

Brazos G Regional Water Planning Group

Wednesday, March 8, 2023

10:00 AM

BRAZOS RIVER AUTHORITY

4600 COBBS DR. WACO, TX 76710



- 1. Call Meeting to Order
- 2. Invocation
- 3. Notice of Meeting
- 4. Attendance and Announcements
- 5. Public Input Public questions and comments on agenda items or water planning issues (limited to 5 minutes each)



6. Report and possible discussion from Texas Water Development Board (TWDB) staff

TWDB Update Region G Regional Water Planning Group Meeting

@twdb

03/08/2023 Jean Devlin Jean.Devlin@TWDB.Texas.gov





Population and Municipal Projections

- Population and Municipal Projections were released on 1/23/23
- Included in the review and potential revisions are:
 - Population projections based on the Texas Demographic Center full migration scenario, baseline GPCD
 - Plumbing code savings projections
 - Municipal demand projections
 - Basin split percentages for each water user group (WUG)
- Population and Water Demand projection data is also available on our website along with the interactive dashboard:
 - https://www.twdb.texas.gov/waterplanning/data/projections/2027/municipal.asp





Task 4B: Identifying Infeasible WMS Clarification

- Data to assist with infeasible WMS task provided on 1/10/23
- Clarifying guidance was provided for this task on 1/31/23
- The statutory language behind this new requirement is: "Infeasible WMSs include those WMSs where proposed sponsors have not taken an affirmative vote or other action to make expenditures necessary to construct or file applications for permits required in connection with implementation of the WMS on a schedule in order for the WMS to be completed by the time the WMS is needed to address drought in the plan."

Task 4B: Identifying Infeasible WMS Clarification

- Infeasibility review is not required for strategies and projects that do not require a permit or involve construction.
- Efforts should be focused on reviewing strategies and projects in the 2021 Regional Water Plan that require a permit and/or involve construction and that:
 - are shown to be online by the 2020 (in this case no later than January 5, 2023) or 2030 decade,
 - are related to new major reservoirs, seawater desalination, direct potable reuse, brackish groundwater, aquifer storage and recovery, and out of state water transfers (see data spreadsheets provided to RWPGs on 1/10/23) and shown to be online in the nearer-term planning decades (i.e., 2020, 2030), or
 - that will generally require significant resources and require significant time to implement.

Interregional Planning Council

- First meeting held on 11/9/22
- Surveys have been sent out to all RWPGs on recommendation implementation and IPC on prioritization of recommendations. All results are currently with Temple for review
- There is a current board item to replace members from Region F and Region J at the next meeting.
- Next meeting is scheduled for 3/9/23

Guidance and Materials

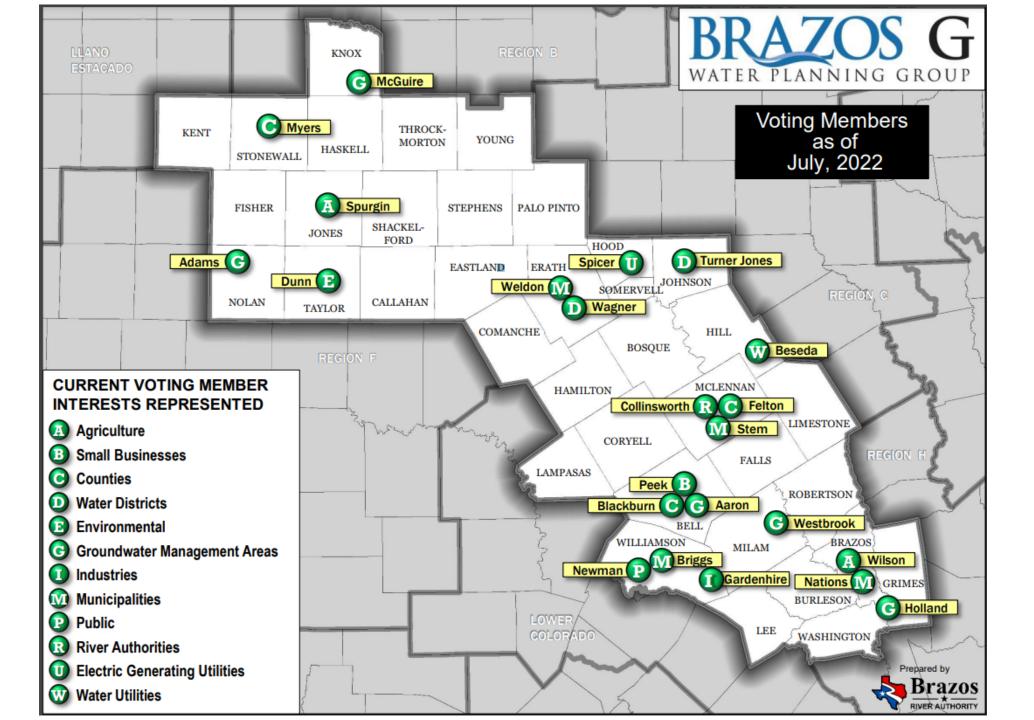
- New one-page reference documents are now available on the TWDB Website:
 - Water Supply and Flood Mitigation Strategies
 - Drought of Record
 - Consistency Reviews for TWDB Financial Assistance Projects
- Updated full-length guidance is available on the TWDB website:
 - Member Guide
 - Administrative Guidance

Educational information can be found on the TWDB website here: https://www.twdb.texas.gov/waterplanning/rwp/education/index.asp



6th Cycle of Regional Water Planning Web Page

- 6th Cycle of RWP landing page: http://www.twdb.texas.gov/waterplanning/rwp/pl anningdocu/2026/index.asp
- Page includes planning documents such as the 6th Cycle plan timeline, BMP Guide, rules pamphlet, contract docs, planning newsletters, and Chairs' Conference Call notes
- RegionalWaterPlanning@twdb.Texas.gov is now being used for broadcast communications to RWPGs regarding regional water planning





7. Report, discussion, and possible action on report from the Executive Committee

7.1. Recommendation regarding the open voting member position representing the Municipality Interest Category

"The Executive Committee recommends to the members of the Brazos G Regional Water Planning Group appointment of <u>Lisa Tyer</u> representing Municipalities Interests to serve as a voting member of the Brazos G Regional Water Planning Group."



Action Item:

BE IT HEREBY RESOLVED that the Brazos G Regional Water Planning Group confirms the appointment of <u>Lisa Tyer</u> representing <u>Municipalities Interests</u> to serve as a voting member of the Brazos G Regional Water Planning Group.



- 8. Report, discussion, and possible action on report from Technical Consultant Carollo
 - 8.1. Summary of Draft Municipal Population and Demand Projections
 - 8.2. Summary of Proposed Revisions to Draft Non-Municipal Water Demand Projections
 - 8.3. Regional Water Planning Update

Brazos G Water Planning

ITEM 8
Technical Consultant Presentation



2026 Planning Budget Progress

Task #	Task	Contract Amount	Expended to Date	% Complete
1	Planning Area Description	\$30,418	\$0	0%
2A	Non-Municipal Water Demand Projections	\$57,806	\$24,759.45	43%
2B	Population and Municipal Water Demand Projections	\$80,330	\$9,883.45	12%
3	Water Supply Analyses	n/a	n/a	0%
4A	Identification of Water Needs	n/a	n/a	0%
4B	Identification of Potentially Feasible WMSs and WMS Projects	n/a	n/a	0%
4C	Prepare and Submit Technical Memorandum	n/a	n/a	0%
5A	Evaluation and Recommendation of WMSs and WMS Projects	n/a	n/a	0%
5B	Water Conservation Recommendations	n/a	n/a	0%
6	Impacts of Regional Water Plan	n/a	n/a	0%
7	Drought Response, Activities & Recommendations	n/a	n/a	0%
8	Recommendations Regarding Unique Stream Segments and/or Reservoir Sites and Legislative & Regional Policy Issues	\$13,415	\$0	0%
9		n/a	n/a	0%
10	Public Participation and Plan Adoption	\$88,204	\$41,583.35	47%
11	Implementation and Comparison to the Previous Regional Water Plan	n/a	n/a	0%
12		n/a	n/a	0%
	TOTAL	\$270,173	\$76,226.25	28%

Sixth Cycle of Regional Water Planning (2026 Regional Water Plans) Working Schedule (as of January 2023)^A



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Item	Entity	Activity	Planning SOW	H			2021	_		7	2022								-1		21	023		_	_	Н		_	20	124	-		₹	Н	_	_	- 2	025	_	_	귀	ı
Ш		RFA for regional water planning grant posted and applications	Task# ⁸	5 3	Mar.	May	5 3	Sing day	# S	ž	5 %	Mar	May	5 3	7 8	ž ž	Apr.	8	용	Ľ,	May be	3	dag	ħ	8	5	War was	200	un un	3	ST S	ž	9 %	5	8 3	j.	Way	3	an de	ä	ğ ž	ı
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2	TWD8/RWPG	Initial planning contract execution deadline		Щ	Ш	Щ	4	Con	tracts ex	cuted b	y 8/31/2	2021	Ш	Ш	_	Ш	4	Ц	4	Ш	4	Ц		Ц	\bot	Ц	Ш	Щ	┸	Ц	4	Ш	4	Ц	Щ	Ш	\perp	Ц	_	Ц	Ш	ı
3	TWD8/RWPG	Anticipated additional contracting activities		Ц	Ш	Щ	_	Ш	Ц	Ш			Ш				Щ	Ц	Щ	Ц	┸	Ц		Ц		Ц	Ш	Ц	┸	Ц	\perp	Ш	4	Ц	Щ	Ш	\perp	Ц		Ц	Ш	ı
4	TWDB	Regional Water Planning rules update				Ш					┸				┸	Ш		Ш	Ш	Ш	丄	Ш		Ц		Ш		Ш	丄	Ш	ᆚ	Ш	丄	Ш		Ш		Ш		Ш		l
5	TWDB	TWD8/BEG Mining study	2A		Ш	Ш		Ш		Ш			Ш	Ш		Ш		Ц	Ш	Ш	\perp	Ш		Ц	\perp	Ц	\perp	Ш	L	Ц	\perp	Ш	\perp	Ш	Ш	Ш		Ш	\perp	Ш	Ш	ı
6	RWPG	RWPGs hold pre-planning & coordination meeting (before technical work begins)	10	Ш		Ш												Ш						Ш		Ш								Ш				Ш		Ш		l
7	TWDB	Municipal WUG list, GPCD, historical population, and water use released	28	Ш		Ш				П	\perp				Ι			П			\perp			П		П			Ι		Ι		\perp	П				П		П	\prod	ı
8	RWPG	Review municipal WUG list, GPCD, historical population, and water use; provide feedback to TWDB	28	П	П	П	Т	П	П	П	Т		П		Т	П	П	П	П	П	Т	П		П	Т	П		П	Т		Т	П	Т	П		П		П	Т	П	П	ı
9	TWDB	Draft Livestock, Manufacturing, and Steam Electric Power demand projections released	2A			\prod									\prod						T			\prod					Γ		\prod							\prod		\prod		ı
10	TWDB	Draft Irrigation and Mining projections released	2A	П	П	П	Т	П	П	П	Т	П	П	П			Т	П	П	П	Т	П	П	П	Т	П	Т	Т	Т	П	Т	П	Т	П	П	П		П	Т	П	П	ı
11	TWDB	Draft Population and Municipal demand projections released	28	П	П	П	Т	П	П	П	Т	П	П	\sqcap	Т	П	\top	П	ı	П	Т	П		П	T	П	Т	Т	Т	П	Т	П	Т	П	П	П		П	T	П	П	ı
12	RWPG	Review draft projections and finalize adjustments with TWDB staff	2A, 2B	П	П	П	Т	П	П	П			П					П	71					П		П	Т	Т	Т	П	T	П	T	П	П	Т		П	\top	П	П	ı
13	TWDB	TWD8 Board adopts projections	2A, 2B	П	П	П	T	П	П	П	Т	П	П	П	Т	П		П	1	П	Т	П				П	Т	Т	Т	П	Т	П	┰	П	П	Т		П	\top	П	П	ı
14	TWDB	D827 prepared for data entry ^{C, D}		П	П	П	Т			П								П	1			П		П	T	П	Т	Т	Т	П	Т	П	Т	П	П	П		П	Т	П	П	ı
15	TWDB/RWPG	D827 individualized training for consultants		П	П	П	Т	П	П	П	Т	П	П	П	Т	П	Т	П	1	П	Т	П		П	T	П	Т	Т	Т	П		П	T	П	П	П		П	Т	П	П	ı
16	TWDB	Updated MAGs released		П	П	П	T	П	П	П			П					П	71	П	Т	П		П		П	Т	Т	Т	П	Т	П	T	П	П	Т		П	\top	П	П	l
17	RWPG	Evaluate water availability and existing water supplies		П	П	П	T	П	П	П	Т	П	П	П	T				1					П	T	П	Т	Т	T	П	T	П	T	П	П	П	\top	П	T	П	П	l
18	RWPG	Identify water needs		П	П	П	T	П	П	П	Т	П	П	П	Т	П		П	П		T	П		П		П	Т	Т	Т	П	Т	П	T	П	П	Т		П	\top	П	П	
19	RWPG	Identify infeasible WMSs in the 2021 RWPs		П	П	П	T	\sqcap	П	П	T		П	$\top $	Ť	\top		П	1	П	T	П		П				T	T	П	Ť	П	T	П		Т		П	\top	П	П	l
20	RWPG	Technical Memo due		П	П	П	十	\sqcap	П	П	Т	П	П	$\top \!$	T	П	\top	П	71	П	Т	П		П	Т	П		Technic	cal Mer	по фи	3/4/2	024	丅	П	П	Т	\top	П	\top	П	П	ı
21	RWPG	Amendments to 2021 RWPs to remove/revise infeasible WMSs		П	П	П	T	П	П	П	Т	П	П	П	T	П	\top	П	71	П	Т	П		П		П			Т	П	Т	П	┰	П	П	Т		П	\top	П	П	ı
22	RWPG	RWPS adopted amendments to 2021 RWPs to remove/revise infeasible WMSs due to TWDB		\sqcap	T	$\dagger \dagger$	十	\sqcap	\sqcap	\sqcap	Τ	\sqcap	\sqcap	$\dagger \dagger$	T	$\dagger \dagger$	\top	\sqcap	7	П	十	П	\top	П	\top	2021 RWP amendments for infeasible WMMSs due 6/5/2024							ı									
23	RWPG	Identify potentially feasible WMSs		\sqcap	T^{\dagger}	$\forall 1$	十	\sqcap	\sqcap	П	十	\sqcap	\sqcap	$\dagger \dagger$	十	$\top \Box$	\top	\sqcap	7	П	十	П											Т	П	П	П		П	\top	П	${\bf H}$	
24	TWD8/RWPG	Review and negotiate SOW submittals for WMS evaluations and Issue notice-to-proceeds ^C		\sqcap	T	$\forall 1$	丅	\sqcap	\sqcap	П	Τ	\sqcap	\sqcap	$\top \!\!\!\!\! \top$	十	$\top \Box$	\top	\sqcap	7	П	十	П		П		П				П	T			П		П	\top	П	\top	П	\prod	
25	IPC	Interregional Planning Council report due to the TWDB		\sqcap	T^{\dagger}	$\top\!$	十	\sqcap	\sqcap	\prod	Τ	\sqcap	\sqcap	$\top \uparrow$	Ť	$\top \Box$	\top	\sqcap	7	П	\top	П		П		П		IPC Rep	port du	e 3/3//	2024		T	П	\sqcap	T	\top	П	\top	\prod	$\top \!$	
26	RWPG	Initially Prepared Plan due		\sqcap	T^{\dagger}	$\forall \dagger$	十	\sqcap	\sqcap	\sqcap	十	\sqcap	\sqcap	$\dagger \dagger$	十	$\dagger \dagger$	\top	\sqcap	7	П	十	П	\top	П	\top	П		Т	Τ	П	Т	\sqcap	十	П		IPP d	ue 3/3/	2025	\top	Ħ	\forall	l
27	TWDB	Socioeconomic Impact Report released to RWPGs		H	\mathbf{T}^{\dagger}	$\dagger \dagger$	十	\sqcap	\sqcap	$\dagger \dagger$	\top		I^{\dagger}	$\dagger \dagger$	\dagger	$\dagger \dagger$		T^{\dagger}	1	П	十	\sqcap	\top	П	\top	H	\top	\top	T	\sqcap	\dagger	$\dagger \dagger$	十	${\sf H}$				П		\sqcap	$\dagger \dagger$	ı
28	RWPG	Final Plan due		\sqcap	$\dagger \dagger$	$\dagger \dagger$	十	\sqcap	\sqcap	$\dagger \dagger$	十	\sqcap	f^{+}	$\dagger \dagger$	T	$\dagger \dagger$	\top	T^{\dagger}	7	П	十	\sqcap	\top	H	\top	H	\top	\top	T	П	十	$\dagger \dagger$	十	Ħ	\top	Ħ	RWP di	e 10/20	/2025	▆	$\dagger \dagger$	
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Notes: A Estimated timeline based on currently available agency resources and subject to change

⁸Only Tasks included in the initial contract scope of work have task numbers in this initial timeline.

^c DB27 is the updated, online water planning database for the 2027 State Water Plan

³ Anticipated database availability dates are estimates based on currently available agency resources

^{*} Subject to available funding

2026 Plan Schedule Detail

Date	Scheduled Events/Tasks
Jan 2022	TWDB releases initial Draft Non-Municipal data for Livestock, Manufacturing, and Steam-Electric Power Generation for review
Sept 2022	TWDB releases remaining Draft Non-Municipal data for Irrigation and Mining for review
Jan 2023	TWDB release of Draft Municipal Population and Demand Projections
Feb 2023	Contract Amendments
Mar 2023	Brazos G Meeting – Summary of draft municipal population and demand projections, summary of proposed revisions to non-municipal demand projections and consideration of action to approve submittal of revision memorandum, and regional planning update.
June 2023	(Tentative) Brazos G Meeting – Consideration of action to approve submittal of municipal revisions, summary and discussion on infeasible strategies.
July-Aug 2023	Review Draft Projections and finalize adjustments with TWDB staff (Non-Municipal: July 14, Municipal: Aug 11)
Oct 2023	TWDB Board adopts projections

Today's Discussion

Item 8.1

Summary of Draft Municipal Population and Demand Projections

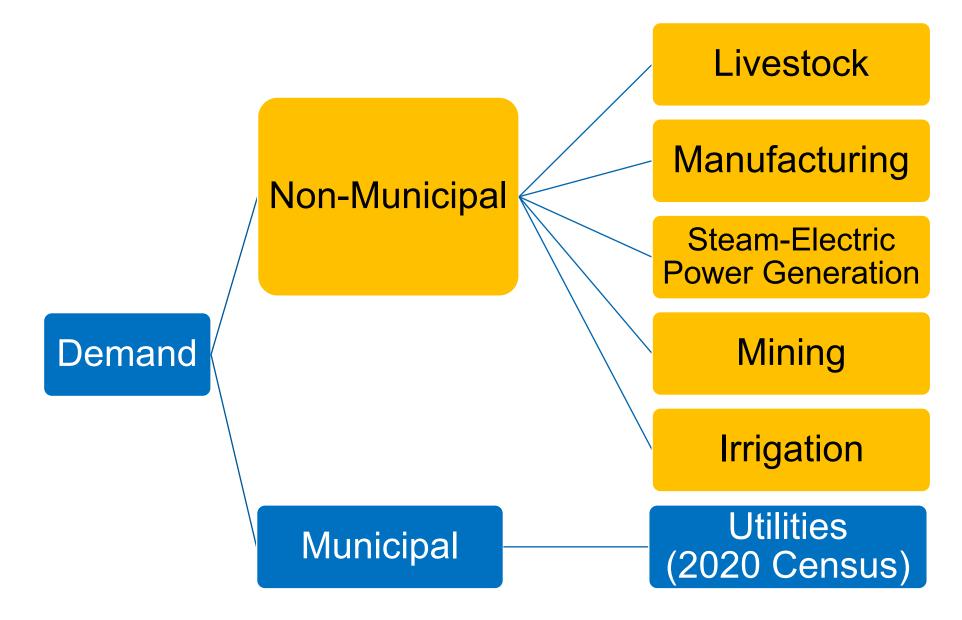
Item 8.2

Summary of recommended revisions to Draft Non-Municipal Demands

Item 8.3

 <u>Seeking action</u> for approval of consultant to coordinate with the Administrator and Chair to submit recommended revisions to TWDB, allowing for future revisions if information is developed during future municipal discussions

Projections of Future Water Demands



Item 8.1 Draft Municipal

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Population Projections by County

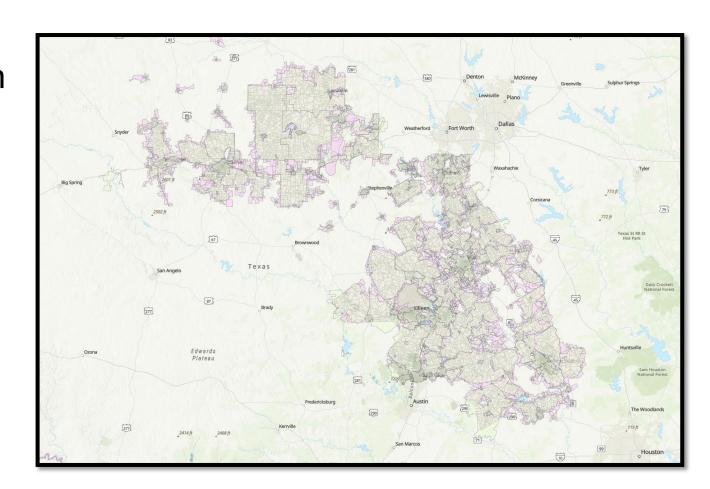
- Based on Texas Demographic Center's county-level projections
- Cohort component method
 - Age/sex/race/ethnicity
 - Birth rates, death rates, migration rates
- Two migration scenarios (2010-2020):
 - Full-migration
 - Half-migration
- **2030-2060**
 - Texas Demographic Center (30-yr projections)
 - TWDB extends to 50 years
- TDC projections available here:: https://demographics.Texas.gov/Data/TPEPP/Projections

Population Projections – TWDB Methodology

- Difference this planning cycle: if a county's population is projected by TDC to decline, then the TWDB's county population projections will also decline.
- TWDB draft projections
 - Extended 2070-2080 both scenarios
 - Use the full-migration scenario to sub-allocate to WUGs
- Population projections: 2030 2080

Historical Population by WUG

- Permanent resident population
- Developed 2010 & 2020 population
 - Census Blocks
 - WUG Boundary (overlay)
- Reviewed historical population growth rate to develop projections



Population Projections by WUG

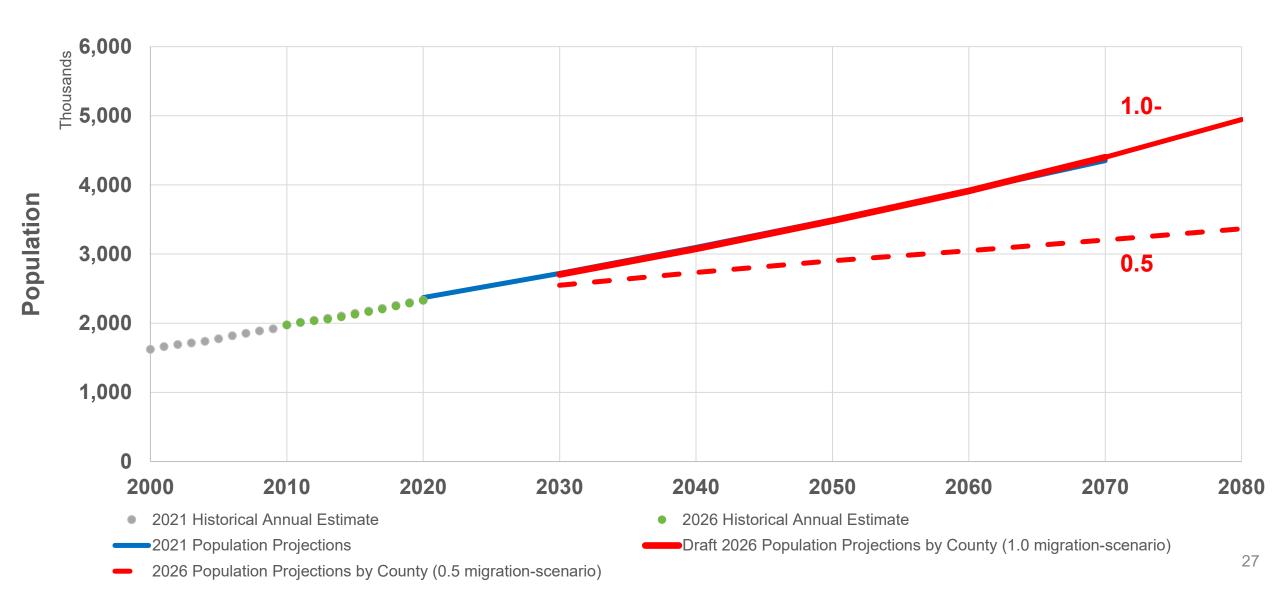
- Sub-allocate to WUGs
- WUG's historical (2010 to 2020) share of the county's growth
- WUG's 2020 share of the region-county's growth rate/2020 population applied each decade
- Constant population: military bases, universities, primarily group quarter population
- Buildout: WUGs with buildout in the 2021 RWPs were held constant at or near their buildout population from the previous planning cycle

Population Projections

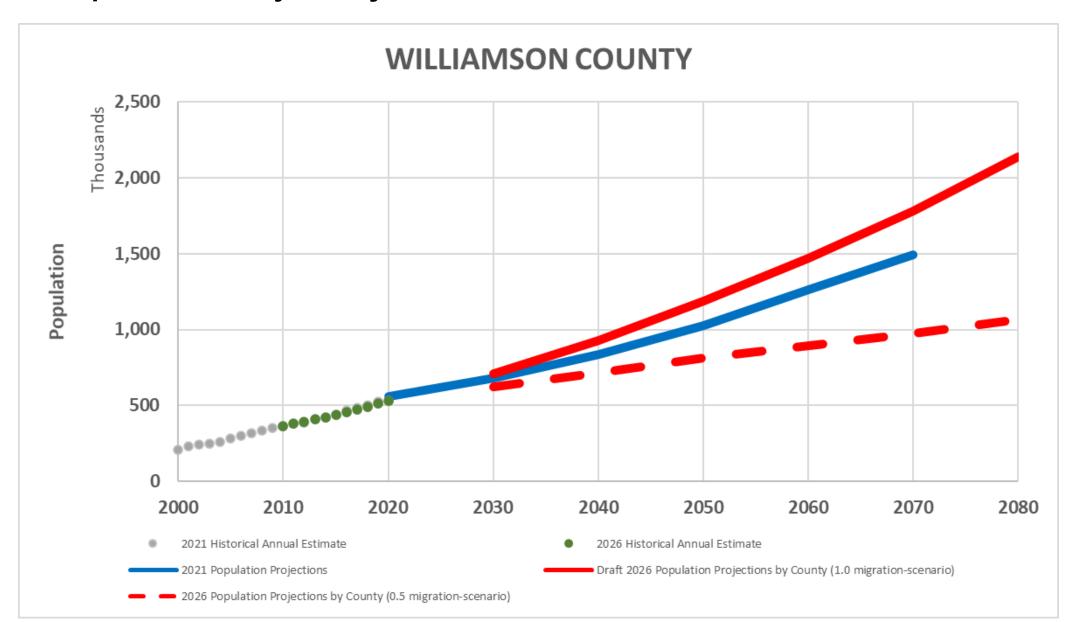
- TWDB projections newly released:
 - Region-County projections 2030-2080: two migration scenarios
 - WUG projections 2030-2080: only full-migration scenario

- RWPG has the option to revise to use half-migration scenario
- Ongoing coordination with RWPG and TWDB

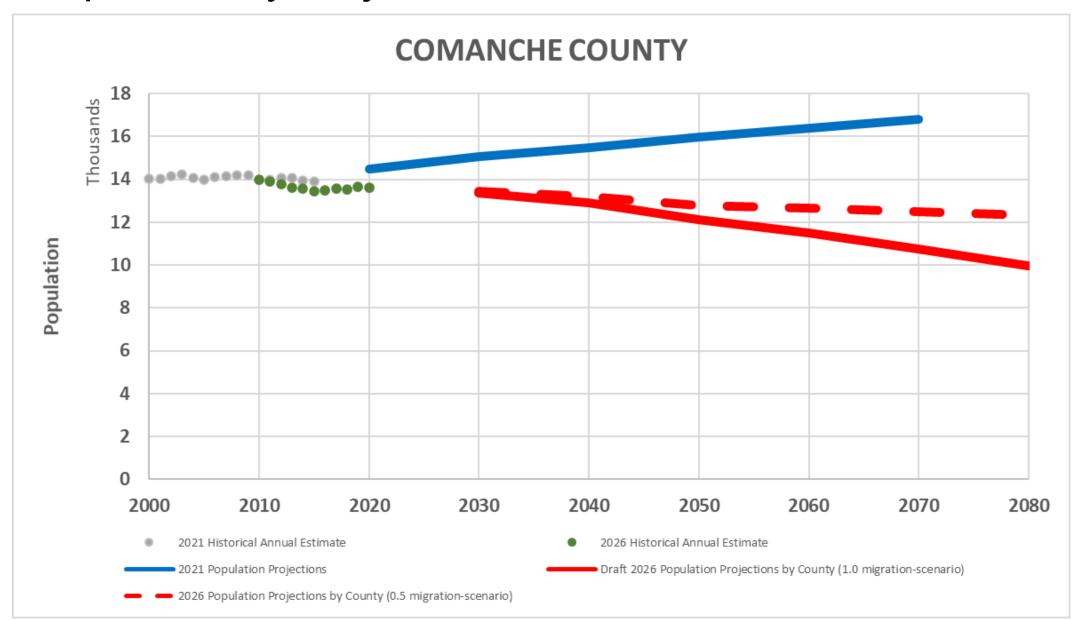
Brazos G – Draft Regional Population Projections



Example County Projections -



Example County Projections -



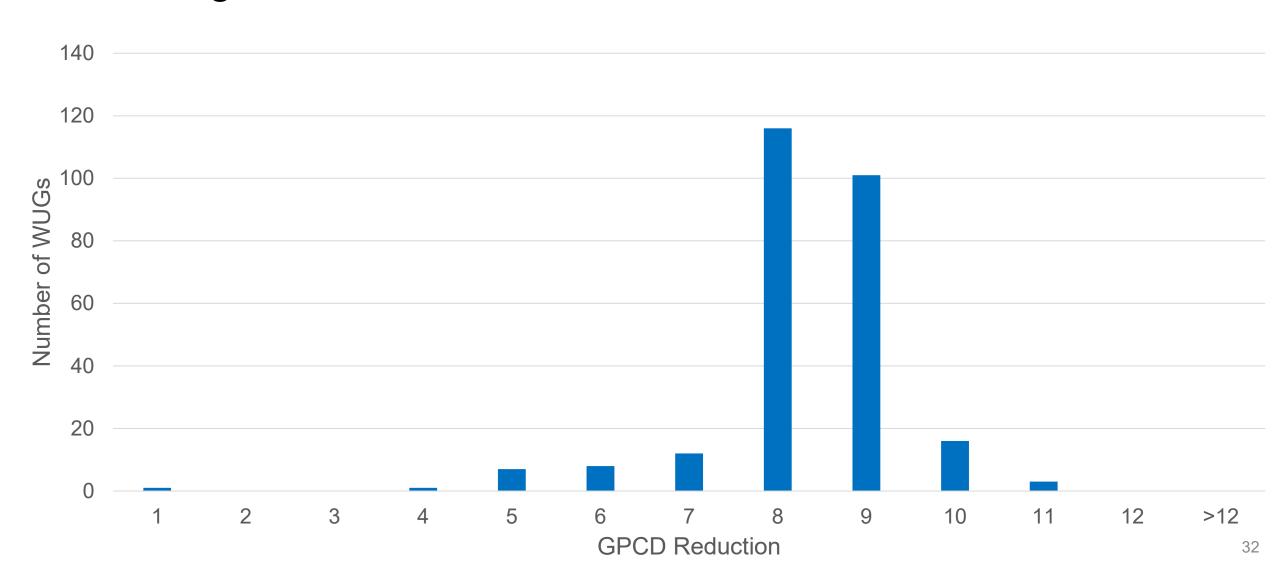
Municipal Demand Projections: GPCD

- Gallons per Capita Daily
- Baseline GPCD = dry-year
- Municipal water use
 - Residential
 - CII (commercial, institutional, light industrial)
 - E.g., restaurants, hotels, camps, transient populations' use included along with permanent residents
- Exempt use difficult to estimate

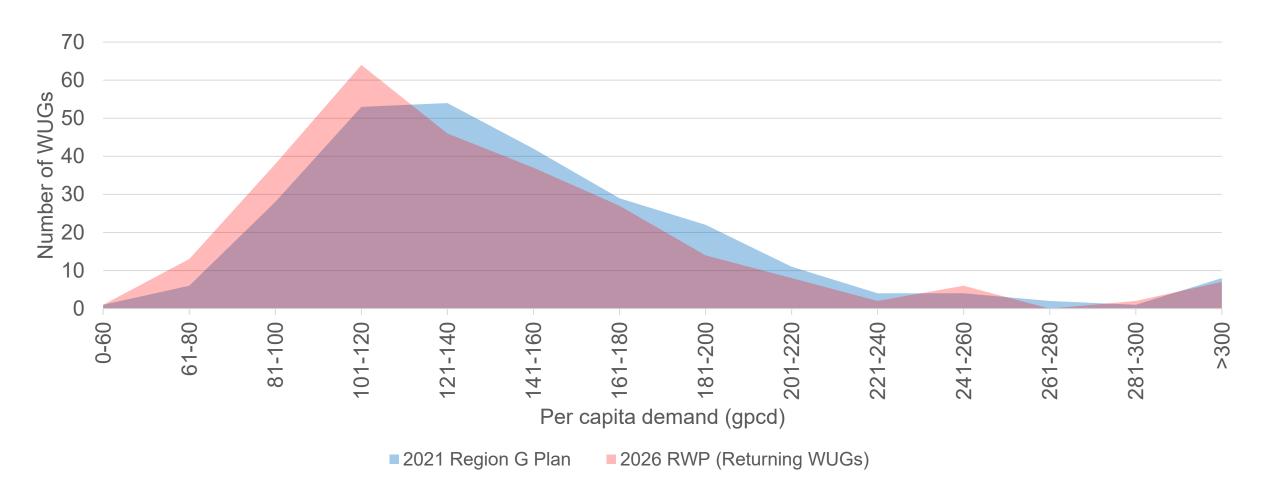
Municipal Demand Projections: Baseline GPCD

- Draft Baseline GPCD
 - Based on 2021 RWP WUG GPCD
 - Then reduced to account for passive savings between historical and projected (2030)
- Water sources: groundwater + surface water
 - Water Use Survey

TWDB Estimated <u>Baseline</u> Per-Capita WUG Demands: Change from 2021 RWP



TWDB Estimated <u>Baseline</u> Per-Capita WUG Demands

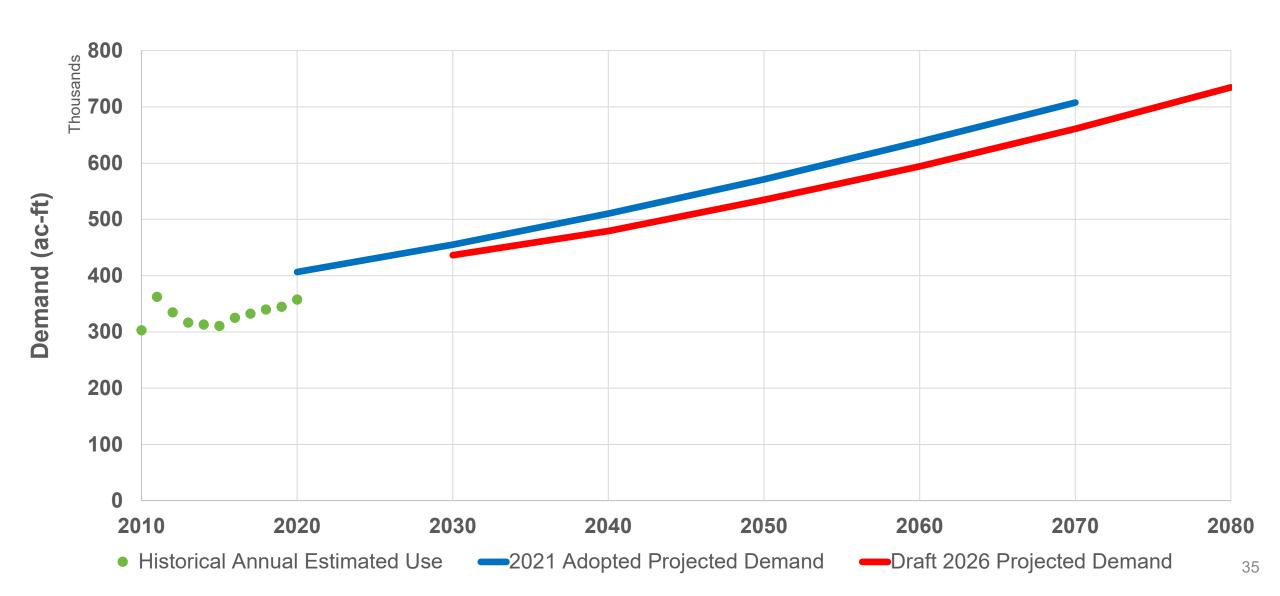


 TWDB provided historical GPCDs for RWPGs to review and potentially revise

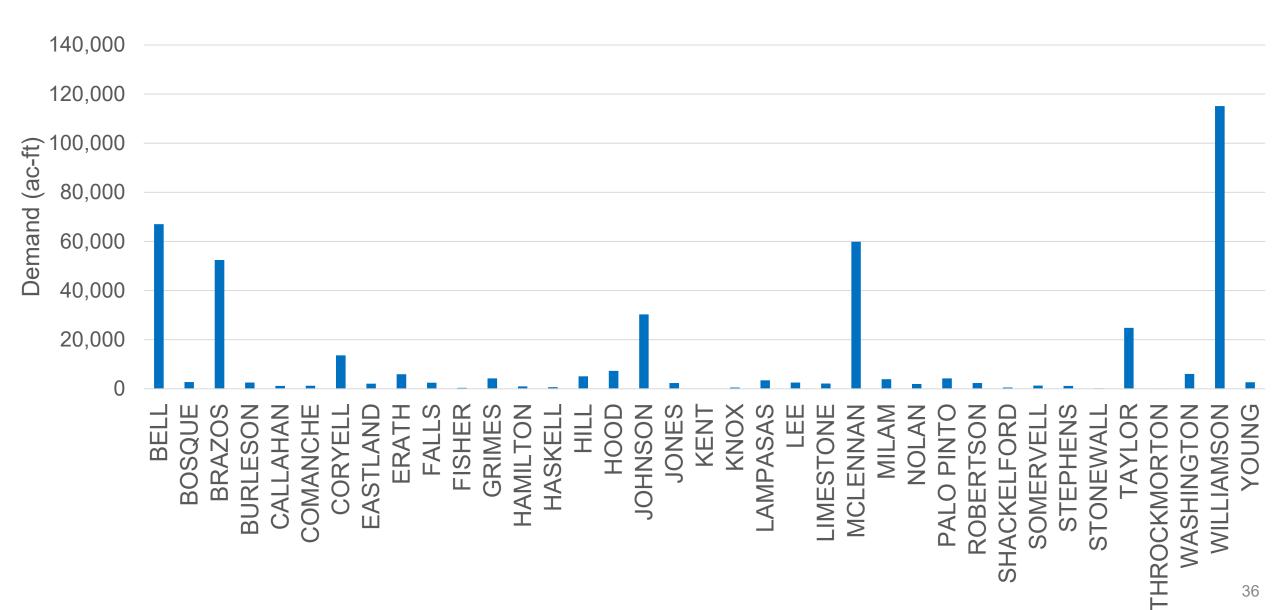
Municipal Demand Projections: PC Savings

- Plumbing Code Savings
- Update this planning cycle
- Residential:
 - Toilets
 - Showerheads
 - Clothes washers
- Will include commercial toilet and urinal water efficiency savings
- **2030 2080**

Brazos G – Draft Municipal Demand Projections for Region



Draft Municipal Demand Projections (ac-ft) by County: 2030



Summary

Consideration of additional conservatism in estimates:

- Utilization of 1.0- vs 0.5- migration scenario
 - Dependent upon trend
- Remove passive savings assumption from baseline gpcd
 - Identify maximum "dry-year" gpcd
 - Still use TWDB's assumed savings for decadal projections

Engagement

- Surveys
- Calls

Look for evidence of:

- Data errors
- New studies
- New infrastructure/service area
- Major differences in long-term demand

Revision requests due Aug. 11, 2023

Item 8.2 Non-Municipal

- Irrigation
- Livestock
- Manufacturing
- Mining
- Steam-ElectricPower Generation

Key Considerations

TAC §357.10 (39)

 Water Demand: "Volume of water required to carry out the anticipated domestic, public, and/or economic activities of a Water User Group <u>during drought</u> <u>conditions</u>."

TWDB Exhibit C Guidelines

 Identifies what information is required by TWDB for justification of changes to draft projections.

Irrigation

Irrigation

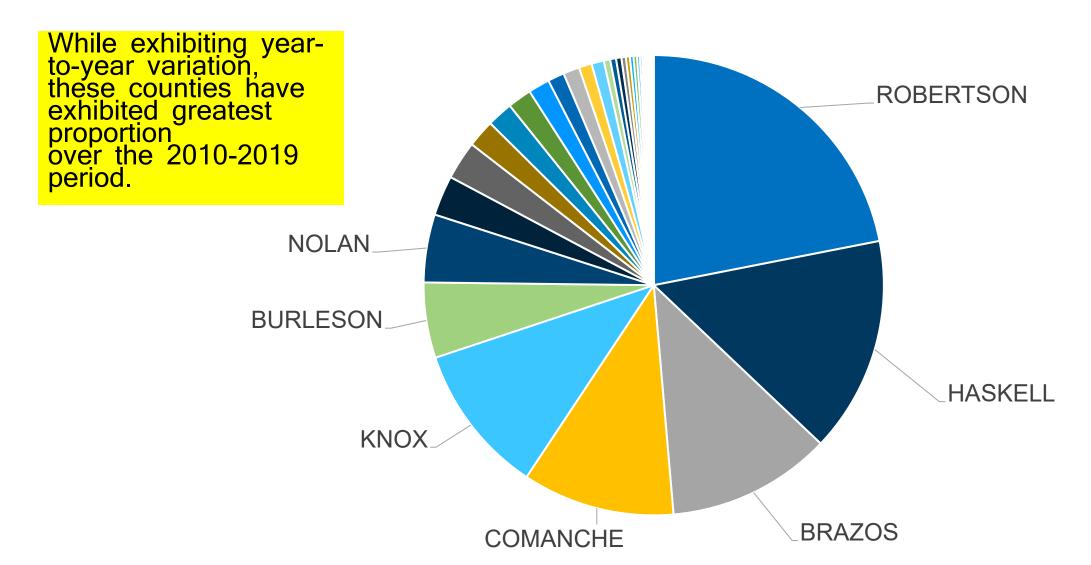
Same methodology as 2021 RWPs

Draft 2030 Baseline based on 5-yr average (2015-2019)

2030 - 2080 held constant

- Unless groundwater availability over the planning period is projected to be less than the groundwater-portion of the baseline irrigation demand projections,
- If so, irrigation demand is commensurately decreased starting in 2040 or later.

Proportion of 2019 Irrigated Water Use Estimates by County in Brazos G



Assessment - Irrigation

Overall reduction in projected irrigation demands.

Draft projections driven by:

- Decreases in estimated use in those counties with highest demands.
- Averaging over 2015-2019 period

Key criteria for revision:

- TWDB Guidelines (Section 2.2.2.5, Item 2)
 - "Evidence that recent (10 years or less) irrigation trends are more indicative of future trends than the draft water demand projections."
 - TAC §357.10 (39) definition of water demand as, "Volume of water required to carry out the anticipated domestic, public, and/or economic activities of a Water User Group during drought conditions."

	Ave	rage	Difference between Averages		
	Baseline				
County	(2015-2019)	(2010-2019)	Amount		
BELL	3,108	2,975	-133	-	
BOSQUE	2,412	2,995	583	2	
BRAZOS	32,394	35,818	3,424	1	
BURLESON	17,432	22,118	4,686		
CALLAHAN	264	522	258	9	
COMANCHE	26,274	29,196	2,922	1	
CORYELL	343	326	-17	-	
EASTLAND	3,755	4,393	638	1	
ERATH	6,943	6,985	42		
FALLS	6,944	7,196	252		
FISHER	3,897	4,289	392	1	
GRIMES	707	687	-20	-	
HAMILTON	1,148	921	-227	-2	
HASKELL	41,271	49,755	8,484	2	
HILL	998	1,374	376	3	
HOOD	6,550	7,800		1	
JOHNSON	517	542	25		
JONES	2,574	2,702	128		
KENT	774	927	153	2	
KNOX	30,079	37,031	6,952	2	
LAMPASAS	503	521			
LEE	709	939	230	3	
LIMESTONE	8	7	-1	-1	
MCLENNAN	5,122	5,042	-80	-	
MILAM	5,122	5,812	690	1	
NOLAN	12,948	12,256	-692	-	
PALO PINTO	1,324	2,168	844	6	
ROBERTSON	67,361	73,272	5,911		
SHACKELFORD	139	194	55	4	
SOMERVELL	259	335	76	2	
STEPHENS	153	153	0		
STONEWALL	83	95	12	1	
TAYLOR	1,216	1,426	210	1	
THROCKMORTON	47	71	24	5	
WASHINGTON	193	251	58	3	
WILLIAMSON	399				
YOUNG	648			-2	

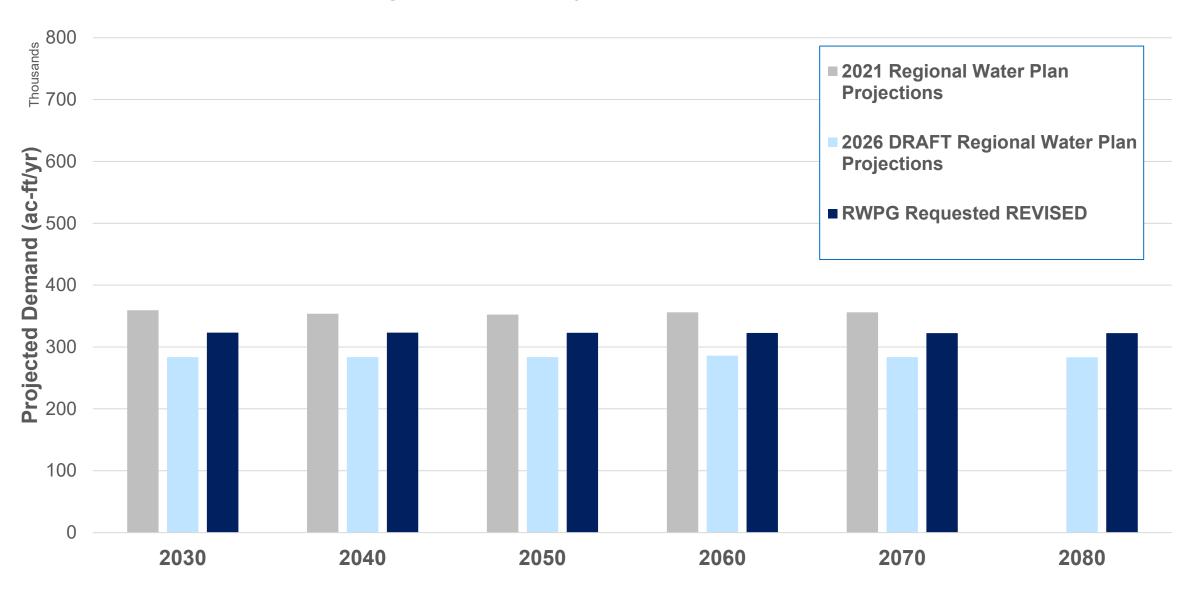
Comparison of average irrigation water use over 5- and 10-yr periods by county

• Numerous counties (green) had higher water use during earlier drought conditions, e.g., 2011.

To have a more conservative estimate of projected water demand for irrigation uses during drought conditions, recommend:

- Use of 10-yr average over 2010-2019 as baseline for the identified counties in green.
- Support adjustments in projections for those counties where total groundwater availability over the planning period is projected to be less than the groundwater portion of the baseline water demand projections.
- No change for other counties

Comparison of Draft & Revised Brazos G 2026 Irrigation Projections to 2021 Plan



Livestock

Methodology did not change

Differences in baseline data due to:

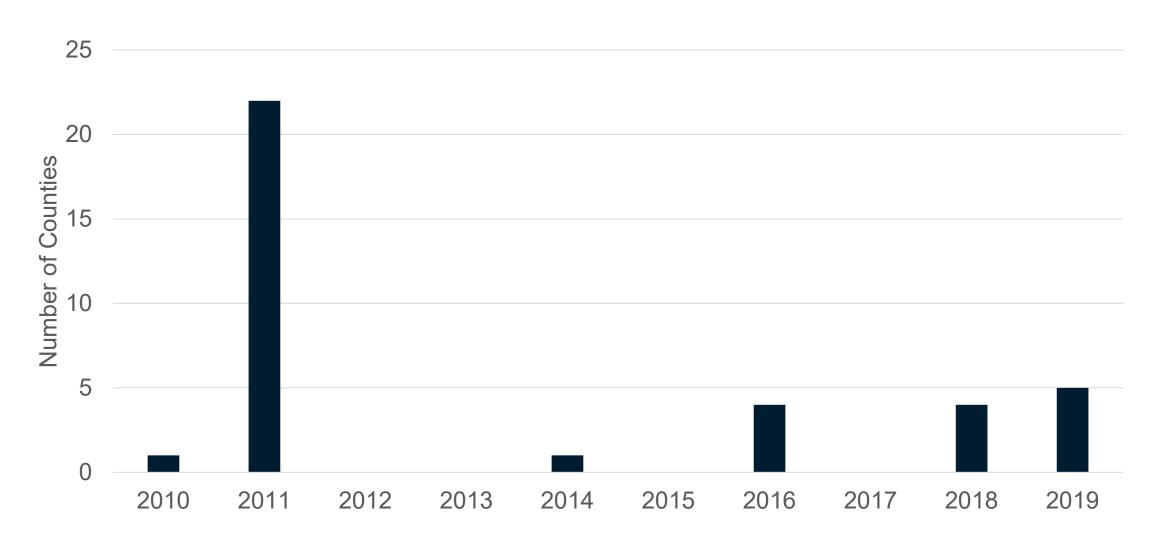
 Updates to the water use geographic splits (region/ county/basin) - applied retroactively from 2015 forward.

TWDB category	Subcategory	2021 RWP water use (gal/head/day)	2026 RWP water use (gal/head/day)	
Cattle	Milk	75	55	
	Fed & other cattle	15	15	
Chickens	Non-broilers	0.086	0.09	
Cnickens	Broilers	0.077	0.09	
Turkeys	Turkeys	0.2	0.2	
Equine	Horses, ponies, mules, burros, & donkeys	12	12	
Hogs	Hogs	11	5	
Sheep	Sheep	2	2	
Goats	Milk			
	Meat	0.5	2	
	Angora			

- Changes in the assumed water use parameters for five livestock types
- Changes in broiler chicken inventory estimates

Estimated water use consistent across the planning duration

Year of Maximum Estimated Livestock Use (with revised dairy coefficient of 75 gal/head/day)



			Difference					Differe	nce
County	Draft Baseline	Revised Baseline	Amount	%	County	Draft Baseline	Revised Baseline	Amount	%
BELL	790	977	187	24%			No Revision		
BOSQUE	887	936	49	6%	LEE	1,242	Recommended	N/A	N/A
		No Revision			LIMESTONE	1,494	1,495	1	0%
BRAZOS	1,098	Recommended	N/A	N/A			No Revision		
BURLESON	1,072	1,259	187	17%	MCLENNAN	1,642	Recommended	N/A	N/A
CALLAHAN	821	861	40	5%			No Revision		
COMANCHE	3,051	3,436	385	13%	MILAM	1,524	Recommended	N/A	N/A
CORYELL	1,090	1,109	19	2%	NOLAN	254	275	21	8%
EASTLAND	806	962	156	19%	PALO PINTO	1,735	1,830	95	5%
ERATH	5,135	5,984	849	17%	ROBERTSON	1,970	2,036	66	3%
		No Revision			SHACKELFORD	513	546	33	6%
FALLS	1,904	Recommended	N/A	N/A	SOMERVELL	137	151	14	10%
FISHER	359	484	125	35%	STEPHENS	396	429	33	8%
GRIMES	1,193	1,447	254	21%			No Revision		
HAMILTON	1,432	1,505	73	5%	STONEWALL	383	Recommended	N/A	N/A
HASKELL	406	424	18	4%	TAYLOR	705	761	56	8%
HILL	1,179	1,276	97	8%			No Revision		
HOOD	459	486	27	6%	THROCKMORTON	614	Recommended	N/A	N/A
JOHNSON	1,439	1,488	49	3%			No Revision		
JONES	451	515	64	14%	WASHINGTON	1,544	Recommended	N/A	N/A
		No Revision			WILLIAMSON	1,405	1,532	127	9%
KENT	276	Recommended	N/A	N/A			No Revision		
		No Revision			YOUNG	588	Recommended	N/A	N/A
KNOX	534	Recommended	N/A	N/A					

60 11%

525

LAMPASAS

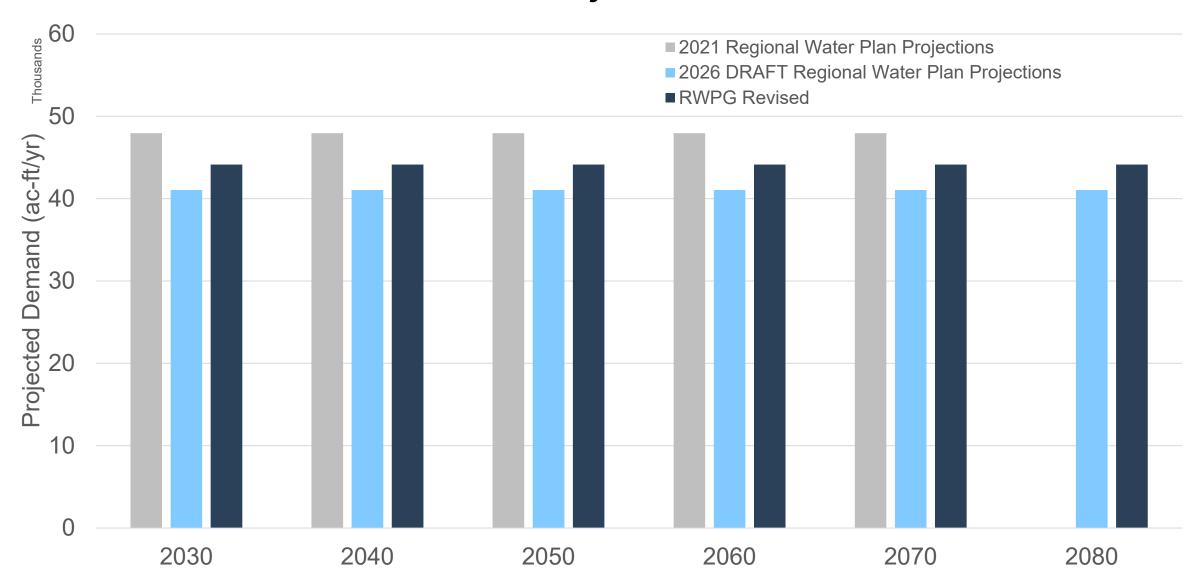
Comparison of average livestock water use over 5- and 10-yr periods by county

 Numerous counties (green) had higher water use during earlier drought conditions, e.g., 2011.

To have a more conservative estimate of projected water demand for livestock uses during drought conditions, recommend:

- Use of 75 gal/head/day water use coefficient for dairy cattle.
- Use of 10-yr average over 2010-2019 for the identified counties in green.
- Adjustments for surveyed livestock facilities should be averaged over same (2010-2019) period.
- No change for other counties.

Comparison of Draft & Revised Brazos G 2026 Livestock Projections to 2021 Plan



Manufacturing

Methodology

- Generate county baseline from highest surveyed use (2015-2019)
- Add estimate for unaccounted water (i.e., missing entities).
- Assume linear demand trend based on
 - WUS data, and
 - County Business Patterns (U.S. Census Bureau) historical rates of change (2010-2019)

Analysis and Recommendations

Analyzed reported manufacturing use for all Brazos G counties

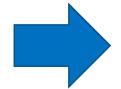
Extended period from 5- to 10-years (2010-2019)

Recommend new baseline manufacturing demand for those counties with higher manufacturing uses during drought conditions.

Recommend region-specific manufacturing annual growth rate for baseline to 2030

DRAFT

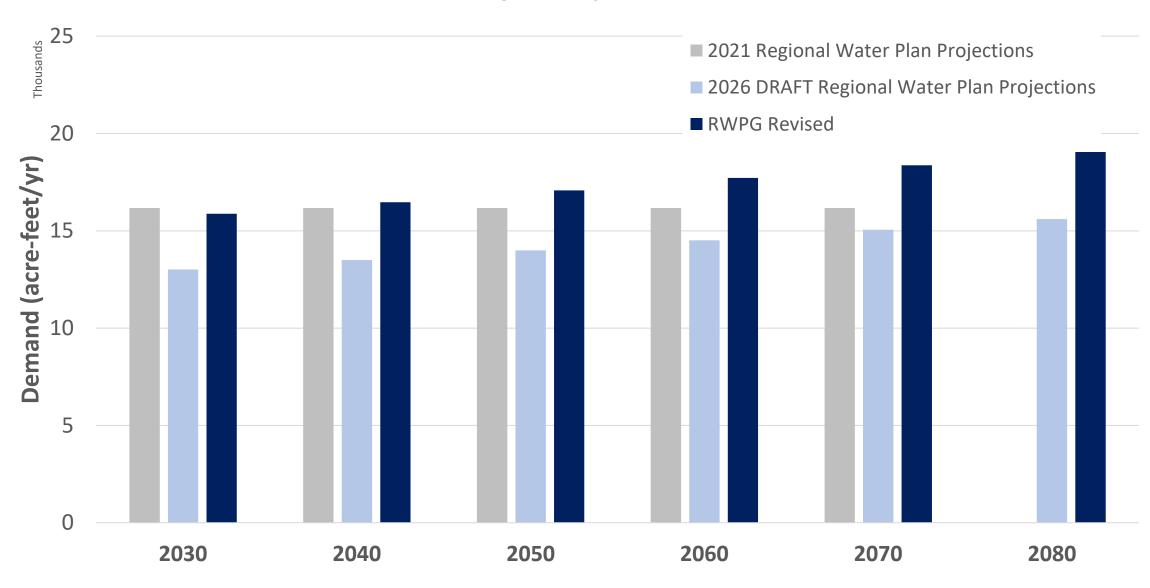
0.96% State-wide



RECOMMENDED

1.82%
Region-specific

Comparison of Draft & Revised Brazos G 2026 Manufacturing Projections to 2021 Plan



Mining

Methodology: Mining

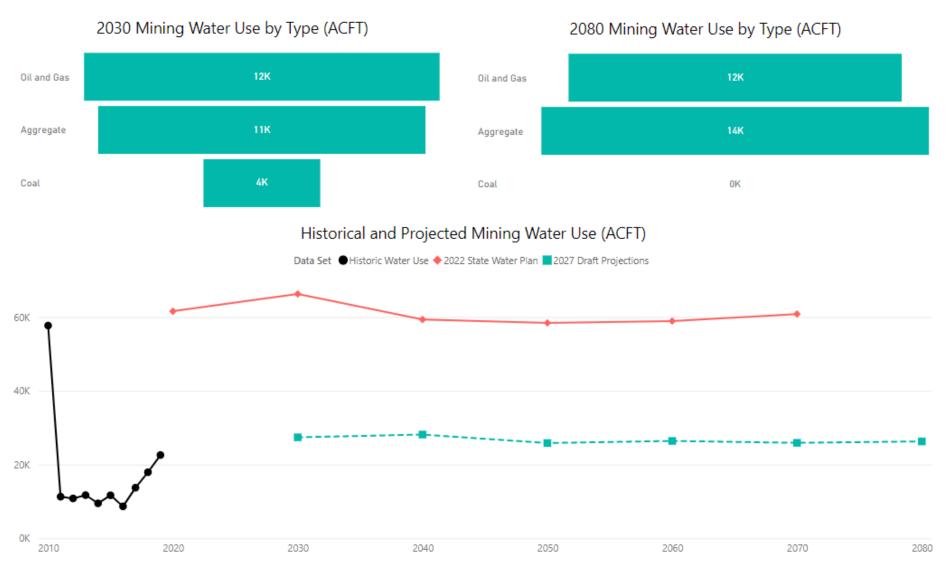
UT Bureau of Economic Geology (UTBEG) study update.

- Evaluated major mining operations across Texas
- Oil & Gas plays, aggregates, and coal & lignite

2030 Baseline based on average of UTBEG estimates of annual mining water use.

- Demand for aggregates increase in proportion to population growth.
- O&G consistent then tailing off as plays mature starting around 2060.

Comparison of Region G Historic Mining Water Use and Projections



Key Drivers

Significantly (~50%) less coal mining in Robertson County since 2011.

Luminant's Three Oaks mine in Lee County ceased reported water use in 2015.

Not driven by drought, but cessation of facilities.

Assessment - Mining

Overall reduction in projected mining demands.

Magnitude of projections are relatively small compared to other larger demands within Brazos G.

- Projections affected by observed decreases in reported use over the last decade.
- Projected decreases over time are related to BEG estimates for cessation of coal mining in:
 - Limestone
 - Robertson

Recommendation:

No revisions to draft projections recommended.

Steam-Electric Power Generation

Methodology did not change

- Estimated baseline developed from the highest single-year county surveyed water use between 2015 and 2019
- Adjustments reflecting near-term facility additions and retirements
- Assumed constant projected use through 2080

Fewer proposed facilities compared to previous plan and removal of retired facilities result in decreases in projected demands

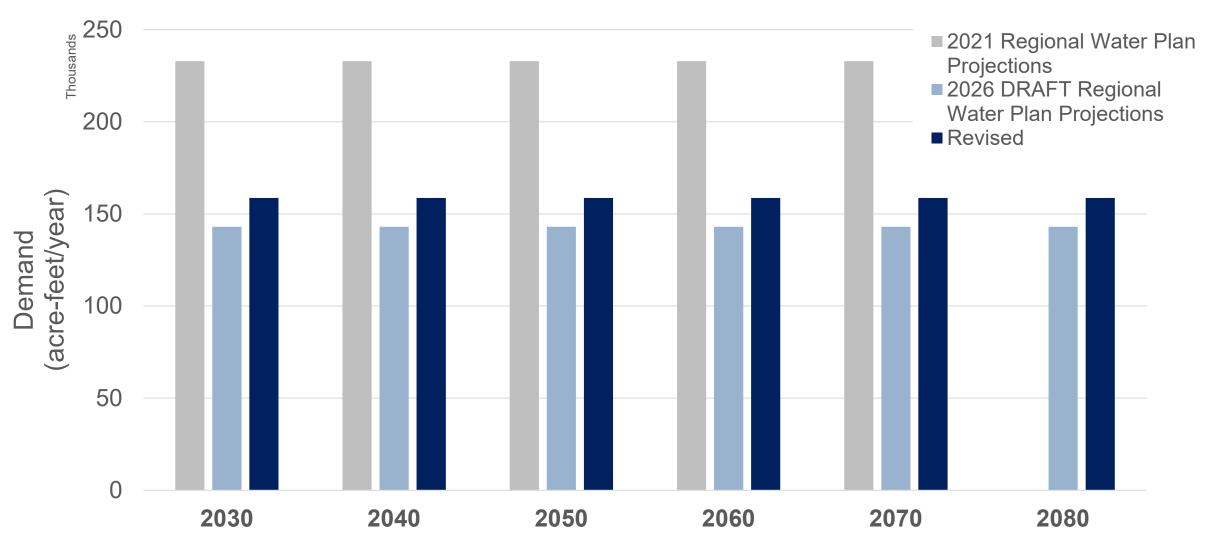
Analysis and Recommendations

Analyzed reported uses for steam-electric power generation for all Brazos G counties

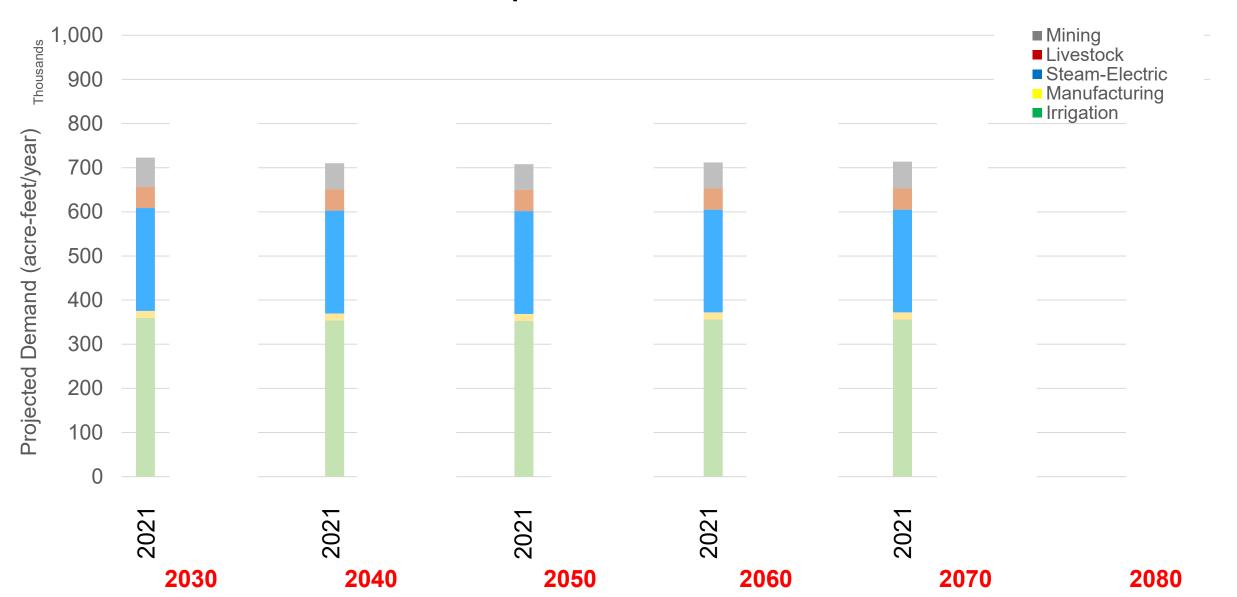
- Maintained exclusion of retired facilities
- Identified counties with higher drought period uses over longer 10-year period (2010-2019)

Recommend new baseline demand for those counties with higher uses during drought conditions.

Comparison of Draft & Revised Brazos G 2026 Steam-Electric Power Generation Projections to 2021 Plan



Summary Comparison of Draft and Revised Non-Municipal Demands to 2021 Plan



Item 8.2 - Action Sought

Action

 Authorize the technical consultant to submit a technical memorandum, populate, and distribute to the TWDB recommended revisions to the draft non-municipal demands for Brazos G consistent with the information provided in this meeting, and approve for the consultant to work with the Chair to submit further revisions and make responses to revision requests by TWDB by the July 14, 2023 deadline.

Submittal due July 2023.

 Targeting mid- to late-March, with note that any additional submittal (if any input received during municipal discussions) would be before July 14, 2023 deadline.

Item 8.3 Regional Water Planning Update

Legional March Flammy obacic

Item

- Updating of contracts
- Comments on Draft Exhibit D Data Deliverables
- Identification of Infeasible Water Management Strategies
- Municipal
 - Development of surveys
 - Engagement
- Water supply assumptions

Path Forward

Engagement on Municipal Projections

Infeasible Strategies Water
Supply
Availability

Item 9.2 BASF Consistency Status

7.2 – Consistency Status

BASF Corporation preparing water right application.

- Brazos River interruptible (non-firm), junior diversion;
- Bed and banks transfer;
- Modeled availability ~64% of years
- Brazos Watermaster approves diversions day-today

TCEQ requiring RWPG letter

- Must not be inconsistent with 2021 RWP
- Approved by Region H at Feb. 1, 2023 mtg.

Summary Information					
Туре	Non-firm (interruptible) surface water				
Basin	Brazos River Basin, San Jacinto- Brazos Coastal Basin				
Place of Use	McLennan, Falls, Robertson, Limestone (Brazos River basin portions only), and Brazoria Counties				
Use Types	Industrial, Municipal				
Volume	Run-of-river up to 9,000 acre-feet/year				
Rate	45 cfs (Lake Creek Reservoir) 630 cfs (Harris and Brazoria Reservoirs				

7.2 – Consistency Status

Based on project details, should not require:

- Amendment to Regional Water Plan
- Formal Regional Water Plan Consistency Waiver

Plan review does not indicate consistency issues

- Interruptible supply typically excluded from Plan
- Leverages existing infrastructure
- No state funding sought

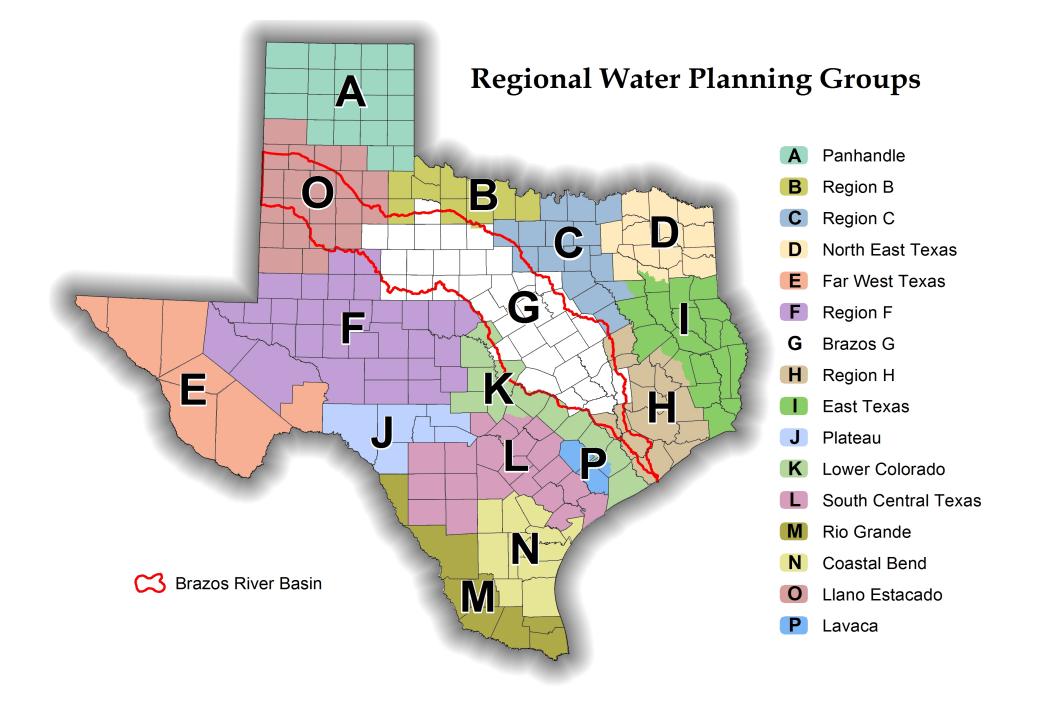
Item 9.2 - Action Sought

Action

 Approve the submittal of a letter to TCEQ from the Brazos G Regional Water Planning Group on consistency status

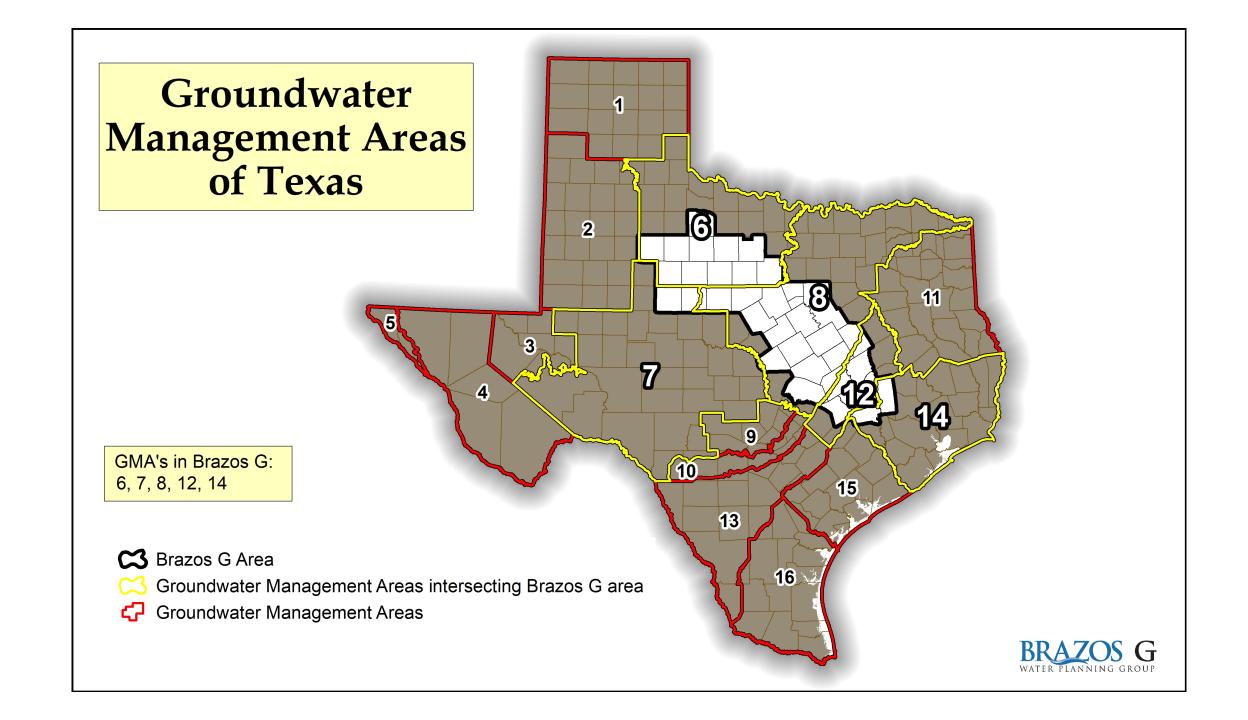


10. Report and possible discussion on updates from other regional water planning groups (Regions B, C, F, H, K, L & O)





11. Report and possible discussion on Groundwater Management Area (GMA) activities





12. Report and possible discussion on agency communication and information. (TPWD, TDA, TSSWCB, BBASC, & Interregional Planning Council)



13. Discussion and possible action on report by Brazos G Administrator

13.1. Administrator Report

13.2. Finance Report – Summary of Administrative
Tasks and Expenses

Brazos River Authority

Brazos G

From 10/01/22 Through 1/31/23

	Current	Life	Total	Budget	% Budget
	Period	to date	Budget	Variance	Remaining
Revenues					
State Grants	24,715	80,602	1,823,980	1,743,378	95.58%
Interest Income	-	-			
Total Revenues	24,715	80,602	1,823,980	1,743,378	95.58%
British and the Europe British					
Reimburseable Expenditures					
Salaries	441	1,927			
Benefits	190	841			
Indirect Costs	44	193			
Other Expenditures					
Printing/Publishing ¹	480	4,203			
Public Information/Notices ²	(636)	2,373			
Total Other Expenditures	518	9,537	42,500	32,963	77.56%
Voting Planning Member Travel	1,101	2,910	25,500	22,590	88.59%
Subcontractor	23,095	68,155	1,755,980	1,687,825	96.12%
Total Reimburseable Expenditures	24,715	80,602	1,823,980	1,743,378	95.58%
Manhin Kind					
Work in Kind		40.000			
Salaries/benefits	1,196	13,833			
Other	72	254			
Total Work in Kind	1,268	14,086			
Net Revenue over expenditures	(1,268)	(14,086)		_	

¹ Postage/copies/FedEx

² Reclass prior report travel to the correct line.



14. Discussion and possible action on report by Brazos G Chair



15. Consider Agenda Items and Date for the next Brazos G RWPG public meeting



16. Report, discussion, and possible action on report from Nominating and Bylaw Committee

- 16.1. Regarding nominees for the Brazos G Regional Water Planning Group Chair,
- 16.2. Regarding nominees for the Brazos G Regional Water Planning Group Vice Chair, and
- 16.3. Regarding nominees for the Brazos G Regional Water Planning Group two (2) At-Large Executive Committee Positions

"The Brazos G Nominating and Bylaws Committee recommends the appointment of <u>Wayne Wilson</u> to serve as Chair, <u>Gail Peek</u> to serve as Vice Chair, <u>David Blackburn</u> to serve as Executive Committee Member At-Large, and <u>Gary Westbrook</u> to serve as Executive Committee Member At-Large of the Brazos G Regional Water Planning Group."



Action Item:

BE IT HEREBY RESOLVED that the Brazos G Regional Water Planning Group confirms the appointment of <u>Wayne Wilson</u> to serve as Chair, <u>Gail Peek</u> to serve as Vice Chair, <u>David Blackburn</u> to serve as Executive Committee Member At-Large, and <u>Gary Westbrook</u> to serve as Executive Committee Member At-Large of the Brazos G Regional Water Planning Group.



17. Adjourn