

Brazos G Water Planning

Bell County



Today's Discussion

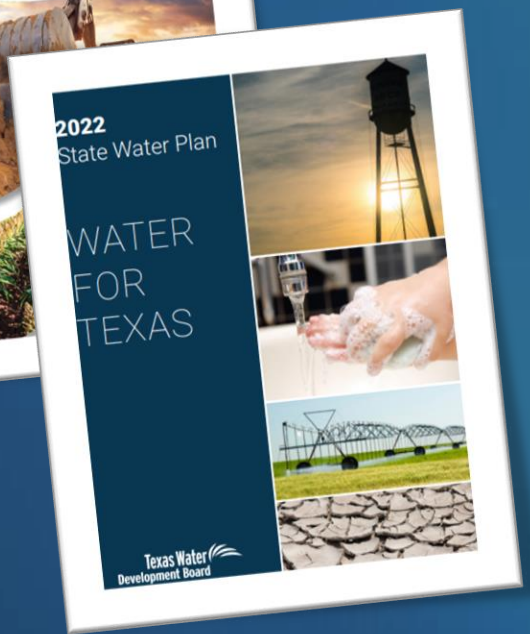
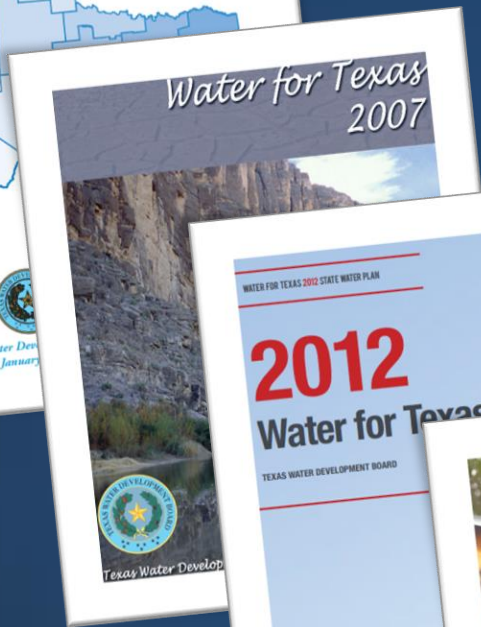
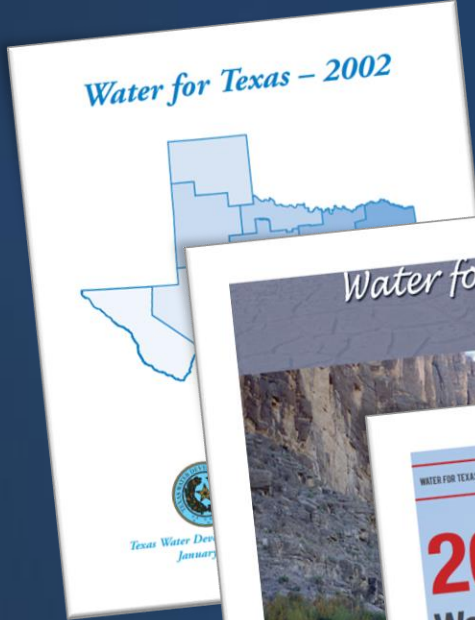
Overview of State/Regional Planning

WUGs and Population

Municipal and Non-Municipal Demand

Needs and Water Management Strategies

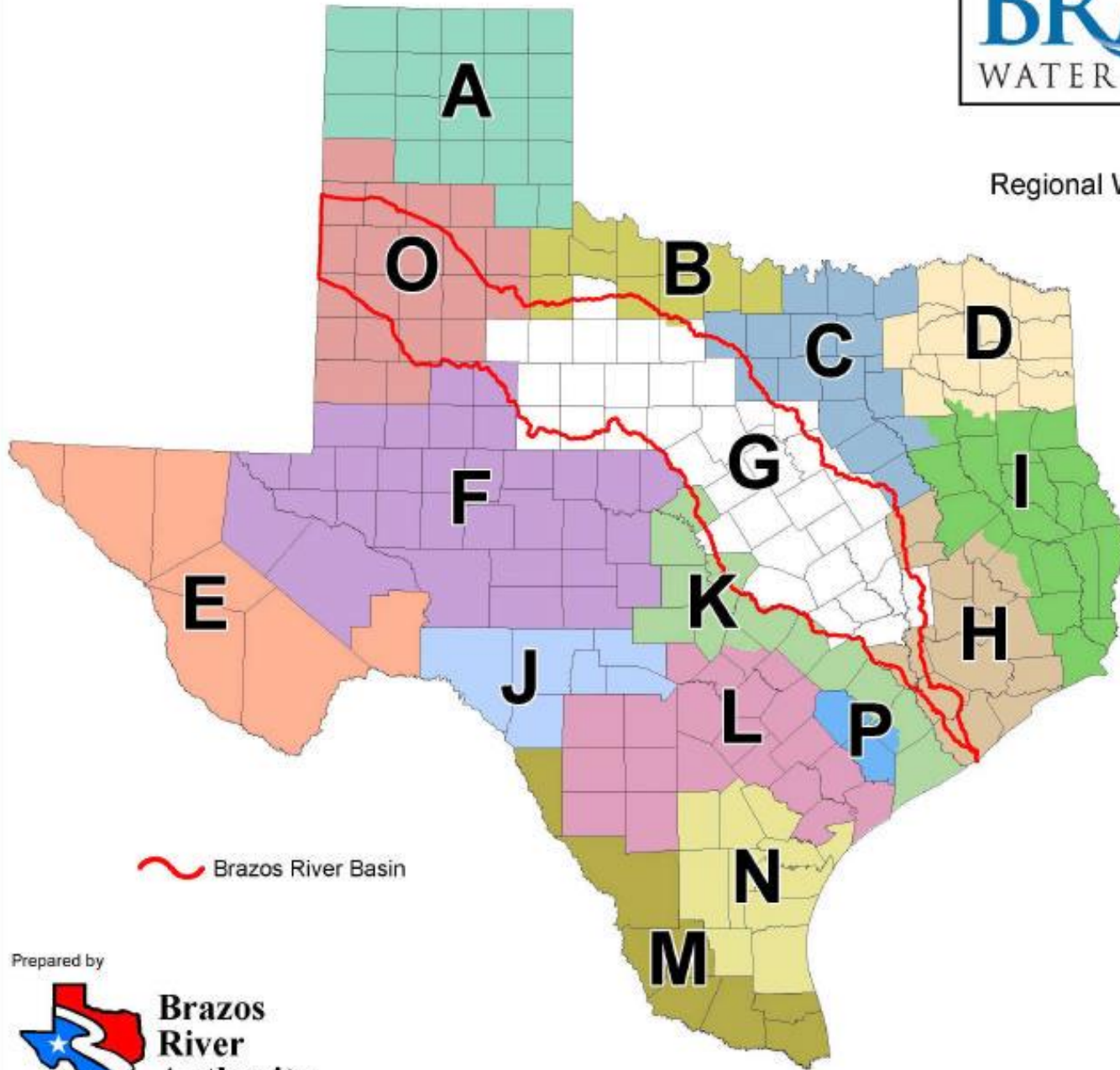
Lines of Communication




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



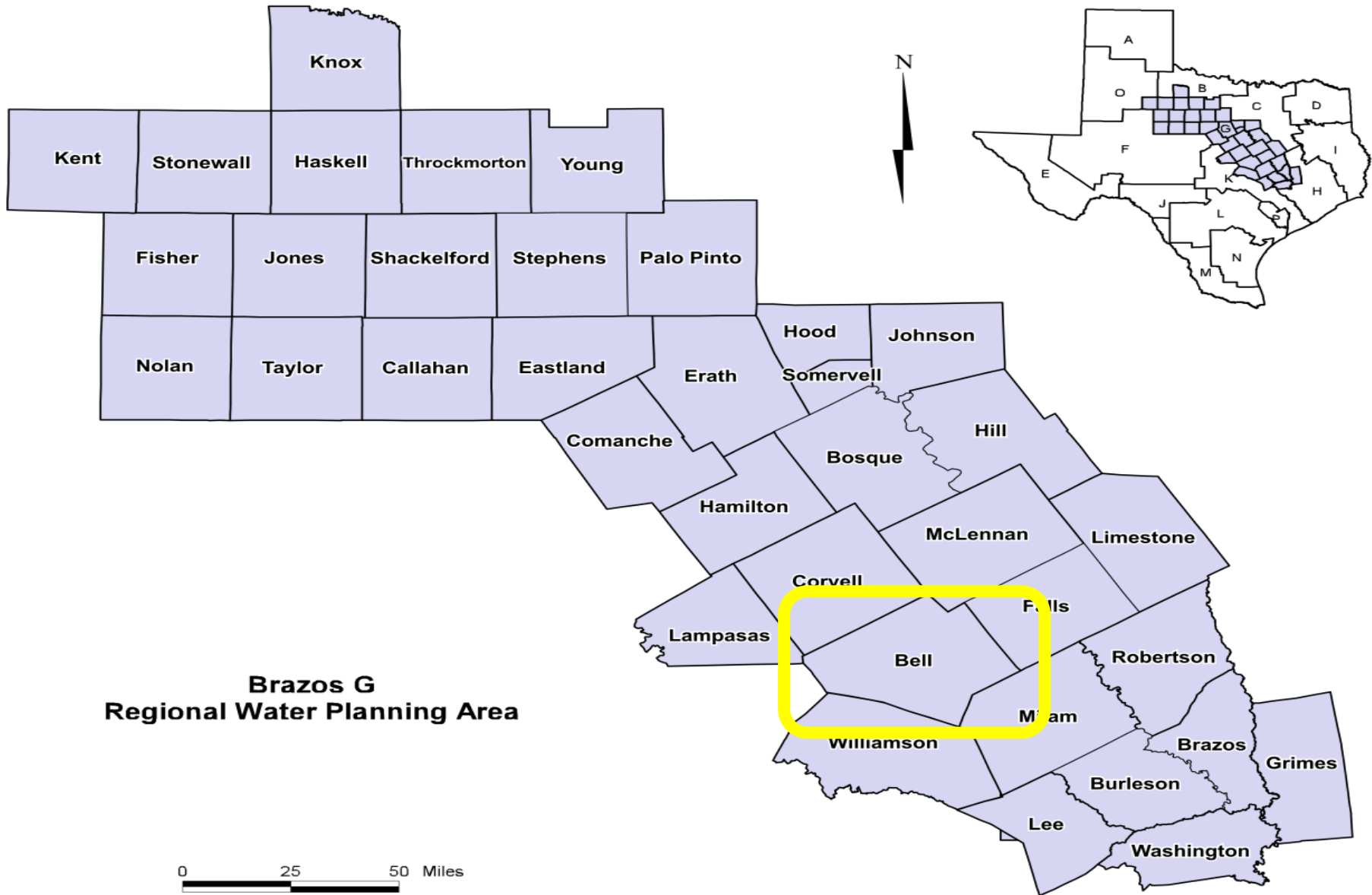
- A** Panhandle
- B** Region B
- C** Region C
- D** North East Texas
- E** Far West Texas
- F** Region F
- G** Brazos G
- H** Region H
- I** East Texas
- J** Plateau
- K** Lower Colorado
- L** South Central Texas
- M** Rio Grande
- N** Coastal Bend
- O** Llano Estacado
- P** Lavaca

 Brazos River Basin

Prepared by

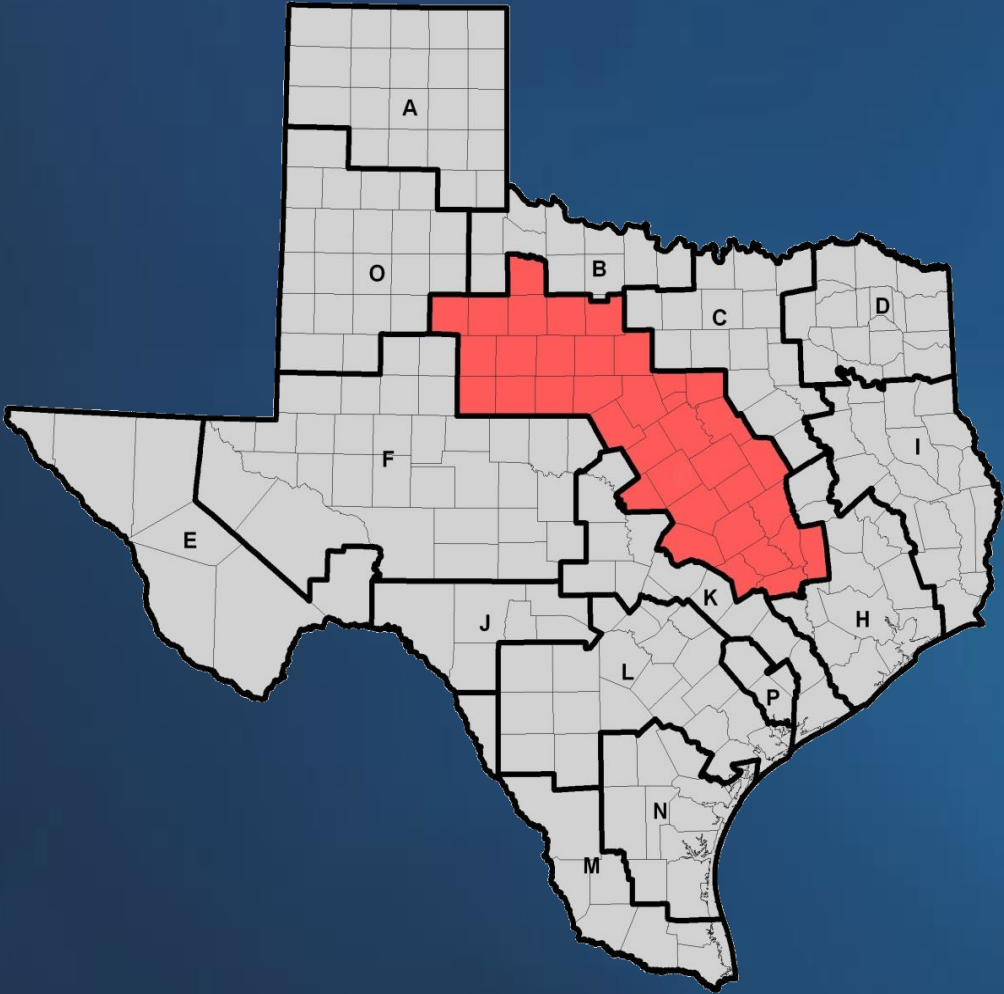


**Brazos
River
Authority**



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

Bell 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;

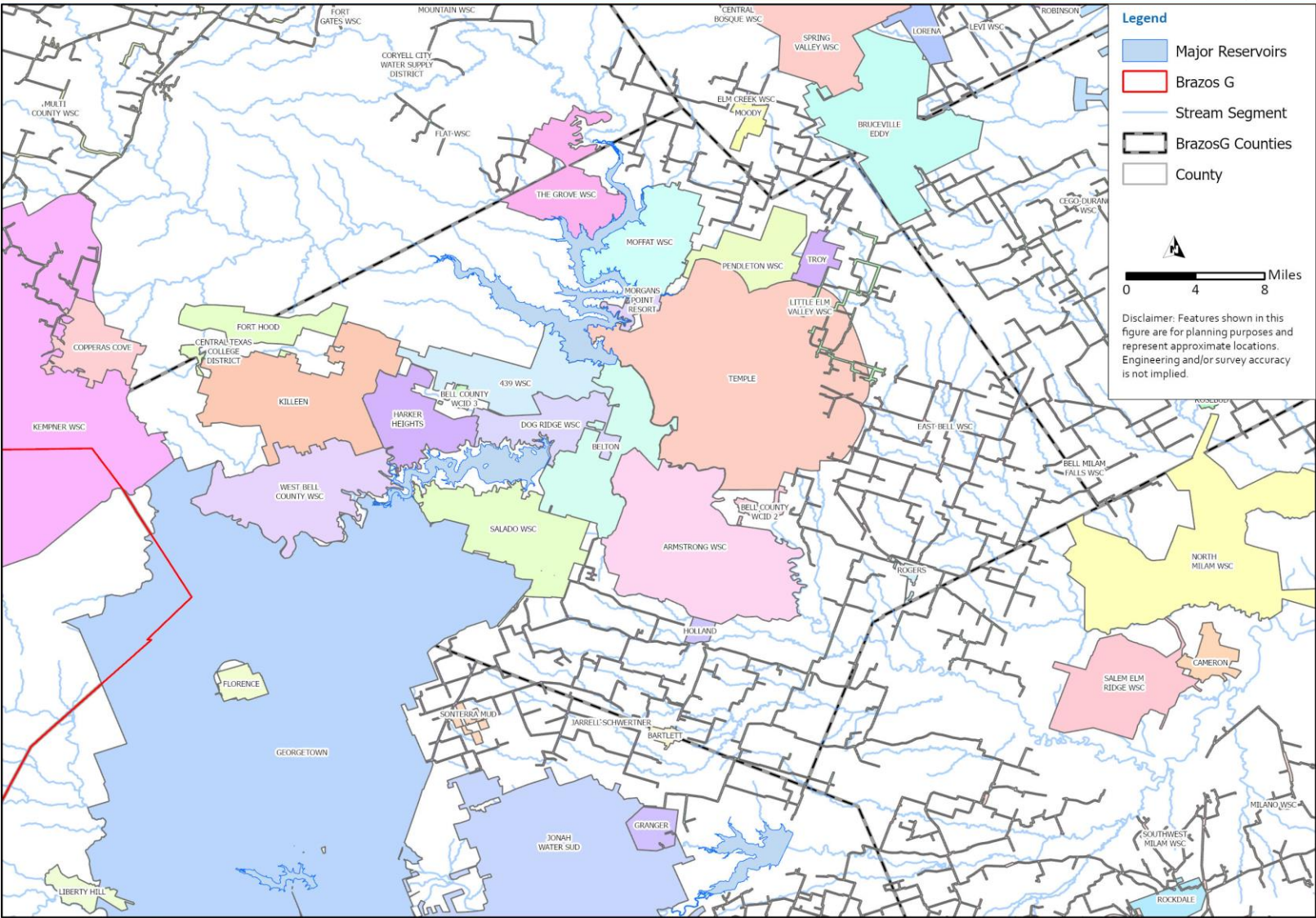
Privately-owned utilities that request inclusion as an individual WUG, provide more than 100-AFY for municipal use for each owned water system, and are approved for inclusion as an individual WUG by the RWPG;

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 30 Municipal Water User Groups (WUGs) in Brazos G



Bell County Municipal WUG Summary

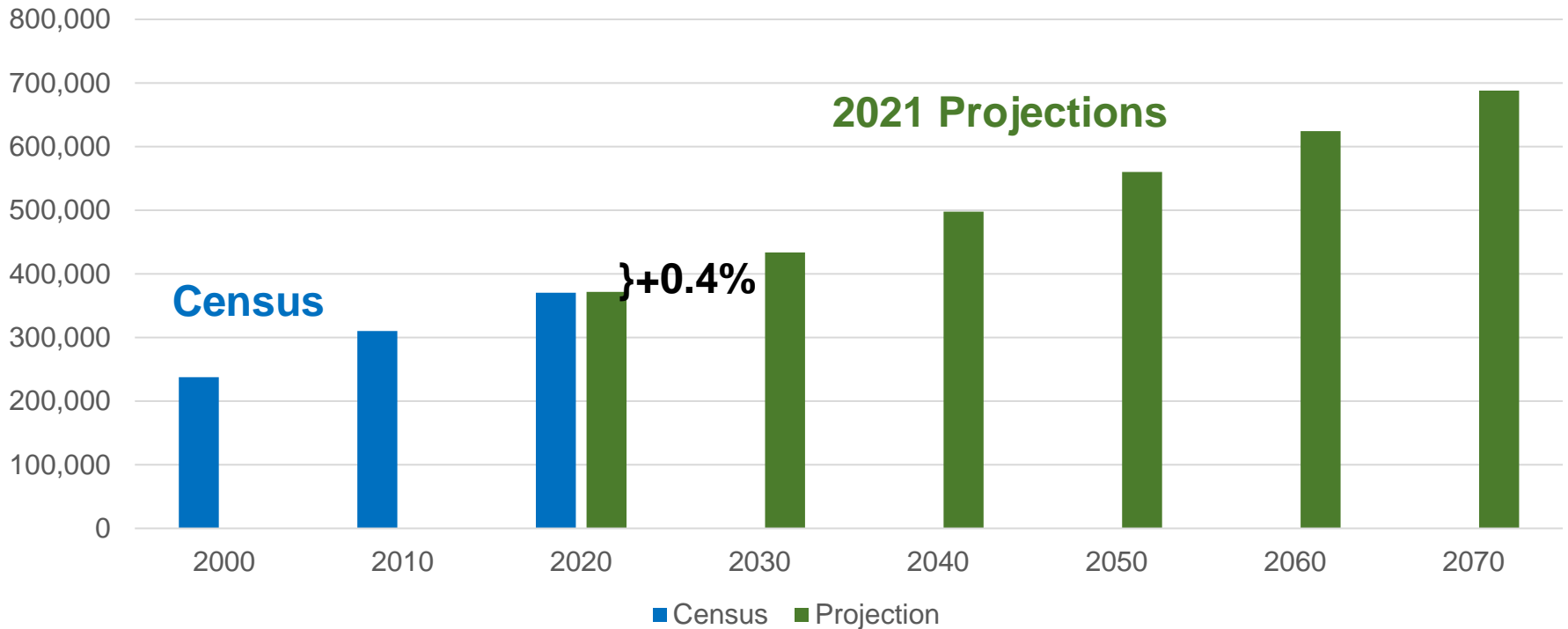
Plan	2021	2026
Municipal WUGs	29	30

New WUG:

Bell County WCID 1

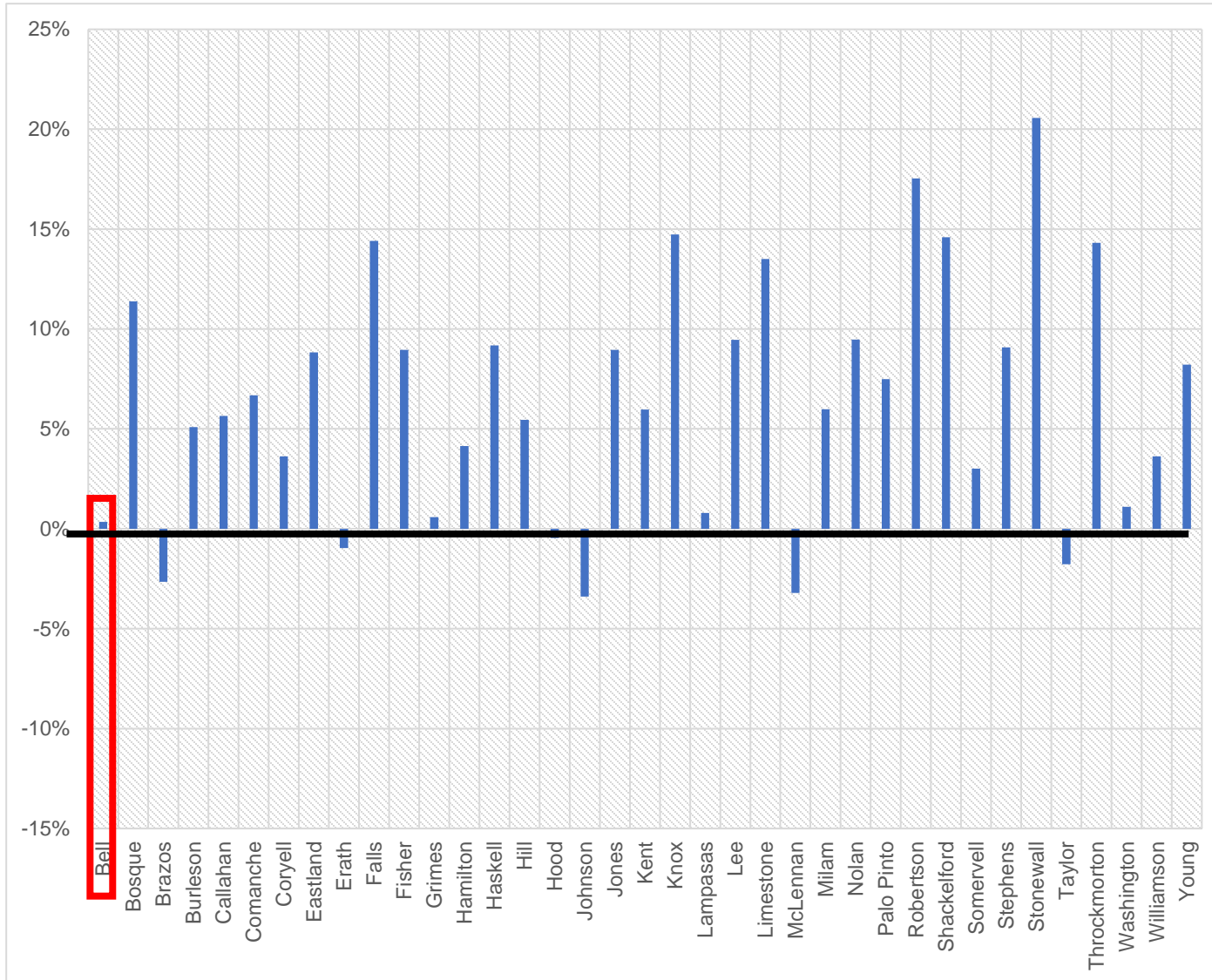
Determined by whether or not the utility used more than 100 ac-ft in the 2015-2019 period per 31 TAC 357.10(43).

Bell County Population – Census and 2021 Projections



	2020
Census	370,647
Projection	371,956
Difference	+1,309
% Difference	+0.4%

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

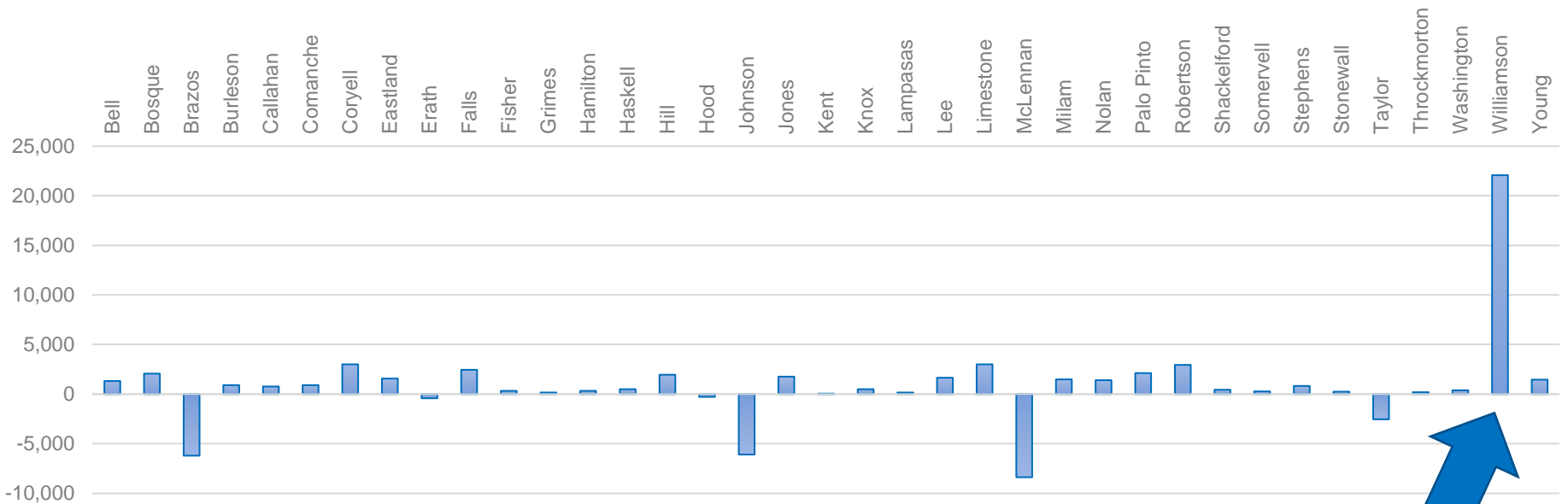


78% of projections within 10% of Census

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



Largest over projection was for Williamson County

Projected vs. Census

~631K

~609K

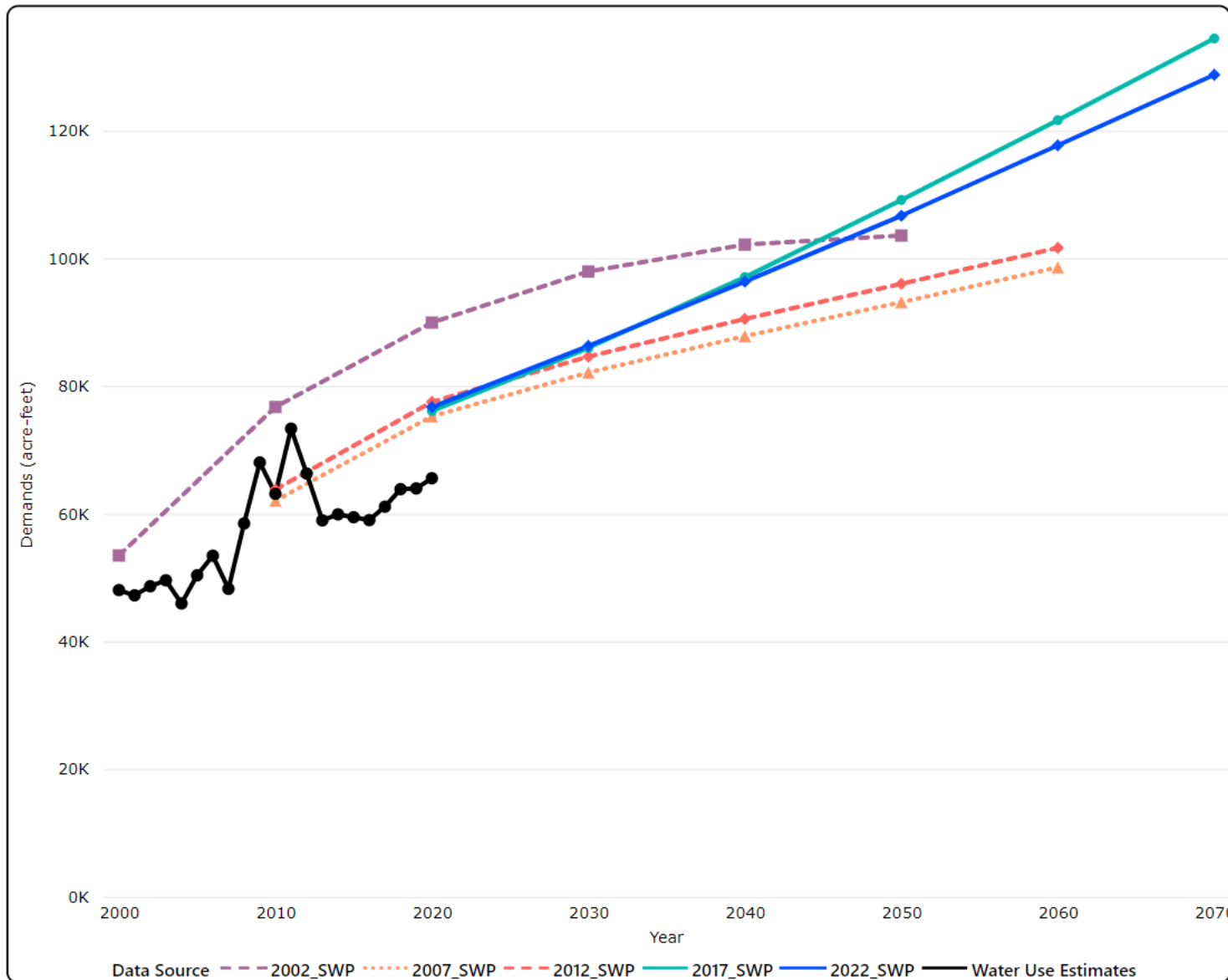
What's the Takeaway?

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 several counties
- Potential increases for areas with observed growth

Bell County Municipal Water Demand Projections

Historical Bell County Municipal Water Demand with projections from previous Plans



How **Water Demand** is projected.

Baseline
GPCD
(with plumbing
savings)

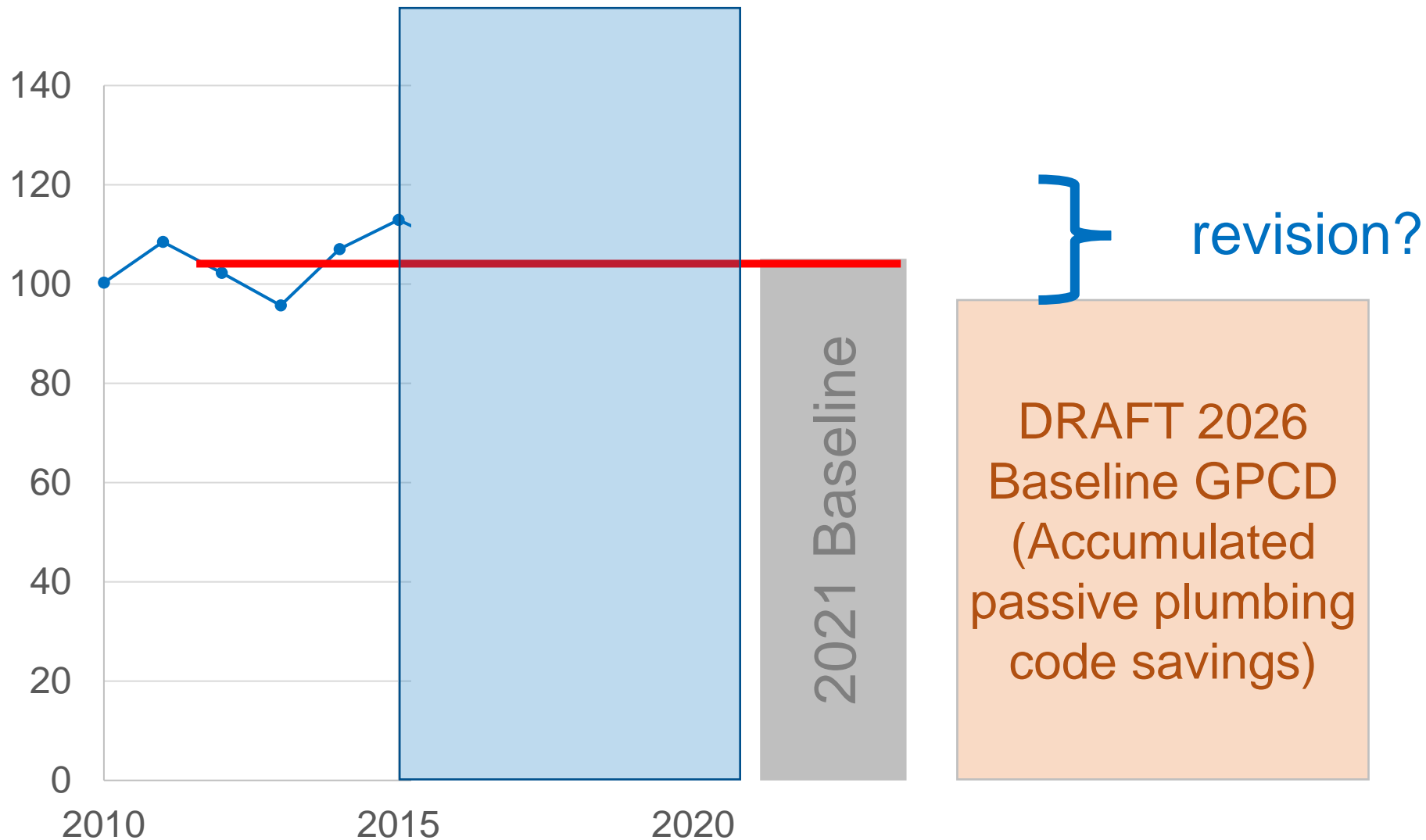
X

Projected
Population

=

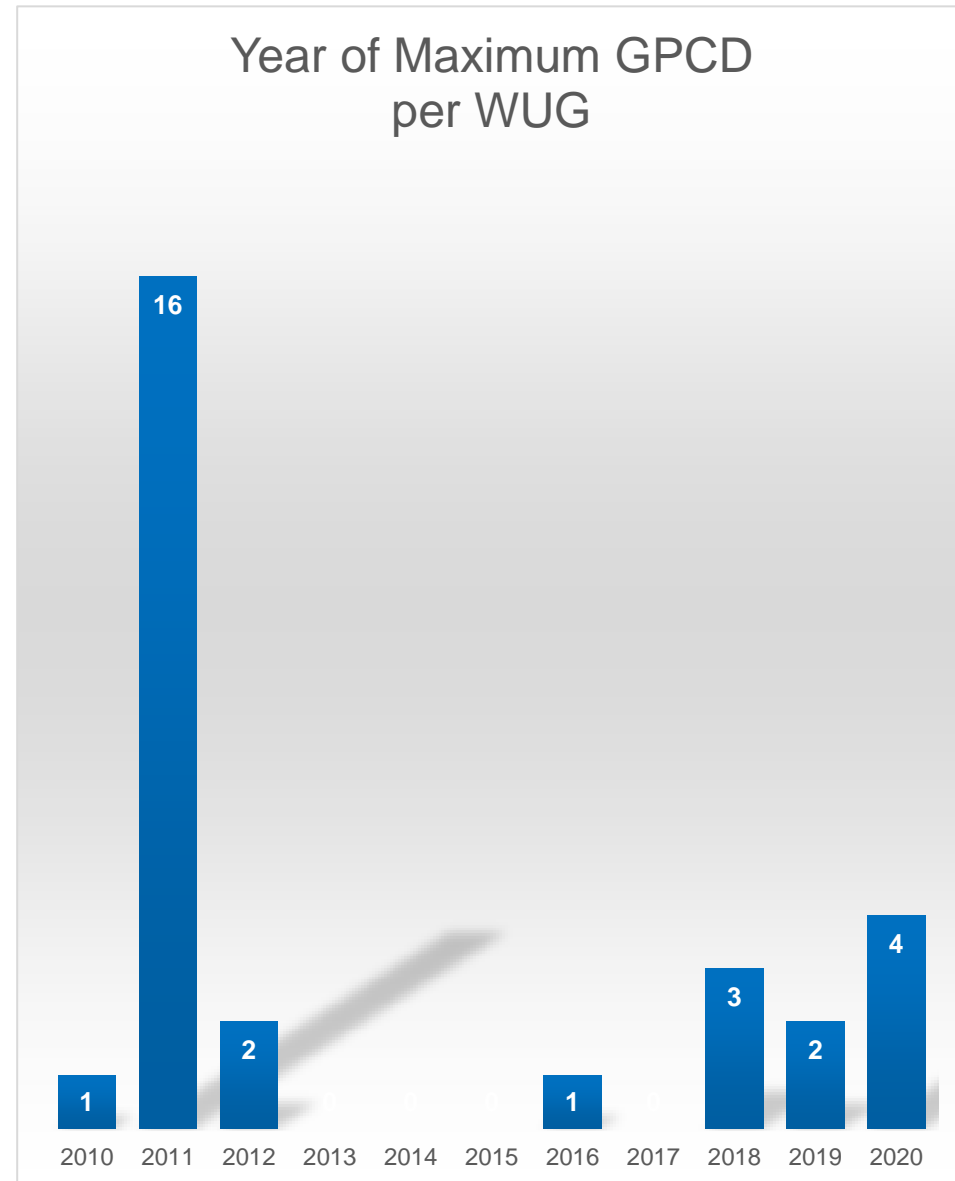
**Municipal
Water
Demand**

Baseline GPCD (with plumbing savings)



Draft 2026 Bell County GPCD

- 45% 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:

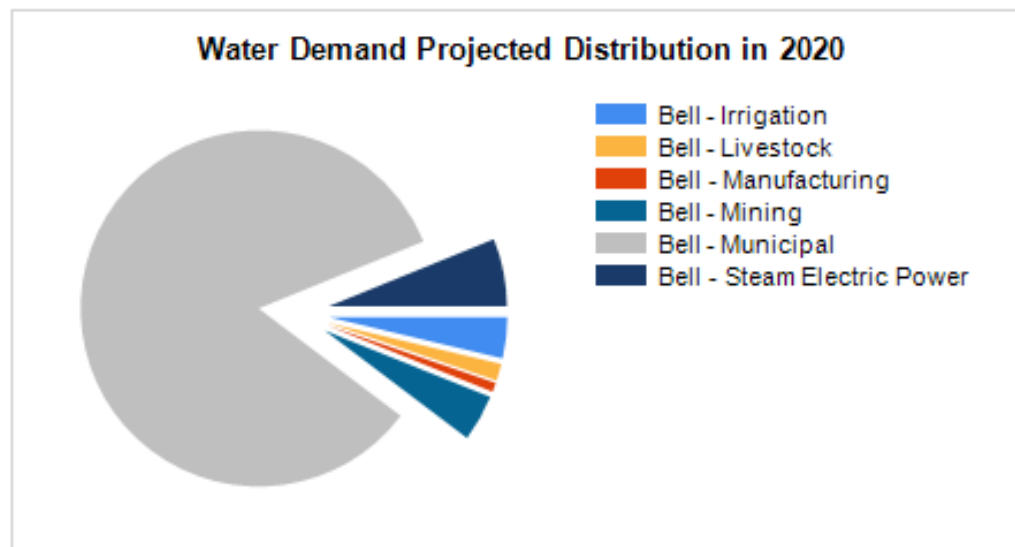
- Ensure accuracy of WUS data
- Ensure GPCDs are representative over appropriate period for regional planning objectives

Draft Non-Municipal Projections

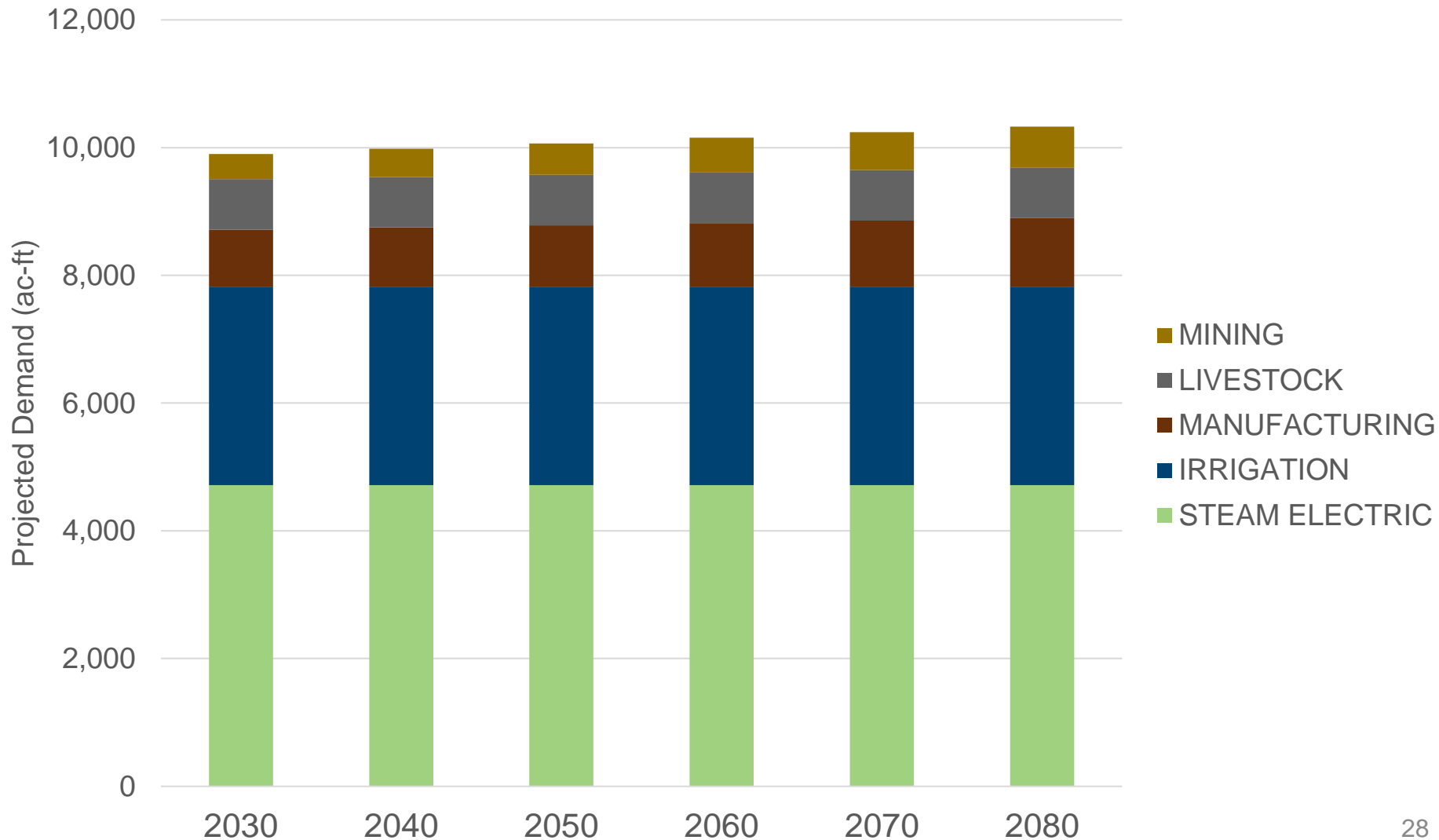
2021 Regional Water Plan

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

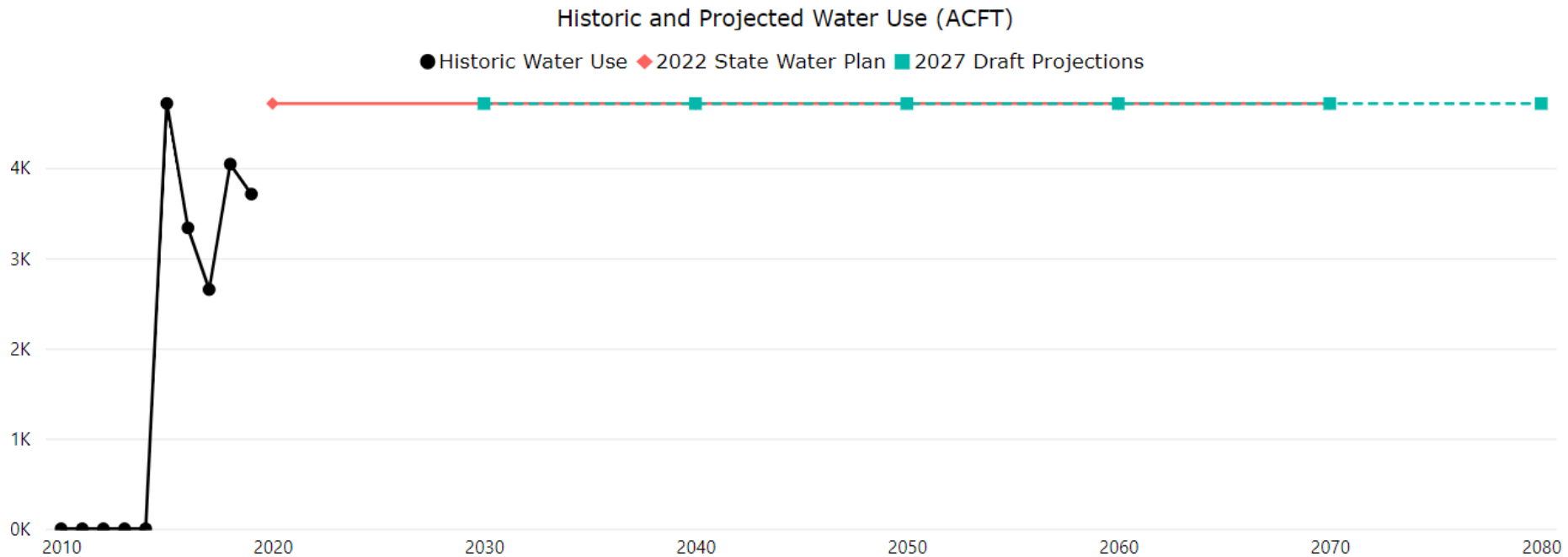
Total Water Demand for Bell County							
County	Category	2020	2030	2040	2050	2060	2070
Bell	Irrigation	2,843	2,843	2,843	2,843	2,843	2,843
Bell	Livestock	1,172	1,172	1,172	1,172	1,172	1,172
Bell	Manufacturing	641	685	685	685	685	685
Bell	Mining	3,242	3,980	4,599	5,349	6,105	6,968
Bell	Municipal	64,087	72,875	82,330	91,902	102,161	112,347
Bell	Steam Electric Power	4,714	4,714	4,714	4,714	4,714	4,714
Bell County Total		76,699	86,269	96,343	106,665	117,680	128,729



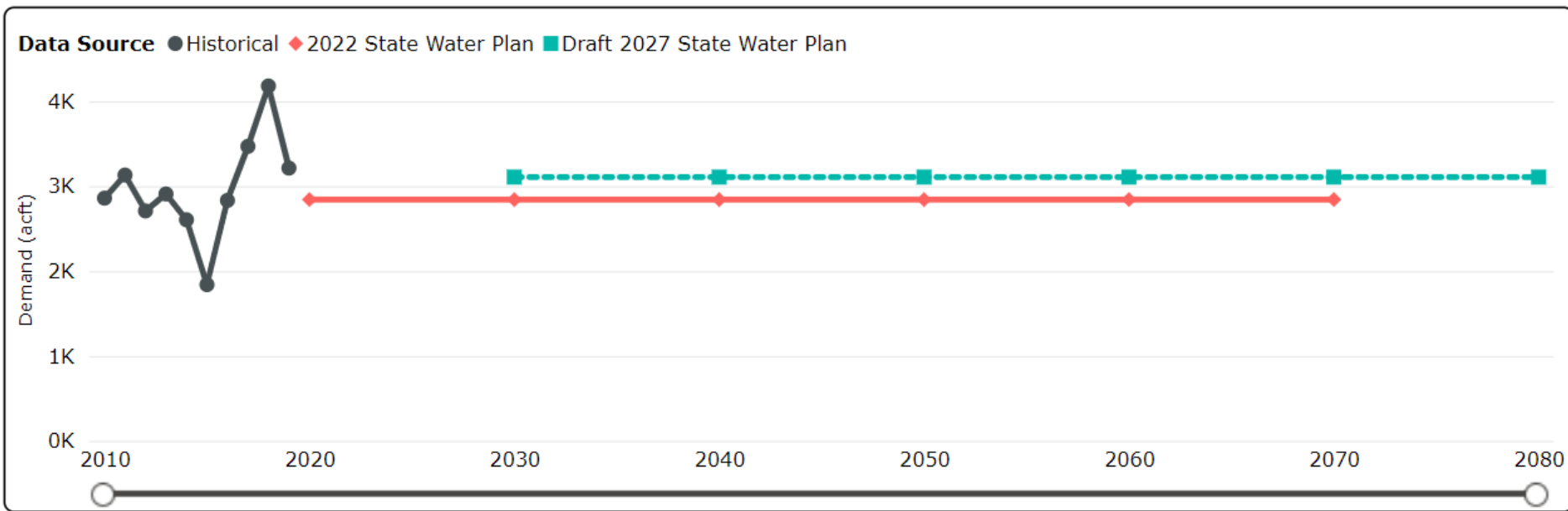
Composition of Draft 2026 Projected Non-Municipal Demands for Bell County



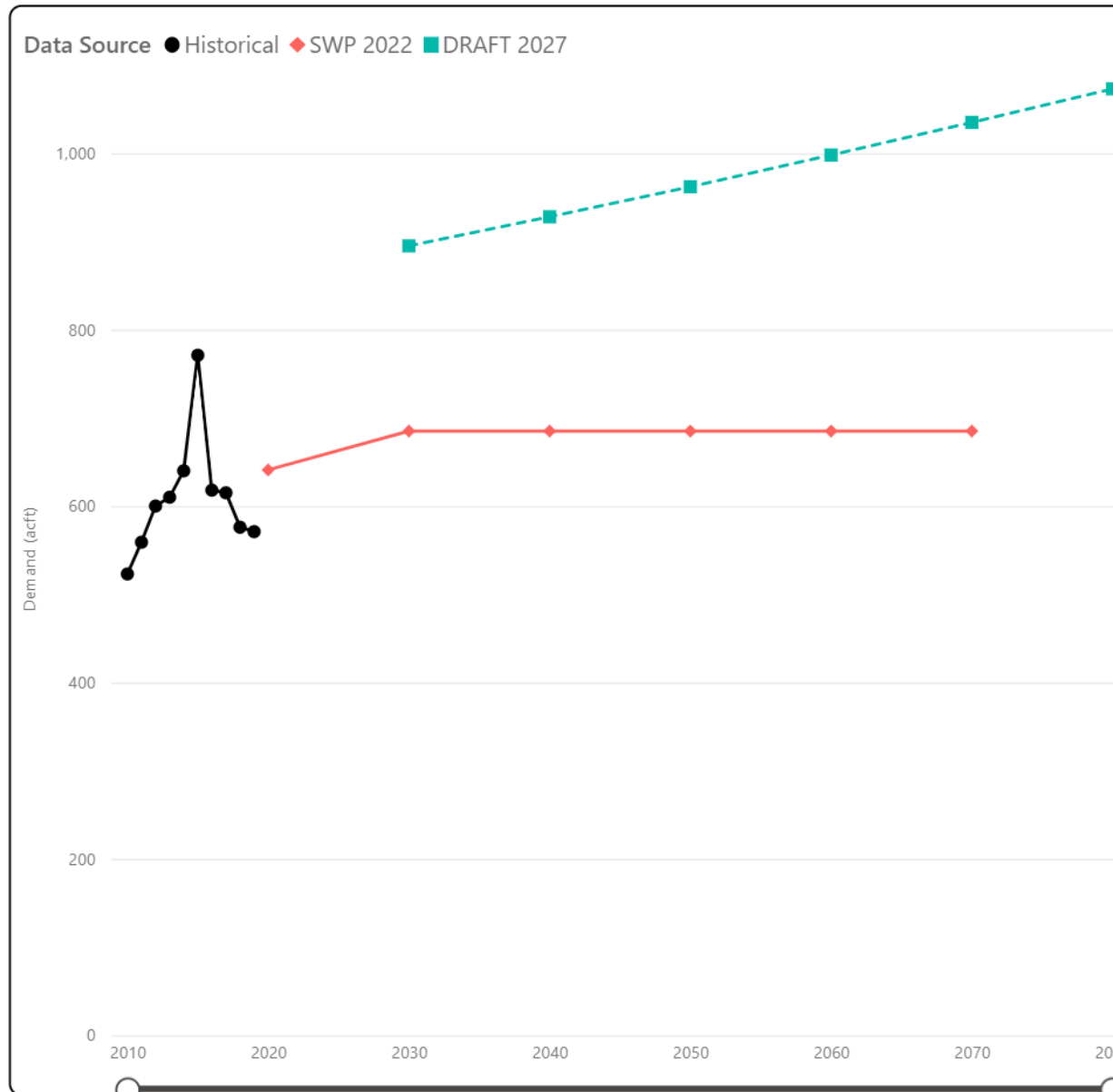
Historical and Projected Steam-Electric Power Generation Demand for Bell County



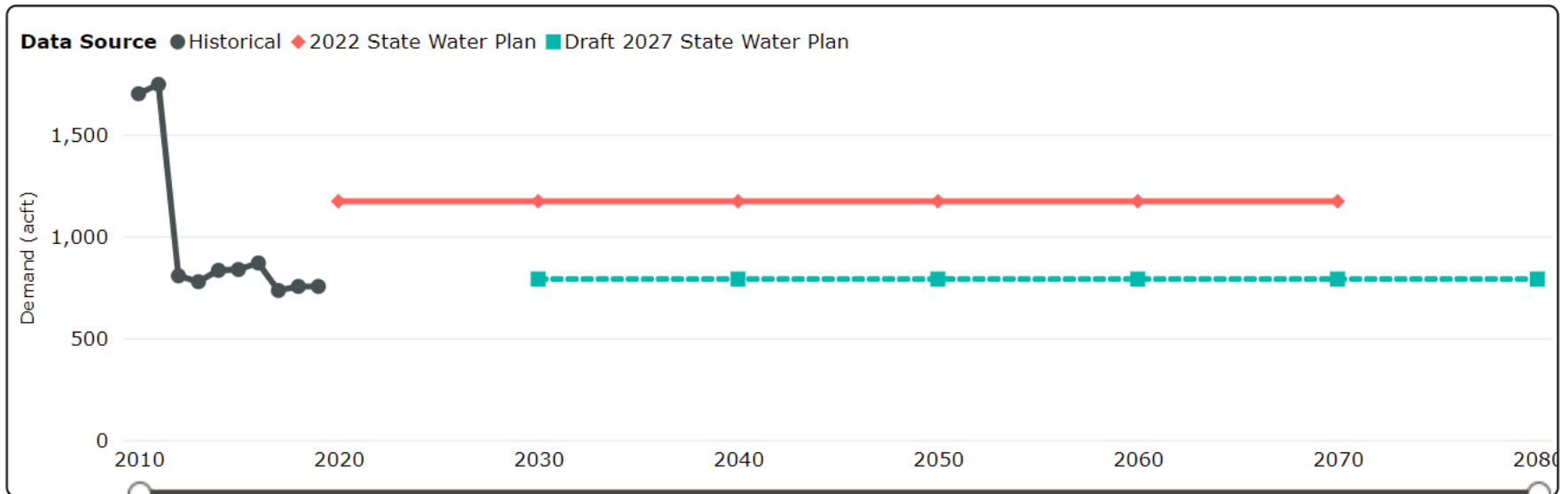
Historical and Projected Irrigation Demand for Bell County



Historical and Projected Manufacturing Demand for Bell County

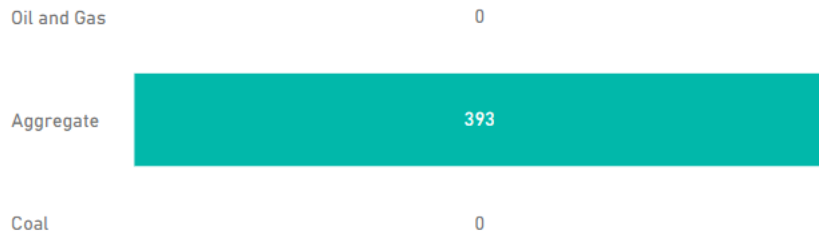


Historical and Projected Livestock Demand for Bell County

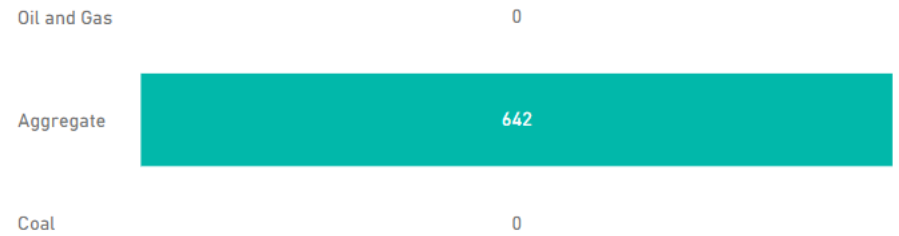


Historical and Projected Mining Demand for Bell County

2030 Mining Water Use by Type (ACFT)

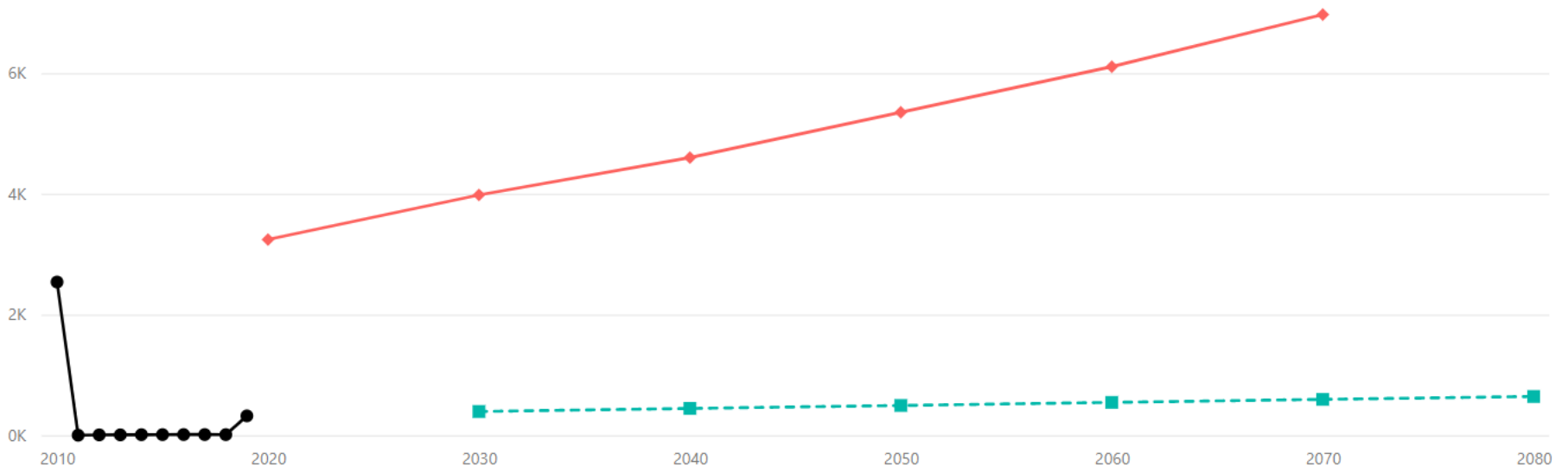


2080 Mining Water Use by Type (ACFT)



Historical and Projected Mining Water Use (ACFT)

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



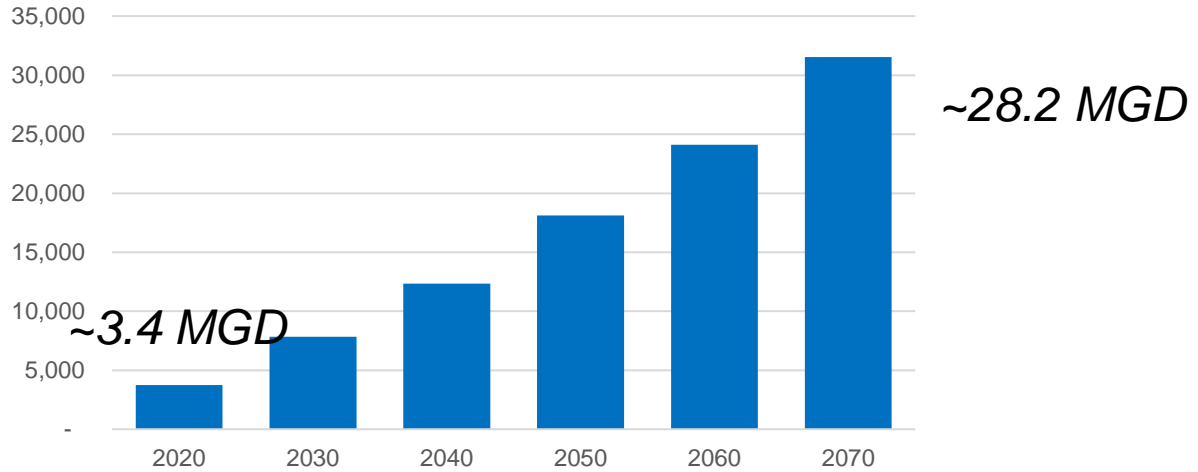
What's the Takeaway?

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

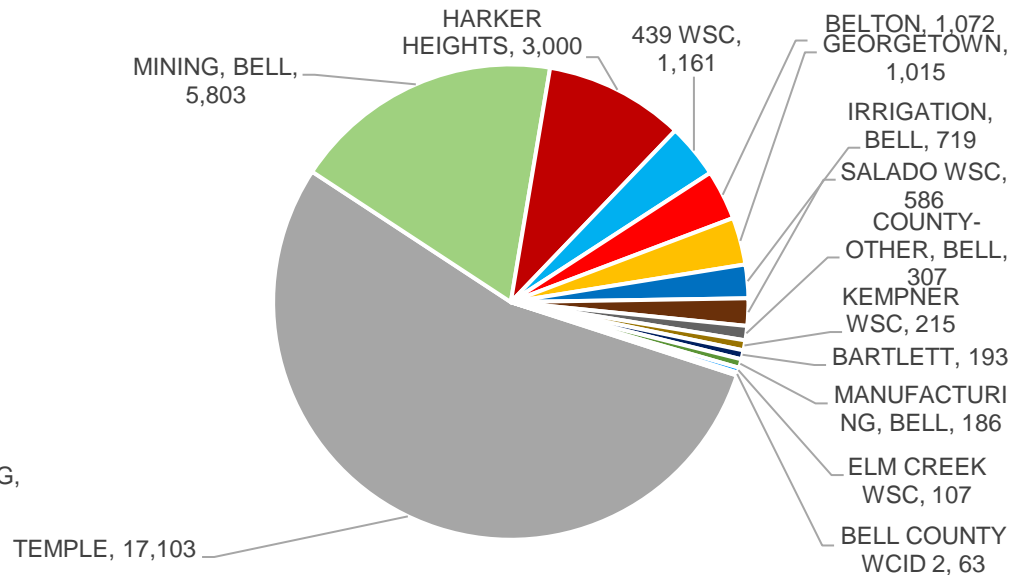
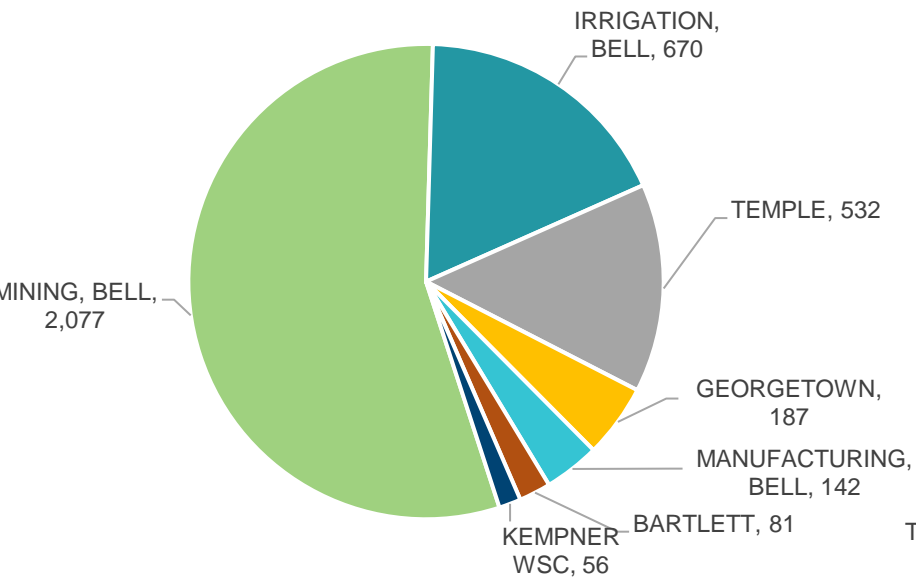
Identified Needs and
Recommended Strategies
for Bell County
from the 2021 Brazos G Plan

Bell County Projected Needs



3,745 ac-ft in 2020

31,530 ac-ft in 2070

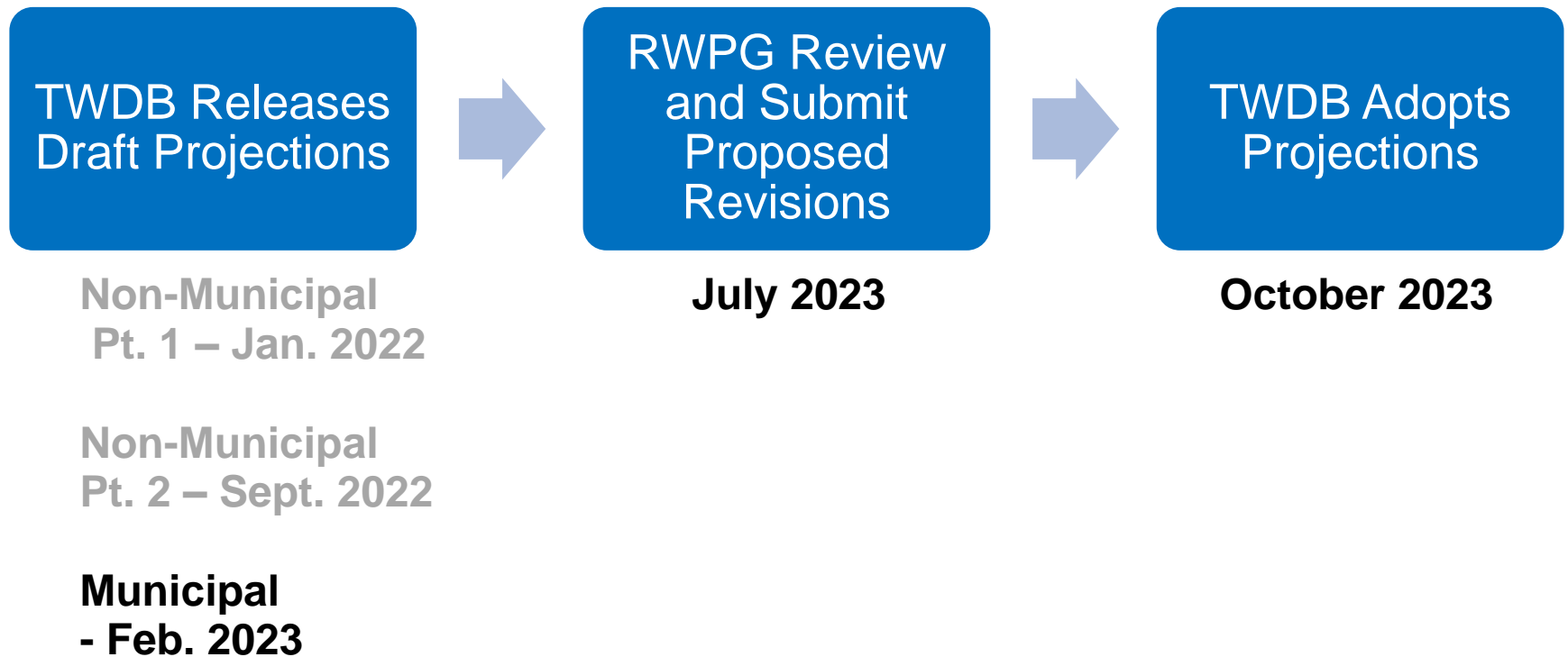


2021 Recommended Water Management Strategies to meet projected needs in Bell County

- Alcoa Property Supply (Alcoa Lake & Brazos ROR)
- Alcoa Property Supply (Milam Sep Little River)
- Belton to Stillhouse Pipeline – BRA
- Belton WTP Expansion
- Edwards Aquifer Development
- Georgetown WTP Expansion
- Industrial Water Conservation
- Irrigation Water Conservation
- Kempner WSC WTP Expansion
- Killeen Reduction to Harker Heights
- Lake Granger ASR
- Lake Granger Augmentation-Ph 2 (GW)
- Municipal Water Conservation
- Purchase from Bell County WCID 1
- Purchase Raw Water from Fort Hood
- Purchase supply from Jarrell-Schwertner WSC
- Purchase treated SW from Central Texas WSC
- Reallocation of Supply from Moffat WSC
- Reuse
- Temple WTP Expansion
- 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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