

Brazos G Water Planning

Williamson County



Today's Discussion

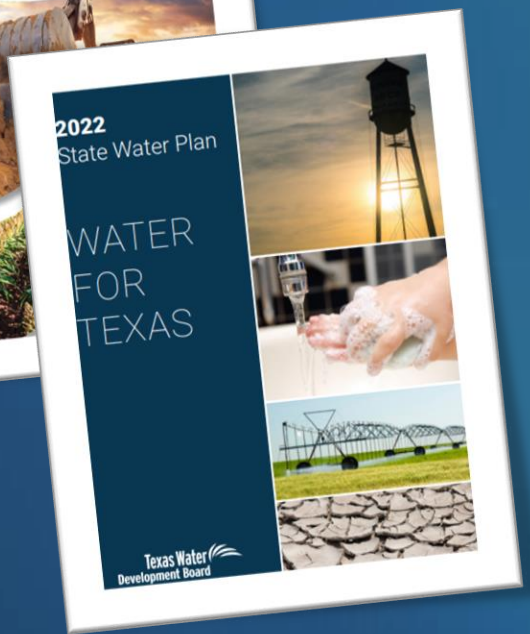
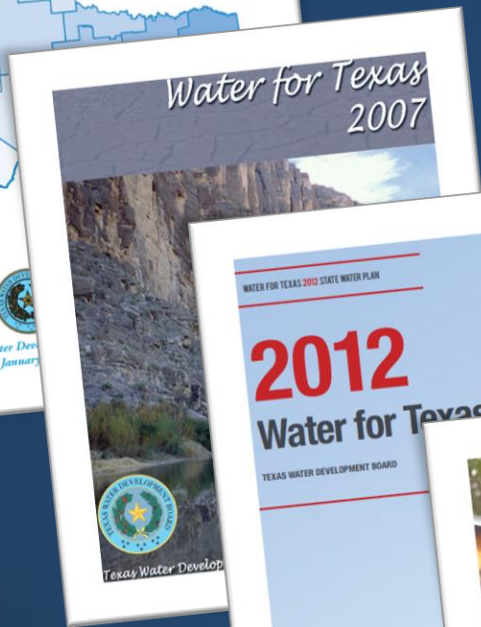
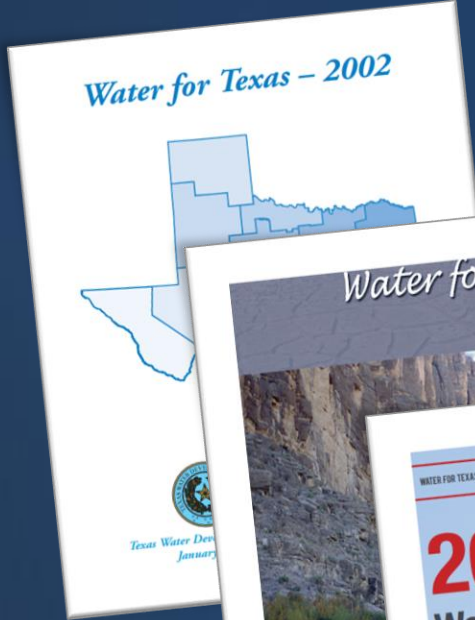
Overview of State/Regional Planning

WUGs and Population

Municipal and Non-Municipal Demand

Needs and Water Management Strategies

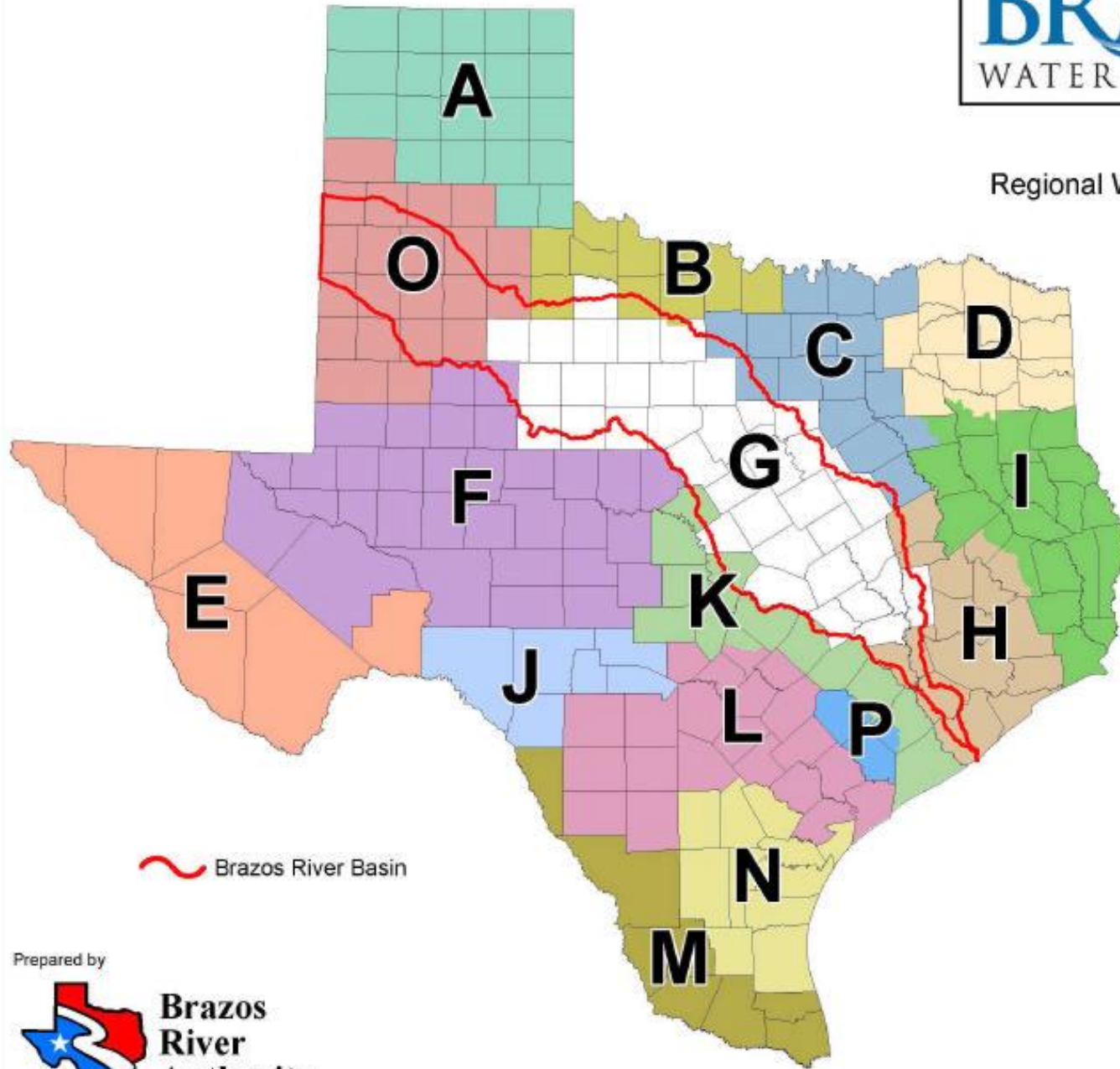
Lines of Communication




The Texas State Water Plan - "Water for Texas" - is developed every 5 years.

It is developed from the aggregation of 16 Regional Water Plans in a "Bottom Up" planning process.

Regional Water Planning Groups of Texas



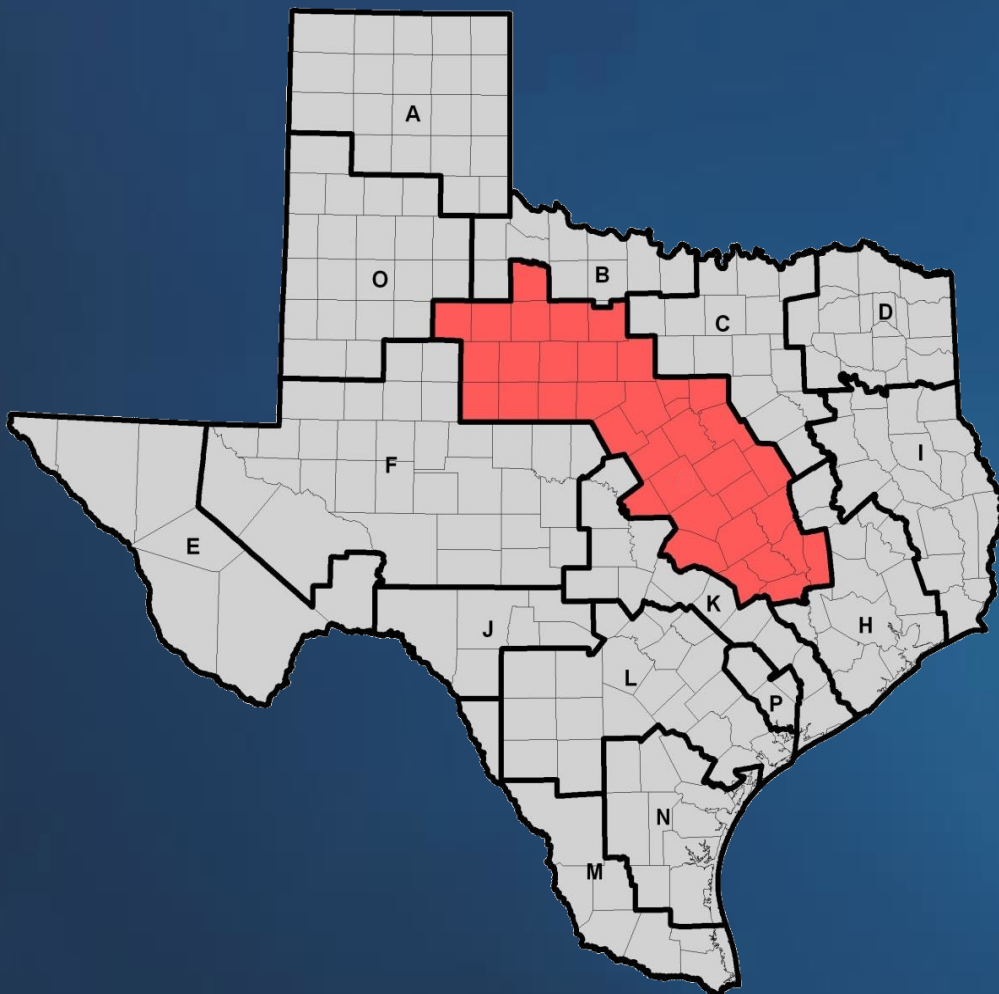
- A** Panhandle
- B** Region B
- C** Region C
- D** North East Texas
- E** Far West Texas
- F** Region F
- G** Brazos G
- H** Region H
- I** East Texas
- J** Plateau
- K** Lower Colorado
- L** South Central Texas
- M** Rio Grande
- N** Coastal Bend
- O** Llano Estacado
- P** Lavaca

 Brazos River Basin



BRAZOS G

WATER PLANNING GROUP



- 37 Counties
- 527 Water Users
 - 279 Municipal Groups
 - Other Uses
 - Manufacturing (30)
 - Steam Electric (12)
 - Irrigation (36)
 - Livestock (37)
 - Mining (36)
- 97 Wholesale Providers



The regional water plans provide for the orderly development, management, and conservation of water resources, and include drought preparation and response.

The goal of the Region G planning process is to assure sufficient water will be available at a reasonable cost to ensure public health, safety and welfare, further economic development, and protect agriculture and natural resources.



23 Voting Members representing 12 Interest groups:

- 1 – Public
- 1 – Industries
- 1 – Environmental
- 1 – Small Business
- 1 – Electric Generating Utilities
- 1 – River Authorities
- 1 – Water Utilities
- 2 – Agriculture
- 2 – Water Districts
- 3 – Counties
- 4 – Municipalities
- 5 – Groundwater Management Areas

Non-Voting Members:

TWDB, TDA, TPWD, TSSWCB and adjacent Regional Water Planning Groups

Acronyms

Water

User

Group

Acronyms

Gallons

Per

Capita

Daily

Williamson County Municipal WUGs and Population Projections

Establishment of Municipal Water User Groups (WUGs)

Past rounds

- Municipal boundaries with:
 - Population criteria for city-owned water utilities
 - Volumetric criteria for other water utilities

Starting with 2021 Plan and Present 2026 Planning

- Utility-based planning
- Delineated by water provider service areas

Population and municipal water demand projections will be developed for these WUGs

Municipal WUG Identification Criteria

Retail public utilities owned by a political subdivision providing more than 100 acre-feet per year (AFY) of water for municipal use;

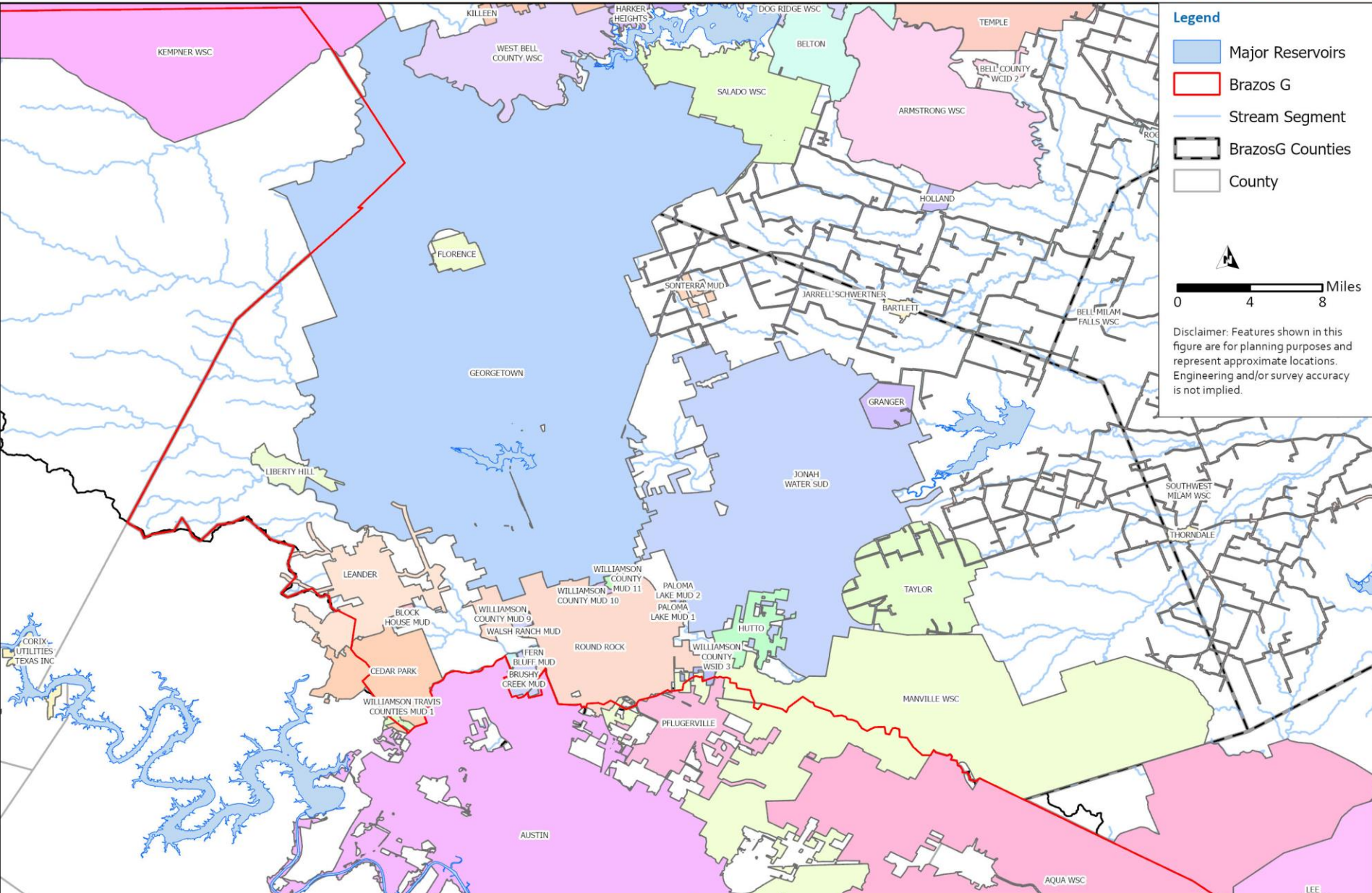
Privately-owned utilities that request inclusion as an individual WUG, provide more than 100-AFY for municipal use for each owned water system, and are approved for inclusion as an individual WUG by the RWPG;

Water systems of state or federal-owned facilities that request inclusion as an individual WUG, provide more than 100-AFY for municipal use, and are approved for inclusion as an individual WUG by the RWPG;

Collective reporting units (CRU), or groups of retail public utilities that have a common association and are requested by the RWPG.

County-Other – Aggregation by county of water providers smaller than the above-described thresholds.

Total of 32 Municipal Water User Groups (WUGs) in Brazos G



Williamson County Municipal WUG Summary

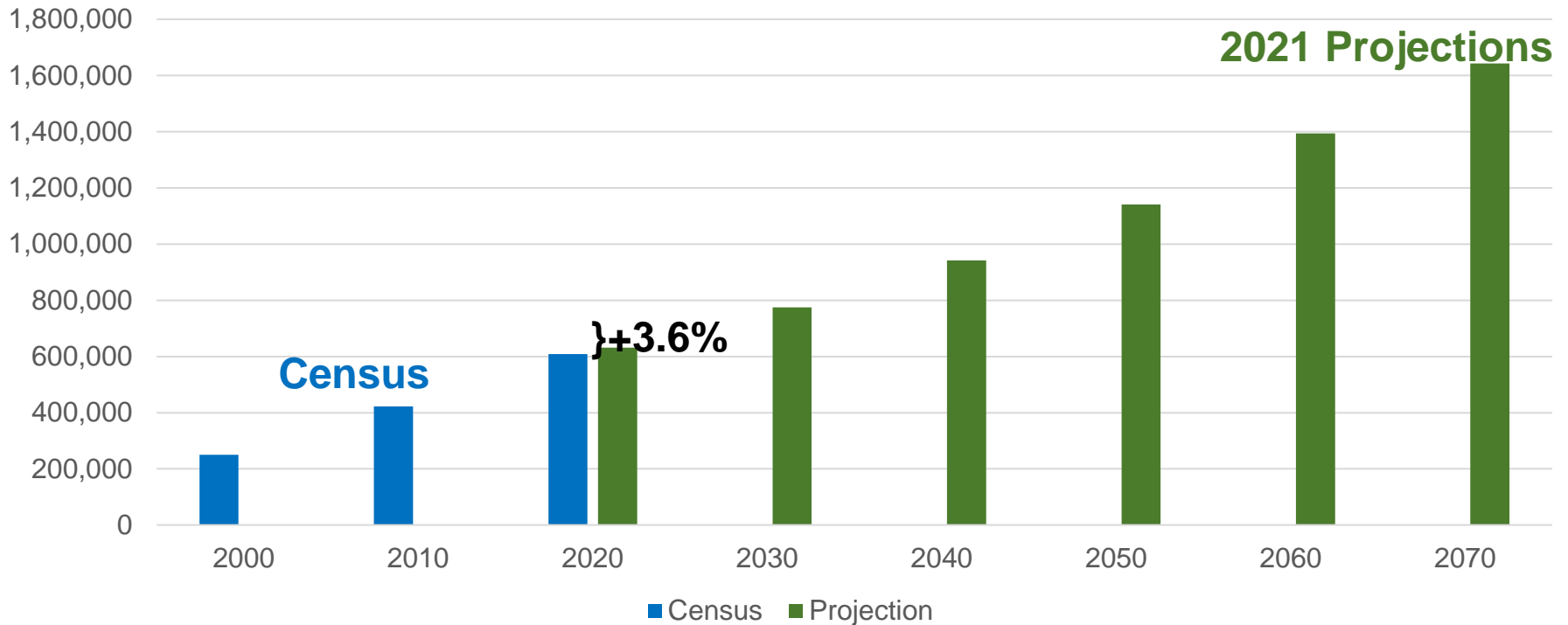
Plan	2021	2026
Municipal WUGs	31	32

New WUG:

Noack WSC

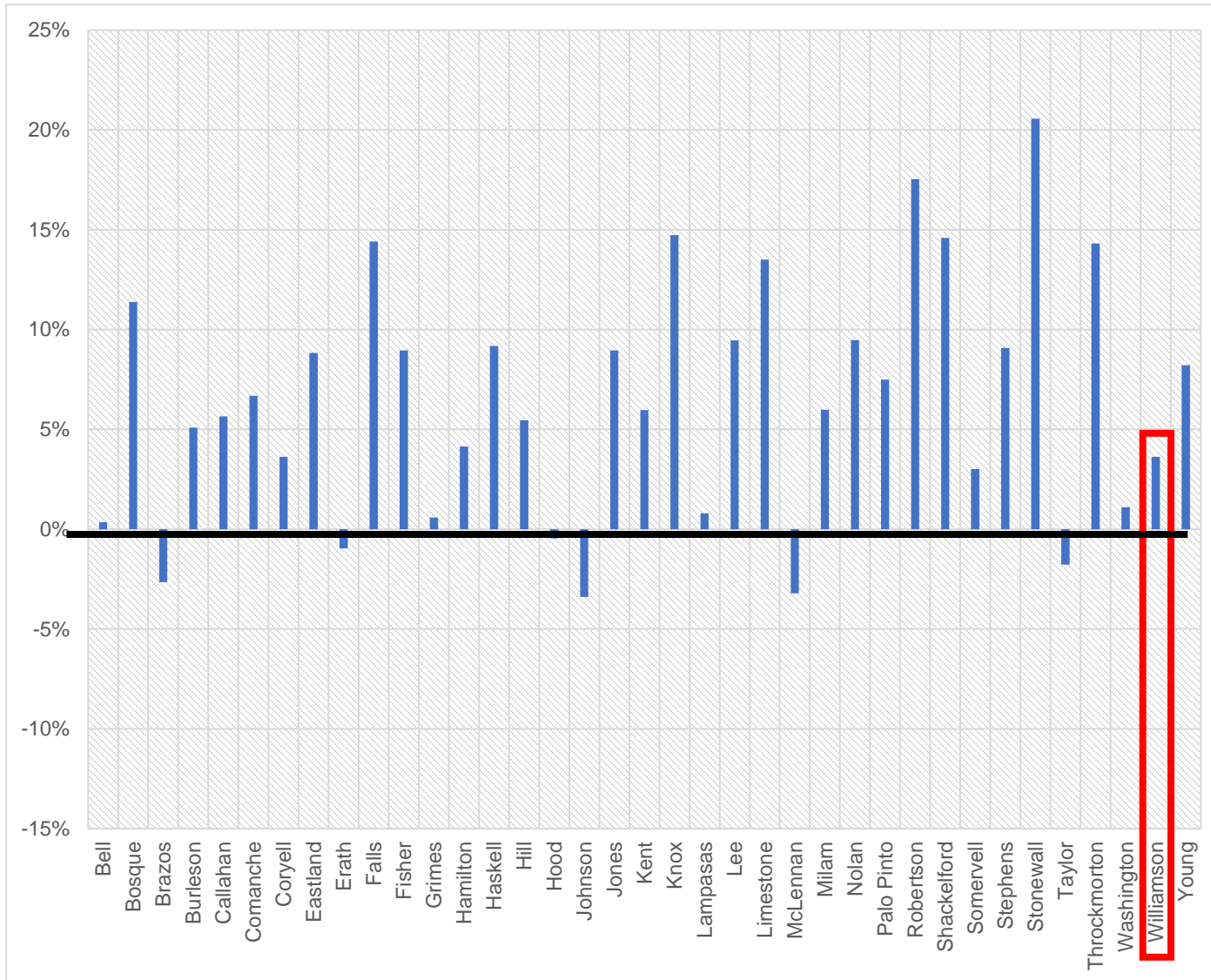
Determined by whether or not the utility used more than 100 ac-ft in the 2015-2019 period per 31 TAC 357.10(43).

Williamson County Population – Census and 2021 Projections



	2020
Census	609,017
Projection	631,097
Difference	+22,080
% Difference	+3.6%

Maximum % Difference between 2021 Brazos G Plan's County Population Projection for 2020 and Census 2020

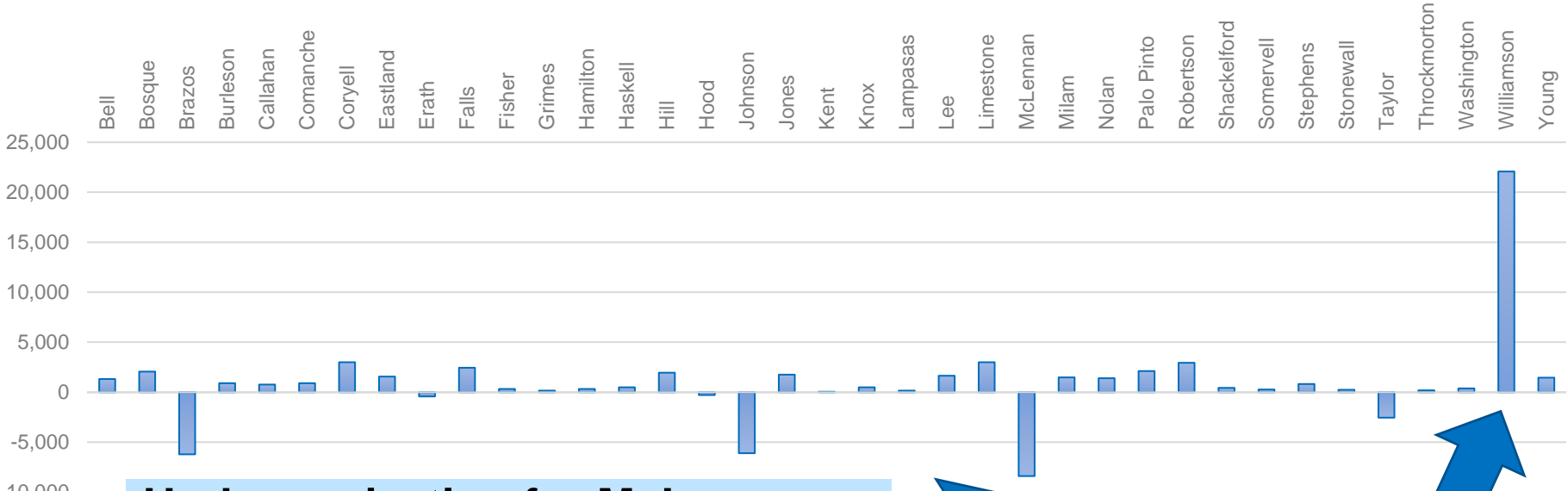


78% of projections within 10% of Census

Eight (8) counties over-projected >10%

- Bosque
- Falls
- Knox
- Limestone
- Robertson
- Shackelford
- Stonewall
- Throckmorton

Magnitude of Difference between 2021 Brazos G Plan's County Population Projection for 2020 and Census 2020



Under projection for McLennan County
Projected vs. Census
 ~261K ~252K

Largest over projection was for Williamson County
Projected vs. Census
 ~631K ~609K

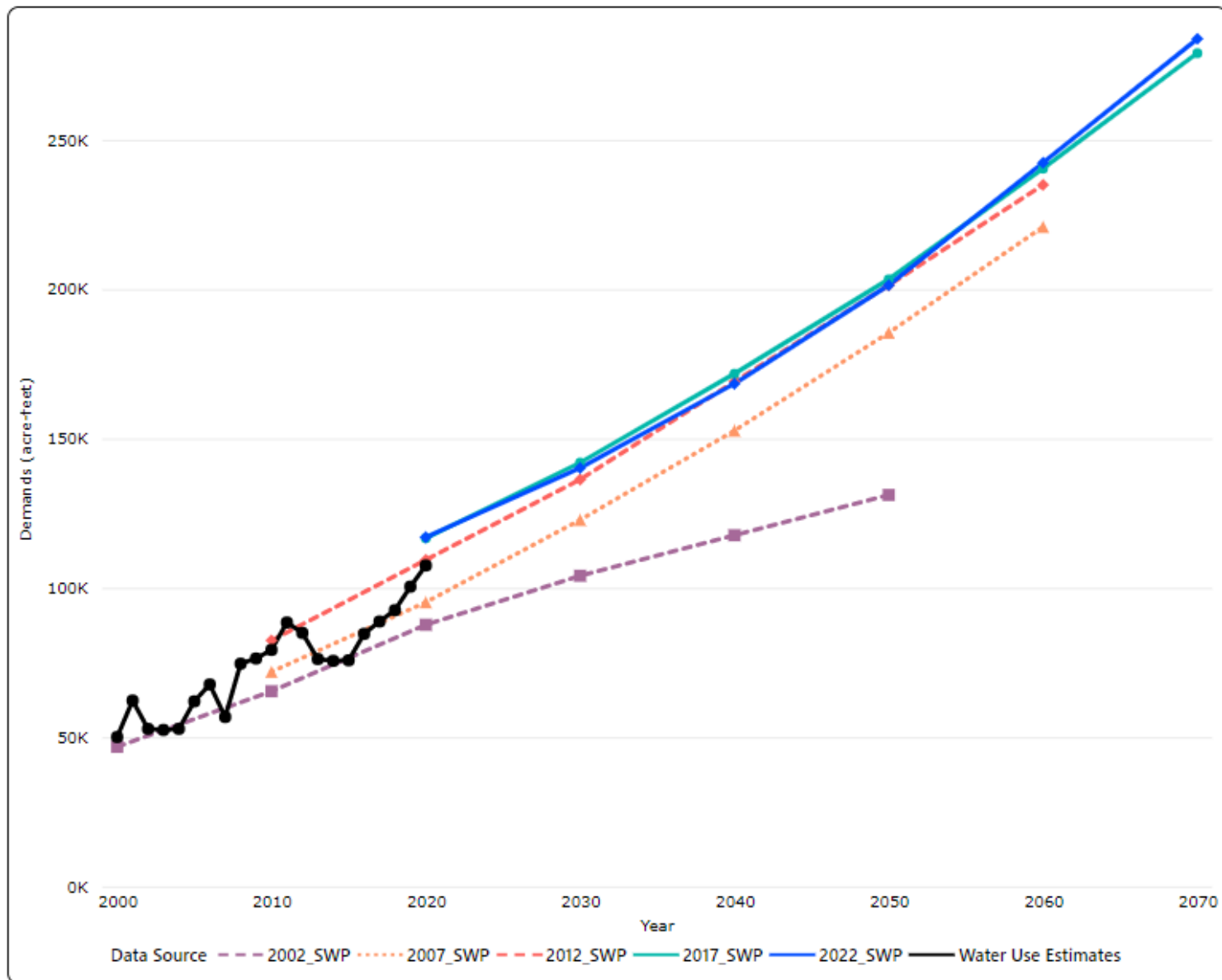
What's the Takeaway?

We can expect that for this planning cycle the draft population projections will be modified to more align with the 2020 census and observed growth rates

- Small commensurate decreases in population projections relative to last plan for many counties
- Potential increases for McLennan County and other areas with observed growth

Williamson County Municipal Water Demand Projections

Historical Williamson County Municipal Water Demand with projections from previous Plans



How **Water Demand** is projected.

Baseline
GPCD
(with plumbing
savings)

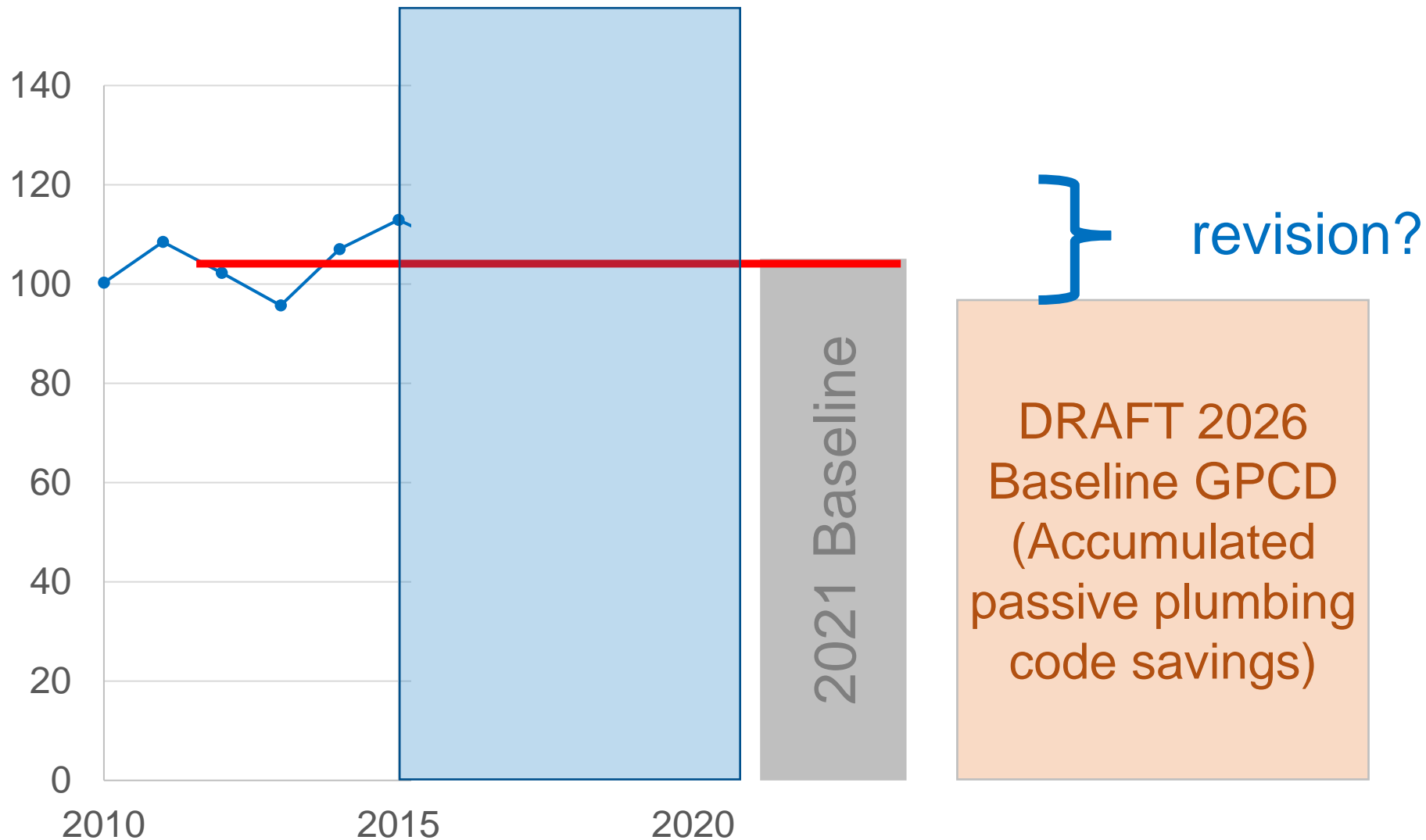
X

Projected
Population

=

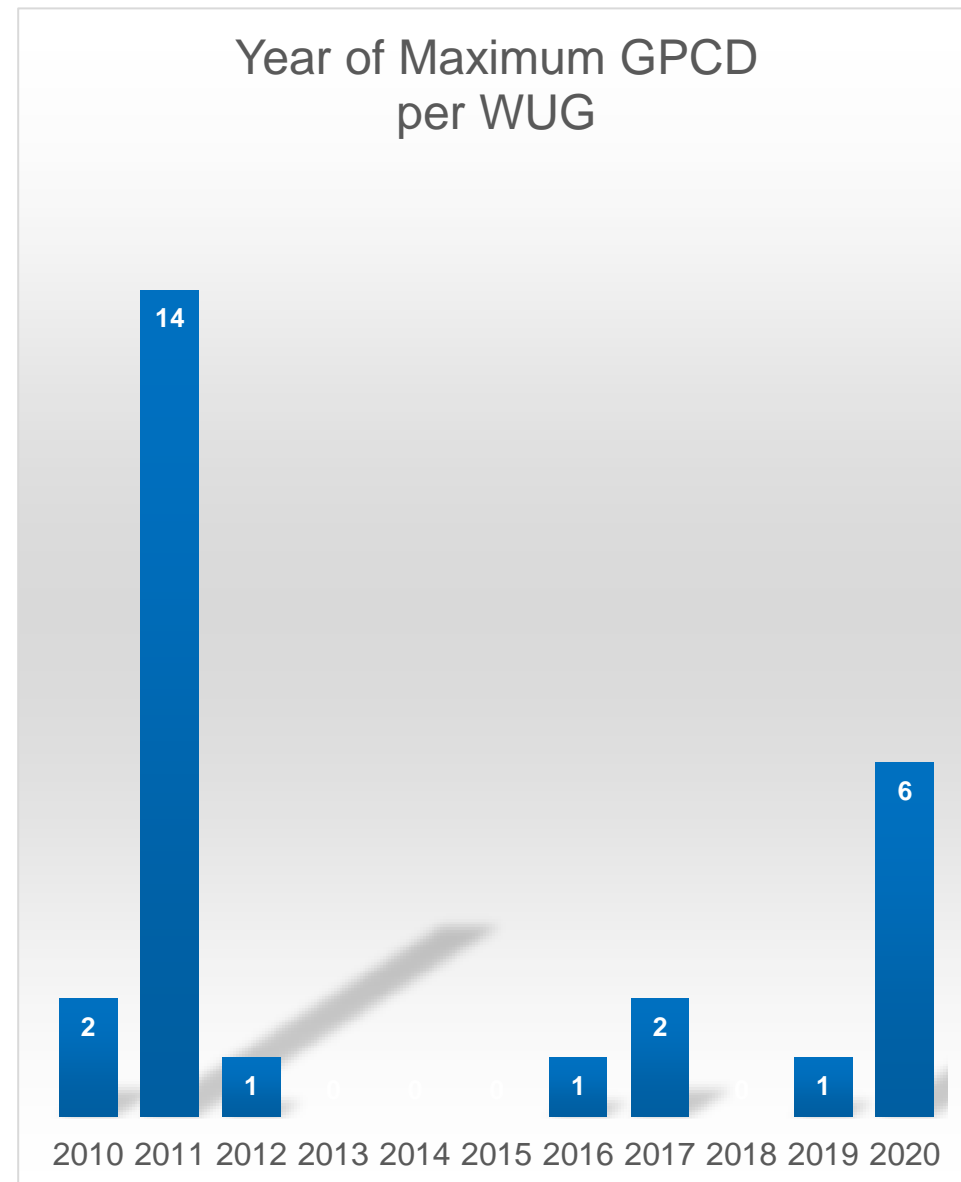
**Municipal
Water
Demand**

Baseline GPCD (with plumbing savings)



Draft 2026 Williamson County GPCD

- 41% of Municipal WUGs have a Draft Baseline GPCD > 140
 - 48% in 2021 Plan.
- Draft Baseline GPCDs reduced by an average of 7% from 2021 RWP
 - Due to accrued plumbing savings.
- Maximums most often occurred in 2011
- Maximum per capita usage does occur in other years over the last decade for certain WUGs



What's the Takeaway?

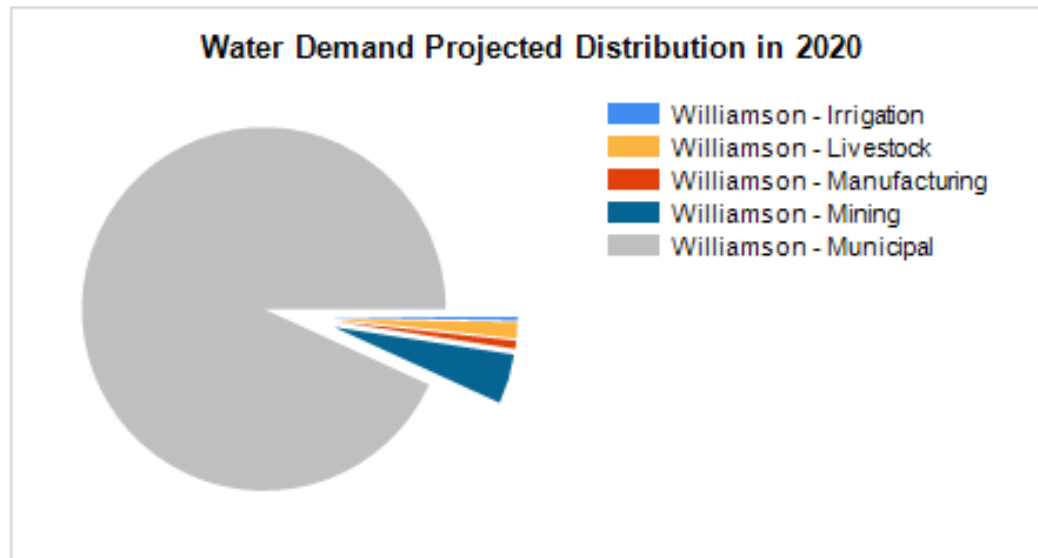
As projections are rolled out by TWDB, we will work with WUGs to:

- Ensure accuracy of WUS data
- Ensure GPCDs are representative over appropriate period for regional planning objectives

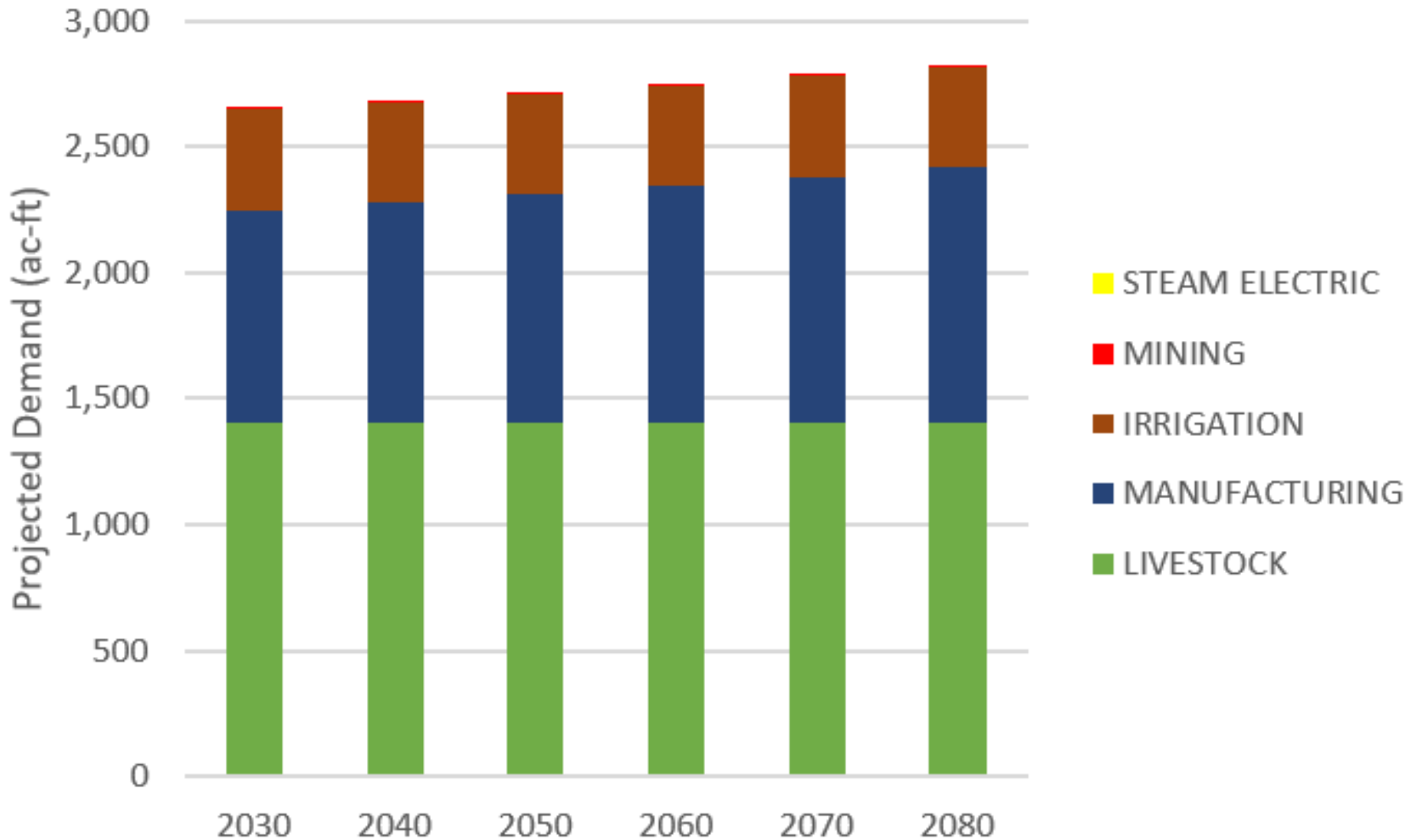
Draft Non-Municipal Projections

2021 Regional Water Plan Water Demand Projections by County for 2020-2070 in Acre-Feet

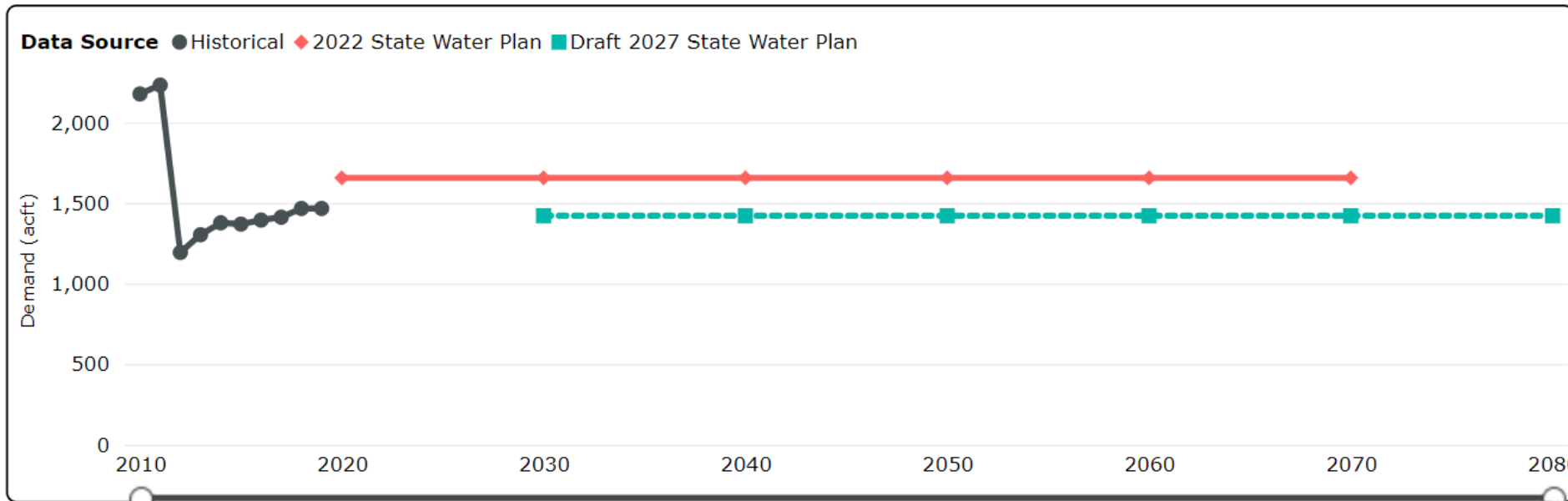
Total Water Demand for Williamson County							
County	Category	2020	2030	2040	2050	2060	2070
Williamson	Irrigation	333	333	333	333	333	333
Williamson	Livestock	1,656	1,656	1,656	1,656	1,656	1,656
Williamson	Manufacturing	837	993	993	993	993	993
Williamson	Mining	5,168	6,250	7,367	8,558	9,785	11,189
Williamson	Municipal	108,956	130,914	157,992	189,799	229,581	269,689
Williamson County Total		116,950	140,146	168,341	201,339	242,348	283,860



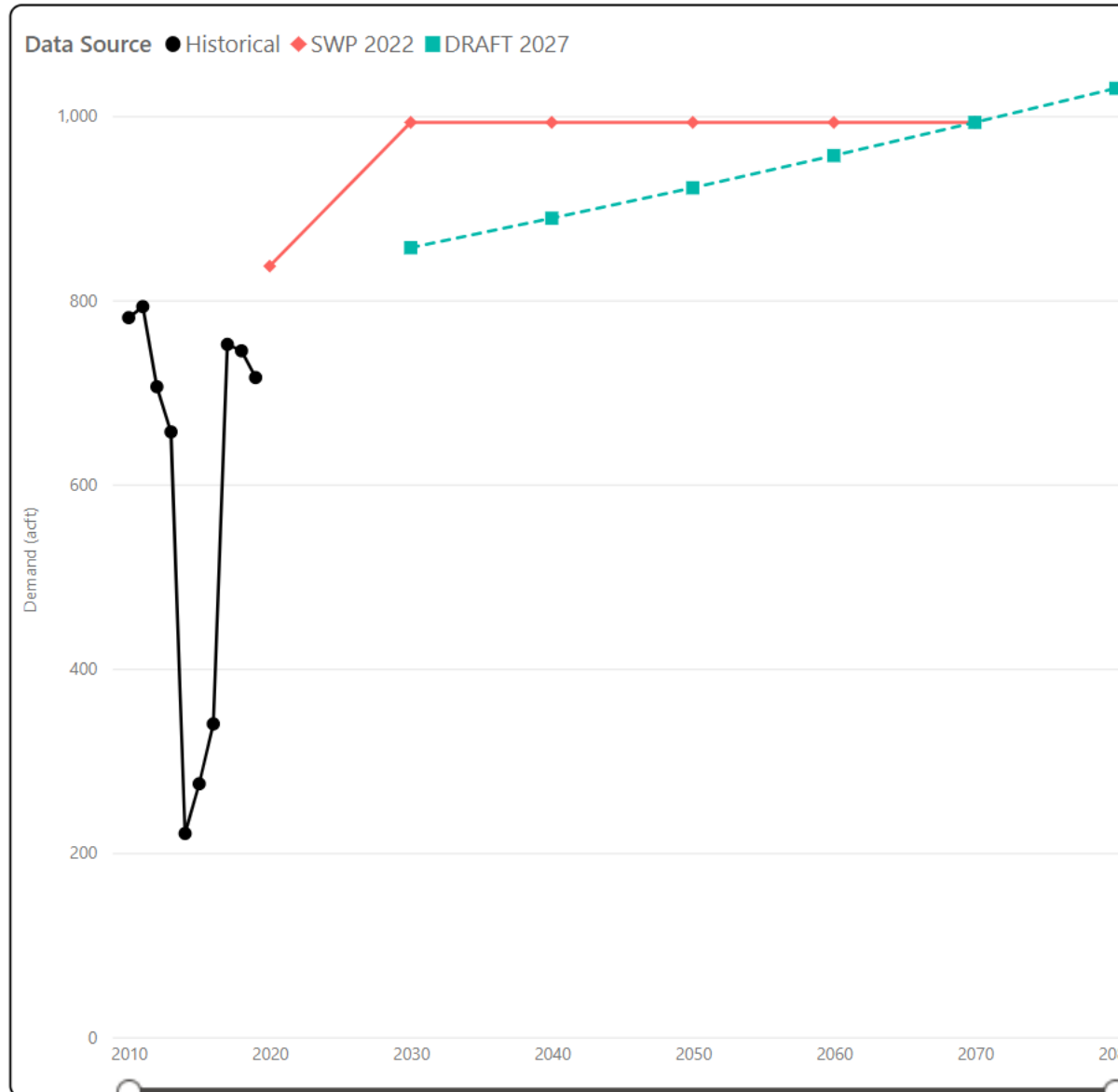
Composition of Draft 2026 Projected Non-Municipal Demands for Williamson County



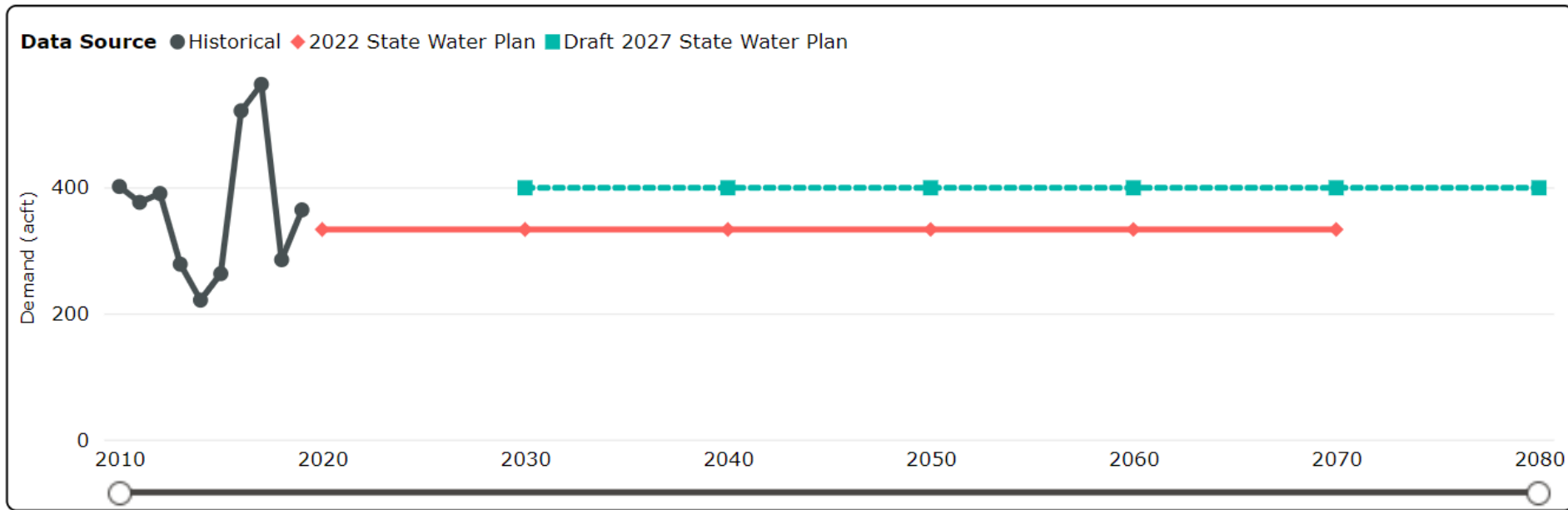
Historical and Projected Livestock Demand for Williamson County



Historical and Projected Manufacturing Demand for Williamson County

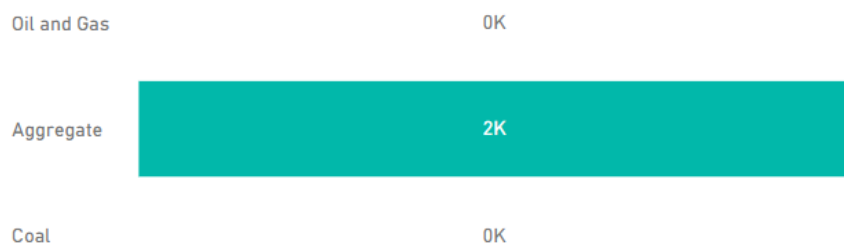


Historical and Projected Irrigation Demand for Williamson County

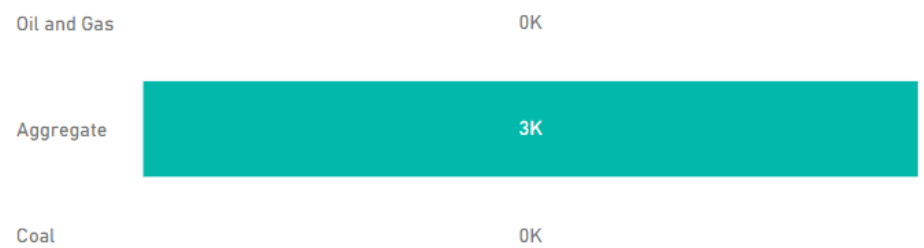


Historical and Projected Mining Demand for Williamson County

2030 Mining Water Use by Type (ACFT)

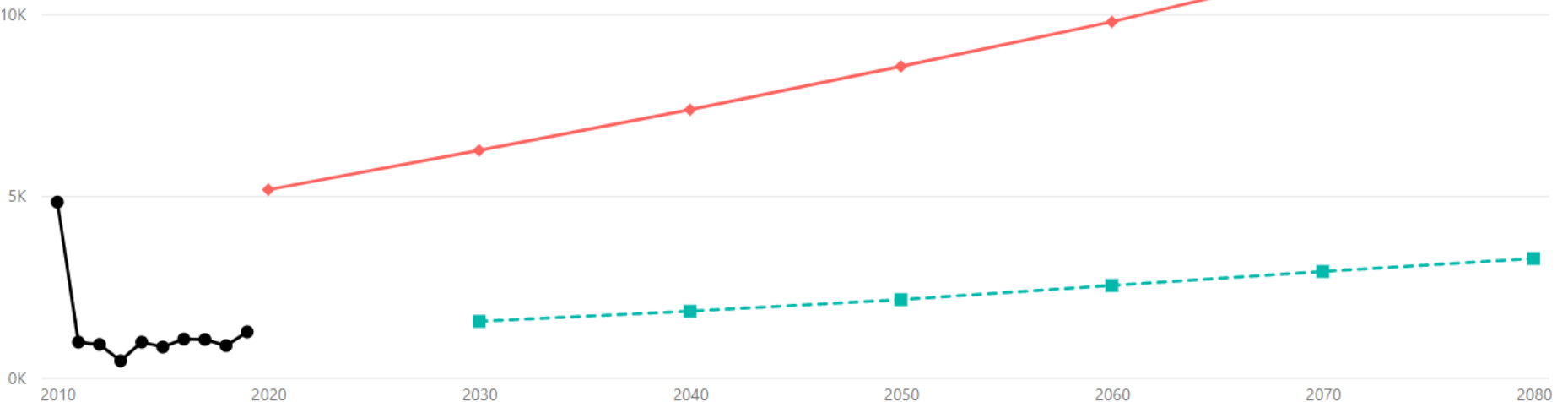


2080 Mining Water Use by Type (ACFT)

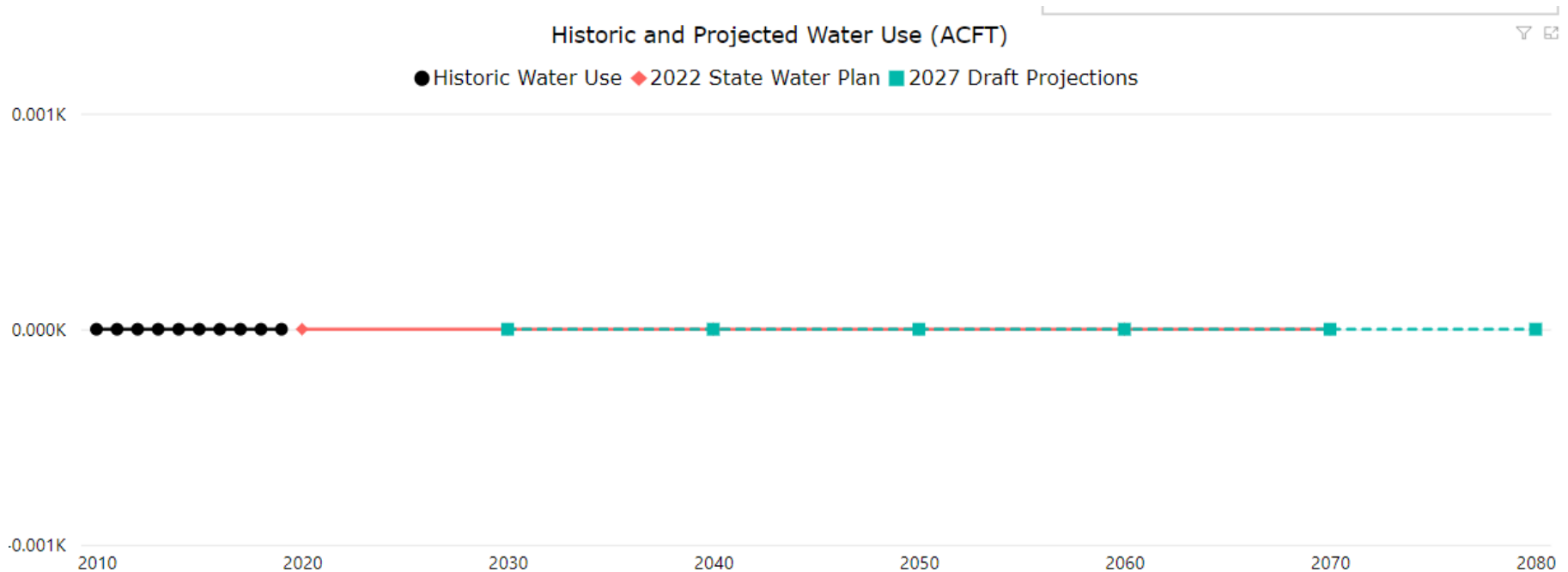


Historical and Projected Mining Water Use (ACFT)

Data Set ● Historic Water Use ◆ 2022 State Water Plan ■ 2027 Draft Projections



Historical and Projected Steam-Electric Power Generation Demand for Williamson County



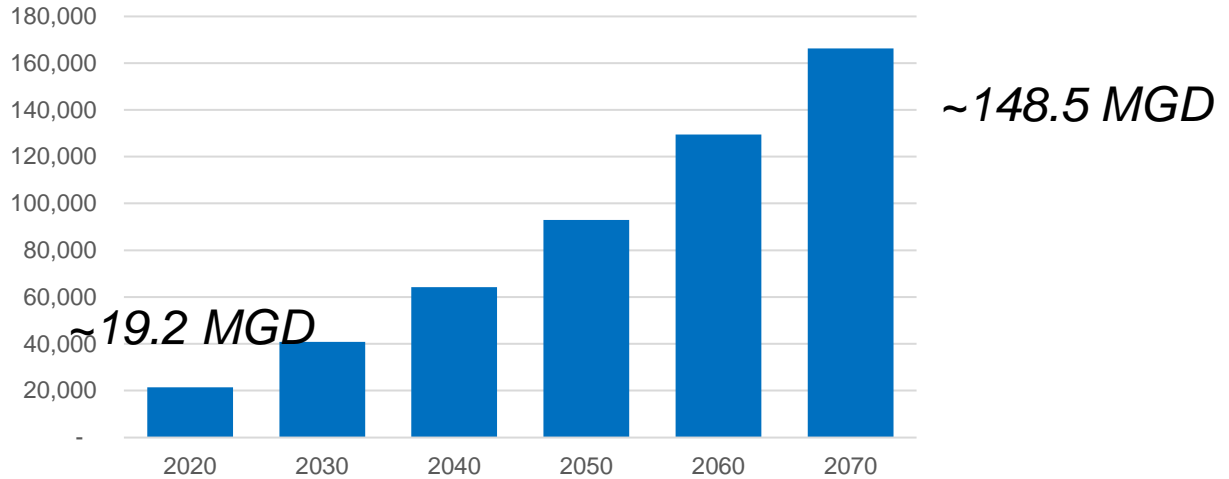
What's the Takeaway?

We are investigating the application of the non-municipal projection methodologies to each county, and reaching out to representatives of non-municipal water users to:

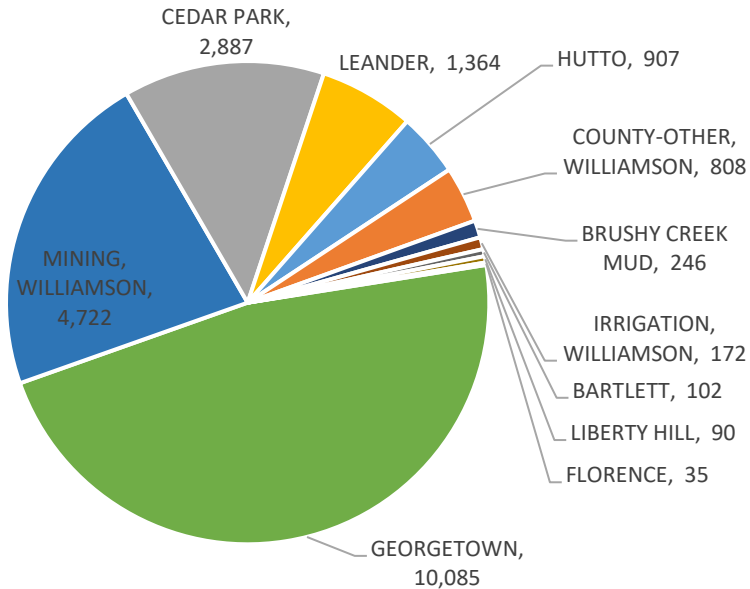
- Ensure accuracy of data
- Ensure methods employed are representative over appropriate period for regional planning objectives

Identified Needs and Recommended Strategies for Williamson County from the 2021 Brazos G Plan

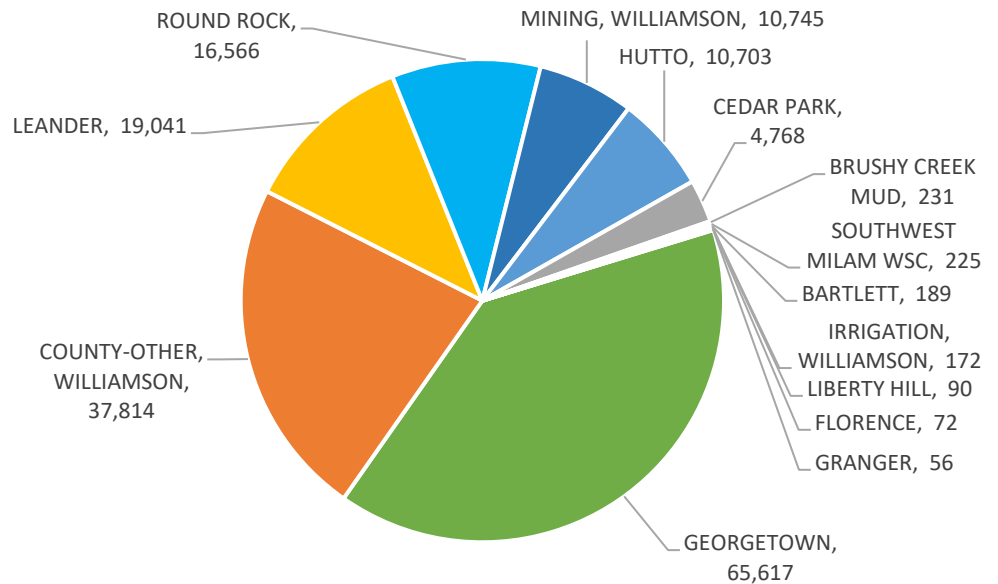
Williamson County Projected Needs



21,418 ac-ft in 2020



166,289 ac-ft in 2070

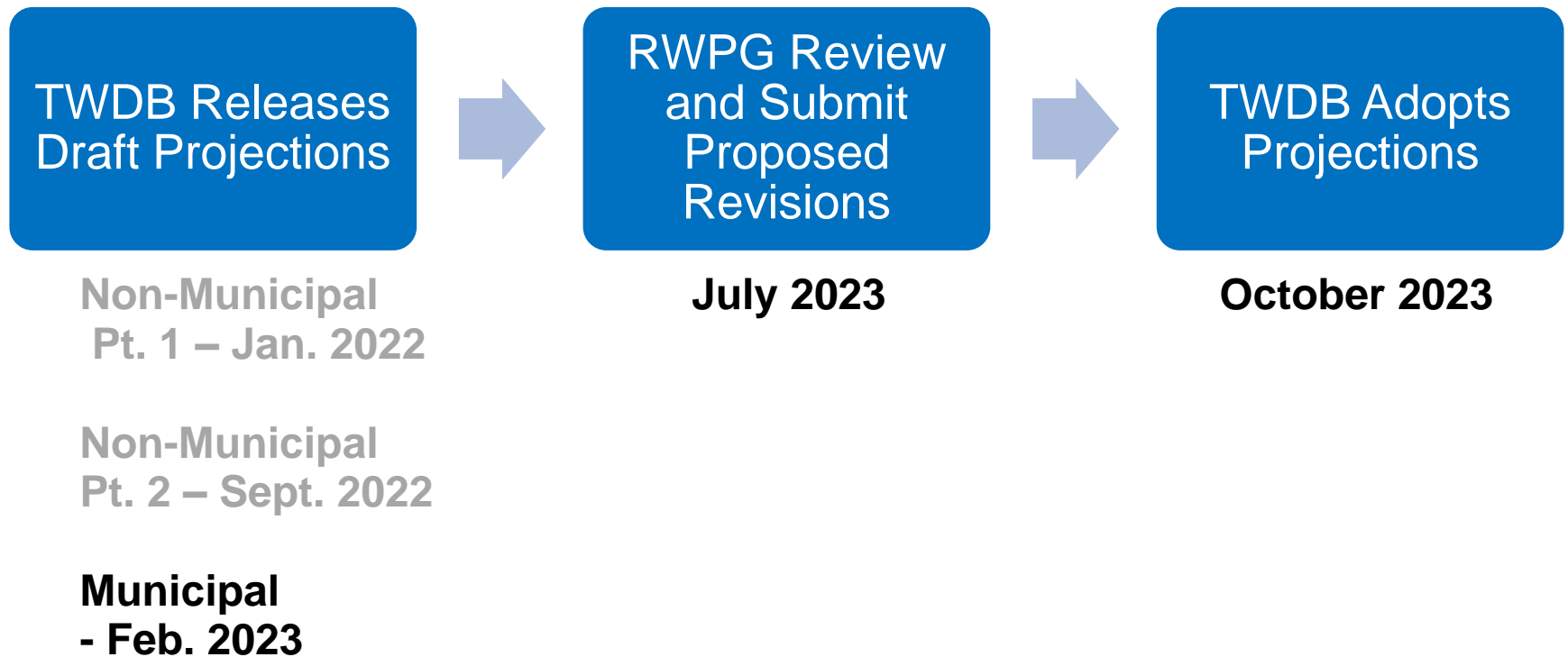


2021 Recommended Water Management Strategies to meet projected needs in Williamson County

- Alcoa Property Supply (Alcoa Lake & Brazos ROR)
- Alcoa Property Supply (Milam Sep Little River)
- Belton to Stillhouse Pipeline – BRA
- BRA Highland Lake to County-Other
- Brushy Creek RUA-Existing Contracts
- Carrizo Aquifer Development
- East Williamson County Water Supply Plan
- Edwards Aquifer Development
- Georgetown WTP Expansion
- Industrial Water Conservation
- Irrigation Water Conservation
- Lake Granger ASR
- Lake Granger Augmentation-Ph 2 (Groundwater)
- LCRA – Mid-Basin Reservoir
- Municipal Water Conservation
- Purchase from SAWS Vista Ridge Project
- Purchase supply from Jarrell-Schwertner WSC
- Purchase supply from Round Rock
- Purchase water from Georgetown
- Reuse
- Storage Reallocation of Lake Whitney
- Trinity Aquifer Development
- Trinity – Lake Georgetown ASR
- Williamson County Groundwater – South Option

Path Forward

Process





How does Brazos G communicate?

- Brazos G website: www.brazosgwater.org
 - Posted meetings and planning information
 - Email contact widget
- Email list of interested parties
- Planning group meetings and required public hearings
- Surveys of Water User Groups and Wholesale Water Providers
- Public presentations when invited and time/funding allows
- Other public meetings to discuss major issues
- Phone calls/emails to & from us (members, BRA, consultants)
- Sub-regional meetings



Questions?

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