

# **REGION H**

## **Water Planning Group**

### **MEETING MATERIALS**

**May 3, 2023**



## Common Region H Terms and Conversion Factors

### List of Abbreviations

CRU	Collective Reporting Unit
DCP	Drought Contingency Plan
DFC	Desired Future Condition
DOR	Drought of Record
EA	Executive Administrator
EPA	Environmental Protection Agency
FWSD	Fresh Water Supply District
GAM	Groundwater Availability Model
GCD	Groundwater Conservation District
GMA	Groundwater Management Area
GPCD	Gallons Per Capita Per Day
GRP	Groundwater Reduction Plan
IFR	Infrastructure Finance Report
IPP	Initially Prepared Plan
MAG	Modeled Available Groundwater
MPC	Master Planned Community
MUD	Municipal Utility District
MWP	Major Water Provider
PDSI	Palmer Drought Severity Index
PWS	Public Water Supply
RFPG	Regional Flood Planning Group
RHWPG	Region H Water Planning Group
ROR	Run-of-River
RWP	Regional Water Plan
RWPA	Regional Water Planning Area
RWPG	Regional Water Planning Group
SWIFT	State Water Implementation Fund for Texas
SWP	State Water Plan
TAC	Texas Administrative Code
TCEQ	Texas Commission on Environmental Quality
TPWD	Texas Parks and Wildlife Department
TWC	Texas Water Code
TWDB	Texas Water Development Board
UCM	Unified Costing Model
URS	Unique Reservoir Site
USS	Unique Stream Segment
WAM	Water Availability Model
WCID	Water Control and Improvement District
WCP	Water Conservation Plan
WMS	Water Management Strategy
WRAP	Water Rights Analysis Package
WUD	Water Utility Database
WUG	Water User Group
WWP	Wholesale Water Provider

### Water Measurements

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

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

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

1 million gallons per day (mgd) = 1,000,000 gallons per day = 1,120 ac-ft/yr



**Region H Water Planning Group**  
**10:00 AM Wednesday**  
**May 3, 2023**  
**San Jacinto River Authority Office**  
**1577 Dam Site Rd, Conroe, Texas 77304**  
**AGENDA**

1. Call to order.
2. Introductions.
3. Review and approve minutes of the February 1, 2023 meeting.
4. **Receive public comments on specific issues related to agenda items 5 through 7.** (Public comments limited to 3 minutes per speaker)
5. Planning Group Membership
  - a. Receive Nominating Committee report and consider taking action to approve members to fill vacancies on the Region H Water Planning Group (RHWPG).
6. Plan Development and Administration
  - a. Receive update from Consultant Team and Non-Population Demands Committee regarding recommended revisions to draft Texas Water Development Board (TWDB) projections for the 2026 Region H Regional Water Plan (RWP) and consider approving submittal to TWDB.
  - b. Receive update from Consultant Team and Population Demands Committee regarding recommended revisions to draft TWDB projections for the 2026 Region H RWP and consider approving submittal to TWDB.
  - c. Receive presentation on and discuss the Region H WUG survey.
  - d. Receive update from Consultant Team regarding identification of Major Water Providers (MWP) for Region H and consider taking action directing the Consultant Team to submit a list of recommended MWP to the TWDB.
  - e. Receive report from Consultant Team regarding upcoming groundwater supply analyses and consider taking action to authorize Consultant Team and Groundwater Supply Committee to coordinate with groundwater regulatory entities to develop MAG peak factors for Region H and submit an associated request to TWDB.
  - f. Receive update from Consultant Team regarding upcoming surface water supply analyses and consider taking action to authorize the Consultant Team and Surface Water Supply Committee to develop and submit to the TWDB a request for potential exceptions to surface water modeling requirements.
7. General Updates and Outreach
  - a. Receive update regarding schedule and milestones for the development of the 2026 Region H RWP.
  - b. Receive update from liaisons to other planning groups.
  - c. Receive report regarding recent and upcoming activities related to communications and outreach efforts on behalf of the RHWPG.
  - d. Agency communications and general information.
8. **Receive public comments.** (Public comments limited to 3 minutes per speaker)
9. Next Meeting: July 5, 2023.
10. Adjourn.

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



## Agenda Item 3

Review and approve minutes of the February 1, 2023 meeting.





**REGION H WATER PLANNING GROUP  
MINUTES OF REGULAR MEETING  
FEBRUARY 1, 2023**

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**MEMBERS PRESENT:**

Gary Ashmore, David Bailey, John Bartos, Arthur Bredehoft, Brad Brunett (online), Carl Burch, Jun Chang, James Comin, Mark Evans, Jace Houston, Robert Istre, Ken Kramer (online), Ivan Langford, Glenn Lord, Mike O'Connell, Danny Pierce, Loyd Smith, Mike Turco, and Brandon Wade.

**ALTERNATES:**

Ekaterina Fitos for Yvonne Forrest and Bill Holder for J. Kevin Ward.

**MEMBERS NOT PRESENT:**

*It was announced that due to inclement weather, all members that were not present would not be counted as absent.*

W.R. Baker

James Comin

Caleb Cooper

Ivan Langford

Marvin Marcell

Byron Ryder.

**CONSULTANT TEAM:**

Philip Taucer and Jason Afinowicz

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**1. CALL TO ORDER**

With a quorum being present, the meeting was called to order at 10:01 a.m.

**2. INTRODUCTIONS**

There were no introductions.

**3. REVIEW AND APPROVE MINUTES OF THE NOVEMBER 2, 2022, MEETING**

Mr. Bartos made a motion to approve the minutes of the November 2, 2022, meeting. The motion was seconded by Mr. Bredehoft and carried unanimously.

**4. RECEIVE PUBLIC COMMENTS ON SPECIFIC ISSUES RELATED TO AGENDA ITEMS 5 THROUGH 8.**

There were no comments related to agenda items 5 through 8.

## **5. PLANNING GROUP MEMBERSHIP**

### **a. RECEIVE NOMINATING COMMITTEE RECOMMENDATIONS AND DISCUSS AND ELECT OFFICERS AND MEMBERS OF THE EXECUTIVE COMMITTEE OF THE REGION H WATER PLANNING GROUP (RHWPB)**

Mr. Chang explained that the Nominating Committee met this morning and unanimously recommended that the current slate of officers and the members of the executive committee continue fulfilling their terms. Members being Mark Evans, Chair, Marvin Marcel, Vice-Chair, Jace Houston, John Bartos, and Yvonne Forrest. Mr. Turco made a motion to elect the current members of the Executive Committee. The motion was seconded by Mr. Bredehoft and carried unanimously.

## **6. SPECIAL ITEMS AND INFORMATIONAL PRESENTATIONS**

### **a. RECEIVE PRESENTATION FROM THE GULF COAST WATER AUTHORITY REGARDING THE BRAZOS RIVER ALLUVIUM**

Mr. Brandon Wade provided information related to the Brazos River Alluvium Aquifer. He opined that it is the next big drought threat. He provided history of the Gulf Coast Water Authority and the areas it serves. Mr. Wade explained that there are approximately 2,116 wells along the Brazos River Alluvium and in a drought situation, as it was in 2009, 2011, and 2013, the alluvium wells continue to pump, while the low flow downstream affects GCWA, NRG, and Dow. Further discussion ensued. Mr. Wade concluded by suggesting that Region H provide input into Region G's plan, monitor development of DFCs, Groundwater Districts, and well permit applications, perform an analysis of Brazos Alluvium pumping on flows in the Brazos River, and support Allen's Creek, desalination, groundwater subsidence, and reuse.

### **b. RECEIVE PRESENTATION FROM THE CONSULTANT TEAM AND HARRIS-GALVESTON SUBSIDENCE DISTRICT ON THE JOINT REGULATORY PLAN REVIEW.**

Mr. Turco and Mr. Taucer provided an overview of the Harris-Galveston Subsidence District and Fort Bend Subsidence District 2023 Joint Regulatory Plan Review.

### **c. DISCUSS REQUEST FROM BASF CORPORATION REGARDING CONSISTENCY OF PROPOSED PROJECT WITH THE REGIONAL WATER PLAN (RWP) AND CONSIDER TAKING ACTION AUTHORIZING SUBMITTAL OF A LETTER FROM THE RHWPB ON CONSISTENCY STATUS.**

Mr. Taucer provided information related to a request from BASF Corporation regarding the consistency of a proposed project with the Regional Water Plan. He explained that BASF Corporation submitted a water right application which includes an interruptible Brazos River diversion and bed and banks transfer. He stated the Texas Commission on Environmental Quality ("TCEQ") requires a letter from the Regional Water Planning Group stating that the request is not inconsistent with the Regional Water Plan. After discussion, Mr. Turco made a motion to submit a letter stating the proposed project is consistent with the Regional Water Plan and request that it include TCEQ's permitting process to include a public comment period. The motion was seconded by Mr. Bredehoft and carried with all ayes and one nay (Mr. Istre).

## **7. PLAN DEVELOPMENT AND ADMINISTRATION**

### **a. RECEIVE UPDATE FROM THE CONSULTANT TEAM REGARDING NON-POPULATION DEMAND DATA AND PROJECTIONS FOR THE 2026 REGION H RWP.**

Mr. Taucer reported that the Non-Population Demand Committee is in the process of reviewing the draft projections provided by TWDB. He stated that revisions are due July 14, 2023.

**b. RECEIVE UPDATE FROM THE CONSULTANT TEAM REGARDING POPULATION DEMAND DATA AND PROJECTIONS FOR THE 2026 REGION H RWP**

Mr. Taucer explained that the Texas Water Development Board recently released population demand data and projections. He stated that the planning group is considering a potential alignment of populations with the Joint Regulatory Plan Review Process because of its detail and spatial resolution. Mr. Taucer provided a review of data of several counties.

**8. GENERAL UPDATES AND OUTREACH**

**a. RECEIVE UPDATE REGARDING SCHEDULE AND MILESTONES FOR THE DEVELOPMENT OF THE 2026 REGION H RWP**

Mr. Taucer explained that the current focus is on the demand projection process. He stated that the Texas Water Development Board anticipates adopting projections in October.

**b. RECEIVE UPDATE FROM LIAISONS TO OTHER PLANNING GROUPS**

Mr. Evans stated that the Interregional Council adopted rules and the next meeting is slated to take place in the spring.

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

There were no upcoming activities or events.

**d. AGENCY COMMUNICATIONS AND GENERAL INFORMATION**

Mr. Bookout provided updates relative to the legislative session and certain bills that TWDB is tracking.

**9. RECEIVE PUBLIC COMMENTS**

There were no public comments.

**10. NEXT MEETING**

It was announced that the next meeting of the Region H Water Planning Group will be held on May 3, 2023.

**11. ADJOURN**

Without objection, the meeting was adjourned at 11:53 a.m.



## Agenda Item 5a

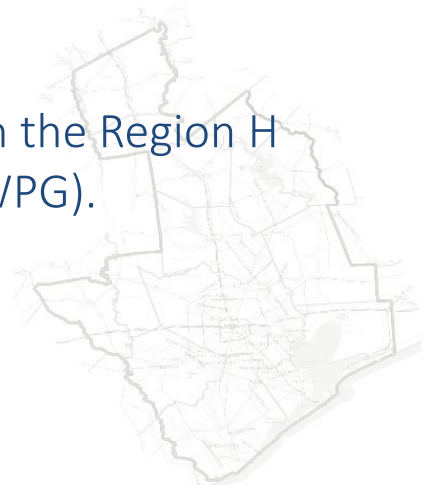
Receive Nominating Committee report and consider taking action to approve members to fill vacancies on the Region H Water Planning Group (RHWPG).



## **Agenda Item 5a Vacancies**

### **Action:**

Approve members to fill vacancies on the Region H  
Water Planning Group (RHWPG).







**NOTICE OF VACANCY FOR  
REGION H WATER PLANNING GROUP  
MEMBER REPRESENTING WATER UTILITIES**

The Region H Water Planning Group (WPG) is hereby giving notice of a vacancy on the Region H Water Planning Group for a voting member representing water utilities. The Region H WPG may consider making an appointment to fill this vacancy on or after February 1, 2023. The term of this appointment ends in 2023.

**Background:**

The Region H WPG was established by appointment of an initial coordinating body by the TWDB on February 19, 1998, and one subsequent additional appointment by the initial coordinating body. The purpose of the Region H WPG shall be to provide comprehensive regional water planning and to carry out the related responsibilities placed on regional water planning groups by state law, including Texas Water Code Chapter 16 and TWDB rules, including 31 TAC Chapters 355, 357, and 358, in and for the Region H Water Planning Area (WPA).

**Responsibilities:**

The Region H WPG shall have the responsibility for performing the functions defined in Texas Water Code, Chapter 16 and in 31 TAC Chapters 355, 357, and 358 related to regional water planning groups for the Region H WPA. Foremost among those responsibilities shall be the development of a regional water plan for the Region H WPA that identifies both short and long-term water supply needs and recommends water management strategies for addressing them.

**Conditions of Membership:**

In order to be eligible for voting membership on the Region H WPG, a person must represent the interest for which a member is sought, be willing to participate in the regional water planning process, and abide by the bylaws.

Any water utility within the Region H area interested in nominating a representative to serve as a voting member representing water utilities may submit a letter of interest or recommendation to:

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



# Richard W. Stolleis, PE

January 26, 2023

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

RECEIVED

JAN 30 2023

SAN JACINTO  
RIVER AUTHORITY

RE: Vacancy on the Region H Water Planning Group  
Member representing Water Utilities

Dear Mr. Evans,

I would like to introduce myself and express my interest in becoming the voting member of the Region H WPG representing Water Utilities.

I have lived in Region H for 39 plus years. I am a registered professional engineer and I have worked for municipal and county governments and as a consulting engineer for various municipal water utilities over the last 45 years. My experience in the Region and in the water industry includes:

- Regional wastewater and water utility project design in Austin, Texas
- City Engineer, Public Works Director, and Community Development Director for the City of Sugar Land
- Consulting municipal engineer for small cities and water utilities in Fort Bend, Brazoria, Wharton, and other counties in Region H
- County Engineer for Fort Bend County
- Member of two Boards of Directors for municipal utility districts

I have previously served on HGAC's Transportation Planning Council Technical Advisory Committee. I am currently a member of the Association of Water Board Directors Advisory Council and I am serving as President of the Board of Directors for Fort Bend County Municipal Utility District No. 146, Richmond, Texas. Additionally, I am currently semi-retired working part-time as Senior Engineer for Kaluza, Inc. in Rosenberg, Texas.

I believe my broad experience in planning in the Region and in the delivery of water to municipal water customers provides me with the background and experience to contribute to the planning efforts of the Region H WPG. I ask that you and the Region H WPG appoint me to fill your vacant position representing Water Utilities.

Thank you for your consideration.

Cordially,



Richard W. Stolleis, PE

February 23, 2023

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

Honorable Judge Evans:

I wish to be considered for the vacant Region H Water Planning Group Water Utilities position. I have a strong interest in ensuring adequate water supply exists both now and for future generations in our region and across the State and I believe I can represent this category well.

As you know, I have served Region H before as an alternate for John Blount as a County representative from 2015-2020. I thoroughly enjoyed my time on the Group and understand both the time commitment needed to serve as well as the Group's mission and by-laws.

Last year I retired from my position as Harris County's Assistant County Engineer.

In June 2022, I joined my current employer, Pape-Dawson Engineers, as the Vice President of Community Infrastructure. As part of my current role, I lead the efforts of our Houston office in engineering projects for local governments, including cities, counties, and special purpose districts. As such, water utility engineering consulting services provided to local governments, including to municipal utility districts, falls under my team. I continue to work within communities Region H to provide ample clean drinking water to our residents.

If selected, I am confident I will be able to represent the Water Utilities category as a Planning Group member of Region H. I appreciate your consideration.

If you would like to discuss my interest further or if you have any question, please feel free to contact me at [REDACTED]

Sincerely,



Alisa Max, P.E., ENV SP  
Vice President, Community Infrastructure

## Agenda Item 6a

Receive update from Consultant Team and Non-Population Demands Committee regarding recommended revisions to draft Texas Water Development Board (TWDB) projections for the 2026 Region H Regional Water Plan (RWP) and consider approving submittal to TWDB.



## Agenda Item 6a Non-Municipal Water Demand



- Review by Non-Population Demands Committee
- Local stakeholder data and expertise
- Presented to RWPG at prior meetings
- Due to TWDB by July 14
- Consider for approval



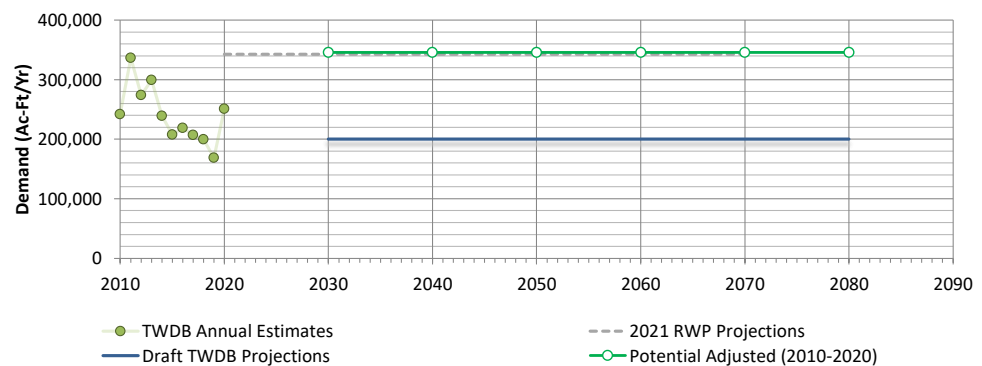
Freese and Nichols, Inc. | INTERA Inc.

## Agenda Item 6a Non-Municipal Water Demand: Irrigation



### Committee Analysis and Recommendations

- Incorporate 2020
- Use the second highest demand from 2010 - 2020

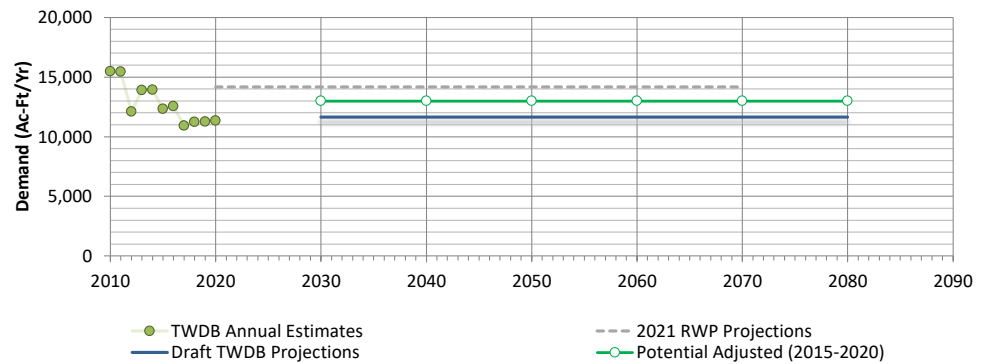


## Agenda Item 6a Non-Municipal Water Demand: Livestock



### Committee Analysis and Recommendations

- Incorporate 2020
- Use the maximum demand from 2015 - 2020

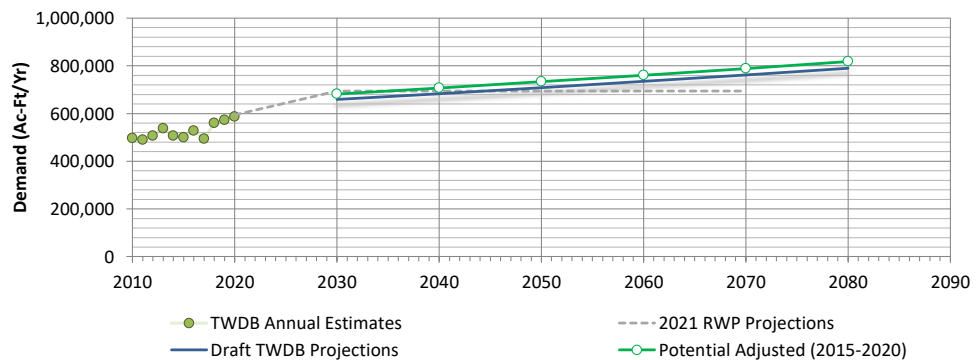


## Agenda Item 6a Non-Municipal Water Demand: Manufacturing



### Committee Analysis and Recommendations

- Incorporate 2020
- Use max 2015-2020 + unaccounted for
- Adjust for anticipated expansions



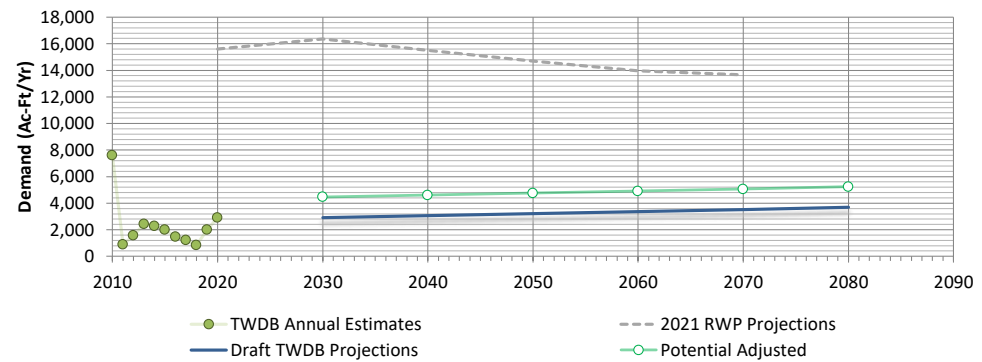


## Agenda Item 6a Non-Municipal Water Demand: Mining

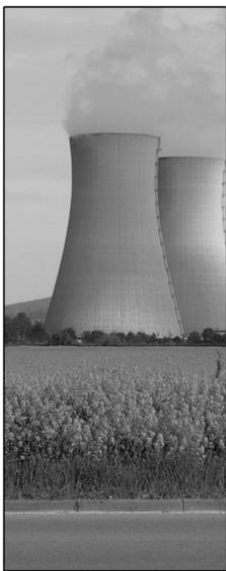


### Committee Analysis and Recommendations

- Investigate and adjust usage in Chambers, Fort Bend, and Harris Counties as appropriate.

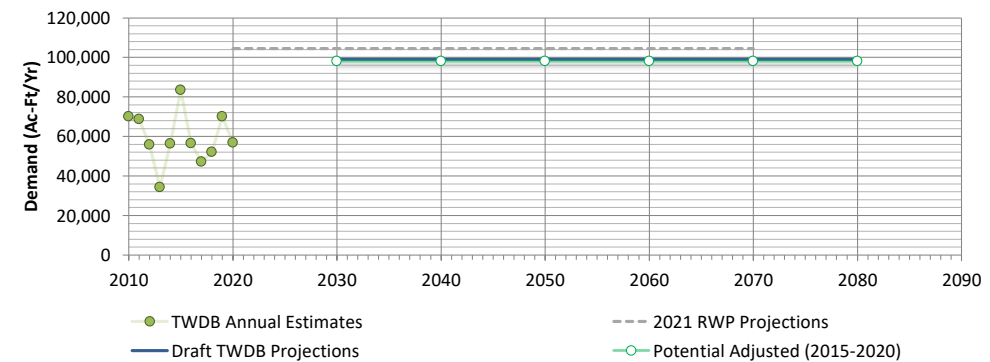


## Agenda Item 6a Non-Municipal Water Demand: Steam Electric Power



### Committee Analysis and Recommendations

- Incorporate 2020
- Use max historical (2015-2020) by facility and summing the total for the county
- Cogeneration should be removed from steam electric power projections



## **Agenda Item 6a**

### **Non-Municipal Water Demand**

#### **Action:**

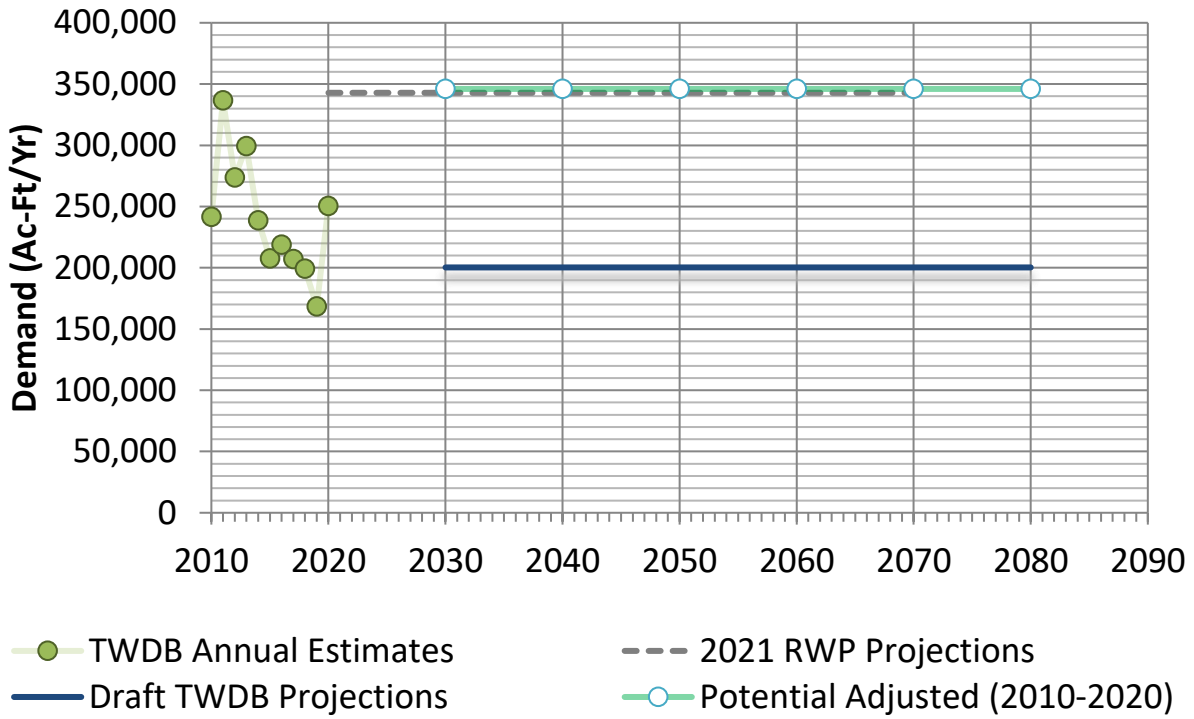
Approve revisions to draft non-municipal demand methodologies and authorize Consultant Team and Non-Population Demands Committee to coordinate with TWDB to finalize adjustments.



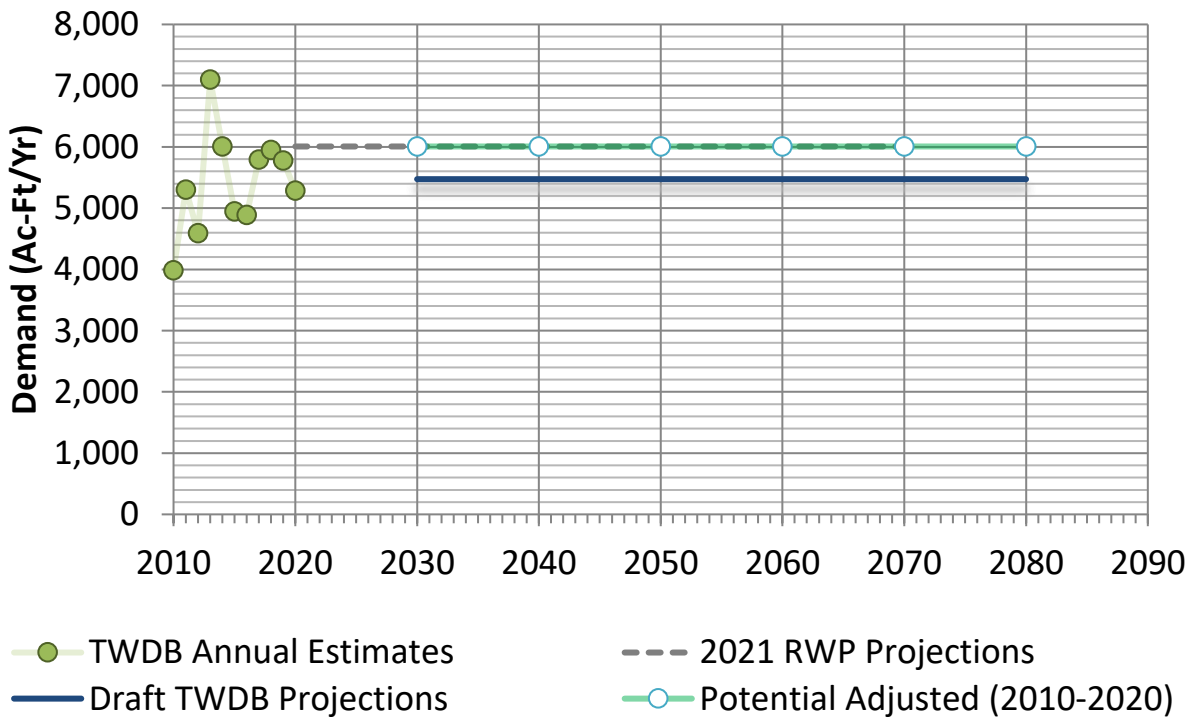
Draft 2026 RWP  
Irrigation Water Demand  
Projections for Region H



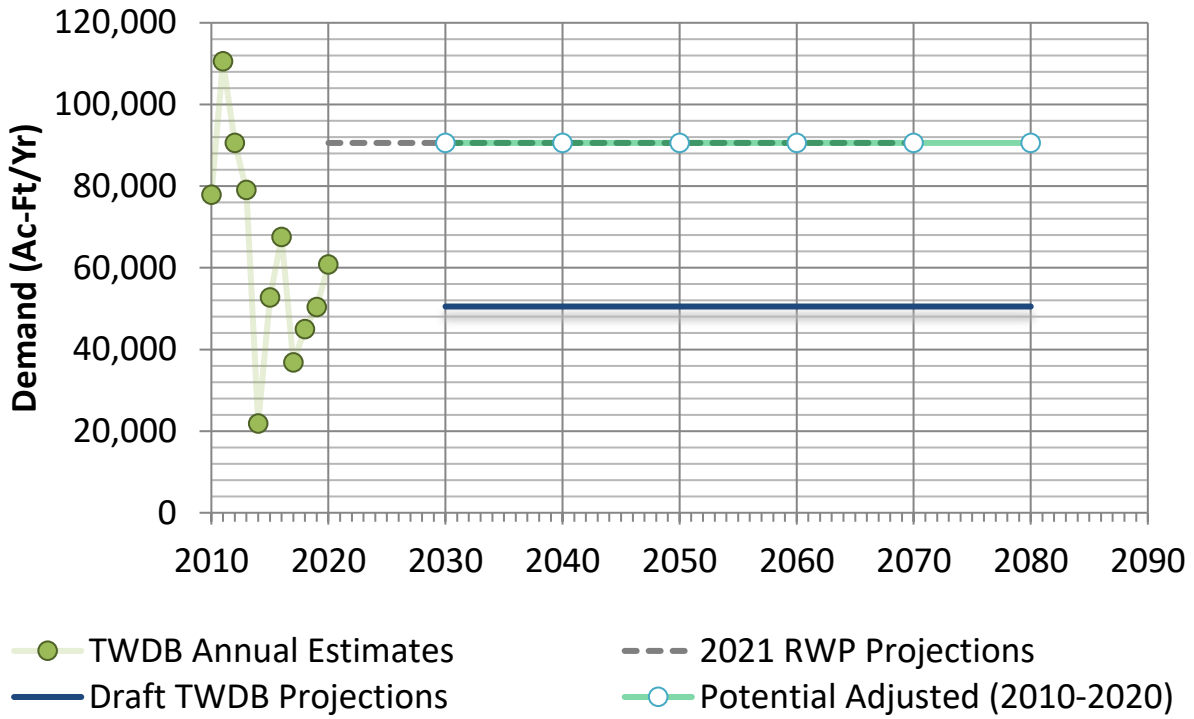
### Region H Irrigation Demand Projections



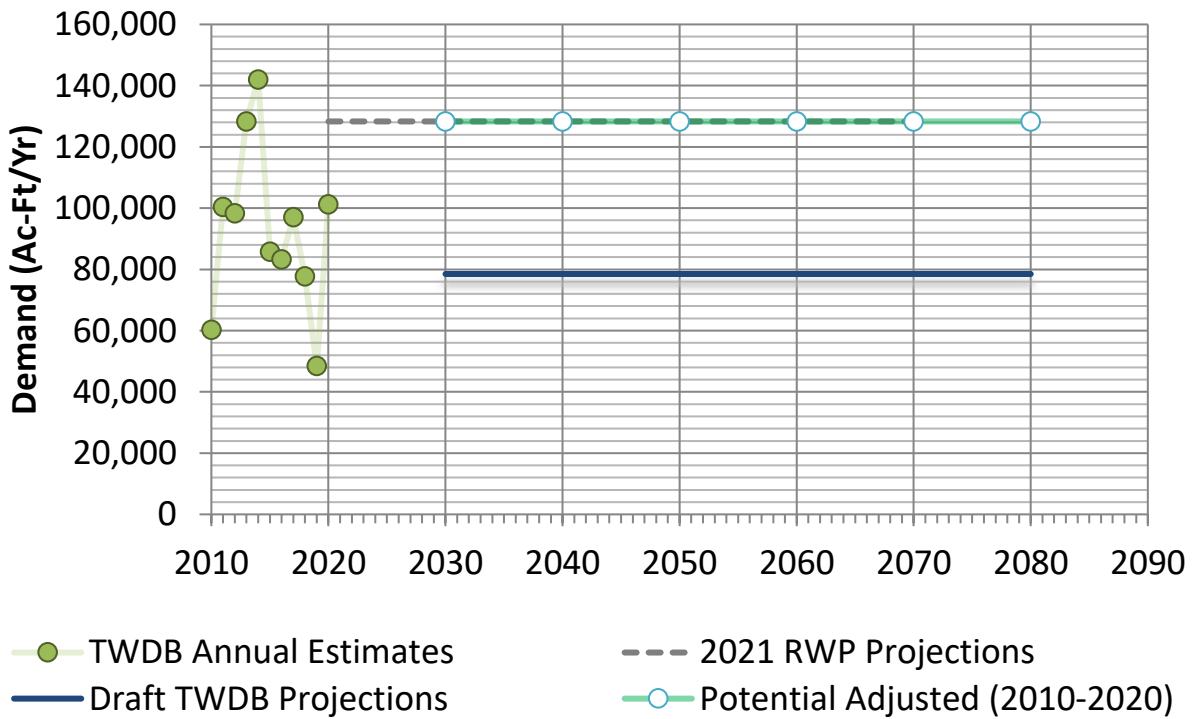
### Austin County Irrigation Demand Projections



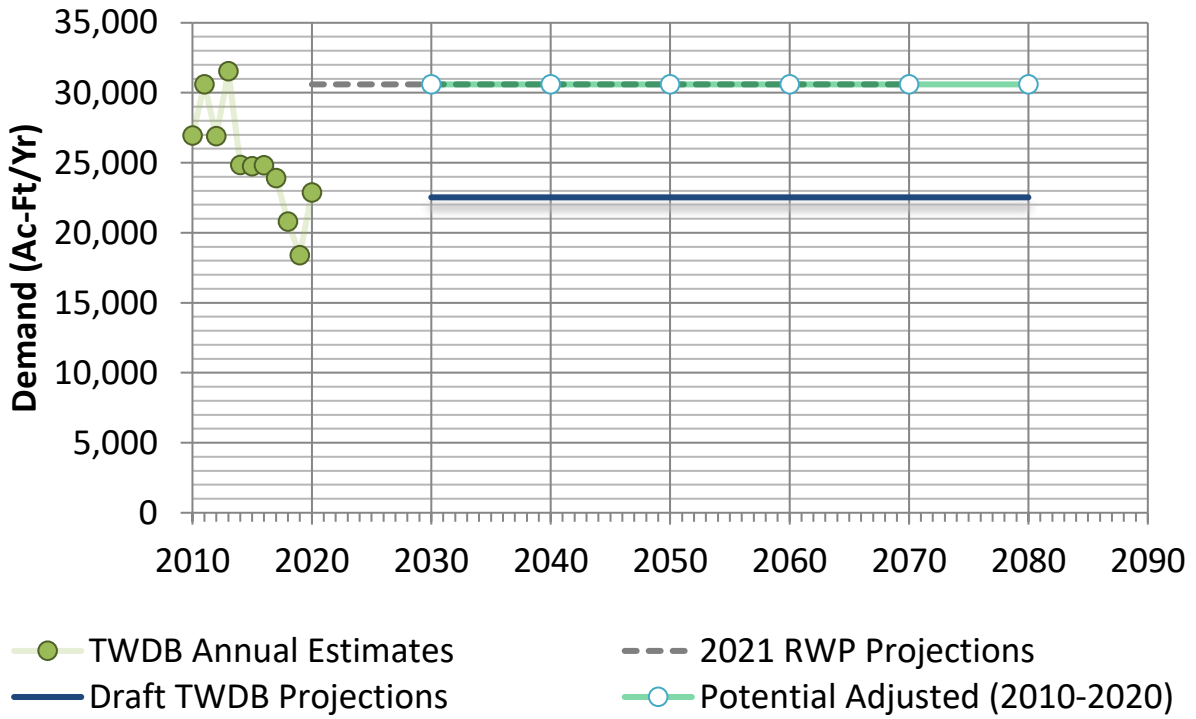
### Brazoria County Irrigation Demand Projections



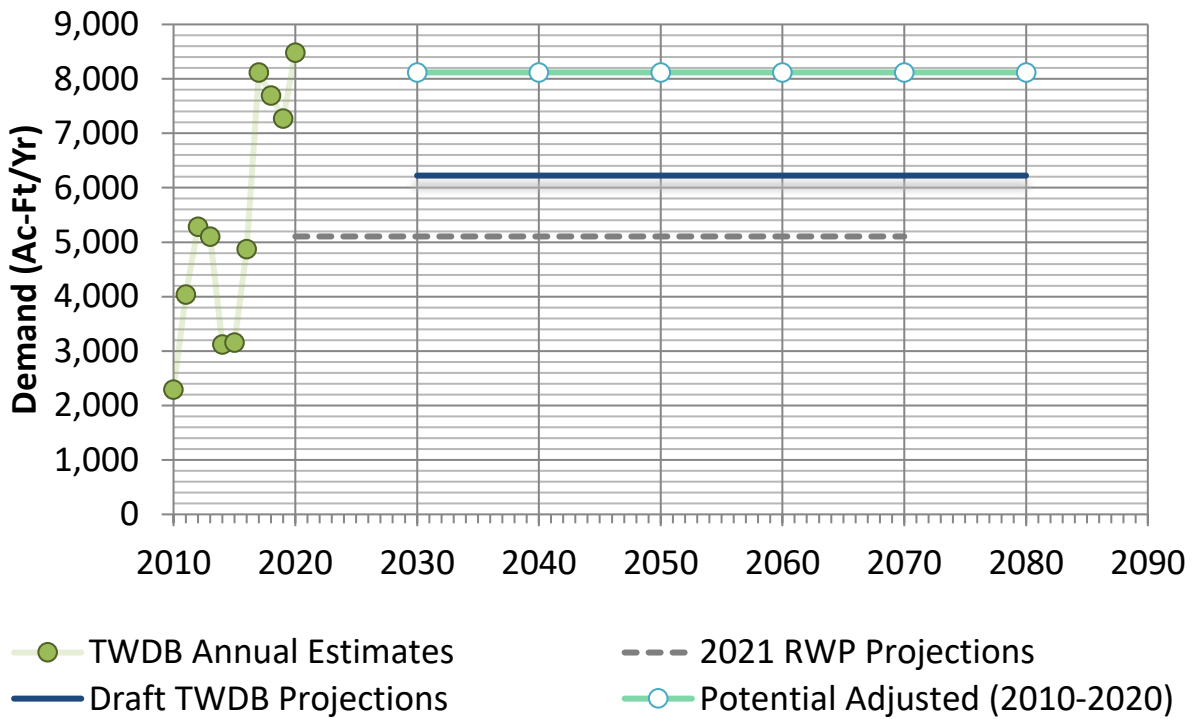
### Chambers County Irrigation Demand Projections



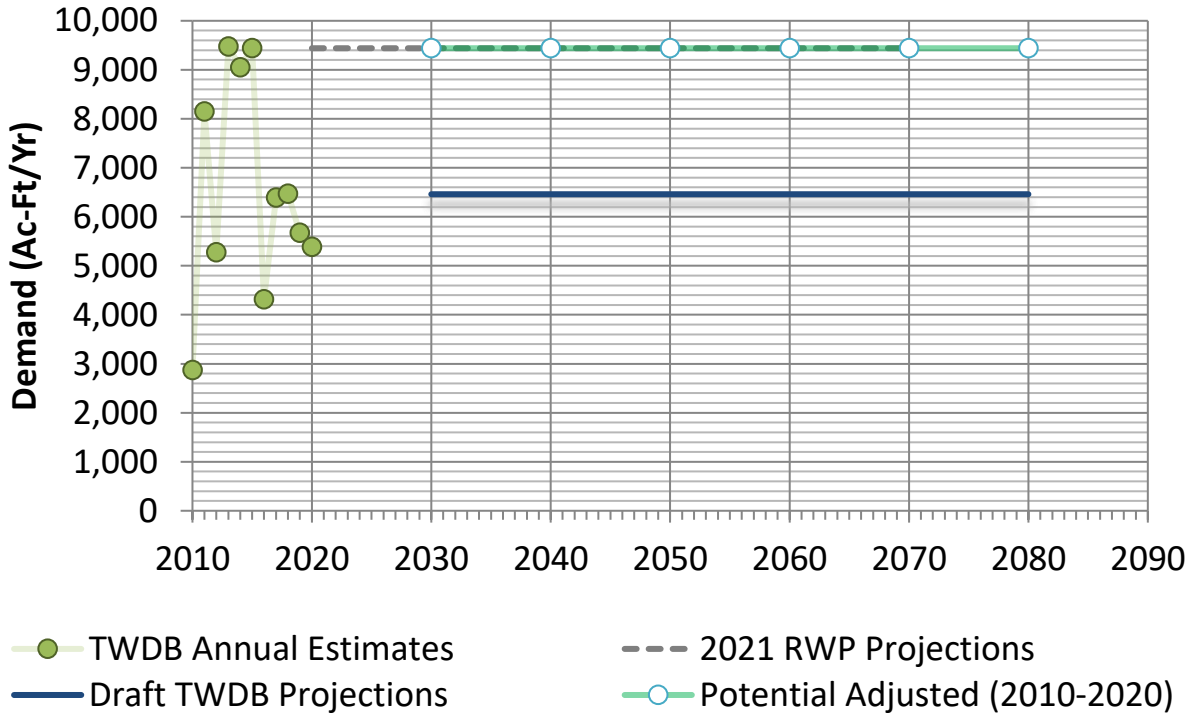
### Fort Bend County Irrigation Demand Projections



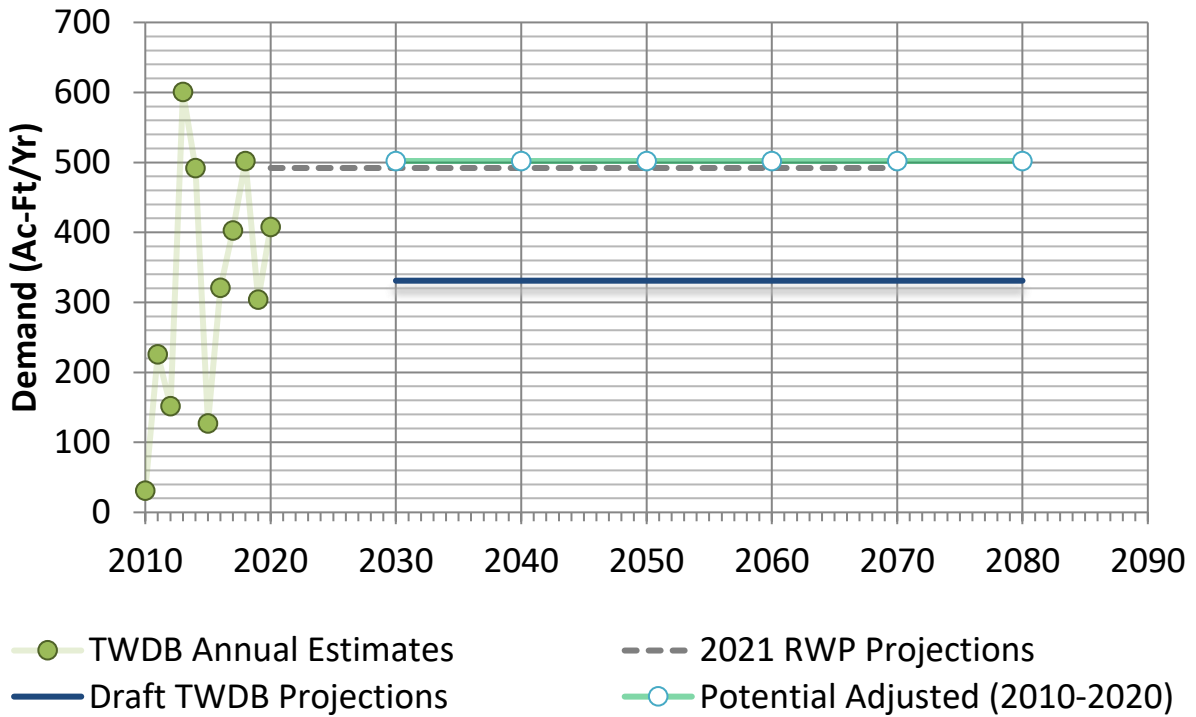
### Galveston County Irrigation Demand Projections



### Harris County Irrigation Demand Projections

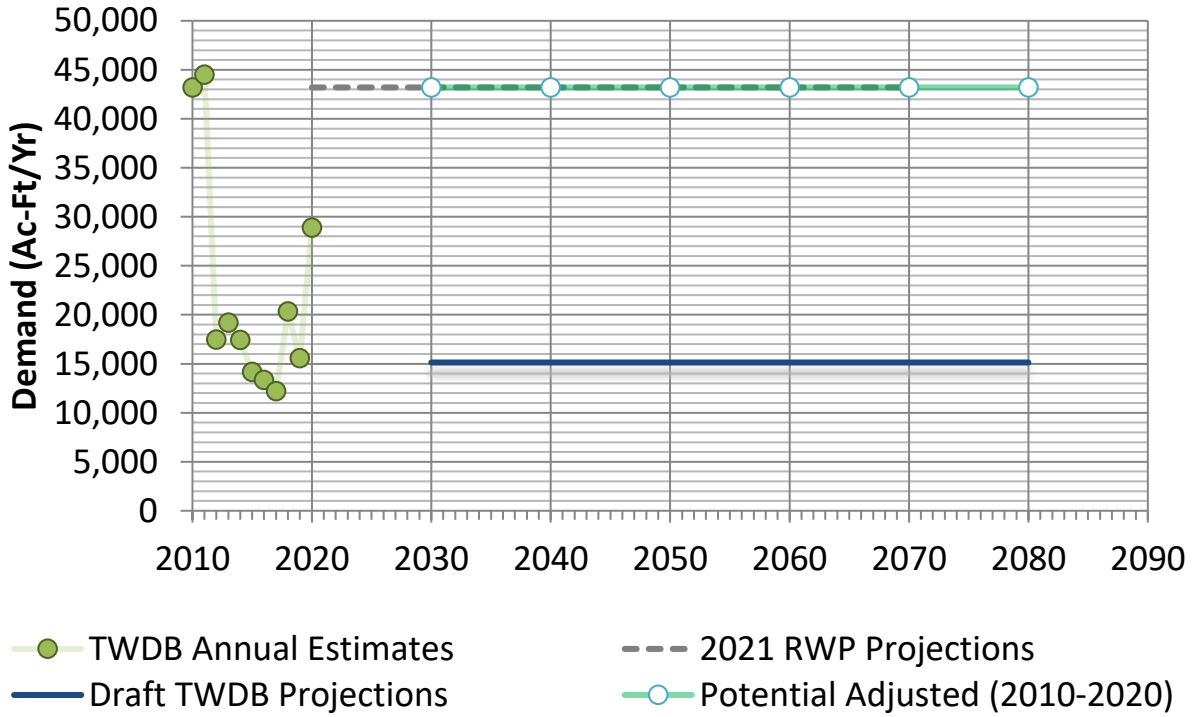


### Leon County Irrigation Demand Projections

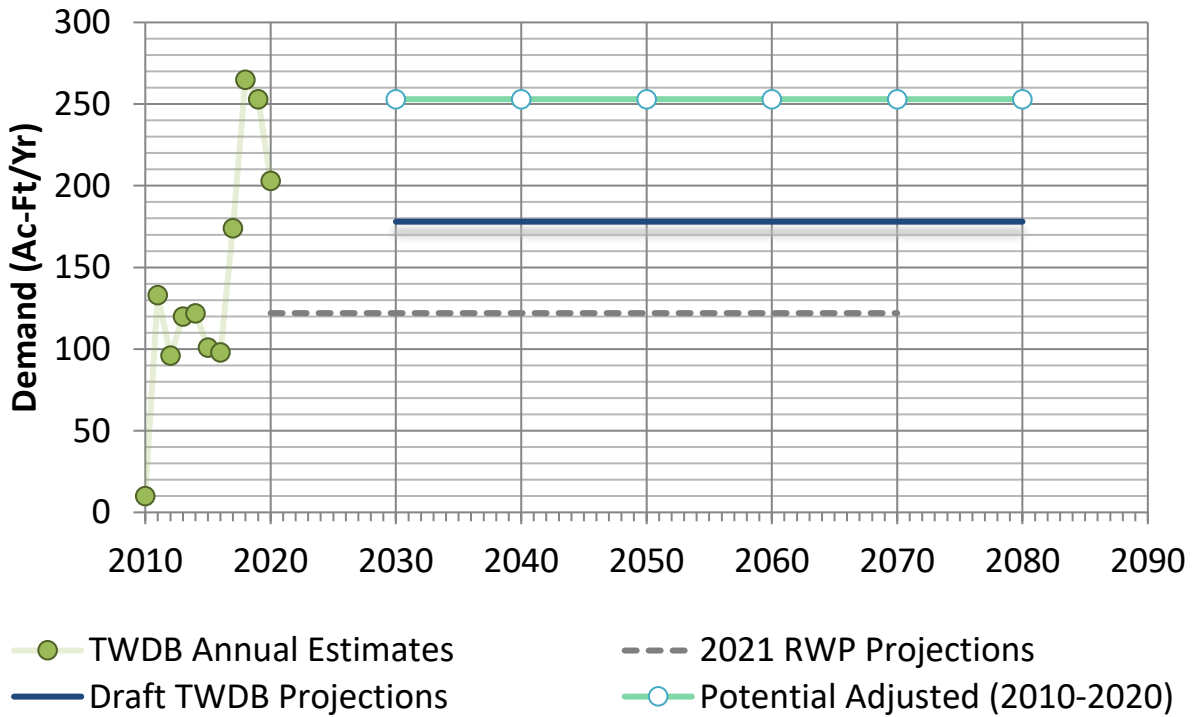




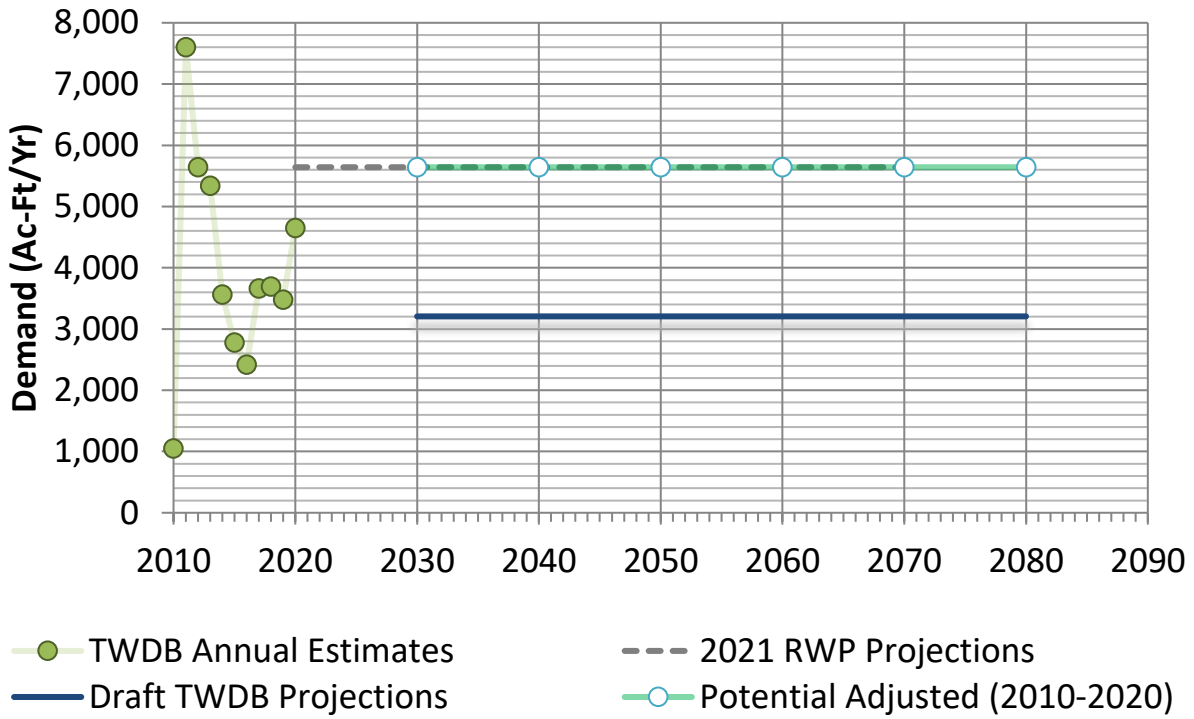
### Liberty County Irrigation Demand Projections



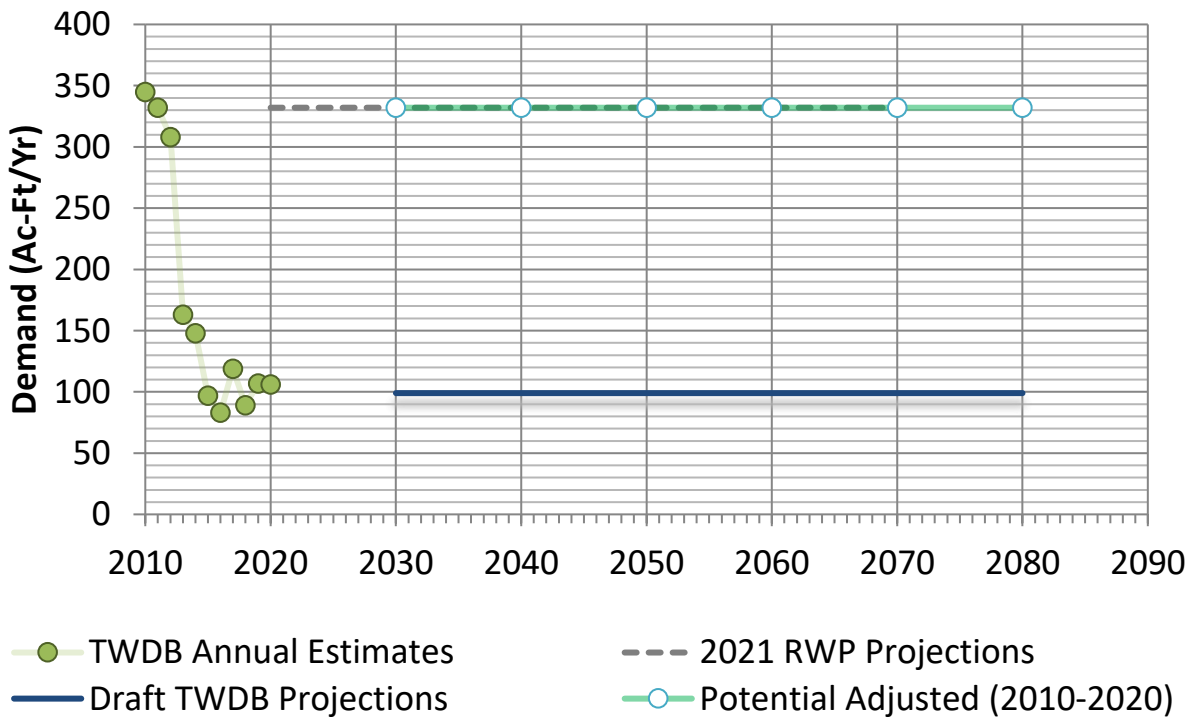
### Madison County Irrigation Demand Projections



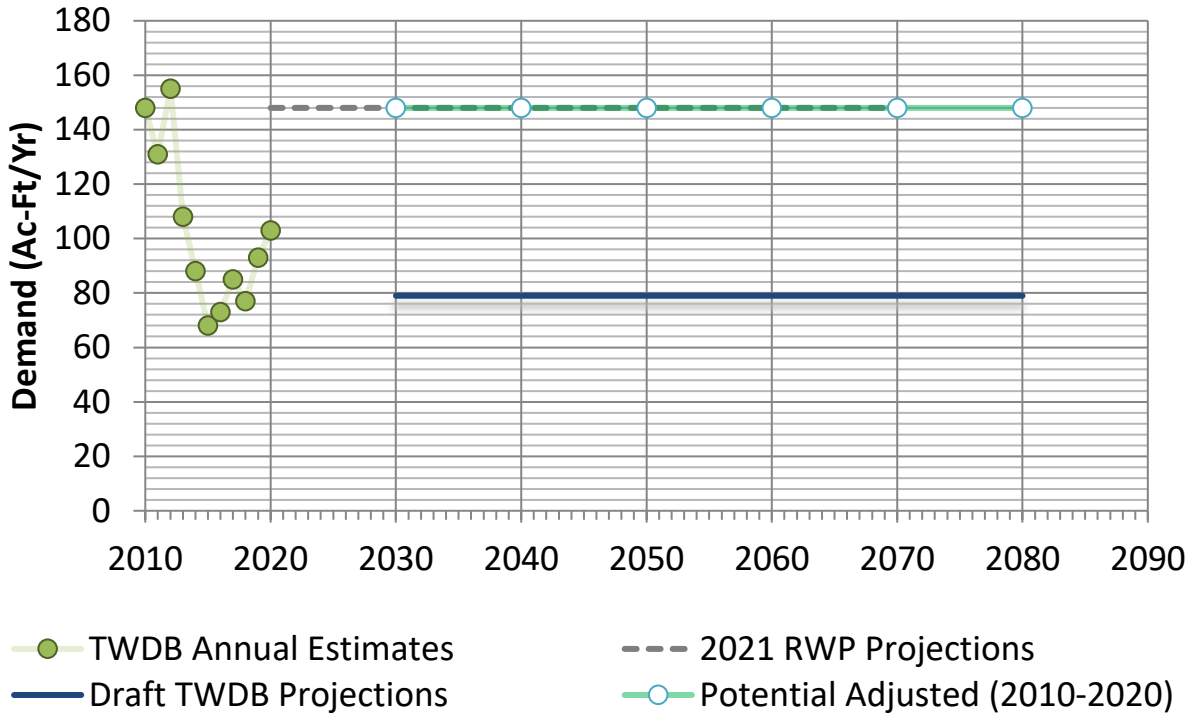
### Montgomery County Irrigation Demand Projections



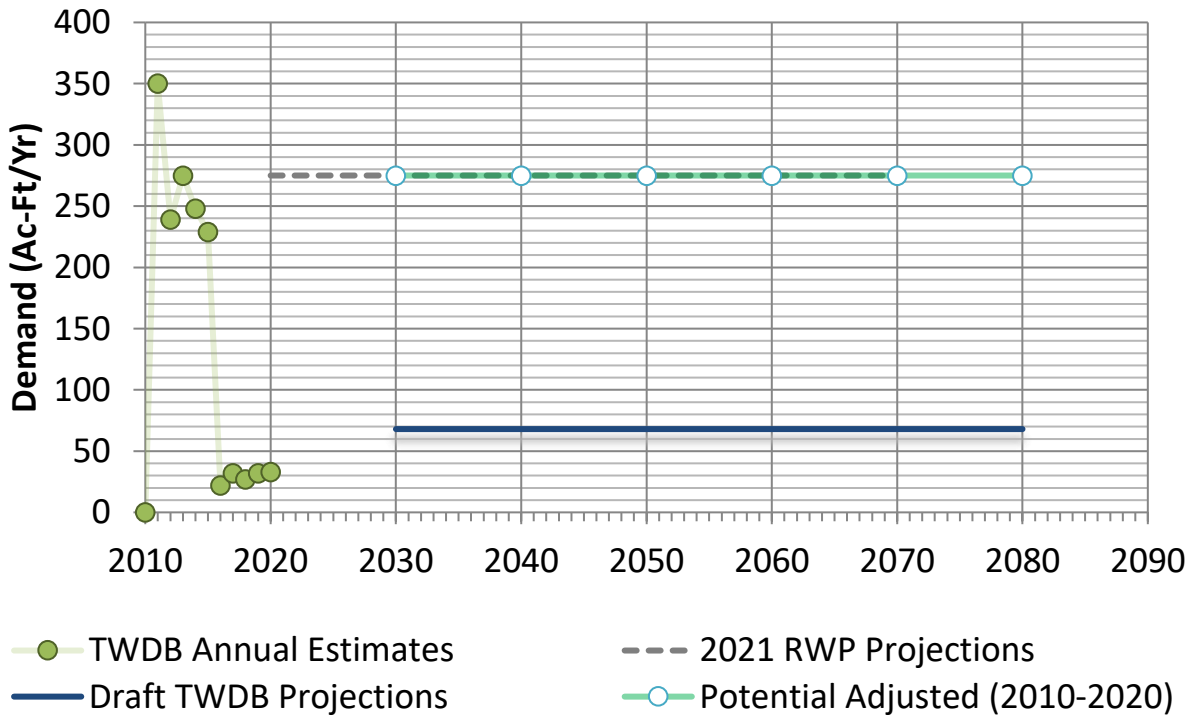
### Polk County Irrigation Demand Projections



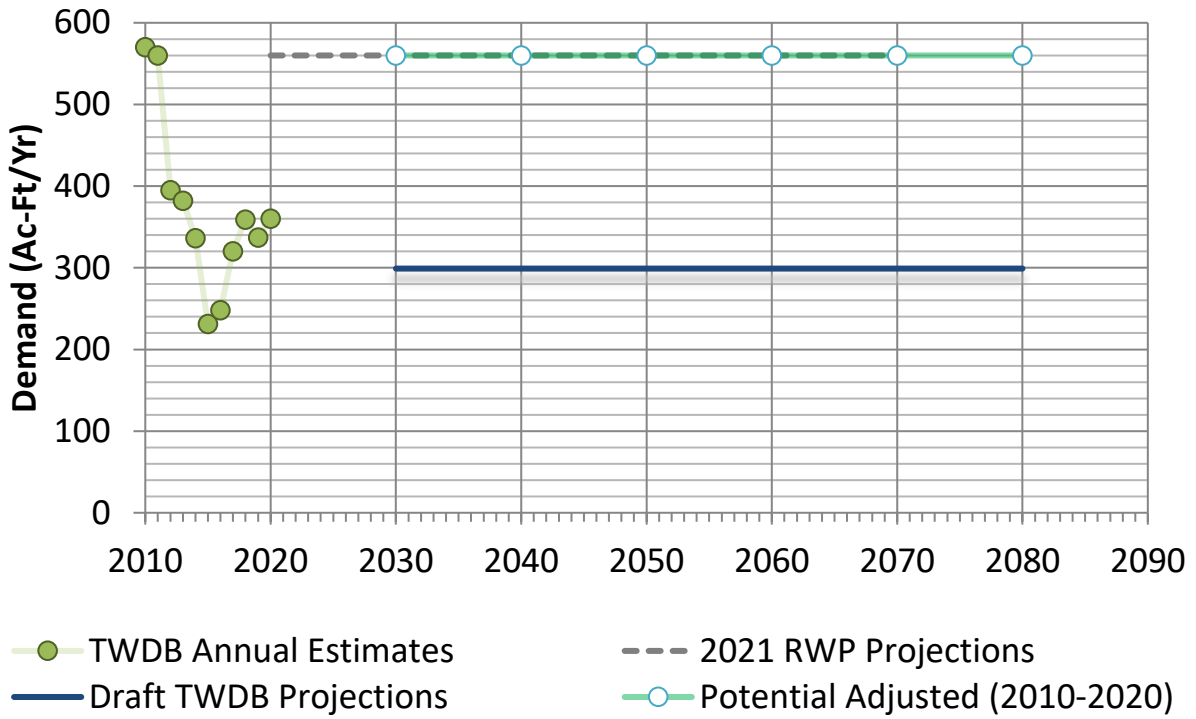
### San Jacinto County Irrigation Demand Projections



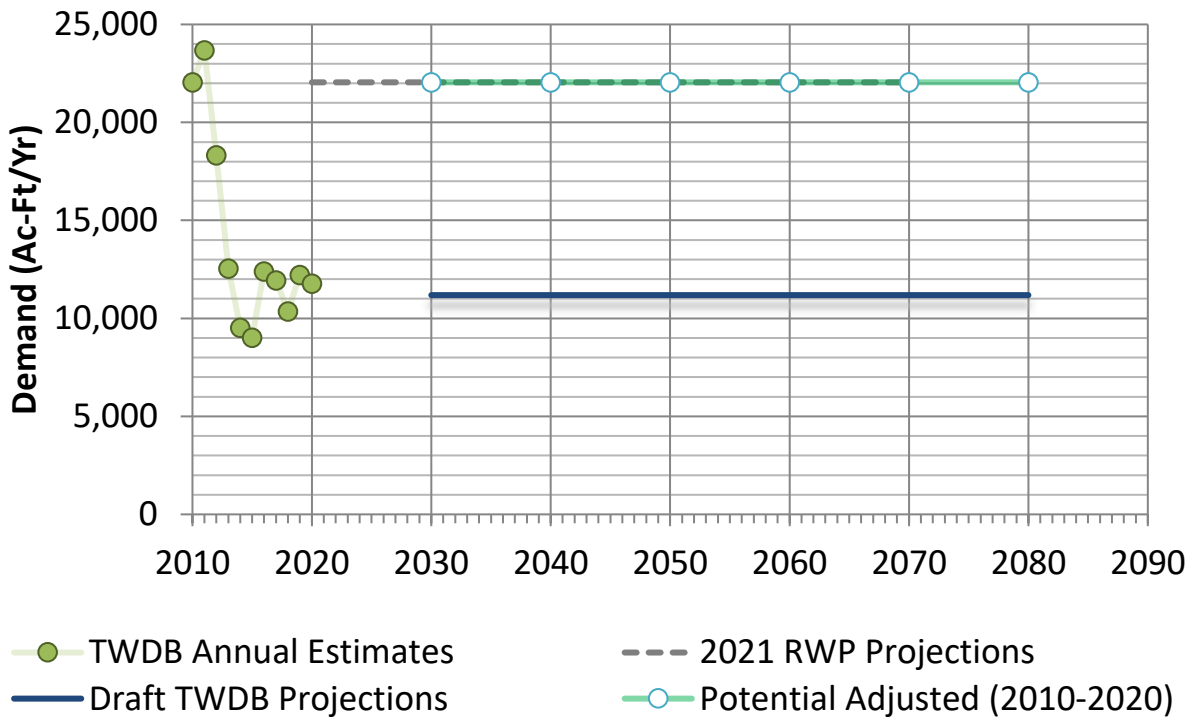
### Trinity County Irrigation Demand Projections



### Walker County Irrigation Demand Projections



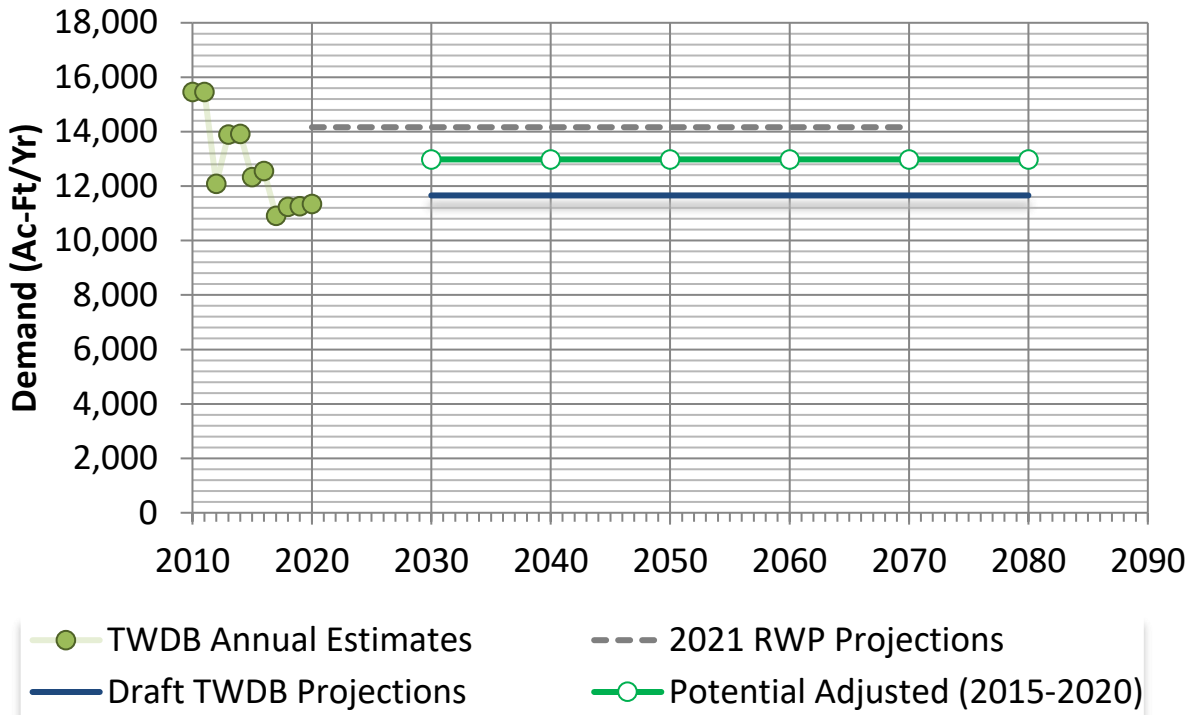
### Waller County Irrigation Demand Projections



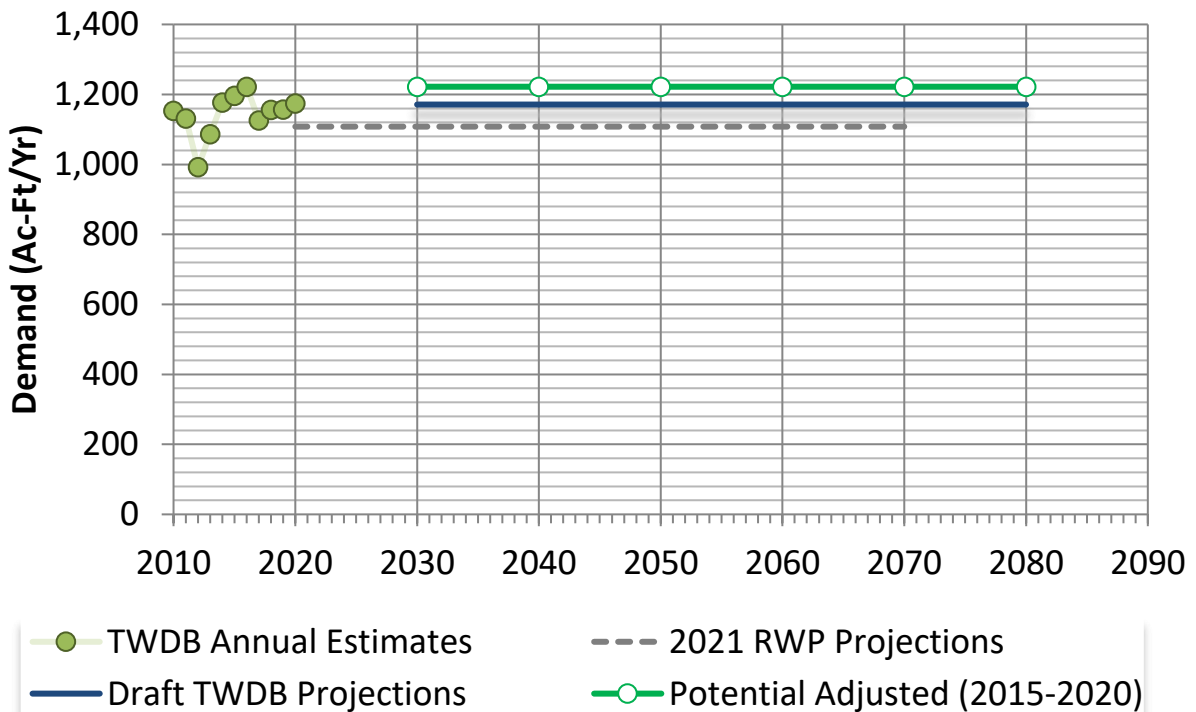
Draft 2026 RWP  
Livestock Water Demand  
Projections for Region H



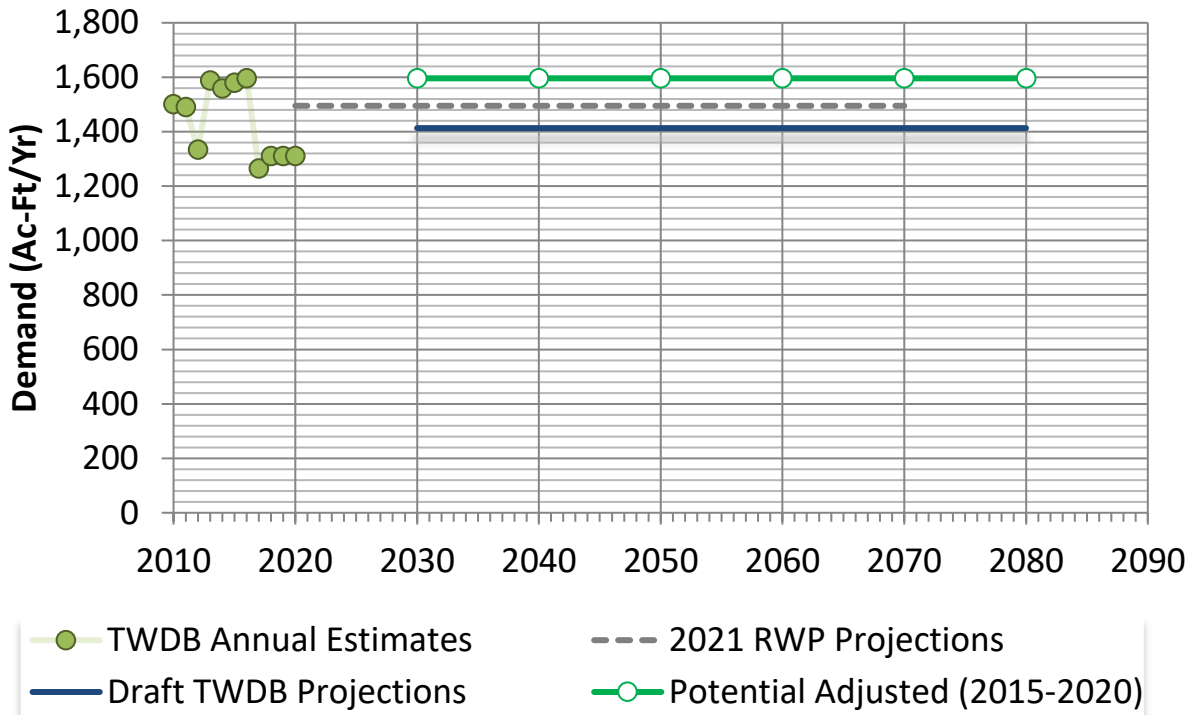
### Region H Livestock Demand Projections



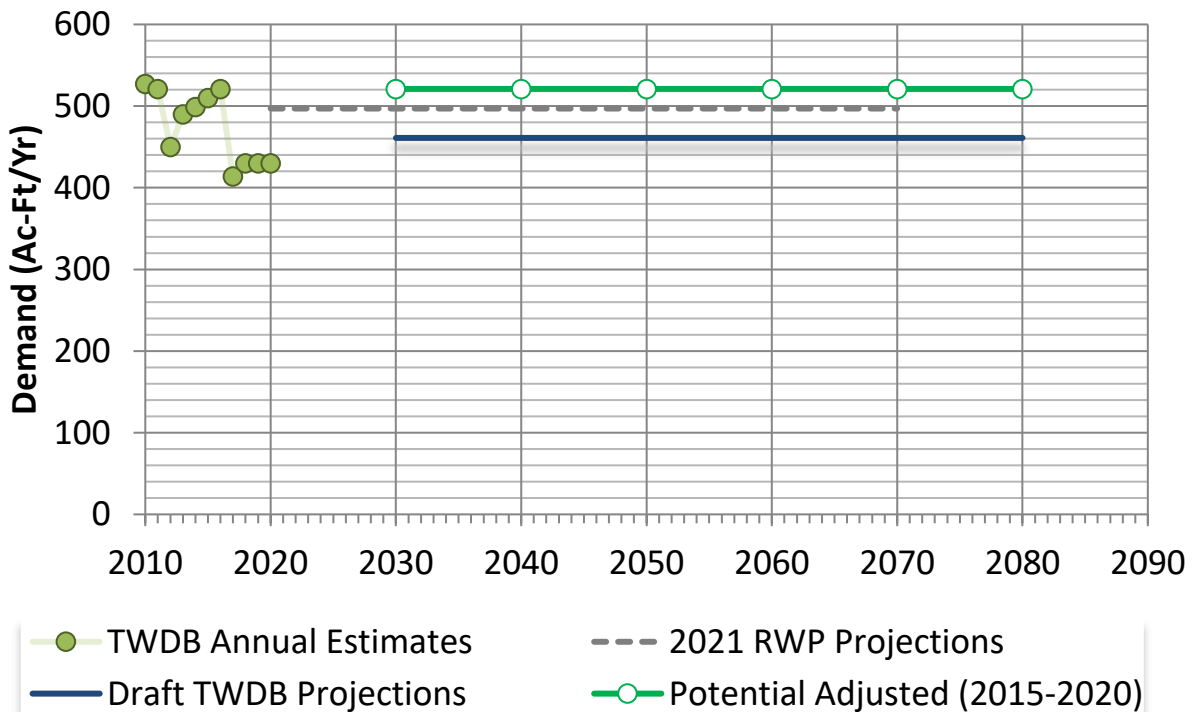
### Austin County Livestock Demand Projections



### Brazoria County Livestock Demand Projections

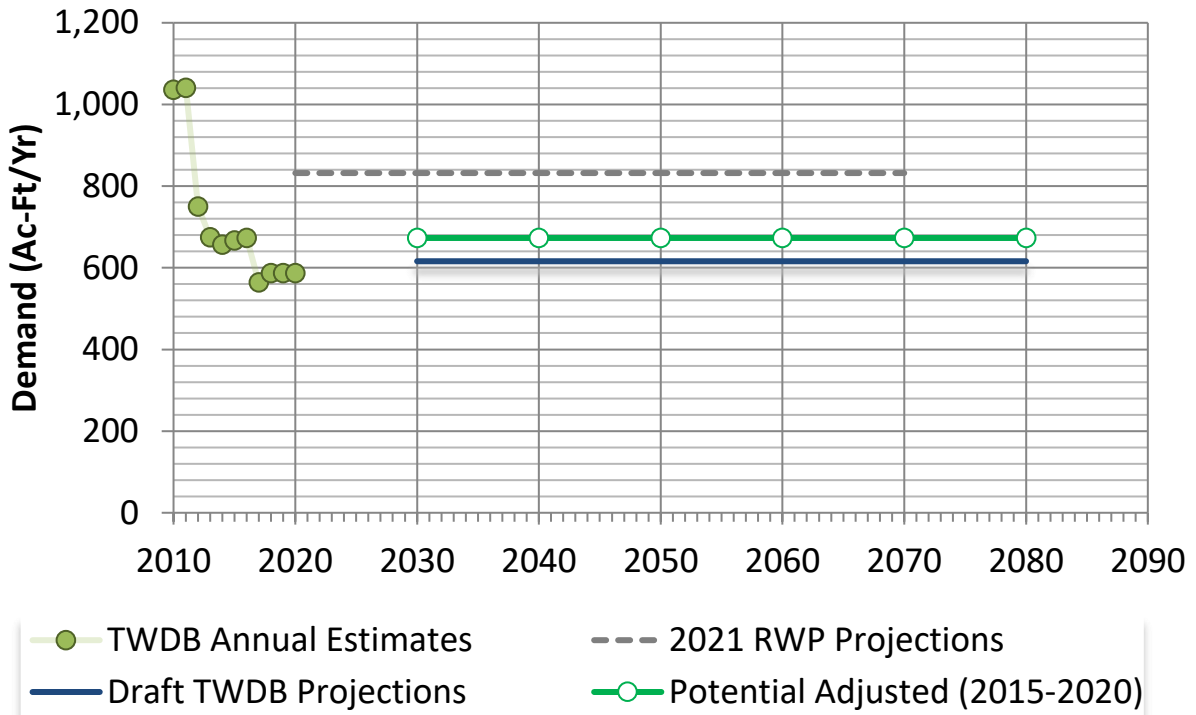


### Chambers County Livestock Demand Projections

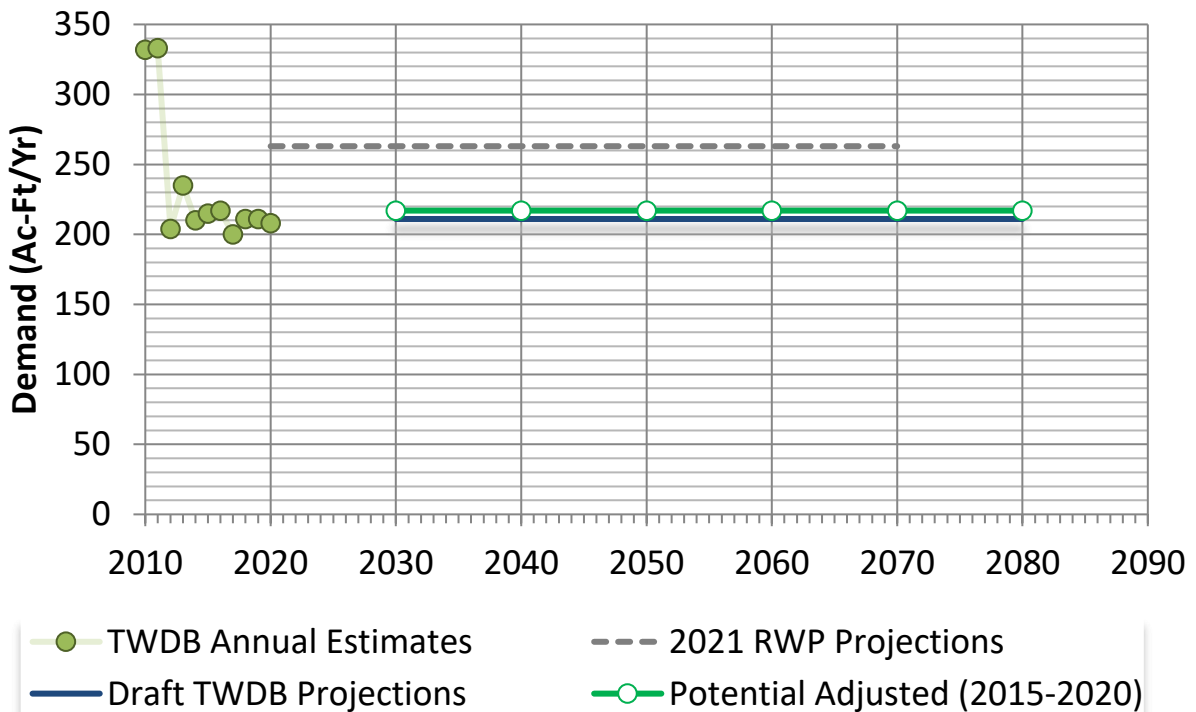




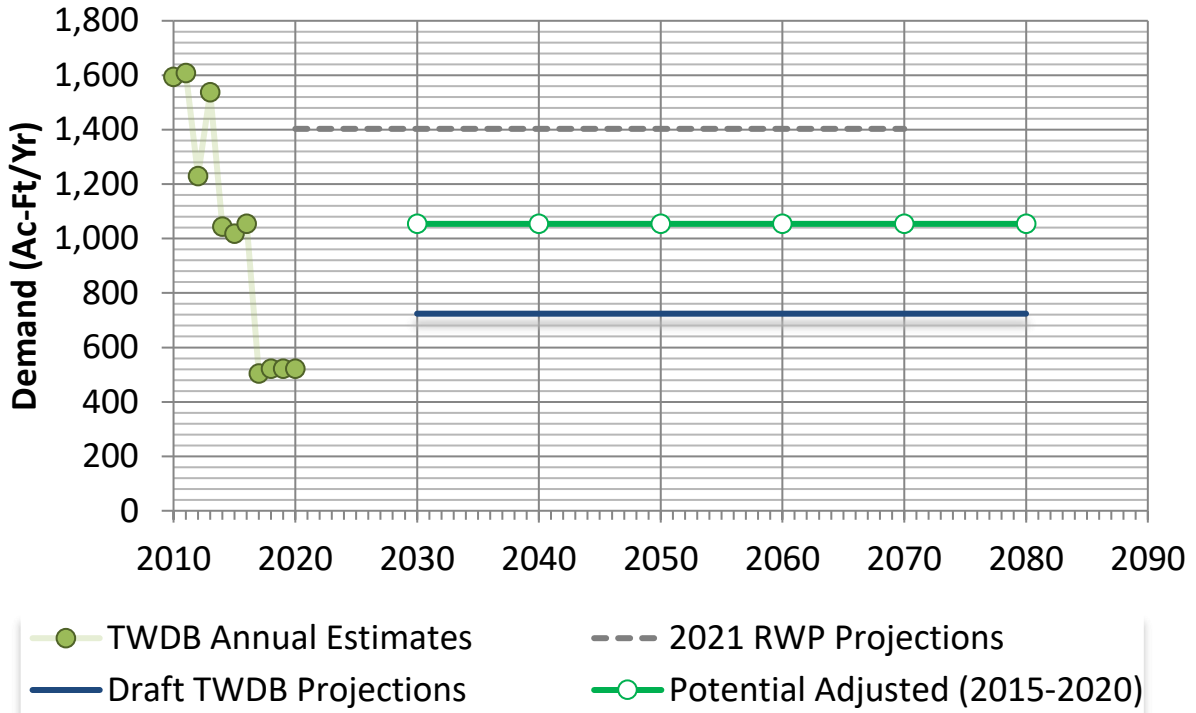
### Fort Bend County Livestock Demand Projections



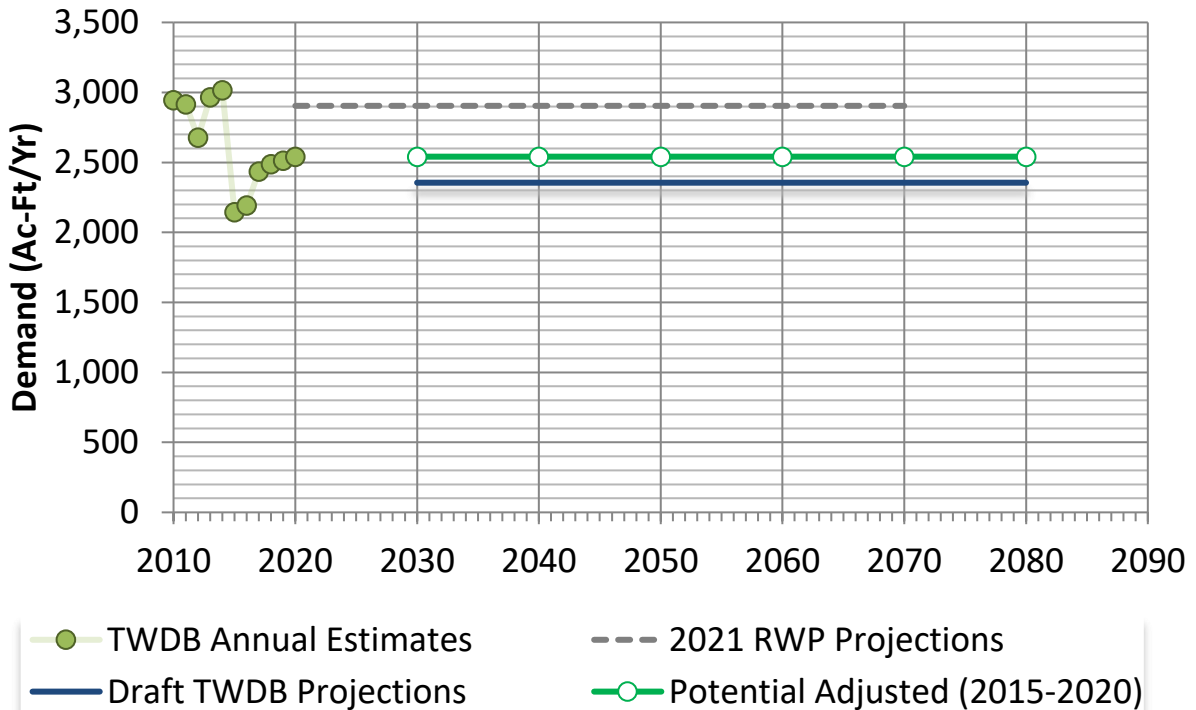
### Galveston County Livestock Demand Projections



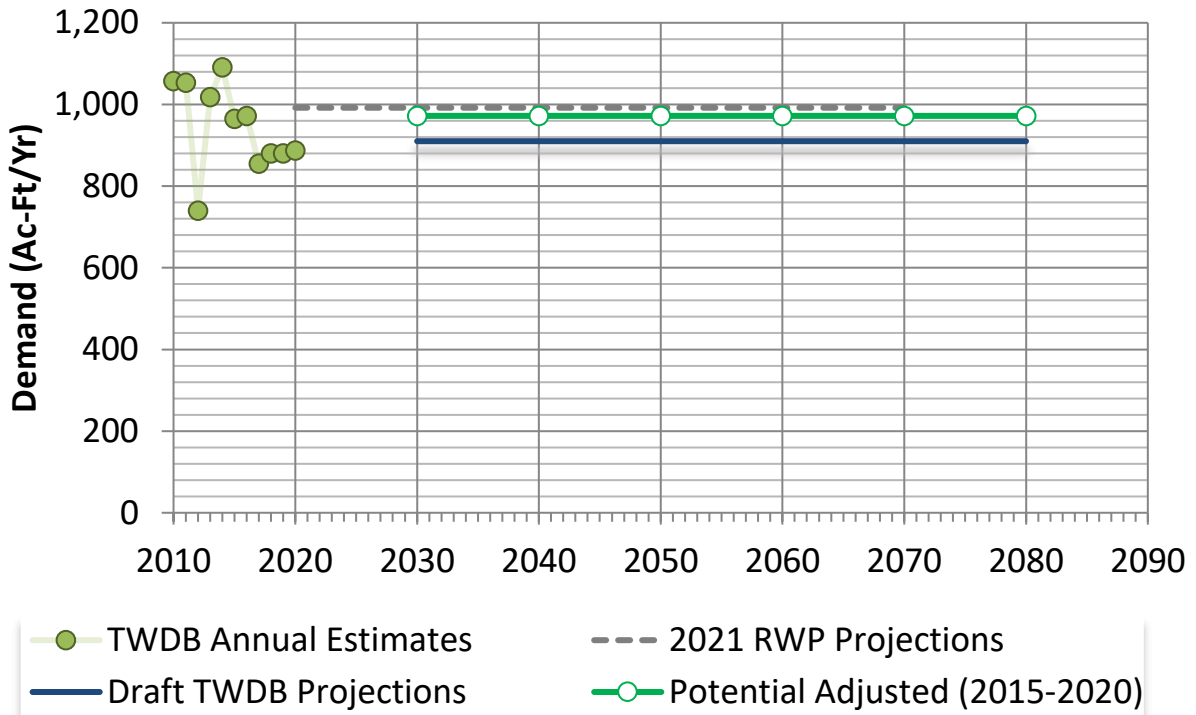
### Harris County Livestock Demand Projections



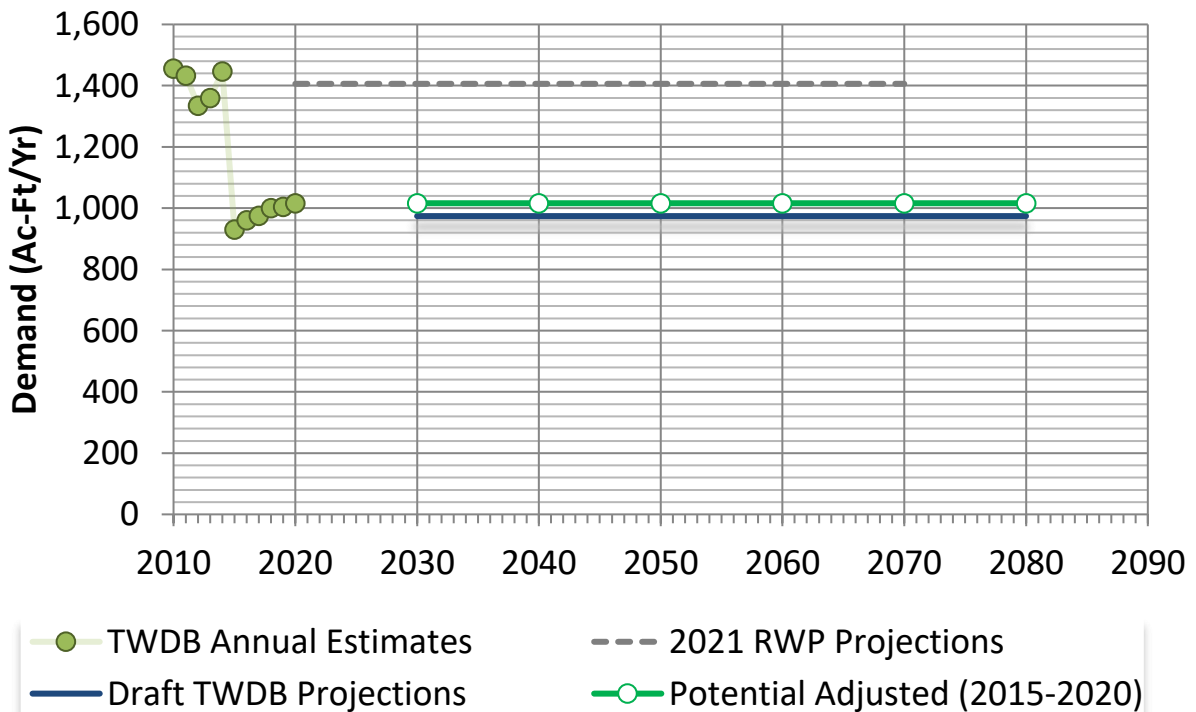
### Leon County Livestock Demand Projections



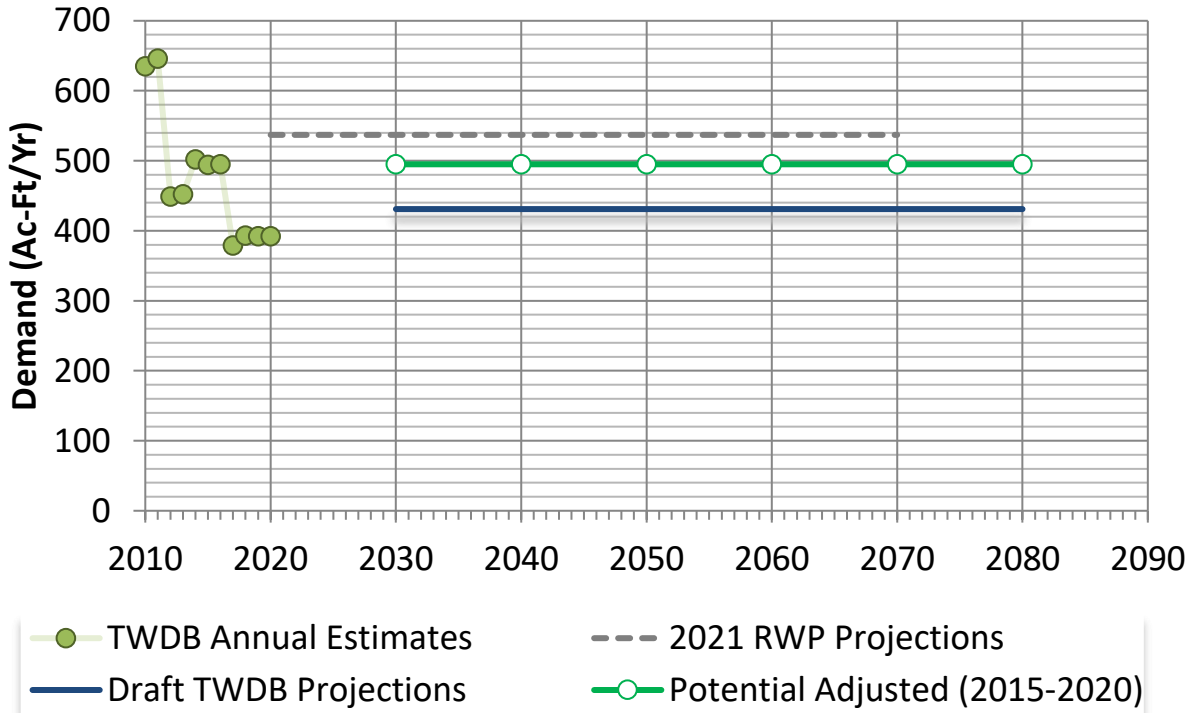
### Liberty County Livestock Demand Projections



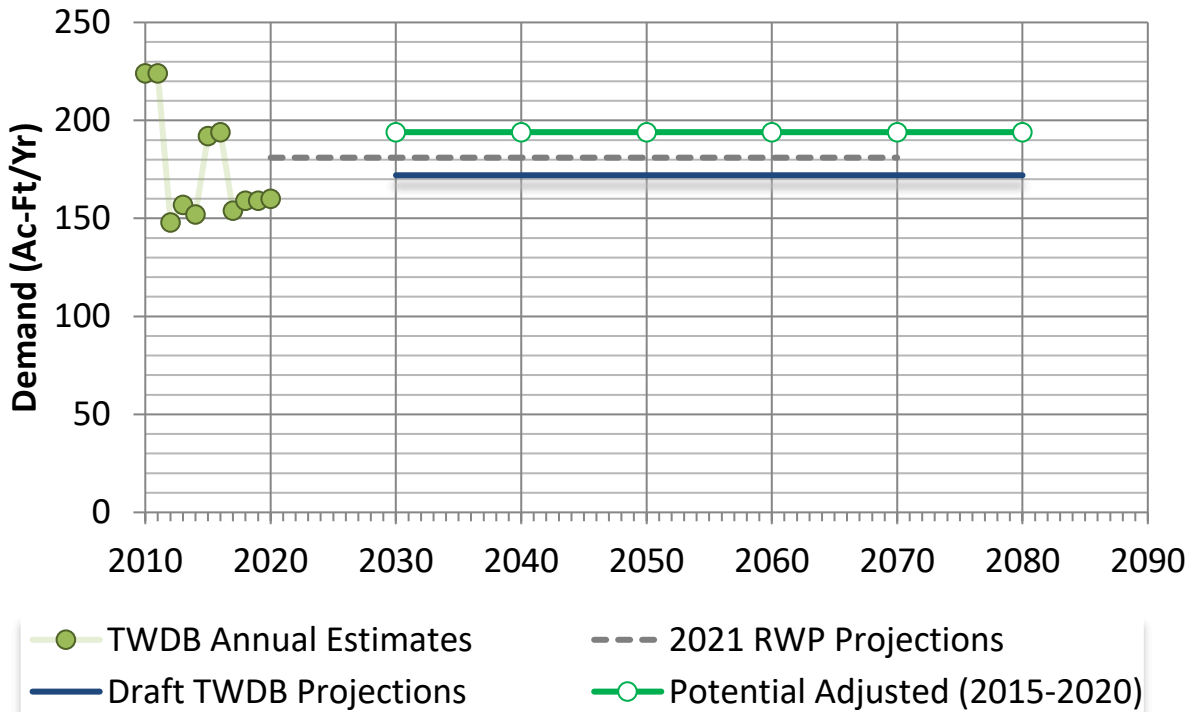
### Madison County Livestock Demand Projections



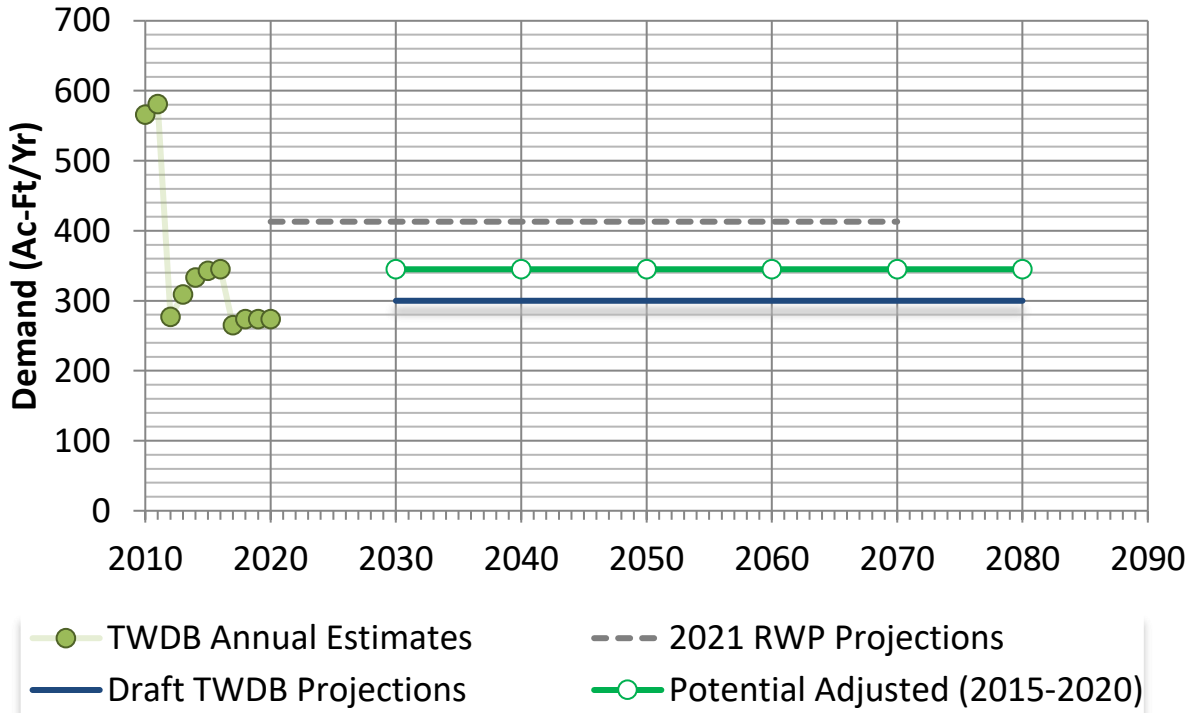
### Montgomery County Livestock Demand Projections



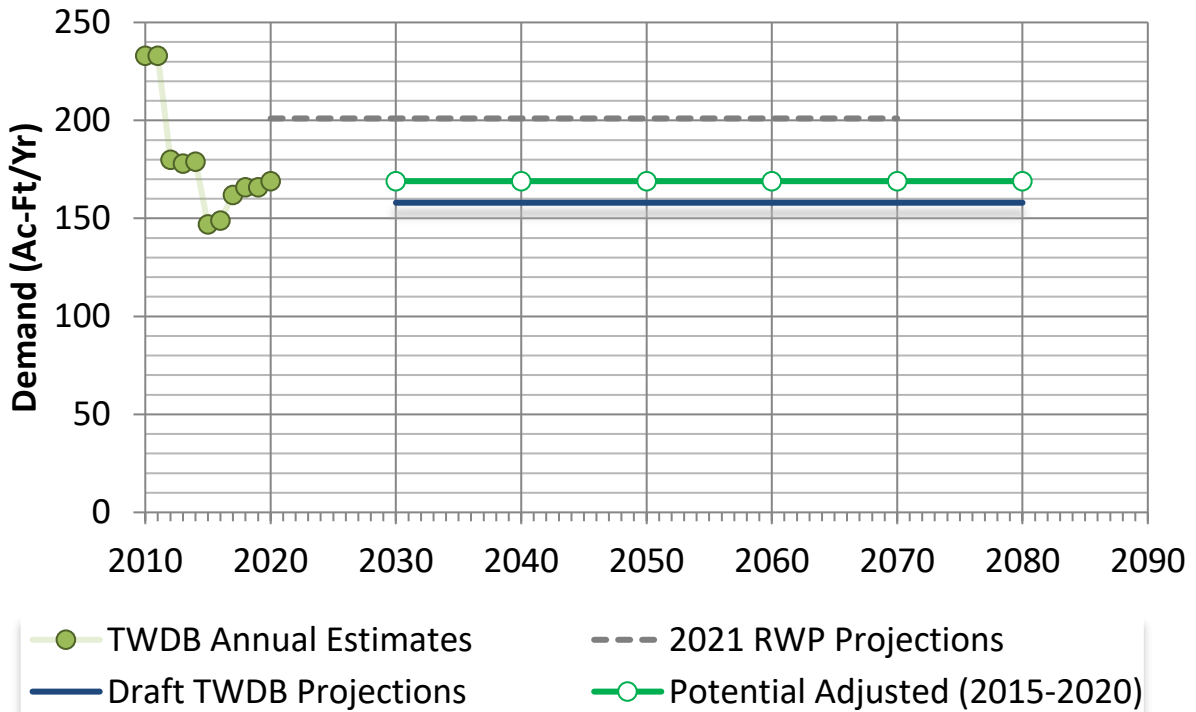
### Polk County Livestock Demand Projections



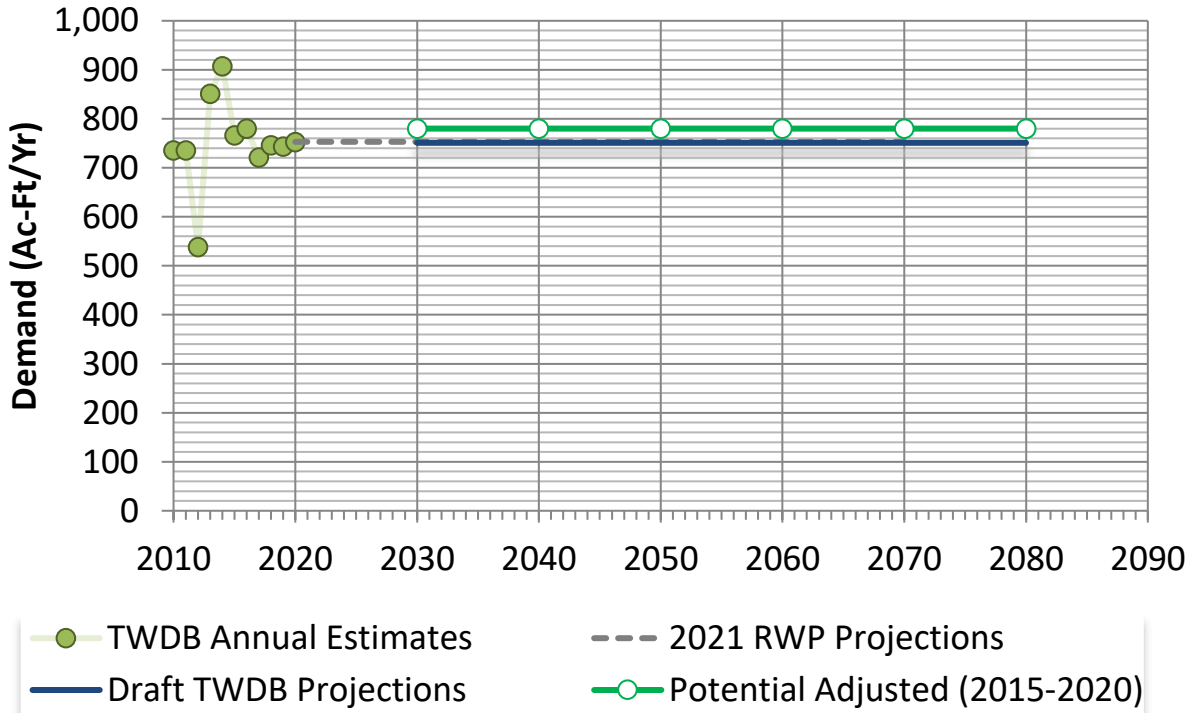
### San Jacinto County Livestock Demand Projections



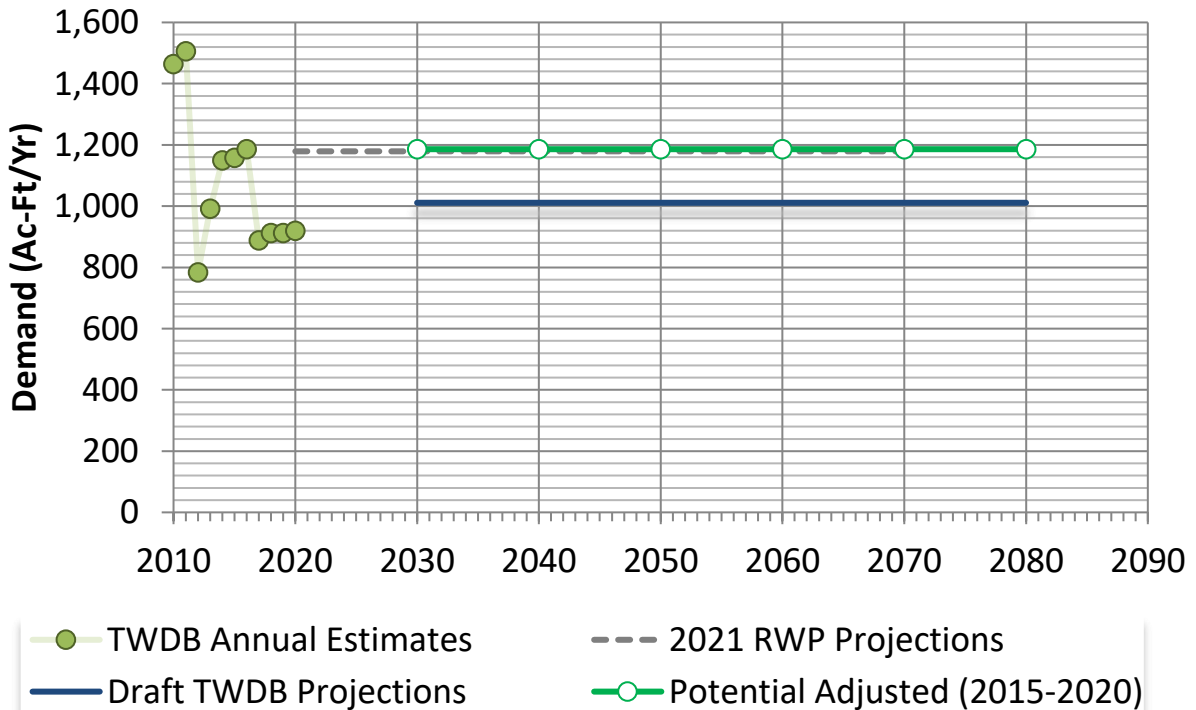
### Trinity County Livestock Demand Projections



### Walker County Livestock Demand Projections



### Waller County Livestock Demand Projections

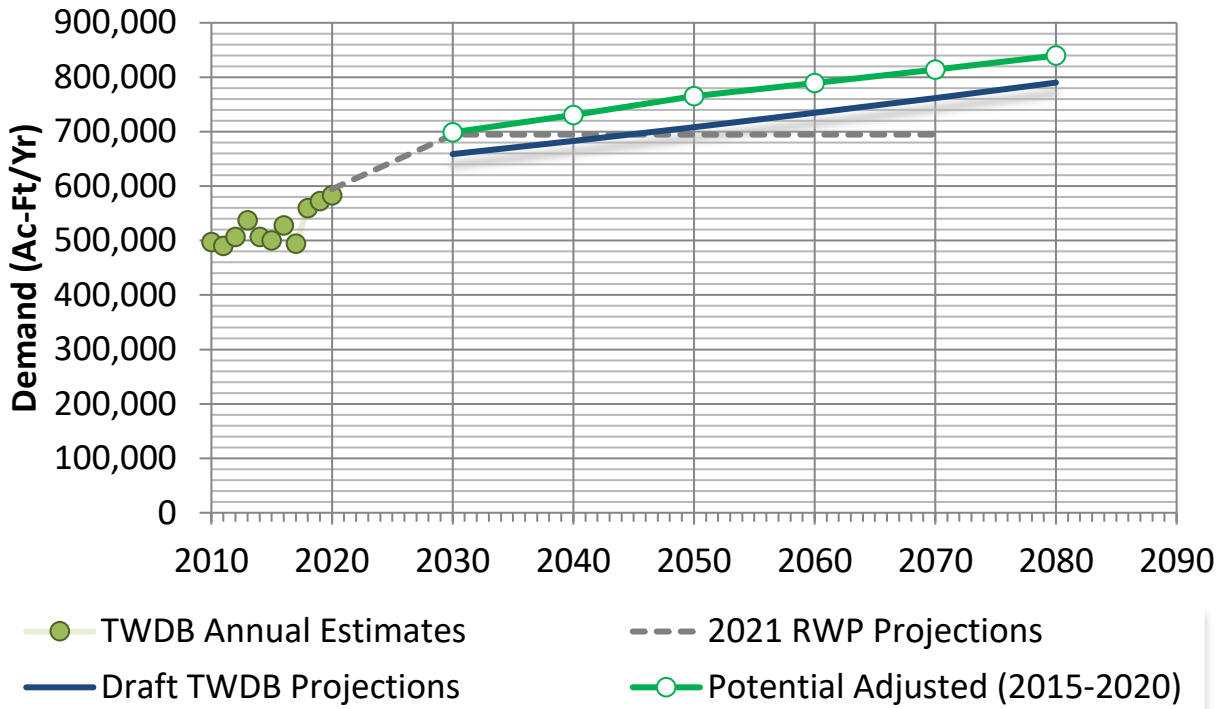


Draft 2026 RWP  
Manufacturing Water Demand  
Projections for Region H

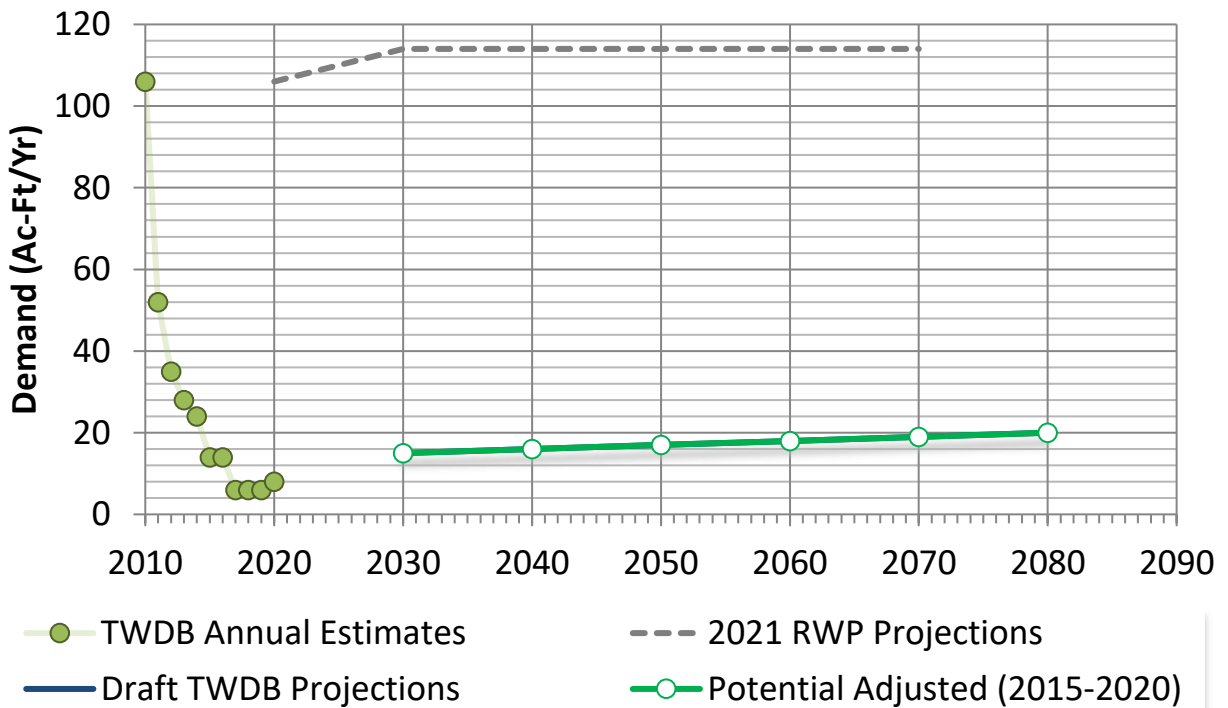




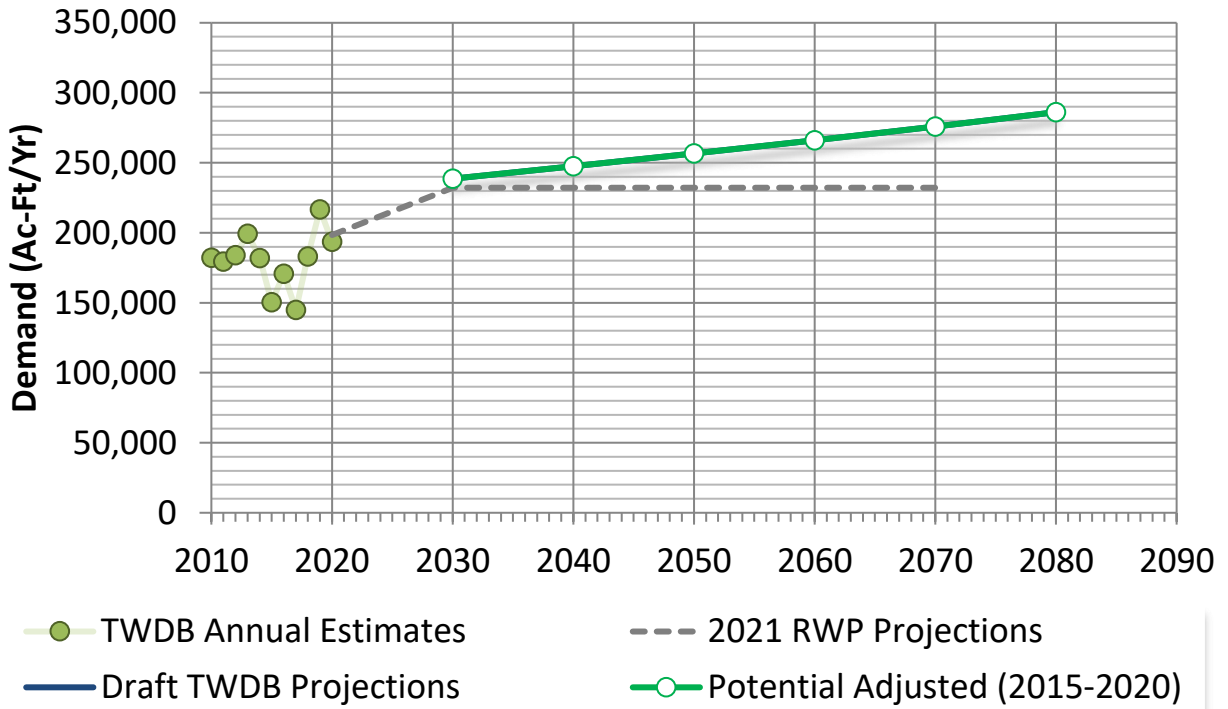
### Region H Manufacturing Demand Projections



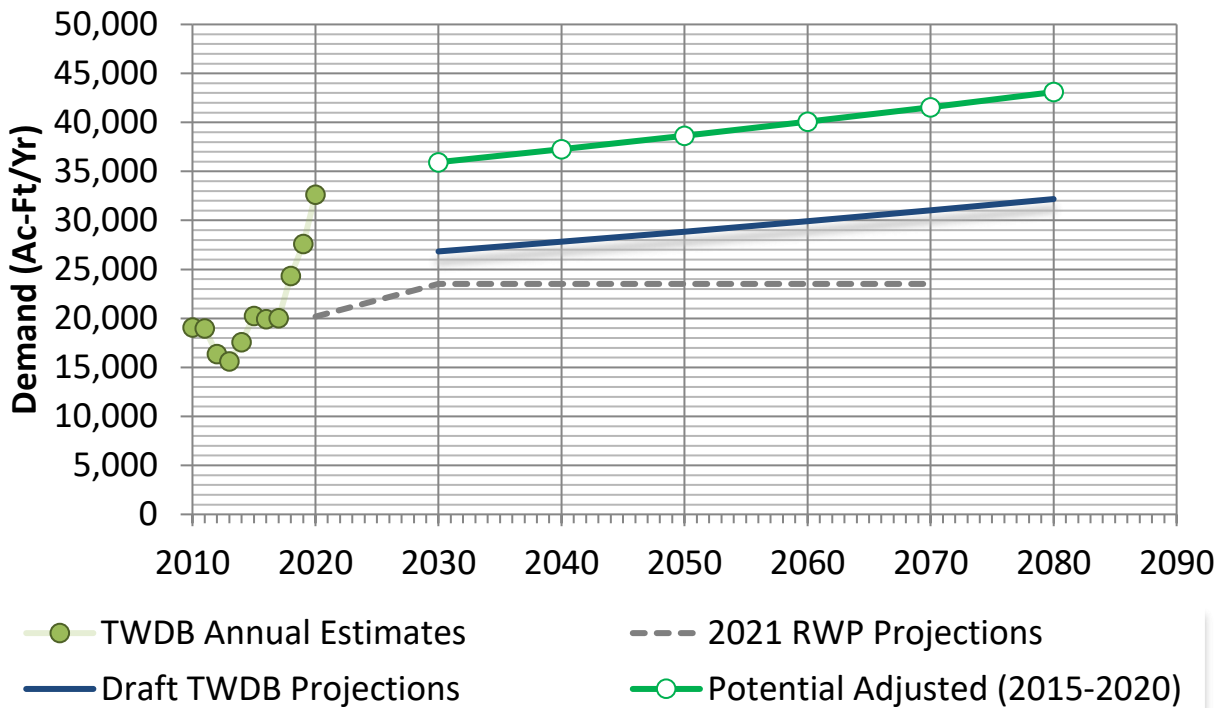
### Austin County Manufacturing Demand Projections



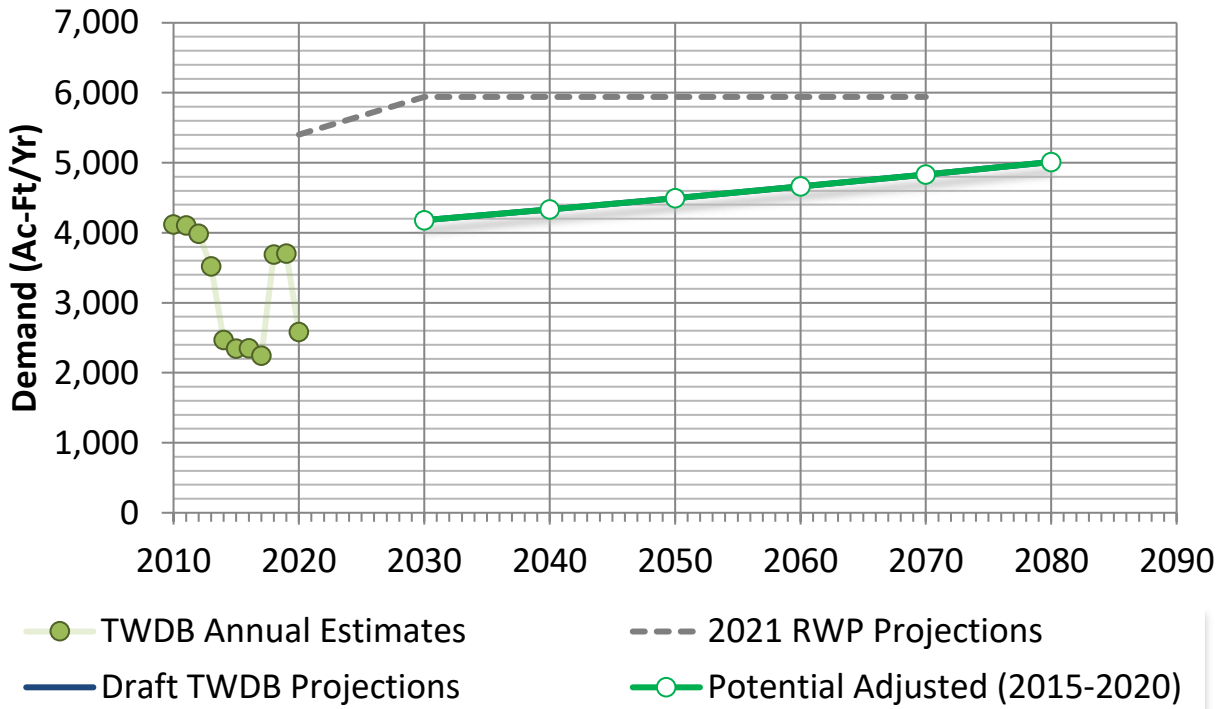
### Brazoria County Manufacturing Demand Projections



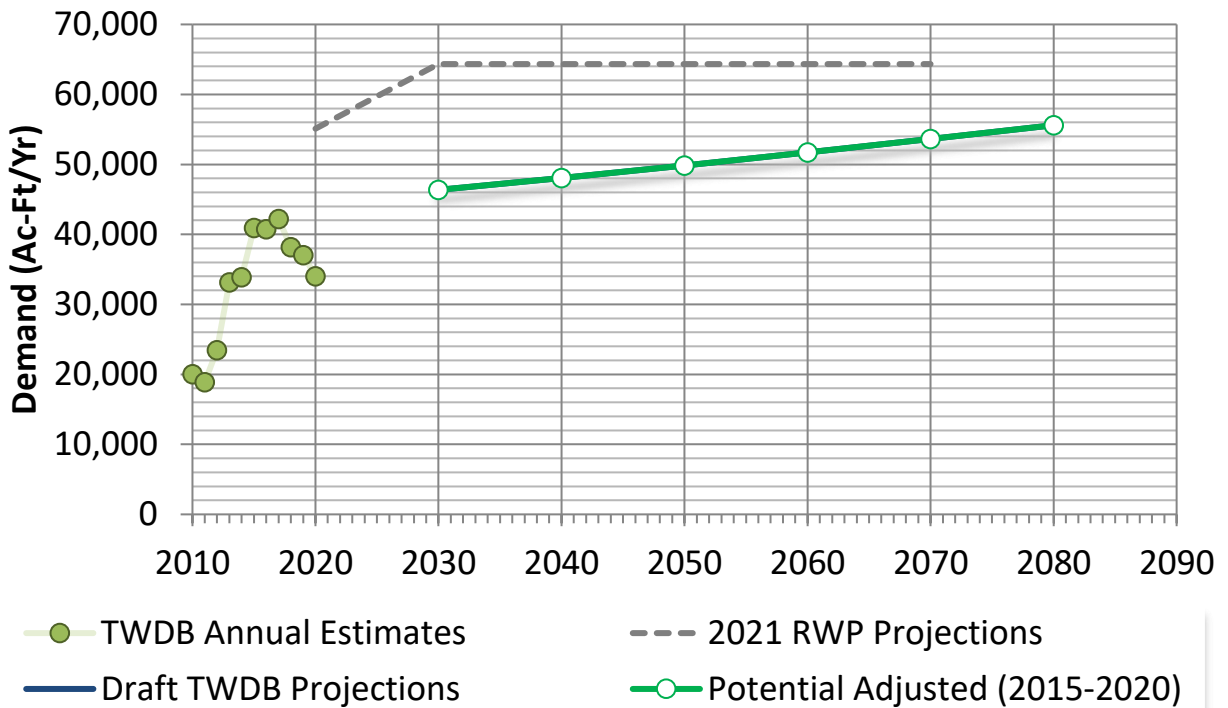
### Chambers County Manufacturing Demand Projections



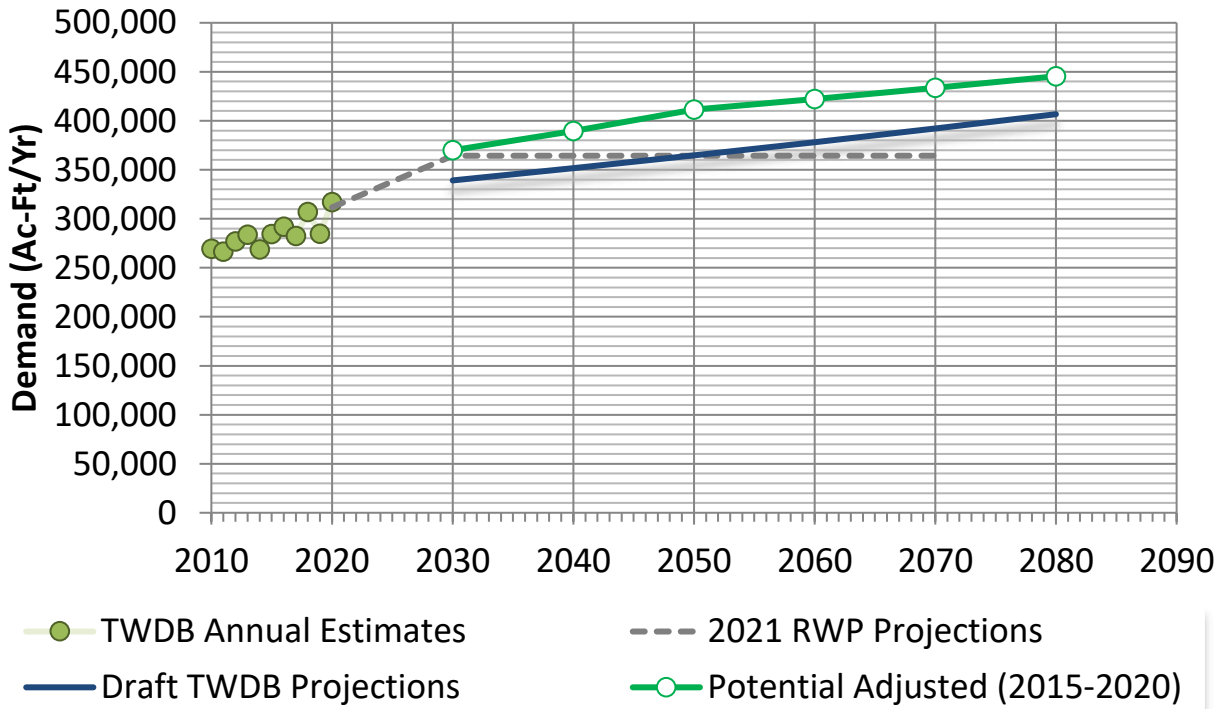
### Fort Bend County Manufacturing Demand Projections



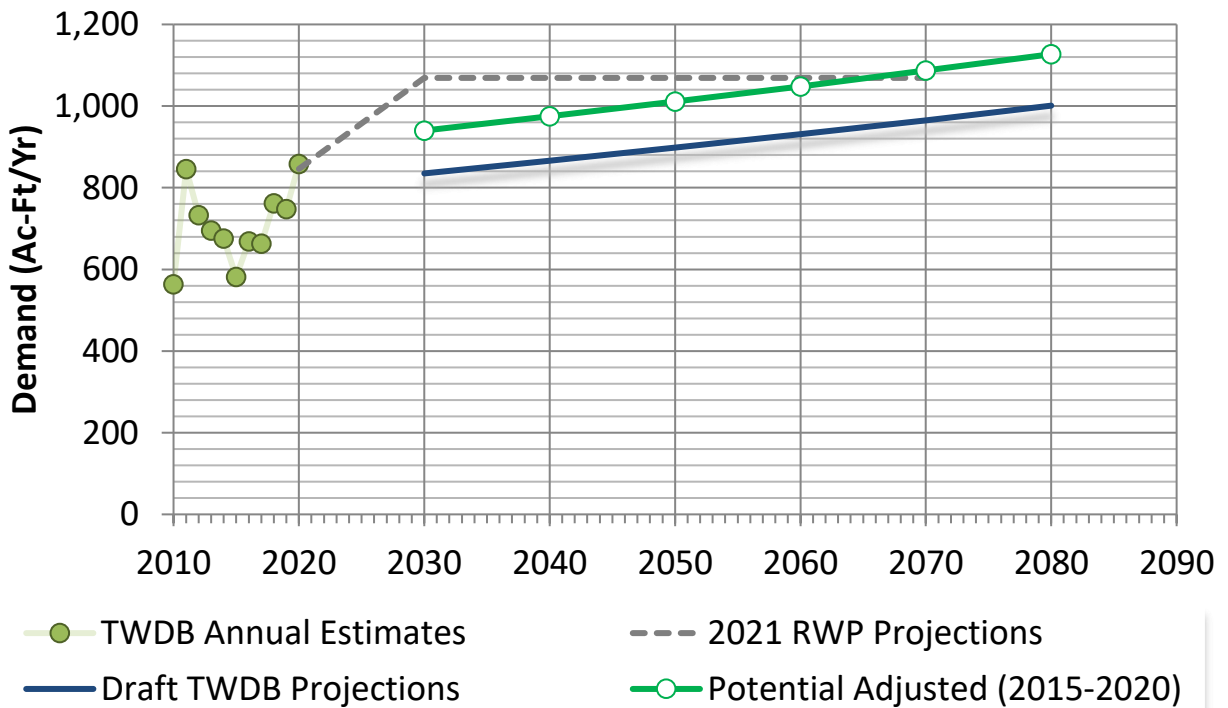
### Galveston County Manufacturing Demand Projections



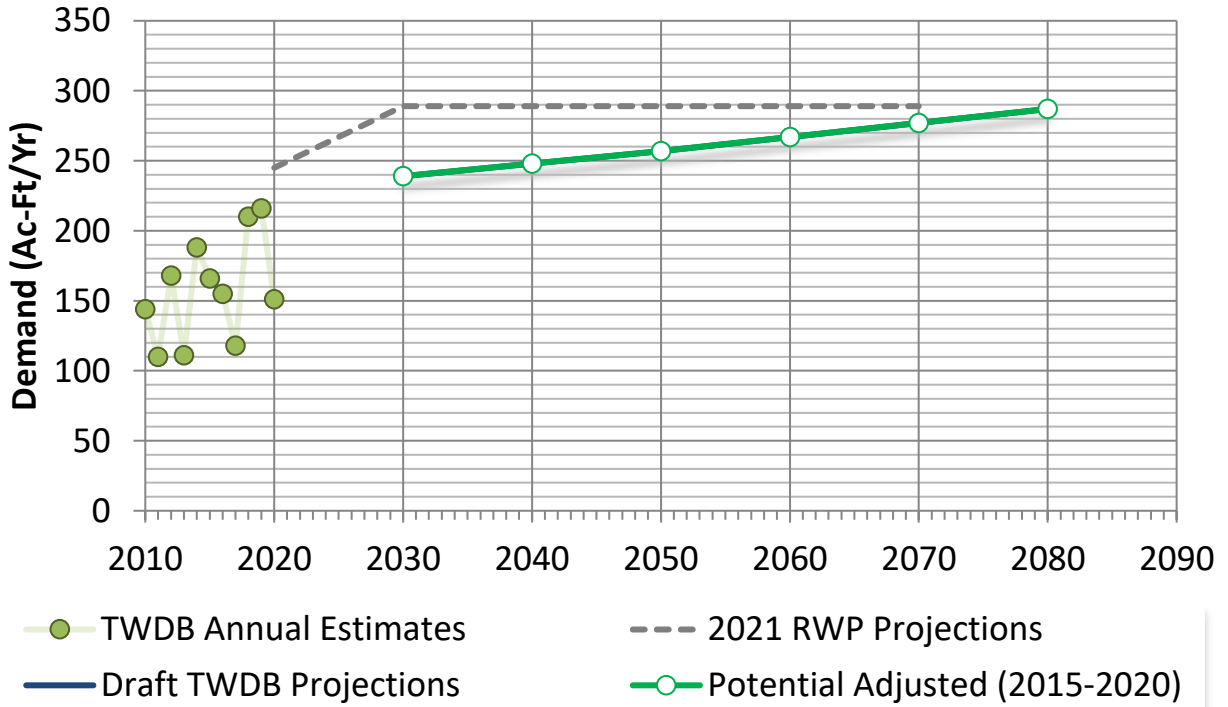
### Harris County Manufacturing Demand Projections



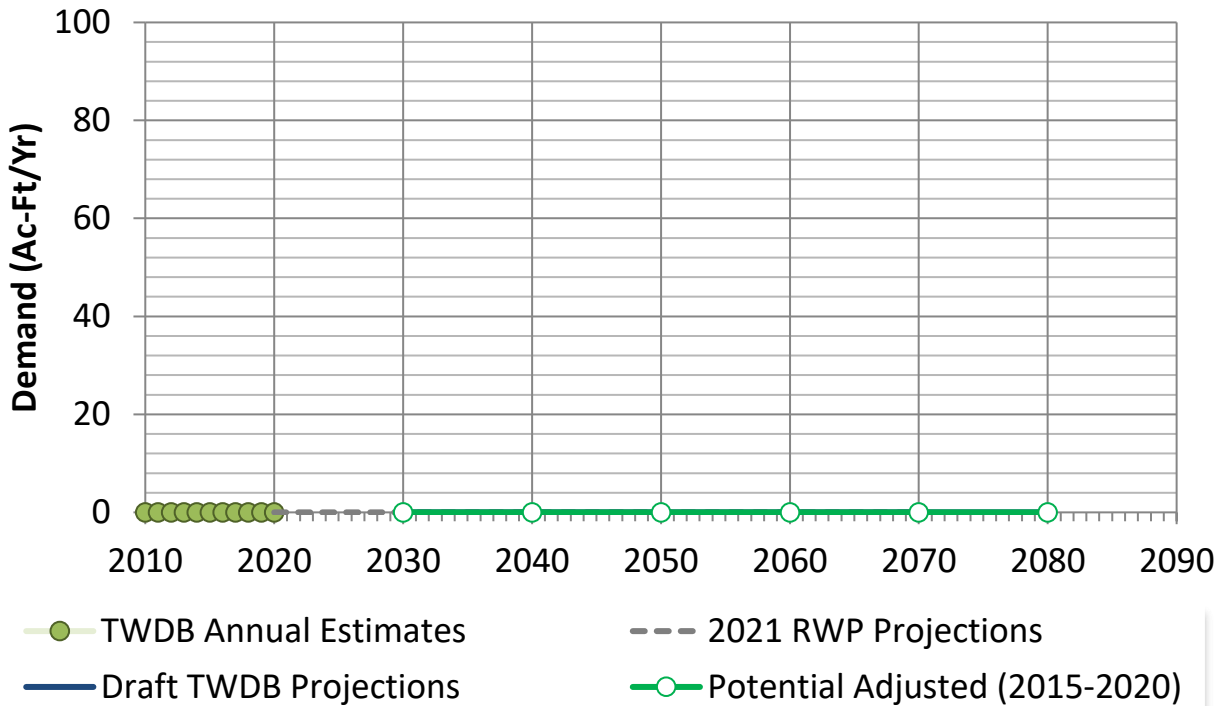
### Leon County Manufacturing Demand Projections



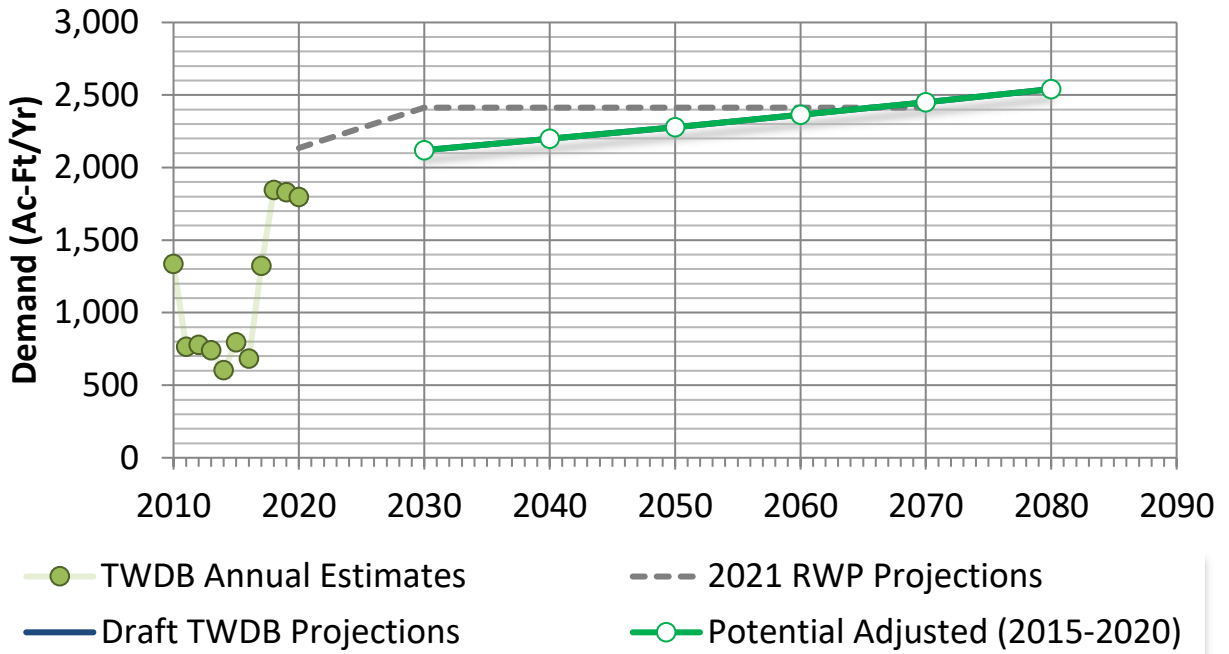
### Liberty County Manufacturing Demand Projections



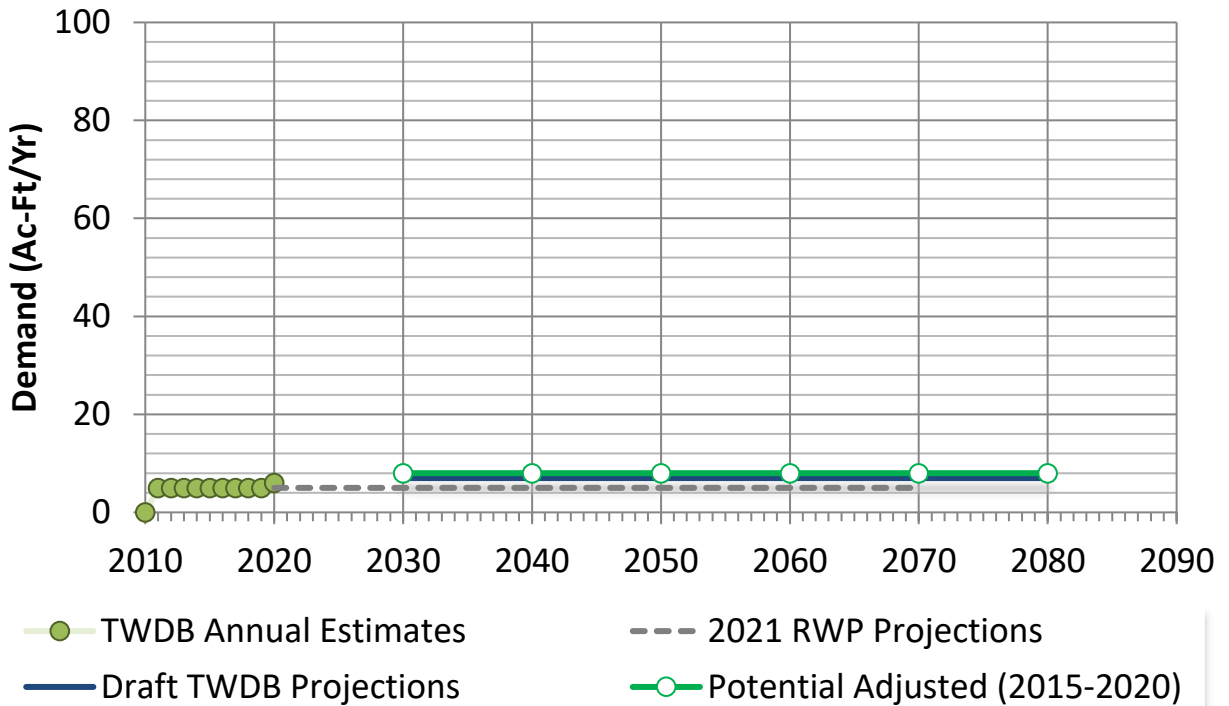
### Madison County Manufacturing Demand Projections



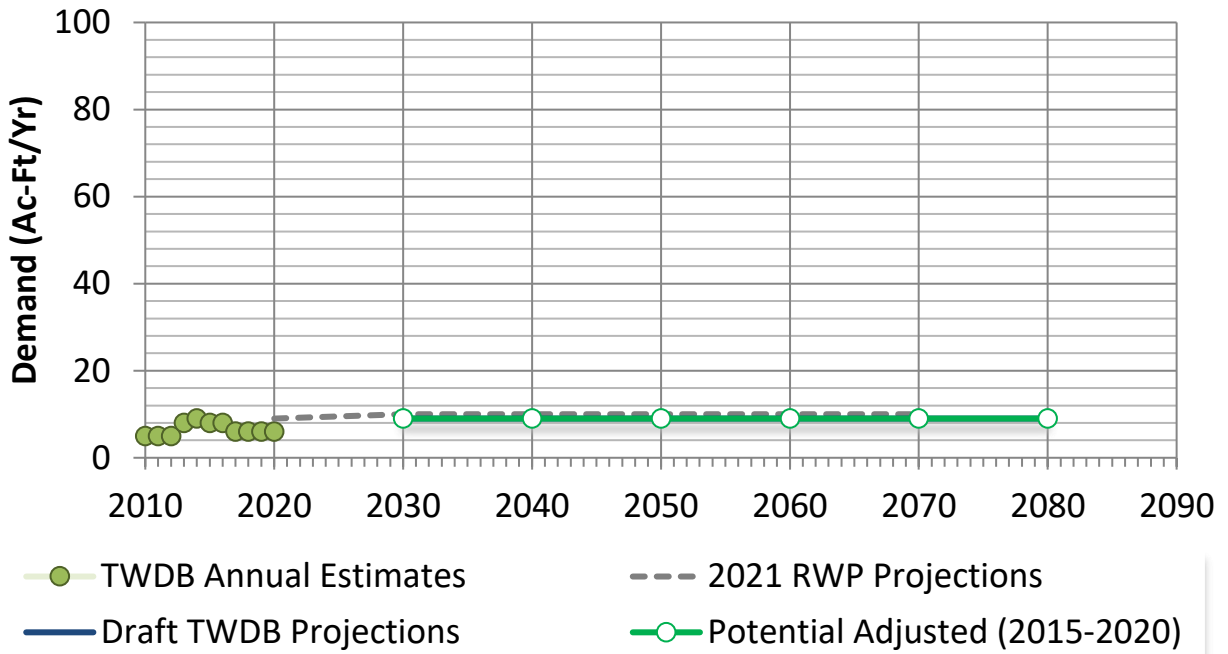
### Montgomery County Manufacturing Demand Projections



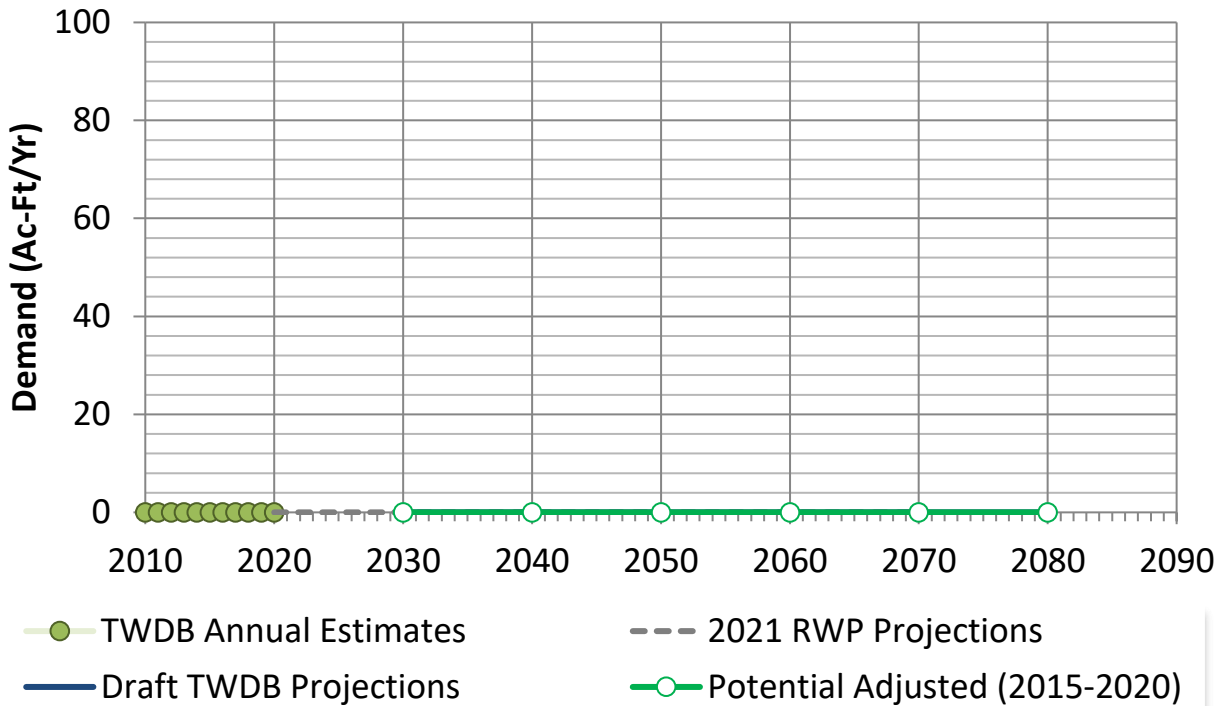
### Polk County Manufacturing Demand Projections



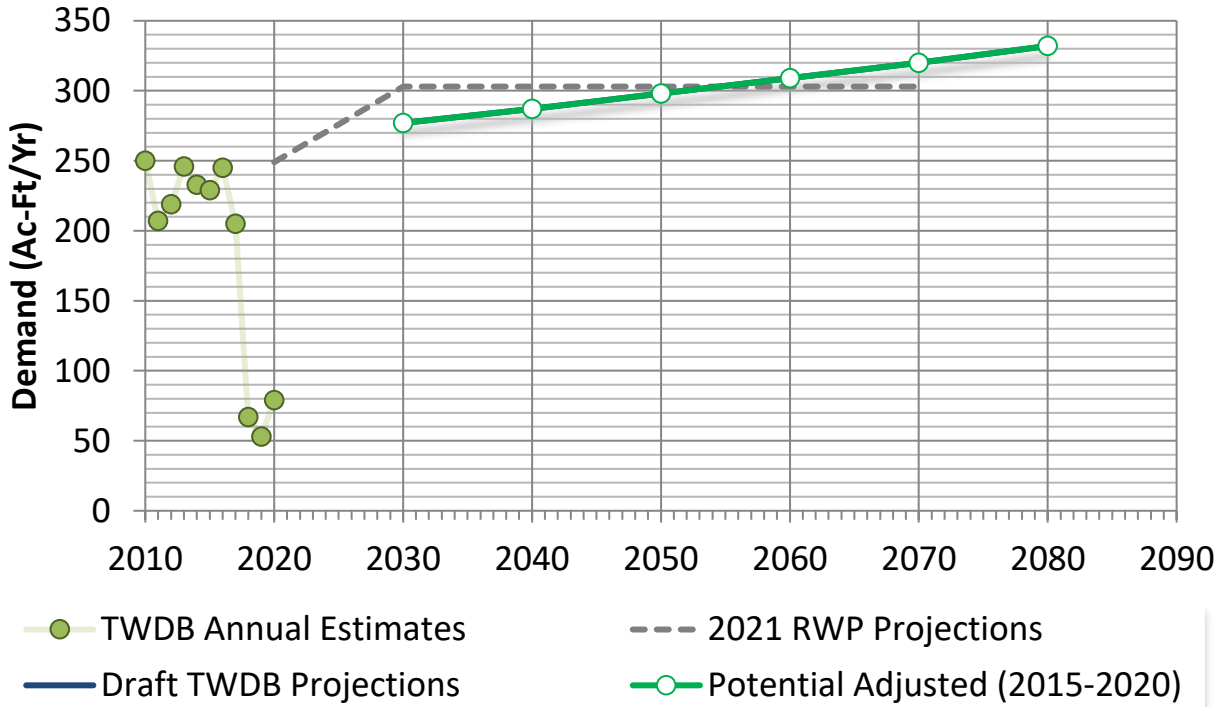
## San Jacinto County Manufacturing Demand Projections



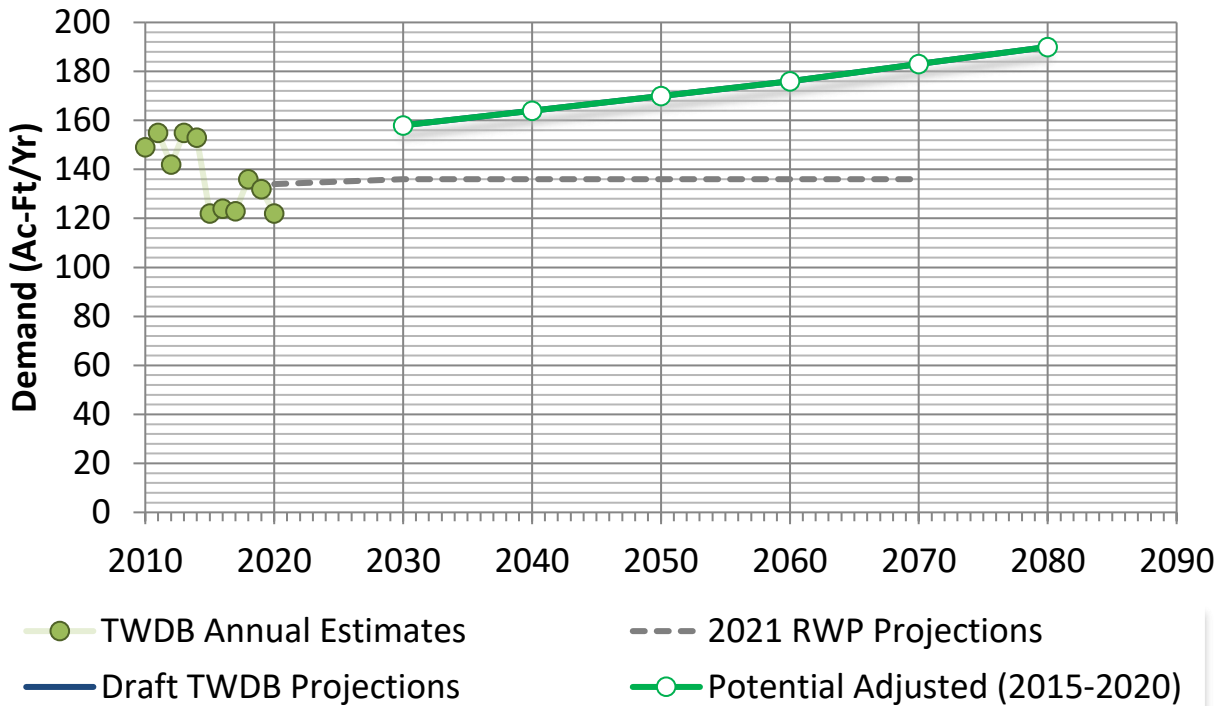
## Trinity County Manufacturing Demand Projections



### Walker County Manufacturing Demand Projections



### Waller County Manufacturing Demand Projections

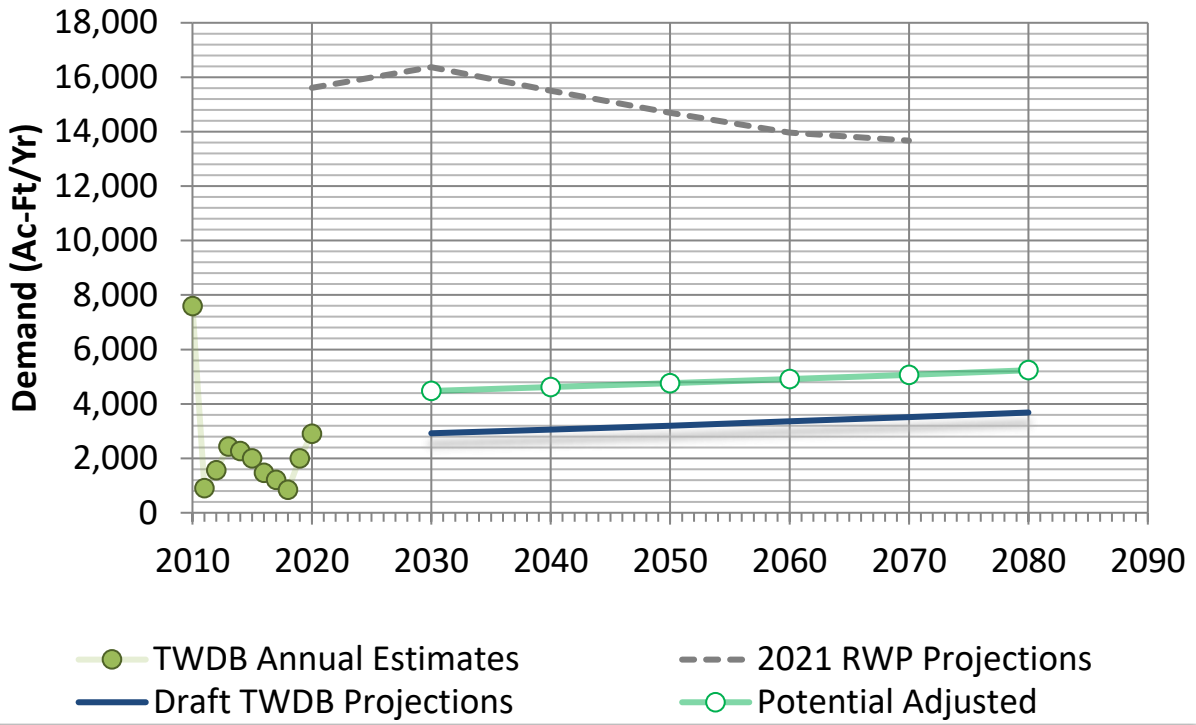




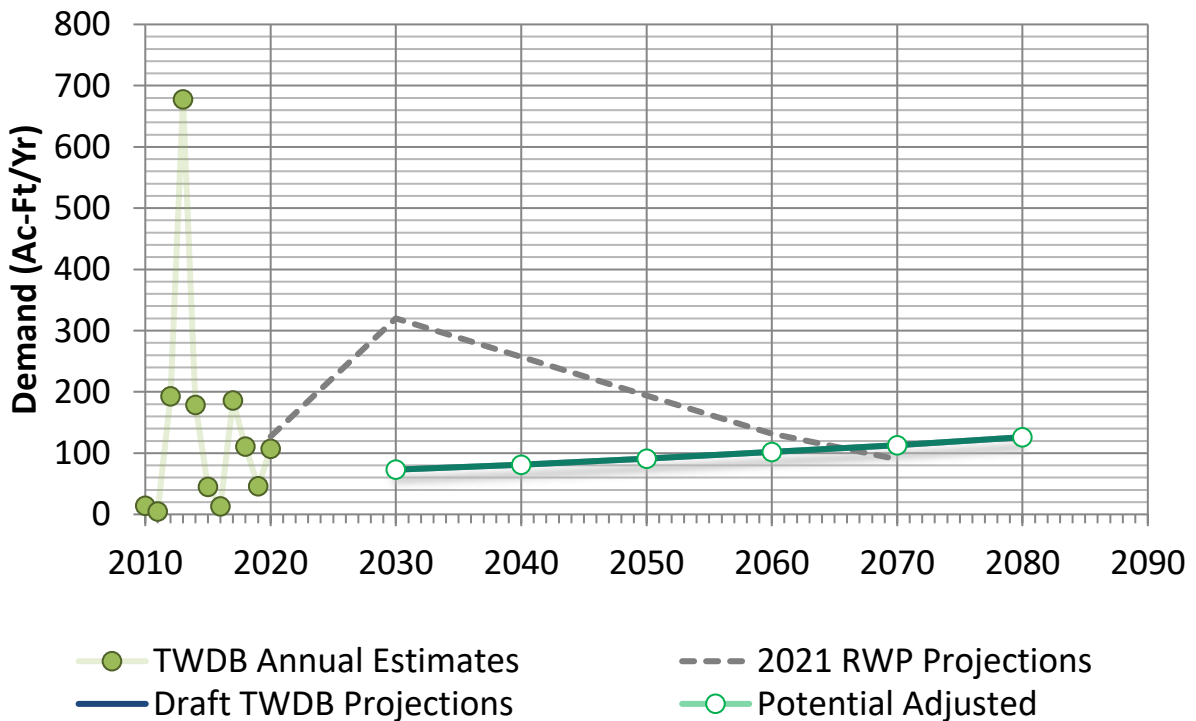
Draft 2026 RWP  
Mining Water Demand  
Projections for Region H



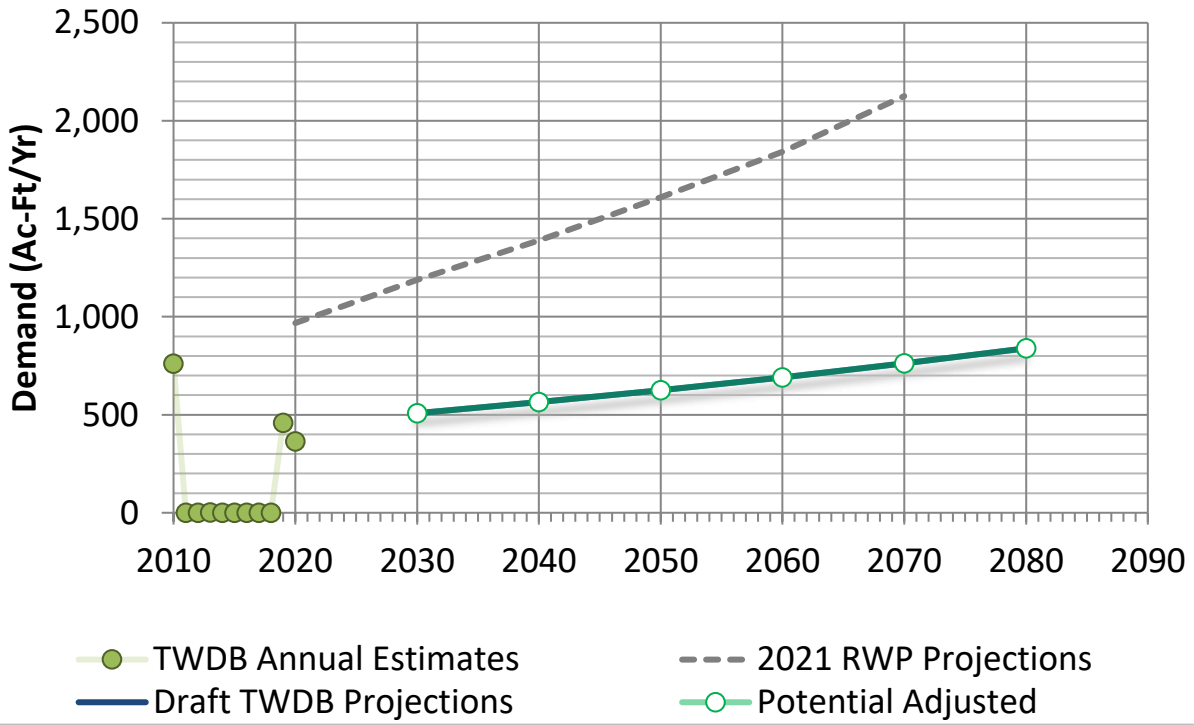
### Region H Mining Demand Projections



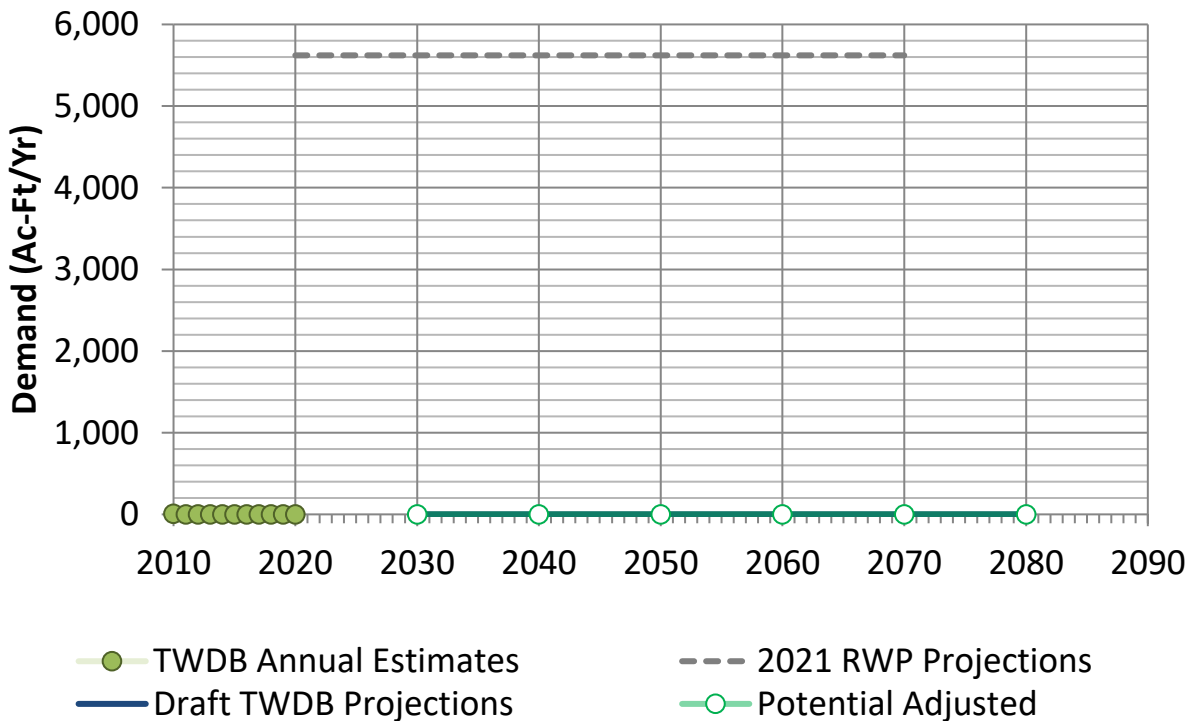
### Austin County Mining Demand Projections



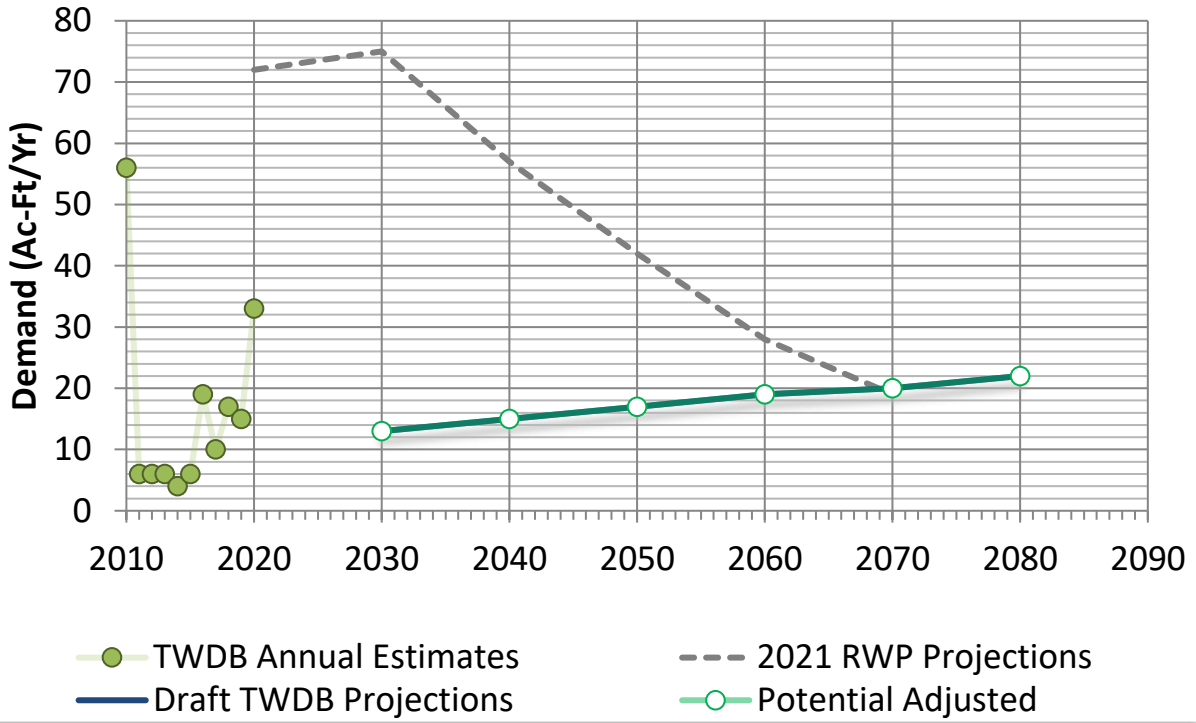
### Brazoria County Mining Demand Projections



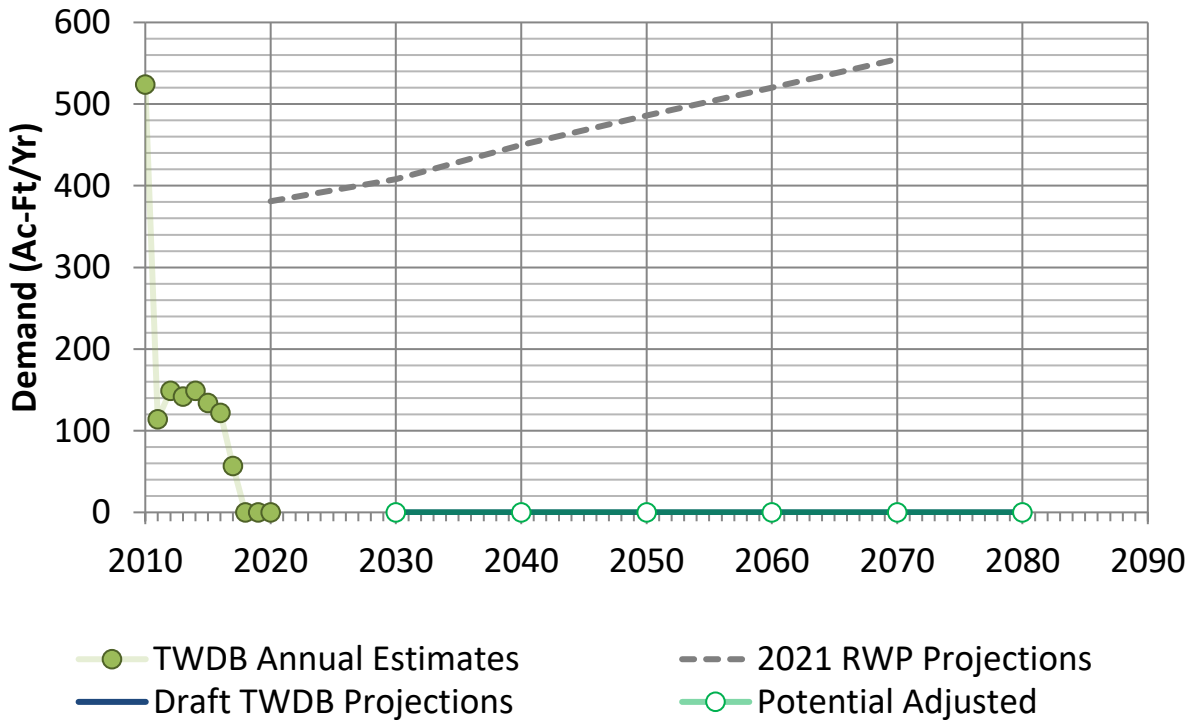
### Chambers County Mining Demand Projections



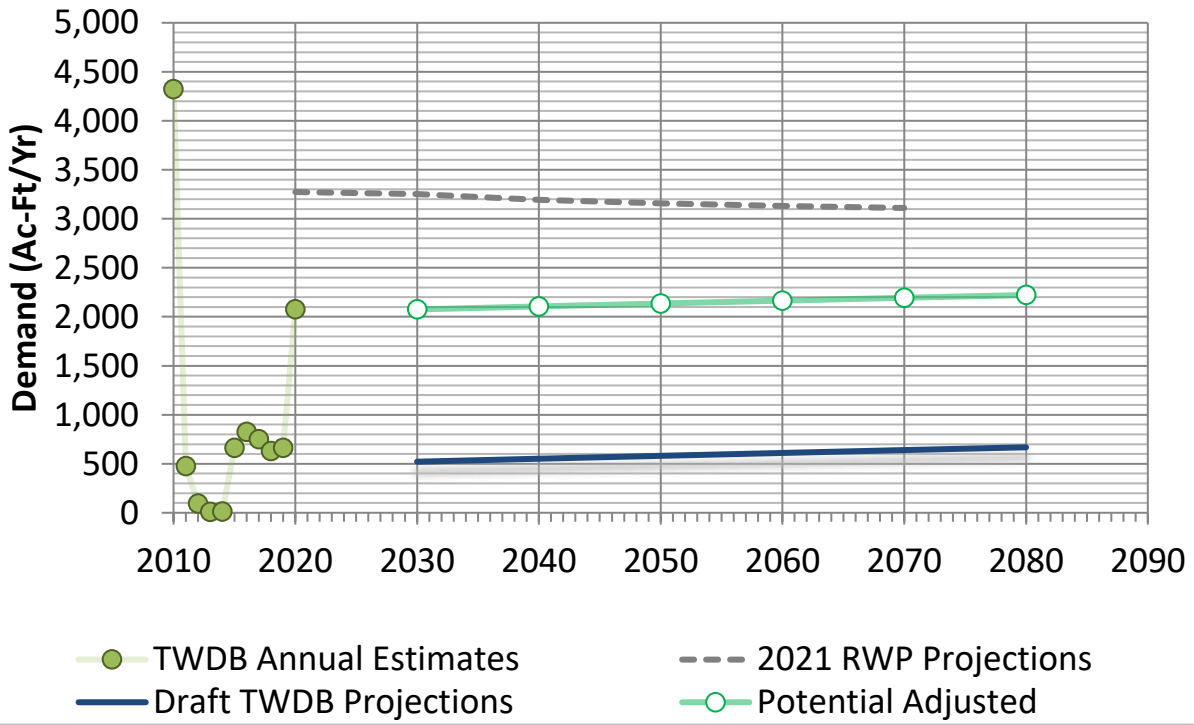
### Fort Bend County Mining Demand Projections



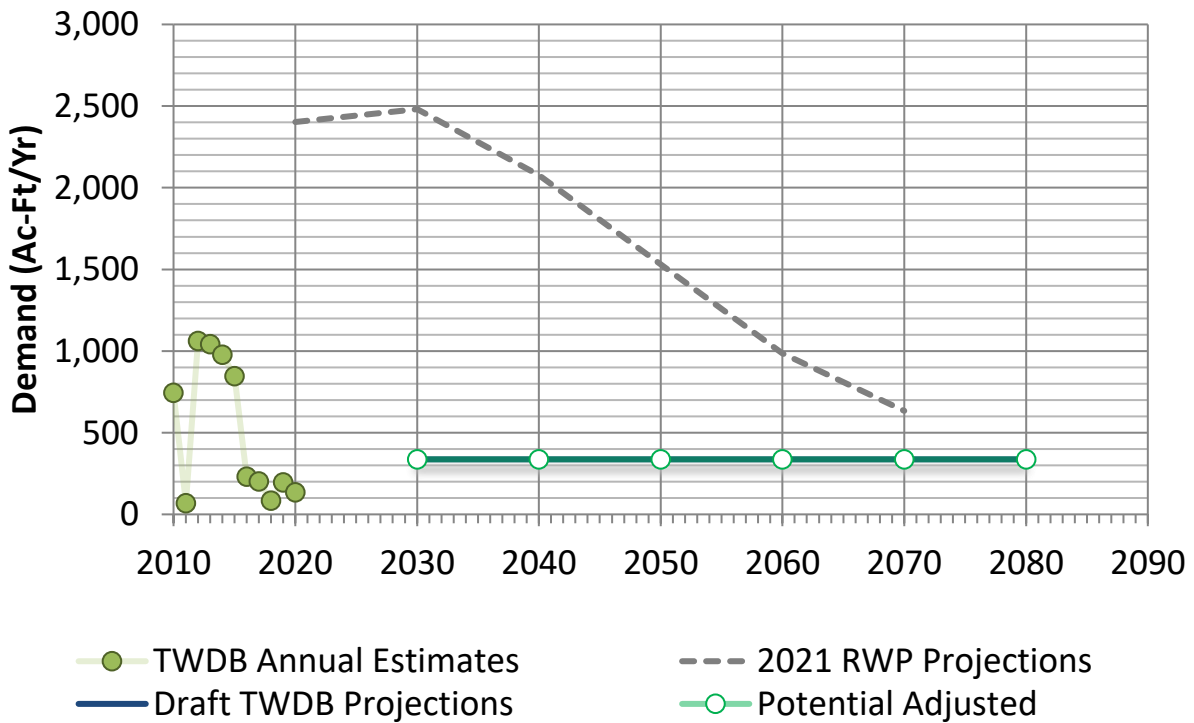
### Galveston County Mining Demand Projections



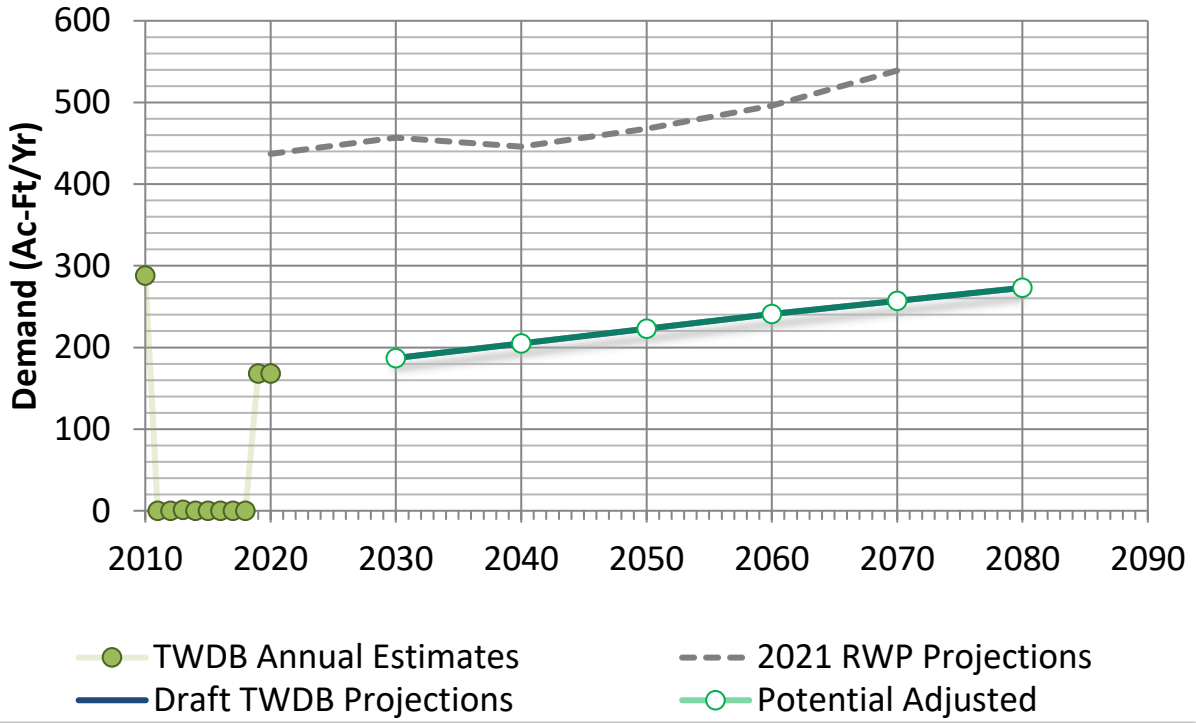
### Harris County Mining Demand Projections



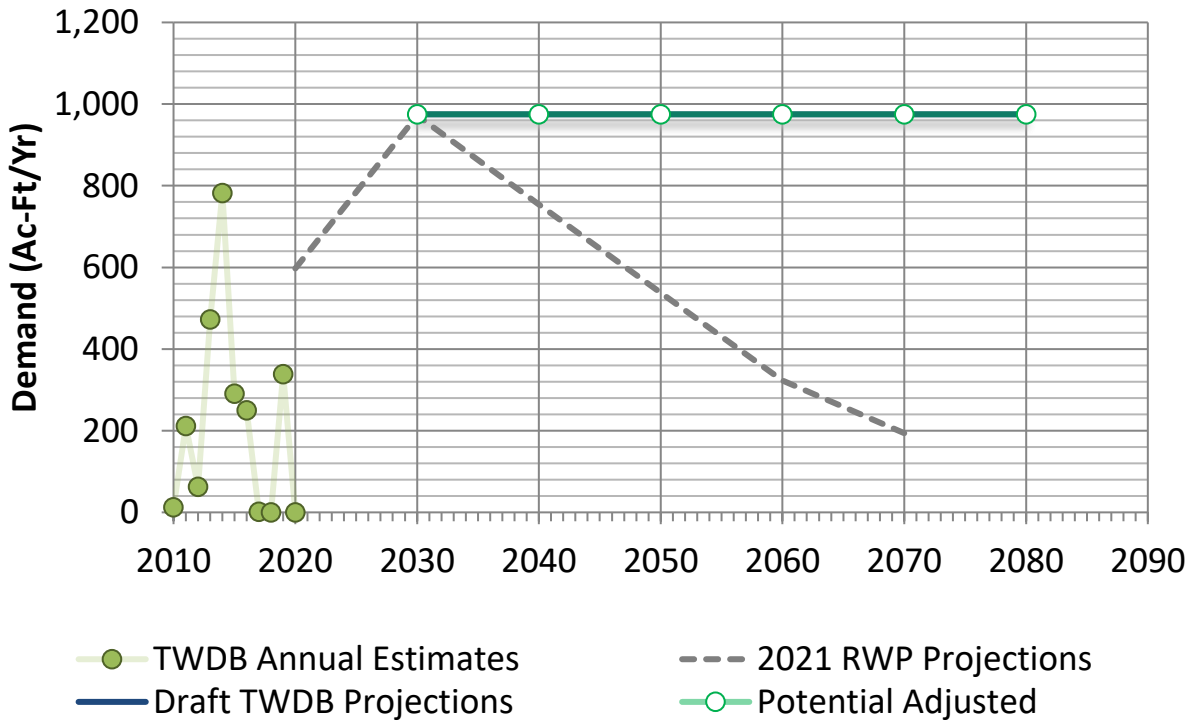
### Leon County Mining Demand Projections



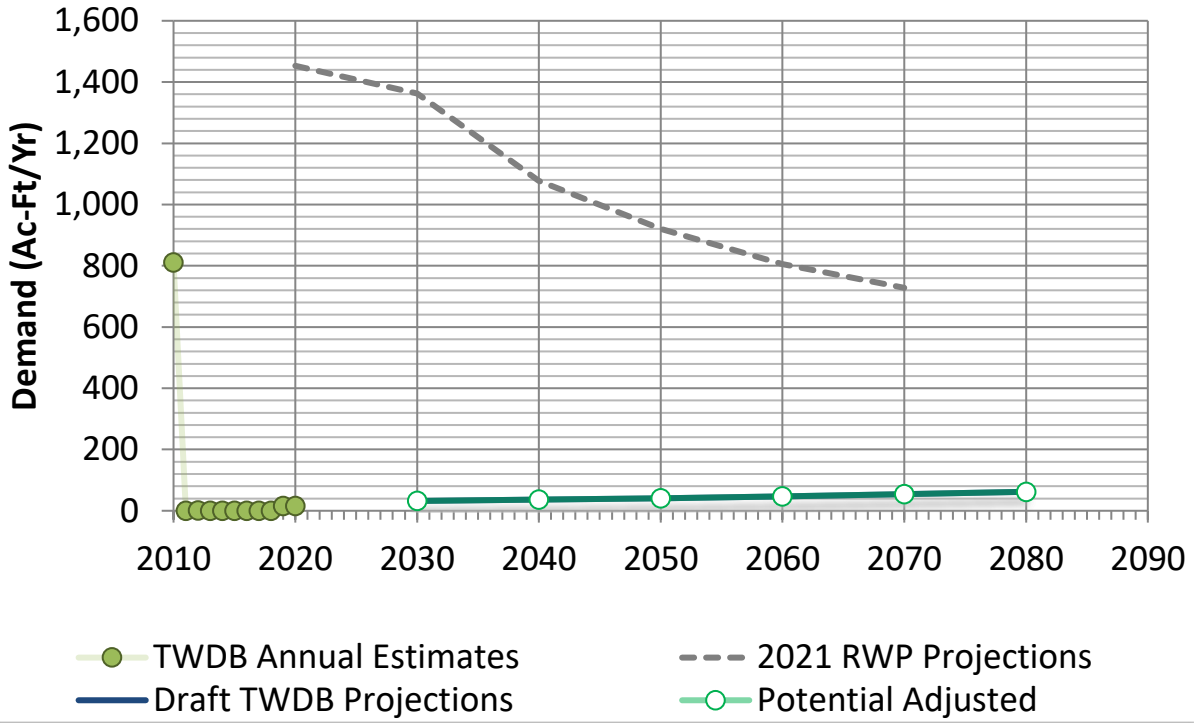
### Liberty County Mining Demand Projections



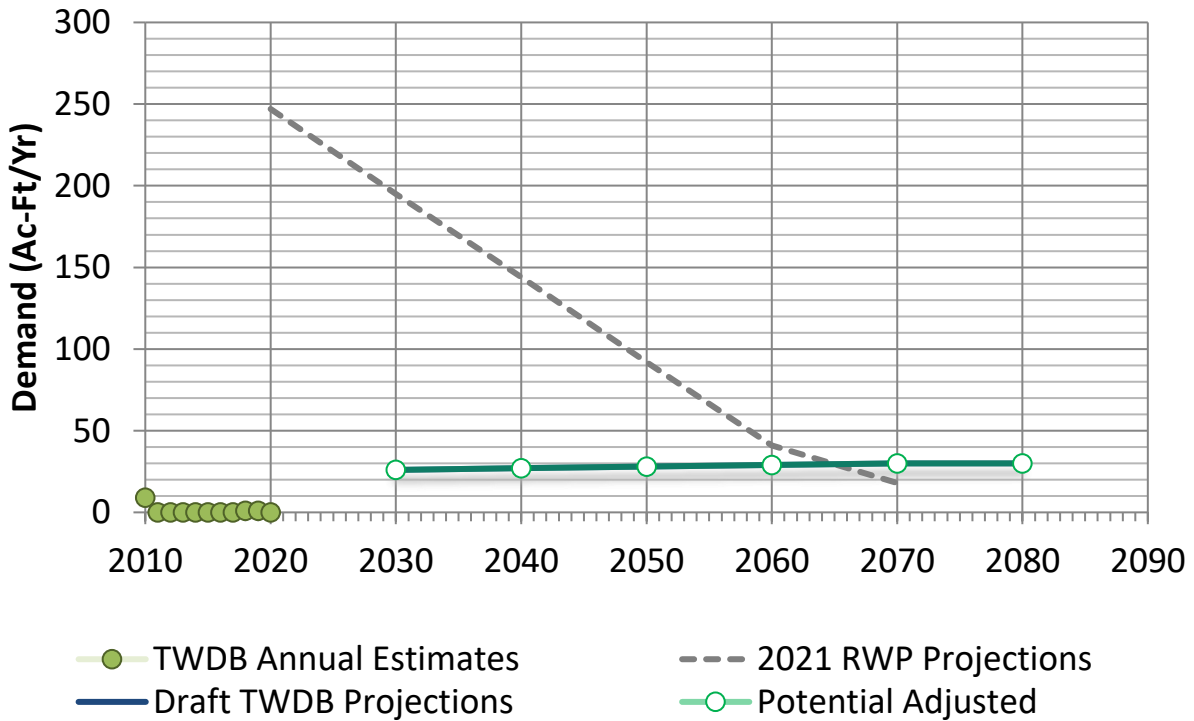
### Madison County Mining Demand Projections



### Montgomery County Mining Demand Projections

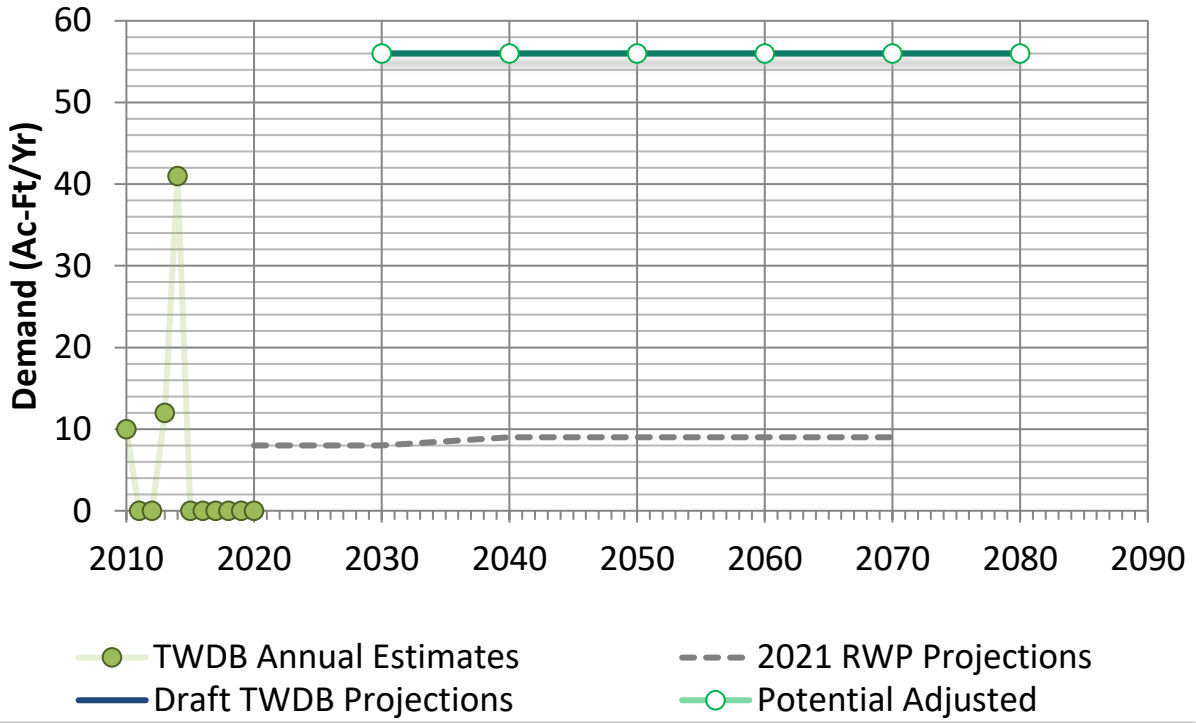


### Polk County Mining Demand Projections

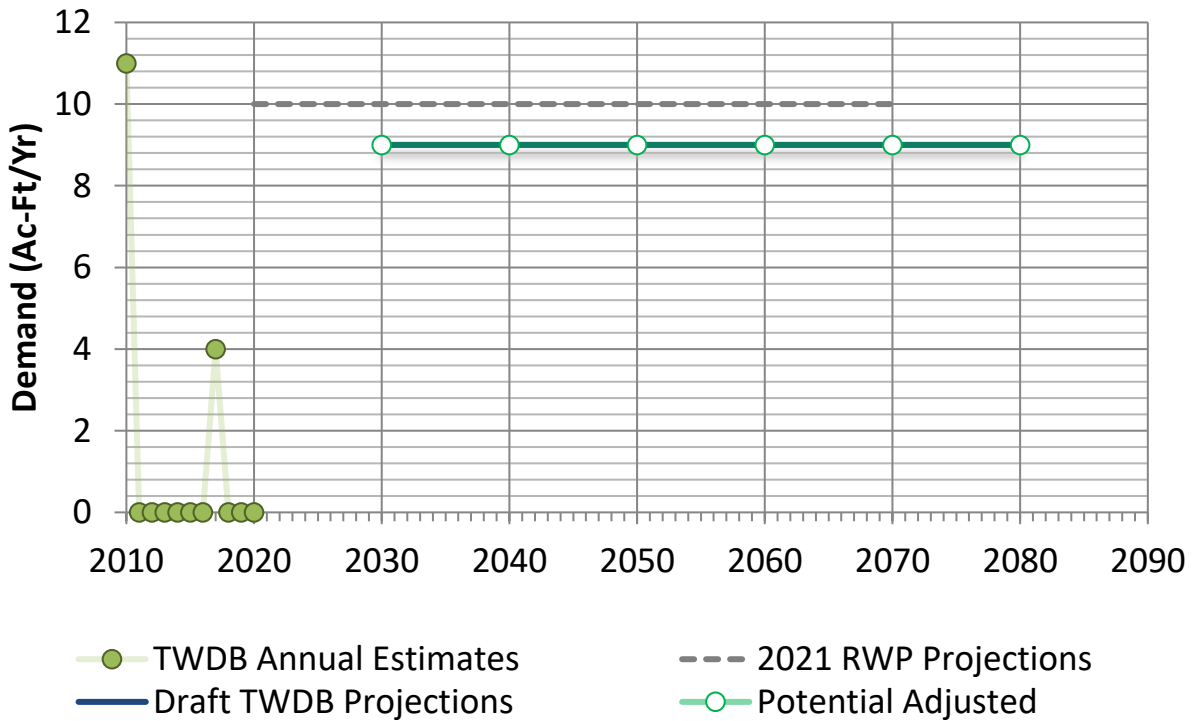




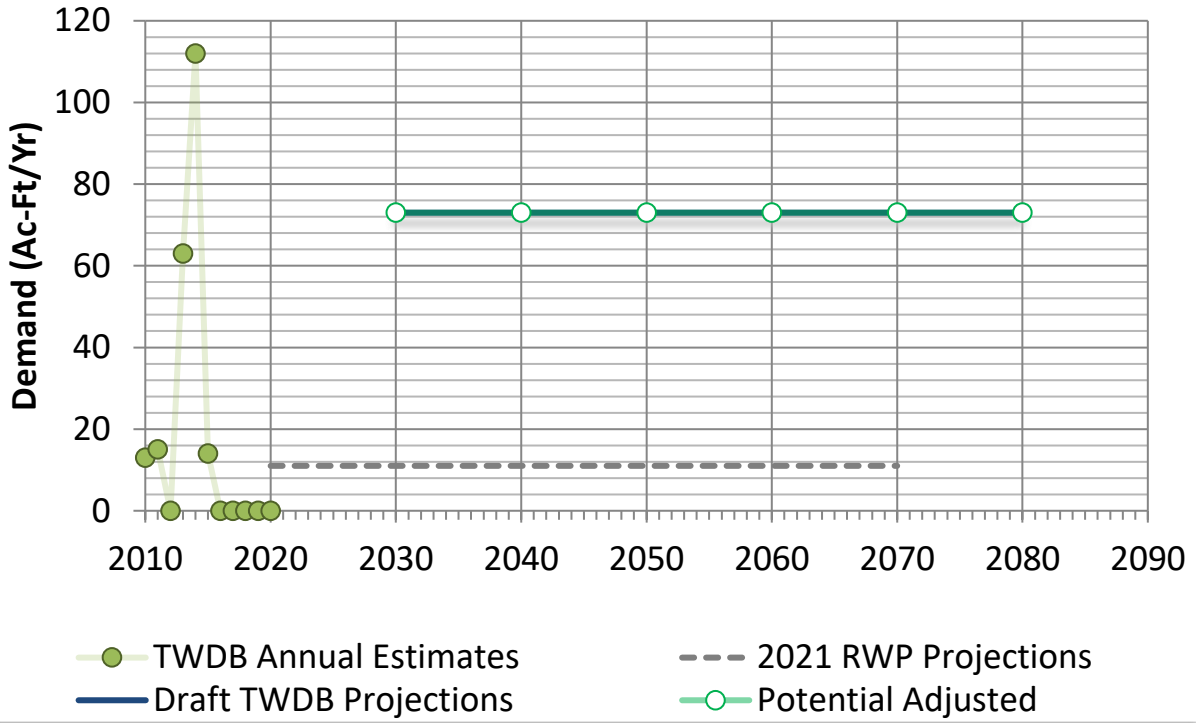
### San Jacinto County Mining Demand Projections



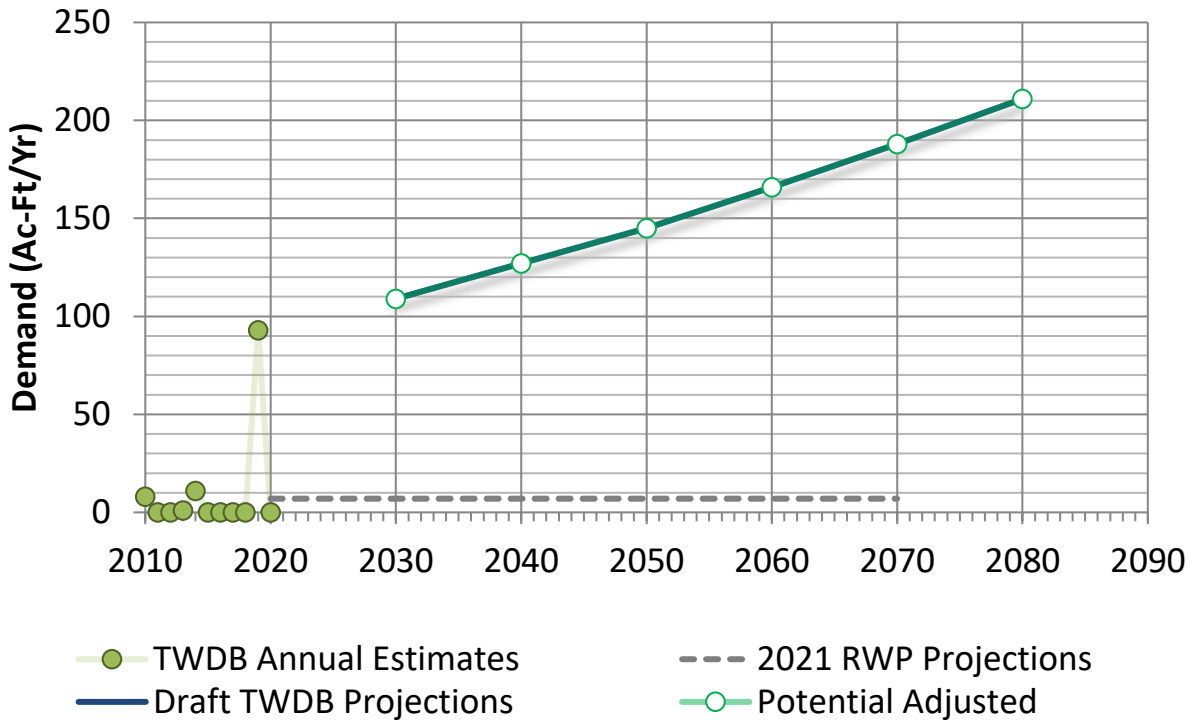
### Trinity County Mining Demand Projections



### Walker County Mining Demand Projections



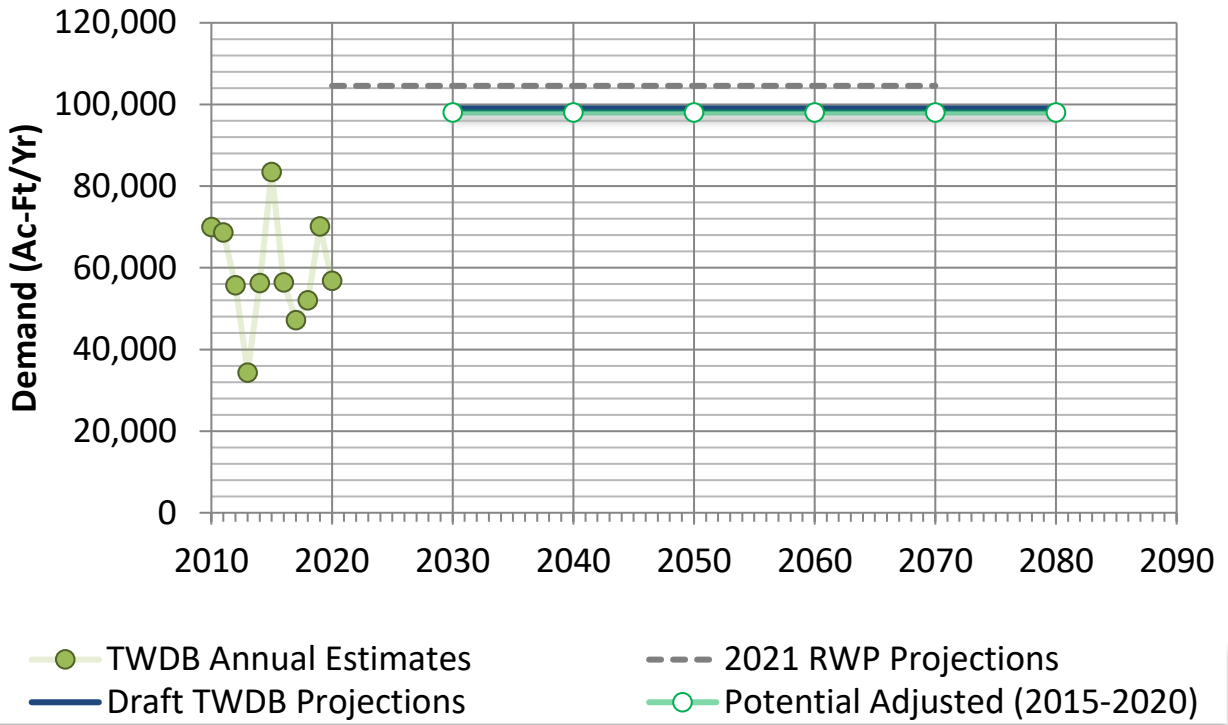
### Waller County Mining Demand Projections



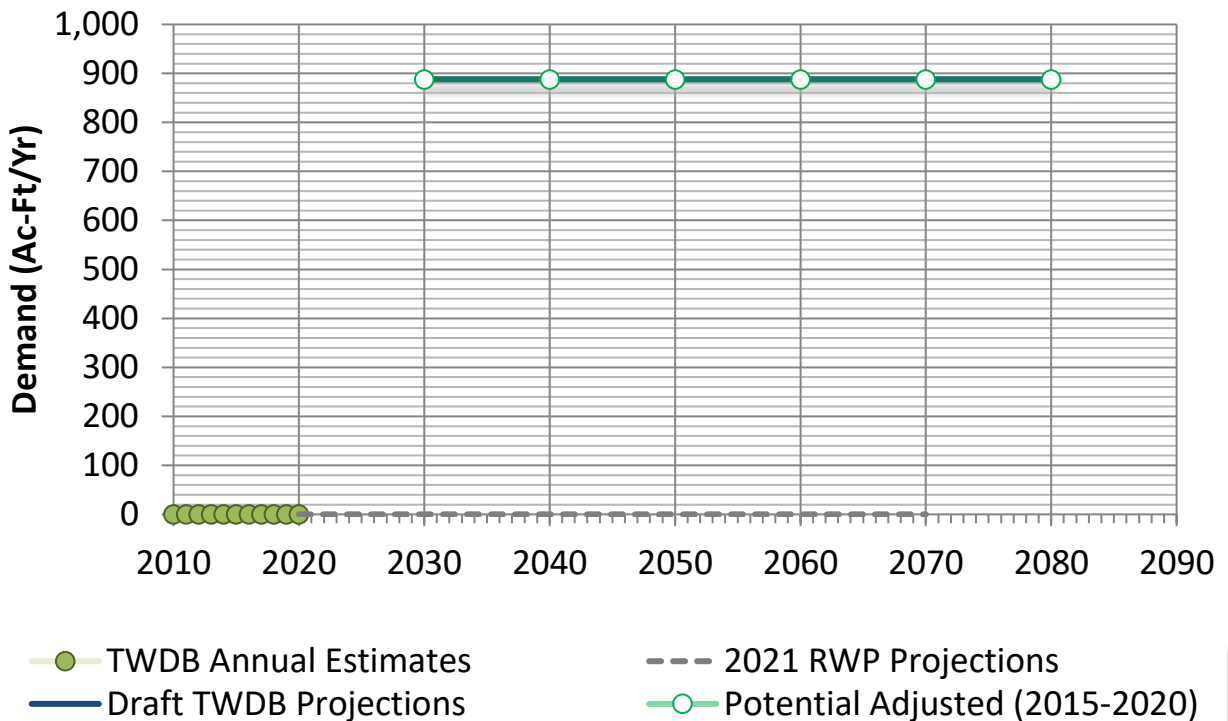
Draft 2026 RWP  
Steam Electric Power Water Demand  
Projections for Region H



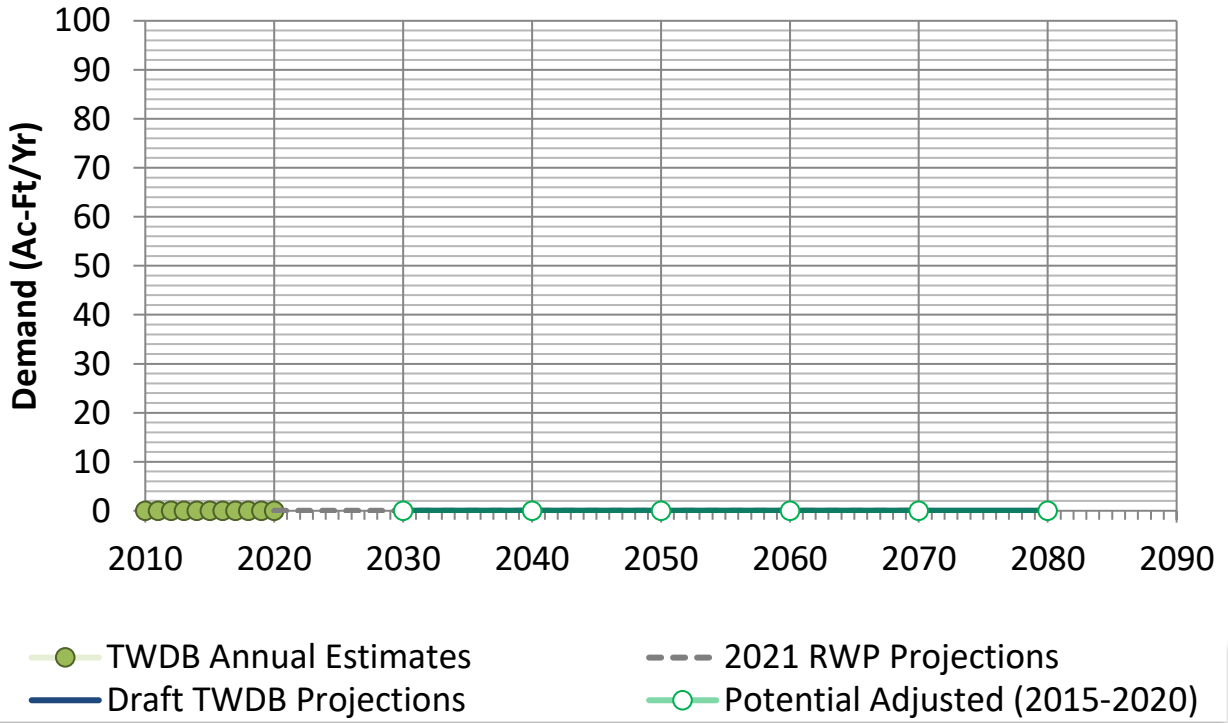
### Region H Steam Electric Demand Projections



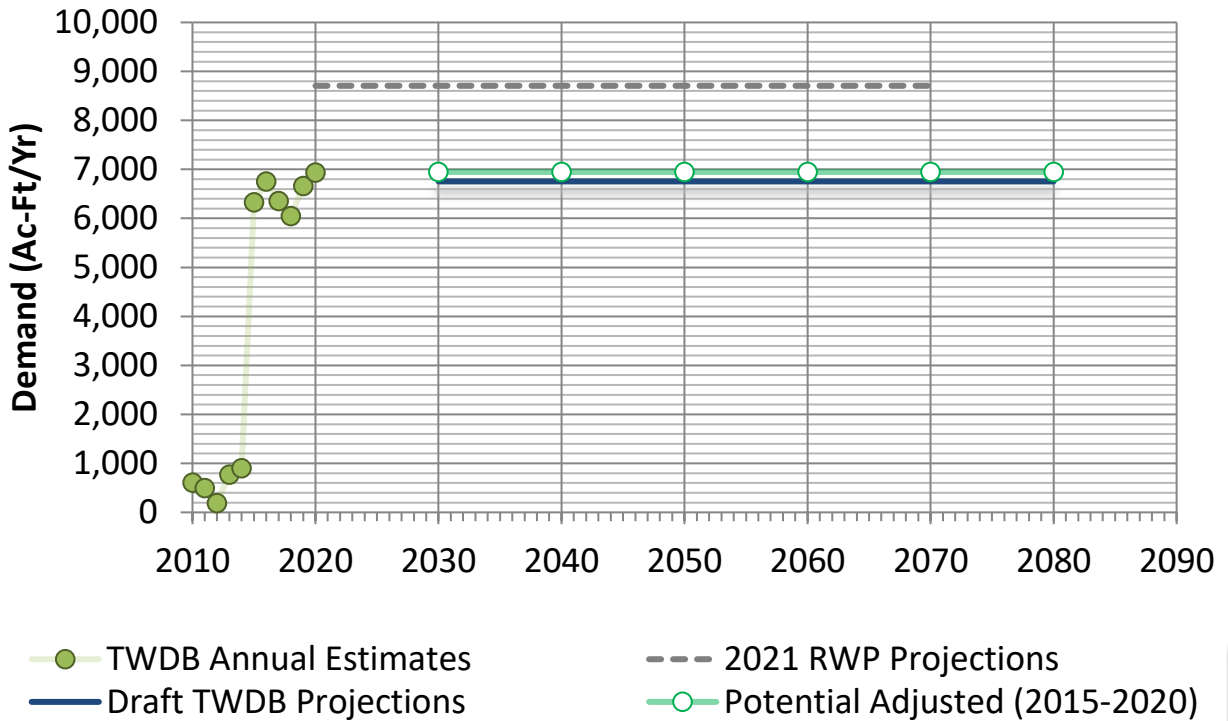
### Austin County Steam Electric Demand Projections



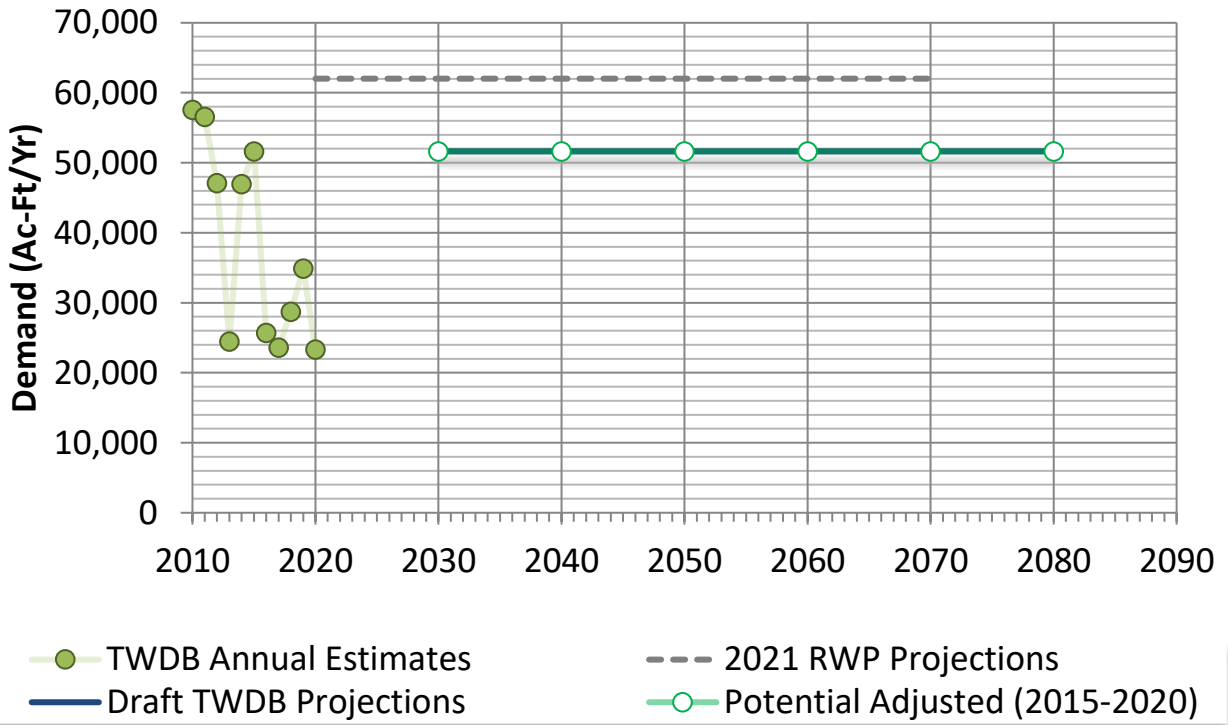
### Brazoria County Steam Electric Demand Projections



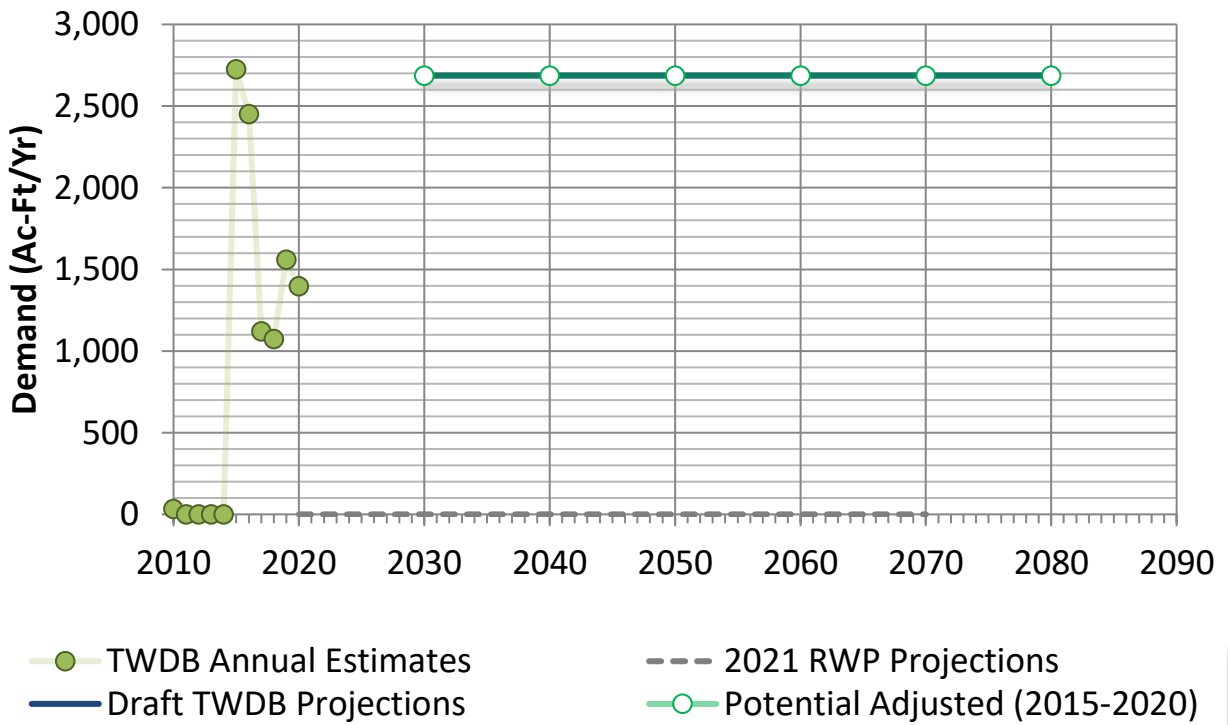
### Chambers County Steam Electric Demand Projections



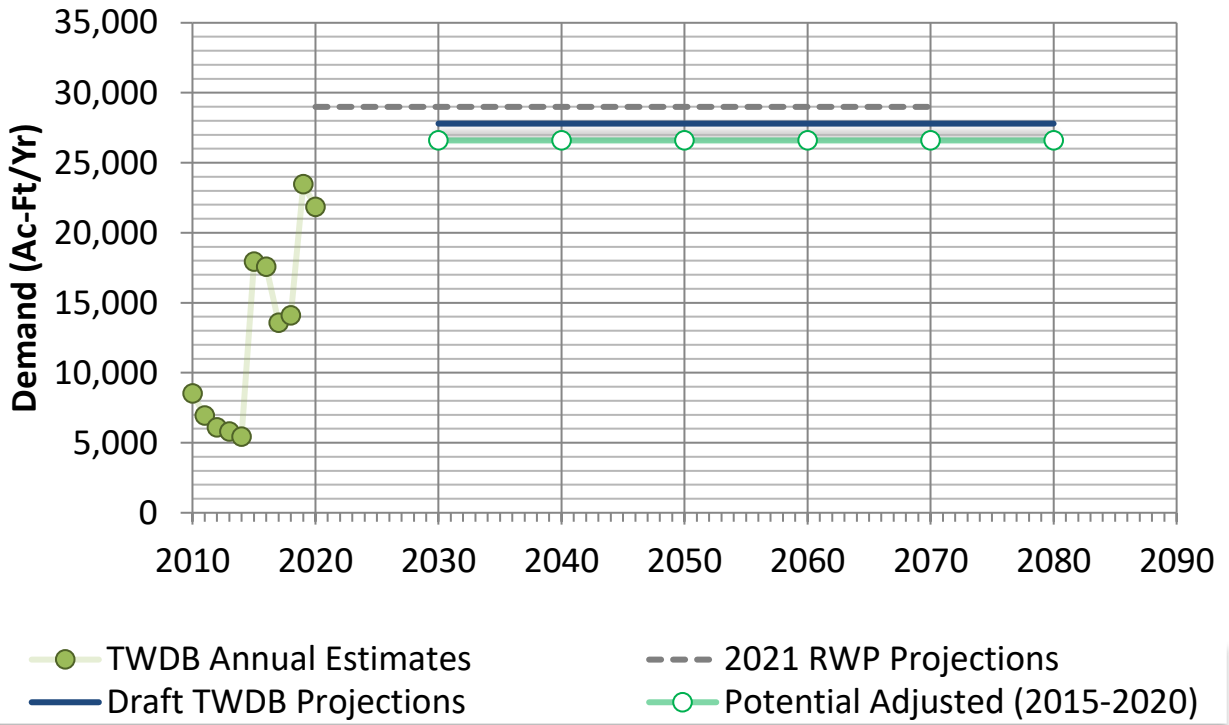
### Fort Bend County Steam Electric Demand Projections



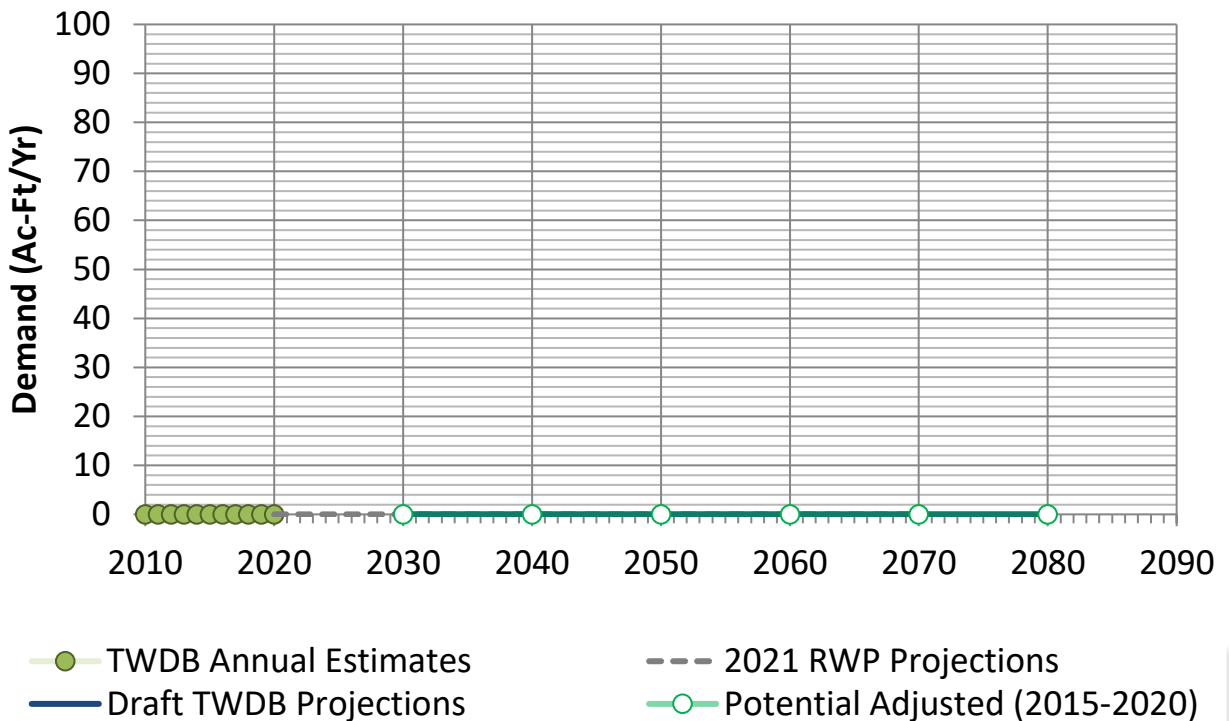
### Galveston County Steam Electric Demand Projections



### Harris County Steam Electric Demand Projections

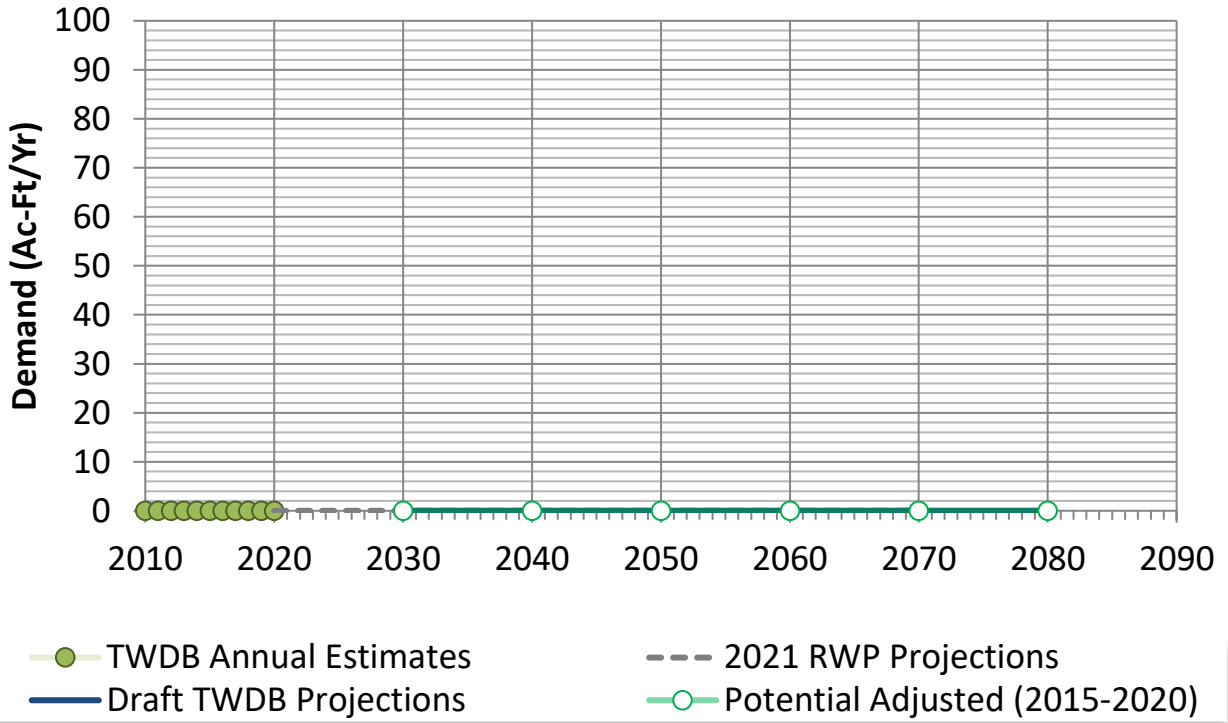


### Leon County Steam Electric Demand Projections

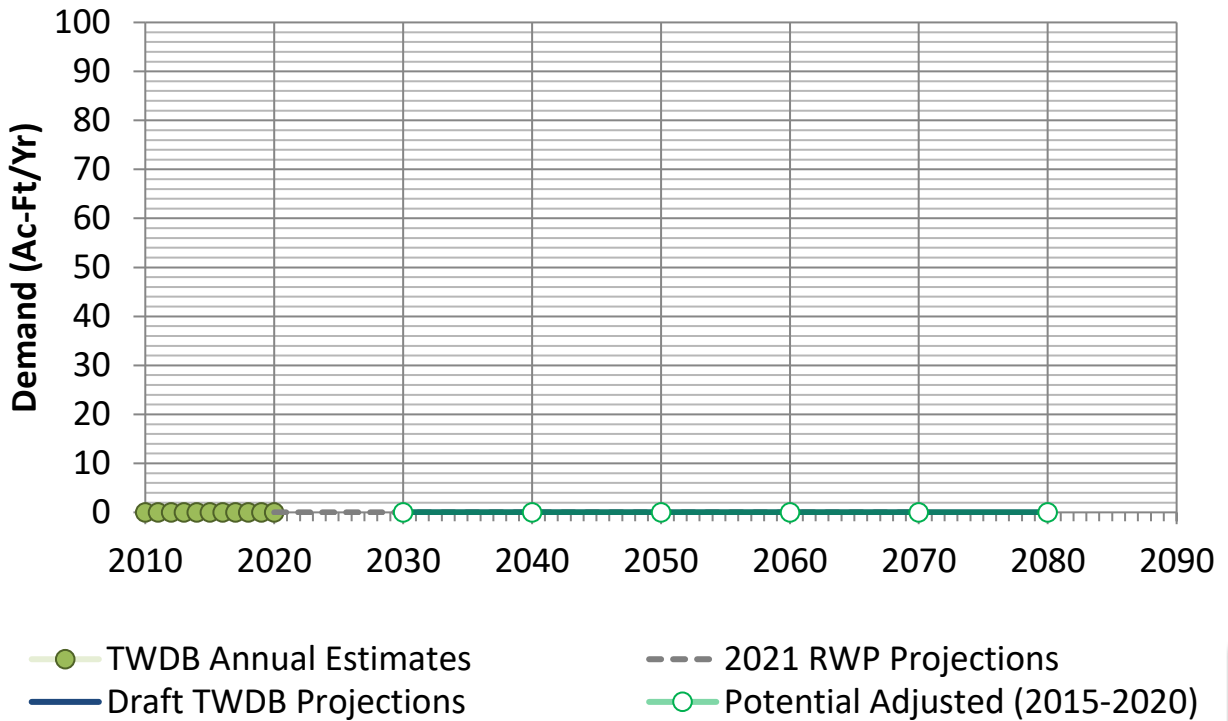




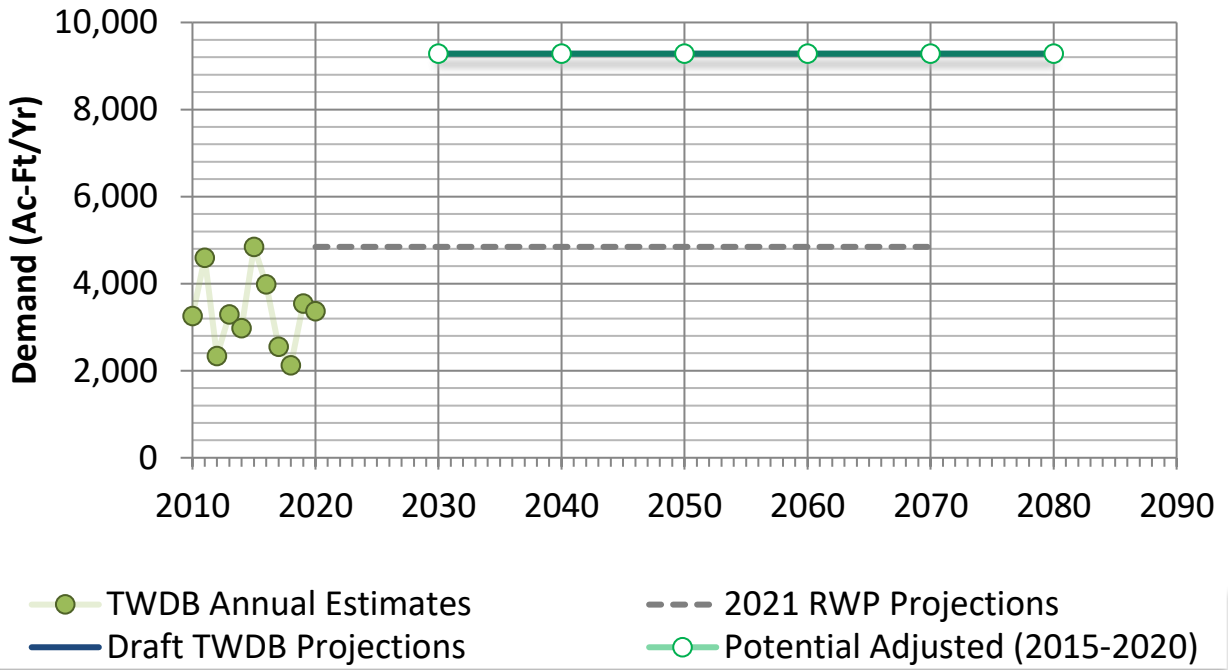
### Liberty County Steam Electric Demand Projections



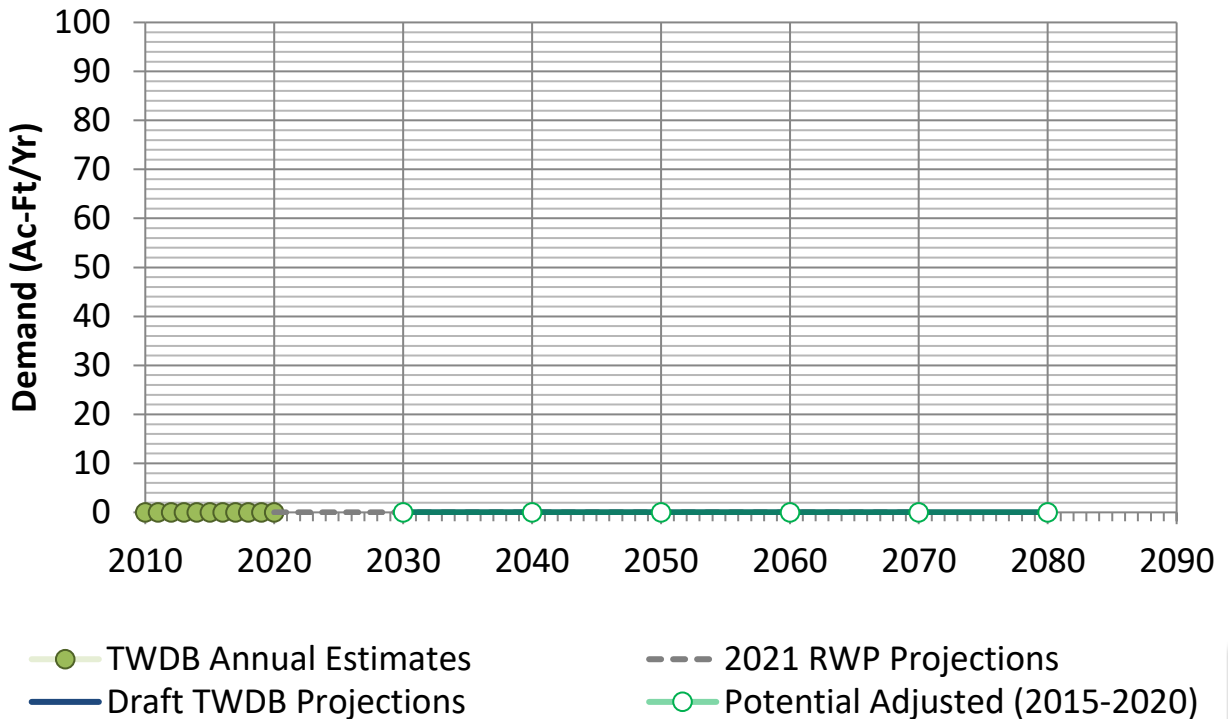
### Madison County Steam Electric Demand Projections



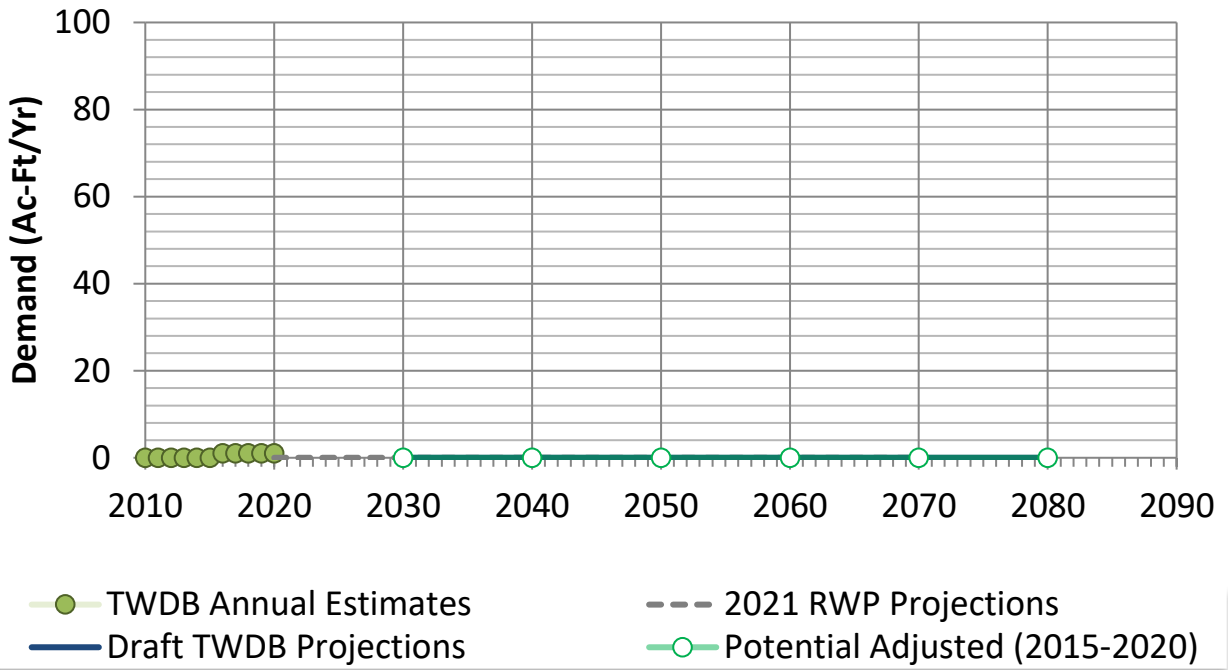
### Montgomery County Steam Electric Demand Projections



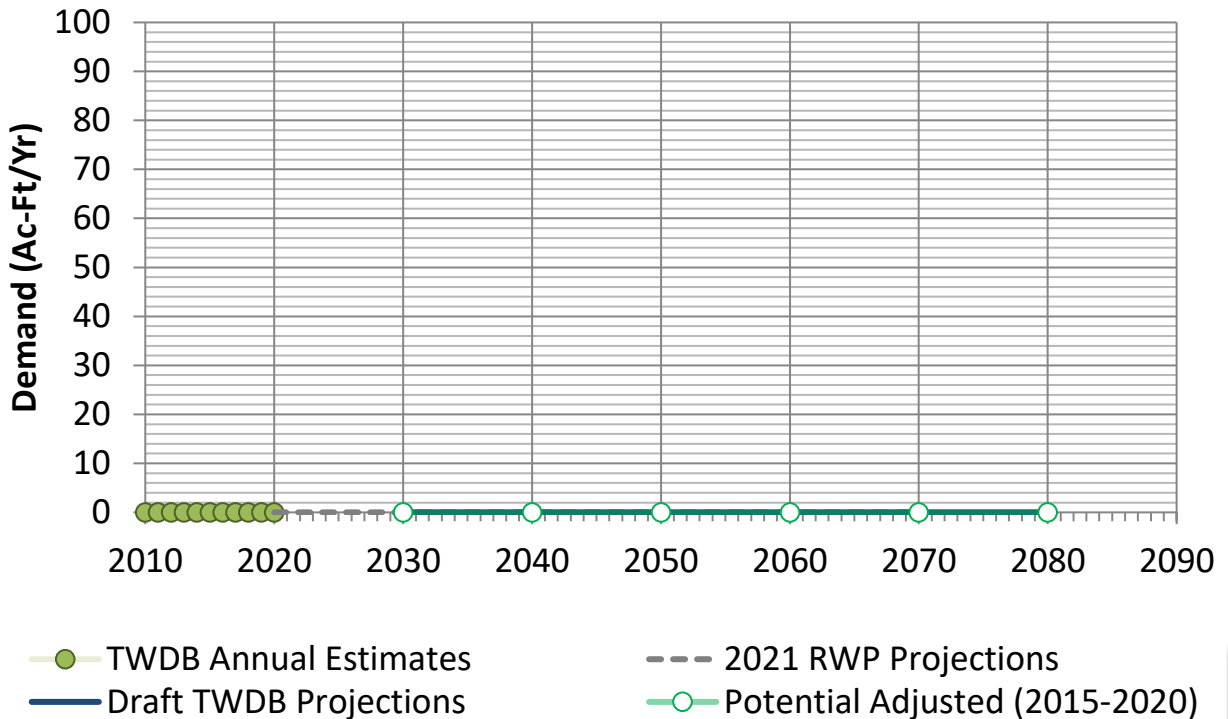
### Polk County Steam Electric Demand Projections



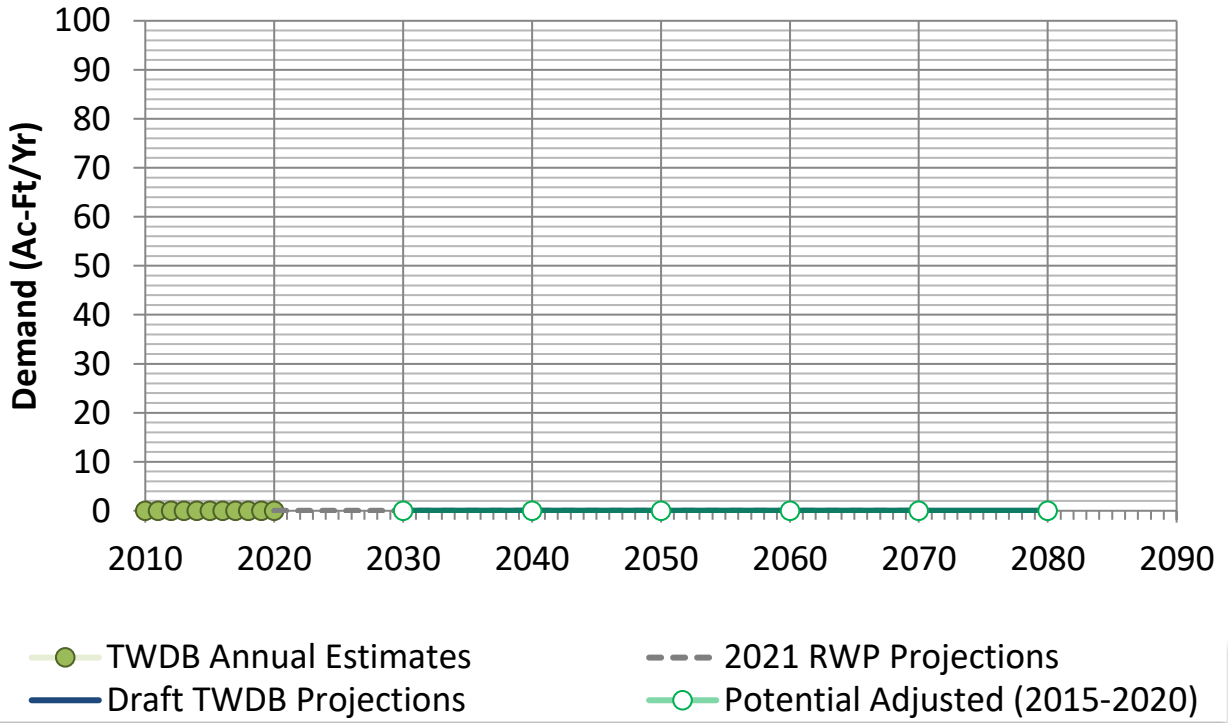
## San Jacinto County Steam Electric Demand Projections



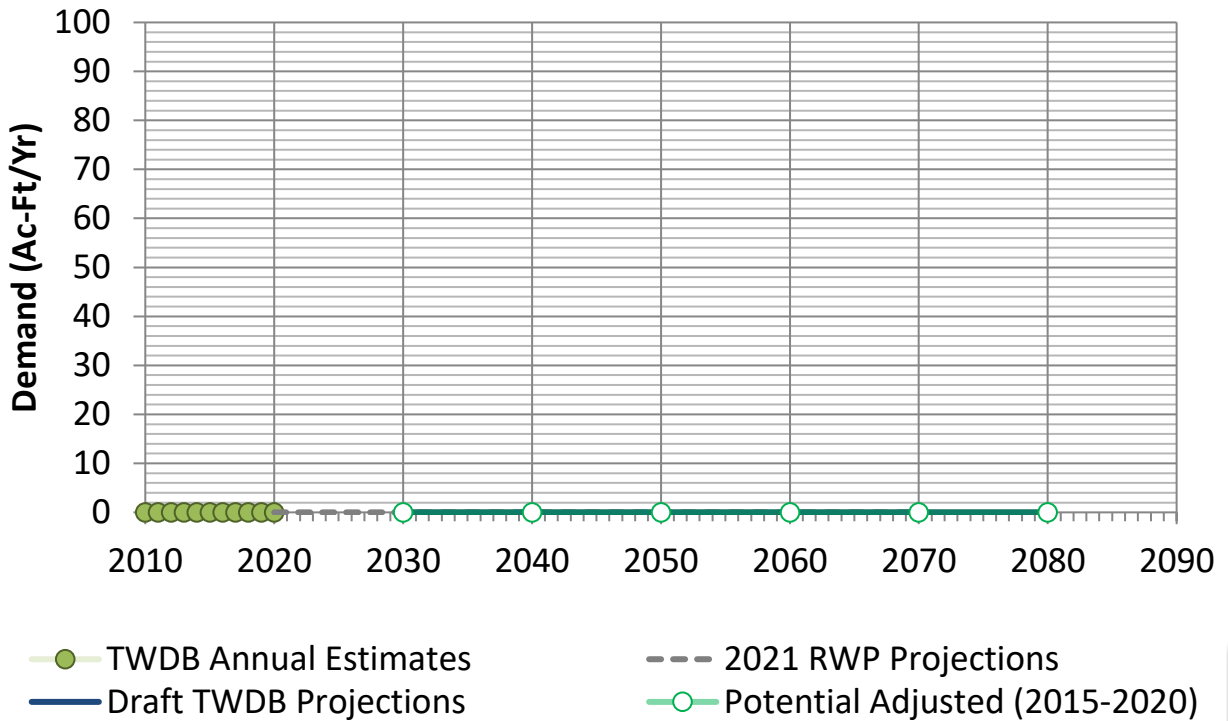
## Trinity County Steam Electric Demand Projections



### Walker County Steam Electric Demand Projections



### Waller County Steam Electric Demand Projections



## Agenda Item 6b

Receive update from Consultant Team and Population Demands Committee regarding recommended revisions to draft TWDB projections for the 2026 Region H RWP and consider approving submittal to TWDB.



## Agenda Item 6b Population Water Demand

### TWDB Projection Process

- All 15 Region H counties
- Consistent methodology for State
- 0.5 or 1.0 migration scenario

### JRPR Projection Process

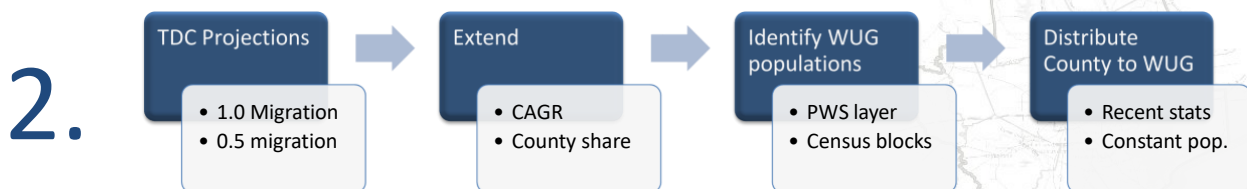
- Nine Region H counties
- Area-specific considerations
- Employment based

### Committee Recommendations

- Use JRPR populations where available
- Utilize TWDB projections in remaining counties
- For select counties, use 0.5 migration projection

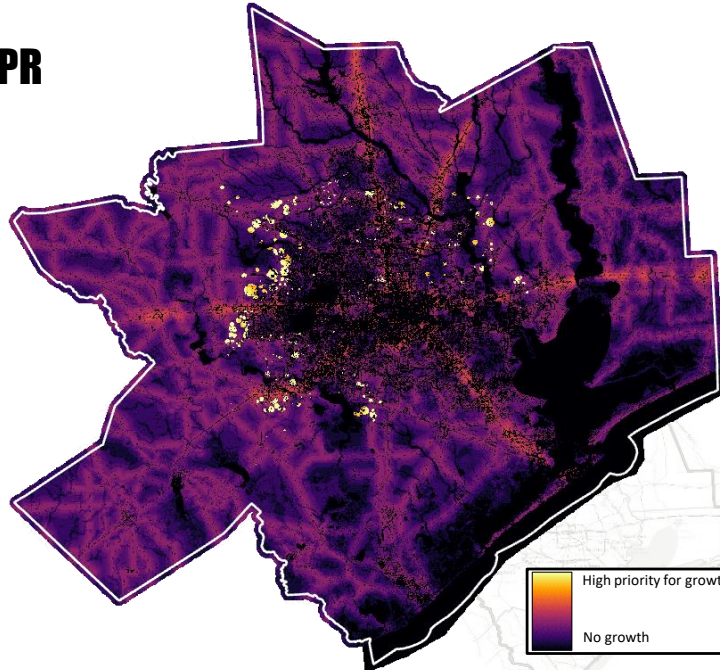
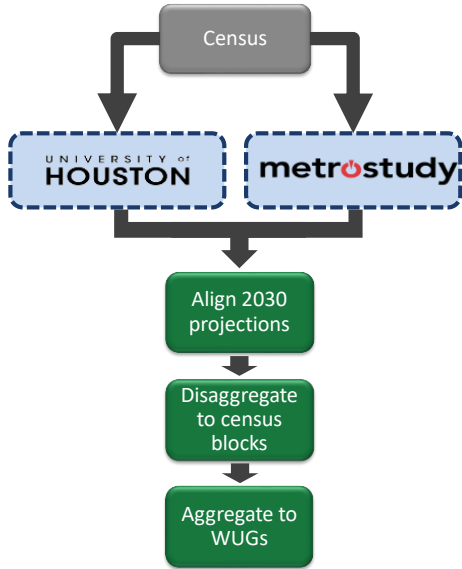
Freese and Nichols, Inc. | INTERA Inc.

## Agenda Item 6b Population Water Demand: TWDB



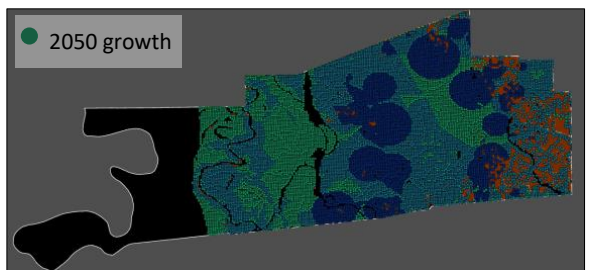
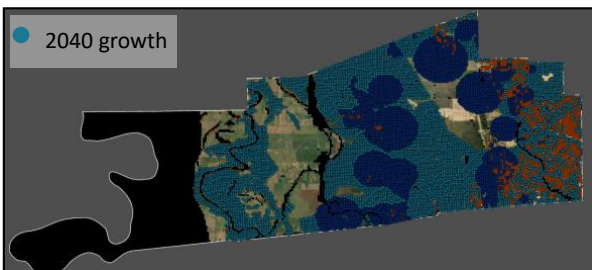
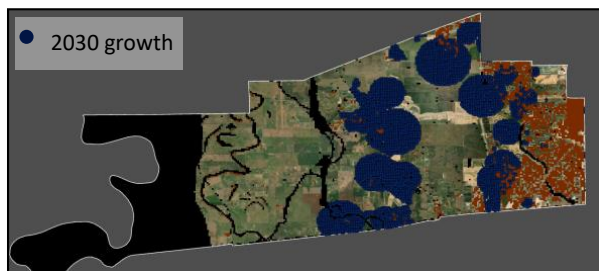
Freese and Nichols, Inc. | INTERA Inc.

# Agenda Item 6b Population Water Demand: JRPR



Freese and Nichols, Inc. | INTERA Inc.

# Agenda Item 6b Population Water Demand: JRPR

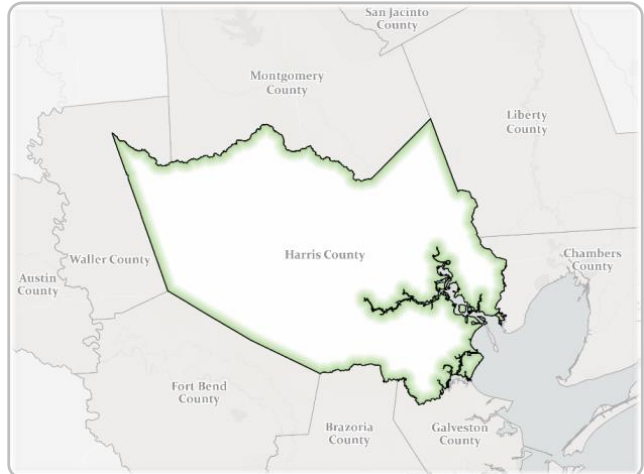
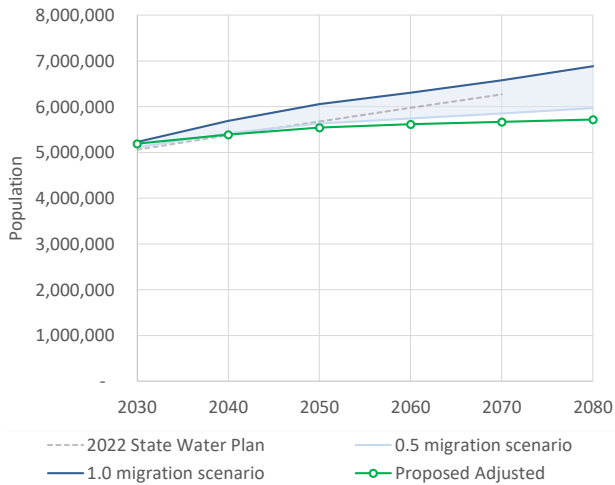


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# Agenda Item 6b Population Water Demand

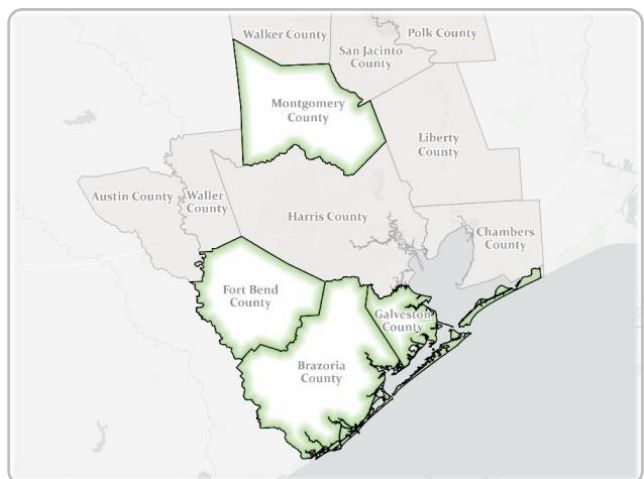
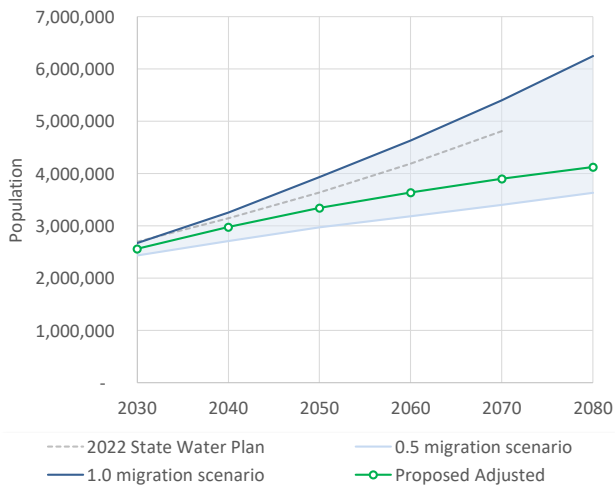
## Urbanized Center



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# Agenda Item 6b Population Water Demand

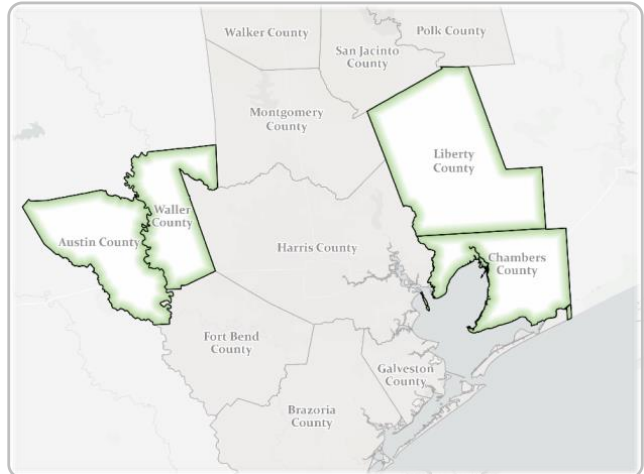
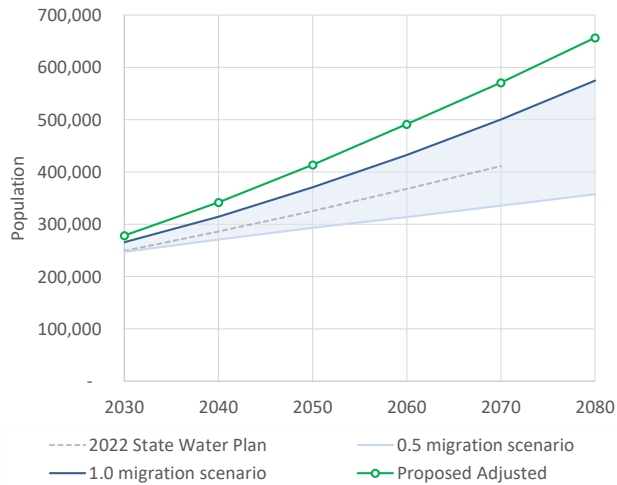
## Suburban Counties



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# Agenda Item 6b Population Water Demand

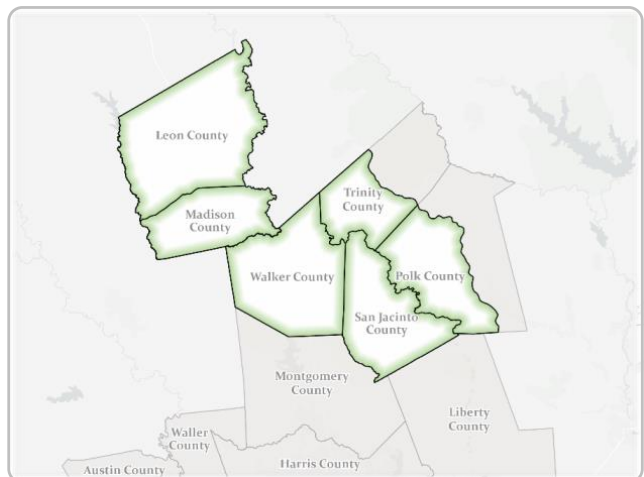
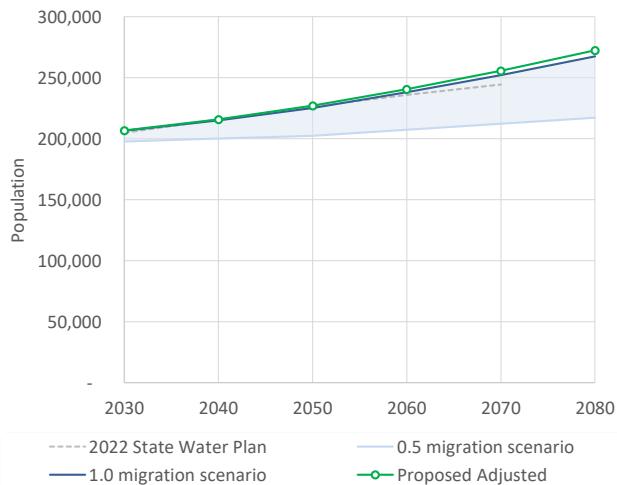
## New Suburban Development



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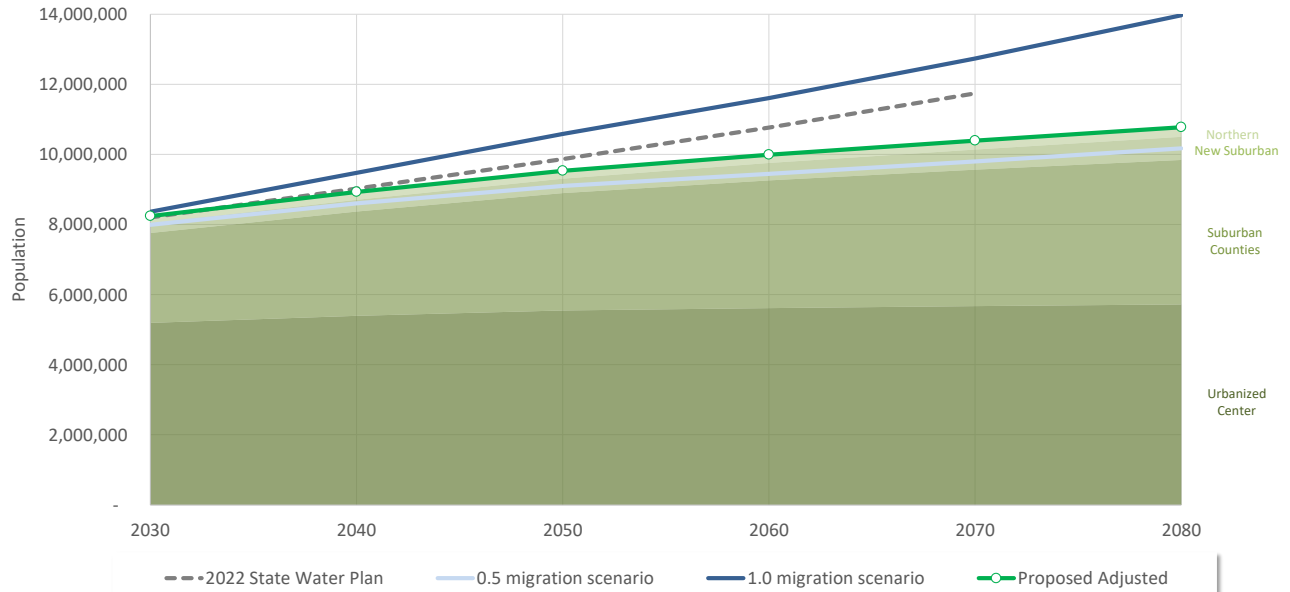
# Agenda Item 6b Population Water Demand

## Northern Counties



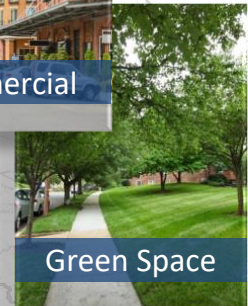
Freese and Nichols, Inc. | INTERA Inc.

## Agenda Item 6b Population Water Demand



## Agenda Item 6b Population Water Demand

- Ongoing efforts
  - TWDB and SD coordination
  - WUG survey
  - Baseline per-capita review
  - TWDB plumbing code savings adjustments



## Agenda Item 6b Population Water Demand

### Criteria for Adjustment

- Ongoing Census correction request
- Evidence of
  - Errors in projection
  - Different recent migration rates
  - Different near-future rates
- Changes to PWS service area
- Plans for new development or expansions
- Build-out conditions

### Data Requirements

- Documentation of
  - Data corrections
  - Different rates
  - Plans for facilities or other employment centers
  - New development
- Other data the RWPG feels supports changes



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## Agenda Item 6b Population Water Demand

- Alignment with JRPR projections?
- Northern counties
  - Keep 1.0 migration scenario?
  - Switch to 0.5 for select counties?
- Other changes?



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## **Agenda Item 6b Population Water Demand**

### **Action:**

Approve revisions to draft TWDB projections for the 2026 Region H RWP and authorize Consultant Team and Population Demands Committee to coordinate with TWDB to finalize adjustments.



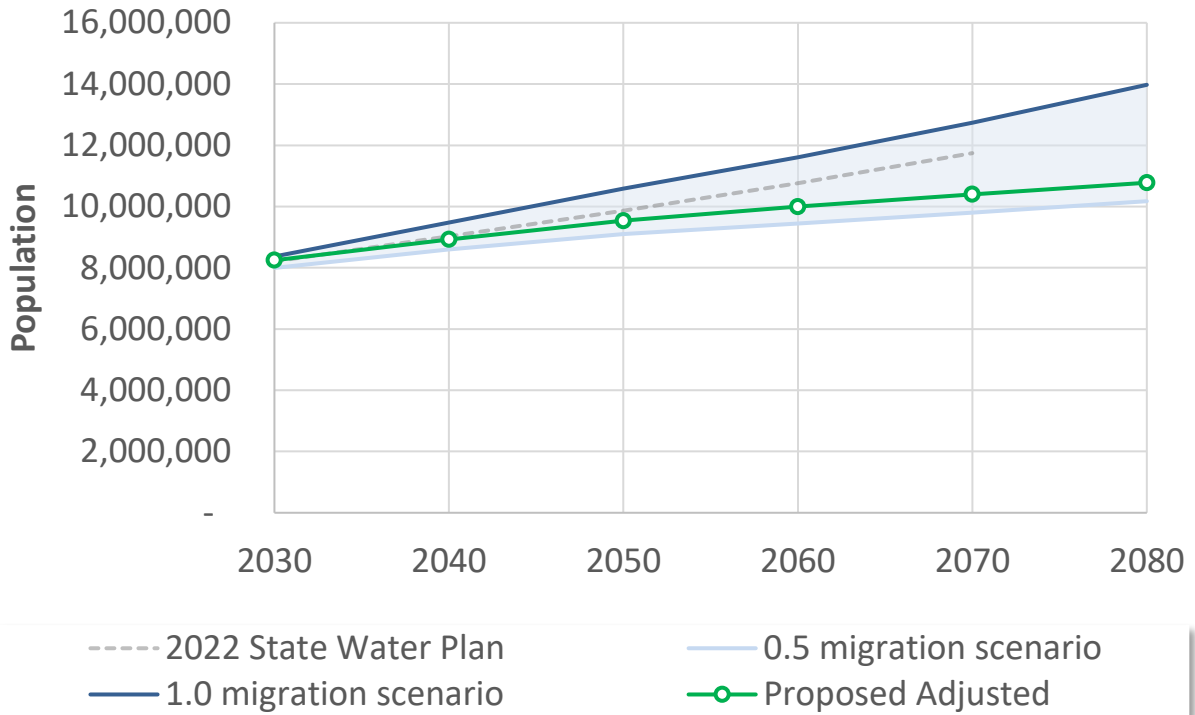


Draft 2026 RWP  
Municipal Population  
Projections for Region H

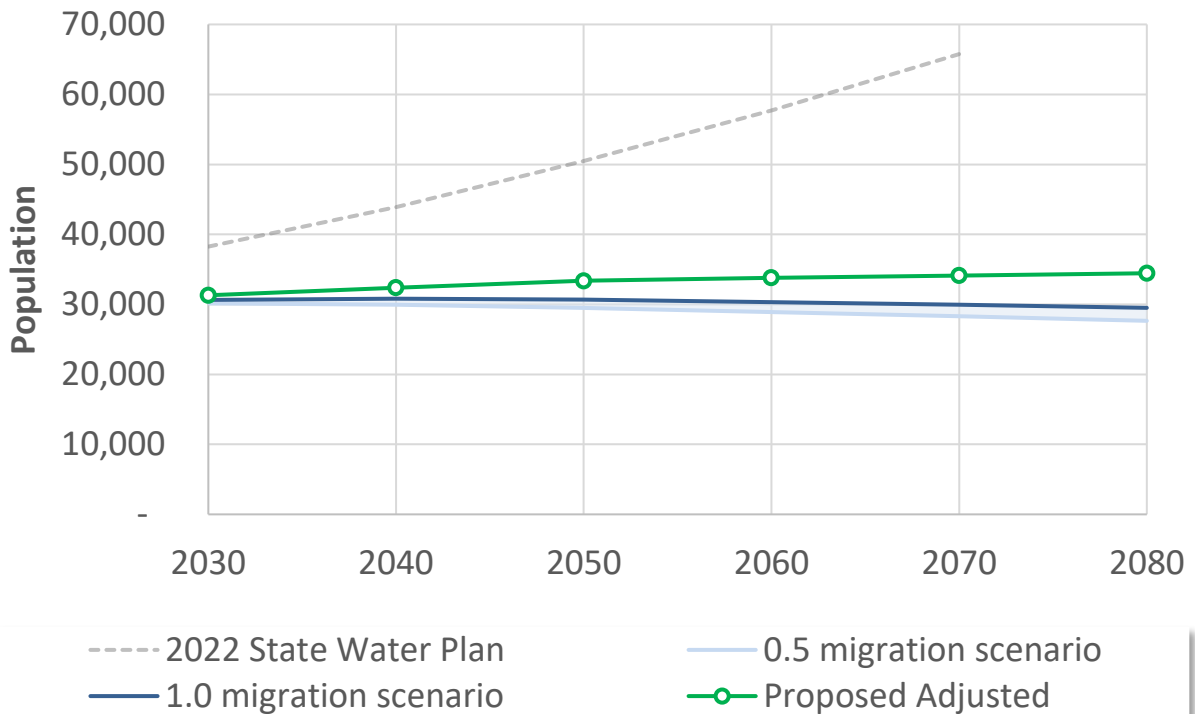




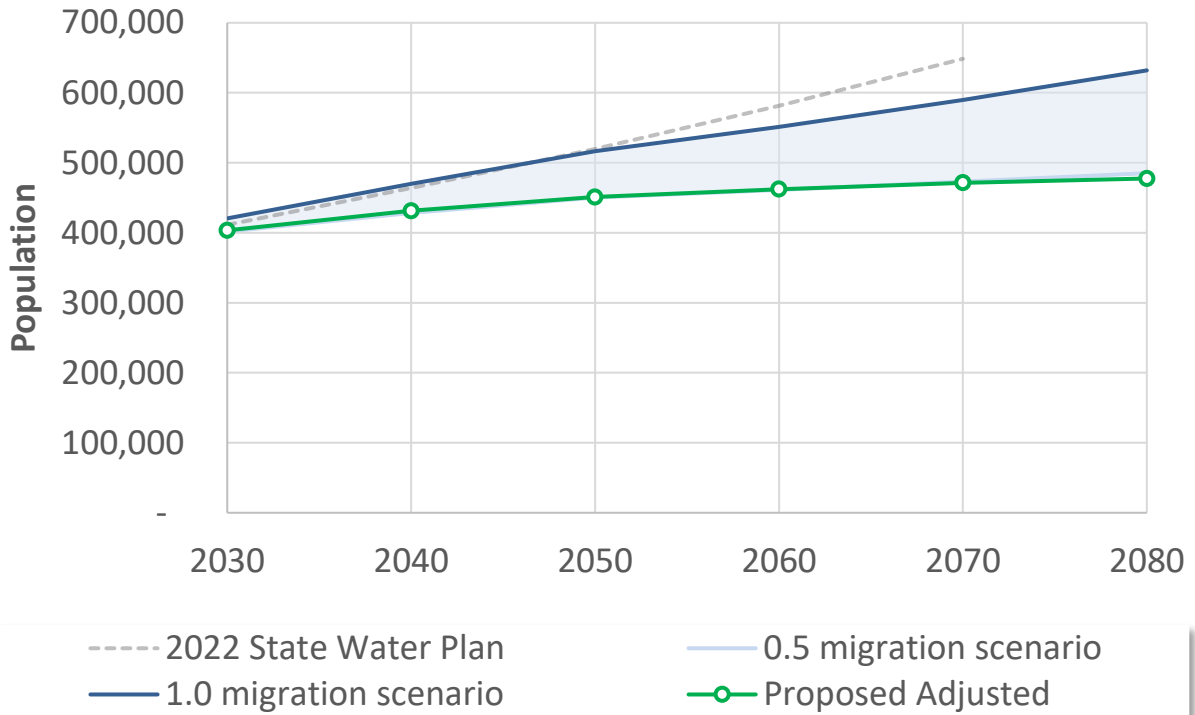
### Region H Total County Population Projections



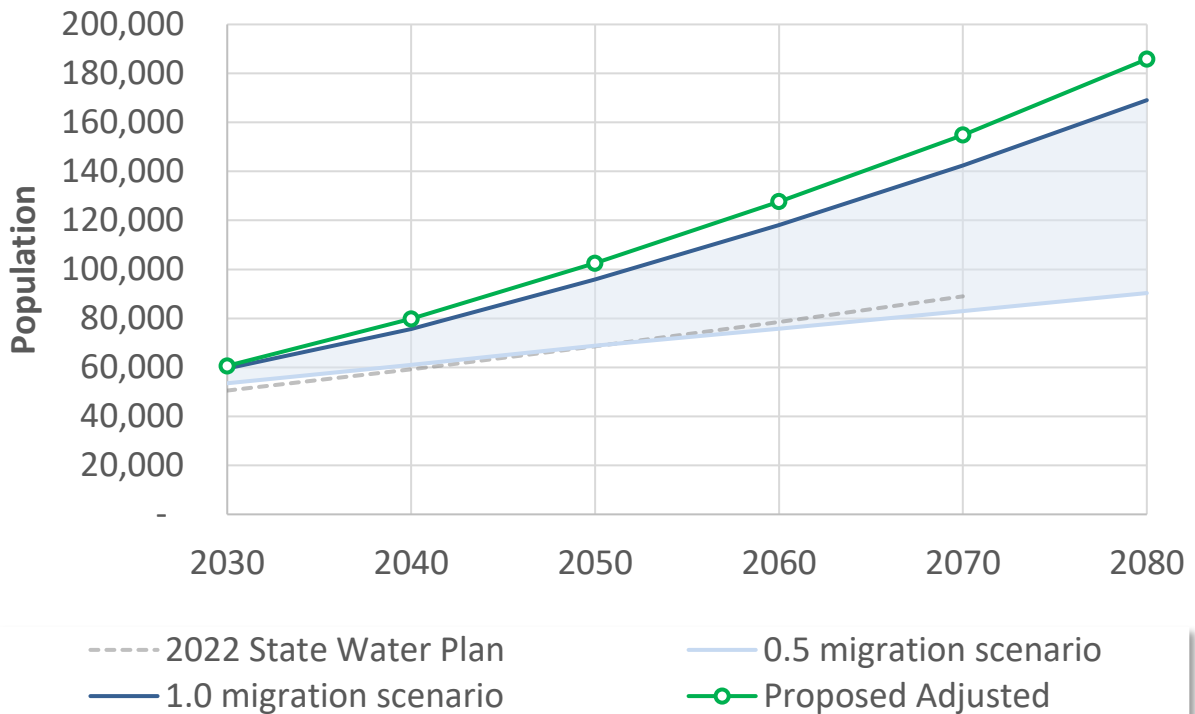
### Austin County Population Projections



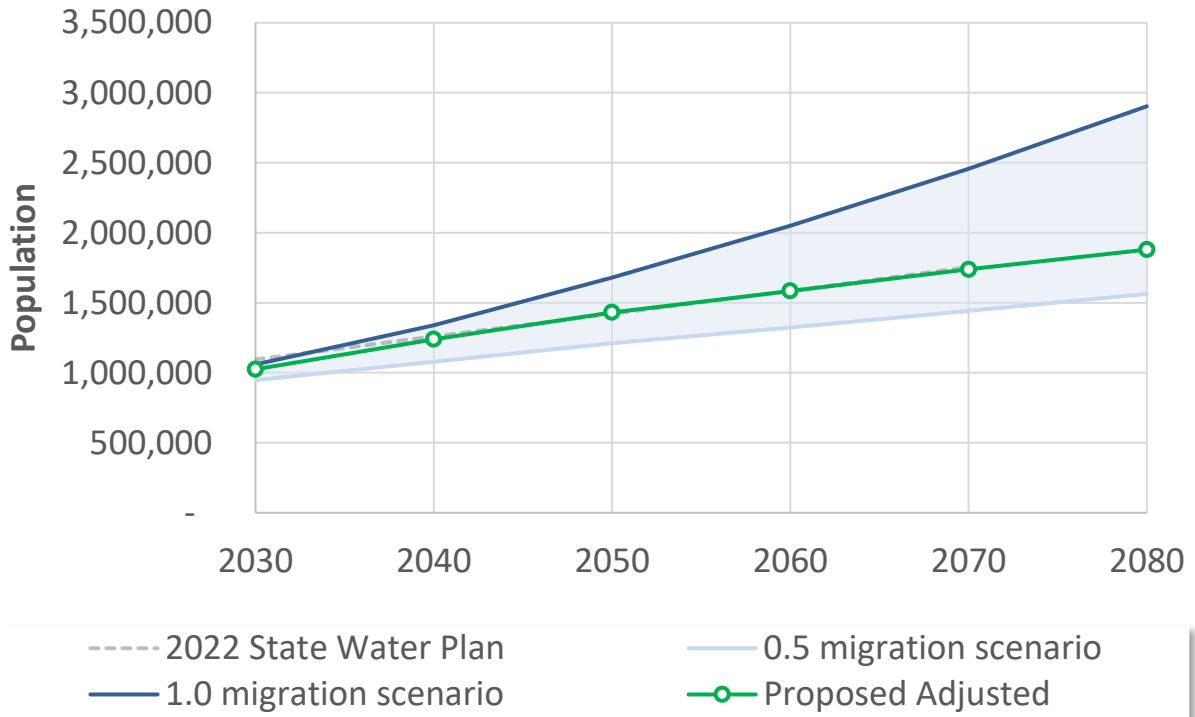
### Brazoria County Population Projections



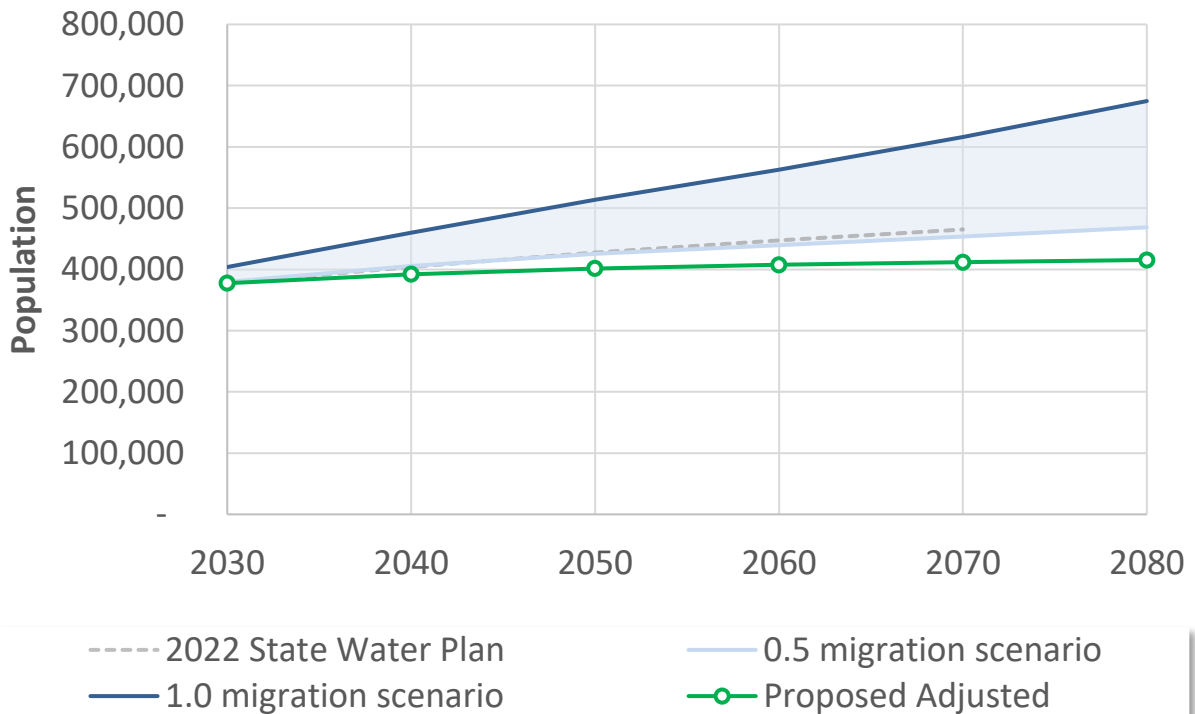
### Chambers County Population Projections



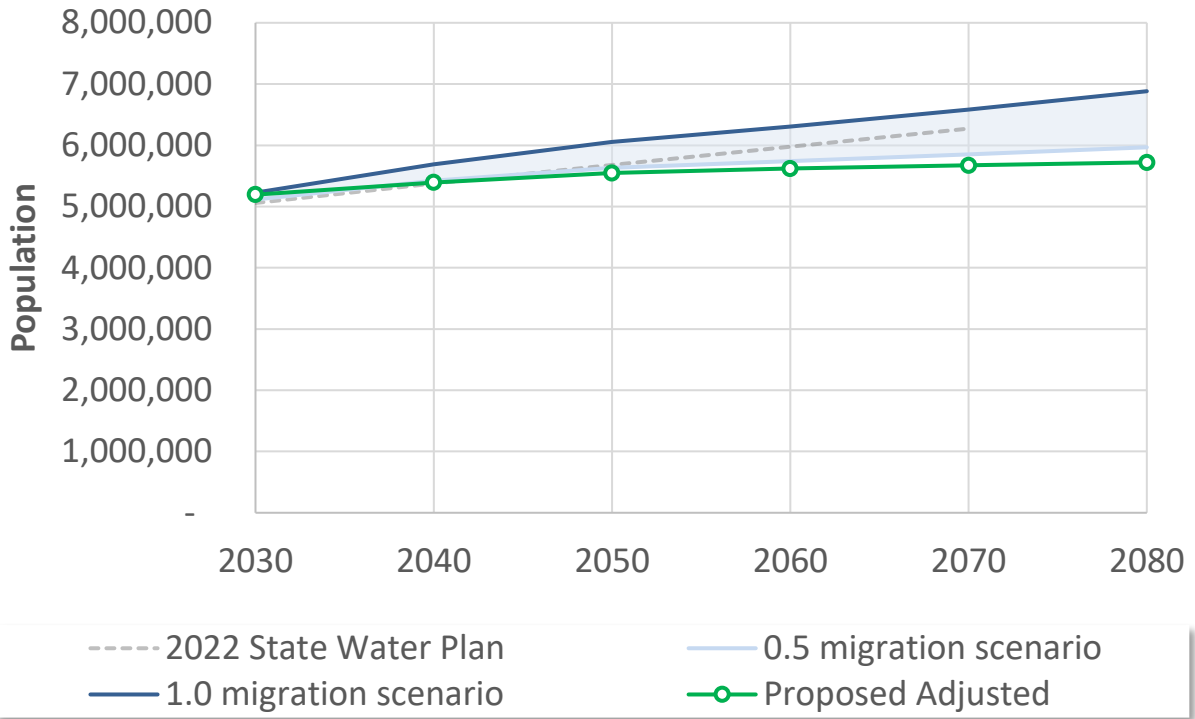
### Fort Bend County Population Projections



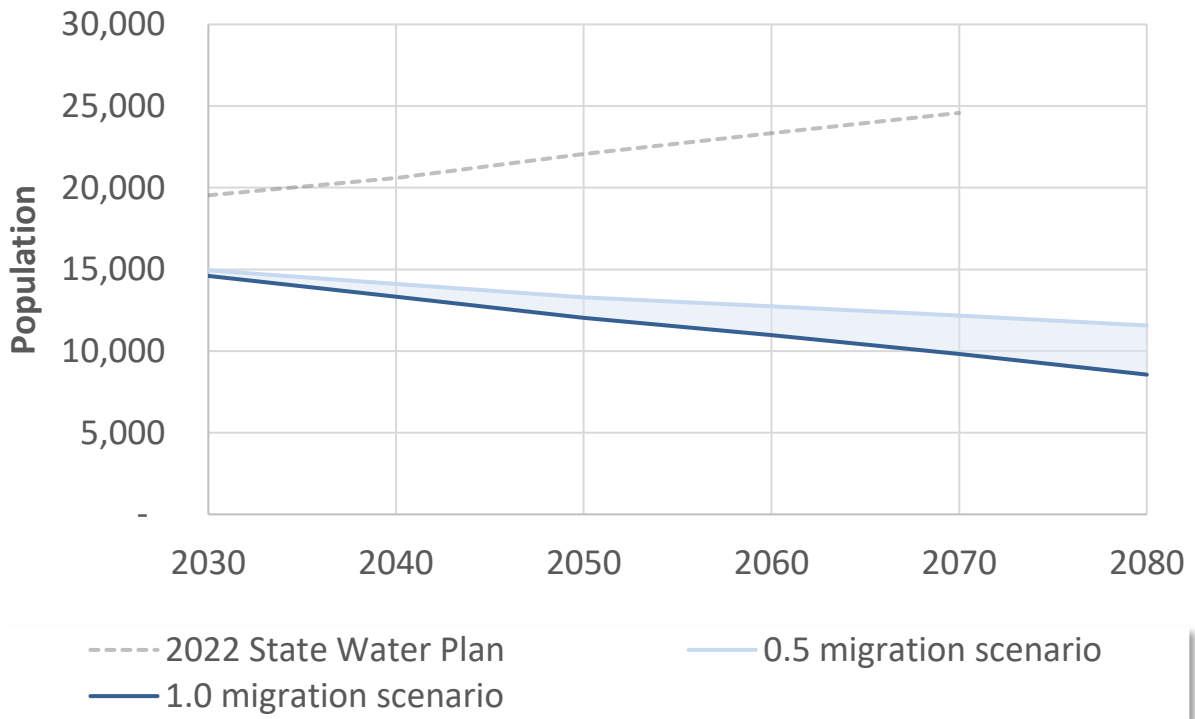
### Galveston County Population Projections



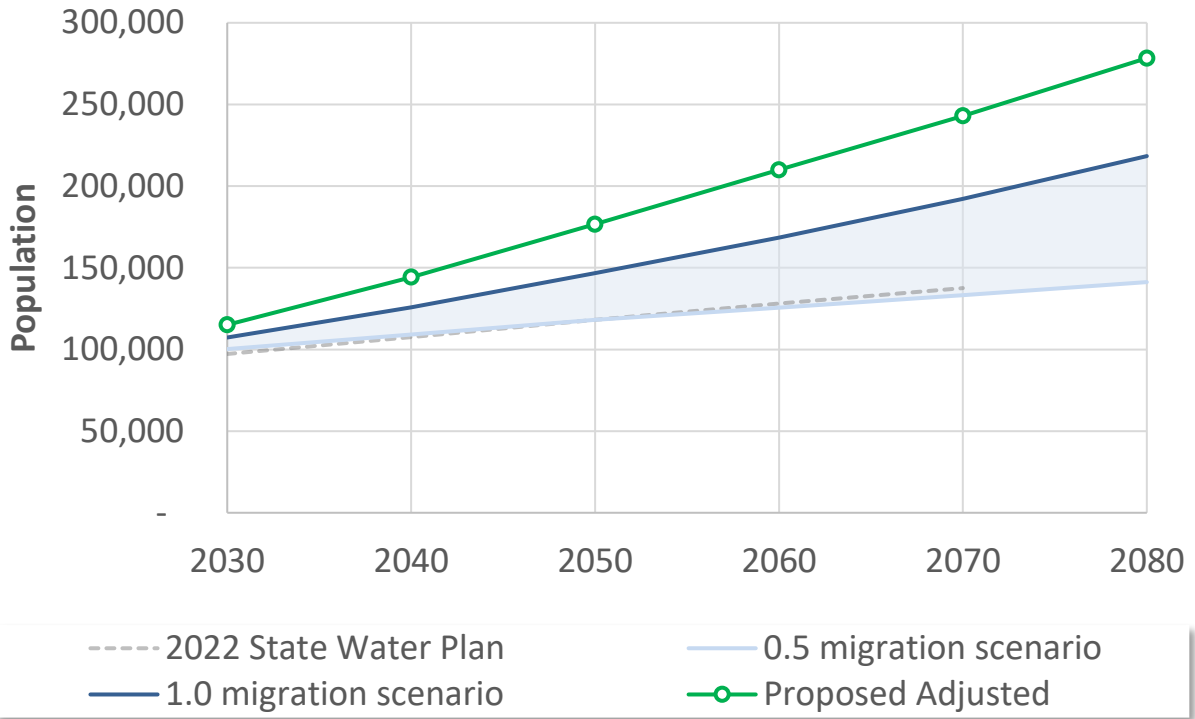
### Harris County Population Projections



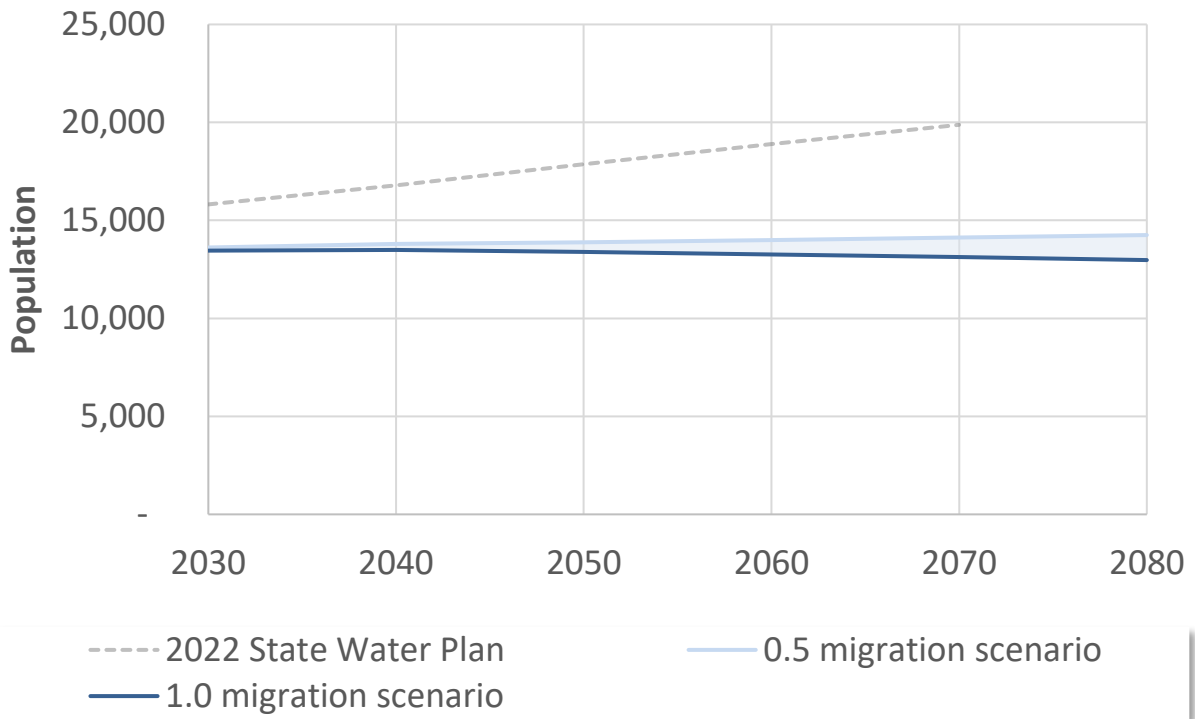
### Leon County Population Projections



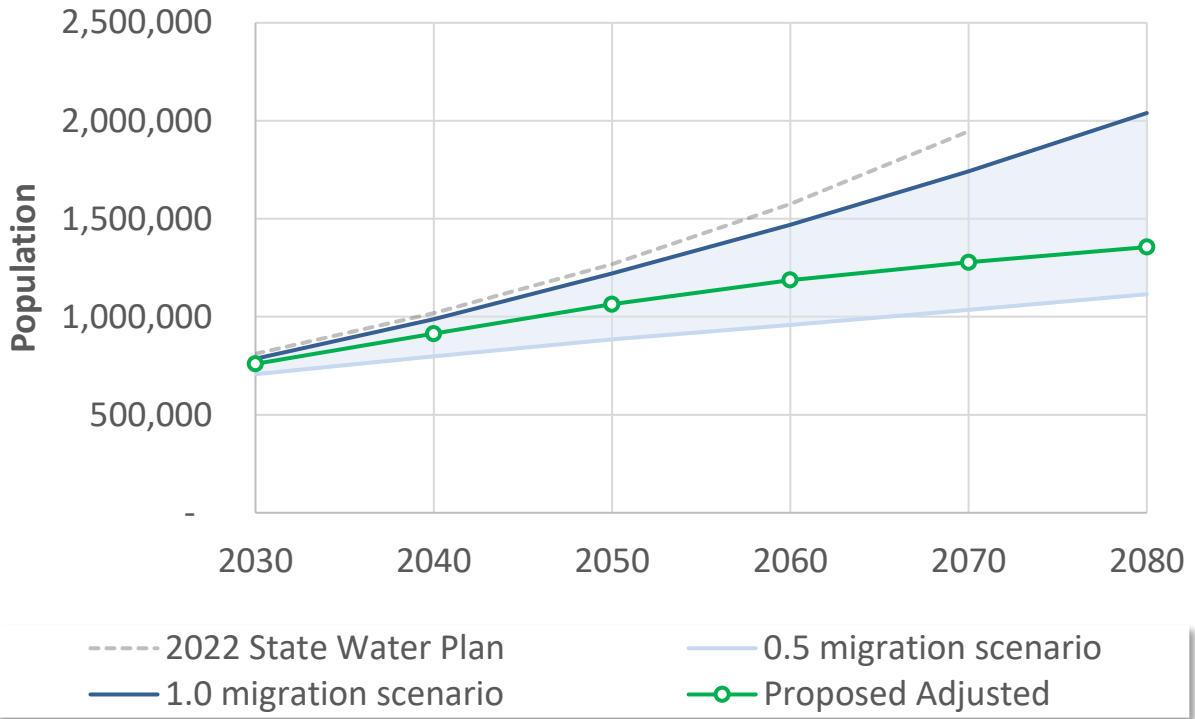
### Liberty County Population Projections



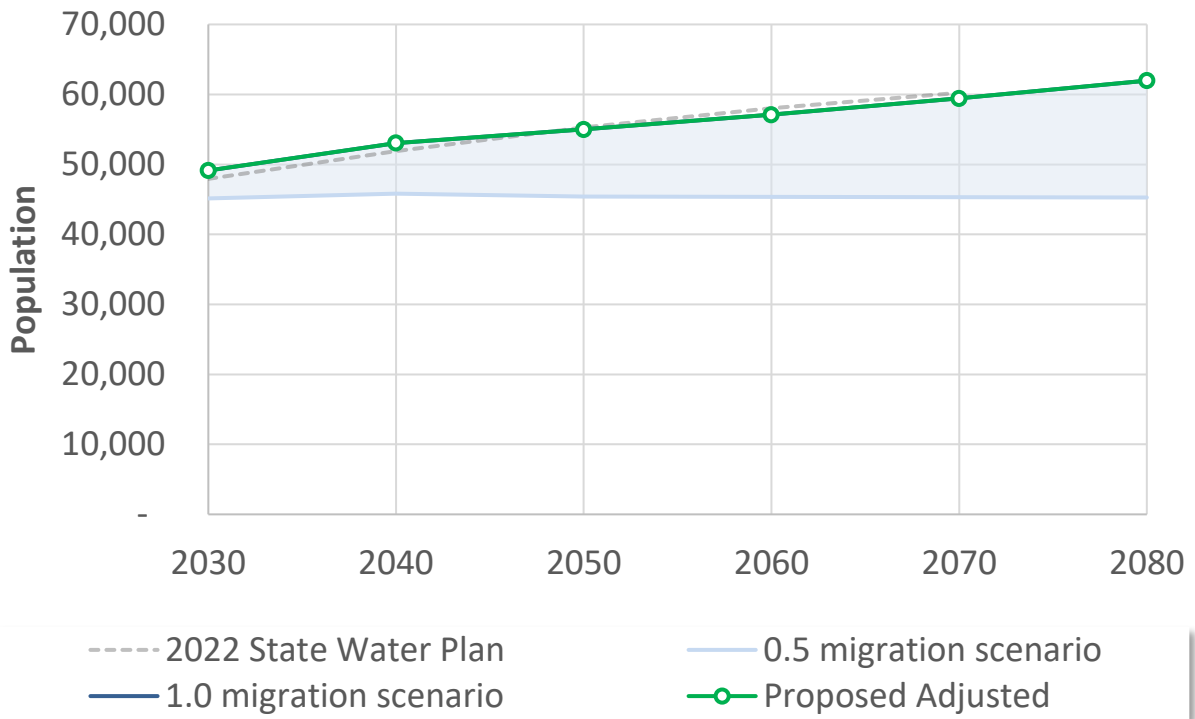
### Madison County Population Projections



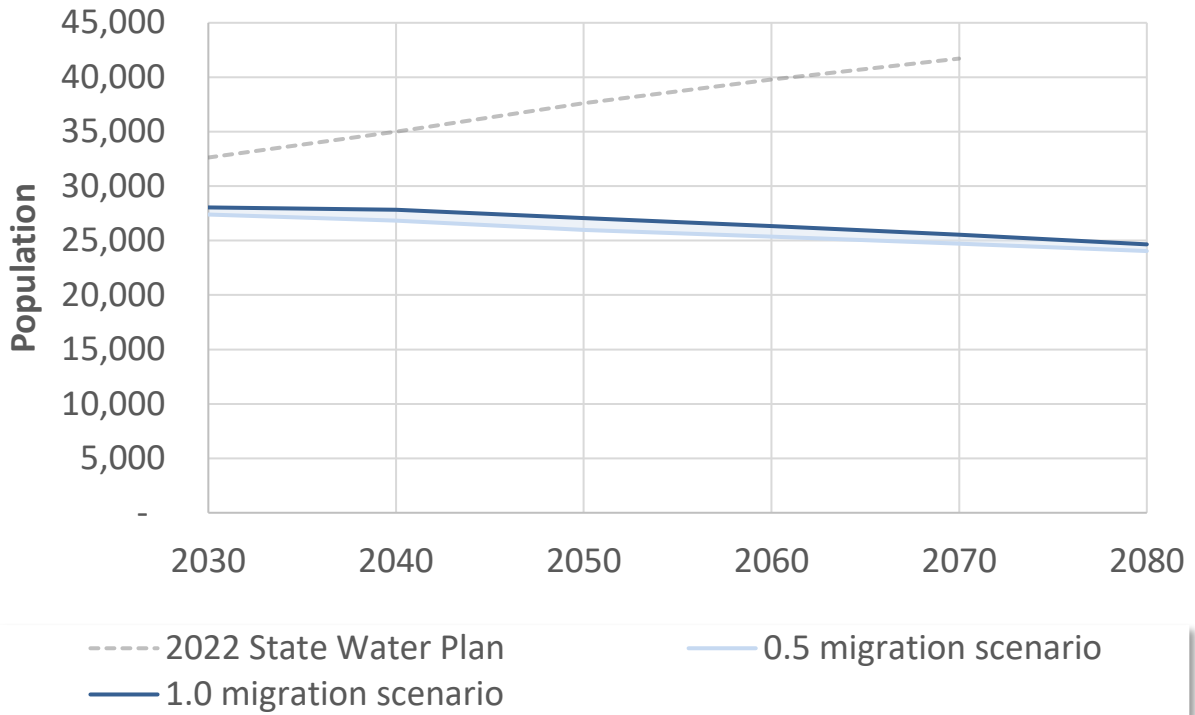
### Montgomery County Population Projections



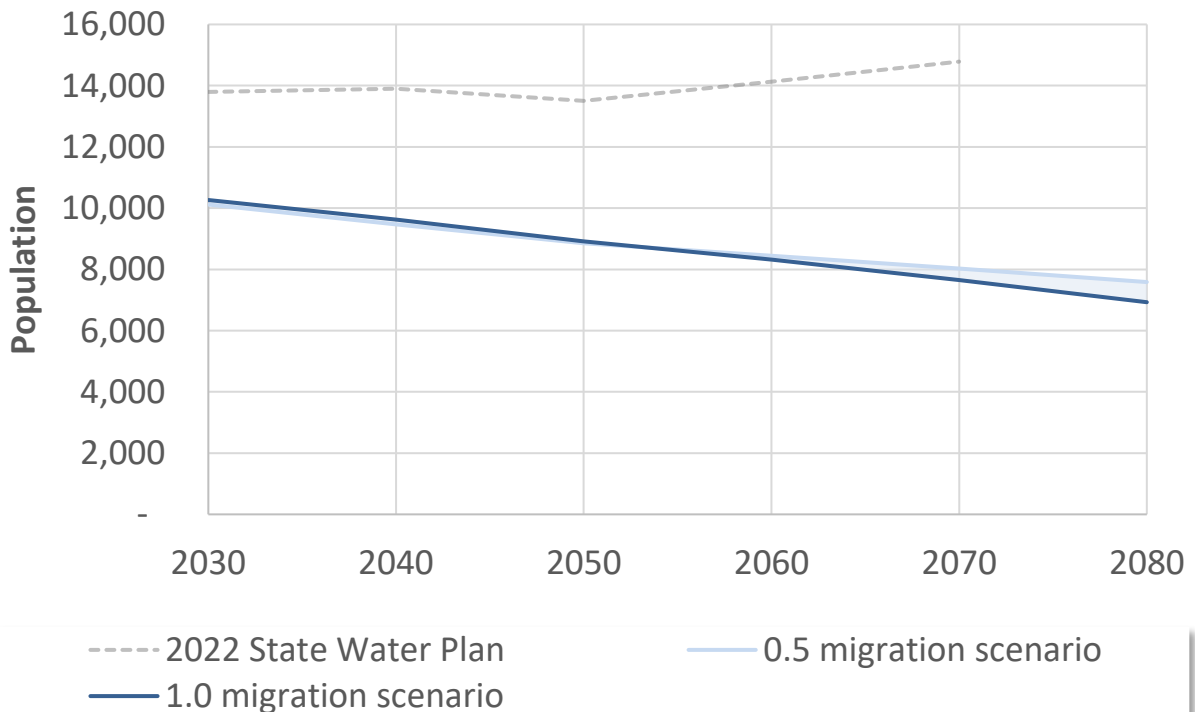
### Polk County Population Projections



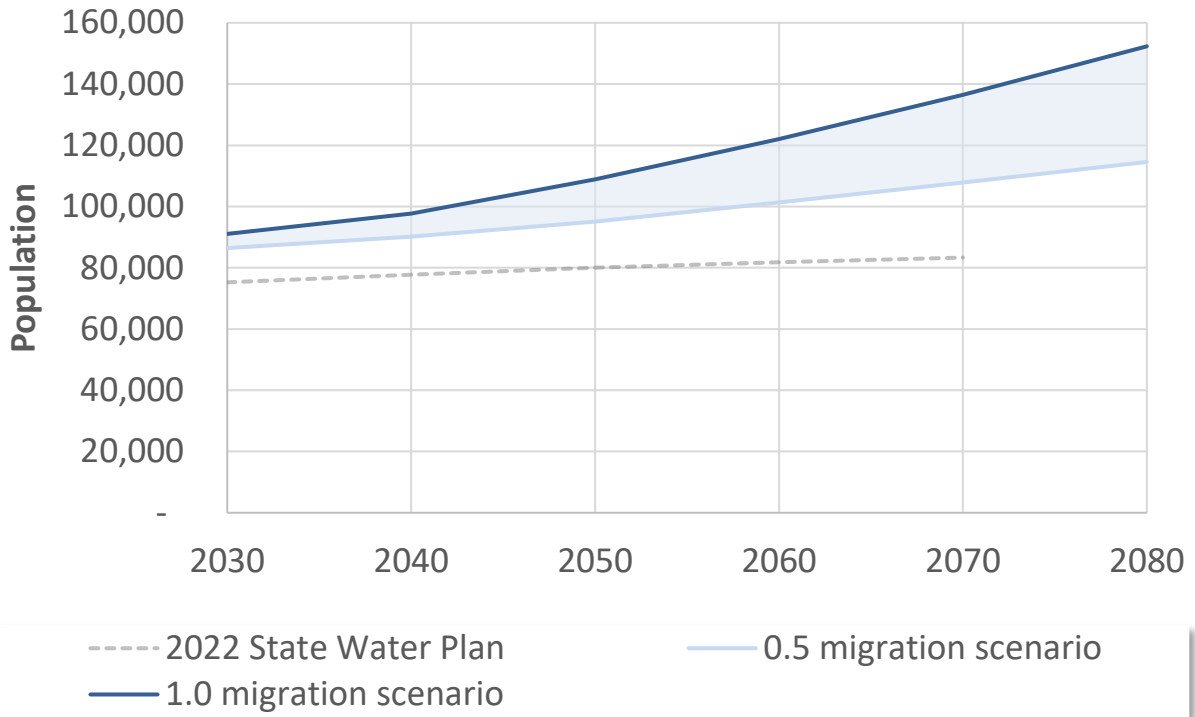
### San Jacinto County Population Projections



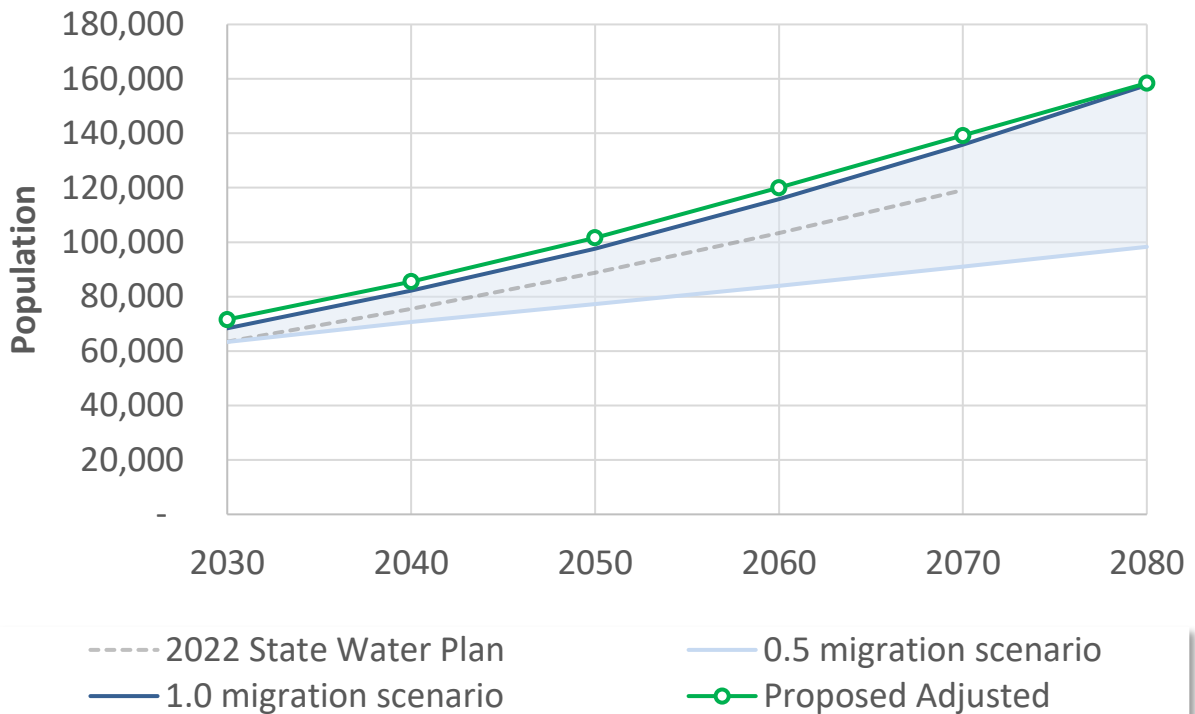
### Trinity County Population Projections



### Walker County Population Projections



### Waller County Population Projections





## Agenda Item 6c

Receive presentation on and discuss the Region H WUG survey.



## Agenda Item 6c WUG Survey

- Regular part of planning process
- Gather information from WUGs:
  - Projections
  - Existing supplies and infrastructure
  - Interconnect facilities
  - Future projects
  - Conservation and Drought Contingency
- New and Improved!







## Introduction

Thank you for logging on to the Region H Water Plan Survey. The Region H Planning Group is currently in the process of developing the 2026 Regional Water Plan (RWP). This plan is submitted to TWDB and will be used to compile the 2027 State Water Plan. Accurate representation of your water system in the Plan is essential to the securing of TWDB funding for water supply projects and is also necessary for any water rights applications that may be required as part of future supply strategies.

This survey should take approximately 10 minutes to complete. A response by XXXX XX, 2023 would be appreciated to allow proper representation of your entity's water needs in the 2026 Region H Water Plan. If you have any questions, please contact Philip Taucer at [philip.taucer@freese.com](mailto:philip.taucer@freese.com) or by phone at 713-600-6835.

**Please take a moment to review the following guidance before starting the survey:**

- If you wish to return to an earlier portion of the survey, use the "Prev" button at the bottom of the page. Please do **NOT** use the "Back" button on your browser. You can navigate back to previous sections at any time as long as you have not yet submitted the completed survey.
- You can close your browser and return to your stopping point later, but to do so without losing your data you **MUST** be on the same computer **AND** allow your browser to store cookies. Each page is only saved after you click "**Next**" at the bottom.

## General Information

**\* Please enter the name of the entity for which you are completing this survey:**

**\* Please enter your preferred contact information below (required items indicated with \*).**

Name\*

Representing\*

E-Mail

Phone Number



## Section 1 – Population and Water Demand

Estimation of future population and water demands is a crucial first step for the planning process. Before completing this section, please review the reference document provided to you with the survey request. If you indicate that you wish to modify the projections for your entity, we will contact you for additional information.

**Do you have significant disagreement with and wish to make modifications to the projected population for the water users directly supplied by your entity?**

- Yes
- No

**Do you have significant disagreement with and wish to make modifications to the projected water demand for your direct retail service area?**

- Yes
- No

## Section 2 – Water Supply and Infrastructure

**This portion of the survey includes questions regarding your entity's water supply sources and infrastructure. Based on your responses, we may contact you for additional information.**

**What water supplies does your system own and/or operate? Please select all that apply.**

- We own or operate groundwater wells
- We have surface water rights
- We have a reclaimed water (reuse) system
- Not sure

If you know the production capacity of your system, please specify below. Include units (mgd, gpm, etc.).

--



**Does your entity have existing agreements to purchase water from other entities or to sell water on a wholesale basis to other systems? Please select all that apply.**

- We purchase water supply from others
- We sell water to systems outside our retail service area
- Not sure
- Other (please specify)

**Does your entity have existing emergency interconnect facilities either to supply your entity or provide emergency supply to another user?**

- Yes
- No
- Not sure

## Section 3 – Projects for the Future

In the Regional Planning process, projects are activities with non-zero capital cost that would develop, deliver, treat, or conserve water for an entity. Before answering the questions in this section, please review the reference document provided to you with the survey request for information on any projects that were recommended for your entity in the 2021 Region H Water Plan. Based on your responses, we may contact you for additional information.

**Do you agree with the recommended projects listed for your entity in the 2021 Regional Water Plan?**

- Yes
- No
- N/A - no listed projects

If "No", please specify which projects.

**Are any of the listed projects already implemented or in the process of being implemented (permitting, design, or construction)?**

- Yes
- No
- Not sure
- N/A - no listed projects

If "Yes", please specify which projects.

**Have there been significant changes to timeline or size of any recommended projects?**

- Yes
- No
- Not sure
- N/A - no listed projects

If "Yes", please specify which projects.

**At this time, are there any other future projects that you would like the Planning Group to consider for recommendation in the Region H Water Plan? If "Yes", we will contact you for more information.**

- Yes
- No

## Section 4 – Promoting Efficient Water Use

An understanding of local water conservation and drought response practices is a key component of the regional planning process.

**Does your entity have a Water Conservation Plan or Drought Contingency Plan? Please select all that apply.**

- We have a Water Conservation Plan
- We have a Drought Contingency Plan
- Not sure

**If you have a Water Conservation Plan or Drought Contingency Plan, please upload using the button below. If the files are larger than 16 MB, please email to [philip.taucer@freese.com](mailto:philip.taucer@freese.com).**

Choose File

Choose File

No file chosen



Please click "Done" below to submit your response.

**Thank you for your input. Your information will assist in the development of the 2026 Region H Water Plan. If you have any questions related to this survey or the regional planning process, contact Philip Taucer by e-mail at [philip.taucer@freese.com](mailto:philip.taucer@freese.com) or at 713-600-6835. To learn more about Region H and for the latest on upcoming meetings, please visit [www.regionhwater.org](http://www.regionhwater.org).**



## Agenda Item 6d

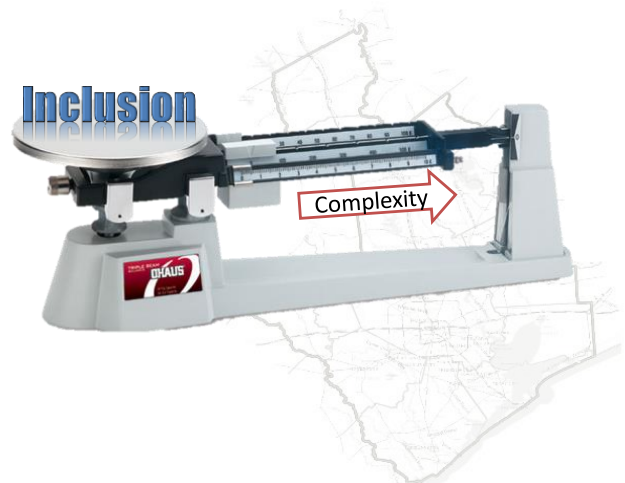
Receive update from Consultant Team regarding identification of Major Water Providers (MWP) for Region H and consider taking action directing the Consultant Team to submit a list of recommended MWPs to the TWDB.





## Agenda Item 6d Major Water Providers

- Key significance to Region’s supplies
- Select Plan and Database summaries
- Supply volume most viable metric
  - Projected demand
  - Self-supply
  - Transfers
  - WMS
- Committees recommend
  - 25k ac-ft/yr threshold
  - Add non-retail threshold



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## Agenda Item 6d Major Water Providers

100,000+ ac-ft	<ul style="list-style-type: none"> <li>•BRA</li> <li>•Dow</li> <li>•GCWA</li> <li>•Houston</li> </ul>	<ul style="list-style-type: none"> <li>•LNVA</li> <li>•NFBWA</li> <li>•NHCRWA</li> <li>•NRG</li> </ul>	<ul style="list-style-type: none"> <li>•SJRA</li> <li>•TRA</li> <li>•WHCRWA</li> </ul>
40,000 ac-ft	<ul style="list-style-type: none"> <li>• CLCND</li> <li>• League City</li> </ul>	<ul style="list-style-type: none"> <li>• Pasadena</li> <li>• Pearland</li> </ul>	<ul style="list-style-type: none"> <li>• Sugar Land</li> <li>• The Woodlands</li> </ul>
30,000 ac-ft	<ul style="list-style-type: none"> <li>• BWA</li> <li>• Conroe</li> </ul>	<ul style="list-style-type: none"> <li>• Galveston</li> <li>• Huntsville</li> </ul>	<ul style="list-style-type: none"> <li>• Missouri City</li> </ul>
25,000 ac-ft	<ul style="list-style-type: none"> <li>• CLCWA</li> </ul>	<ul style="list-style-type: none"> <li>• Texas City</li> </ul>	
15,000 ac-ft	<ul style="list-style-type: none"> <li>• BAWA</li> <li>• FB WCID 2</li> </ul>	<ul style="list-style-type: none"> <li>• Friendswood</li> <li>• Quadvest</li> </ul>	<ul style="list-style-type: none"> <li>• Sienna Plantation</li> </ul>
10,000 ac-ft	<ul style="list-style-type: none"> <li>• CHCRWA</li> <li>• Katy</li> </ul>	<ul style="list-style-type: none"> <li>• Lake Jackson</li> <li>• Mont Belvieu</li> </ul>	<ul style="list-style-type: none"> <li>• NCWA</li> </ul>

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## Agenda Item 6d Major Water Providers

100,000+ ac-ft	<ul style="list-style-type: none"> <li>•BRA</li> <li>•Dow</li> <li>•GCWA</li> <li>•Houston</li> </ul>	<ul style="list-style-type: none"> <li>•LNVA</li> <li>•NFBWA</li> <li>•NHCRWA</li> <li>•NRG</li> </ul>	<ul style="list-style-type: none"> <li>•SJRA</li> <li>•TRA</li> <li>•WHCRWA</li> </ul>
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25,000 ac-ft	<ul style="list-style-type: none"> <li>• CLCWA</li> </ul>		
15,000 ac-ft	<ul style="list-style-type: none"> <li>• BAWA</li> </ul>	<ul style="list-style-type: none"> <li>• Sienna Plantation</li> </ul>	
10,000 ac-ft	<ul style="list-style-type: none"> <li>• CHCRWA</li> </ul>	<ul style="list-style-type: none"> <li>• Lake Jackson</li> </ul>	<ul style="list-style-type: none"> <li>• NCWA</li> </ul>

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## Agenda Item 6d Major Water Providers

100,000+ ac-ft	<ul style="list-style-type: none"> <li>•BRA</li> <li>•Dow</li> <li>•GCWA</li> <li>•Houston</li> </ul>	<ul style="list-style-type: none"> <li>•LNVA</li> <li>•NFBWA</li> <li>•NHCRWA</li> <li>•NRG</li> </ul>	<ul style="list-style-type: none"> <li>•SJRA</li> <li>•TRA</li> <li>•WHCRWA</li> </ul>
40,000 ac-ft	<ul style="list-style-type: none"> <li>• CLCND</li> </ul>	<ul style="list-style-type: none"> <li>• Pasadena</li> </ul>	<ul style="list-style-type: none"> <li>• Sugar Land</li> </ul>
30,000 ac-ft	<ul style="list-style-type: none"> <li>• BWA</li> </ul>	<ul style="list-style-type: none"> <li>• Huntsville</li> </ul>	<ul style="list-style-type: none"> <li>• Missouri City</li> </ul>
25,000 ac-ft			
15,000 ac-ft	<ul style="list-style-type: none"> <li>• BAWA</li> </ul>		
10,000 ac-ft	<ul style="list-style-type: none"> <li>• CHCRWA</li> </ul>		

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## Agenda Item 6d Major Water Providers

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25,000 ac-ft			
15,000 ac-ft	<ul style="list-style-type: none"> <li>• BAWA</li> </ul>		
10,000 ac-ft	<ul style="list-style-type: none"> <li>• CHCRWA</li> </ul>		

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## Agenda Item 6d Major Water Providers

### Action:

Direct the Consultant Team to submit a list of recommended Major Water Providers to the Texas Water Development Board.



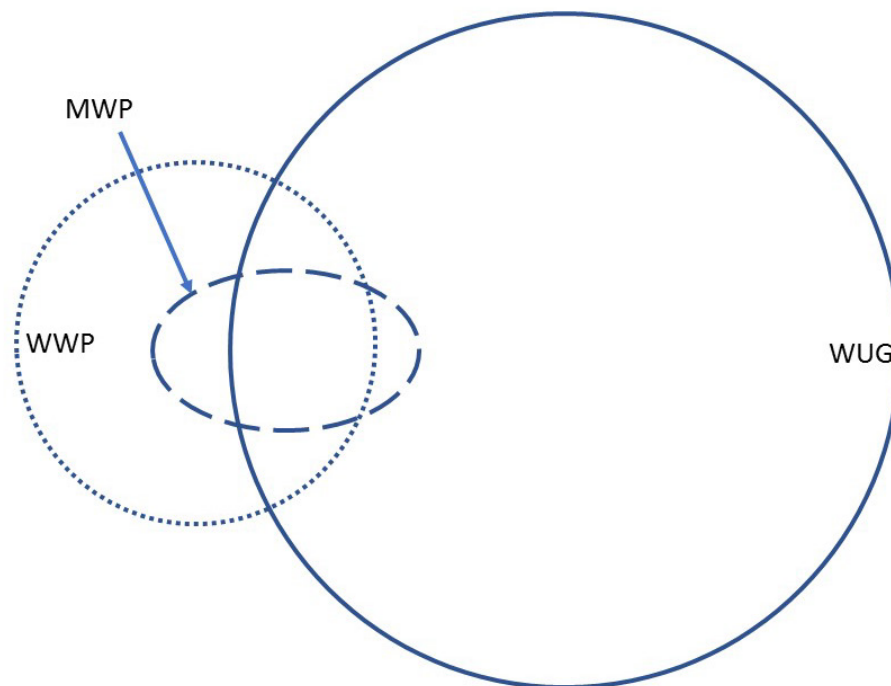
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## Water User Groups, Wholesale Water Providers, and Major Water Providers in Regional Water Planning

Regional water planning groups (RWPG) are required by rule to specifically consider three, often overlapping, planning units, Water User Groups (WUG), Wholesale Water Providers (WWP), and Major Water Providers (MWP), when developing their plans. This document explains what these entities are, how they relate, and how they may overlap. Keep in mind throughout this discussion that a single entity may simultaneously be designated as a WUG, WWP, and MWP, as summarized in Figure 1. Note that an MWP must also be at least a WUG or a WWP.

**Figure 1:** Ven relationship between three categories of planning units in regional water plans



### **Water User Groups**

WUGs are the entities for which water demand projections are developed by the Texas Water Development Board (TWDB) and that form the underlying—and highest resolution—basis for each regional water plan and the state water plan. Water demands, existing water supplies, and water needs (or surpluses) are evaluated for all WUGs. The Texas state water plan focuses on addressing the identified water needs of the 2,900 WUGS within Texas that fall within six categories (municipal, irrigation, manufacturing, livestock, mining, and steam-electric power). The Texas state water plan presents all information, including information in the interactive state water plan, on a WUG-centric basis.

### **Wholesale Water Providers**

Another type of entity critical to plan development is the wholesale water provider, or WWP. For an entity to be designated as a WWP for planning purposes, it must sell or deliver (or plan to sell or deliver) wholesale water at some point in the 50-year planning horizon, as defined in 31 Texas Administrative Code (TAC) §357.10(43). If, for example, a WUG provides water to retail users as well as wholesale to other entities, it may also be considered a WWP (Figure 1). Regional water planning groups determine the WWPs that they want to utilize in their plan development based upon the known wholesale transactions that occur within the regional water planning area. Data analyses of identified WWPs occur in the evaluation of contractual obligations to supply water, the demands associated with WUGs served by the WWP, and the evaluation of the WWP's existing water supplies. Even though the RWPG is not required to specifically report basic information on WWP demands and supplies in the regional water plan,<sup>1</sup> it will need to do so in at least two specific instances, including:

- **if that same entity is also designated by the RWPG as a MWP, or**
- **if that WWP is designated as the “sponsor” of any recommended water management strategy project (WMSP) in the plan, through TWDB-generated data reports. The WWP information will provide the basis for the WWP WMSP or water management strategy.**

These are minimum reporting requirements; however, an RWPG may present more WWP information utilized in the development of its plan. **The extent to which RWPGs report on WWPs is left largely to the discretion of the RWPGs.**

### **Major Water Providers**

The new category of “Major Water Providers” was established in rules for the development of the 2022 State Water Plan in conjunction with the removal of certain reporting requirements<sup>2</sup> to allow RWPGs to establish a more static list of large water providers for which they report information and to provide regional water planning groups with more flexibility in deciding which large (relative to each region) water provider(s) they want to report information on in their regional water plans. Major water providers represent WWPs and/or WUGs that use, and/or are responsible for developing and/or delivering significant quantities of water in the region. It is up to each region to decide which entities are designated as MWPs.

The intent of the MWP category is to report data for entities of significance to the region.<sup>3</sup> If the region decides not to designate any entities as MWPs, the plan needs to include discussion in Chapter One as to why the RWPG determined it does not have any WUGs or WWPs of significance to the region's water supply.

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### **Definitions:**

*Water User Group (WUG) (31 TAC §357.10(42)) – 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. A*

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<sup>1</sup> Previously, TWDB administrative rules required that regional water planning groups report supply, demand, and water management strategy data for WWPs as well as describe those WWPs in Chapter One of their plans. However, this requirement was removed at the request of stakeholders including for the reason that the volumetric threshold previously applied to the WWP definition proved problematic in certain regional water planning areas due to fluctuations in reported use between planning cycles and due to the relative scale in both smaller and larger regional water planning areas.

<sup>2</sup> See footnote 1.

<sup>3</sup> Instead of reporting data for every WWP in the region, as was previously required per footnote 1.

FEBRUARY 2018

*municipal WUG is a utility-based entity as defined in 31 TAC §357.10(42). Rural municipal water use that falls outside of the service area of discrete municipal water provider boundaries is aggregated at the county level as “county-other.”*

*These include*

- A. privately-owned utilities that provide an average of more than 100 acre-feet per year (AFY) 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 AFY for municipal use;*
- C. all other Retail Public Utilities not covered in (A) or (B) above that provide more than 100 AFY 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 A–D above; 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 a regional water planning area.*

*Wholesale Water Provider (WWP) (31 TAC §357.10(43)) – 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 regional water planning group expects or recommends to deliver or sell water wholesale to WUGs or other WWPs during the period covered by the plan. The regional water planning groups shall identify the WWPs within each region to be evaluated for plan development.*

*Major Water Provider (MWP) (31 TAC §357.10(19)) – A WUG or WWP 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.*

For additional information on the regional water planning process and current activities, please call 512-936-2387 or visit [www.twdb.texas.gov/waterplanning/rwp/index.asp](http://www.twdb.texas.gov/waterplanning/rwp/index.asp).





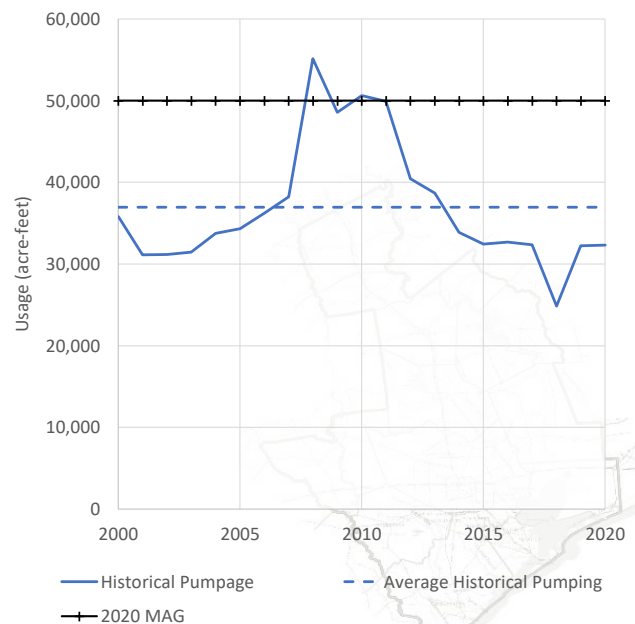
## Agenda Item 6e

Receive report from Consultant Team regarding upcoming groundwater supply analyses and consider taking action to authorize Consultant Team and Groundwater Supply Committee to coordinate with groundwater regulatory entities to develop MAG peak factors for Region H and submit an associated request to TWDB.



## Agenda Item 6e MAG Peak Factors

- Factor applied to MAG volumes
  - Applied for each decade
  - May be formation and location specific
- Allows pumping > MAG in drought
- Should not prevent achieving DFCs
- Approval by GCDs, GMA, and TWDB
- Utilized by Region H for 2021 RWP



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## Agenda Item 6e MAG Peak Factors

### Action:

Authorize Consultant Team and Groundwater Supply Committee to coordinate with groundwater regulatory entities to develop MAG peak factors for Region H and submit an associated request to TWDB.

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# Modeled Available Groundwater (MAG) Peak Factor

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

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

## What is the MAG Peak Factor?

The purpose of the MAG Peak Factor is to

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

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

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

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

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

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

## How does the process work?

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

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

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

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

### **More Information**

To learn more about regional water planning requirements, please visit: [www.twdb.texas.gov/waterplanning/rwp/planningdocu/2021/current\\_docs.asp](http://www.twdb.texas.gov/waterplanning/rwp/planningdocu/2021/current_docs.asp).

Or please contact:

[RegionalWaterPlanning@twdb.texas.gov](mailto:RegionalWaterPlanning@twdb.texas.gov)

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

## Agenda Item 6f

Receive update from Consultant Team regarding upcoming surface water supply analyses and consider taking action to authorize the Consultant Team and Surface Water Supply Committee to develop and submit to the TWDB a request for potential exceptions to surface water modeling requirements.





## Agenda Item 6f Surface Water Availability



- TCEQ WAM Run 3
- Existing permanent rights
- Priority order
- Historical hydrology
- Full authorized diversions
- No / limited return flows

## Agenda Item 6f Surface Water Availability

- Formal request for any change beyond major reservoir sedimentation
- Document in RWP Chapter 3
- Unmodified results documented
- In prior cycles
  - Brazos – modified WAM from Region G
  - Trinity – modified WAM from Region C, some inclusion of return flow
  - Others – case-by-case basis



## **Agenda Item 6f**

### **Surface Water Availability**

#### **Action:**

Authorize Consultant Team and Surface Water Supply Committee to develop and submit to the TWDB a request for potential exceptions to surface water modeling requirements.



## Surface Water Hydrologic Variance Request Checklist

Texas Water Development Board (TWDB) rules<sup>1</sup> require that regional water planning groups (RWPG) use most current Water Availability Models (WAM) from the Texas Commission on Environmental Quality (TCEQ) and assume full utilization of existing water rights and no return flows for surface water supply analysis. Additionally, evaluation of existing stored surface water available during Drought of Record conditions must be based on Firm Yield using anticipated sedimentation rates. However, the TWDB rules also allow, and **we encourage**, RWPGs to use more representative, water availability modeling assumptions; better site-specific information; or justified operational procedures other than Firm Yield with written approval (via a Hydrologic Variance) from the Executive Administrator in order to better represent and therefore prepare for expected drought conditions.

RWPGs must use this checklist, which is intended to save time and reduce effort, to request a Hydrologic Variance for estimating the availability of surface water sources. For Questions 4 – 10, please indicate whether the requested variance is for determining Existing Supply, Strategy Supply, or both. Please complete a separate checklist for each river basin in which variances are being requested.

**Water Planning Region:** Choose an item.

1. Which major river basin does the request apply to? Please specify if the request only applies part of the basin or only to certain reservoirs.

Click or tap here to enter text.

2. Please give a brief, bulleted, description of the requested hydrologic variances including how the alternative availability assumptions vary from rule requirements, how the modifications will affect the associated annual availability volume(s) in the regional water plan, and why the variance is necessary or provides a better basis for planning. You must provide more-detailed descriptions in the subsequent checklist questions. Attach any available documentation supporting the request.

Click or tap here to enter text.

3. Was this request submitted in a previous planning cycle? If yes, please indicate which cycle and note how it is different, if at all, from the previous request?

Choose an item.

Click or tap here to enter text.

4. Are you requesting to extend the period of record beyond the current applicable WAM hydrologic period? If yes, please describe the proposed methodology. Indicate whether you believe there is a new drought of record in the basin.

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<sup>1</sup> 31 Texas Administrative Code (TAC) §§ 357.10(14) and 357.32(c)

Choose an item.

Choose an item.

Click or tap here to enter text.

5. Are you requesting to use a reservoir safe yield? If yes, please describe in detail how the safe yield would be calculated and defined, which reservoir(s) it would apply to, and why the modification is needed or preferable for drought planning purposes.

Choose an item.

Choose an item.

Click or tap here to enter text.

6. Are you requesting to use a reservoir yield other than firm yield or safe yield? If yes, please describe, in a bulleted list, each modification requested including how the alternative yield was calculated, which reservoir(s) it applies to, and why the modification is needed or preferable for drought planning purposes. Examples of alternative reservoir yield analyses may include using an alternative reservoir level, conditional reliability, or other special reservoir operations.

Choose an item.

Choose an item.

Click or tap here to enter text.

7. Are you requesting to use a different model (such as a RiverWare or Excel-based models) than RUN 3 of the applicable TCEQ WAM? If yes, please describe the model being considered including how it incorporates water rights and prior appropriation and how it is more conservative than RUN 3 of the applicable TCEQ WAM.

Choose an item.

Choose an item.

Click or tap here to enter text.

8. Are you requesting to use a modified TCEQ WAM? If yes, please describe in a bulleted list all modifications in detail including all specific changes to the WAM and whether the modified WAM is more conservative than the TCEQ WAM RUN 3. Examples of WAM modifications may include adding subordination agreements, contracts, updated water rights, modified spring

flows, updated lake evaporation, updated sedimentation<sup>2</sup>, system or reservoir operations, or special operational procedures into the WAM.

Choose an item.

Choose an item.

Click or tap here to enter text.

9. Are you requesting to include return flows in the modeling? If yes, are you doing so to model an indirect reuse water management strategy (WMS)? Please provide complete details regarding the proposed methodology for determining reuse WMS availability.

Choose an item.

Choose an item.

Click or tap here to enter text.

10. Are any of the requested Hydrologic Variances also planned to be used by another region for the same basin? If yes, please indicate the other Region. Please indicate if unknown.

Choose an item.

Click or tap here to enter text.

11. Please describe any other variance requests not captured on this checklist or add any other information regarding the variance requests on this checklist.

Click or tap here to enter text.

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<sup>2</sup> Updating anticipated sedimentation rates does not require a hydrologic variance under 31 TAC § 357.10(14). The Technical Memorandum will require providing details regarding the sedimentation methodology utilized. Please consider providing that information with this request.



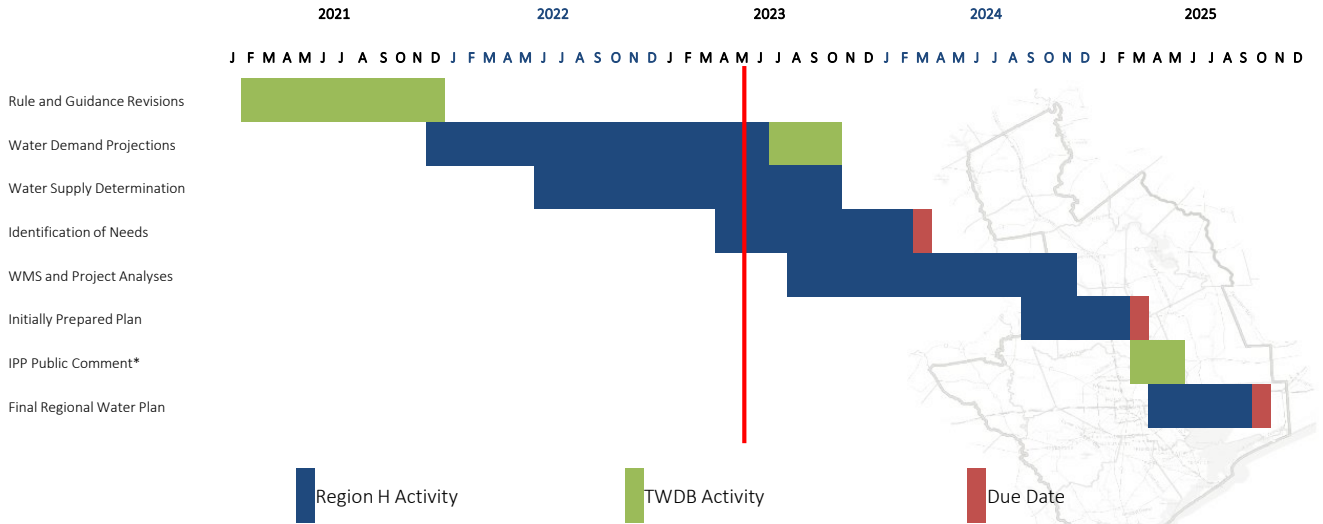
## Agenda Item 7a

Receive update regarding the schedule and milestones for the development of the 2026 Region H RWP.





# Agenda Item 7a 2026 RWP Schedule



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

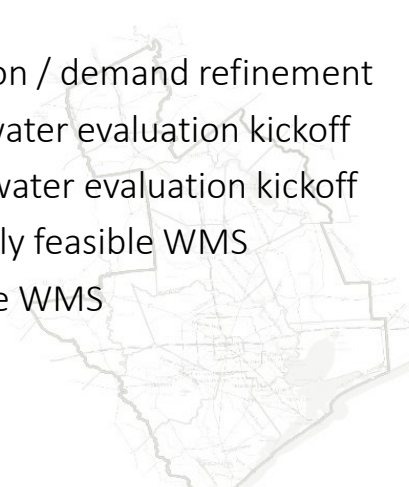
# Agenda Item 7a 2026 RWP Schedule

Date	Scheduled Events/Tasks
05/2023	RWPG Meeting
07/2023	RWPG Meeting
07/2023	Non-municipal adjustment requests due to TWDB
08/2023	Municipal projection review concludes / requests due to TWDB
10/2023	TWDB adoption of projections
03/2024	Technical Memorandum due to TWDB

## Agenda Item 7a 2026 RWP Schedule



- Activities / Committee Meetings
  - Population / demand refinement
  - Groundwater evaluation kickoff
  - Surface water evaluation kickoff
  - Potentially feasible WMS
  - Infeasible WMS







## Agenda Item 7b

Receive update from liaisons to other groups.



## Agenda Item 7b Liaison Updates

Region C	Brazos G	Region 6	Region 8
Kevin Ward	Zach Holland	Brandon Wade	Glenn Lord
IPC / Chairs	GMA 12	GMA 14	Other
Mark Evans	David Bailey	Gary Ashmore	RWPG Members





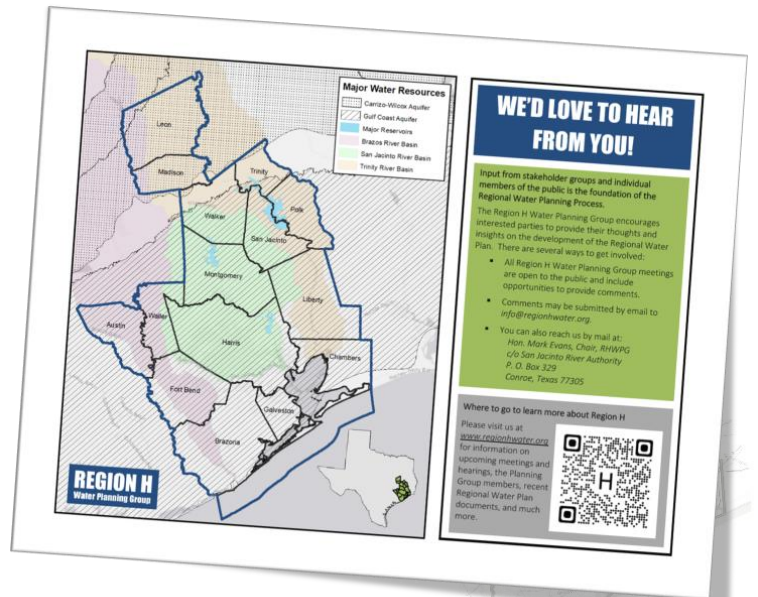
## Agenda Item 7c

Receive report regarding recent and upcoming activities related to communications and outreach efforts on behalf of the RHWPG.



## Agenda Item 7c Community Outreach

- Looking for opportunities for external outreach
- Support materials available for
  - Stakeholder visits
  - Public meetings
  - Legislative outreach





## Agenda Item 7d

Agency communications and general information.



**From:** [RegionalWaterPlanning](#)  
**To:** [RegionalWaterPlanning](#)  
**Cc:** [OOP-WSP-RWP](#); [Katie Dahlberg](#); [Temple McKinnon](#); [Matt Nelson](#)  
**Subject:** Follow-up to Draft Population and Municipal Water Demand Projections – 0.5 migration scenario option  
**Date:** Thursday, February 9, 2023 1:56:46 PM

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Dear RWPG Members,

We have recently received requests to develop Water User Group (WUG)-level projections from the 0.5 migration population scenario that we had previously provided to Regional Water Planning Groups (RWPGs) only at the county level. TWDB had not anticipated also developing the detailed 0.5 migration scenario WUG-level projections due to agency resource and time limitations, however due to interest from some regions, we are willing to pause other agency tasks at this time to develop WUG projections using the 0.5 migration scenario by county for those regions seeking this. **RWPGs may request the WUG-level 0.5 migration scenario projections by submitting a request to [EDA@twdb.texas.gov](mailto:EDA@twdb.texas.gov) directly from either the planning group Chair or the group's primary technical consultant.** Please understand that we continue to be resource limited and will not be able to provide WUG projections using the 0.5 migration scenario until **mid-March**. We ask that you do not request this data for your region if it is not needed.

**Planning groups must choose the population projection for each county, or portion of the county (for counties split between regions), in their region by selecting either the 1.0 migration scenario or the 0.5 migration scenario for all planning decades.** If a RWPG chooses to include a combination of migration scenarios (some counties using the 1.0 migration in all decades, other counties using the 0.5 scenario in all decades), it must provide a justification for mixing differing migration rates within the same Regional Water Planning Area. As always, planning groups may propose revisions to the WUG population projections within the county totals and provide supporting data as to why the proposed revision to a WUG projection is more appropriate. Please refer to Section 2.2 of the [First Amended General Guidelines for Development of the 2026 Regional Water Plans \(Exhibit C\)](#) for the projection revision criteria that planning groups must follow.

Note that, due to our agency resource and time limitations, TWDB-generated demand projections under the 0.5 migration scenario will rely on the same baseline Gallons per Capita per Day (GPCD) and projected plumbing code savings as those previously shared under the 1.0 scenario. Planning groups may also propose revisions to the baseline GPCD and projected plumbing code savings; TWDB staff will not be able to develop 0.5 scenario versions of those on behalf of planning groups.

Please note that, for developing projections based on a 0.5 scenario:

- TWDB staff can draft new WUG-level projections by re-proportioning the WUG's portion of the county total population developed under the 1.0 migration scenario to the county's population using the 0.5 migration scenario.
- Population projections for WUGs with a constant-level population will not change from the 1.0 scenario.
- Population projections for WUGs with buildout during the planning horizon will still reach the same buildout population in the same decade in the new draft 0.5 migration scenario as in the 1.0 migration scenario. RWPGs may propose revisions with supporting documentation.

TWDB staff can draft new municipal demand projections by WUG using the WUG-level 0.5 migration scenario. However, baseline GPCD and projected plumbing code savings will remain the same as those sent on January 23, 2023. RWPGs may propose revisions with supporting documentation.

The anticipated timeline for the remaining projections development has not changed:

- **July 14, 2023** – Deadline for RWPGs to request revisions to draft non-municipal demand projections.
- **August 11, 2023** – Deadline for RWPGs to request revisions to draft population and municipal demand projections.
- **Fall 2023** – TWDB staff will present all projections to the Board for adoption.

If you have any additional data requests or questions regarding draft projections or supporting data provided, please contact or submit your request to [EDA@twdb.texas.gov](mailto:EDA@twdb.texas.gov).

*This email has been sent to RWPG members, sponsor staff, and technical consultants.*

Thank you,

Katie S. Dahlberg

Manager, [Projections & Socioeconomic Analysis](#)

Water Supply Planning, Office of Planning

[Texas Water Development Board](#)

1700 N. Congress Avenue, P.O. Box 13231, Austin, TX 78711

(512) 463-2449 | [katie.dahlberg@twdb.texas.gov](mailto:katie.dahlberg@twdb.texas.gov)



**From:** [RegionalWaterPlanning](#)  
**To:** [RegionalWaterPlanning](#)  
**Cc:** [OOP-WSP-RWP](#); [Katie Dahlberg](#); [Sabrina Anderson](#); [Temple McKinnon](#); [Matt Nelson](#)  
**Subject:** Regional Water Planning Newsletter - February 2023  
**Date:** Thursday, February 23, 2023 2:00:40 PM

## Regional Water Planning Newsletter – February 2023

Good afternoon RWPG Stakeholders,

Please see below the February newsletter with updates from the Regional Water Planning program.

### Projections Release and Review Timeline

TWDB has now released draft population and draft water demand projections all water use categories. Data is available to view through the projection's dashboards online at:

- Population and municipal demand projections:  
<https://www.twdb.texas.gov/waterplanning/data/projections/2027/municipal.asp>
- Non-municipal demand projections:  
<http://www.twdb.texas.gov/waterplanning/data/projections/2027/projections.asp>

The table below lists the remaining projections review schedule and deadlines.

Draft Projections	Timeline
DUE: RWPGs request revisions for non-municipal demand projections	July 14, 2023
DUE: RWPGs request revisions for population and municipal demand projections	August 11, 2023
TWDB Board Meeting to Adopt Projections	Fall 2023

As a friendly reminder:

- Regions may request the TWDB to develop WUG level population and municipal demand projections using the 0.5 migration scenario. This request must be made by the region's Chair or primary technical consultant and can be submitted directly to [EDA@twdb.texas.gov](mailto:EDA@twdb.texas.gov).
- RWPGs are strongly encouraged to submit non-municipal demand revision requests early, and consultants are encouraged to coordinate with TWDB's Projections and Socioeconomic Analysis team regarding potential revisions as early as possible.
- Planning groups must take formal action to approve submitting revision requests to the TWDB.
- After TWDB Board adoption of the final projections in Fall 2023, TWDB grant funds may no longer be used for revisions to demand projections.

### Contract Updates

Regional water planning grant contract Exhibit D: [Guidelines for 2026 Regional Water Plan Data Deliverables](#) has been finalized and is now available online. This document provides guidance on

data reporting and formatting specifications for planning groups to follow when submitting electronic data to the TWDB, including entering data into the State Water Planning Database.

As a reminder, copies of the contract [First Amended Scope of Work](#) and [First Amended General Guidelines for Development of the 2026 Regional Water Plans](#) are also posted online. These documents are available on the 2026 Regional Water Plan document page, under “Contract Documents”: <https://www.twdb.texas.gov/waterplanning/rwp/planningdocu/2026/documents.asp>

RWPG sponsors are also reminded to submit their subcontract amendments to the TWDB for acceptance.

## Interregional Planning Council

The second meeting of the Interregional Planning Council will be held on March 9<sup>th</sup>. Information on upcoming meetings and resources can be found on the updated Council website: <https://www.twdb.texas.gov/waterplanning/rwp/ipc/2027IPC.asp>

## Analysis of infeasible strategies in the 2021 Regional Water Plans

TWDB recently provided [email guidance](#) on addressing this task and it’s important to note that the infeasibility review is only required for strategies or projects that require a permit or involve construction.

Key milestones and deadlines for this task include the following:

- Prior to 3/4/2024: Results of RWPG analysis of infeasible strategies and/or projects must be presented at a public meeting. This meeting is to include documentation of the region’s process for determining infeasible strategies and projects. This meeting requires a 14-day notice and must be the same public meeting where the planning group also presents its methodology for identifying potentially feasible WMSs in the 2026 regional water plans.
- 3/4/2024: Technical Memorandum due to TWDB. The Technical Memorandum is a mid-point contract deliverable and must include the list of RWPG identified infeasible strategies and/or projects from the 2021 RWPs, or a statement that no infeasible strategies or projects were identified.
- 6/5/2024: RWPG-adopted 2021 RWP amendments to revise or remove infeasible strategies and/or projects due to the TWDB.

## Reminders and Previous Updates

- The 2026 Regional Water Plan Working Schedule was updated in January 2023 and is available online at: [http://www.twdb.texas.gov/waterplanning/rwp/planningdocu/2026/projectdocs/Working\\_Schedule\\_2026RWPs.pdf](http://www.twdb.texas.gov/waterplanning/rwp/planningdocu/2026/projectdocs/Working_Schedule_2026RWPs.pdf)
- The regional and state water planning rules pamphlet – that conveniently condenses all the key water planning statute and rules for use by RWPGs, Sponsors, and their Consultants - was updated as of May 2022: [http://www.twdb.texas.gov/waterplanning/rwp/planningdocu/2026/projectdocs/RWP\\_RulePamphlet.pdf](http://www.twdb.texas.gov/waterplanning/rwp/planningdocu/2026/projectdocs/RWP_RulePamphlet.pdf)
- Visit the TWDB’s *Sixth Cycle of Regional Water Planning Documents* webpage to view communications from TWDB during this planning cycle, project documents including a working schedule, contract documents, and administrative documents. These documents may be found at: <http://www.twdb.texas.gov/waterplanning/rwp/planningdocu/2026/documents.asp>
- Visit the TWDB’s *Regional Water Planning Educational Information* webpage to view educational documents related to regional and state planning:

<https://www.twdb.texas.gov/waterplanning/rwp/education/index.asp>

- The TWDB receives and maintains a database of all the RWPG member email addresses from the region's sponsor. Sponsors should provide any updated email addresses to your TWDB Regional Water Planner to ensure our membership database is up to date and that all RWPG members receive these newsletters etc. For regions that have members without email addresses, please forward these communications to those members by mail or another effective means.
- 

## Contact TWDB

Please contact your region's TWDB Regional Water Planner for any additional information. Current Regional Water Planner assignments are as follows:

- Region D: Ron Ellis (Team Lead), [Ron.Ellis@twdb.texas.gov](mailto:Ron.Ellis@twdb.texas.gov)
- Regions L: Elizabeth McCoy, [Elizabeth.McCoy@twdb.texas.gov](mailto:Elizabeth.McCoy@twdb.texas.gov)
- Regions B, C, M, N: Kevin Smith, [Kevin.Smith@twdb.texas.gov](mailto:Kevin.Smith@twdb.texas.gov)
- Regions A, G, O, P: Jean Devlin, [Jean.Devlin@twdb.texas.gov](mailto:Jean.Devlin@twdb.texas.gov)
- Regions J, I, K: Lann Bookout, [Lann.Bookout@twdb.texas.gov](mailto:Lann.Bookout@twdb.texas.gov)
- Regions E, F, H: Heather Rose, [Heather.Rose@twdb.texas.gov](mailto:Heather.Rose@twdb.texas.gov)

For more information regarding the TWDB Regional Water Planning Program, please visit [our website](#).

*Note: This email was sent to all RWPG members, sponsors, and technical consultants. A copy of this newsletter will be posted on the regional water planning newsletter [webpage](#).*

Best,

Sarah Lee  
Manager, Regional Water Planning  
Water Supply Planning Division  
Texas Water Development Board  
P.O. Box 13231, Austin, TX 78711  
512-936-2387 | [sarah.lee@twdb.texas.gov](mailto:sarah.lee@twdb.texas.gov)  
[www.twdb.texas.gov](http://www.twdb.texas.gov)



**From:** [RegionalWaterPlanning](#)  
**To:** [RegionalWaterPlanning](#)  
**Cc:** [OOP-WSP-RWP](#); [Temple McKinnon](#); [Matt Nelson](#)  
**Subject:** 2021 RWP Policy Recommendation Status and Additional RWPG Resource Documents  
**Date:** Wednesday, April 5, 2023 4:02:02 PM

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Dear RWPG stakeholders,

Please be aware of the following documents recently developed by the TWDB in response to recommendations from the Interregional Planning Council:

1. [Policy recommendations in the 2021 Regional Water Plans](#): This document may be used to inform the RWPG's work on [Scope of Work Task 8](#). This document is the verbatim language of policy recommendations from each of the 2021 Regional Water Plans and is labeled as draft since it is TWDB's best assessment of status based upon information available as of December 2022.
2. [RWPG liaison materials](#): This document provides best practices for RWPG liaisons and TWDB rule requirements regarding RWPG liaisons. Liaisons are encouraged to provide direct feedback to their TWDB planner on what else would be helpful to support their roles.
3. [Active RWPG committees](#): This document lists active committees utilized by RWPGs.
4. [Supporting information on TCEQ non-voting membership](#): This document provides links to TCEQ contact information should a RWPG pursue adding the TCEQ as a non-voting member to their group.
5. [RWPG voting membership costs](#): This document provides high level information on voting membership costs.

Please contact your TWDB Regional Water Planner with any questions.

*This email has been sent to RWPG members, RWPG sponsor staff, and technical consultants.*

Best,

Sarah Lee  
Manager, Regional Water Planning  
Water Supply Planning Division  
Texas Water Development Board  
P.O. Box 13231, Austin, TX 78711  
512-936-2387 | [sarah.lee@twdb.texas.gov](mailto:sarah.lee@twdb.texas.gov)  
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