Brazos G Regional Water Planning Group

Tuesday, February 13, 2024

10:00 AM

Brazos River Authority

Lt. Gen. Phillip J. Ford Central Office

4600 Cobbs Dr. Waco, TX 76710

BRAZOS G
WATER PLANNING GROUP

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)

BRAZOS G
WATER PLANNING GROUP

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

Brazos G Water Planning

Item 7

Report from Technical Consultant, discussion, and possible action on recommendations of the Brazos G Groundwater Committee regarding groundwater availabilities and supply allocations for the purposes of the 2026 Brazos G Regional Water Plan

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WACO, TX FEB 13, 2024

Task for Today

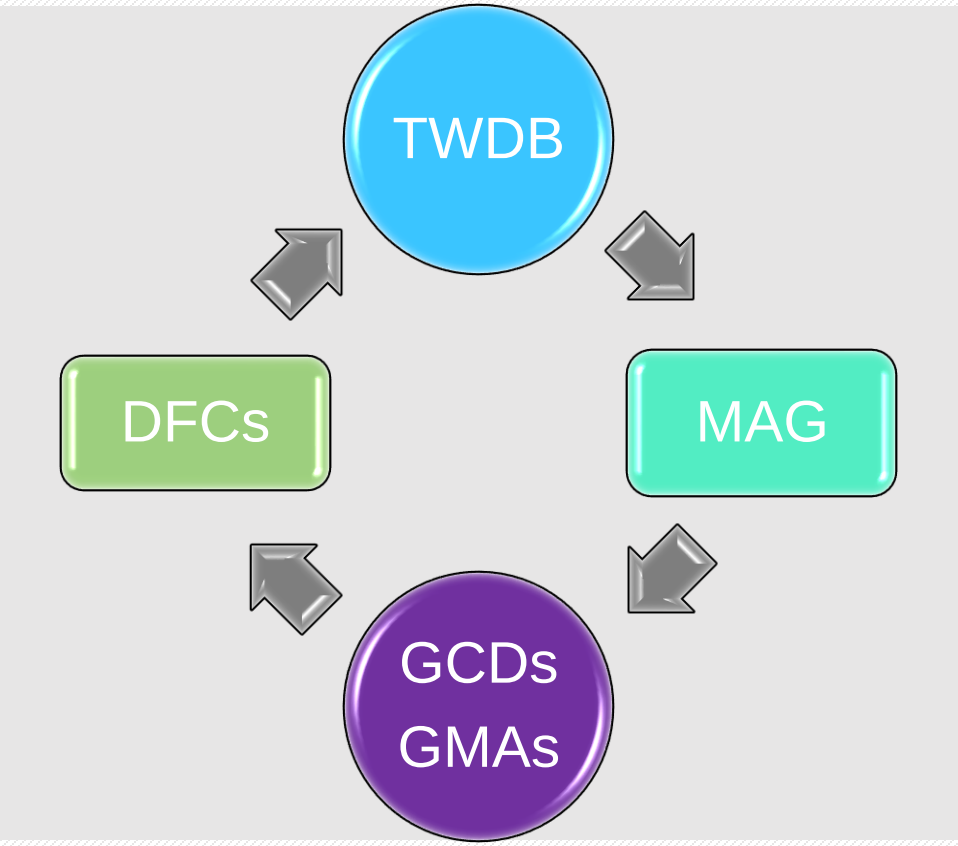
- Review and approve recommendations relating to groundwater availability from the Brazos G Groundwater Committee.

Brazos G Groundwater Committee Activities

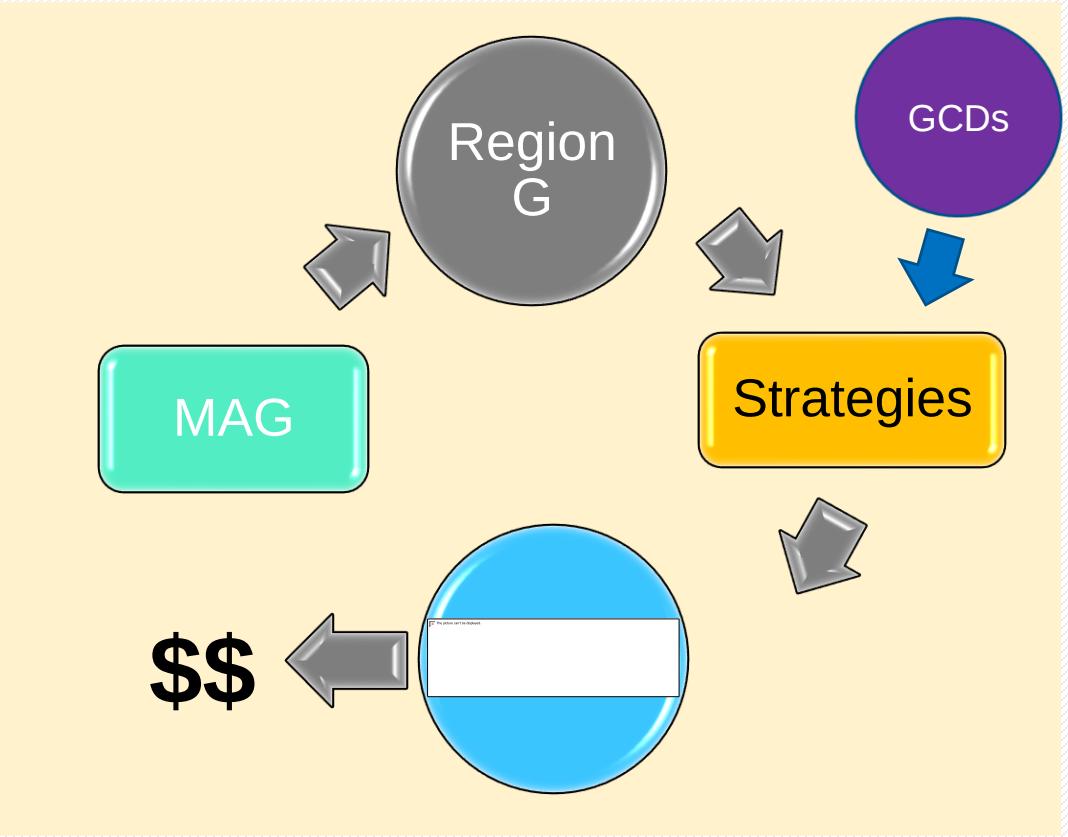
1. Joint groundwater planning and Region G groundwater overview
2. Reviewed and compared current groundwater availability to last planning cycle
3. Discussed and developed recommendations relating to changes in availability (MAG and non-MAG) and allocation of groundwater supplies from the last planning cycle

Texas Groundwater Planning Cycle

Joint Groundwater Planning



Regional Water Planning



Joint Groundwater Planning and Region G

- Region G includes 5 GMAs: 6, 7, 8, 12, and 14
- Region G includes 13 GCDs
- 16 of 37 counties within Region G do not have a GCD
- Region G includes 6 major aquifers and 11 minor aquifers, and several “other” aquifers
- Groundwater accounts for 840,000 to 940,000 afy of availability for Region G

Joint Groundwater Planning Status

Groundwater Management Area 6			
Clear Fork GCD, Rolling Plains GCD			
Aquifer	**Major or Minor Aquifer?**	**Desired Future Conditions Status**	**Modeled Available Groundwater Status**
Seymour	Major	11/18/2021	Submitted 11/14/2022, GR 21-011 MAG
Dockum	Minor	11/18/2021	Submitted 11/14/2022, GR 21-011 MAG
Blaine	Minor	11/18/2021	Submitted 11/14/2022, GR 21-011 MAG
Cross Timbers	Minor	No DFC adopted	-
Groundwater Management Area 7			
Wes-Tex GCD			
Aquifer	**Major or Minor Aquifer?**	**Desired Future Conditions Status**	**Modeled Available Groundwater Status**
Edwards-Trinity (Plateau)	Major	8/19/2021	Submitted 8/12/2022, GR 21-012 MAG
Dockum	Minor	No DFC adopted	-
Groundwater Management Area 8			
Clearwater UWCD, Middle Trinity GCD, Post Oak Savannah GCD, Prarielands GCD, Saratoga UWCD, Southern Trinity GCD, Upper Trinity GCD			
Aquifer	**Major or Minor Aquifer?**	**Desired Future Conditions Status**	**Modeled Available Groundwater Status**
Trinity	Major	11/4/2021	Submitted 11/1/2022, GR 21-013 MAG
Edwards (BFZ)	Major	11/4/2021	Submitted 11/1/2022, GR 21-013 MAG
Brazos River Alluvium	Minor	No DFC adopted	-
Ellenburger - San Saba	Minor	11/4/2021	Submitted 11/1/2022, GR 21-013 MAG
Hickory	Minor	11/4/2021	Submitted 11/1/2022, GR 21-013 MAG
Marble Falls	Minor	11/4/2021	Submitted 11/1/2022, GR 21-013 MAG
Woodbine	Minor	11/4/2021	Submitted 11/1/2022, GR 21-013 MAG
Groundwater Management Area 12			
Brazos Valley GCD, Post Oak Savannah GCD, Lost Pines GCD			
Aquifer	**Major or Minor Aquifer?**	**Desired Future Conditions Status**	**Modeled Available Groundwater Status**
Carrizo-Wilcox	Major	11/30/2021	Submitted 11/1/2022, GR 21-017 MAG
Brazos River Alluvium	Minor	11/30/2021	Submitted 11/1/2022, GR 21-017 MAG
Queen City	Minor	11/30/2021	Submitted 11/1/2022, GR 21-017 MAG
Sparta	Minor	11/30/2021	Submitted 11/1/2022, GR 21-017 MAG
Yegua-Jackson	Minor	11/30/2021	Submitted 11/1/2022, GR 21-017 MAG
Groundwater Management Area 14			
Bluebonnet GCD			
Aquifer	**Major or Minor Aquifer?**	**Desired Future Conditions Status**	**Modeled Available Groundwater Status**
Gulf Coast	Major	1/5/2022	Submitted 9/8/2022, GR 21-019 MAG

Groundwater Availability

Groundwater is the primary supply in many areas/uses

Comprised of “MAG” and “Non-MAG” availability

- “MAG” = Modeled Available Groundwater
- MAGs are determined by the TWDB based on desired future conditions (DFCs) adopted in the joint groundwater planning process (GMAs)
- MAG = Availability
- MAG availability cannot be adjusted except by using a “MAG Peak Factor”
- Non-MAG availability are established by the TWDB but not based on the joint groundwater planning process *(usually because the aquifer was declared “non-relevant”)*
- Non-MAG availability can be adjusted at the request of the RWPG

Summary Groundwater Availability Information for Technical Memorandum

Groundwater from

- 6 major aquifers
- 11 minor aquifers,
- Several “other” aquifers

Groundwater availability through 2080

- 837,835 - 939,731 afy

Total increase of 9% to 18%, but some decreases from last planning cycle

- **Increases and decreases in availability are highly variable**

Total availability calculated as

- MAG + non-MAG

MAG cannot be changed.

- No GCDs have expressed any interest in using a MAG Peak Factor at this time.

Groundwater Availability (by decade)

Aquifer	Total Availability 2030	Total Availability 2040	Total Availability 2050	Total Availability 2060	Total Availability 2070	Total Availability 2080
MAJOR AQUIFERS						
Carrizo-Wilcox Aquifer	211,518	239,239	261,735	280,855	299,966	299,958
Edwards-BFZ Aquifer	9,921	9,921	9,921	9,921	9,921	9,921
Edwards-Trinity-Plateau, Pecos Valley, and Trinity Aquifers	1,182	1,182	1,182	1,182	1,182	1,182
Gulf Coast Aquifer System	93,073	93,073	93,073	93,073	93,073	93,073
Seymour Aquifer	79,769	79,467	79,999	82,745	80,107	79,828
Trinity Aquifer	125,328	125,328	125,328	125,328	125,328	125,328
Major Aquifer Total	***520,791***	***548,210***	***571,238***	***593,104***	***609,577***	***609,290***
MINOR AND OTHER AQUIFERS						
Blaine Aquifer	22,320	22,320	22,320	22,320	22,320	22,320
Brazos River Alluvium Aquifer	240,035	239,174	238,653	238,439	238,272	238,272
Cross Timbers Aquifer	2,714	2,714	2,714	2,714	2,714	2,714
Dockum Aquifer	12,079	12,079	12,079	12,079	12,079	12,079
Ellenburger-San Saba Aquifer	2,595	2,595	2,595	2,595	2,595	2,595
Hickory Aquifer	113	113	113	113	113	113
Marble Falls Aquifer	2,839	2,839	2,839	2,839	2,839	2,839
Navasota River Alluvium Aquifer	2,216	2,216	2,216	2,216	2,216	2,216
Other Aquifer	847	847	847	847	847	847
Queen City Aquifer	5,527	6,486	7,553	8,751	10,108	10,108
Sparta Aquifer	10,001	12,160	14,374	16,652	19,016	19,016
Woodbine Aquifer	2,567	2,567	2,567	2,567	2,567	2,567
Yegua-Jackson Aquifer	13,191	15,702	15,701	15,697	14,755	14,755
Minor Aquifer Total	***317,044***	***321,812***	***324,571***	***327,829***	***330,441***	***330,441***
TOTAL	**837,835**	**870,022**	**895,809**	**920,933**	**940,018**	**939,731**
Total in Last Planning Cycle	***766,807***	***776,348***	***790,548***	***796,312***	***793,176***	***NA***

Changes in Groundwater Availability (by decade)

Aquifer	Total Availability 2030	Total Availability 2040	Total Availability 2050	Total Availability 2060	Total Availability 2070
MAJOR AQUIFERS					
Carrizo-Wilcox Aquifer	27,004	47,307	57,579	73,859	92,978
Edwards-BFZ Aquifer	0	0	0	0	0
Edwards-Trinity-Plateau, Pecos Valley, and Trinity Aquifers	0	0	0	0	0
Gulf Coast Aquifer System	64,857	64,857	64,857	64,857	64,857
Seymour Aquifer	660	649	676	655	683
Trinity Aquifer	4,032	3,696	4,032	3,696	4,032
Major Aquifer Total	***96,553***	***116,509***	***127,144***	***143,067***	***162,550***
MINOR AND OTHER AQUIFERS					
Blaine Aquifer	0	-35	0	-35	0
Brazos River Alluvium Aquifer	-18,489	-18,784	-19,107	-19,215	-19,315
Cross Timbers Aquifer	0	0	0	0	0
Dockum Aquifer	0	0	0	0	0
Ellenburger-San Saba Aquifer	2	-6	2	-6	2
Hickory Aquifer	0	-1	0	-1	0
Marble Falls Aquifer	2	-6	2	-6	2
Navasota River Alluvium Aquifer	0	0	0	0	0
Other Aquifer	0	0	0	0	0
Queen City Aquifer	3,058	3,996	5,040	6,219	7,576
Sparta Aquifer	-2,543	-2,960	-2,873	-596	1,768
Woodbine Aquifer	1	-6	1	-6	1
Yegua-Jackson Aquifer	-7,556	-5,033	-4,948	-4,800	-5,742
Minor Aquifer Total	***-25,525***	***-22,835***	***-21,883***	***-18,446***	***-15,708***
TOTAL	**71,028**	**93,674**	**105,261**	**124,621**	**146,842**

Decreases in MAG Availabilities by Aquifer/County/Basin

Aquifer Name	County	Basin	2030				2070			
			2022 MAG Availability	2027 MAG Availability	MAG Availability Difference	Percent Change MAG Availability	2022 MAG Availability	2027 MAG Availability	MAG Availability Difference	Percent Change MAG Availability
Brazos River Alluvium Aquifer	Brazos	Brazos	80,311	76,978	(3,333)	-4.15%	79,872	76,039	(3,833)	-4.80%
Brazos River Alluvium Aquifer	Milam	Brazos	47,785	31,375	(16,410)	-34.34%	47,771	31,358	(16,413)	-34.36%
Brazos River Alluvium Aquifer	Robertson	Brazos	57,959	55,424	(2,535)	-4.37%	57,480	54,618	(2,862)	-4.98%
Carrizo-Wilcox Aquifer	Brazos	Brazos	55,977	44,153	(11,824)	-21.12%	65,742	68,184	2,442	3.71%
Carrizo-Wilcox Aquifer	Falls	Brazos	875	46	(829)	-94.74%	895	69	(826)	-92.29%
Carrizo-Wilcox Aquifer	Lee	Colorado	786	785	(1)	-0.13%	1,101	1,219	118	10.72%
Carrizo-Wilcox Aquifer	Limestone	Brazos	11,483	955	(10,528)	-91.68%	11,966	1,415	(10,551)	-88.17%
Queen City Aquifer	Brazos	Brazos	883	245	(638)	-72.25%	891	694	(197)	-22.11%
Queen City Aquifer	Lee	Brazos	713	601	(112)	-15.71%	727	854	127	17.47%
Queen City Aquifer	Robertson	Brazos	309	144	(165)	-53.40%	309	575	266	86.08%
Sparta Aquifer	Brazos	Brazos	6,505	6,014	(491)	-7.55%	8,509	12,138	3,629	42.65%
Sparta Aquifer	Burleson	Brazos	4,042	2,840	(1,202)	-29.74%	6,735	4,105	(2,630)	-39.05%
Sparta Aquifer	Lee	Brazos	1,274	694	(580)	-45.53%	1,256	1,472	216	17.20%
Sparta Aquifer	Lee	Colorado	213	115	(98)	-46.01%	238	279	41	17.23%
Sparta Aquifer	Robertson	Brazos	510	338	(172)	-33.73%	510	1,022	512	100.39%
Trinity Aquifer	Johnson	Brazos	3,888	3,537	(351)	-9.03%	3,888	3,537	(351)	-9.03%
Trinity Aquifer	Johnson	Trinity	5,508	5,288	(220)	-3.99%	5,508	5,288	(220)	-3.99%
Trinity Aquifer	Lampasas	Colorado	75	68	(7)	-9.33%	75	68	(7)	-9.33%
Trinity Aquifer	Somervell	Brazos	3,181	1,988	(1,193)	-37.50%	3,181	1,988	(1,193)	-37.50%
Yegua-Jackson Aquifer	Brazos	Brazos	6,854	6,270	(584)	-8.52%	6,854	7,091	237	3.46%
Yegua-Jackson Aquifer	Burleson	Brazos	12,576	5,315	(7,261)	-57.74%	12,326	6,058	(6,268)	-50.85%

Recommendations relating to MAG Availabilities

Reviewed by aquifer/county/basin

- Supply allocations
- 2021 WMSs

Recommended proportional reductions of supply allocations

- Brazos River Alluvium Aquifer – Robertson County
- Carrizo-Wilcox Aquifer – Brazos, Falls, and Limestone Counties* and WMS alt strat.
- Queen City Aquifer – Brazos, Lee, and Robertson Counties
- Sparta Aquifer – Brazos, Burleson, and Robertson Counties and WMS alt strat.
- Trinity Aquifer – Johnson County and WMS alt strat.
- Yegua-Jackson – WMS alt strat.

Recommendations relating to MAG Availabilities - Limestone County

Significant 92% decrease

- Not appropriate for a MAG Peak Factor
- MAG must be fixed by GMA 12

Assign MAG to existing supplies as best as possible

- *Supplies will not be realistic given how much the MAG decreased*

Within 2026 Plan

- Brazos G may have unmet municipal needs relating to this source
- Utilize alternative WMSs
- Add descriptive narrative to Chapter 3 discussion on groundwater availabilities, and citations of Chapter 3 to each alternative WMS for which this applies.

Decreases in Non-MAG Availabilities

Aquifer Name	County	Basin	2030				2070			
			2022 Non-MAG Availability	2027 Non-MAG Availability	Non-MAG Availability Difference	Percent Change Non-MAG Availability	2022 Non-MAG Availability	2027 Non-MAG Availability	Non-MAG Availability Difference	Percent Change Non-MAG Availability
Blaine Aquifer	Knox	Brazos	700	0	(700)	-100.00%	700	0	(700)	-100.00%
Blaine Aquifer	Stonewall	Brazos	8,700	0	(8,700)	-100.00%	8,700	0	(8,700)	-100.00%
Brazos River Alluvium Aquifer	Falls	Brazos	16,684	0	(16,684)	-100.00%	16,684	0	(16,684)	-100.00%
Dockum Aquifer	Kent	Brazos	6,250	29	(6,221)	-99.54%	6,250	29	(6,221)	-99.54%
Dockum Aquifer	Nolan	Brazos	2,824	849	(1,975)	-69.94%	2,824	550	(2,274)	-80.52%
Dockum Aquifer	Nolan	Colorado	2,926	3,166	240	8.20%	2,926	1,995	(931)	-31.82%
Seymour Aquifer	Kent	Brazos	1,180	902	(278)	-23.56%	1,179	902	(277)	-23.49%
Seymour Aquifer	Throckmorton	Brazos	115	3	(112)	-97.39%	115	3	(112)	-97.39%
Seymour Aquifer	Young	Brazos	258	1	(257)	-99.61%	258	1	(257)	-99.61%
Trinity Aquifer	Palo Pinto	Brazos	12	1	(11)	-91.67%	12	1	(11)	-91.67%

Recommendations relating to changes in Non-MAG Availabilities

Rec	Aquifer	County	Note
Restore to 2021 Availability	Brazos River Alluvium	Falls	GMA 8 designated this aquifer as non-relevant due to “limited use”. Previous availability was 16,684 afy. Historic use approximately 8,000 afy.
	Blaine	Knox Stonewall	GMA 6 designated this aquifer as non-relevant due to no GCD being present. Previous availability was 8,700 afy (Stonewall) and 700 afy (Knox). Historic use was approximately 8,000 afy.
	Dockum	Kent Nolan	GMA 6 designated this aquifer as non-relevant in Kent County due to no GCD being present. GMA 7 designated this aquifer as non-relevant due to limited extent, limited use, limited impacts between counties, and no GCD. Historic use in Kent County <100 afy, but historic use in Nolan County approximately 15,000 afy (85% irrigation).
	Seymour	Kent Throckmorton Young	GMA 6 designated this aquifer as non-relevant due to no GCD being present. Historic use <500 afy (Kent County), none in Young and Throckmorton counties.
Proportional Reduction to supply allocations	Trinity	Palo Pinto	

Recommendations for allocations of limited groundwater supplies

- **Recommend** starting with supply allocations from the 2021 plan
- Adopt and employ methodology used in the 2021 plan to adjust supply allocations using available data/information from WUGs:
  - Municipal-Utilities = half of sum of well capacity * 95%
  - County-Other = 125% of 2020 use
  - Irrigation = projected demand in each decade
  - Mining = projected demand in each decade
  - Livestock = projected demand in each decade
  - Power = 125% of 2020 use
  - Manufacturing = 125% of 2020 use
- Policy consideration- equal consideration of municipal and non-municipal uses

Recommendations for allocations of limited groundwater supplies (cont'd)

- Options for allocating supplies in county/basin areas where supplies exceed availability:
  - **Recommended -** proportional reductions for all WUGs (consistent with methodology used for 2021 plan); or
  - Prioritize municipal utilities and then proportionally reduce other WUGs

Recommendations for allocations of unallocated groundwater supplies

- **Recommend** approving adjusting supplies based on updated availabilities and previous supply allocation methodology
  - Municipal-Utilities = half of sum of well capacity * 95%
  - County-Other = 125% of 2020 use
  - Irrigation = projected demand in each decade
  - Mining = projected demand in each decade
  - Livestock = projected demand in each decade
  - Power = 125% of 2020 use
  - Manufacturing = 125% of 2020 use
- Discussion on planning limitations relating to existing supply

Summary of Groundwater Committee Recs – 1/17/2024

Changes in MAG Availabilities and Recommendations	**For the aquifers shown here and discussed today with the information as presented that the committee recommends that the technical consultant recommendations be adopted and carried forward for the planning group's consideration.** Motion by Patrick Wagner, second by Dale Adams, passed unanimously
Changes to Non-MAG Availabilities and Recommendations	**For the aquifers shown here and discussed today with the information as presented that the committee recommends that the technical consultant recommendations, in coordination with the Texas Water Development Board (TWDB), be adopted and carried forward for the planning group's consideration.** Motion by Kathy Turner Jones, second by Patrick Wagner, passed unanimously
Recommendations for allocations of limited groundwater supplies	**Recommend the proportional reductions for all WUGs consistent with methodology used for 2021 plan.** Motion by Kathy Turner Jones, second by Jennifer Nations, passed unanimously
Recommendations for allocations of unallocated groundwater supplies	**First action Item: Recommend approving adjusting supplies based on updated availabilities and previous supply allocation methodology. Municipal -Utilities = half of sum of well capacity, County-Other = 125% of 2020 use, Irrigation = projected demand in each decade, Livestock = projected demand in each decade, Power = 125% of 2020 use, Manufacturing = 125% of 2020 use.** Motion by Patrick Wagner, second by Dale Adams, passed unanimously **Second Action Item: Encourage RWPG to look at including in the appropriate chapter and through our policy committee to raise the concerns expressed in this and prior discussions to the TWDB and ask that they revisit their rules on how they review the MAG and its use in SWIFT funding.** Motion by Kathy Turner Jones, second by Patrick Wagner, passed unanimously
Review of requests for use of MAG Peak Factor	**Recommendation is to not use any MAG Peak Factors at this time.** Motion by Kathy Turner Jones, second by Jennifer Nations, passed unanimously

Suggested Action:

- The Brazos G Regional Water Planning Group adopts the recommendations of the Brazos G Groundwater Committee as presented above for the purposes of the 2026 Brazos G Regional Water Plan.

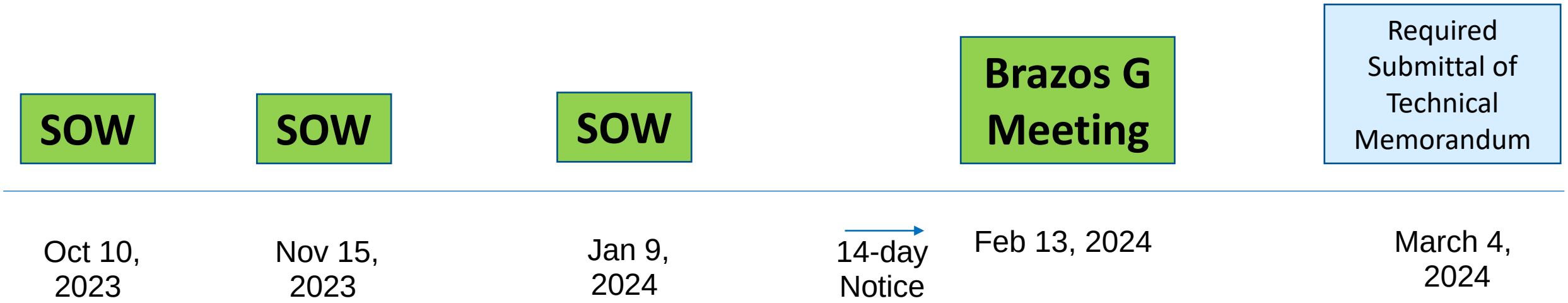
Brazos G Water Planning

Item 8

1. **Report, discussion, and possible action on the report from the Scope of Work Committee**

WACO, TX FEB 13, 2024

Timeline


SOW
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Brazos G Meeting
Required Submittal of Technical Memorandum
Oct 10, 2023
Nov 15, 2023
Jan 9, 2024
14-day Notice
Feb 13, 2024
March 4, 2024

Feasible and Infeasible Water Management Strategies

- Statutory and Rule Requirements
  - TWC §16.053(h)(10) and 31 TAC §357.12 (b)
- RWPG shall:

Looking Forward

  - Hold a public meeting to determine the process for identifying potentially feasible WMSs;
    - Process shall be documented, and
    - Shall include input received at the public meeting;
  - After reviewing the potentially feasible strategies using the documented process, the RWPG shall list all possible WMSs that are potentially feasible for meeting a water need in the region.
  - The public meeting shall also include a presentation of the results of the analysis of infeasible WMSs or WMSPs, as defined by Texas Water Code §16.053(h)(10), included in the most recently adopted RWP.
    - Include list of Infeasible WMSs and WMSPs in Technical Memorandum
    - Infeasible WMSs or WMSPs shall be identified based on:
      - Project sponsor provided information
      - Local knowledge, as acquired through plan development activities such as surveys, and as determined based on implementation schedules consistent with implementation by the project sponsors.
  - The group shall provide notice to all associated project sponsors and amend its adopted RWP as appropriate based upon the analysis.

Looking Back

Today's Items Build Upon Information from Scope of Work Committee Meetings on Oct. 10, Nov. 15, and Jan. 9.

2026 Process

- 8.1 - Discussion on process for identifying feasible WMS
- 8.2 – Public comment
- 8.3 – Possible action on process

8.4 – Recommended List

- Uses recommended 2026 Process
- Possible action on list of potentially feasible strategies

Infeasible 2021 WMSs

- 8.5 – Discussion on results
- 8.6 – Public comment
- 8.7 – Possible action on results

9. Wholesale Water Providers and Major Water Providers

- Discussion and possible action

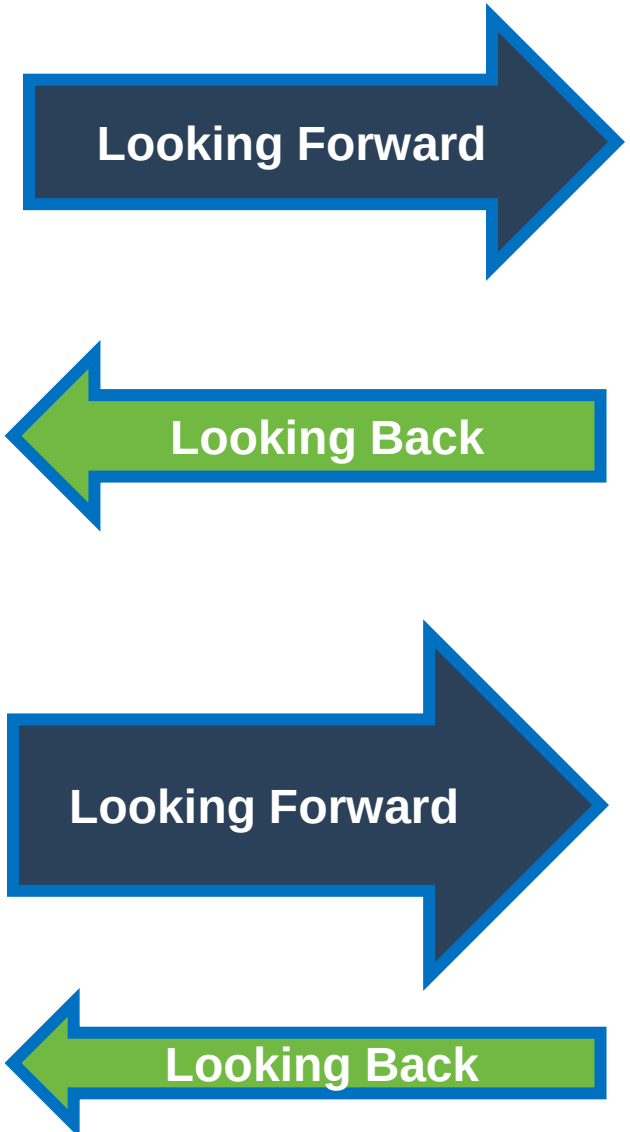
10. Technical Memorandum

- Public comment
- Possible action

11. Recommended Task 5B Scope/Budget Submittal

12. Administrator Notice to Proceed on Task 5B WMS Evaluation

13. Initiation of Major Amendment to 2021 Brazos G Plan



Item 8.1

Report from Technical Consultant on the proposed process for identifying potentially feasible water management strategies identified by the Brazos G Scope of Work Committee.

Background

- Regional water planning rules require that the “process” for identifying, evaluating and selecting water management strategies be formally considered by the regional water planning groups.
- The mid-point Technical Memorandum requires a list of potentially feasible water management strategies.
- Scope of Work Committee met on Oct. 10, Nov. 15, and Jan. 9 to:
  1) Review and recommend a process for identifying potentially feasible strategies,
  2) Review and identify a list of potentially feasible strategies for the purposes of the 2026 Brazos G Plan.

Background (cont'd)

Selection of Water Management Strategies to Address Unmet Needs

- Identification of Potentially Feasible Water Management Strategies
- Evaluation of Water Management Strategies
- Selection of Water Management Strategies to meet unmet needs specific to WUGs and WWPs

Background (cont'd)

Include strategies identified in previous plans

Cross reference with the types of strategies required

Determine initial list of Potentially Feasible Strategies

Add additional strategies later as requested by stakeholders if time and budget allow

31 TAC 357.12(b) – RWPG must…

Conduct a public meeting to determine the process for identifying potentially feasible Water Management Strategies (WMSs)

Document process and incorporate input received

List all possible potentially feasible WMSs

Task for Today

- Review and approve recommendation relating to the process for identifying potentially feasible water management strategies

Recommended Process for Identifying Potentially Feasible Strategies

(Modified from 2021 Process)

Proposed 2026 Plan's Process for Identifying Potentially Feasible Strategies

Include strategies identified in previous plans

- Include recommended and alternative strategies from 2021 Plan
- Include strategies evaluated, but not recommended in 2021 Plan
- Include strategies evaluated in previous Plans that were not moved forward
- Include statutory categories

Identify draft needs and develop additional ideas to meet those needs

Maintain ongoing communication from local interests throughout the process

Proposed 2026 Plan's Process for Identifying Potentially Feasible Strategies

Results in an initial list of potentially feasible strategies

Additional WMSs are included if:

- local interests request them and
- the planning schedule and budget allow for the addition.

Investigate for Potential Infeasibility

- If strategy contemplates permitting and/or construction
- If strategy is near-term or necessitates significant time for implementation
- If the potential sponsor(s) have taken, or have indicated they will take, affirmative steps towards the strategy's implementation. Affirmative steps may include, but not be limited to:
  - Spending money on the strategy or project
  - Voting to spend money on the strategy or project
  - Applying for a federal or state permit for the strategy or project

Identify if strategy could potentially provide flood mitigation benefits

Identify if strategy contemplates use of the Brazos Alluvium

Scope of Work Committee Recommendation

January 9, 2024:

- Authorized the technical consultant to submit on behalf of the Scope of Work Committee the recommended process for identifying Potentially Feasible Water Management Strategies for the Brazos G RWPG's consideration and possible action at its February 13, 2024, meeting, consistent with the information discussed in this committee meeting, and approved for the consultant to work with the Chair to submit further revisions and make responses to revision requests by the RWPG and TWDB by the March 4, 2024, deadline.

8.2 – Public Comment

8.3 - Suggested Action

“The Brazos G Regional Water Planning Group adopts the process for identifying potentially feasible water management strategies recommended by the Brazos G Scope of Work Committee for the purposes of the 2026 Brazos G Regional Water Plan, consistent with the information discussed in this meeting, and approves for the consultant to work with the Chair to submit further revisions and make responses to revision requests by the TWDB by the March 4, 2024, deadline.”

Item 8.4

Discussion and possible action on the proposed list of potentially feasible water management strategies recommended by the Brazos G Scope of Work Committee

Identification of Potentially Feasible Strategies

- Technical Consultant reviewed strategies evaluated in all previous plans
- **Initial** list of 135 potentially feasible water management strategies
- Dollars (estimated strategy costs) from 2021 Brazos G Plan (2018 $)
- Additional considerations from the 2021 Plan will be reviewed, allowing for flexibility in application
  - Some WMS for specific WUGs/WWPs
  - Some WMS initially identified w/out specific user(s)
  - Engagement with WUGs/WWPs throughout process (RWPG, Consultant) and at subregional meetings after IPP
  - Official public comment period after IPP

Task for Today

- Review and approve recommendation relating to the list of potentially feasible water management strategies

Potentially Feasible Strategies

Number	Strategy	2001	2006	2011	2016	2021	Required by Rule	Supply Developed (acft/yr)	Project Cost (2018 $)[1]	Cost of Water ($/1,000 gals)[1]
Conservation										
1	Municipal Conservation		X	X	R	R	1	VARIES	VARIES	VARIES
2	Industrial Conservation		X	X	R	R	1	VARIES	VARIES	VARIES
3	Irrigation Conservation		X	X	R	R	1	VARIES	VARIES	VARIES
4	Advanced Municipal Conservation (gpcd<140)				R	R	1	VARIES	VARIES	VARIES
5	Advanced Industrial Conservation				R	R	1	VARIES	VARIES	VARIES
6	Leave Needs Unmet				R	R	NA	NA	NA	NA
Drought Management										
7	Drought Management		X	X	X	R	2	NA	NA	NA
Reuse										
8	Reuse Supply - various reuse projects throughout Brazos G		X	X	R	R	3	VARIES	VARIES	VARIES
9	College Station DPR				A	R	3	8,232	$84,177,000	$1.86
10	College Station Non-Potable Reuse				R	X	3	103	$3,553,000	$8.97
11	City of Bryan Lake Bryan Reuse, Option 1				R	R	3	605	$11,092,000	$7.52
12	City of Bryan Lake Bryan Reuse, Option 2					A	3	2,419	$41,105,000	$7.48
13	City of Bryan Miramont Reuse				R	X	3	600	$3,894,000	$1.61
14	City of Cleburne Reuse, Phases 1 and 2				R	R	3	7,617	$38,926,000	$2.90/$0.76
15	Waco WMARSS Reuse Projects		X	X	R	R	3	14,568	$89,538,000	$23.50
16	Bell County WCID No. 1 Reuse (North and South)			X	R	R	3	2,673	$26,764,000	$3.01
~~17~~	~~TRA Reuse - Joe Pool~~		~~X~~	~~X~~			~~3~~	~~20,000~~	~~$79,257,000~~	~~$1.84~~
18	Cedar Park Reuse					R	3	1,120	$7,184,000	$1.67
19	Georgetown Reuse					R	3	1,456	$6,270,000	$1.07
Management of Existing Water Supplies										
20	Misc. Pipelines, Pump Stations, and GW Options - various entities	X	X	X	R	R	4	VARIES	VARIES	VARIES
21	Water Treatment Plant Expansions - various entities	X	X	X	R	R	4	VARIES	VARIES	VARIES
22	Rehabilitate Existing Wells			X	R		4	VARIES	VARIES	VARIES

Potentially Feasible Strategies

Number	Strategy	2001	2006	2011	2016	2021	Required by Rule	Supply Developed (acft/yr)	Project Cost (2018 $)[1]	Cost of Water ($/1,000 gals)[1]
Conjunctive Use										
23	Various projects to utilize potential unallocated supply		X	X	R	R	5	VARIES	VARIES	VARIES
~~24~~	~~Coordinated use of Fort Phantom Hill and Hubbard Creek Reservoir~~	~~X~~					~~5~~	~~UNKNOWN~~	~~UNKNOWN~~	~~UNKNOWN~~
~~25~~	~~Coordinated use of Lake Leon Water Supply with Local Groundwater~~	~~X~~					~~5~~	~~UNKNOWN~~	~~UNKNOWN~~	~~UNKNOWN~~
26	Oak Creek Reservoir Conjunctive Management			X	R	R	5	4,142	$0	$0.00
27	Lake Granger Augmentation (Ph 1)		X	X	A	X	5	13,716	$96,685,000	$2.51
28	Lake Granger Augmentation (Ph 2)					R	5	19,168	$845,564,000	$12.08
29	Somervell County WSP			X	R	R	5	600	$36,250,000	$18.13
Augmentation of Existing Supplies										
~~30~~	~~Gibbons Creek Reservoir Expansion~~			~~X~~	~~R~~		~~6~~	~~2,605~~	~~$12,979,000~~	~~$1.10~~
~~31~~	~~Lake Aquilla Augmentation - Cleburne (Lake Whitney to Aquilla)~~				~~R~~		~~6~~	~~VARIES~~	~~VARIES~~	~~VARIES~~
~~32~~	~~Lake Cisco Augmentation~~	~~X~~					~~6~~	~~UNKNOWN~~	~~UNKNOWN~~	~~UNKNOWN~~
~~33~~	~~Lake Leon Augmentation~~	~~X~~					~~6~~	~~9,100~~	~~$2,200,000~~	~~UNKNOWN~~
~~34~~	~~Lake Stamford Augmentation~~	~~X~~					~~6~~	~~6,680~~	~~$6,300,000~~	~~UNKNOWN~~
~~35~~	~~Lake Sweetwater Augmentation~~	~~X~~					~~6~~	~~790~~	~~$3,000,000~~	~~UNKNOWN~~
36	Millers Creek Reservoir Augmentation, Canal Option			X	R	X	6	2,075	$29,174,000	$2.58
37	Millers Creek Reservoir Augmentation, Pipeline Option					X	6	2,000	$22,621,000	$2.84
38	Millers Creek Reservoir Augmentation, New Dam and Reservoir					X	6	2,350	$81,334,000	$6.05
39	Millers Creek Reservoir Augmentation, Combined Canal Diversion with New Dam and Reservoir					X	6	3,025	$113,389,000	$6.54
~~40~~	~~South San Gabriel Diversion into Lake Georgetown~~						~~6~~	~~UNKNOWN~~	~~UNKNOWN~~	~~UNKNOWN~~
41	City of Cameron Little River Intake					R	6	2,792	UNKNOWN	UNKNOWN
Development of New Water Supplies										
~~42~~	~~Purchase and Use of Water from Possum Kingdom - Abilene~~				~~A~~		~~7~~	~~14,800[2]~~	~~$269,334,000[2]~~	~~$7.93[2]~~
43	Aquifer Recharge						7	UNKNOWN	UNKNOWN	UNKNOWN

Potentially Feasible Strategies

Number	Strategy	2001	2006	2011	2016	2021	Required by Rule	Supply Developed (acft/yr)	Project Cost (2018 $)[1]	Cost of Water ($/1,000 gals)[1]
Developing Regional Water Supply Facilities or Providing Regional Management Of Water Supply Facilities										
44	Lake Belton to Lake Stillhouse Hollow Pipeline			X	R	R	8	5,000	$67,993,000	$4.02
45	Bosque County Regional Project	X	X	X	R	R	8	1,070	$38,990,000	$9.94
46	Brushy Creek RUA Water Supply Project	X	X	X	R	R	8	69,128	$327,997,500	$2.51
47	East Williamson County Water Supply Project			X	R	R	8	11,762	$30,264,420	$0.72/$0.06
48	Lake Whitney Water Supply Project (Cleburne), Phase 1 and Phase 2			X	R	X	8	7,400	$122,267,000	$7.11/$3.55
~~49~~	~~Future Phases of Lake Whitney Water Supply Project~~			~~X~~	~~R~~		~~8~~	~~UNKNOWN~~	~~UNKNOWN~~	~~UNKNOWN~~
50	West Central Brazos Water Distribution System	X	X	X	R	X	8	1,400[2]	$21,148,000[2]	$7.65[2]
51	Alcoa Property Supply					R	8	18,600	$241,689,000	$4.28/$1.47
52	West Texas Water Partnership					A	8	8,400	UNKNOWN	UNKNOWN
Developing Large-Scale Desalination Facilities for Seawater Or Brackish Groundwater That Serve Local or Regional Brackish Groundwater Production Zones Identified And Designated Under TWC §16.060(b)(5)										
53	Developing Large-Scale Desalination Facilities for Seawater Or Brackish Groundwater That Serve Local or Regional Brackish Groundwater Production Zones Identified And Designated Under TWC §16.060(b)(5)						9	UNKNOWN	UNKNOWN	UNKNOWN
Developing Large-Scale Desalination Facilities for Marine Seawater that Serve Local or Regional Entities										
~~54~~	~~Developing Large-Scale Desalination Facilities for Marine Seawater that Serve Local or Regional Entities~~						~~10~~	~~UNKNOWN~~	~~UNKNOWN~~	~~UNKNOWN~~
Voluntary Transfer of Water Within the Region Using, But Not Limited To, Contracts, Water Marketing, Regional Water Banks, Sales, Leases, Options, Subordination Agreements, and Financing Agreements										
~~55~~	~~Restructure Contracts~~			~~X~~	~~R~~		~~11~~	~~VARIES~~	~~VARIES~~	~~VARIES~~
56	Subordination Agreements			X	R	R	11	VARIES	VARIES	VARIES
57	Misc. Purchases, Interconnects, and Reallocations - various entities	X	X	X	R	R	11	VARIES	VARIES	VARIES
58	Purchase from Walnut Creek Mine - Robertson County SE				R	R	11	9,000	UNKNOWN	UNKNOWN
59	Voluntary Redistribution From Palo Pinto Manufacturing					R	11	118	N/A	$0.23
60	Reallocation Of Supply From Moffat WSC					R	11	154	N/A	$3.00
61	Killeen Reduction To Harker Heights					R	11	302	N/A	UNKNOWN
62	Hamilton Reduction To Multi Wsc					R	11	100	N/A	UNKNOWN
63	BRA Highland Lake To County-Other					R	11	2,872	N/A	UNKNOWN

Potentially Feasible Strategies

Number	Strategy	2001	2006	2011	2016	2021	Required by Rule	Supply Developed (acft/yr)	Project Cost (2018 $)[1]	Cost of Water ($/1,000 gals)[1]
Emergency transfer of water under TWC §11.139										
64	Emergency transfer of water under TWC §11.139						12	VARIES	VARIES	VARIES
Interbasin Transfers of Surface Water										
65	Brazos River Authority System Operation (to Colorado Basin)						13	UNKNOWN	UNKNOWN	UNKNOWN
66	Marvin Nichols (328) Strategy for NTMWD, TRWD, and UTRWD						13	UNKNOWN	UNKNOWN	UNKNOWN
67	Wright Patman Reallocation for NTMWD, TRWD, and UTRWD						13	UNKNOWN	UNKNOWN	UNKNOWN
68	Trinity Basin Supplies (Trinity or Neches River Projects) to Middle Brazos					X	13	5,700	$54,249,000	$2.72
System Operation										
69	BRA System Operation					R	14	VARIES	VARIES	VARIES
Reallocation of Reservoir Storage to New Uses										
70	Lake Aquilla Storage Reallocation			X	R	R	15	2,483	$24,353,000	$2.67
71	Lake Granger Storage Reallocation			X	A	X	15	1,535	$33,238,000	$6.03
~~72~~	~~Lake Stillhouse Hollow Reallocation~~				~~A~~		~~15~~	~~2,643~~	~~$36,553,000~~	~~$3.61~~
73	Lake Whitney Reallocation, Hydropower Storage	X			A	R	15	38,480	$36,689,000	$0.21
74	Lake Whitney Reallocation Supplies to Williamson County					R	15	26,000	$306,683,000	4.96/2.42
Enhancement of Yields										
75	Lake Whitney Over-Drafting Supply with Off-Channel Reservoir					A	16	5,200	$171,738,000	$7.60
Improvements to Water Quality										
76	Brackish Groundwater Desalination	X		X	X		17	UNKNOWN	UNKNOWN	UNKNOWN
77	Chloride Control Project (SFWQC)			X	R	R	17	VARIES	VARIES	VARIES
78	Supplies from Chloride Control Project - Aspermont, Jayton, Region O					R	17	1,496	$70,857,000	$56.19
~~79~~	~~Lake Whitney Desalination~~	~~X~~					~~17~~	~~11,202~~	~~$29,085,000~~	~~$1.58~~
~~80~~	~~BRA SWATS Reallocation of Capacity~~	~~X~~		~~X~~	~~X~~		~~17~~	~~200~~[2]	~~NA~~[2]	~~$1.69~~[2]
~~81~~	~~BRA Sediment Reduction Program~~			~~X~~	~~A~~		~~17~~	~~888~~[2]	~~$1,075,000~~[2]	~~$1.00~~[2]

Potentially Feasible Strategies

Number	Strategy	2001	2006	2011	2016	2021	Required by Rule	Supply Developed (acft/yr)	Project Cost (2018 $)[1]	Cost of Water ($/1,000 gals)[1]
New Surface Water Supply										
~~82~~	~~Breckenridge Reservoir~~		~~X~~				~~18~~	~~28,920~~	~~$82,755,000~~	~~$0.69~~
83	Brushy Creek Reservoir			X	R	R	18	2,000	$33,229,000	$3.82
84	Cedar Ridge Reservoir		X	X	R	R/A	18	23,311	$283,646,000	$2.62
85	Coryell County Off-Channel Reservoir			X	R	R	18	3,135	$82,584,000	$6.19
~~86~~	~~Double Mountain Fort (East) Reservoir~~		~~X~~	~~X~~			~~18~~	~~36,025~~	~~$211,373,000~~	~~$1.37~~
~~87~~	~~Double Mountain Fort (West) Reservoir~~		~~X~~	~~X~~			~~18~~	~~34,775~~	~~$151,456,000~~	~~$1.02~~
~~88~~	~~Lake Bosque~~	~~X~~					~~18~~	~~17,900~~	~~$67,063,000~~	~~$0.83~~
89	Groesbeck Off-Channel Reservoir	X	X	X	R	R	18	1,755	$23,599,000	$3.24
90	Hamilton County Reservoir				X	X	18	9,275	$248,308,000	$9.73
91	NCTMWA Lake Creek Reservoir (formerly Millers Creek Off-Channel Reservoir)				A	R	18	12,900	$259,001,000	$5.08
~~92~~	~~Lake Palo Pinto Off-Channel Reservoir~~		~~X~~	~~X~~	~~A~~		~~18~~	~~3,110~~	~~$34,685,000~~	~~$3.01~~
~~93~~	~~Little River Off-Channel Reservoir~~	~~X~~	~~X~~	~~X~~	~~R~~		~~18~~	~~56,150~~	~~$248,761,000~~	~~$1.27~~
~~94~~	~~Little River Reservoir~~			~~X~~			~~18~~	~~71,275~~	~~$331,705,000~~	~~$1.01~~
95	Brazos River Main Stem Off-Channel Reservoir				X	X	18	7,200	$107,532,000	$3.35
~~96~~	~~Meridian Off-Channel Reservoir~~	~~X~~		~~X~~	~~A~~		~~18~~	~~615~~	~~$21,702,000~~	~~$12.15~~
~~97~~	~~Millican Bundic Reservoir~~	~~X~~	~~X~~				~~18~~	~~38,080~~	~~$464,764,000~~	~~$2.80~~
~~98~~	~~Millican Panther Reservoir~~			~~X~~			~~18~~	~~194,500~~	~~$1,159,907,000~~	~~$1.90~~
~~99~~	~~Paluxy Reservoir~~	~~X~~					~~18~~	~~16,300~~	~~$74,147,000~~	~~$1.03~~
~~100~~	~~Peach Creek Off-Channel Reservoir~~	~~X~~	~~X~~	~~X~~	~~X~~		~~18~~	~~4,240~~	~~$66,852,000~~	~~$4.40~~
101	Red River Off-Channel Reservoir near Arthur City					X	18	196,000	$2,790,964,000	4.27/1.25
~~102~~	~~Somervell County Off-Channel Reservoir~~	~~X~~					~~18~~	~~2,000~~	~~$24,633,000~~	~~$3.38~~
103	South Bend Reservoir	X	X	X	X	X	18	65,000	$623,882,000	$1.65
104	Throckmorton Reservoir			X	R	R	18	3,500	$68,103,000	$5.18
105	Turkey Peak Reservoir		X	X	R	R	18	6,000	$102,530,000	$2.98
~~106~~	~~Wheeler Branch Off-Channel Reservoir~~		~~X~~	~~X~~			~~18~~	~~1,800~~	~~UNKNOWN~~	~~UNKNOWN~~

Potentially Feasible Strategies

Number	Strategy	2001	2006	2011	2016	2021	Required by Rule	Supply Developed (acft/yr)	Project Cost (2018 $)[1]	Cost of Water ($/1,000 gals)[1]
New Groundwater Supply										
107	Brazos River Alluvium - various entities	X			X	R	19	VARIES	VARIES	VARIES
108	Groundwater Supply for County, Others	X	X	X	R	R	19	VARIES	VARIES	VARIES
109	Gulf Coast Aquifer - various entities			X	R	R	19	VARIES	VARIES	VARIES
110	Trinity Aquifer - various entities			X	R	R/A	19	VARIES	VARIES	VARIES
111	Edwards Aquifer - various entities			X	R	R	19	VARIES	VARIES	VARIES
112	Sparta Aquifer - various entities				R	R	19	VARIES	VARIES	VARIES
113	Dockum Aquifer - various entities				R	X	19	VARIES	VARIES	VARIES
114	Woodbine Aquifer - various entities				R	R	19	VARIES	VARIES	VARIES
115	Blaine Aquifer - various entities				R	R	19	VARIES	VARIES	VARIES
116	Yegua-Jackson Aquifer - various entities				R	R	19	VARIES	VARIES	VARIES
117	Seymour Aquifer - various entities				R	R	19	VARIES	VARIES	VARIES
118	Carrizo Aquifer - various entities					R/A	19	VARIES	VARIES	VARIES
119	Williamson County Groundwater - South Option					R	19	23,250	$415,016,000	$5.41/$1.56
120	Marble Falls Aquifer Development - various entities					R	19	VARIES	VARIES	VARIES
121	Other Aquifer Development - various entities					R	19	VARIES	VARIES	VARIES
122	Cross Timbers Aquifer Development - various entities					R	19	VARIES	VARIES	VARIES
123	Ellenburger-San Saba Aquifer Development - various entities					R	19	VARIES	VARIES	VARIES
124	Purchase from SAWS Vista Ridge Project (Williamson County)				R	R	19	5,700	NA	$7.40
Brush Control										
125	Brush Control		X	X	R	X	20	0	$7,308,000	NA
Precipitation Enhancement										
~~126~~	~~Weather Modification~~	~~X~~	~~X~~	~~X~~			~~21~~	~~UNKNOWN~~	~~UNKNOWN~~	~~UNKNOWN~~

Potentially Feasible Strategies

Number	Strategy	2001	2006	2011	2016	2021	Required by Rule	Supply Developed (acft/yr)	Project Cost (2018 $)[1]	Cost of Water ($/1,000 gals)[1]
Aquifer Storage and Recovery										
127	Bryan ASR				R	R	22	14,626	$72,404,000	$1.37
128	College Station ASR				R	R	22	3,640	$89,158,000	$10.06
129	Trinity ASR in Johnson County (Johnson County SUD and Acton MUD)		X	X	A	A	22	3,574	$19,789,000	$1.94/$0.75
130	Trinity ASR in McLennan County		X	X	R	R	22	8,000	$65,954,000	$1.98
131	Lake Granger ASR (Trinity Aquifer)				R	R	22	11,900	$24,141,000	$0.83
~~132~~	~~Seymour ASR Project~~	~~X~~	~~X~~	~~X~~			~~22~~	~~3,750~~	~~$18,826,000~~	~~$1.45~~
133	Trinity - Lake Georgetown ASR					R	22	8,645	$306,276,000	$4.35
Cancellation of Water Rights										
134	Cancellation of Water Rights						23	UNKNOWN	UNKNOWN	UNKNOWN
Rainwater Harvesting										
135	Rainwater Harvesting						24	UNKNOWN	UNKNOWN	UNKNOWN

Legend

X = evaluated in the identified regional water plan

R = recommended identified regional water plan

A = alternative strategy identified regional water plan

= not considered in 2021 regional water plan

Notes

1. Some numbers from previous plans were taken from a presentation provided during development of the 2021 Plan. Carollo cannot verify if these values are accurate.

2. These values were taken directly from the 2016 Plan and have not been updated.

Scope of Work Committee Recommendation

January 9, 2024:

- Authorized the technical consultant to submit on behalf of the Scope of Work Committee the recommended list of identified Potentially Feasible Water Management Strategies for the Brazos G RWPG's consideration and possible action at its February 13, 2024, meeting, consistent with the information discussed in this committee meeting, recognizing this list may evolve over the course of the development of the 2026 Brazos G Plan.

8.4 - Suggested Action

“The Brazos G Regional Water Planning Group adopts the list of potentially feasible water management strategies recommended by the Brazos G Scope of Work Committee, consistent with the information discussed in this meeting, recognizing this list may evolve over the course of the development of the 2026 Brazos G Plan.”

Item 8.5

Report from Technical Consultant on the results of the analysis of infeasible water management strategies and/or projects recommended by the Brazos G Scope of Work Committee.

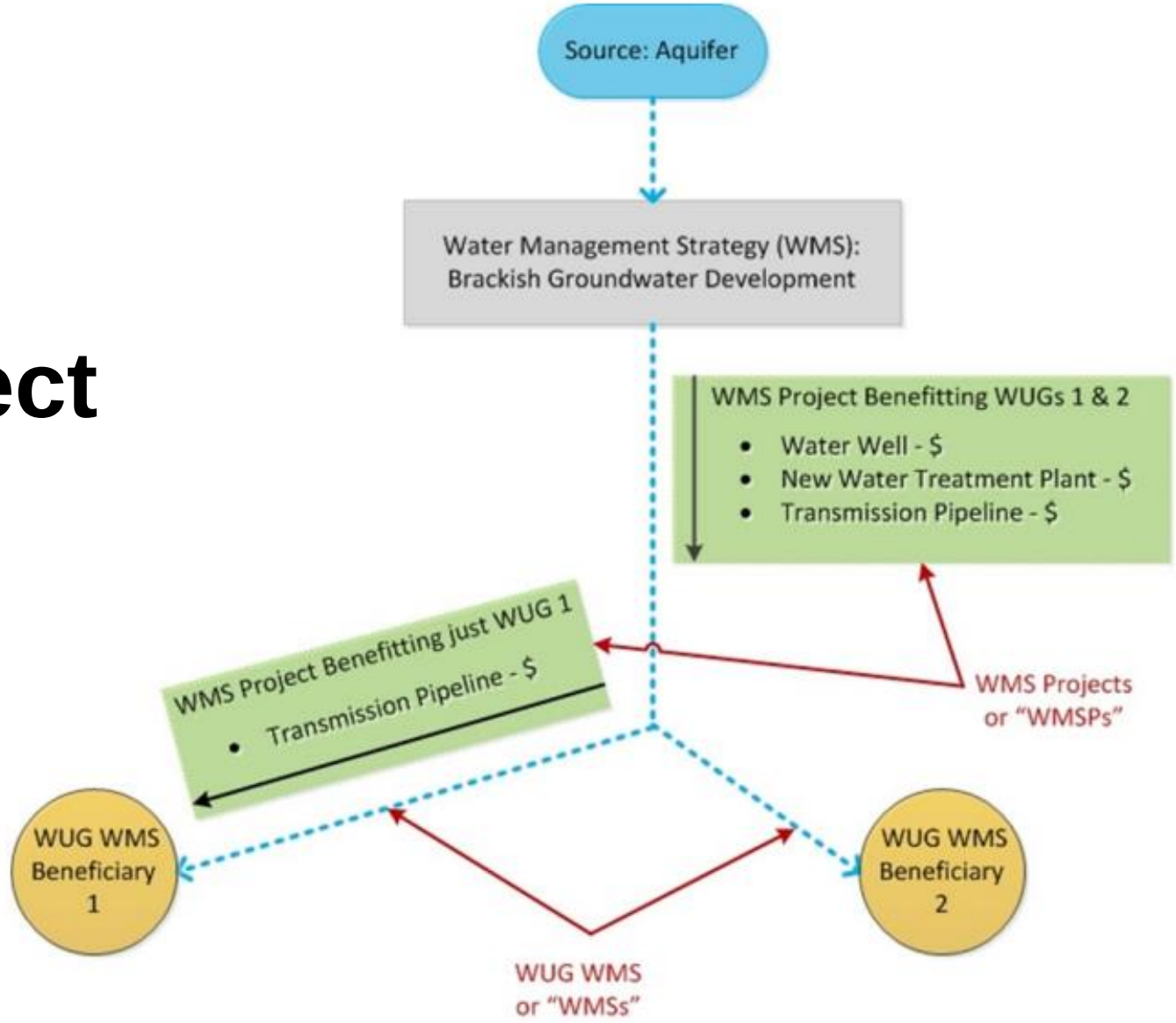
Looking Back

Task for Today

- Review and approve the results of the identification of infeasible water management strategies from the 2021 Brazos G Regional Water Plan as recommended by the Brazos G Scope of Work Committee.

Water Management Strategy Structure

WMS
&
WMS Project



"[A] water management strategy or project is considered infeasible if the proposed sponsor of the water management strategy or project has not taken an *affirmative* vote or other action to make expenditures necessary to construct or file applications for permits required in connection with the implementation of the water management strategy or project under federal or state law on a schedule that is consistent with the completion of the implementation of the water management strategy or project by the time the water management strategy or project is projected by the regional water plan or the state water plan to be needed.

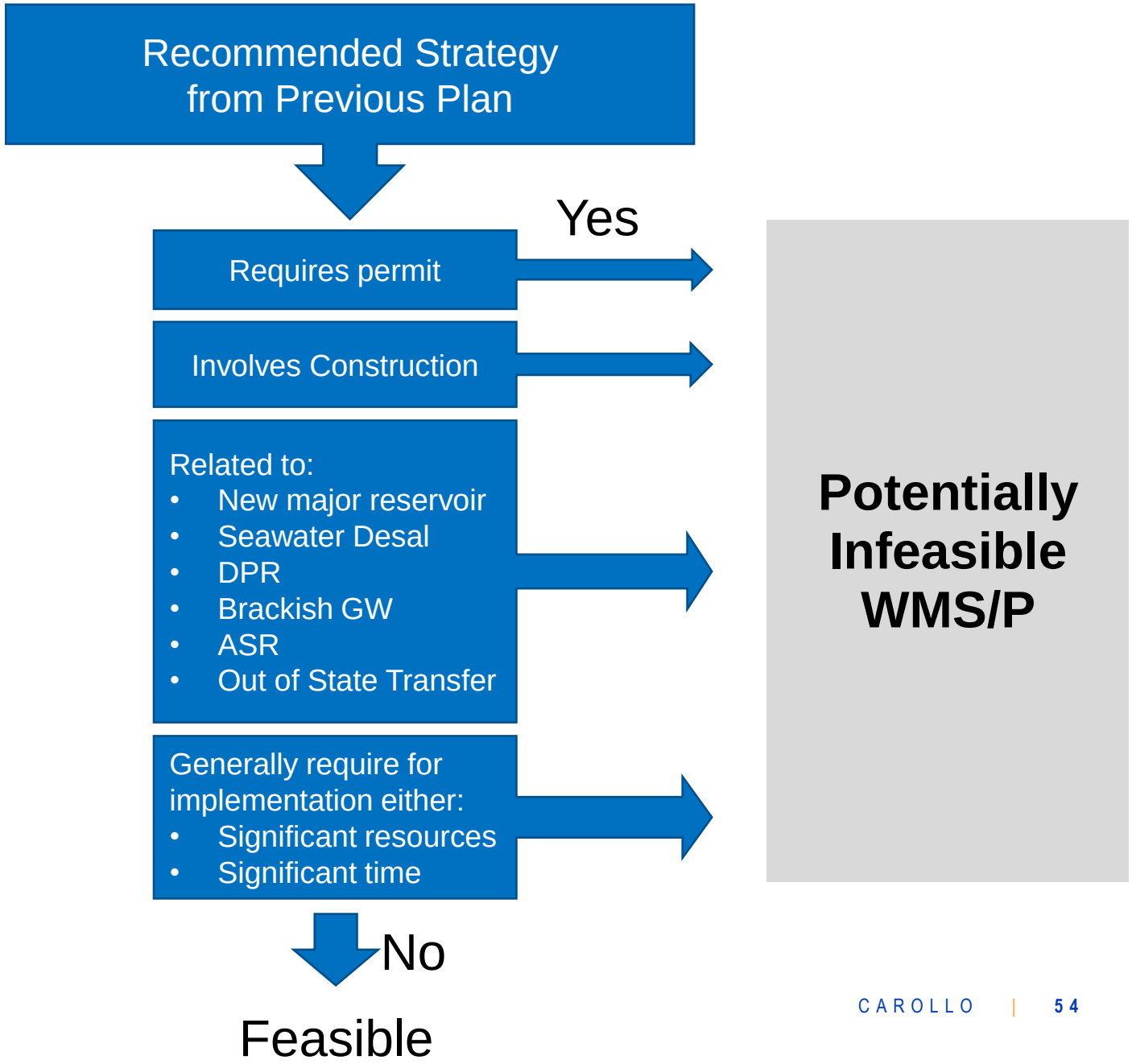
- **TWC §16.053(h)(10)**

Infeasible Strategies

- Amend the previous RWP to modify and/or remove any infeasible WMS or WMSP in accordance with existing amendment procedures
- If applicable or required, identify and evaluate new WMSs or WMSPs that would be needed to meet need that had been met by infeasible WMS/WMSP
- Previous RWP may be amended to:
  - Remove infeasible WMS/WMSP
  - Revise infeasible WMS/WMSP to make it feasible
  - Incorporate a new WMS/WMSP to address the identified need.
- RWPG must submit the adopted amendments associated with this task to TWDB no later than three (3) months following March 4, 2024 (i.e., June 4, 2024).

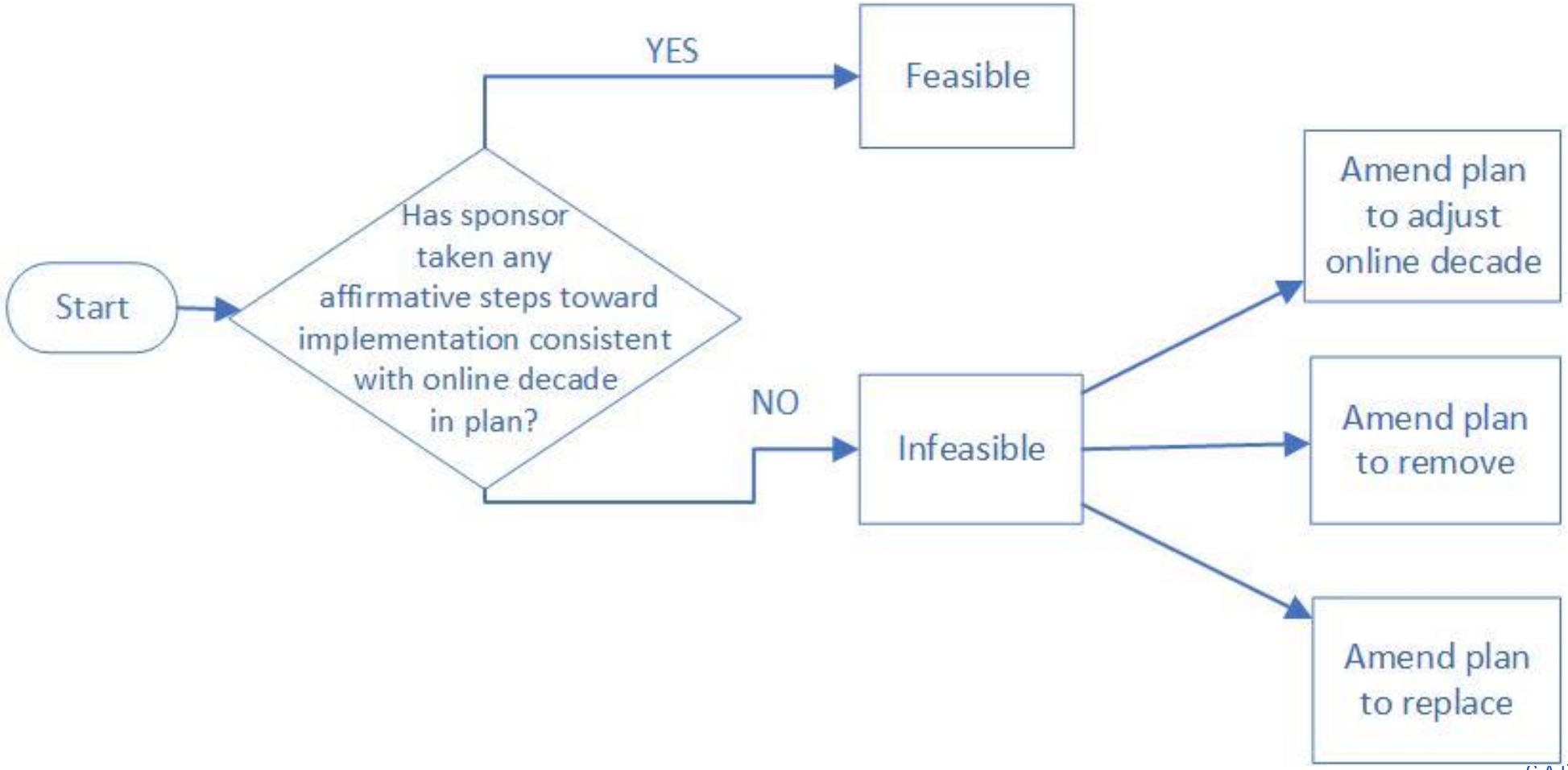
Infeasibility Process

Step 1: Identification of Potentially Infeasible WMS



Infeasibility Process (cont'd)

Apply the following steps to each identified, potentially infeasible WMS/WMSP:



Affirmative Steps

- Spending money on the strategy or project
- Voting to spend money on the strategy or project
- Applying for a federal or state permit for the strategy or project

Analysis of Potentially Infeasible WMS and WMSPs

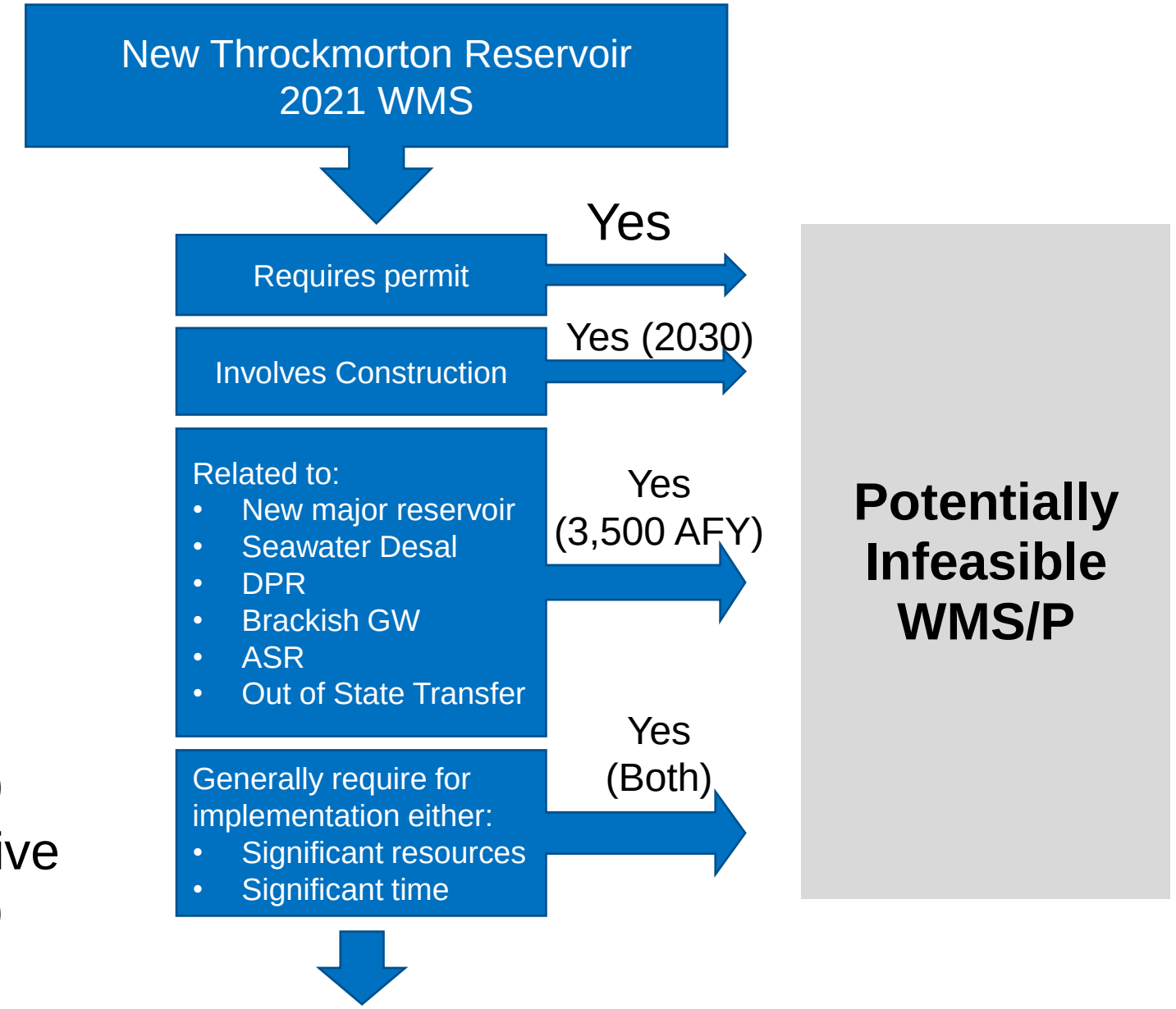
- List of Potentially Infeasible WMS and WMSPs from 2021 Plan provided by TWDB
- Engagement
  - Surveys
  - Phone
  - Letters
  - Invitations to attend SOW Committee meeting
- Input on alternatives
- Unmet needs
  - Needs would typically only be unmet should a drought of severity equivalent to the drought of record occur prior to strategies scheduled to be in place.

Walkthrough of Infeasibility Process with New Throckmorton Reservoir WMS

Step 1: Identification of Potentially Infeasible WMS

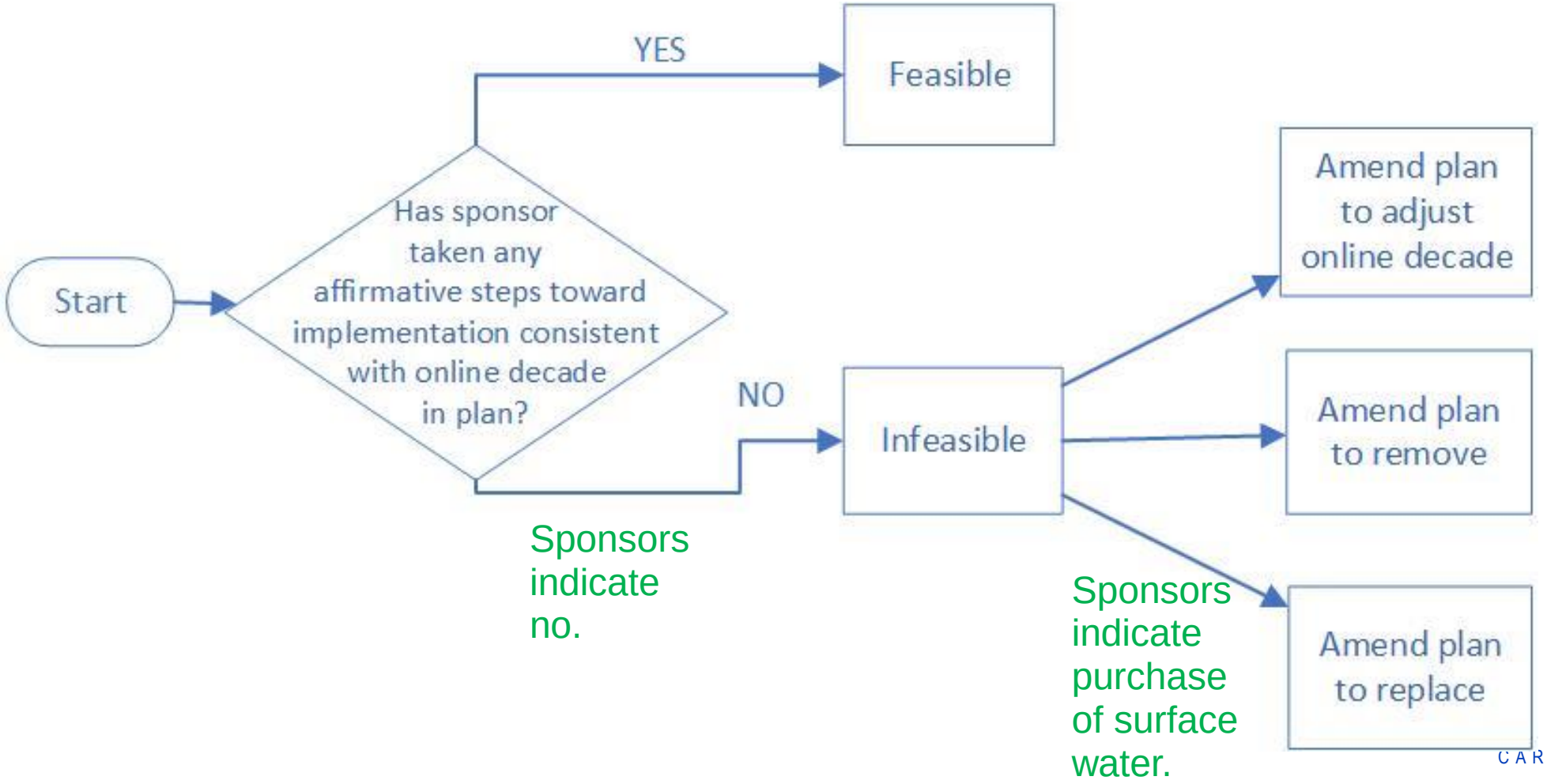
Per 2021 RWP:

- City of Graham to receive 1,500 AF/YR starting in 2030
- City of Throckmorton to receive 2,000 AF/YR starting in 2030

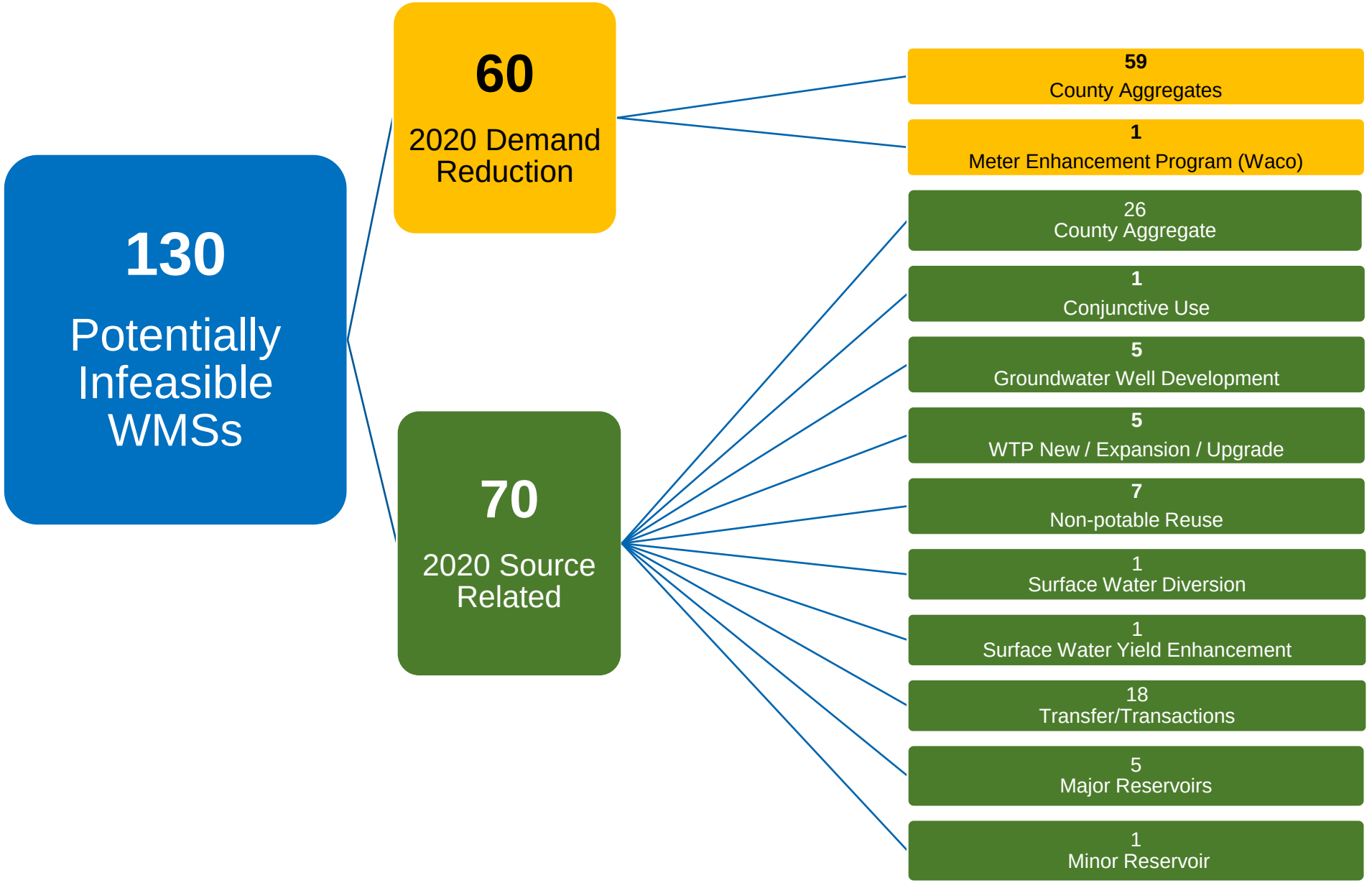


Infeasibility Process (cont'd)

Apply the following steps to each identified, potentially infeasible WMS/WMSP:



Summary of Potential Infeasible WMS



Number Identified as Infeasible	WUG
0	-
0	-
0	-
0	-
2	Godley, JC SUD, Highland Park WSC
1	Jayton
0	-
0	-
0	-
0	-
3	Abilene, NCTMWA, Graham/Throckmorton
1	Multi-County WSC

Type	Project	Sponsor	Online	Status
Groundwater	Trinity Aquifer Development	City of Godley	2020	Per Mr. Kevin Fregia (Dir. Pub. Works) – no affirmative steps, but plan would continue to be to construct in next 5 years if necessary. **Recommend identify strategy as infeasible, defer to 2030 with unmet 2020 need.**
	Trinity Aquifer Development	Johnson County SUD	2020	Sponsor (per Mr. Tyler Lyles, Water Operations Mgr.) indicates strategy no longer feasible, recently increased surface water agreement with City of Mansfield and negotiating revised contract with Brazos Regional PUA, per provided 2022 Water System Master Plan. **Recommend identify strategy as infeaslble and revise strategy to implemented SW strategy for purchase from Mansfield.**
	Trinity Aquifer Development	Highland Park WSC	2020	Per Mr. David Posten (Operator and Dist. System Admin), no affirmative steps taken, but intends to implement when needed. **Recommend identify strategy as infeasible, defer to 2030 with unmet 2020 need.**
WTP	Jayton WTP New	Jayton	2020	Per Ms. Michelle Fager, (City Sec), project shortages due to TCEQ treatment constraint are no longer applicable, thus no shortage exists and WMS no longer necessary. **Recommend identify strategy as infeasible, remove strategy and revise supply from 0 to groundwater well annual production capacity, as sufficient MAG is available.**

Type	Project	Sponsor	Online	Status
Major Reservoir	Cedar Ridge Reservoir	Abilene	2030	Sponsor (per Mr. Rodney Taylor, City of Abilene, Director of Water Utilities) has taken affirmative steps. The City has submitted a surface water right permit application to the TCEQ and a permit application to the USACE. Each application remains active within its respective agency. The sponsor requests the online decade be changed to 2040. **Recommend** identifying WMS and associated WMSP as infeasible and moving online decade to 2040.
				Recommend identifying Sweetwater WMSP "Interconnect from Abilene to Sweetwater" as infeasible and moving online decade to 2040. This will affect two secondary customers to the City of Sweetwater.
				Recommend amending the recommended strategy for the City of Roscoe for purchase of 88 ac-ft/yr of supply in 2030 to 50 ac-ft/yr of supply from the City of Sweetwater, leaving an unmet municipal need in only the 2030 decade of 38 ac-ft/yr for the City of Roscoe.
				Recommend amending the recommended strategy for Nolan County Mining, delaying the onset of the purchase of additional supply from Sweetwater until 2040, leaving unmet mining needs in 2030 of 71 ac-ft/yr and in 2040 of 64 ac-ft/yr.
Major Reservoir	Lake Creek Reservoir	NCTMWA	2030	While sponsor has taken affirmative steps, with approx. $500k expended to date on research/feasibility of project, no applications have been filed. **Recommend** identifying WMS and associated WMSP as infeasible and moving online decade to 2040.
				This will extend unmet needs to 2030 for the City of Haskell (473 ac-ft/yr), Knox City (214 ac-ft/yr), and Munday (229 ac-ft/yr).

Type	Project	Sponsor	Online	Status
Major Reservoir	Brushy Creek Reservoir	Marlin	2040	**Recommend strategy remain feasible.** Sponsor (per Mr. Scott Fornash, Public Works Director) has taken affirmative steps, state permit acquired and is continuing to renew permit, land acquisition for entire footprint complete. Continuing discussions with NRCS to update studies. Sponsor requests WMS and associated WMSP remain feasible at present online decade of 2040.
	New Throckmorton Reservoir	Graham and Throckmorton	2030	No affirmative steps taken by sponsors (per Mr. Jimmy Collins, Public Works Director, City of Throckmorton). City of Throckmorton would plan to use existing water from lakes and/or increase contracted amount with the City of Graham. City of Graham (per Mr. Randall Dawson, Public Works Director) indicates no new reservoir project planned. **Recommend identifying WMS and associated WMSP as infeasible and moving online decade to 2050.**
				This will result in extending unmet needs to 2030 and 2040 for the City of Throckmorton (127 ac-ft/yr to 121 ac-ft/yr).
				This will result in extending unmet needs to 2030 and 2040 for the City of Graham (1,351 ac-ft/yr to 1,306 ac-ft/yr).

Type	Project	Sponsor	Online	Status
Minor Reservoir	Coryell County OCR	Multi-County WSC	2030	Sponsor (per Ms. Kate Timmons, Office Manager, Multi-County Water Supply Corporation) has not taken affirmative steps. No action has been taken to date except an agreement to be the representative of the project if it comes to fruition in the future. The WSC believes the project online decade would be 2050 or later. Discussion with City of Gatesville (per Mr. Scott Albert, GM) indicates strategy is still under consideration, although no affirmative steps have been taken, and not opposed to delaying strategy until 2050. Per 2021 Brazos G Plan "For the project to be economically feasible, an agreement with the Brazos River Authority (BRA) would be required to subordinate Lake Belton water rights to diversions from Cowhouse Creek for impoundment in the OCR. Without subordination, the unappropriated flows in Cowhouse Creek are not sufficient to maintain adequate water levels in the OCR. Currently, BRA indicates that no subordination agreement is likely to be possible." **Recommend identifying WMS and associated WMSP as infeasible and moving online decade to 2050.**
				This will result in unmet municipal needs for Flat WSC (2030 - 1 ac-ft/yr and 2040 - 3 ac-ft/yr),
				This will result in unmet municipal needs the City of Gatesville (2030 - 280 ac-ft/yr and 2040 - 543 ac-ft/yr). The 2021 Brazos G Plan already has an unmet municipal need in 2020 for the City of Gatesville of 1,041 ac-ft/yr.

Expectations Regarding Potential Amendment of 2021 Plan

Major amendment process

- Revisions to recommended WMS/WMSP for a major reservoir require a major amendment

Pending RWPG Approval

- Incorporate any revisions identified by RWPG
- Include list of identified infeasible WMS and WMSPs in required TWDB spreadsheet format

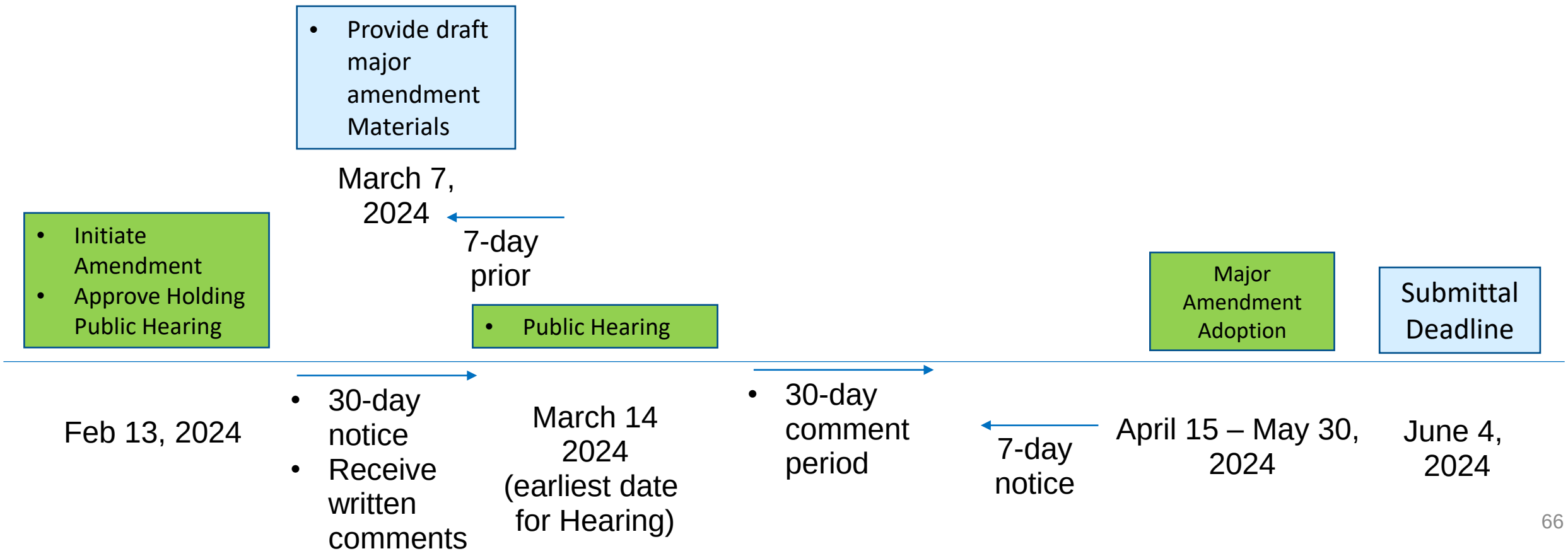
Address previously identified corrections:

- Correct capital cost for Williamson County groundwater WMS
- Correct typo on “Trinity Aquifer Development WMS - Palo Pinto County Irrigation”

Timing

- Possible March and May hearings/meetings
- Meet all notice, review, and comment period requirements
- Before June 4, 2024, deadline.

Amendment Timeline



Scope of Work Committee Recommendation

January 9, 2024:

- Authorized the technical consultant to submit on behalf of the Scope of Work Committee the recommendations on identified infeasible strategies for the Brazos G RWPG's consideration and possible action at its February 13, 2024, meeting, consistent with the information discussed in this committee meeting, and approved for the consultant to work with the Chair to submit further revisions and make responses to revision requests by the RWPG and TWDB by the March 4, 2024, deadline.

8.6 – Public Comment

8.7 - Suggested Action

“The Brazos G Regional Water Planning Group authorizes the technical consultant to submit on behalf of the Brazos G RWPG the identified infeasible strategies, consistent with the information discussed in this committee meeting, and approves for the consultant to work with the Chair to submit further revisions and make responses to revision requests by the TWDB by the March 4, 2024, deadline.”

Item 9

Report from Technical Consultant, discussion, and possible action to approve the list of Wholesale Water Providers and Major Water Providers for the purposes of the 2026 Brazos G Water Plan.

Task for Today

- Review and adopt the list of Wholesale Water Providers and Major Water Providers for the purposes of the 2026 Brazos G Regional Water Plan.

Background:
Wholesale Water Providers (WWP)

31 TAC §357

- WWP – Any person or entity that sells wholesale water to water user groups or other wholesale water providers, or that the RWPG expects or recommends to deliver or sell water to water user groups or other wholesale water providers during the period covered by the regional water plan.

RWPGs determine which WWPs to use in their plan development

Specific analysis and reporting requirements

Presented at Oct. 20, 2023, RWPG meeting

Preliminarily Identified Wholesale Water Providers

Wholesale Water Provider
Aquilla WSD
Bell County WCID #1
Bluebonnet WSC
Brazos River Authority
Central Texas WSC
Eastland County WSD
FHLM WSC
North Central Texas MWA
Palo Pinto County MWD No. 1
Upper Leon MWD
Salt Fork Water Quality Corporation
West Central Texas MWD

Major Water Provider (MWP)

MWPs are

- Identified and designated by RWPG to be of particular significance to the region's water supply.

Similar to 2021 Plan, MWPs have been identified as:

- Any WWP that is not also a municipal WUG, or
- Any WUG with a total municipal demand in the Brazos G Area of at least 1,000 ac-ft/yr, including contractual sales to other municipal utilities.

MWPs with 2026 additions

Major Water Provider	Major Water Provider	Major Water Provider	Major Water Provider
439 WSC	College Station	Hutto	Round Rock
Abilene	Colorado River Municipal Water District	Jarrell-Schwertner	Salado WSC
Acton MUD	Copperas Cove	Johnson County SUD	Salt Fork Water Quality Corporation (SFWQC)
Alvarado	Corix Utilities Texas Inc	Jonah Water SUD	Somervell County Water District
Anson	Coryell City Water Supply District	Keene	Sonterra MUD
Aquilla WSD	Cross Country WSC	Kempner WSC	Southwest Milam WSC
Arlington	Dog Ridge WSC	Killeen	Stamford
Bell County WCID 1	Double Diamond Utilities	Lacy Lakeview	Steamboat Mountain WSC
Bell County WCID 3	Dublin	Lampasas	Stephenville
Bellmead	Eastland County WSD	Leander	Sweetwater
Belton	Fern Bluff MUD	Liberty Hill	Tarrant Regional Water District - via other WWPs
Bethesda WSC	FHLM WSC	Lower Colorado River Authority	Taylor
Bistone Municipal Water Supply District	Files Valley WSC	Mansfield	Temple
Bluebonnet WSC	Fort Cavazos*	Manville WSC	Texas A and M University
BRA	Fort Worth	Marlin	Texas State Technical College
Brandon Irene WSC	Gatesville	McGregor	Upper Leon Municipal Water District
Brenham	Georgetown	Mexia	Venus
Bruceville Eddy	Gholson WSC	Mineral Wells	Waco
Brushy Creek MUD	Giddings	Morgans Point Resort	Wellborn SUD
Bryan	Gordon	Mountain Peak SUD	West Central Texas MWD
Burleson	Graham	Navasota	Wickson Creek SUD
Cameron	Granbury	North Bosque WSC	Williamson County MUD 11
Cedar Park	Harker Heights	North Central Texas Municipal Water Authority	Williamson County WSID 3
Central Texas WSC	Hewitt	Palo Pinto County MUD No.1	Woodway
Cisco	Hilco United Services	Potosi WSC	
Cleburne	Hillsboro	Robinson	
Clifton	Huntsville	Rockdale	

* Formerly Fort Hood

9.0 - Suggested Action

“The Brazos G Regional Water Planning Group adopts the list of Wholesale Water Providers and Major Water Providers for the purposes of the 2026 Brazos G Water Plan.”

Item 10

Report from Technical Consultant on the proposed Technical Memorandum for the 2026 Brazos G Regional Water Plan.

Task for Today

- Review and approve the Technical Consultant to coordinate with TWDB staff and submit the Technical Memorandum for use in the development of the 2026 Brazos G Regional Water Plan, updated with information received from public comments, and as necessarily modified during final coordination with TWDB.

Background

- TAC 357.12(c) and TWDB guidelines require that a Technical Memorandum be submitted by the RWPG.
- Deadline: March 4, 2024.
- Includes:
  - Preliminary DB27 output tables of:
    - Water demand projections,
    - Water availability,
    - Existing water supply allocations,
    - Water needs.
  - Documentation of:
    - Process used to identify potentially feasible WMSs (Item 8.3),
    - List of potentially feasible WMSs identified (earlier Item 8.4),
    - List of infeasible WMSs and WMSPs (Item 8.5)
  - A summary of the RWPG's interregional coordination efforts to date; and
  - ~~During each off-census RWP development, the RWPG's declaration of intent to pursue simplified planning for that planning cycle.~~

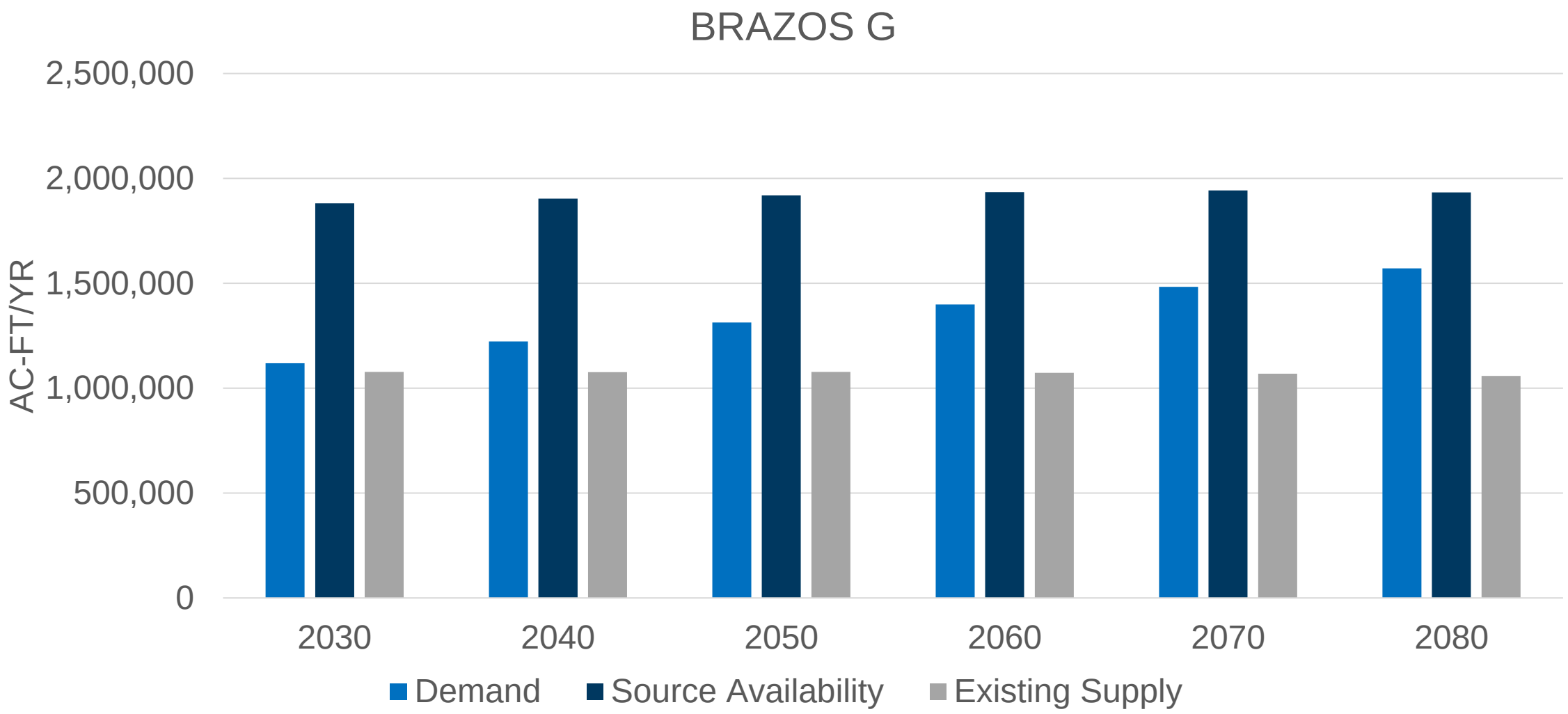
The Technical Memorandum serves as a snapshot (mid-point summary)

- Specific requirements:
  - DB 27 Reports **(Appendices A – G)**
    - Water demand projections
    - Existing water supply allocations
    - Water needs
  - Water availability
    - Brazos G Hydrologic Variance Request including methodology for sedimentation rates for area-capacity rating curves and TWDB Approval **(Appendices H.1 and H.2)**
    - WAM Development and documentation with firm and safe yields with model files (**Appendices I and J**)
    - Documentation of groundwater availabilities, sources, and recommended revisions to Non-MAG availabilities **(Appendices K and L)**
  - Documented process used by the RWPG to identify potentially feasible WMSs;
  - The potentially feasible WMSs identified as of the date of submittal of the Technical Memorandum **(Appendix M)**
  - A listing of the infeasible WMSs and WMSPs, or a statement that no infeasible WMSs or WMSPs were identified by the RWPG **(Appendix N)**
- A summary of the RWPG's interregional coordination efforts to date;

DB27 Reports

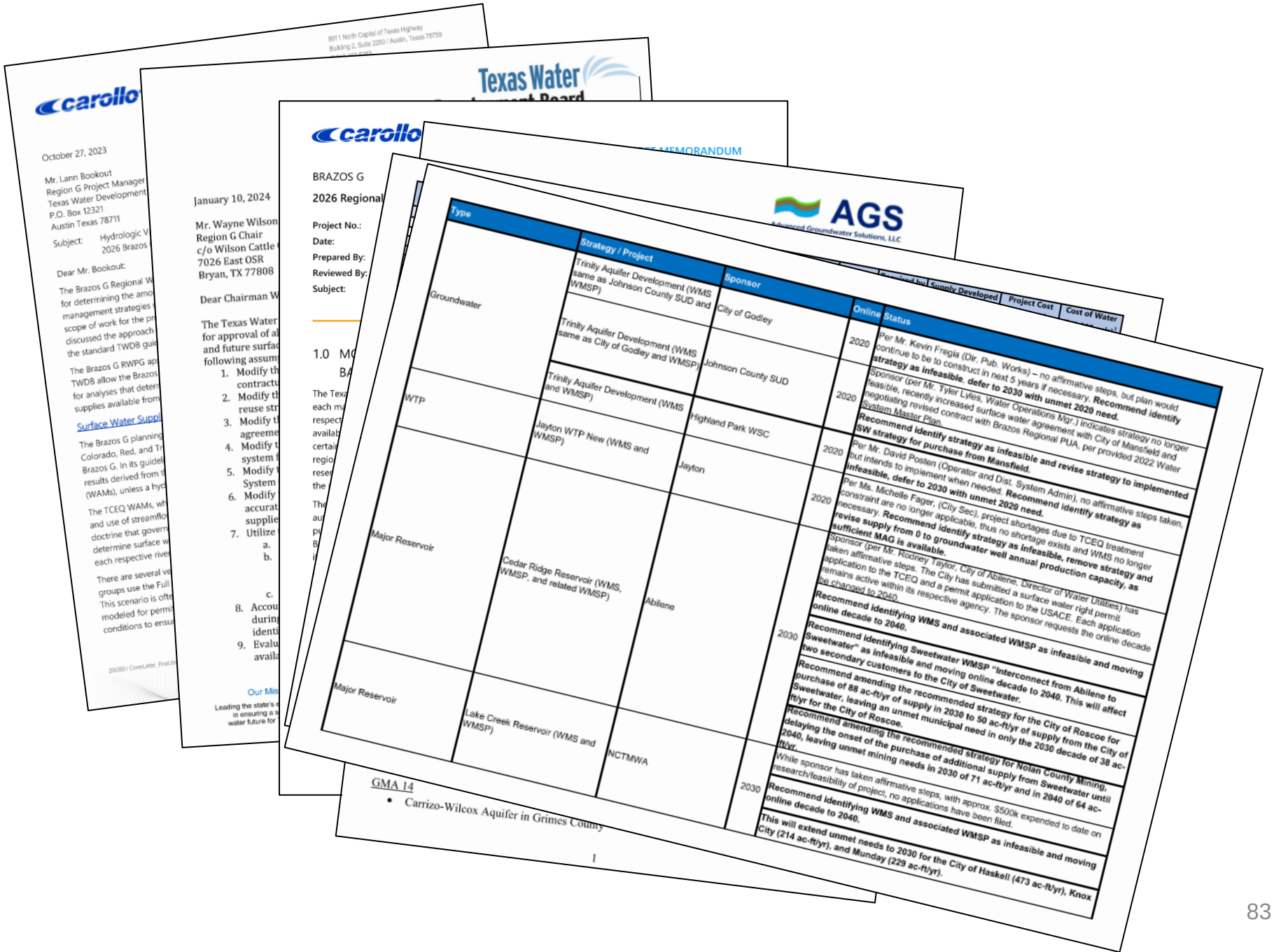
Appendix	DB27 Report Title	Description
A	WUG Population	Population projections by WUG, county, and river basin.
B	WUG Demand	Water demand projections by WUG, county, and river basin
C	Source Availability	Water availability by source
D	WUG Existing Water Supply	Existing water supplies by WUG, county, and river basin
E	WUG Needs/Surplus	Identified water needs by WUG, county, and river basin
F	WUG Data Comparison to 2021 RWP	Comparison of supply, demand, and needs between the 2021 and 2026 RWP at a county level
G	Source Data Comparison to 2021 RWP	Comparison of availability by source type between the 2021 and 2026 RWP at a county level

Technical Memorandum Data Snapshot (subject to change with continuing WUG/WWP engagement)



Appendices

- Include all required supporting documentation and information
- Digital formats as required by TWDB



Interregional Coordination

- RWPG meetings
- Interregional Planning Council
- RWPG Chair conference calls
- Technical Consultant coordination (calls, email, memos)
  - Identification and engagement with WUGs
  - Consistency on projections
  - Source availability
  - Supply allocations
  - Data entry responsibilities
  - Reporting

10.1 – Public Comment

10.2 - Suggested Action

“The Brazos G Regional Water Planning Group approves the Technical Consultant to coordinate with TWDB staff and submit the Technical Memorandum for use in the development of the 2026 Brazos G Regional Water Plan, updated with information received from public comments, and as necessarily modified during final coordination with TWDB.”

Item 11

Report from Technical Consultant, discussion, and possible action to approve the Task 5B consultant scope of work and budget for evaluation of potentially feasible water management strategies recommended by the Brazos G Scope of Work Committee.

Background

- TWDB prepared the Second Amended Scope of Work, Sept. 2023:
  - Task 5B – Evaluation and Recommendations of Water Management Strategies and Projects includes preparation of a separate chapter "…that identifies, evaluates, and recommends WMSs and WMSPs."
  - "Performance of work associated with any 5B subtasks will be contingent upon a written notice-to-proceed in the form of a contract amendment."
  - "Scope of Work to be amended based on specific Task 5B scope of work to be developed and negotiated with TWDB."
- TWDB has allocated funds for Task 5B
- Prior to evaluation of the Potentially Feasible WMSs identified, Brazos G RWPG must develop and submit a scope of work and associated budget and request notice-to-proceed.

Status

- Brazos G Scope of Work Committee met on Oct. 10, Nov. 15, and Jan. 9.
  - Reviewed initial preliminary list of potentially feasible strategies based on process.
  - Reviewed initial Task 5B scope of work and budget developed by Technical Consultant updating from previous round.
  - Recommended finalized Task 5B scope of work and budget for RWPG consideration.
- Task for Today
  - Review SOW Committee recommendation.
  - Consider any necessary revisions.
  - Approve submitting to TWDB and request notice to proceed. Ongoing coordination with TWDB staff will occur as needed.

Considerations (1)

- Target budget amount is $824,994.00.
- Not based on identified needs, but on recommended process including broad statutory categories.
- TWDB rules do not allow inclusion of WMS/WMSPs or costs associated with:
  1) Maintaining existing supplies;
  2) Replacing existing infrastructure;
  3) Expanding water distribution system capacity;
  4) Delivering more water within the distribution system to address increased system growth of new retail developments; or
  5) Delivering greater volumes of water within the distribution system for existing or future fire protection.

Considerations (2)

- Available supplies will be calculated based on approved methodologies.
- Estimated WMS and WMSP costs will be updated using the updated TWDB Unified Costing Model.
- Each strategy will be evaluated consistent with approved process and guidelines, including reliability, cost, environmental impacts, and other components adopted by the Brazos G RWPG.

Considerations (3)

- GIS maps will be developed for all strategies, illustrating infrastructure improvements and supply sources
- WMS evaluation is aligned with statutory categories (e.g., conservation, reuse, etc.)
- The scope of work (details included in packet) also includes:
  - Coordination with specific WUGs and WWPs as necessary regarding individual plans
  - Database entry
  - Preparation of the associated report (chapter)
  - Required digital TWDB-formatted workbook for all tasks

Subtask WMS	Description	Subtask Budget
1	Conservation	$ 12,880
2	Drought Management	$ 1,840
3	Reuse	$ 77,280
4	Management of Existing Water Supplies	$ 36,800
5	Conjunctive Use	$ 11,040
6	Acquisition of Available Existing Water Supplies	$ 51,520
7	Development of New Water Supplies	$ 9,660
8	Developing Regional Water Supply Facilities or Providing Regional Management Of Water Supply Facilities	$ 47,840
9	Developing Large-Scale Desalination Facilities for Seawater Or Brackish Groundwater That Serve Local or Regional Brackish Groundwater Production Zones Identified And Designated Under TWC §16.060(b)(5)	$ 1,840
10	Developing Large-Scale Desalination Facilities for Marine Seawater that Serve Local or Regional Entities	$ 1,840
11	Voluntary Transfer of Water Within the Region Using, But Not Limited To, Contracts, Water Marketing, Regional Water Banks, Sales, Leases, Options, Subordination Agreements, and Financing Agreements	$ 11,040
12	Emergency transfer of water under TWC §11.139	$ 1,840
13	Interbasin transfers of surface water	$ 5,520
14	System Operation	$ 23,000

Subtask WMS	Description	Subtask Budget
15	Reallocation of Reservoir Storage to New Uses	$ 51,520
16	Enhancement of Yields	$ 1,840
17	Improvements to Water Quality	$ 80,960
18	New Surface Water Supply	$ 92,000
19	New Groundwater Supply	$ 110,400
20	Brush Control	$ 2,760
21	Precipitation Enhancement	$ 1,840
22	Aquifer Storage and Recovery	$ 46,000
23	Cancellation of Water Rights	$ 1,840
24	Rainwater harvesting	$ 1,840
25	Additional Strategies	$ 25,760
26	Plan Development	$ 36,800
27	Database Entry	$ 36,800
28	Chapter 5 Preparation	$ 40,480
	Task 5B Total	**$ 824,780**

Scope of Work Committee Recommendation

January 9, 2024:

- Authorized the technical consultant to submit on behalf of the Scope of Work Committee the Draft Scope of Work and Budget for Task 5B for the Evaluation and Recommendation of Water Management Strategy and Projects for the Brazos G RWPG's consideration and possible action at its February 13, 2024, meeting, consistent with the information discussed in this committee meeting, for potential submittal and request for a Notice to Proceed from the TWDB, and approved for the consultant to work with the Chair to submit further revisions and make responses to revision requests by the RWPG and TWDB as needed.

11 - Suggested Action

“The Brazos G Regional Water Planning Group authorizes the technical consultant to submit on behalf of the Brazos G RWPG the Draft Scope of Work and Budget for Task 5B for the Evaluation and Recommendation of Water Management Strategy and Projects, consistent with the information discussed in this meeting, and approves for the consultant to work with the Chair and Administrator to submit further revisions and make responses to revision requests by the TWDB as needed.”

Item 12

Discussion and possible action to authorize the Administrator to request notice to proceed from the TWDB to begin work on Task 5B. Evaluation and Recommendation of Water Management Strategies and Projects.

12 - Suggested Action

“The Brazos G Regional Water Planning Group authorizes the Administrator to request notice to proceed from the TWDB to begin work on Task 5B. Evaluation and Recommendation of Water Management Strategies and Projects, upon finalization of the scope of work and budget by the Technical Consultant for the purposes of the 2026 Brazos G Regional Water Plan.”

Item 13

Discussion and possible action to authorize the initiation of a major amendment to the 2021 Brazos G Regional Water Plan and to post public notice and hold a public hearing on the proposed amendment.

Working Schedule

- February 13, 2024 - Brazos G RWPG meeting
  - Adopt Technical Memorandum
  - Approve SOW and budget for Task 5B
  - **Initiate major amendment to 2021 Brazos G Plan (30-day comment period)**
- March 4, 2024 – Technical Memorandum due
- March 2024
  - Negotiate Task 5B SOW and initiate
  - (Late March) Public Hearing
- **June 4, 2024 – Major amendment due**
- April – December 2024 - develop plan
- March 3, 2025 – Initially Prepared Plan

13 - Suggested Action

“The Brazos G Regional Water Planning Group authorizes the initiation of a major amendment to the 2021 Brazos G Regional Water Plan and to post public notice and hold a public hearing on the proposed amendment.”

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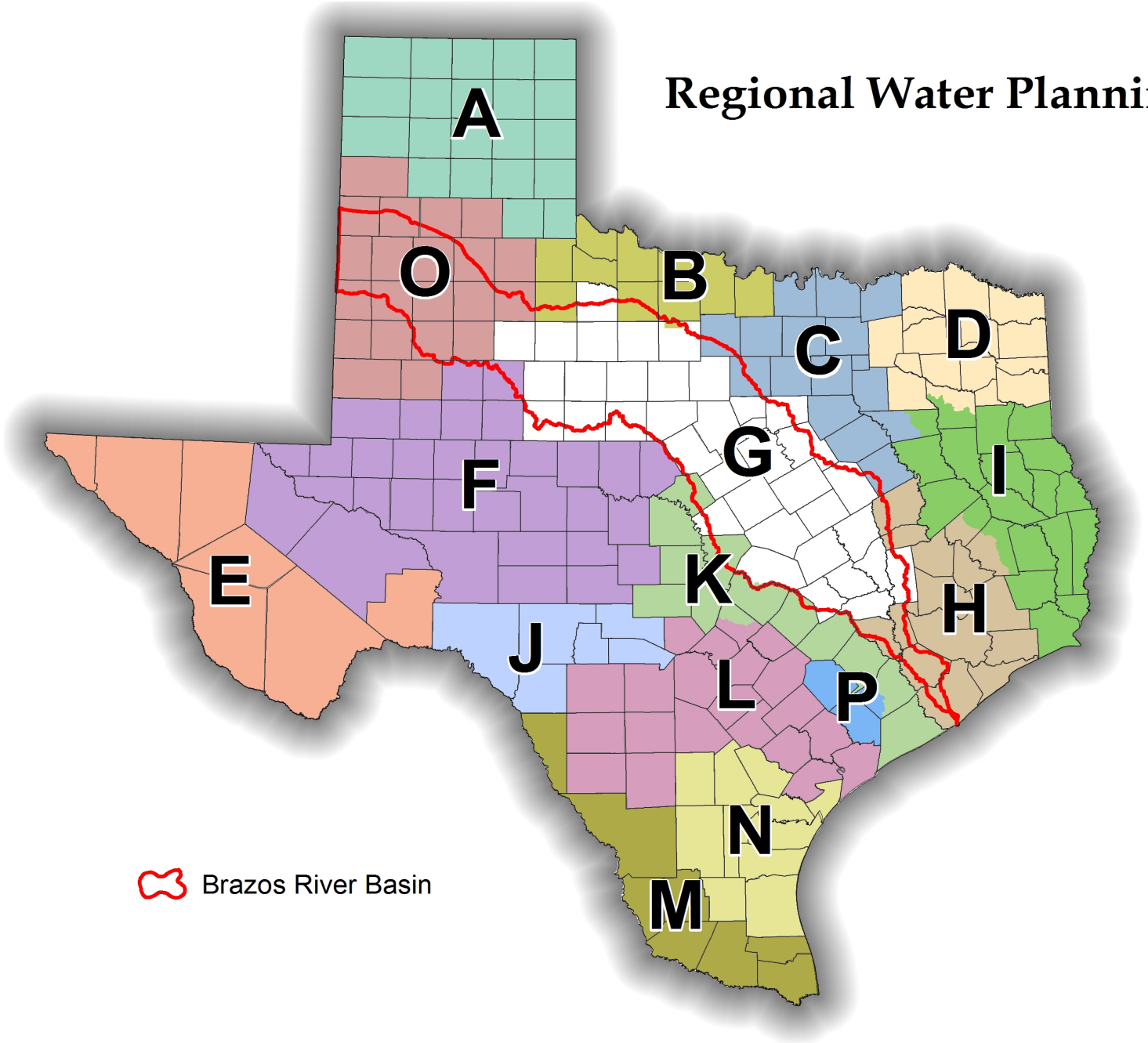
14. Report and possible discussion on updates from other regional water planning groups (Regions B, C, F, H, K, L & O)

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

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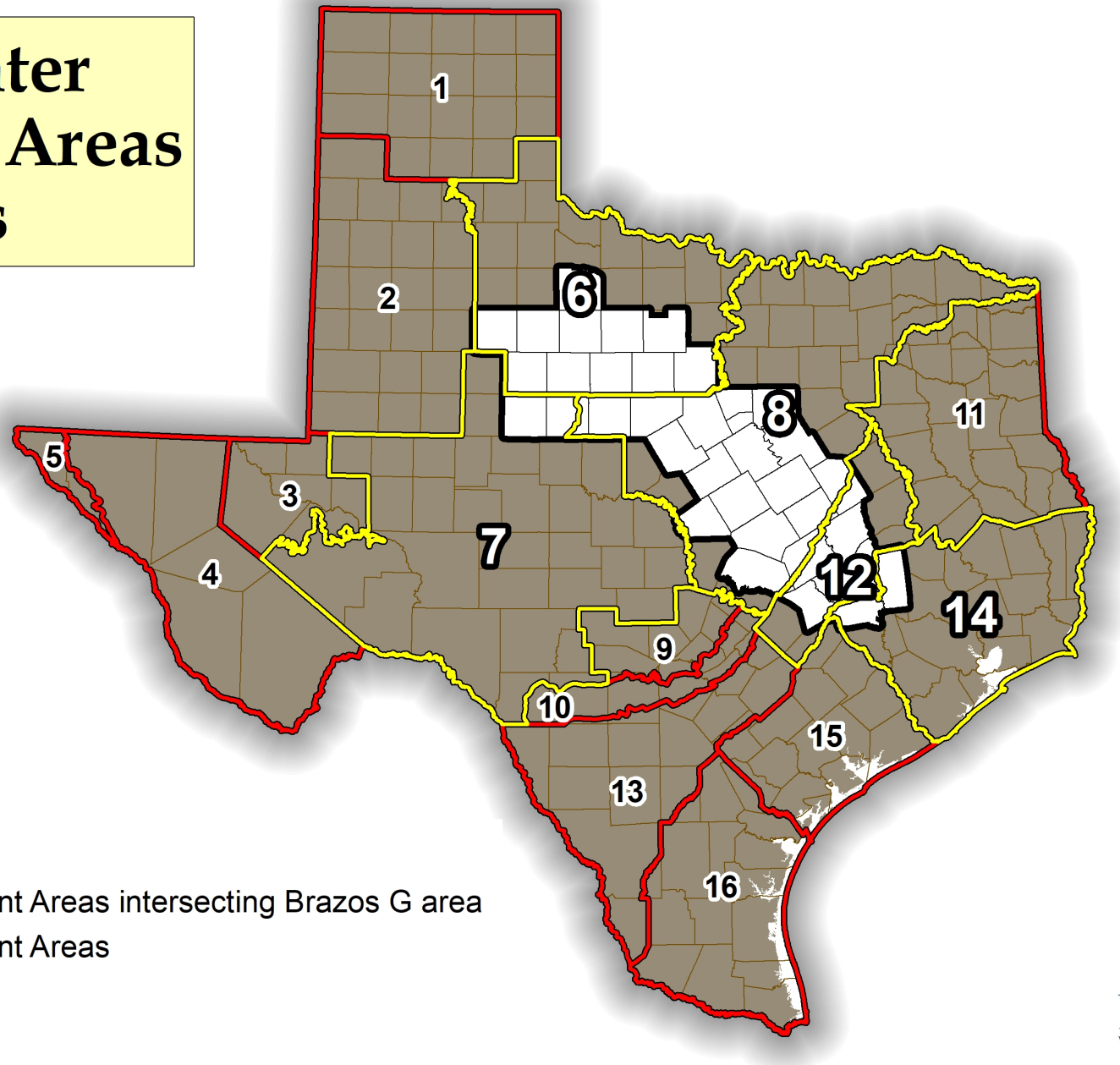
15. Report and possible discussion on Groundwater Management Area (GMA) activities

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

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

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DEPARTMENT OF AGRICULTURE • TEXAS •

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WATER PLANNING GROUP

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

17.1. Administrator Report

17.2. Finance Report – Summary of Administrative Tasks and Expenses

Brazos River Authority

Brazos G

From 09/01/23 Through 12/31/23

	Current Period	Life to date	Total Budget	Budget Variance	% Budget Remaining
Revenues					
State Grants	87,977	289,251	2,191,611	1,902,360	86.80%
Interest Income	-	-			
Total Revenues	87,977	289,251	2,191,611	1,902,360	86.80%
Reimburseable Expenditures					
Salaries	753	3,985			
Benefits	324	1,726			
Indirect Costs	75	398			
Other Expenditures					
Printing/Publishing[1]	877	5,660			
Public Information/Notices[2]	-	2,373			
Total Other Expenditures	2,029	14,142	42,500	28,358	66.72%
Voting Planning Member Travel	1,183	6,437	25,500	19,063	74.76%
Subcontractor[3]	84,766	268,672	2,123,611	1,854,939	87.35%
Total Reimburseable Expenditures	87,977	289,251	2,191,611	1,902,360	86.80%
Work in Kind					
Salaries/benefits	673	16,216			
Other	725	2,133			
Total Work in Kind	1,398	18,349			
Net Revenue over expenditures	(1,398)	(18,349)	-	0	

[1] Postage/copies and Digicert

[3] includes Sept thru Dec 2023

BRAZOS G
WATER PLANNING GROUP

18. Discussion and possible action on report from Brazos G Chair

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

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20. Adjourn