



**Brazos G Regional Water Planning Group**

**Wednesday, March 27, 2024**

**10:30 AM**

**Brazos River Authority**

**Lt. Gen. Phillip J. Ford Central Office**

**4600 Cobbs Dr. Waco, TX 76710**



**1. Call Meeting to Order and Notice of Meeting**

**2. Invocation**

**3. Attendance and Announcements**

**4. Public Input - Public questions and comments on agenda items or water planning issues (limited to 5 minutes each)**



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

# TWDB Update

- **County Summary and Rural Entities Documents**
  - Summarizes key water supply planning information, data, and resources
  - Assists RWPGs in conducting rural outreach
  - List of rural entities, as defined by the Texas Water Code, attached in distribution email
  - County documents posted [online](#) on RWP documents page
- **Uniform Costing Model**
  - Used to cost WMSPs in the 2026 Regional Water Plans
  - HDR conducted training on 3/22
  - Tool and User Manual posted [online](#) on RWP documents page

# TWDB Update

- **Drought Management Costing Tool**
  - Optional tool to estimate costs and water savings for drought management strategies
  - Examples of drought management strategies in Exhibit C
  - Tool and User Manual posted [online](#) on RWP documents page
- **Water Conservation Advisory Council Survey Results**
  - Drought demand management survey related to voluntary curtailment, enforcement, AMI, etc.
  - Results shared in Drought Management Costing Tool distribution email

# TWDB Update

- **Water Use Surveys**
  - Closed March 1st
  - Past-due entities contacted again
- **Water Service Boundary Viewer**
  - Boundary editing for public water systems open until July 1, 2024
- **Technical Memorandum**
  - Administratively Complete (March 11)
  - Informal comments from TWDB staff, if applicable, will be sent in early June

# TWDB Update

- **Agricultural Water Conversation Grant**
  - Open until April 3rd
  - Webinar today, recordings posted online
- **RWPG Chairs Call**
  - Next Chairs call will be in April
- **Texas Water Fund**
  - Surveys for public input open until April 30th
  - TWDB Board work session in Lubbock on April 10th

# Interregional Planning Council Report to TWDB

Council adopted their final report on February 8, 2024.

Three statutory charges for recommendations:

1. Improve coordination among the regional water planning groups, and between each regional water planning group and the Board, in meeting the goals of the state water planning process and the water needs of the state as a whole;
2. Facilitate dialogue regarding water management strategies that could affect multiple regional water planning areas; and
3. Share best practices regarding operation of the regional water planning process.



# Interregional Planning Council Report to TWDB

## **Council recommendations to the Legislature:**

1. Appropriate additional funds to the planning process to
  - support RWPGs' task to identify and facilitate interregional coordination;
  - accommodate tasks associated with long-range, visionary planning;
  - fund better methods of disseminating information for the regional water planning process; and
  - accommodate labor costs for administering RWPGs
2. Provide financial incentives for local sponsorship of innovative, visionary, multi-benefit projects
3. Provide initial sponsorship of projects by the State without guarantees from local sponsors
4. Establish a coordination process amongst state agencies for installation of infrastructure during planning and construction of large-scale projects.
5. Strike simplified planning from the statute
6. Authorize the use of one-way conferencing or webinars

# Interregional Planning Council Report to TWDB

## **Council recommendations to the Texas Water Development Board:**

1. Develop protocols to include annual discussions to evaluate and document best practices for regional water planning in Chairs' conference calls.

## **Council recommendations to Future Interregional Planning Councils:**

1. Monitor the effectiveness of efforts to promote interregional coordination and review how best to utilize interregional liaisons in the development or use of shared water resources;
2. Utilize state agencies' expertise to assist regions in developing a vision of planning resources for the state as a whole;
3. Consider holding work sessions as needed to “deep dive” into more complicated topics;
4. Review materials and meeting notes from the TWDB's “lessons learned” technical meetings with RWPG consultants; and
5. Review progress on all recommendations in the 2027 SWP Council's report and submit its assessment to the TWDB.

# Interregional Planning Council Report to TWDB

**Council included several observations on topics not related to its statutory charge:**

1. Water loss
2. Unaccounted water use
3. Long-range and visionary planning

The final report is available online at:

<http://www.twdb.texas.gov/waterplanning/rwp/ipc>



## **6. Discussion and possible action on the report from the technical consultant**

### **6.1. Regional Planning Updates**

# Brazos G Regional Water Planning

Item 6

Regional Planning Updates



WACO, TX MAR 27, 2024

# 2026 Planning Budget Progress

Task #	Task	Contract Amount	Expended to Date	% Complete
1	Planning Area Description	\$30,418	\$4,397.60	14%
2A	Non-Municipal Water Demand Projections	\$57,806	\$46,517.79	80%
2B	Population and Municipal Water Demand Projections	\$80,330	\$75,015.08	93%
3	Water Supply Analyses	\$189,999	\$120,959.39	64%
4A	Identification of Water Needs	\$43,143	\$558.00	1%
4B	Identification of Infeasible Water Management Strategies	\$33,955	\$28,343.43	83%
4C	Prepare and Submit Technical Memorandum	\$49,388	\$23,218.17	47%
5A	Identification of Potentially Feasible Water Management Strategies and Water Management Strategy Projects	\$32,514	\$7,498.84	23%
5B	Evaluation and Recommendation of Water Management Strategies and Water Management Strategy Projects	--	--	0%
5C	Water Conservation Recommendations	\$20,000	\$0	0%
6	Impacts of Regional Water Plan	\$20,000	\$0	0%
7	Drought Response, Activities & Recommendations	\$70,000	\$0	0%
8	Recommendations Regarding Unique Stream Segments and/or Reservoir Sites and Legislative & Regional Policy Issues	\$13,415	\$0	0%
9	Implementation and Comparison to the Previous Regional Water Plan	\$10,000	\$0	0%
10	Public Participation and Plan Adoption	\$282,470	\$119,259.76	42%
	<b>TOTAL</b>	<b>\$933,438</b>	<b>\$425,768.06</b>	<b>46%</b>

# Task for Today

- Preliminary review of Chapter 1 information.
  - No formal action requested.
- Report on other planning items.

# 6.1

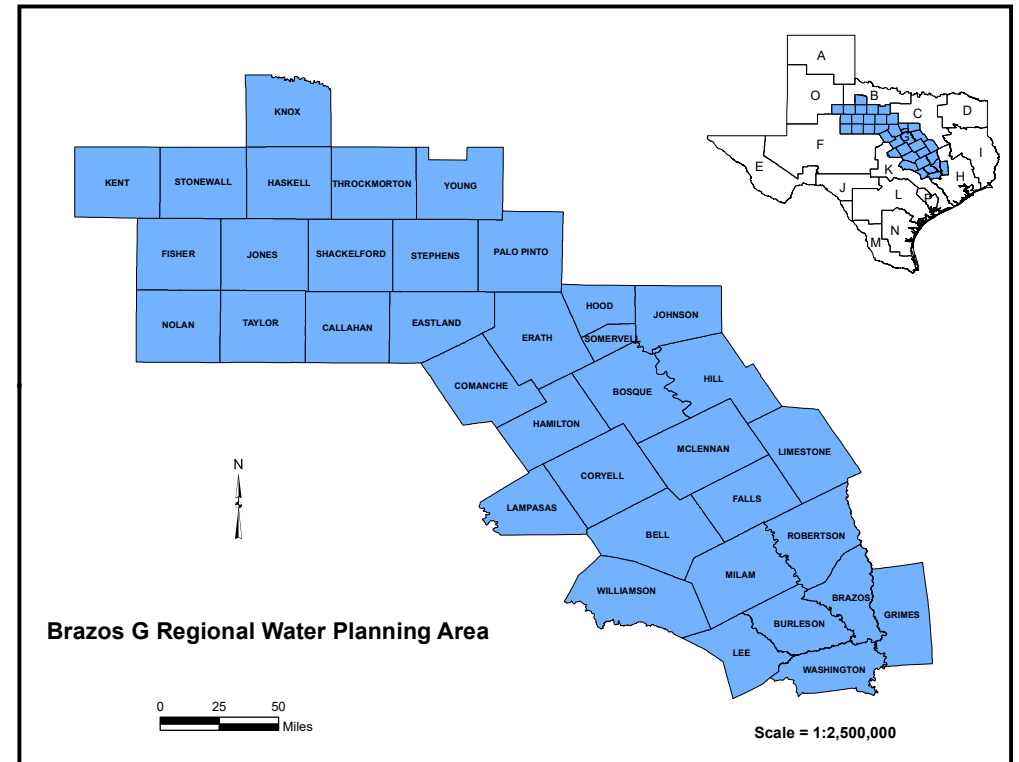
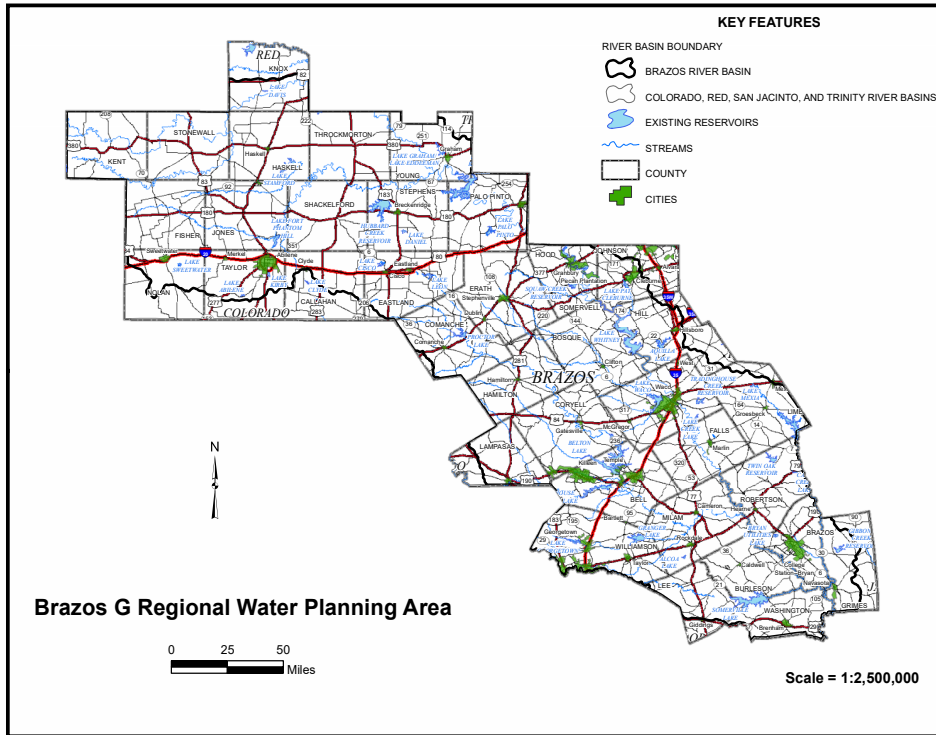
## Chapter 1 – Description of the Planning Area



# 14 Sections in Chapter 1

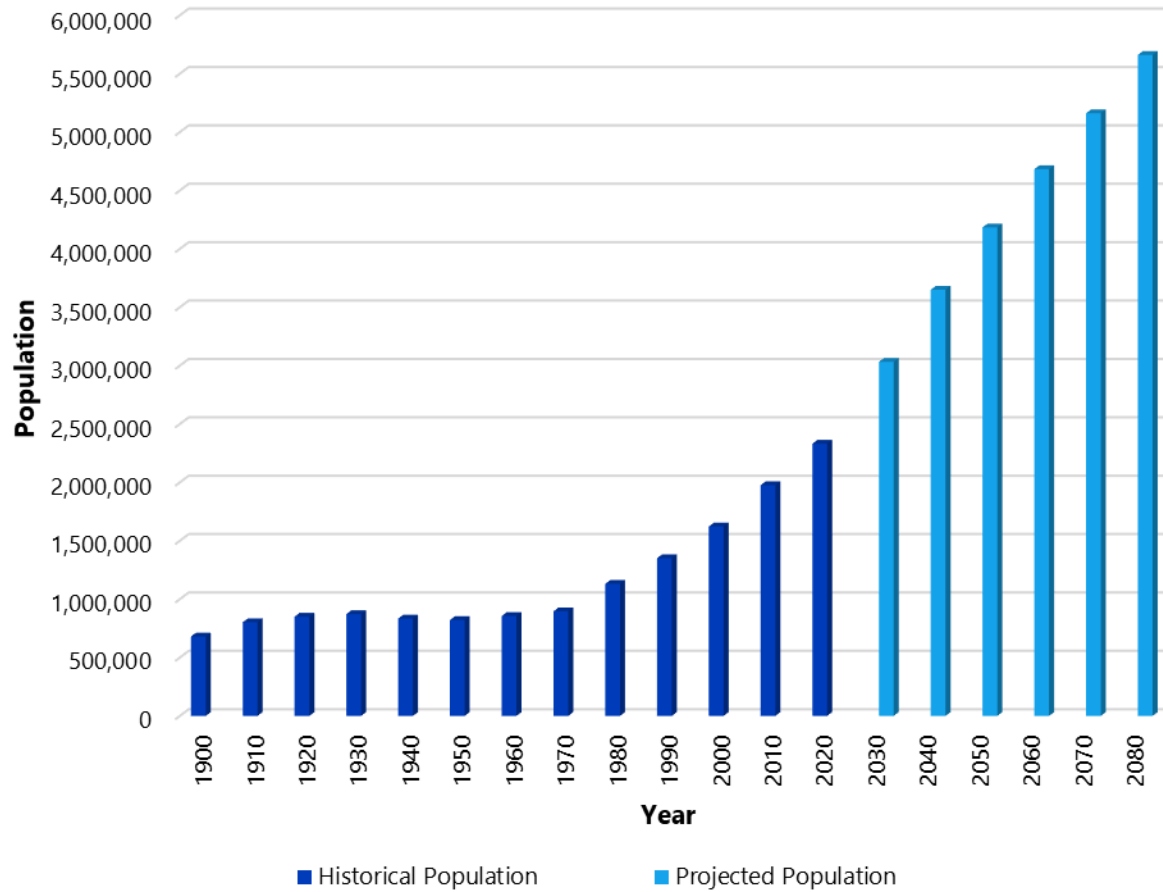
1. Background
2. Population
3. Economic Activities
4. Climate
5. Water Sources
6. Wholesale Water Providers
7. Major Water Providers
8. Current Water Users and Demand Centers
9. Natural Resources
10. Threats and Constraints to Water Supply
11. Drought Preparations
12. Existing Programs and Goals
13. Previous Water Supply Planning in Brazos G
14. Summary of Water Loss Audits in Area

# Background

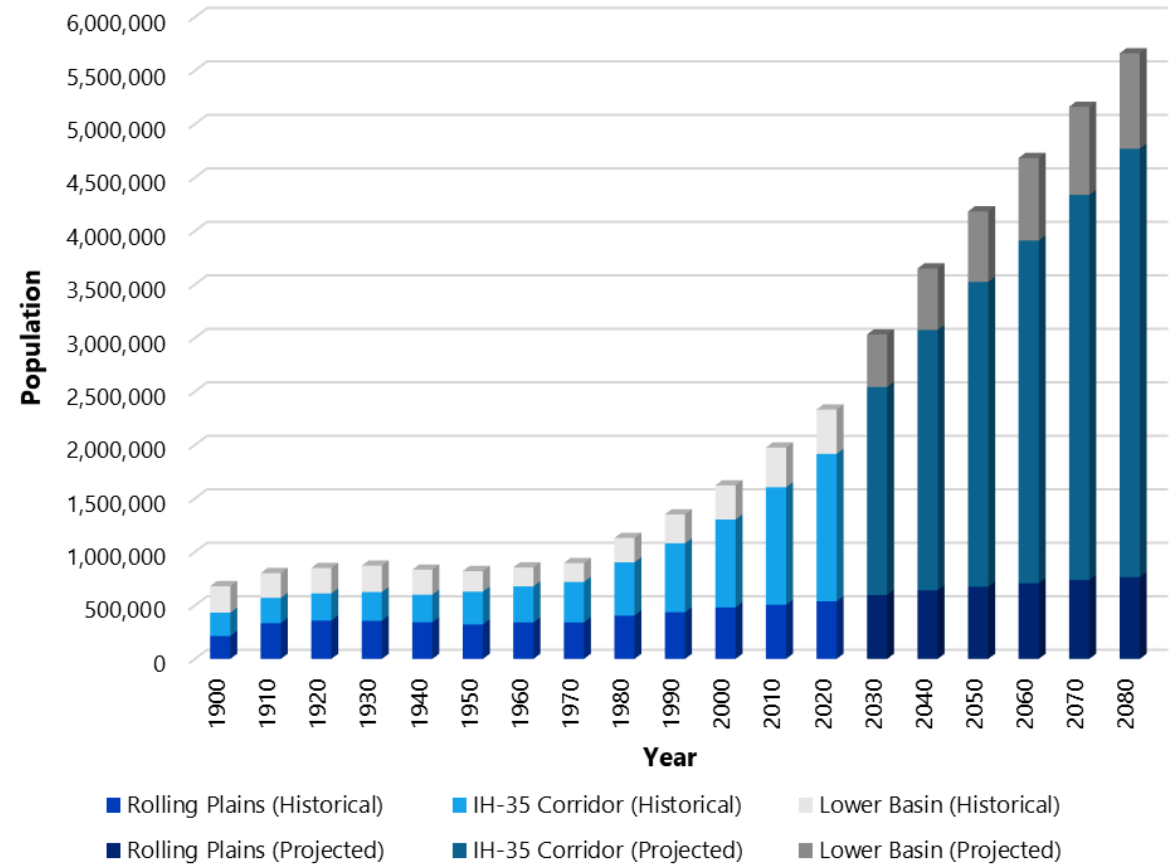


- Description of area
- RWPG voting & non-voting members

# Population



Historical and Projected BGWRPA Population



Historical and Projected Population by Subregion

- Major Cities and 2030/2080 distributions by county

# Economic Activities (2016)

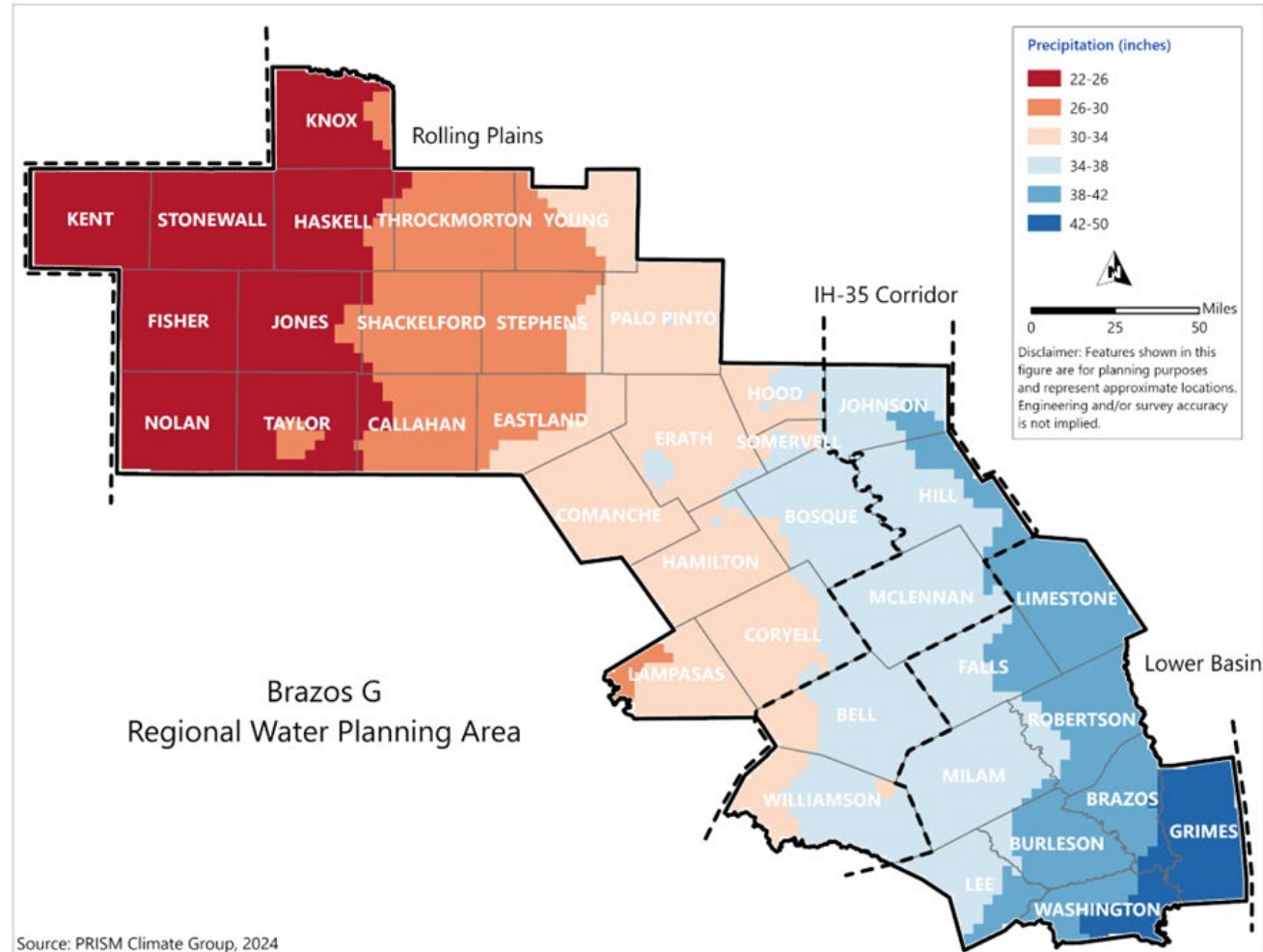
Economic Sector <sup>(1)</sup>	Rolling Plains	IH-35 Corridor	Lower Basin	Region Total
Agricultural, Forestry, Fishing	\$9,970	\$795	\$2,032	\$12,797
Mining	\$205,657	\$198,476	\$138,260	\$542,393
Construction	\$442,424	\$1,269,836	\$457,709	\$2,169,969
Manufacturing	\$496,570	\$1,751,183	\$510,386	\$2,758,139
Transportation, Public Utilities	\$377,470	\$595,876	\$159,640	\$1,132,986
Wholesale Trade	\$235,224	\$796,502	\$200,670	\$1,232,396
Retail Trade	\$590,413	\$1,625,922	\$437,986	\$2,654,321
Finance, Insurance, Real Estate	\$324,404	\$1,370,931	\$271,515	\$1,966,850
Services	\$1,687,746	\$7,674,877	\$1,390,313	\$10,752,936
Unclassified	\$174,430	\$522,329	\$137,545	\$834,304
Not Categorized	\$81,829	\$494,275	\$105,931	\$682,035
Total Payroll	\$4,788,661	\$16,403,984	\$3,907,547	\$25,100,192
Total Employed <sup>(2)</sup>	169,336	440,058	153,010	762,404

Notes:

(1) Data from U.S. Census Bureau.

(2) Data from Bureau of Labor Statistics.

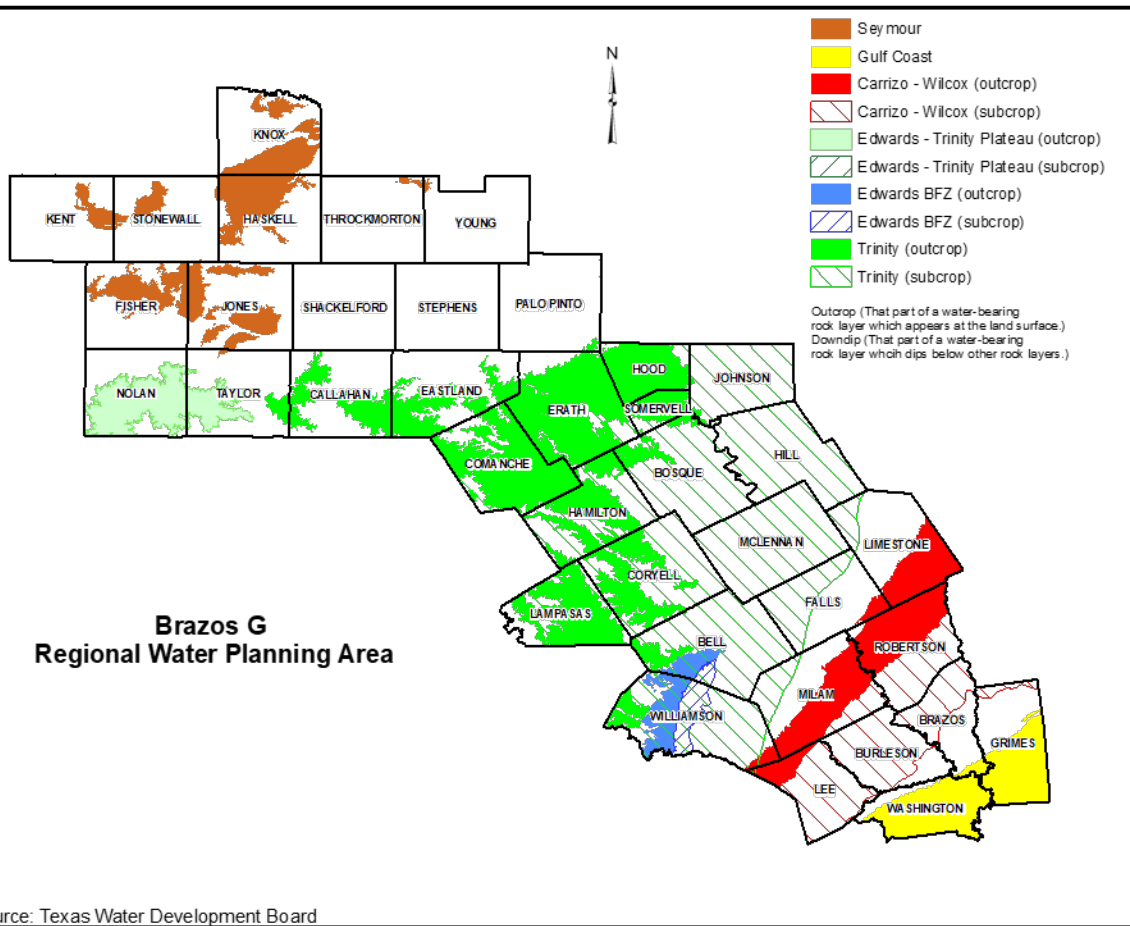
# Climate



Average Annual Precipitation (1981 – 2022)

- Temperature and precipitation

# Sources of Water



## Major Aquifers

- Groundwater
- Surface Water

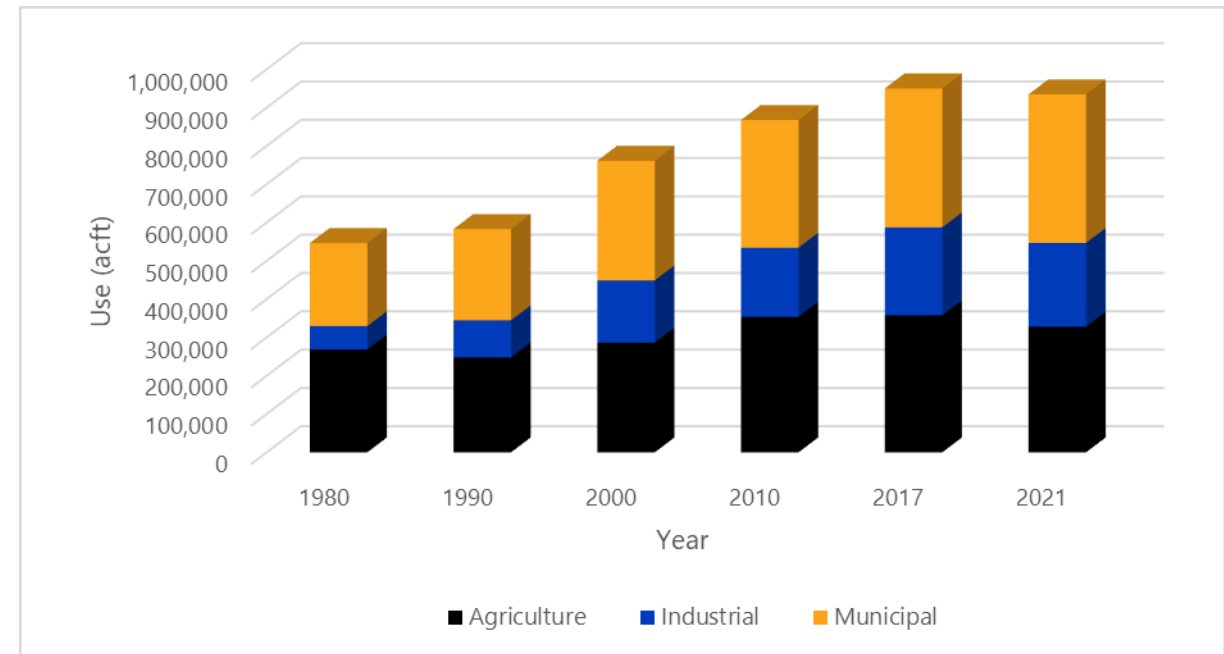
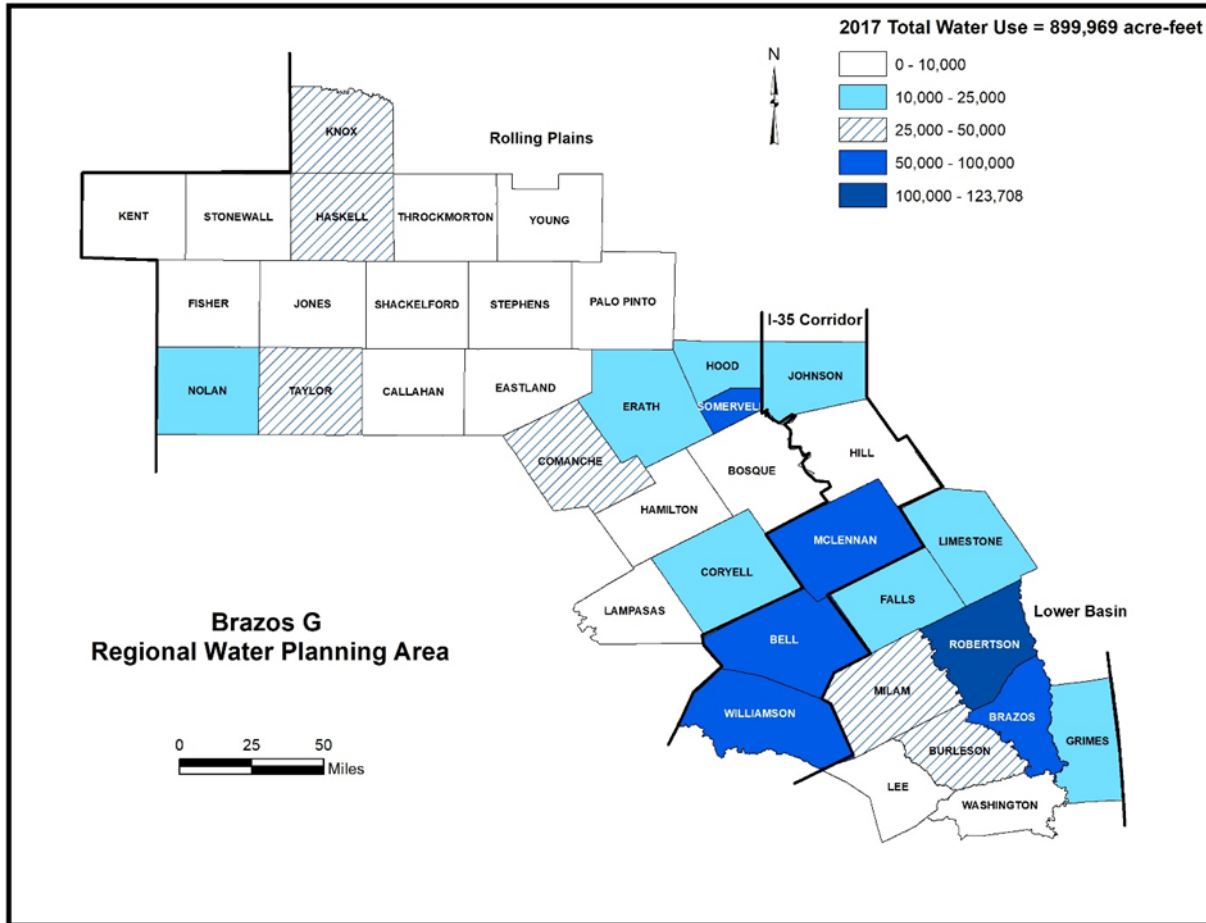
Reservoir	Stream	County	Authorized Storage (acft)	Authorized Use (acft/yr)	Owner
Abilene	Elm Creek	Taylor	11,868	1,675	City of Abilene
Alcoa Lake	Sandy Creek	Milam	15,650	14,000	Aluminum Co. of America
Aquilla	Aquilla Creek	Hill	52,400	13,896	U.S. Army Corps of Engineers <sup>(1)</sup>
Belton	Leon River	Bell	469,600	130,257	U.S. Army Corps of Engineers <sup>(2)</sup>
Brushy Creek		Falls	45,000	2,027	Cisco
Cisco	Sandy Creek	Eastland	45,000	2,027	City of Cisco
Cleburne	Nolan Creek	Johnson	25,600	6,000	City of Cleburne
Daniel	Gonzales Creek	Stephens	11,400	2100	City of Breckenridge
Dansby Power Plant	Unnamed Trib. Brazos River	Brazos	15,227	850	City of Bryan
Fort Phantom Hill	Elm Creek	Jones	73,960	38,662	City of Abilene
Georgetown	North Fork San Gabriel River	Williamson	37,100	13,610	U.S. Army Corps of Engineers <sup>(1)</sup>
Gibbons Creek	Gibbons Creek	Grimes	32,084	9,740	Texas Municipal Power Agency
Graham/Eddleman	Flint Creek	Young	52,386	11,000	City of Graham
Granbury	Brazos River	Hood	155,000	64,712	Brazos River Authority
Granger	San Gabriel River	Williamson	65,500	19,840	U.S. Army Corps of Engineers <sup>(1)</sup>
Hubbard Creek	Hubbard Creek	Stephens	317,750	56,000	West Central Texas MWD
Leon	Leon River	Eastland	28,000	6,300	Eastland Co. WSD
Limestone	Navasota River	Robertson	225,400	65,074	Brazos River Authority
Millers Creek Lake	Millers Creek	Baylor	30,696	5,000	North Central Texas MWA
Palo Pinto	Palo Pinto Creek	Palo Pinto	44,100	13,480	Palo Pinto MWD
Possum Kingdom	Brazos River	Palo Pinto	724,739	230,750	Brazos River Authority
Proctor	Leon River	Comanche	59,400	19,658	U.S. Army Corps of Engineers <sup>(1)</sup>
Somerville	Yegua Creek	Washington	160,110	48,000	U.S. Army Corps of Engineers <sup>(1)</sup>
Squaw Creek	Squaw Creek	Somervell	151,500	23,180	Texas Utilities Electric Co.
Stamford	Paint Creek	Haskell	60,000	10,000	City of Stamford
Stillhouse Hollow	Lampasas River	Bell	235,700	67,768	U.S. Army Corps of Engineers <sup>(1)</sup>
Tradinghouse	Tradinghouse Creek	McLennan	37,800	27,000	Texas Utilities Electric Co.

## Major Reservoirs (authorized capacity >10,000 ac-ft; excerpted)

# Wholesale and Major Water Providers

- Adopted at last meeting
- Contract information continually updated

# Current Water Users and Demand Centers



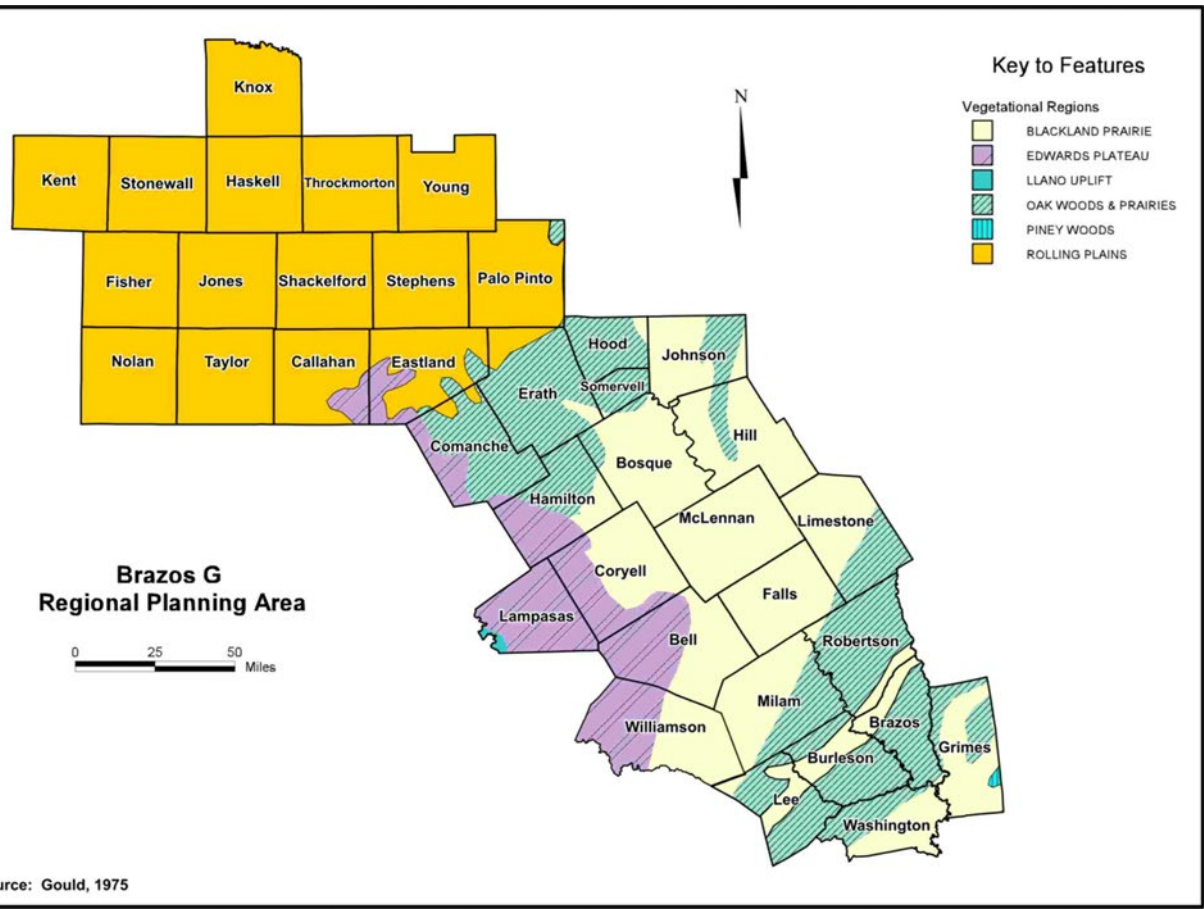
Historical Water Use by Type

Total Water Use by County

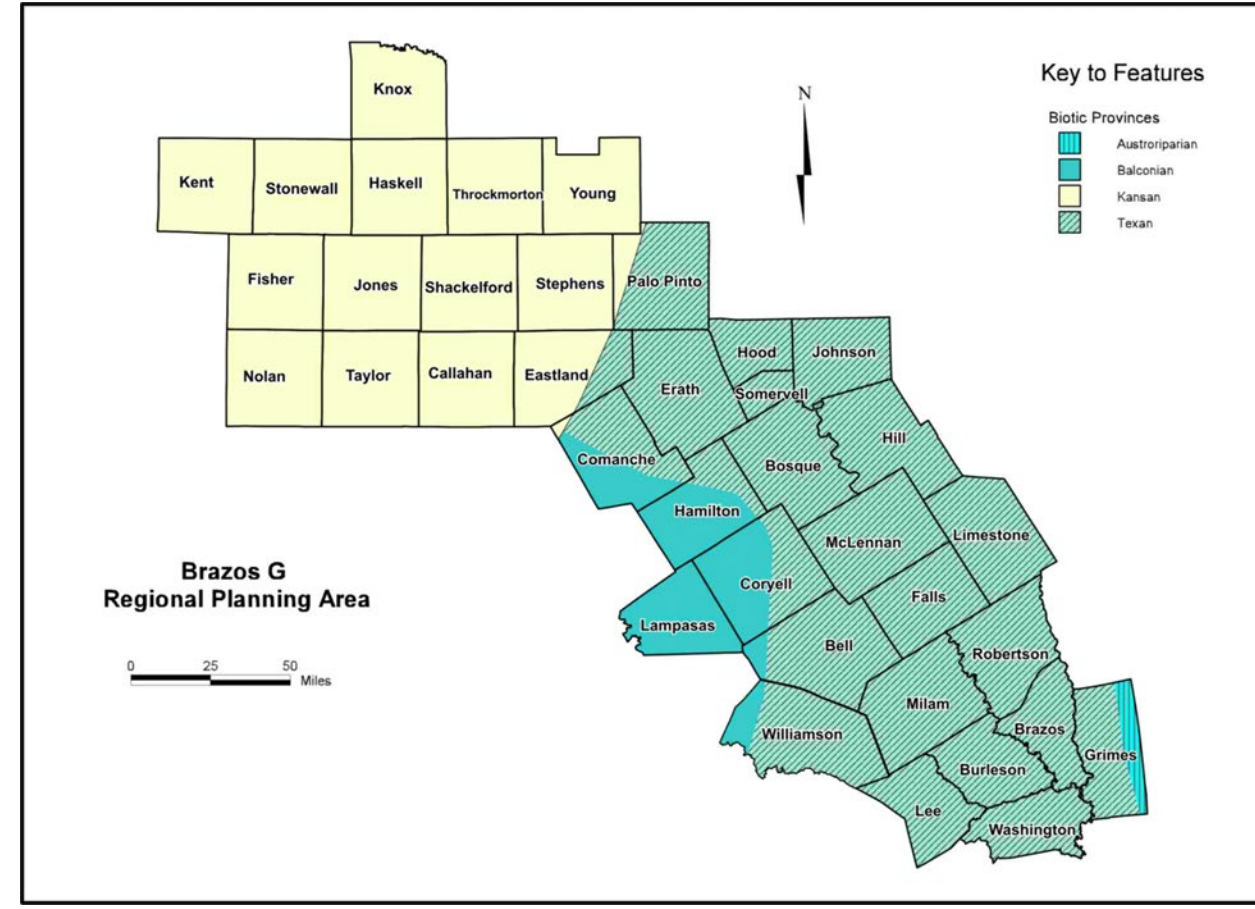
- Consumptive and Non-consumptive uses



# Natural Resources



Vegetational Areas



Biotic Provinces

- Vegetation
- Geology

- Soils
- Wetlands

- Resources
  - Water
  - Wildlife
  - Agricultural

# Threats and Constraints to Water Supply

- Projected population growth;
- High chlorides in upper basin;
- Zebra mussels;
- Susceptibility to drought;
- Identified water quality problems (updated with latest information from CRP 2022 Basin Summary Report)
- Threats to Agricultural Resources
  - Drought
  - Water quality
- Threats to Natural Resources
  - Lower streamflows
  - Lower water quality
  - Lower reservoir levels
  - Reduced freshwater inflows
- Threats to biological resources
  - Increased chlorides
  - Bacteria
  - Dissolved Oxygen
  - Increased nutrients
  - Algae
  - Pesticides and heavy metals

# Drought Preparations

## Chapter 7

- Drought of record.
- Current drought preparation and considerations.
- Recommendations for additional regional level drought response planning tools.

## Drought contingency plans

- Required by the State for wholesale water suppliers, irrigation districts, and retail water suppliers.

## Water Conservation Plan

- Required for surface water right-holders that supply 1,000 acft/yr or more for non-irrigation use and 10,000 acft/yr for irrigation use.
- Commonly included in management plans for GCDs or Underground WCDs.
- Example water conservation and drought management plans provided in Plan.

# Existing Programs and Goals

- Groundwater Regulation
  - Priority Groundwater Management Areas (PGMAs)
  - GCDs and GMAs
  - Texas Clean Rivers Act
- Clean Water Act
- Safe Drinking Water Act
- Source Water Assessment and Protection Program (SWAP)
- State WAM initiatives
- TWDB Groundwater Availability Models (GAMs)

# Previous Water Supply Planning in the Brazos G area

- Summaries of past regional and state plans;
- Selected past studies;
- Seeking input on significant recent studies to highlight.

# Summary of Water Loss Audits in Brazos G

Statistic	Real Loss for WUGs with Less than 32 Connections per Mile (gal/mi/day)	Real Loss for WUGs with 32 or More Connections per Mile (gal/connection/day)	Apparent Daily Loss (gal/connection/day) Apparent Daily Loss	Total Water Use (GPCD)	Water Loss (GPCD)	Total Water Loss (%)
Median	570.30	34.80	5.61	106.00	18.00	16.98
Average	724.13	57.55	7.33	113.56	26.92	23.71

## 2022 Calendar Year Summary

- 109 public water suppliers submitted a water loss audit to TWDB in 2022.
- Average total water loss was nearly 24%.
- The region encourages the reduction in water loss where feasible.

# 6.1

## Other Planning Items

# Items

## Technical Memorandum

- Brazos G Technical Memorandum submitted - March 4, 2024.
- TWDB found Technical Memorandum to be administratively complete – March 11, 2024.

## City of Benjamin

- Requested to be put on agenda for review of RWPG's possible support of a consistency waiver request for groundwater from the Seymour aquifer in Knox County.
- Have not received other information.

## City of Georgetown

- Has expressed interest in potential amendment request.

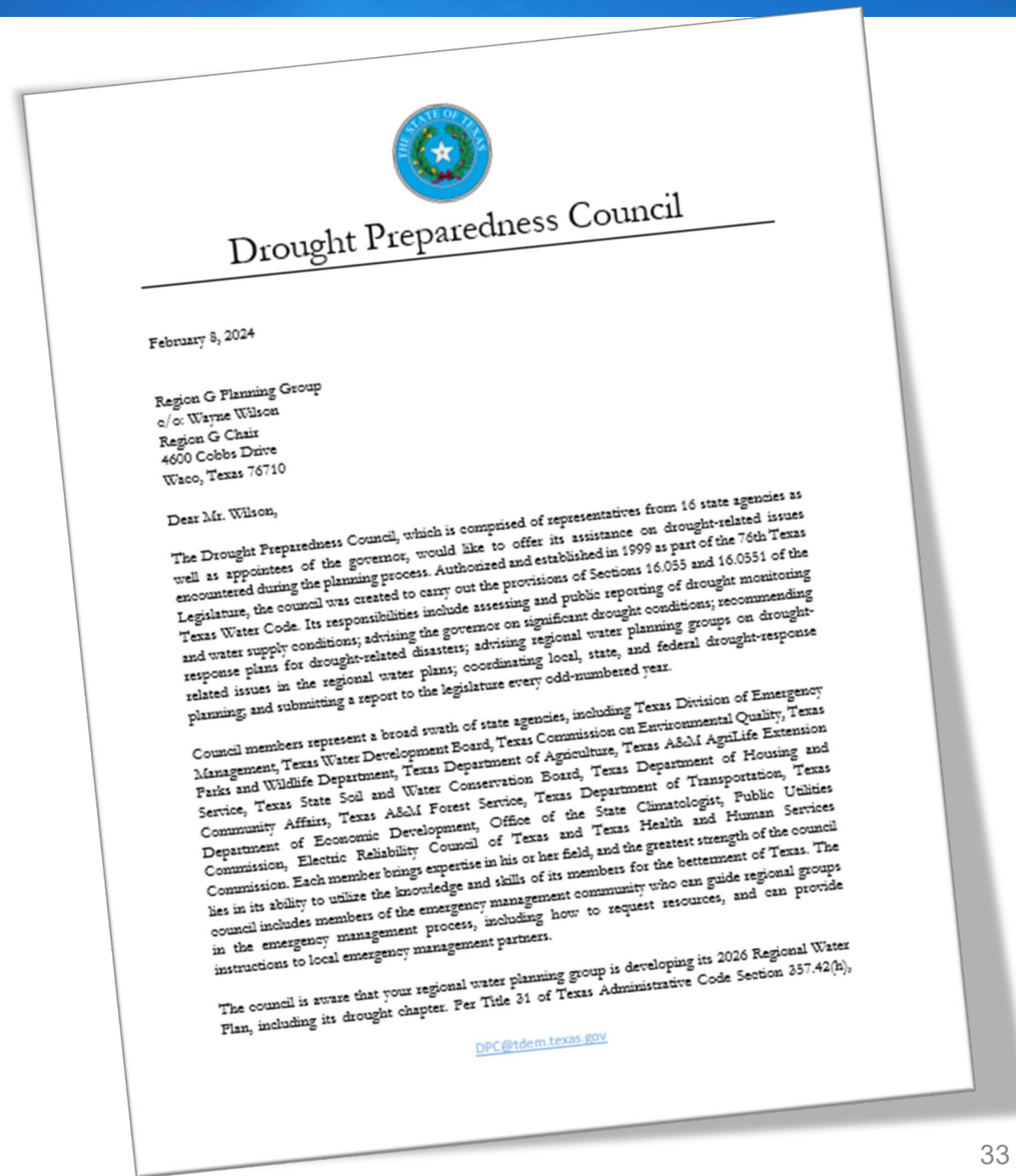
## Rural outreach

- Required to be summarized in Chapter 10.
- TWDB has compiled a list of entities that meet the rural political subdivision definition per TWC 15.001(14);
- 205 WUGs



# Drought Preparedness Council

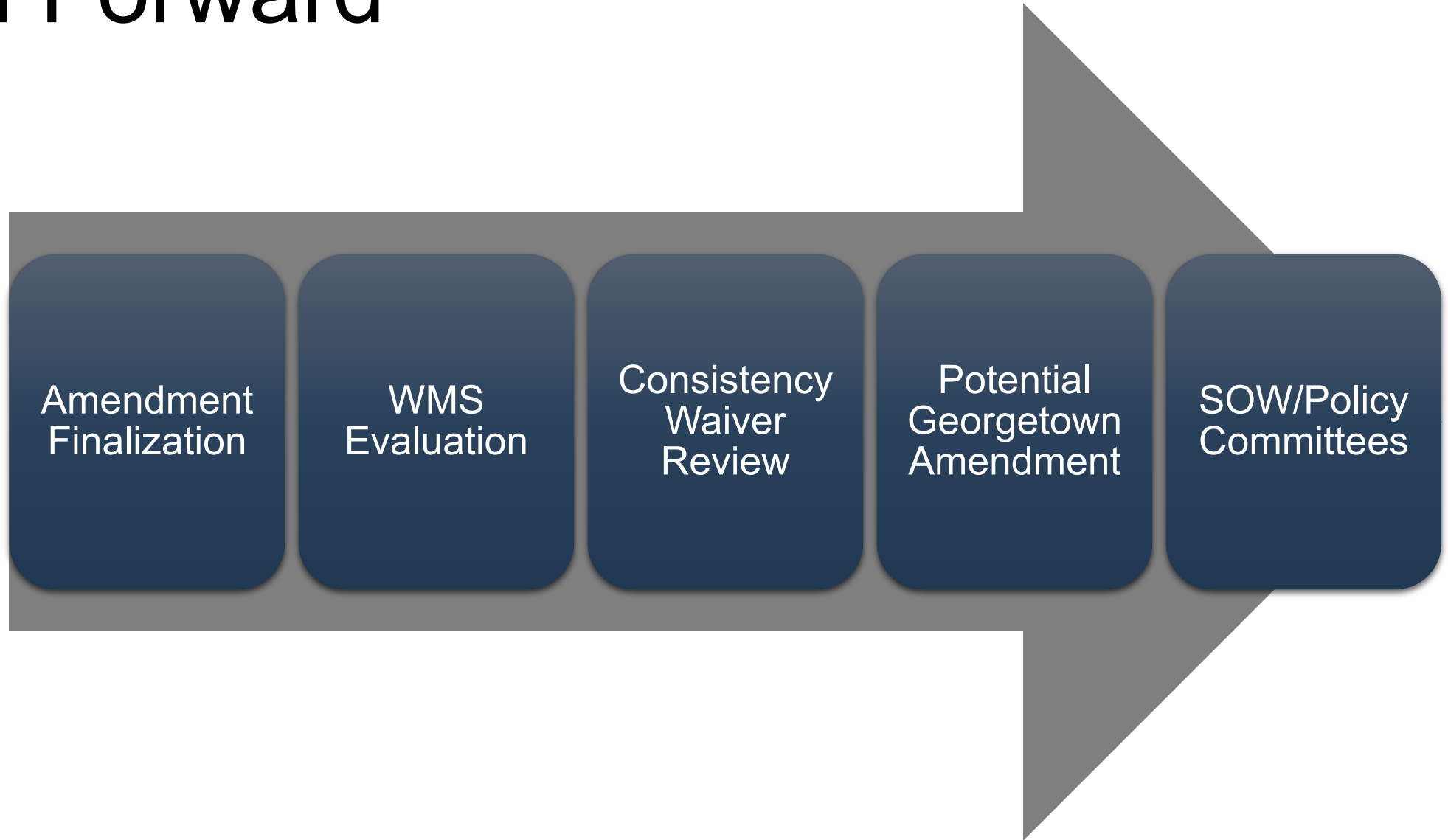
- Offer of assistance.
- 31 TAC §357.42(h) – RWPGs are required to consider “any relevant recommendations from the Drought Preparedness Council.”



# DPC Recommendations

1. The regional water plans and state water plan shall serve as water supply plans under drought of record conditions. The DPC encourages regional water planning groups to consider planning for drought conditions worse than the drought of record, including scenarios that reflect greater rainfall deficits and/or higher surface temperatures.
2. The Drought Preparedness Council encourages regional water planning groups to incorporate projected future reservoir evaporation rates in their assessments of future surface water availability.
3. The Drought Preparedness Council encourages regional water planning groups to identify in their plans utilities within their boundaries that reported having less than 180 days of available water supply to the Texas Commission on Environmental Quality during the current or preceding planning cycle. For systems that appeared on the 180-day list, RWPGs should perform the evaluation required by Texas Administrative Code Section 357.42(g), if it has not already been completed for that system.

# Path Forward



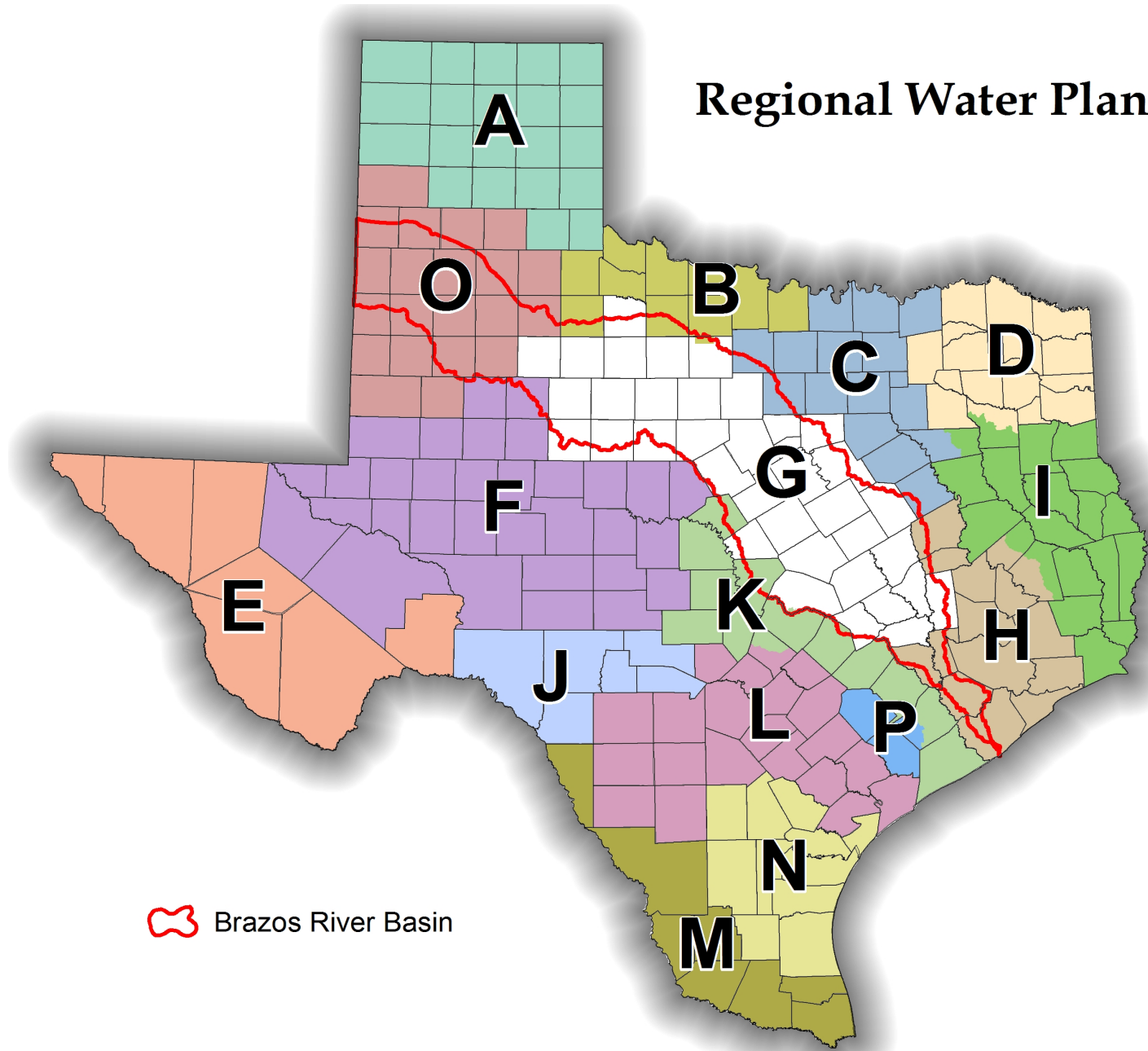
Tony L. Smith, P.E.  
TLSmith@carollo.com





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

# Regional Water Planning Groups



- 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

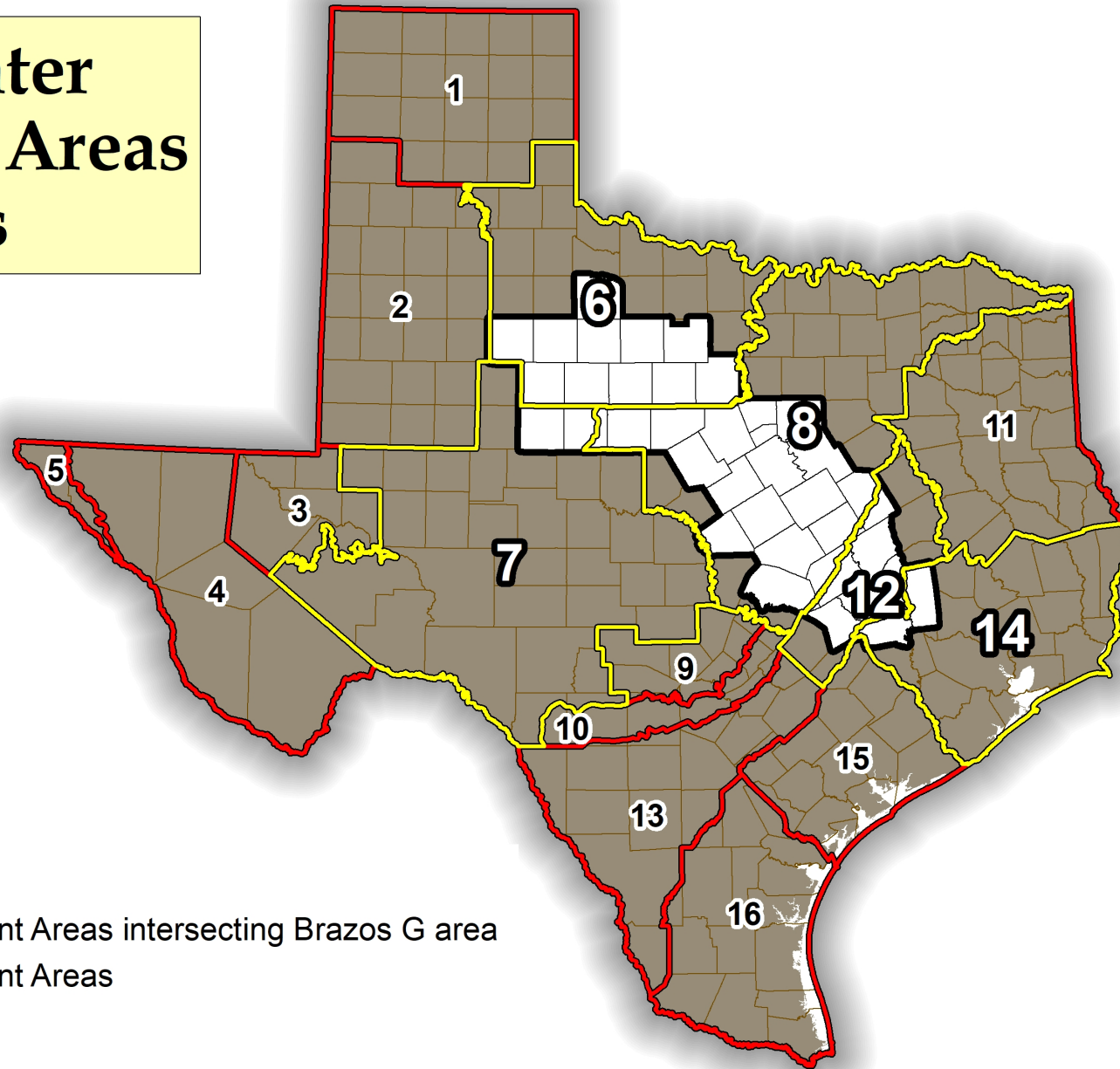
 Brazos River Basin



## **8. Report and possible discussion on Groundwater Management Area (GMA) activities**



# Groundwater Management Areas of Texas



GMA's in Brazos G:  
6, 7, 8, 12, 14

-  Brazos G Area
-  Groundwater Management Areas intersecting Brazos G area
-  Groundwater Management Areas





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





## **10. Discussion and possible action on report by Brazos G Administrator**

### **10.1. Administrator Report**

### **10.2. Finance Report – Summary of Administrative Tasks and Expenses**

Brazos River Authority  
**Brazos G**  
From 01/01/24 Through 02/29/24

	Current Period	Life to date	Total Budget	Budget Variance	% Budget Remaining
<b>Revenues</b>					
State Grants	3,787	293,038	2,191,611	1,898,573	86.63%
Interest Income	-	-			
<b>Total Revenues</b>	<u>3,787</u>	<u>293,038</u>	<u>2,191,611</u>	<u>1,898,573</u>	<u>86.63%</u>
<b>Reimbursable Expenditures</b>					
Salaries	665	4,650			
Benefits	286	2,012			
Indirect Costs	67	465			
Other Expenditures					
Printing/Publishing <sup>1</sup>	1,493	7,154			
Public Information/Notices <sup>2</sup>	-	2,373			
<b>Total Other Expenditures</b>	<u>2,512</u>	<u>16,654</u>	<u>42,500</u>	<u>25,846</u>	<u>60.81%</u>
Voting Planning Member Travel	1,276	7,713	25,500	17,787	69.75%
Subcontractor <sup>3</sup>	-	268,672	2,123,611	1,854,939	87.35%
<b>Total Reimbursable Expenditures</b>	<u>3,787</u>	<u>293,038</u>	<u>2,191,611</u>	<u>1,898,573</u>	<u>86.63%</u>
<b>Work in Kind</b>					
Salaries/benefits	489	16,706			
Other	1,012	3,145			
<b>Total Work in Kind</b>	<u>1,501</u>	<u>19,850</u>			
<b>Net Revenue over expenditures</b>	<u>(1,501)</u>	<u>(19,850)</u>	<u>-</u>	<u>0</u>	

<sup>1</sup> Fax/email cleaning svc, copies, and AMA Graphics (meeting handouts)



## **11. Discussion and possible action on report from Brazos G Chair**



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



## **13. Adjourn**