the form and manner for applications. A RWPG may not receive grant funds unless the RWPG has provided the EA with a copy of the RWPG's adopted by-laws.

(b) The RWPG shall provide a written designation to the EA naming the political subdivision that is authorized to apply for grant funds on behalf of the RWPG. The RWPG shall ensure that the designated political subdivision has the legal authority to conduct the procurement and enter into the contracts necessary for regional planning.

(c) The political subdivision [RWPG] shall provide notice that an application for funding is being submitted in accordance with §357.21(e) [(d)] of this title (relating to Notice and Public Participation).

(d) The EA may request clarification from the political subdivision [RWPG] if necessary to evaluate the application. Incomplete applications may be rejected and returned to the applicant. After the initial round of planning grant funds, an eligible applicant may submit additional applications for tasks not previously funded. The EA may fund additional applications under this subchapter, but is not required to provide such additional funding.

(e) The applications shall be evaluated by the following criteria:

(1) degree to which proposed planning does not duplicate previous or ongoing planning;

(2) project organization and budget;

(3) scope of work of project;

(4) eligibility of tasks for funding under this subchapter;

(5) the relative need of the political subdivision for the money based upon an assessment of the necessary scope of work and cost to develop the regional water plan as compared to statewide needs for development of all regional water plans;

(6) the legal authority of the political subdivision to participate in the development and implementation of a regional water plan; and

(7) the degree to which regional water planning by the RWPG [~~political subdivision~~] will address the water supply needs in the regional water planning area.

#### §355.92. Use of Funds.

(a) Limitations of Funding. The Board has sole discretion in determining which activities are necessary for the development or revision of regional water plans. However, no funds will be provided for the following:

(1) activities for which the Board determines existing information or data is sufficient for the planning effort including:

(A) detailed evaluations of cost of water management strategies where recent information for planning is available to evaluate the cost associated with the strategy;

(B) evaluations of groundwater resources for which a desired future condition has been submitted to the Board pursuant to Texas Water Code §36.108(d) (relating to Joint Planning in a Management Area);

(C) evaluations of groundwater resources for which current information is available from the Board or other entity sufficient for evaluation of the resource;

(D) determination of water savings resulting from standard conservation practices for which current information is available from the Board;

(E) revision of the adopted state population and demand projections;

(F) revision of state environmental planning criteria for new surface water supply projects; and

(G) collection of data describing groundwater or surface water resources where information for evaluation of the resource is currently available;

(2) activities directly related to the preparation of applications for state or federal permits or other approvals, activities associated with administrative or legal proceedings by regulatory agencies, and preparation of engineering plans and specifications;

(3) activities related to planning for individual system facility needs other than identification of those facilities necessary to transport water from the source of supply to a regional water treatment plant or to a local distribution system;

(4) costs associated with administration of the plan's development, including but not limited to:

(A) compensation for the time or expenses of RWPGs members' service on or for the RWPG;

(B) costs of administering the RWPGs;

(C) costs of public notice and meetings, including time and expenses for attendance at such meetings;

(D) costs for training;

(E) costs of reviewing products developed due to this grant; and

(F) costs of administering the regional water planning grant and associated contracts; and

(5) analyses of benefits and costs of water management strategies unless the water management strategy requires a state or federal permit and the RWPG has completed the analysis required by §357.34 of this title (relating to Identification and Evaluation of Potentially Feasible Water Management Strategies), and the RWPG demonstrates to the satisfaction of the executive administrator that these analyses are needed to determine the selection of the water management strategy.

(b) Funding Administrative Costs. The following administrative costs are eligible for funding if the RWPG or its chairperson certifies, during a public meeting, that the expenses are eligible for reimbursement and are correct and necessary:

(1) travel expenses, as authorized by the General Appropriations Act~~], for RWPG voting members who certify that they are not eligible for reimbursement from their employer; travel expenses]~~ are available only for attendance at a posted meeting of the RWPG unless the travel is specifically authorized by the RWPG and EA;

(2) costs associated with providing translators and accommodations for persons with disabilities for public meetings when required by law or deemed necessary by the RWPGs and certified by the chairperson;

(3) direct costs, not including personnel costs, for placing public notices in newspapers for the legally required public hearings and of providing copies of information for the public and for members of the RWPGs as needed for the efficient performance of planning work; and

(4) the cost of postage for mailing notices of public hearings and other actions to persons and entities listed in Chapter 357 of this title (relating to Regional Water Planning).

(c) Subcontracting. A RWPG through the eligible applicant's contractor or subcontractor may obtain professional services, including the services of a planner, land surveyor, licensed engineer, or attorney,

for development or revision of a regional water plan only if such services are procured on the basis of demonstrated competence and qualifications through a request for qualifications process in accordance with Texas Government Code Chapter 2254.

(d) Notwithstanding limitations on funding described in this section, the EA may, in his sole discretion, authorize funding for a cost benefit analysis of water management strategies. The EA shall consider funding such an analysis when the strategies serve the same demand, but the costs and benefits differ significantly among the strategies. The EA shall consider the overarching benefits to the state when determining whether to provide such funding. The EA may provide cost benefit analysis in other situations, as he deems necessary and appropriate.

The Texas Water Development Board (“TWDB” or “board”) proposes amendments to §§357.10, 357.11, 357.12, 357.21, 357.22, 357.32, 357.44, 357.45, 357.51, 357.62, and 357.64 relating to regional water planning.

## BACKGROUND AND SUMMARY OF THE FACTUAL BASIS FOR THE PROPOSED AMENDMENT.

The purpose of the amendments is to implement legislative changes from Senate Bills 347 and 1511 and House Bill 2215, 85<sup>th</sup> (R) Legislative Session, address stakeholder concerns raised through preliminary input, and clarify rules to make them more understandable. The specific provisions being amended or added and the reasons for the amendments are addressed in more detail below. Concurrent with the review of these proposed amendments, TWDB has proposed revisions to planning guidance documents contained in its current contracts with the regional water planning groups (RWPG). This draft guidance may be found at <http://www.twdb.texas.gov/waterplanning/rwp/index.asp> and comments may be submitted [public-comment@twdb.texas.gov](mailto:public-comment@twdb.texas.gov).

## SECTION BY SECTION DISCUSSION OF PROPOSED AMENDMENTS.

### *Subchapter A. General Information.*

#### *Section 357.10. Definitions and Acronyms.*

Subsection 357.10(7) is revised to correct a reference in this proposal.

The definition of “Technical Memorandum” is added as Subsection 357.10(33) to establish a document that forms the basis for making a decision regarding implementation of simplified planning as provided for by Senate Bill 1511 (SB 1511), 85<sup>th</sup> (R) Legislative Session (relating to the state and regional water planning process and the funding of projects included in the state water plan).

Subsections 357.10(33) - (42) are subsequently renumbered to 357.10(34) - (43).

#### *Section 357.11. Designations.*

A new Subsection 357.11(e)(6) is added to implement a change to Texas Water Code (TWC) §16.053(c), made by SB 1511. The change requires that a representative of the State Soil and Water Conservation Board serve as an ex-officio member of each RWPG.

#### *Section 357.12. General Regional Water Planning Group Responsibilities and Procedures.*

Subsection 357.12(a)(1) is revised to implement a change to TWC §16.053(h)(1) made by SB 1511. The change requires that the public meeting held prior to the preparation of the regional water plan (RWP) to gather suggestions and recommendations from the public as to issues to address be conducted at a central location that is readily accessible to the public.

A new Subsection 357.12(a-1) is added to implement a change to TWC §16.053(h) made by Senate Bill 347 (SB 347), 85<sup>th</sup> (R) Legislative Session (relating to the applicability of open meetings and public information laws to regional water planning groups and their committees). The change requires that each RWPG and any committee or subcommittee of a RWPG are subject to Chapters 551 (relating to Open Meetings) and 552 (relating to Public Information), Government Code.

Subsection 357.12(b) is revised to implement a change to TWC §16.053(h)(10) made by SB 1511. The change addresses the legislative requirement that RWPGs amend their plans to exclude water management strategies or projects determined to be infeasible as defined by TWC §16.053(h)(10). The

rule revision requires that, beginning with the development of the 2026 RWP, the RWPG present its analysis of infeasible strategies contained in its currently adopted plan in conjunction with the public meeting held to determine its process for identifying potentially feasible water management strategies for their upcoming plan and amend their adopted RWP as appropriate. Additionally, beginning with the development of the 2026 RWP, the notice requirements for this meeting will be those in Subsection 357.21(c) to extend the notice and comment period for those associated with the identified infeasible water management strategies or projects.

Subsection 357.12(c) is added to require RWPG submittal of an approved Technical Memorandum, which has previously been only a contractual requirement. The Technical Memorandum is a deliverable at the approximate mid-point of the planning cycle that presents a key, preliminary analysis of water demands, water availability, existing supply, and needs in a regional water planning area. This contractual requirement is being added as a rule including for the purpose of formalizing the document that forms the basis for making a decision regarding simplified planning. Starting with the development of the 2026 RWP, the Technical Memorandum will also be the documentation of the RWPG's determination that water management strategies or projects from the previously adopted RWP are no longer feasible.

Subsection 357.12(d) is added to allow for Executive Administrator review and comment on the Technical Memorandum and declaration of intent to pursue simplified planning. If the RWPG declares intent to pursue simplified planning, it must receive written approval from the Executive Administrator prior to implementing simplified planning.

Subsection 357.12(e) is revised to implement a change to TWC §16.053(i) made by SB 1511 and clarify the process for the previously existing simplified planning provision. The change states that RWPGs may elect to implement simplified planning, during planning cycles that do not immediately follow the implementation of the U.S. Census and in accordance with guidance to be provided by TWDB. Following updated source water availability analyses, if there are no significant changes to the water availability, water supplies, or water demands in the regional water planning area as determined by the planning group, the planning group may choose to develop a simplified RWP, as described in subparagraph 357.12(f)(3), in accordance with guidance provided by the Executive Administrator and without over-allocation of any water supply source utilized in the regional water planning area.

Subsection 357.12(f) is revised to outline the steps a RWPG must take in pursuing simplified planning. It requires completion of the Technical Memorandum; meeting new statutory or other planning requirements; adopting previous RWP or State Water Plan information, where appropriate; and conducting other activities upon approval of the Executive Administrator necessary to complete an RWP. These changes are made in order to implement changes to TWC §16.053(i) made by SB 1511 and to clarify the process for simplified planning.

Subsection 357.12(g) is added to require an additional public hearing on a RWPG's decision to pursue simplified planning.

Subsection 357.12(h) is added to require an RWPG meeting to consider comments received and take action on declaring to implement simplified planning for the regional water planning area.

In summary, the changes to Section 357.12 to implement the simplified planning provisions of SB 1511 require three meetings. First, the decision to pursue simplified planning must occur with completion of the Technical Memorandum. Second, the RWPG must hold a public hearing on the decision to pursue simplified planning and take comments for a period of 30 days following the hearing. Third, the RWPG must hold a meeting to consider the comments received and make a final declaration on implementation of simplified planning.

*Subchapter B. Guidance Principles and Notice Requirements.*

*Section 357.21. Notice and Public Participation.*

Subsection 357.21(a) is amended to implement a change to TWC §16.053(h) made by SB 347. The change requires that each RWPG and any committee or subcommittee of a RWPG are subject to Chapters 551 (relating to Open Meetings) and 552 (relating to Public Information), Government Code. Subsection 357.21(a) is amended to reflect that the notice requirements included in this section for the RWPGs are in addition to Chapter 551, Government Code. RWPGs should also analyze Chapter 551, Government Code, in deciding what notice requirements apply to their meetings.

Paragraph 357.21(b)(1) is revised to clarify the required notice period for a RWPG for certain actions including approving revision requests to draft population and water demand projections, specifying that plans previous to the 2026 RWP will continue to follow these notice requirements when presenting their process of identifying potentially feasible water management strategies, approving requests to submit alternative strategy substitution approvals to the Executive Administrator, declaration of implementation of simplified planning following consideration of comments received at a public hearing on the RWPG's intent to pursue simplified planning, and meetings of RWPG committees and subcommittees.

Paragraph 357.21(c)(1) is revised to include that the RWPG's approval to submit its Technical Memorandum shall meet the defined notice requirements in the subsection and that, beginning with the development of the 2026 RWP, the process for identifying potentially feasible water management strategies, including the presentation of the analysis of infeasible water management strategies or projects, will be held to these longer notice requirements to increase notice to those associated with water management strategies or projects determined to be no longer feasible.

Paragraph 357.21(c)(2) is revised to clarify the previously required posting requirements of the public notice.

Subparagraph 357.21(c)(4)(D) is added to include notice requirements for project sponsors of water management strategies or projects that have been identified as infeasible.

Paragraph 357.21(d)(1) is revised to include that the RWPG's declaration to pursue simplified planning will be subject to a public hearing and associated notice as defined in this subsection.

Subparagraph 357.21(d)(3)(D) is revised to reflect a renumbered paragraph in this proposed revision.

Subparagraph 357.21(d)(5)(G) is added to require additional notice of simplified planning declarations to RWPGs that share sources, water management strategies, or projects with the RWPG that intends to pursue simplified planning.

Subparagraph 357.21(d)(5)(H) is added to include notice requirements for project sponsors of water management strategies or projects that are being amended from an approved regional water plan due to being identified as infeasible.

Paragraph 357.21(d)(7) is revised to clarify that document provision requirements are to be consistent with the other Subsections of Section 357.21.

A new paragraph 357.21(d)(8) is added to implement a change to TWC §16.053(h)(3) made by SB 1511. The change requires that the public hearing for the initially prepared plan be conducted at a central location that is readily accessible to the public.

Subsection 357.21(d)(7) is subsequently renumbered to 357.12(d)(9).

Subsection 357.21(d)(9)(A)(i) is revised to require a 30-day comment period following the public hearing on the declaration of intent to pursue simplified planning.



Subsection 357.21(d)(9)(C)(i) is revised to require RWPG consideration of public comments received prior to declaring implementation of simplified planning.

*Section 357.22. General Considerations for Development of Regional Water Plans.*

Subsection 357.22(14) is revised to require consideration of the water conservation best management practices available on the Texas Water Development Board's website in RWP development. This new requirement is in response to stakeholder comments received during and following a previous rulemaking.

Subsection 357.22(14) is subsequently renumbered to 357.22(15).

*Subchapter C. Planning Activities for Needs Analysis and Strategy Recommendations.*

*Section 357.32. Water Supply Analysis.*

Subsection 357.32(d) is revised to implement a change to TWC §16.053(e) made by House Bill 2215, 85<sup>th</sup> (R) Legislative Session (relating to the deadline for adoption of desired future conditions in groundwater conservation districts). The change requires that RWPs shall be consistent with desired future conditions in the regional water planning area as of the most recent deadline for the board to adopt the state water plan.

*Subchapter D. Impacts, Drought Response, Policy Recommendations, and Implementation.*

*Section 357.44. Infrastructure Financing Analysis.*

Subsection 357.44 is revised to clarify the previously existing requirement of TWC §16.053(q) that RWPGs should assess what role the state should have in financing recommended strategies and projects, including proposed increases in the level of state participation.

*Section 357.45. Implementation and Comparison to Previous Regional Water Plan.*

Subsection 357.45(a) is revised to implement a change to TWC §16.053(a-1) made by SB 1511. The change requires that the state water plan assess impediments to implementation of board-prioritized projects. The proposed revision to the subsection addresses information to be collected by the planning groups to support the state water plan assessment of impediments to implementation.

*Subchapter E. Adoption, Submittal, and Amendments to Regional Water Plans.*

*Section 357.51. Amendments to Regional Water Plans.*

Subsection 357.51(e) is revised to clarify the current public notice and process for a RWPG to substitute an alternative water management strategy for a recommended water management strategy into their approved RWP.

Subsection 357.51(g) is revised to implement a change to TWC §16.053(h)(10) made by SB 1511. The change requires RWPGs to amend their RWPs to exclude water management strategies or projects that cease to be feasible. The rule revision references existing requirements for RWP amendments to be utilized as appropriate and requires the planning group to address why the strategy or project was determined to be infeasible.

Subsection 357.51(g) is subsequently renumbered to 357.51(h).

*Subchapter F. Consistency and Conflicts in Regional Water Plans.*

### *Section 357.62. Interregional Conflicts.*

Subsection 357.62(d) is revised to implement a change to TWC §16.053(h)(6) made by SB 1511. The change requires that the public hearing on the proposed recommendation for resolution of an interregional conflict be conducted at a central location that is readily accessible to the public within the respective regional water planning areas.

### *Section 357.64. Conflicts Between Regional Water Plans and Groundwater Management Plans.*

Subsection 357.64(d) is revised to implement a change to TWC §16.053(p-2) made by SB 1511. The change requires that the public hearing on the revised groundwater management plan resulting from the resolution of a conflict between an approved RWP and an approved groundwater management plan be conducted at a central location that is readily accessible to the public within the district.

Subsection 357.64(e) is revised to implement a change to TWC §16.053(p-1) made by SB 1511. The change requires that the public hearing on the revised RWP resulting from the resolution of a conflict between an approved RWP and an approved groundwater management plan be conducted at a central location that is readily accessible to the public within the regional water planning area.

### **FISCAL NOTE: COSTS TO STATE AND LOCAL GOVERNMENTS**

Ms. Rebecca Trevino, Chief Financial Officer, has determined that there will be no significant fiscal implications for state or local governments as a result of the proposed rulemaking. For the first five years these rules are in effect, there are not expected to be additional costs to state or local governments resulting from their administration.

These rules are not expected to result in reduction in costs to local governments. These rules are not expected to result in reductions in costs to state government.

These rules are not expected to have any impact on state or local revenues. The rules do not require any increase in expenditures for state or local governments as a result of administering these rules.

Because these rules will not impose a cost on regulated persons, the requirement included in Texas Government Code Section 2001.0045 to repeal a rule does not apply. Furthermore, the requirement in Section 2001.0045 does not apply because these rules are necessary to implement legislation, address stakeholder concerns raised through preliminary input, and clarify rules to make them more understandable.

The board invites public comment regarding this fiscal note. Written comments on the fiscal note may be submitted to the contact person at the address listed under the Submission of Comments section of this preamble.

### **PUBLIC BENEFITS AND COSTS**

Ms. Rebecca Trevino also has determined that for each year of the first five years the proposed rulemaking is in effect, there will be no impact to the public.

### **LOCAL EMPLOYMENT IMPACT STATEMENT**

The board has determined that a local employment impact statement is not required because the proposed rule does not adversely affect a local economy in a material way for the first five years that the proposed rule is in effect because it will impose no new requirements on local economies. The board also has determined that there will be no adverse economic effect on small businesses, micro-businesses, or rural communities as a result of enforcing this rulemaking. The board also has determined that there is no anticipated economic cost to persons who are required to comply with the rulemaking as proposed.

Therefore, no regulatory flexibility analysis is necessary. These rules are designed to implement legislative changes, address stakeholder concerns, and clarify previously existing language.

## DRAFT REGULATORY IMPACT ANALYSIS DETERMINATION

The board reviewed the proposed rulemaking in light of the regulatory analysis requirements of Texas Government Code §2001.0225, and determined that the rulemaking is not subject to Texas Government Code, §2001.0225, because it does not meet the definition of a “major environmental rule” as defined in the Administrative Procedure Act. A “major environmental rule” is defined as a rule with the specific intent to protect the environment or reduce risks to human health from environmental exposure, a rule that may adversely affect in a material way the economy or a sector of the economy, productivity, competition, jobs, the environment, or the public health and safety of the state or a sector of the state. The intent of the rulemaking is to implement legislative changes and provide greater clarity regarding the TWDB’s rules related to regional water planning.

Even if the proposed rule were a major environmental rule, Texas Government Code, §2001.0225 still would not apply to this rulemaking because Texas Government Code, §2001.0225 only applies to a major environmental rule, the result of which is to: 1) exceed a standard set by federal law, unless the rule is specifically required by state law; 2) exceed an express requirement of state law, unless the rule is specifically required by federal law; 3) exceed a requirement of a delegation agreement or contract between the state and an agency or representative of the federal government to implement a state and federal program; or 4) adopt a rule solely under the general powers of the agency instead of under a specific state law. This rulemaking does not meet any of these four applicability criteria because it: 1) does not exceed federal law; 2) does not exceed an express requirement of state law; 3) does not exceed a requirement of a delegation agreement or contract between the state and an agency or representative of the federal government to implement a state and federal program; and 4) is not proposed solely under the general powers of the agency, but rather Texas Water Code §16.053. Therefore, this proposed rule does not fall under any of the applicability criteria in Texas Government Code, §2001.0225.

The board invites public comment regarding this draft regulatory impact analysis determination. Written comments on the draft regulatory impact analysis determination may be submitted to the contact person at the address listed under the Submission of Comments section of this preamble.

## TAKINGS IMPACT ASSESSMENT

The board evaluated this proposed rule and performed an analysis of whether it constitutes a taking under Texas Government Code, Chapter 2007. The specific purpose of this rule is to implement legislative changes, address stakeholder concerns raised through preliminary input, and clarify rules to make them more understandable regarding the TWDB’s rules related to regional water planning. The proposed rule would substantially advance this stated purpose by adding language related to legislative changes and clarifying existing language related to regional water planning.

The board’s analysis indicates that Texas Government Code, Chapter 2007 does not apply to this proposed rule because this is an action that is reasonably taken to fulfill an obligation mandated by state law, which is exempt under Texas Government Code §2007.003(b)(4). The board is the agency that administers the regional water planning process in order to develop a state water plan.

Nevertheless, the board further evaluated this proposed rule and performed an assessment of whether it constitutes a taking under Texas Government Code, Chapter 2007. Promulgation and enforcement of this proposed rule would be neither a statutory nor a constitutional taking of private real property. Specifically, the subject proposed regulation does not affect a landowner’s rights in private real property because this rulemaking does not burden nor restrict or limit the owner’s right to property and reduce its value by 25% or more beyond that which would otherwise exist in the absence of the regulation. In other words, this rule requires compliance with state law regarding the state water planning process. Therefore, the proposed rule does not constitute a taking under Texas Government Code, Chapter 2007.

## GOVERNMENT GROWTH IMPACT STATEMENT

The board reviewed the proposed rulemaking in light of the government growth impact statement requirements of Texas Government Code §2001.0221 and has determined, for the first five years the proposed rule would be in effect, the proposed rule will not: (1) create or eliminate a government program; (2) require the creation of new employee positions or the elimination of existing employee positions; (3) require an increase or decrease in future legislative appropriations to the agency; (4) require an increase or decrease in fees paid to the agency; (5) create a new regulation; (6) expand, limit, or repeal an existing regulation; (7) increase or decrease the number of individuals subject to the rule's applicability; or (8) positively or adversely affect this state's economy. The proposed rule provides greater clarity on the regional water planning process and is required to implement legislative changes.

## SUBMISSION OF COMMENTS

Written comments on the proposed rulemaking may be submitted by mail to Mr. Todd Chenoweth, Office of General Counsel, Texas Water Development Board, P.O. Box 13231, Austin, Texas 78711-3231, by email to [rulescomments@twdb.texas.gov](mailto:rulescomments@twdb.texas.gov), or by fax to (512) 475-2053. Comments will be accepted until 5:00 p.m. on January 31, 2018.

## STATUTORY AUTHORITY

This rulemaking is proposed under the authority of Texas Water Code §§6.101 and 16.053.

The proposed rulemaking affects Chapter 16 of the Texas Water Code.

<rule>

## CHAPTER 357. REGIONAL WATER PLANNING.

### SUBCHAPTER A. GENERAL INFORMATION.

#### §357.10. Definitions and Acronyms.

The following words, used in this chapter, have the following meanings.

- (1) Agricultural Water Conservation--Defined in §363.1302 of this title (relating to Definition of Terms).
- (2) Alternative Water Management Strategy--A fully evaluated Water Management Strategy that may be substituted into a Regional Water Plan in the event that a recommended Water Management Strategy is no longer recommended.
- (3) Availability--Maximum amount of raw water that could be produced by a source during a repeat of the Drought of Record, regardless of whether the supply is physically connected to or legally accessible by Water User Groups.
- (4) Board--The Texas Water Development Board.
- (5) Collective Reporting Unit--A grouping of utilities located in the Regional Water Planning Area. Utilities within a Collective Reporting Unit must have a logical relationship, such as being served by common Wholesale Water Providers, having common sources, or other appropriate associations.
- (6) Commission--The Texas Commission on Environmental Quality.
- (7) County-Other--An aggregation of utilities and individual water users within a county and not included in Subsections §357.10(42)[(41)](A) - (D).

- (8) Drought Contingency Plan--A plan required from wholesale and retail public water suppliers and irrigation districts pursuant to Texas Water Code §11.1272 (relating to Drought Contingency Plans for Certain Applicants and Water Right Holders). The plan may consist of one or more strategies for temporary supply and demand management and demand management responses to temporary and potentially recurring water supply shortages and other water supply emergencies as required by the Commission.
- (9) Drought Management Measures--Demand management activities to be implemented during drought that may be evaluated and included as Water Management Strategies.
- (10) Drought Management Water Management Strategy--A drought management measure or measures evaluated and/or recommended in a State or Regional Water Plan that quantifies temporary reductions in demand during drought conditions.
- (11) Drought of Record--The period of time when historical records indicate that natural hydrological conditions would have provided the least amount of water supply.
- (12) Executive Administrator (EA)--The Executive Administrator of the Board or a designated representative.
- (13) Existing Water Supply--Maximum amount of water that is physically and legally accessible from existing sources for immediate use by a Water User Group under a repeat of Drought of Record conditions.
- (14) Firm Yield--Maximum water volume a reservoir can provide each year under a repeat of the Drought of Record using anticipated sedimentation rates and assuming that all senior water rights will be totally utilized and all applicable permit conditions met.
- (15) Interbasin Transfer of Surface Water--Defined and governed in Texas Water Code §11.085 (relating to Interbasin Transfers) as the diverting of any state water from a river basin and transfer of that water to any other river basin.
- (16) Interregional Conflict--An interregional conflict exists when:
- (A) more than one Regional Water Plan includes the same source of water supply for identified and quantified recommended Water Management Strategies and there is insufficient water available to implement such Water Management Strategies; or
- (B) in the instance of a recommended Water Management Strategy proposed to be supplied from a different Regional Water Planning Area, the Regional Water Planning Group with the location of the strategy has studied the impacts of the recommended Water Management Strategy on its economic, agricultural, and natural resources, and demonstrates to the Board that there is a potential for a substantial adverse effect on the region as a result of those impacts.
- (17) Intraregional Conflict--A conflict between two or more identified, quantified, and recommended Water Management Strategies in the same Initially Prepared Plan that rely upon the same water source, so that there is not sufficient water available to fully implement all Water Management Strategies and thereby creating an over-allocation of that source.
- (18) Initially Prepared Plan (IPP)--Draft Regional Water Plan that is presented at a public hearing in accordance with §357.21(d) of this title (relating to Notice and Public Participation) and submitted for Board review and comment.
- (19) Major Water Provider (MWP)--A Water User Group or a Wholesale Water Provider of particular significance to the region's water supply as determined by the Regional Water Planning Group. This may

include public or private entities that provide water for any water use category.

(20) Modeled Available Groundwater (MAG) Peak Factor--A percentage (e.g., greater than 100 percent) that is applied to a modeled available groundwater value reflecting the annual groundwater availability that, for planning purposes, shall be considered temporarily available for pumping consistent with desired future conditions. The approval of a MAG Peak Factor is not intended as a limit to permits or as guaranteed approval or pre-approval of any future permit application.

(21) Planning Decades--Temporal snapshots of conditions anticipated to occur and presented at even intervals over the planning horizon used to present simultaneous demands, supplies, needs, and strategy volume data. A Water Management Strategy that is shown as providing a supply in the 2040 decade, for example, is assumed to come online in or prior to the year 2040.

(22) Political Subdivision--City, county, district, or authority created under the Texas Constitution, Article III, §52, or Article XVI, §59, any other Political Subdivision of the state, any interstate compact commission to which the state is a party, and any nonprofit water supply corporation created and operating under Texas Water Code Chapter 67 (relating to Nonprofit Water Supply or Sewer Service Corporations).

(23) Regional Water Plan (RWP)--The plan adopted or amended by a Regional Water Planning Group pursuant to Texas Water Code §16.053 (relating to Regional Water Plans) and this chapter.

(24) Regional Water Planning Area (RWPA)--Area designated pursuant to Texas Water Code §16.053.

(25) Regional Water Planning Group (RWPG)--Group designated pursuant to Texas Water Code §16.053.

(26) RWPG-Estimated Groundwater Availability--The groundwater Availability used for planning purposes as determined by RWPGs to which §357.32(d)(2) of this title (relating to Water Supply Analysis) is applicable or where no desired future condition has been adopted.

(27) Retail Public Utility--Defined in Texas Water Code §13.002 (relating to Water Rates and Services) as "any person, corporation, public utility, water supply or sewer service corporation, municipality, Political Subdivision or agency operating, maintaining, or controlling in this state facilities for providing potable water service or sewer service, or both, for compensation."

(28) Reuse--Defined in §363.1302 of this title (relating to Definition of Terms).

(29) State Drought Preparedness Plan--A plan, separate from the State Water Plan, that is developed by the Drought Preparedness Council for the purpose of mitigating the effects of drought pursuant to Texas Water Code §16.0551 (relating to State Drought Preparedness Plan).

(30) State Drought Response Plan--A plan prepared and directed by the chief of the Texas Division of Emergency Management for the purpose of managing and coordinating the drought response component of the State Water Plan and the State Drought Preparedness Plan pursuant to Texas Water Code §16.055 (relating to Drought Response Plan).

(31) State Water Plan--The most recent state water plan adopted by the Board under the Texas Water Code §16.051 (relating to State Water Plan).

(32) State Water Planning Database--Database maintained by TWDB that stores data related to population and Water Demand projections, water Availability, Existing Water Supplies, Water Management Strategy supplies, and Water Management Strategy Projects. It is used to collect, analyze, and disseminate regional and statewide water planning data.

(33) Technical Memorandum--Documentation of the RWPG's preliminary analysis of Water Demand projections, water Availability, Existing Water Supplies, and Water Needs and declaration of the RWPG's intent of whether or not to pursue simplified planning.

(34)[(33)] Unmet Water Need--The portion of an identified Water Need that is not met by recommended Water Management Strategies.

(35)[(34)] Water Conservation Measures--Practices, techniques, programs, and technologies that will protect water resources, reduce the consumption of water, reduce the loss or waste of water, or improve the efficiency in the use of water that may be presented as Water Management Strategies, so that a water supply is made available for future or alternative uses. For planning purposes, Water Conservation Measures do not include reservoirs, aquifer storage and recovery, or other types of projects that develop new water supplies.

(36)[(35)] Water Conservation Plan--The most current plan required by Texas Water Code §11.1271 (relating to Water Conservation Plans) from an applicant for a new or amended water rights permit and from any holder of a permit, certificate, etc. who is authorized to appropriate 1,000 acre-feet per year or more for municipal, industrial, and other non-irrigation uses and for those who are authorized to appropriate 10,000 acre-feet per year or more for irrigation, and the most current plan required by Texas Water Code §13.146 from a Retail Public Utility that provides potable water service to 3,300 or more connections. These plans must include specific, quantified 5-year and 10-year targets for water savings.

(37)[(36)] Water Conservation Strategy--A Water Management Strategy with quantified volumes of water associated with Water Conservation Measures.

(38)[(37)] Water Demand--Volume of water required to carry out the anticipated domestic, public, and/or economic activities of a Water User Group during drought conditions.

(39)[(38)] Water Management Strategy (WMS)--A plan to meet a need for additional water by a discrete Water User Group, which can mean increasing the total water supply or maximizing an existing supply, including through reducing demands. A Water Management Strategy may or may not require associated Water Management Strategy Projects to be implemented.

(40)[(39)] Water Management Strategy Project (WMSP)--Water project that has a non-zero capital costs and that when implemented, would develop, deliver, or treat additional water supply volumes, or conserve water for Water User Groups or Wholesale Water Providers. One WMSP may be associated with multiple WMSs.

(41)[(40)] Water Need--A potential water supply shortage based on the difference between projected Water Demands and Existing Water Supplies.

(42)[(41)] Water User Group (WUG)--Identified user or group of users for which Water Demands and Existing Water Supplies have been identified and analyzed and plans developed to meet Water Needs. These include:

(A) Privately-owned utilities that provide an average of more than 100 acre-feet per year for municipal use for all owned water systems;

(B) Water systems serving institutions or facilities owned by the state or federal government that provide more than 100 acre-feet per year for municipal use;

(C) All other Retail Public Utilities not covered in paragraphs (A) and (B) that provide more than 100 acre-feet per year for municipal use;

(D) Collective Reporting Units, or groups of Retail Public Utilities that have a common association and

are requested for inclusion by the RWPG;

(E) Municipal and domestic water use, referred to as County-Other, not included in paragraphs (A)-(D) of this subsection; and

(F) Non-municipal water use including manufacturing, irrigation, steam electric power generation, mining, and livestock watering for each county or portion of a county in an RWPA.

~~(43)~~~~(42)~~ Wholesale Water Provider (WWP)--Any person or entity, including river authorities and irrigation districts, that delivers or sells water wholesale (treated or raw) to WUGs or other WWPs or that the RWPG expects or recommends to deliver or sell water wholesale to WUGs or other WWPs during the period covered by the plan. The RWPGs shall identify the WWPs within each region to be evaluated for plan development.

#### §357.11. Designations.

(a) The Board shall review and update the designations of RWPAs as necessary but at least every five years, on its own initiative or upon recommendation of the EA. The Board shall provide 30 days notice of its intent to amend the designations of RWPAs by publication of the proposed change in the *Texas Register* and by mailing the notice to each mayor of a municipality with a population of 1,000 or more or which is a county seat that is located in whole or in part in the RWPAs proposed to be impacted, to each water district or river authority located in whole or in part in the RWPA based upon lists of such water districts and river authorities obtained from the Commission, and to each county judge of a county located in whole or in part in the RWPAs proposed to be impacted. After the 30 day notice period, the Board shall hold a public hearing at a location to be determined by the Board before making any changes to the designation of an RWPA.

(b) If upon boundary review the Board determines that revisions to the boundaries are necessary, the Board shall designate areas for which RWPAs shall be developed, taking into consideration factors such as:

(1) River basin and aquifer delineations;

(2) Water utility development patterns;

(3) Socioeconomic characteristics;

(4) Existing RWPAs;

(5) Political Subdivision boundaries;

(6) Public comment; and

(7) Other factors the Board deems relevant.

(c) After an initial coordinating body for a RWPG is named by the Board, the RWPGs shall adopt, by two-thirds vote, bylaws that are consistent with provisions of this chapter. Within 30 days after the Board names members of the initial coordinating body, the EA shall provide to each member of the initial coordinating body a set of model bylaws which the RWPG shall consider. The RWPG shall provide copies of its bylaws and any revisions thereto to the EA. The bylaws adopted by the RWPG shall at a minimum address the following elements:

(1) definition of a quorum necessary to conduct business;

(2) method to be used to approve items of business including adoption of RWPAs or amendments thereto;



- (3) methods to be used to name additional members;
  - (4) terms and conditions of membership;
  - (5) methods to record minutes and where minutes will be archived as part of the public record; and
  - (6) methods to resolve disputes between RWPG members on matters coming before the RWPG.
- (d) RWPGs shall maintain at least one representative of each of the following interest categories as voting members of the RWPG. However, if an RWPA does not have an interest category below, then the RWPG shall so advise the EA and no membership designation is required.
- (1) Public, defined as those persons or entities having no economic interest in the interests represented by paragraphs (2) - (12) of this subsection other than as a normal consumer;
  - (2) Counties, defined as the county governments for the 254 counties in Texas;
  - (3) Municipalities, defined as governments of cities created or organized under the general, home-rule, or special laws of the state;
  - (4) Industries, defined as corporations, partnerships, sole proprietorships, or other legal entities that are formed for the purpose of making a profit and which produce or manufacture goods or services and which are not small businesses;
  - (5) Agricultural interests, defined as those persons or entities associated with production or processing of plant or animal products;
  - (6) Environmental interests, defined as those persons or groups advocating the conservation of the state's natural resources, including but not limited to soil, water, air, and living resources;
  - (7) Small businesses, defined as corporations, partnerships, sole proprietorships, or other legal entities that are formed for the purpose of making a profit, are independently owned and operated, and have fewer than 100 employees or less than \$1 million in gross annual receipts;
  - (8) Electric generating utilities, defined as any persons, corporations, cooperative corporations, or any combination thereof, meeting each of the following three criteria: own or operate for compensation equipment or facilities which produce or generate electricity; produce or generate electricity for either wholesale or retail sale to others; and are neither a municipal corporation nor a river authority;
  - (9) River authorities, defined as any districts or authorities created by the legislature which contain areas within their boundaries of one or more counties and which are governed by boards of directors appointed or designated in whole or part by the governor or board, including, without limitation, San Antonio River Authority and Palo Duro River Authority;
  - (10) Water districts, defined as any districts or authorities, created under authority of either Texas Constitution, Article III, §52(b)(1) and (2), or Article XVI, §59 including districts having the authority to regulate the spacing of or production from water wells, but not including river authorities;
  - (11) Water utilities, defined as any persons, corporations, cooperative corporations, or any combination thereof that provide water supplies for compensation except for municipalities, river authorities, or water districts; and
  - (12) Groundwater management areas, defined as a single representative for each groundwater management area that is at least partially located within an RWPA. Defined as a representative from a groundwater conservation district that is appointed by the groundwater conservation districts within the

associated groundwater management area.

(e) The RWPGs shall add the following non-voting members, who shall receive meeting notifications and information in the same manner as voting members:

(1) Staff member of the Board to be designated by the EA;

(2) Staff member of the Texas Parks and Wildlife Department designated by its executive director;

(3) Member designated by each adjacent RWPG to serve as a liaison;

(4) One or more persons to represent those entities with headquarters located in another RWPA and which holds surface water rights authorizing a diversion of 1,000 acre-feet a year or more in the RWPA, which supplies water under contract in the amount of 1,000 acre-feet a year or more to entities in the RWPA, or which receives water under contract in the amount of 1,000 acre-feet a year or more from the RWPA; ~~and~~

(5) Staff member of the Texas Department of Agriculture designated by its commissioner; and [-]

(6) Staff member of the State Soil and Water Conservation Board designated by its executive director.

(f) Each RWPG shall provide a current list of its members to the EA; the list shall identify the interest represented by each member including interests required in subsection (d) of this section.

(g) Each RWPG, at its discretion, may at any time add additional voting and non-voting representatives to serve on the RWPG for any new interest category, including additional representatives of those interests already listed in subsection (d) of this section that the RWPG considers appropriate for water planning.

(h) Each RWPG, at its discretion, may remove individual voting or non-voting members or eliminate RWPG representative positions in accordance with the RWPG bylaws as long as minimum requirements of RWPG membership are maintained in accordance with subsection (d) of this section.

(i) RWPGs may enter into formal and informal agreements to coordinate, avoid conflicts, and share information with other RWPGs or any other interests within any RWPA for any purpose the RWPGs consider appropriate including expediting or making more efficient water planning efforts. These efforts may involve any portion of the RWPG membership. Any plans or information developed through these efforts by RWPGs or by committees may be included in an RWP only upon approval of the RWPG.

(j) Upon request, the EA will provide technical assistance to RWPGs, including on water supply and demand analysis, methods to evaluate the social and economic impacts of not meeting needs, and regarding Drought Management Measures and water conservation practices.

#### §357.12. General Regional Water Planning Group Responsibilities and Procedures.

(a) Prior to the preparation for the RWPs, in accordance with the public participation requirements in §357.21 of this title (relating to Notice and Public Participation), the RWPGs shall:

(1) hold at least one public meeting at a central location readily accessible to the public within the regional water planning area to gather suggestions and recommendations from the public as to issues that should be addressed or provisions that should be included in the next regional or state water plan;

(2) prepare a scope of work that includes a detailed description of tasks to be performed, identifies responsible parties for task execution, a task schedule, task and expense budgets, and describes interim products, draft reports, and final reports for the planning process;

(3) approve any amendments to the scope of work only in an open meeting of the RWPG where notice of the proposed action was provided in accordance with §357.21 of this title; and

(4) designate a Political Subdivision as a representative of the RWPG eligible to apply for financial assistance for scope of work and RWP development pursuant to Chapter 355, Subchapter C of this title (relating to Regional Water Planning Grants).

(a-1) Each RWPG and any committee or subcommittee of an RWPG are subject to Chapters 551 (relating to Open Meetings) and 552 (relating to Public Information), Government Code.

(b) An RWPG shall hold a public meeting to determine the process for identifying potentially feasible WMSs; the process shall be documented and shall include input received at the public meeting; after reviewing the potentially feasible strategies using the documented process, then the RWPG shall list all possible WMSs that are potentially feasible for meeting a Water Need in the region. The public meeting under this subsection shall be in accordance with the requirements of §357.21(b) of this title, for the development of RWPs previous to the 2026 RWP. Beginning with the development of the 2026 RWP, and every RWP thereafter, this meeting shall be held in accordance with the requirements of §357.21(c) of this title and shall include the results of the analysis of infeasible WMSs or WMSPs, as defined by Texas Water Code §16.053(h)(10), included in the most recently adopted previous RWP. Infeasible WMSs or WMSPs shall be identified based on project sponsor provided information or local knowledge, as acquired through plan development activities such as surveys, and as determined based on implementation schedules consistent with implementation by the project sponsors. The group shall provide notice to all associated project sponsors and amend its adopted RWP as appropriate based upon the analysis.

(c) The RWPGs shall approve and submit a Technical Memorandum to the EA after notice pursuant to §357.21(c) of this title. The Technical Memorandum shall include:

(1) The most recent population and Water Demand projections adopted by the Board;

(2) Updated source water Availability utilized in the RWPA, as entered into the State Water Planning Database;

(3) Updated Existing Water Supplies, as entered into the State Water Planning Database;

(4) Identified Water Needs and surpluses;

(5) The documented process used by the RWPG to identify potentially feasible WMSs;

(6) The potentially feasible WMSs identified as of the date of submittal of the Technical Memorandum to the EA, if any;

(7) Beginning with the development of the 2026 RWP and each RWP thereafter, a listing of the infeasible WMSs and WMSPs as determined by the RWPG pursuant to TWC §16.053(h)(10) and subsection (b) of this section; and

(8) During each off-census RWP development, the RWPG's declaration of intent to pursue simplified planning for that planning cycle. If the RWPG intends to pursue simplified planning, the RWPG shall document the process to authorize and initiate subsection (g) of this section.

(d) The EA shall evaluate the Technical Memorandum and any declaration of intent to pursue simplified planning, if applicable, and issue written approval prior to implementation of simplified planning by the RWPG.

(e)[(e)] If applicable, and approved by the EA, an RWPG may implement simplified planning in off-

census planning cycles in accordance with guidance to be provided by the EA. An RWPG may only pursue simplified planning if:

(1) the ~~[If an]~~ RWPG determines in its analysis of Water Needs that it has sufficient Existing Water Supplies in the RWPA to meet all Water Needs for the 50-year planning period while identifying Existing Water Supplies that are available for voluntary redistribution in the RWPA or to other RWPA's; or ~~[;~~

(2) an RWPG determines, including based on its analysis of source water Availability, that there are no significant changes, as determined by the RWPG, to water Availability, Existing Water Supplies, or Water Demands in the RWPA. A determination that there have been no significant changes may not be based solely on an aggregated, region-wide basis without consideration of sub-regional changes.

(f) If an RWPG elects to pursue simplified planning, it must: ~~[RWPGs may conduct simplified regional water planning as follows:]~~

(1) Complete the Technical Memorandum in subparagraph (c) of this paragraph and, based upon the analysis, determine and document whether significant changes have resulted from the most recently adopted RWP; ~~[(1) identify Existing Water Supplies that are available for voluntary redistribution in an RWPA or to other RWPA's;]~~

(2) Meet new statutory or other planning requirements that come into effect during the most recent planning cycle;

(3)~~[(2)]~~ where appropriate, adopt previous RWP or State Water Plan information, updated as necessary, as the IPP and RWP, in accordance with guidance to be provided by the EA; and

(4)~~[(3)]~~ conduct other activities upon approval of the EA necessary to complete an RWP that meets rule and statute requirements, including that no water supply sources to the RWPA be over-allocated.

(g) If an RWPG declares intention to pursue simplified planning with the submittal of its Technical Memorandum, in accordance with subsection (c) of this section, the RWPG shall hold a public hearing on the intent to pursue simplified planning for the RWPA, to be held after submitting the Technical Memorandum and in accordance in §357.21(d) of this title. This public hearing is not required for RWPGs that state they will not pursue simplified planning in their Technical Memorandum.

(h) Following receipt of public comments, the RWPG shall hold a meeting in accordance with the requirements of §357.21(b) of this title to consider comments received and declare implementation of simplified planning.

## SUBCHAPTER B. GUIDANCE PRINCIPLES AND NOTICE REQUIREMENTS.

### §357.21. Notice and Public Participation.

(a) Each RWPG and any committee or subcommittee of an RWPG are subject to Chapters 551 and 552, Government Code. ~~[RWPGs shall conduct all business in meetings posted and held in accordance with the Texas Open Meetings Act, Texas Government Code Chapter 551, with]~~ A [a] copy of all materials presented or discussed at an open meeting shall be made available for public inspection prior to and following the meetings and shall meet the additional notice requirements when specifically referenced as required under other subsections. In addition to the notice requirements of Chapter 551, Government Code, the following requirements apply to RWPGs.

(b) All public notices required by this subsection shall comply with this section and shall meet the following requirements:

(1) These notice requirements apply to the following RWPG actions: regular RWPG meetings;

amendments to the regional water planning scope of work or budget; population projection and Water Demand projection revision requests to the EA regarding draft projections; process of identifying potentially feasible WMSs for plans previous to the 2026 RWPs; meetings to replace RWPG members or addition of new RWPG members; submittal of request to EA for approval of an Alternative WMS substitution; declaration of implementation of simplified planning following public hearing on intent to pursue simplified planning;~~and~~ adoption of RWPs; and RWPG committee and subcommittee meetings.

(2) Published 72 hours prior to the meeting.

(3) Notice shall include:

(A) a date, time, and location of the meeting;

(B) a summary of the proposed action to be taken; and

(C) the name, telephone number, and address of the person to whom questions or requests for additional information may be submitted.

(4) Entities to be notified in writing include:

(A) all voting and non-voting RWPG members; and

(B) any person or entity who has requested notice of RWPG activities.

(5) Notice and agenda to be posted:

(A) On the website of the RWPG or host Political Subdivision. In lieu of posting the meeting notice and agenda on the website of the RWPG or host Political Subdivision, the notice and agenda may be provided, in writing, to the County Clerk of each county in the RWPA; and

(B) Texas Secretary of State website.

(6) Documents to be made available on the internet or in hard copy for public inspection prior to and following meeting include:

(A) Agenda of meeting; and

(B) Copies of all materials presented or discussed at the meeting.

(c) Notice under this subsection shall meet the following requirements:

(1) These notice requirements apply to the following RWPG actions: population projection and Water Demand projection revision requests to officially adopted Board projections; approval to submit Technical Memorandum; substitution of Alternative WMSs; process of identifying potentially feasible WMSs and presentation of analysis of infeasible WMSs or WMSPs for plans beginning with the 2026 plan; and minor amendments to RWPs.

(2) Notice of meetings under this subsection shall be published/postmarked on the internet and emailed or~~and~~ mailed to the public before the 14th day preceding the date of the meeting.

(3) Notice shall include:

(A) a date, time, and location of the meeting;

(B) a summary of the proposed action to be taken;

(C) the name, telephone number, and address of the person to whom questions or requests for additional information may be submitted; and

(D) information that the RWPG will accept written and oral comments at the meetings and information on how the public may submit written comments separate from such meetings. The RWPG shall specify a deadline for submission of public written comments of not earlier than 14 days after the meeting.

(4) Entities to be notified in writing include:

(A) all voting and non-voting RWPG members;

(B) any person or entity who has requested notice of RWPG activities; ~~and~~

(C) each RWPG where a recommended or Alternative WMS being considered would be located; and[.]

(D) for actions associated with infeasible WMSs or WMSPs, each project sponsor of a WMS or WMSP identified as infeasible.

(5) Notice and associated meeting agenda to be posted:

(A) On the website of the RWPG or host Political Subdivision. In lieu of posting the meeting notice and agenda on the website of the RWPG or host Political Subdivision, the notice and agenda may be provided, in writing, to the County Clerk of each county in the RWPA; and

(B) Texas Secretary of State website.

(6) Documents to be made available on the internet or in hard copy for public inspection prior to and following meeting include:

(A) Agenda of meeting; and

(B) Copies of all materials, reports, plans presented or discussed at the meeting.

(7) Public comments to be accepted as follows:

(A) Written comments for 14 days prior to meeting with comments considered by RWPG members prior to action;

(B) Oral and written public comment during meeting; and

(C) Written comments must also be accepted for 14 days following the meeting and all comments received during the comment period must be submitted to the Board by the RWPG.

(d) Notice under this subsection shall meet the following requirements:

(1) These notice requirements apply to the following RWPG actions: holding a preplanning public meeting to obtain public input on development of the next RWP; public hearings on declarations to pursue simplified planning, major amendments to RWPs; and holding hearings for IPPs.

(2) Notice shall be published in a newspaper of general circulation in each county located in whole or in part in the RWPA before the 30th day preceding the date of the public meeting or hearing.

(3) Notice of the public meetings and public hearings shall include:

(A) a date, time, and location of the public meeting or hearing;

(B) a summary of the proposed action to be taken;

(C) the name, telephone number, and address of the person to whom questions or requests for additional information may be submitted; and

(D) information that the RWPG will accept written and oral comments at the hearings and information on how the public may submit written comments separate from such hearings. The RWPG shall specify a deadline for submission of public written comments as specified in paragraph (9)~~(7)~~(A) of this subsection.

(4) RWPGs shall make copies of the IPP available for public inspection at least 30 days before a public hearing required or held by providing a copy of the IPP in at least one public library in each county and either the county courthouse's law library, the county clerk's office, or some other accessible place within the county courthouse of each county having land in the RWPA and include locations of such copies in the notice for public hearing. For distribution of the IPP and adopted RWP, the RWPG may consult and coordinate with county and local officials in determining the most appropriate location in the county courthouse to ensure maximum accessibility to the public during business hours. Additionally, the RWPG may consult with local and county officials in determining which public library in the county can provide maximum accessibility to the public. According to the capabilities of the facility, the RWPG may provide the copy electronically, on electronic media, through an internet web link, or in hard copy. The RWPG shall make an effort to ensure ease of access to the public, including where feasible, posting the IPP on websites and providing notice of such posting. The public inspection requirement in this subsection applies only to IPPs; adopted RWPs are only required to be submitted to the Board pursuant to Texas Water Code, §16.053(i).

(5) Notice shall be mailed to, at a minimum, the following:

(A) Notification of all entities that are to be notified under subsection (c)(4) of this section;

(B) Each mayor of a municipality, located in whole or in part in the RWPA, with a population of 1,000 or more or which is a county seat;

(C) Each county judge of a county located in whole or in part in the RWPA;

(D) Each special or general law district or river authority with responsibility to manage or supply water in the RWPA based upon lists of such water districts and river authorities obtained from the Commission; and

(E) each Retail Public Utility, defined as a community water system, that serves any part of the RWPA or receives water from the RWPA based upon lists of such entities obtained from the Commission; ~~and~~

(F) each holder of record of a water right for the use of surface water the diversion of which occurs in the RWPA based upon lists of such water rights holders obtained from the Commission; ~~and~~

(G) for declarations of intent to pursue simplified planning, RWPGs with water supply sources, WMSs, or WMSPs shared with the RWPG declaring intent to pursue simplified planning; and

(H) for amendments associated with infeasible WMSs or WMSPs, each project sponsor of a WMS or WMSP identified as infeasible.

(6) Notice and associated hearing and meeting agenda shall also be posted:

(A) On the website of the RWPG or host Political Subdivision. In lieu of posting the meeting notice and

agenda on the website of the RWPG or host Political Subdivision, the notice and agenda may be provided, in writing, to the County Clerk of each county in the RWPA;

(B) Texas Secretary of State website; and

(C) In the *Texas Register*.

(7) Documents to be made available on the internet or in hard copy for public inspection prior to and following meeting include:

(A) Agenda of meeting; and

(B) Copies of all materials presented or discussed at the meeting.

(8) The public hearing for the IPP shall be conducted at a central location readily accessible to the public within the regional water planning area.

(9) [7] Public comments to be accepted as follows:

(A) Written comments submitted immediately following 30-day public notice posting and prior to and during meeting or hearing; and

(i) Until not earlier than 30-days following the date of the public hearing on a major amendment to an RWP or declaration of intent to pursue simplified planning.

(ii) Until not earlier than 60 days following the date of the public hearing on an IPP.

(B) Verbal public comments at the noticed meeting or hearing;

(C) Comments received must be considered as follows:

(i) Comments associated with hearings must be considered by RWPG members when declaring implementation of simplified planning, adopting an RWP<sub>1</sub> or adopting a major amendment to an RWP.

(ii) Comments associated with a preplanning meeting must be considered prior to taking RWPG action.

(e) Notice under this subsection shall meet the following requirements:

(1) These notice requirements apply when an RWPG is requesting research and planning funds from the Board.

(2) Notice shall be published in a newspaper of general circulation in each county located in whole or in part in the RWPA at least 30 days prior to Board consideration of funding applications.

(3) Notice shall include the name and address of the eligible applicant and the name of the applicant's manager or official representative; a brief description of the RWPA; the purposes of the planning project; the Board's name, address, and the name of a contact person with the Board; a statement that any comments must be filed with the EA and the applicant within 30 days of the date on which the notice is mailed or published. Prior to action by the Board, the applicant must provide one copy of the notice sent, a list of those to which the notice was sent, the date on which the notice was sent, copies of all notices as published showing name of the newspaper and the date on which the notice was published.

(4) Notice shall be mailed to, at a minimum, the following:

(A) Each mayor of a municipality, located in whole or in part in the RWPA, with a population of 1,000 or



more or which is a county seat;

(B) Each county judge of a county located in whole or in part in the RWPA;

(C) Each special or general law district or river authority with responsibility to manage or supply water in the RWPA based upon lists of such water districts and river authorities obtained from the Commission; and

(D) All other RWPGs.

(5) Notice shall also be posted on the website of the RWPG or host Political Subdivision.

#### §357.22. General Considerations for Development of Regional Water Plans.

(a) RWPGs shall consider existing local, regional, and state water planning efforts, including water plans, information and relevant local, regional, state and federal programs and goals when developing the RWP. The RWPGs shall also consider:

(1) Water Conservation Plans;

(2) drought management and Drought Contingency Plans;

(3) information compiled by the Board from water loss audits performed by Retail Public Utilities pursuant to §358.6 of this title (relating to Water Loss Audits);

(4) publicly available plans for major agricultural, municipal, manufacturing and commercial water users;

(5) local and regional water management plans;

(6) water availability requirements promulgated by a county commissioners court in accordance with Texas Water Code §35.019 (relating to Priority Groundwater Management Areas);

(7) the Texas Clean Rivers Program;

(8) the U.S. Clean Water Act;

(9) water management plans;

(10) other planning goals including, but not limited to, regionalization of water and wastewater services where appropriate;

(11) approved groundwater conservation district management plans and other plans submitted under Texas Water Code §16.054 (relating to Local Water Planning);

(12) approved groundwater regulatory plans;

(13) potential impacts on public health, safety, or welfare; ~~and~~

(14) water conservation best management practices available on the TWDB website; and

(15) ~~(14)~~ any other information available from existing local or regional water planning studies.

(b) The RWP shall contain a separate chapter for the contents of §§357.30, 357.31, 357.32, 357.33, 357.42, 357.43, 357.44, 357.45, and 357.50 of this title and shall also contain a separate chapter for the

contents of §357.34 and §§357.35, 357.40 and 357.41 of this title for a total of eleven separate chapters.

## SUBCHAPTER C. PLANNING ACTIVITIES FOR NEEDS ANALYSIS AND STRATEGY RECOMMENDATIONS.

### §357.32. Water Supply Analysis.

(a) RWPGs shall evaluate:

(1) source water Availability during Drought of Record conditions; and

(2) existing water supplies that are legally and physically available to WUGs and wholesale water suppliers within the RWPA for use during the Drought of Record.

(b) Evaluations shall consider surface water and groundwater data from the State Water Plan, existing water rights, contracts and option agreements relating to water rights, other planning and water supply studies, and analysis of water supplies existing in and available to the RWPA during Drought of Record conditions.

(c) For surface water supply analyses, RWPGs shall use most current Water Availability Models from the Commission to evaluate the adequacy of surface water supplies. As the default approach for evaluating existing supplies, RWPGs shall assume full utilization of existing water rights and no return flows when using Water Availability Models. RWPGs may use better, more representative, water availability modeling assumptions or better site-specific information with written approval from the EA. Information available from the Commission shall be incorporated by RWPGs unless better site-specific information is available and approved in writing by the EA.

(1) Evaluation of existing stored surface water available during Drought of Record conditions shall be based on Firm Yield. The analysis may be based on justified operational procedures other than Firm Yield. The EA shall consider a written request from an RWPG to use procedures other than Firm Yield.

(2) Evaluation of existing run of river surface water available for municipal WUGs during Drought of Record conditions shall be based on the minimum monthly diversion amounts that are available 100 percent of the time, if those run of river supplies are the only supply for the municipal WUG.

(d) RWPGs shall use modeled available groundwater volumes for groundwater Availability, as issued by the EA, and incorporate such information in its RWP unless no modeled available groundwater volumes are provided. Groundwater Availability used in the RWP must be consistent with the desired future conditions as of the most recent deadline for [date] the Board to adopt the [most recently adopted-a] State Water Plan or, at the discretion of the RWPG, established subsequent to the adoption of the most recent State Water Plan.

(1) An RWP is consistent with a desired future condition if the groundwater Availability amount in the RWP and on which an Existing Water Supply or recommended WMS relies does not exceed the modeled available groundwater amount associated with the desired future condition for the relevant aquifers, in accordance with paragraph (2) of this subsection or as modified by paragraph (3) of this subsection, if applicable. The desired future condition must be either the desired future condition adopted as of the most recent deadline for [date] the Board to adopt the [most recently adopted-a] State Water Plan or, at the option of the RWPG, a desired future condition adopted on a subsequent date.

(2) If no groundwater conservation district exists within the RWPA, then the RWPG shall determine the Availability of groundwater for regional planning purposes. The Board shall review and consider approving the RWPG-Estimated Groundwater Availability, prior to inclusion in the IPP, including determining if the estimate is physically compatible with the desired future conditions for relevant aquifers in groundwater conservation districts in the co-located groundwater management area or areas.

The EA shall use the Board's groundwater availability models as appropriate to conduct the compatibility review.

(3) In RWPA's that have at least one groundwater conservation district, the EA shall consider a written request from an RWPG to apply a MAG Peak Factor in the form of a percentage (e.g., greater than 100 percent) applied to the modeled available groundwater value of any particular aquifer-region-county-basin split within the jurisdiction of a groundwater conservation district, or groundwater management area if no groundwater conservation district exists, to allow temporary increases in annual availability for planning purposes. The request must:

(A) Include written approval from the groundwater conservation district, if a groundwater conservation district exists in the particular aquifer-region-county-basin split, and from representatives of the groundwater management area;

(B) Provide the technical basis for the request in sufficient detail to support groundwater conservation district, groundwater management area, and EA evaluation; and

(C) Document the basis for how the temporary availability increase will not prevent the groundwater conservation district from managing groundwater resources to achieve the desired future condition.

(e) RWPGs shall evaluate the Existing Water Supplies for each WUG and WWP.

(f) Water supplies based on contracted agreements shall be based on the terms of the contract, which may be assumed to renew upon contract termination if the contract contemplates renewal or extensions.

(g) Evaluation results shall be reported by WUG in accordance with §357.31(a) of this title (relating to Projected Population and Water Demands) and MWP in accordance with §357.31(b) of this title.

#### SUBCHAPTER D. IMPACTS, DROUGHT RESPONSE, POLICY RECOMMENDATIONS, AND IMPLEMENTATION.

##### §357.44. Infrastructure Financing Analysis.

RWPGs shall assess and quantitatively report on how individual local governments, regional authorities, and other Political Subdivisions in their RWPA propose to finance recommended WMSs and associated WMSPs. The assessment shall also describe what role the RWPG proposes for the state in financing recommended WMSs and associated WMSPs, including proposed increases in the level of state participation in funding for regional projects to meet needs beyond the reasonable financing capability of local governments, regional authorities, and other political subdivisions involved in building water infrastructure.

##### §357.45. Implementation and Comparison to Previous Regional Water Plan.

(a) RWPGs shall describe the level of implementation of previously recommended WMSs and associated impediments to implementation in accordance with guidance provided by the board. Information on the progress of implementation of all WMSs that were recommended in the previous RWP, including conservation and Drought Management WMSs; and the implementation of WMSPs that have affected progress in meeting the state's future water needs.

(b) RWPGs shall provide a brief summary of how the RWP differs from the previously adopted RWP with regards to:

(1) Water Demand projections;

(2) Drought of Record and hydrologic and modeling assumptions used in planning for the region;

(3) Groundwater and surface water Availability, Existing Water Supplies, and identified Water Needs for WUGs and WWPs; and

(4) Recommended and Alternative WMSs and WMSPs.

#### SUBCHAPTER E. ADOPTION, SUBMITTAL, AND AMENDMENTS TO REGIONAL WATER PLANS.

##### §357.51. Amendments to Regional Water Plans.

(a) Local Water Planning Amendment Requests. A Political Subdivision in the RWPA may request an RWPG to consider specific changes to an adopted RWP based on changed conditions or new information. An RWPG must formally consider such request within 180 days after its receipt and shall amend its adopted RWP if it determines an amendment is warranted. If the Political Subdivision is not satisfied with the RWPG's decision on the issue, it may file a petition with the EA to request Board review the decision and consider changing the approved RWP. The Political Subdivision shall send a copy of the petition to the chair of the affected RWPG.

(1) The petition must state:

(A) the changed condition or new information that affects the approved RWP;

(B) the specific sections and provisions of the approved RWP that are affected by the changed condition or new information;

(C) the efforts made by the Political Subdivision to work with the RWPG to obtain an amendment; and

(D) the proposed amendment to the approved RWP.

(2) If the EA determines that the changed condition or new information warrants a change in the approved RWP, the EA shall request the RWPG to consider making the appropriate change and provide the reason in writing. The Political Subdivision that submitted the petition shall receive notice of any action requested of the RWPG by the EA. If the RWPG does not amend its plan consistent with the request within 90 days, it shall provide a written explanation to the EA, after which the EA shall present the issue to the Board for consideration at a public meeting. Before presenting the issue to the Board, the EA shall provide the RWPG, the Political Subdivision submitting the petition, and any Political Subdivision determined by the EA to be affected by the issue 30 days notice. At the public meeting, the Board may direct the RWPG to amend its RWP based on the local Political Subdivision's request.

(b) Major Amendments to RWPs and State Water Plan. An RWPG may amend an adopted RWP at any meeting, after giving notice for a major amendment and holding a hearing according to §357.21(d) of this title (relating to Notice and Public Participation). An amendment is major if it does not meet the criteria of subsection (c), (d) or (e) of this section. An RWPG may propose amendments to an approved RWP by submitting proposed amendments to the Board for its consideration and possible approval under the standards and procedures of this section.

(1) Initiation of a Major Amendment. An entity may request an RWPG amend its adopted RWP. An RWPG's consideration for action to initiate an amendment may occur at a regularly scheduled meeting.

(2) RWPG Public Hearing. The RWPG shall hold a public hearing on the amendment as defined in §357.21(d) of this title. The amendment shall be available for agency and public comment at least 30 days prior to the public hearing and 30 days following the public hearing as defined in §357.21(d) of this title.

(3) The proposed major amendment:

(A) Shall not result in an over-allocation of an existing or planned source of water; and

(B) Shall conform with rules applicable to RWP development as defined in Subchapters C and D of this chapter.

(4) RWPG Major Amendment Adoption. The RWPG may adopt the amendment at a regularly scheduled RWPG meeting held in accordance with §357.21(b) of this title following the 30-day public comment period held in accordance with §357.21(d) of this title. The amendment shall include response to comments received.

(5) Board Approval of Major Amendment. After adoption of the major amendment, the RWPG shall submit the amendment to the Board which shall consider approval of the amendment at its next regularly scheduled meeting following EA review of the amendment.

(c) Minor Amendments to RWPs and State Water Plan.

(1) An RWPG may amend its RWP by first providing a copy of the proposed amendment to the EA for a determination as to whether the amendment would be minor.

(2) EA Pre-Adoption Review. The EA shall evaluate the proposed minor amendment prior to the RWPG's vote to adopt the amendment. An amendment is minor if it meets the following criteria:

(A) does not result in over-allocation of an existing or planned source of water;

(B) does not relate to a new reservoir;

(C) does not increase unmet needs or produce new unmet needs in the adopted RWP;

(D) does not have a significant effect on instream flows, environmental flows or freshwater flows to bays and estuaries;

(E) does not have a significant substantive impact on water planning or previously adopted management strategies; and

(F) does not delete or change any legal requirements of the plan.

(3) Determination by EA. If the EA determines that the proposed amendment is minor, EA shall notify, in writing, the RWPG as soon as practicable.

(4) RWPG Public Meeting. After receipt of the written determination from the EA, the RWPG shall conduct a public meeting in accordance with §357.21(c) of this title. The public shall have an opportunity to comment and the RWPG shall amend the proposed minor amendment based on public comments, as appropriate, and to comply with existing statutes and rules related to regional water planning responses.

(5) Board Approval of Minor Amendment. After adoption of the minor amendment, the RWPG shall submit the amendment to the Board which shall approve the amendment at its next regularly scheduled meeting unless the amendment contradicts or is in substantial conflict with statutes and rules relating to regional water planning.

(d) Amendment for Water Planning for a Clean Coal Project. An amendment to an RWP or the State Water Plan to facilitate planning for water supplies reasonably required for a clean coal project, as defined by Texas Water Code §5.001, relating to the Texas Commission on Environmental Quality, shall be adopted by the process described in this section. However, an RWPG may amend the RWP to accommodate planning for a clean coal project without a public meeting or hearing if the EA determines that:

(1) the amendment does not significantly change the RWP; or

(2) the amendment does not adversely affect other WMSs in the RWP.

(e) Substitution of Alternative WMSs. ~~[After notice is provided in accordance with §357.21(e) of this title,]~~ RWPGs may substitute one or more evaluated Alternative Water Management Strategies for a recommended strategy if the strategy originally recommended is no longer recommended and the substitution of the Alternative WMS is capable of meeting the same Water Need without over-allocating any source. Before substituting an Alternative WMS, the RWPG must provide public notice in accordance with §357.21(b) of this title and request written approval from the EA. If the EA approves the substitution, the RWPG must provide public notice in accordance with §357.21(c) of this title before taking action to substitute the Alternative WMS. ~~[Proposed substitutions must receive written approval from the EA prior to substitution by the RWPG.]~~

(f) In the instance of a substitution of an Alternative WMS or a proposed amendment with a recommended WMS to be supplied from a different RWPA, the RWPG recommending such strategy shall submit, concurrently with the submission of the substitution or proposed amendment to the EA, a copy of the substitution or proposed amendment to the RWPG for the location of such strategy. The provisions of sections 357.50(d), (e), (f), and (h), and 357.62, related to Interregional Conflicts, shall apply to substitution or amendment to the RWP in the same manner as those subdivisions apply to an IPP.

(g) Amendment for Infeasible Recommended WMSs or WMSPs. Following the results of the analysis presented at a public meeting in accordance with §357.12(b) of this title, an RWPG shall amend an adopted RWP to remove an infeasible recommended WMS or WMSP, as defined by Texas Water Code §16.053(h)(10). The RWPG will follow the amendment processes in accordance with sub-sections (b), (c), or (e) of this section. The amendment shall summarize the project components and address why they were determined to be infeasible. Subsequent amendments during the planning cycle for infeasible recommended WMS or WMSP may occur at the discretion of the RWPG based upon information presented to the RWPG by project sponsors.

(h)~~(g)~~ Amending the State Water Plan. Following amendments of RWPs, including substitutions of Alternative WMSs, the Board shall make any necessary amendments to the State Water Plan as outlined in §358.4 of this title (relating to Guidelines).

## SUBCHAPTER F. CONSISTENCY AND CONFLICTS IN REGIONAL WATER PLANS.

### §357.62. Interregional Conflicts.

(a) In the event an RWPG has asserted an interregional conflict and the Board has determined that there is a potential for a substantial adverse effect on that region, or the Board finds that an interregional conflict exists between IPPs, the EA may use the following process:

(1) notify the affected RWPGs of the nature of the interregional conflict;

(2) request affected RWPGs appoint a representative or representatives authorized to negotiate on behalf of the RWPG and notify the EA in writing of the appointment;

(3) request affected RWPGs' assistance in resolving the conflict; and

(4) negotiate resolutions of conflicts with RWPGs as determined by the EA.

(b) In the event the negotiation is unsuccessful, the EA may:

(1) determine a proposed recommendation for resolution of the conflict;

(2) provide notice of its intent to hold a public hearing on proposed recommendations for resolution of the conflict by publishing notice of the proposed change in the Texas Register and in a newspaper of general circulation in each county located in whole or in part in the RWPA's involved in the dispute 30 days before the public hearing and by mailing notice of the public hearing 30 days before public hearing to those persons or entities listed in §357.21(d) of this title (relating to Notice and Public Participation) in the RWPA's proposed to be impacted, and to each county judge of a county located in whole or in part in the RWPA's proposed to be impacted and to each affected RWPG;

(3) hold a public hearing on the proposed recommendation for resolution of the conflict at a time and place determined by the EA. At the hearing, the EA shall take comments from the RWPGs, Political Subdivisions, and members of the public on the issues identified by the Board as unresolved problems; and

(4) make a recommendation to the Board for resolution of the conflict.

(c) The Board shall consider the EA's recommendation and any written statements by a representative for each affected RWPG and determine the resolution of the conflict. The Board's decision is final and not appealable.

(d) The EA shall notify affected RWPGs of Board's decision and shall direct changes to the affected RWPA's, to be incorporated in accordance with Texas Water Code §16.053(h)(6).

#### §357.64. Conflicts Between Regional Water Plans and Groundwater Management Plans.

(a) A groundwater conservation district may file a written petition with the EA stating that a potential conflict exists between the district's approved management plan developed under Texas Water Code §36.1071 (relating to Management Plans) and the approved State Water Plan. A copy of the petition shall be provided to the affected RWPG. The petition must state:

(1) the specific nature of the conflict;

(2) the specific sections and provisions of the approved management plan and approved State Water Plan that are in conflict; and

(3) the proposed resolution to the conflict.

(b) If the EA determines a conflict exists, the EA will provide technical assistance to and coordinate with the groundwater conservation district and the affected RWPG to resolve the conflict. Coordination may include any of the following processes:

(1) requiring the RWPG to respond to the petition in writing;

(2) meeting with representatives from the groundwater conservation district and the RWPG to informally mediate the conflict; and/or

(3) coordinating a formal mediation session between representatives of the groundwater conservation district and the RWPG.

(c) If the parties do not reach resolution, the EA will recommend a resolution to the conflict to the Board within 60 days of the date the mediation is completed. Notice shall be provided at least 15 days prior to the date of the Board meeting to discuss the proposed resolution. The Board may:

(1) revise an approved RWP; and

(2) revise a district's approved management plan.

(d) If the Board requires a revision to the groundwater conservation district's approved management plan, the Board shall provide information to the groundwater conservation district on what revisions are required and why. The groundwater conservation district shall prepare any revisions to its plan based on the information provided by the Board and hold, after notice, at least one public hearing at a central location readily accessible to the public within the district. The groundwater conservation district shall consider all public and Board comments, prepare, revise, and adopt its plan, and submit the revised plan to the Board pursuant to Chapter 356 of this title (relating to Groundwater Management). If the groundwater conservation district disagrees with the decision of the Board, the district may appeal the decision to a district court in Travis County, Texas.

(e) If the Board requires a revision to the approved RWP, the Board shall provide information to the RWPG on what revisions are required and why. The RWPG shall prepare the revisions as a major amendment to their approved RWP pursuant to §357.51(b) of this title. The RWPG shall hold, after notice, at least one public hearing at some central location readily accessible to the public within the regional water planning area.

(f) At the Board's discretion, the Board shall include in the State Water Plan a discussion of the conflict and its resolution.