AGENDA

RIO GRANDE REGIONAL WATER PLANNING GROUP (RGRWPG) (REGION M)

9:30 A.M. WEDNESDAY, AUGUST 7, 2024

LRGVDC MAIN CAMPUS
INITIATED AND CHAIRED VIA GoToMeeting & IN PERSON AT
301 W. RAILROAD ST., WESLACO, TEXAS

Virtual access is available at:
https://meet.goto.com/685521429

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Access Code: 685-521-429
United States: +1 (408) 650-3123

MEETING MATERIALS WILL BE AVAILABLE AT LEAST 3 DAYS PRIOR TO THE MEETING.

PRESIDING: JIM DARLING, CHAIR

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1. Call to Order & Roll Call.....Chairman

2. Consideration and **ACTION** to Approve May 15, 2024, Meeting Minutes.....Chairman

3. Public Comment.....Chairman

4. South Texas Water Development Private Utilities, LLC, Request to Amend the 2021 Rio Grande Regional Water Plan to add a Seawater Desalination Project.....Chairman

   A. Background on Process by Black & Veatch

   B. Presentation from South Texas Water Development Private Utilities, LLC

   C. Consideration and Possible **ACTION** to Pursue Amendment to 2021 Rio Grande Regional Water Plan to Incorporate Seawater Desalination Project

D. Consideration and **ACTION** to Authorize Execution of Contract with South Texas Water Development Private Utilities, LLC, to Pay for Costs Associated with 2021 Rio Grande Regional Water Plan Amendment

E. Consideration and Possible **ACTION** to Authorize LRGVDC and Black & Veatch to Execute Contract to Perform Tasks RE: Technical Evaluation and Preparation of Amendment Materials

F. Consideration and Possible **ACTION** Regarding Designation of the South Texas Water Development Private Utilities, LLC, as a Wholesale Water Provider (WWP) as defined in 31 TAC §357.10(44) for Regional Water Planning Purposes

G. Consideration and Possible **ACTION** for Black & Veatch to Submit a Minor Amendment Determination Request to TWDB.

H. Consideration and **ACTION** to Authorize LRGVDC to Post Public Notice and Hold a Public Hearing on the Proposed Amendment if it is Determined to be a Major Amendment

5. Status Reports

ACTION MAY BE TAKEN ON ANY OF THE FOLLOWING ITEMS

A. Status on Current TWDB Contract Activities..... Jaime Burke
Black & Veatch

1. Schedule and Progress Update

2. Water Management Strategy Updates and **ACTION**, as Needed

3. Consideration and **ACTION** Regarding Threshold for Significant Identified Water Needs in the Region (To Consider ASR as a Potential Strategy to Meet Those Needs)

B. Financial Report.....Chairman

1. Consideration and **ACTION** to Accept Expenditure Report

C. Status of Joint Groundwater Area Planning in GMA's 13 & 16..... Louie Pena, GMA 16
Debbie Farmer, GMA 13

D. Reports from Other Regional Water Planning Groups
1. Reports from Liaisons with: Region J, Tomas Rodriguez; Region L, Don McGhee, and Region N, Commissioner David Fuentes

E. Report on Water Conservation Plans and Drought Management Plans Filed with Region.....Chairman

F. Report on Notices of Applications for Funding and Grants .....Chairman

G. Report on Regional Water Resource Advisory Committee (RWRAC)……. Melisa Gonzales
RWRAC

6. Reports from Federal and State Agencies

ACTION MAY BE TAKEN ON ANY OF THE FOLLOWING ITEMS

A. TWDB.....Kevin Smith
Regional Water Planning

1. 2026 Regional Water Plan Water Supply Needs/Surplus Map
2. Flood Mitigation Projects with Water Supply Benefit List
3. Texas Water Fund Implementation Plan

B. TWDB Outreach..……Enriqueta Caballero

1. TWDB Financial Assistance Briefing

C. IBWC .....Dr. Maria-Elena Giner
Commissioner

D. TCEQ Watermaster.....Georgina Bermea
Rio Grande Watermaster

1. Status of Reservoirs

7. Discussion, Consideration, and **ACTION** on Date for Next Business Meeting.....Chairman

8. Adjourn

Agenda items may be considered, deliberated and/or acted upon in a different order than numbered above. The Board of Directors of the Rio Grande Regional Water Planning Group (RGRWPG) (Region M) reserves the right to adjourn into Executive (Closed) Session at any time during the course of this meeting to discuss any of the items listed on this agenda as authorized by the Texas Open Meetings Act. No final action will be taken during the Executive Session.

PUBLIC INPUT POLICY

Public Input Policy: "At the beginning of each RGRWPG meeting, the RGRWPG will allow for an open public forum/comment period. This comment period shall not exceed one (1) hour in length, and each speaker will be allowed a maximum of three (3) minutes to speak. All individuals desiring to address the RGRWPG must be signed up to do so, prior to the open comment period. The purpose of this comment period is to provide the public an opportunity to address issues or topics that are under the jurisdiction of the RGRWPG as outlined within final implementation guidelines of Senate Bill 1, 75th Legislative Session (SB-1). For issues or topics which are not otherwise part of the posted agenda for the meeting, RGRWPG members may direct staff to investigate the issue or topic further. No action shall be taken on issues or topics which are not part of the posted agenda for the meeting. Members of the public may be recognized on posted agenda items deemed appropriate by the Chairman as these items are considered, and the same time limitation (3 minutes) applies."

ITEM 5A.

STATUS ON CURRENT TWDB CONTRACT ACTIVITIES

BLACK & VEATCH

8/7/2024

Agenda Item 4.A:
Background on Amendment Process

1

Background on the Amendment Process

- The RGRWPG has received a request from South Texas Water Development Private Utilities to consider amending the 2021 Plan to include a Seawater Desalination project.
- Today would be to determine if the RGRWPG wants to move forward with the amendment process.
- TWDB requires that the project sponsor in the 2021 Plan be a WUG or WWP.
  - Per RWP rules, a WWP is defined as: "Any person or entity, including river authorities and irrigation districts, that delivers or sells water wholesale (treated or raw) to WUGs or other WWPs or that the RWPG expects or recommends to deliver or sell water wholesale to WUGs or other WWPs during the period covered by the plan. The RWPGs shall identify the WWPs within each region to be evaluated for plan development."
- There will be several additional steps needed before the RGRWPG would consider adoption of the amendment. (Public hearing required if determined by TWDB to be a major amendment)
- Currently, eligible applicants for the SWIFT program include only political subdivisions or nonprofit water supply corporations with a project included in the most recently adopted state water plan. TWDB only finances SWIFT program projects through bonds. Therefore, the entity would need to be able to issue bonds to participate in the SWIFT program.
- Contracting with LRGVDC and Black & Veatch would need to occur to develop the amendment.

2

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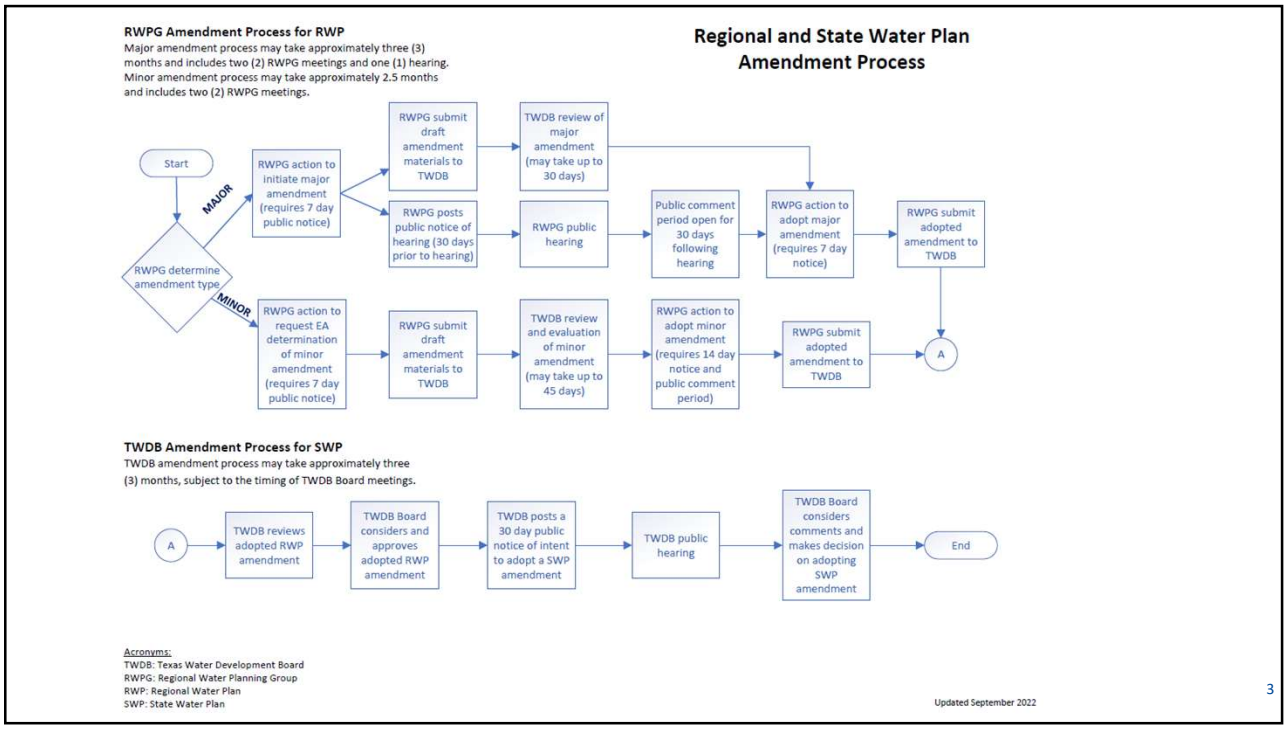
RWPG Amendment Process for RWP
Major amendment process may take approximately three (3) months and includes two (2) RWPG meetings and one (1) hearing. Minor amendment process may take approximately 2.5 months and includes two (2) RWPG meetings.
Regional and State Water Plan Amendment Process
Start
RWPG determine amendment type
MAJOR
MINOR
RWPG action to initiate major amendment (requires 7 day public notice)
RWPG submit draft amendment materials to TWDB
RWPG posts public notice of hearing (30 days prior to hearing)
TWDB review of major amendment (may take up to 30 days)
RWPG public hearing
Public comment period open for 30 days following hearing
RWPG action to adopt major amendment (requires 7 day notice)
RWPG submit adopted amendment to TWDB
RWPG action to request EA determination of minor amendment (requires 7 day public notice)
RWPG submit draft amendment materials to TWDB
TWDB review and evaluation of minor amendment (may take up to 45 days)
RWPG action to adopt minor amendment (requires 14 day notice and public comment period)
RWPG submit adopted amendment to TWDB
A
TWDB Amendment Process for SWP
TWDB amendment process may take approximately three (3) months, subject to the timing of TWDB Board meetings.
A
TWDB reviews adopted RWP amendment
TWDB Board considers and approves adopted RWP amendment
TWDB posts a 30 day public notice of intent to adopt a SWP amendment
TWDB public hearing
TWDB Board considers comments and makes decision on adopting SWP amendment
End
Acronyms:
TWDB: Texas Water Development Board
RWPG: Regional Water Planning Group
RWP: Regional Water Plan
SWP: State Water Plan
Updated September 2022
3

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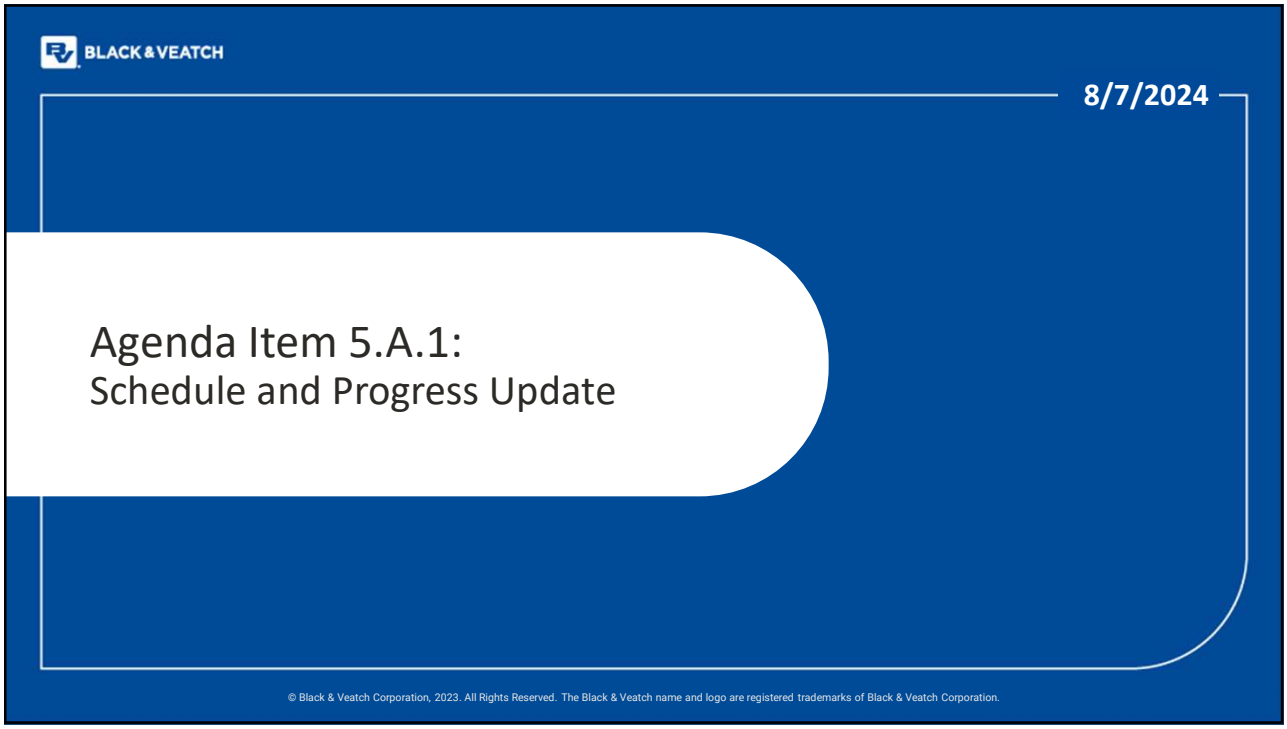
BLACK & VEATCH
8/7/2024
Agenda Item 5.A.1:
Schedule and Progress Update
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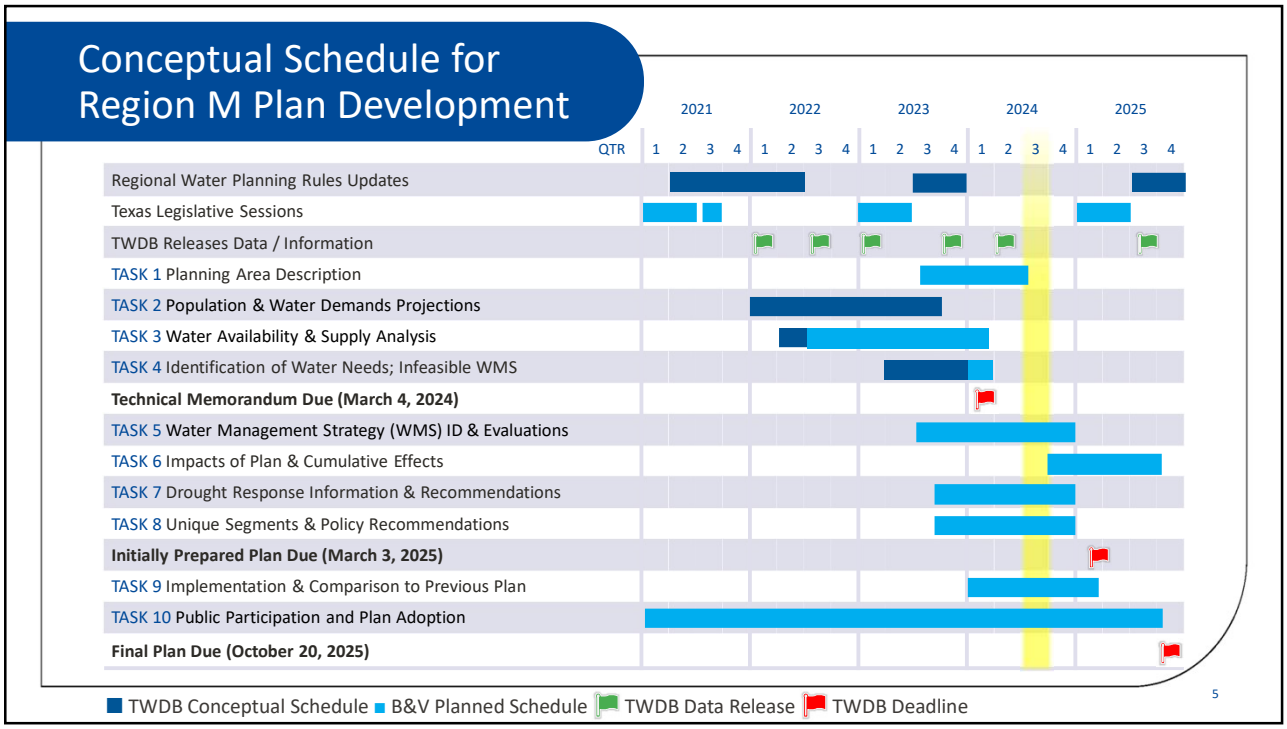
Conceptual Schedule for Region M Plan Development
2021
2022
2023
2024
2025
QTR 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4
Regional Water Planning Rules Updates
Texas Legislative Sessions
TWDB Releases Data / Information
TASK 1 Planning Area Description
TASK 2 Population & Water Demands Projections
TASK 3 Water Availability & Supply Analysis
TASK 4 Identification of Water Needs; Infeasible WMS
Technical Memorandum Due (March 4, 2024)
TASK 5 Water Management Strategy (WMS) ID & Evaluations
TASK 6 Impacts of Plan & Cumulative Effects
TASK 7 Drought Response Information & Recommendations
TASK 8 Unique Segments & Policy Recommendations
Initially Prepared Plan Due (March 3, 2025)
TASK 9 Implementation & Comparison to Previous Plan
TASK 10 Public Participation and Plan Adoption
Final Plan Due (October 20, 2025)
TWDB Conceptual Schedule
B&V Planned Schedule
TWDB Data Release
TWDB Deadline
5

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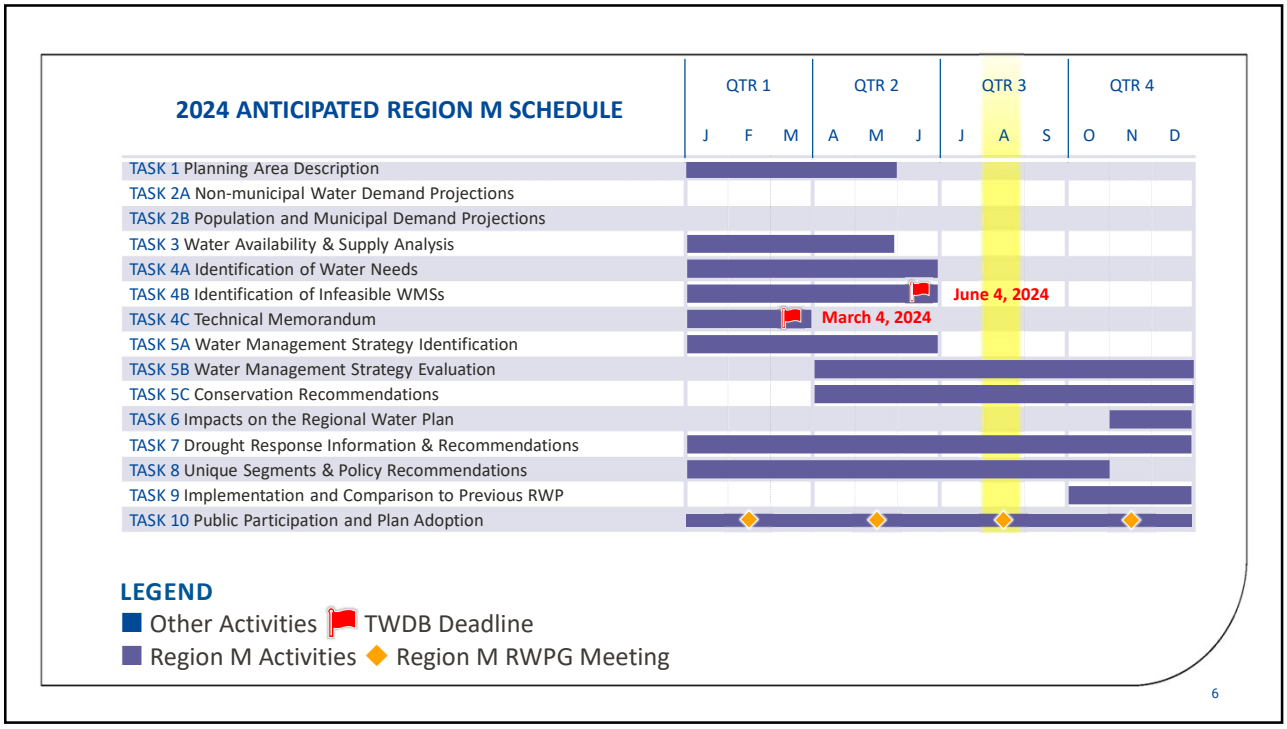
2024 ANTICIPATED REGION M SCHEDULE
QTR 1
QTR 2
QTR 3
QTR 4
J F M A M J J A S O N D
TASK 1 Planning Area Description
TASK 2A Non-municipal Water Demand Projections
TASK 2B Population and Municipal Demand Projections
TASK 3 Water Availability & Supply Analysis
TASK 4A Identification of Water Needs
TASK 4B Identification of Infeasible WMSs
June 4, 2024
TASK 4C Technical Memorandum
March 4, 2024
TASK 5A Water Management Strategy Identification
TASK 5B Water Management Strategy Evaluation
TASK 5C Conservation Recommendations
TASK 6 Impacts on the Regional Water Plan
TASK 7 Drought Response Information & Recommendations
TASK 8 Unique Segments & Policy Recommendations
TASK 9 Implementation and Comparison to Previous RWP
TASK 10 Public Participation and Plan Adoption
LEGEND
Other Activities
TWDB Deadline
Region M Activities
Region M RWPG Meeting
6

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Progress Since Last Meeting

- Submitted adopted amendment for infeasible WMSs to TWDB
- Received informal comments on technical memorandum from TWDB
- Received Notice to Proceed on approved scope of work for Task 5B WMS evaluations
- Began working on water management strategy evaluations
- Continued work on draft chapters
- Sent communication out to defined “rural entities” within the region to provide information from TWDB and encourage engagement in the regional water planning process

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Update on New or Ongoing Efforts

- Continuing water management strategy evaluations
- Finishing up draft updates to Chapters 1-4
- Reviewing Drought Contingency Plans and working on Chapter 7
- Still need to begin updates on policy recommendations for Chapter 8
    - Will be reaching out to those interested

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8/7/2024

Agenda Item 5.A.2:
Water Management Strategy Updates and Action, as Needed

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Water Management Strategies Approved for Evaluation

- Advanced Municipal Conservation
- Irrigation District Conservation
- Agricultural Conservation
- Industrial Conservation
- Conversion of Water Right Classification
- New or Expanded Surface Water Treatment
- New or Expanded Distribution and Transmission Facilities Resulting in Increased Supplies
- Update to Off-Channel Storage
- New or Expanded Fresh Groundwater Supply
- New or Expanded Brackish Groundwater Desalination
- Seawater Desalination
- Reuse
- Biological Control of *Arundo Donax*
- Drought Management
- Aquifer Storage and Recovery
- Regional Water Supply Facilities

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Timeline and Process for WMS Evaluations

August Meeting

- Presentation of Group 1 WMSs
- RWPG provides input on methodology for certain WMSs

November Meeting

- Presentation of Group 2 WMSs
- RWPG considers which WMSs to add as Recommended or Alternative WMSs

January Meeting

- Presentation of Cumulative Effects Analysis

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Presentation of Group 1 WMS Evaluations

Important Disclaimer and Notes:

- All WMSs are evaluated uniformly.
- All summaries of WMSs are in DRAFT form and are subject to change.
- Location maps include hypothetical locations of facilities for regional planning purposes only as it relates to planning-level cost estimates. The locations shown on the maps are conceptual in nature and are not meant to represent actual locations of facilities.

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Water Management Strategy (WMS) Updates,
Draft WMS Evaluations

Advanced Municipal Conservation

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Advanced Municipal Conservation

- **Description:** WMS includes active conservation measures that conserve water ***over and beyond passive water conservation measures***, which stem from federal and state legislation requiring water efficient plumbing fixtures in new building construction and replacement.

- **Requirements:** TWDB requires RWPGs to:
  - Recommend gallons per capita per day (GPCD) goals for each municipal WUG or specified groupings of municipal WUGs for each planning decade
  - Consider active water conservation measures for WUGs and WWP WUG customers with identified water Needs;
  - Consider WMSs to address any issues identified in the TWDB water loss audits; and
  - Distinguish and separate conservation strategies/projects as to whether they are:
    - 1) Water Loss Mitigation; or
    - 2) Water Use Reduction.

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Advanced Municipal Conservation

Water Loss Mitigation

- Capital Improvements
  - Leak Detection and Repair
- Non-Capital Mitigation
  - Utility water loss audits
  - Irrigation Evaluations
  - Speed & Quality of Repair
  - Subsidized customer-side service line repairs

Water Use Reduction

- Capital Improvements
  - Advanced Metering Infrastructure
- Non-Capital Reductions
  - Additional passive conservation through Low Flow Plumbing Fixtures
  - Outdoor water restrictions
  - Customer behavioral engagement software
  - Permanent landscape watering schedule
  - Landscape standards
  - Public outreach and education programs
  - Tiered water rates

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Advanced Municipal Conservation

- **Methodology for WMS in 2026 Plan:**
  1. **Goals:** Identify Region M-specific goals for municipal WUGs with need[1] or >140 GPCD for each planning decade
     - Region M-specific GPCD Goals[2] are as follows:
       - GPCD > 140: Apply a 10% Decadal Reduction in GPCD
       - GPCD < 140: Apply a 5% Decadal Reduction in GPCD
       - GPCD < 80: Apply a 0% Decadal Reduction in GPCD (i.e., retain existing GPCD)
     - 39/64 municipal WUGs have a need or >140 GPCD
  2. **Yield:** Calculate the WMS savings (yield) that would be realized by meeting the GPCD goal (next slide) by multiplying the reduction by projected population

Notes:

[1] Regardless of need, conservation is not recommended for WUGs with a GPCD less than 80. Primera is the only WUG exhibiting needs with a GPCD less than 80 (75.03).

[2] Goals are based on a recommendation from the Water Conservation Implementation Task Force (WCITF) to have a GPCD goal of 140 GPCD

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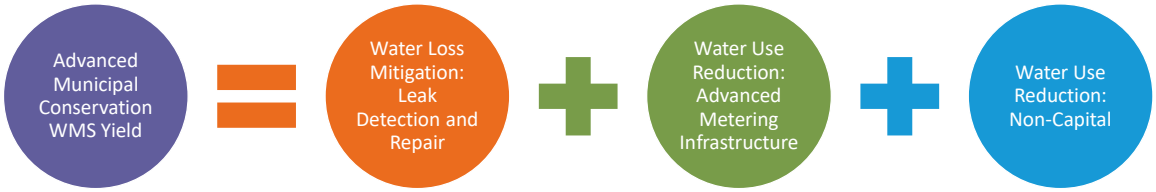
Advanced Municipal Conservation

- **Yield:**
  - Savings (in acft/yr) for each WUG in each decade were calculated by applying the Region M-specific GPCD goal and then separating the components based on whether they are:
    - 1) **Water Loss Mitigation: Leak Detection and Repair;**
    - 2) **Water Use Reduction: Advanced Metering Infrastructure (AMI); or**
    - 3) **Water Use Reduction: Non-Capital**



	Municipal Water Savings (acft/yr)					
	2030	2040	2050	2060	2070	2080
Region M Total	23,280	40,996	58,479	73,180	85,269	96,766

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Advanced Municipal Conservation

	Municipal Water Savings (acft/yr)							
WUG	2030	2040	2050	2060	2070	2080	Total Cost	Unit Cost
Brownsville	3,225	4,650	6,114	7,447	8,706	9,890	$ 193,182,760	$ 1,314
County-Other, Cameron	423	475	451	373	301	204	$ 748,505	$ 477
County-Other, Hidalgo	160	178	77	115	160	184	$ 1,054,680	$ 1,039
County-Other, Starr	26	50	77	112	150	190	$ 905,815	$ 3,179
County-Other, Webb	70	80	57	76	82	82	$ 586,790	$ 1,264
County-Other, Zapata	8	17	26	36	45	55	$ 242,165	$ 3,748
Eagle Pass	960	1,450	1,982	2,523	3,077	3,641	$ 120,609,695	$ 1,357
East Rio Hondo WSC	182	397	684	995	1,282	1,585	$ 107,893,215	$ 21,570
Edinburg	564	1,122	1,760	2,344	2,911	3,472	$ 122,291,830	$ 18,704
El Jardin WSC	67	127	191	227	227	226	$ 26,882,695	$ 20,252
El Sauz WSC	9	14	15	15	15	15	$ 1,663,355	$ 4,294
El Tanque WSC	10	16	21	25	27	29	$ 1,473,235	$ 9,398
Falcon Rural WSC	7	10	10	10	10	9	$ 703,050	$ 523

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Advanced Municipal Conservation

	Municipal Water Savings (acft/yr)							
WUG	2030	2040	2050	2060	2070	2080	Total Cost	Unit Cost
Harlingen	1,480	2,134	2,809	3,427	4,012	4,563	$ 130,757,995	$ 16,952
Hidalgo County MUD 1	26	41	42	43	45	46	$ 8,826,370	$ 3,665
La Grulla	146	290	371	446	521	597	$ 14,099,105	$ 28,221
La Joya	30	59	91	122	153	183	$ 6,530,545	$ 8,276
La Villa	12	25	41	47	46	46	$ 2,659,505	$ 14,735
Laguna Madre Water District	464	893	1,289	1,634	1,941	2,213	$ 33,954,370	$ 489
Laredo	2,088	4,026	6,058	7,867	9,544	11,091	$ 306,470,115	$ 2,410
McAllen	3,832	7,958	12,485	16,293	18,337	20,375	$ 206,122,155	$ 16,055
Military Highway WSC	324	611	910	1,214	1,511	1,802	$ 36,708,520	$ 7,098
Mission	1,808	3,559	5,292	6,162	7,026	7,889	$ 124,914,825	$ 9,082
North Alamo WSC	3,541	5,518	7,612	9,386	11,105	12,765	$ 836,031,295	$ 2,505
Olmito WSC	132	253	312	369	424	477	$ 10,338,945	$ 31,545
Palm Valley	24	45	55	64	73	81	$ 893,485	$ 20,392

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Advanced Municipal Conservation

	Municipal Water Savings (acft/yr)							
WUG	2030	2040	2050	2060	2070	2080	Total Cost	Unit Cost
Pharr	458	883	1,377	1,633	1,666	1,700	$ 105,643,230	$ 3,523
Port Mansfield PUD	14	31	54	87	129	182	$ 6,978,055	$ 544
Rio Grande City	421	840	1,260	1,649	1,860	2,072	$ 23,001,850	$ 45,094
Rio WSC	40	88	102	103	102	102	$ 14,011,315	$ 3,938
Roma	124	242	376	507	641	670	$ 29,967,050	$ 3,275
Sharyland WSC	1,553	3,168	4,064	4,817	5,554	6,273	$ 124,855,805	$ 28,152
Union WSC	123	183	248	313	379	446	$ 12,715,880	$ 4,292
Valley MUD 2	97	187	270	342	406	463	$ 7,375,815	$ 18,469
Webb County	75	193	361	469	562	556	$ 10,119,550	$ 12,977
Weslaco	551	797	1,060	1,335	1,615	1,902	$ 37,666,680	$ 9,253
Zapata County	183	346	421	488	548	605	$ 24,286,545	$ 115,657
Zapata County San Ygnacio & Ramireño	7	10	10	10	11	11	$ 1,384,355	$ 523
Zapata County WCID-Hwy 16 East	16	30	44	55	65	74	$ 16,389,350	$ 624

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Water Management Strategy (WMS) Updates,
Draft WMS Evaluations

Irrigation District Conservation

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Irrigation District Conservation

- Retaining District improvements that were submitted (53 WMS for 18 IDs) from previous cycles
- New improvements requested for 2026 RWP:
  - Hidalgo County Water Improvement District No. 3 *(replace canal w/ pipeline)*
  - United Irrigation District *(canal lining, controls)*
  - Cameron County Irrigation District No. 2, San Benito *(canal lining, replace canal w/ pipeline)*
- Districts that didn't submit have a general "district improvements" based on generalized costs per AF saved.

Conservation improvements include:

- Canal Lining
- Replace Canal w/Pipeline
- Controls
- Interconnects
- General Repairs

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Irrigation District Conservation

Methodology for WMS in 2026 Plan:

1. Evaluate submitted ID improvements, expected water savings
2. Assumed a maximum system efficiency of 90%
3. Estimate the water conveyed by each district (in total) and the current percent loss.

For example, if an ID has a current efficiency of 80% and will increase system efficiency to 90% by 2080:

- **Current: 10,000 acft × 80% efficiency = 8,000 AF**
- **2080: 10,000 acft × 90% efficiency = 9,000 AF**
  - ***1,000 acft savings with 10% higher efficiency***

By 2080, Irrigation District Improvements in Region M can save up to **149,767 ac-ft/year**

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Water Management Strategy (WMS) Updates,
Draft WMS Evaluations

Agricultural (On-Farm) Conservation

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Agricultural (On-Farm) Conservation

- Agricultural demands are estimated based on 2011, when the reservoirs were full (not supply-limited) and there was very little rain (high-demand)
- Supplies are based on the worst-case drought scenario
- There is over 900,000 AF/yr of need for agriculture in 2030
- On-Farm Conservation recommends efficient use of water, which improves productivity in and out of drought

Evaluating Agricultural Conservation as a Demand Reduction WMS

Agricultural (On-Farm) Conservation

Accomplished via implementation of Best Management Practices (BMPs), developed based on input from stakeholders and ID last cycle.

Approach:

- Recommended for every Irrigation Water User Group in Region M
  - Water use management practices (e.g., scheduling, moisture metering, and on-farm audits)
    - Assumed to be implemented across the region such that 25 percent of potential water savings have already been made. Five (5) percent efficiency gains were estimated for the remaining 75 percent over the planning horizon.
  - Land management systems (e.g., laser leveling, narrow border citrus, and furrow dikes)
    - Assumed to be 25 percent implemented, and the strategy estimates a 10 percent efficiency gain over the remaining 75 percent of irrigation water use over the planning horizon.
  - On-farm water delivery systems (e.g., poly-pipe, surge valves, drip, sprinkler)
    - Estimated to impart a 10 percent efficiency gain on 10 percent of irrigation water usage in 2030, for which that technology is appropriate and not already in place.

Agricultural (On-Farm) Conservation

Other agricultural conservation discussions within the strategy:

- Narrow-Border Citrus Irrigation
  - Narrow border flood irrigation provides an alternative to the traditional pan flooding method of irrigation commonly used by citrus growers in the LRGV. This method is a cost-effective and easy to implement alternative that involves erecting narrow berms of soil between existing rows of citrus trees to direct and contain irrigation water directly in the root-zone of trees.
- Drip Irrigation
  - Based on farmer experience and surveys, drip irrigation is expected to reduce the water demand for certain crops, ranging from 2.5 acre-inches for cotton, 11 acre-inches for sugarcane, 17.8 acre-inches for onions, and up to 45 acre-inches for citrus. However, drip irrigation is expensive to install with very limited life resulting in the expected net returns to a farmer being negative for all except citrus.
- Dry Year Option Contracts
  - Water supply option contracts (WSOCs) temporarily transfers of irrigation water to provide secure water supplies to non-agricultural users during droughts while preserving the water for agriculture during normal water supply situations.

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Agricultural (On-Farm) Conservation

County	2030 Demand Projections (acft/yr)	Water Savings (acft/yr)				Facility Costs
		Management Practices	Land Management Systems	On-Farm Water Delivery Systems	Total Savings	
Cameron	519,972	3,250	6,500	867	10,617	$ 16,816,852
Hidalgo	666,560	4,166	8,332	1,111	13,609	$ 1,073,380
Jim Hogg	348	2	4	1	7	$ 22,020,303
Maverick	59,725	373	747	100	1,220	$ 911,615
Starr	23,109	144	289	39	472	$ 10,110
Webb	10,090	63	126	17	206	$ 1,685
Willacy	96,412	603	1,205	161	1,969	$ 2,055,768
Zapata	4,936	31	62	8	101	$ 795,346
TOTAL	**1,381,152**	**8,632**	**17,265**	**2,304**	**28,201**	

- Unit costs estimated to be $1,685/acft
- Environmental/Cultural Concerns: Decrease in water use may result in decrease in freshwater inflow to a classified water body.

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Water Management Strategy (WMS) Updates,
Draft WMS Evaluations

Industrial Conservation

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Industrial Conservation

- Accomplished via implementation of Best Management Practices (BMPs) for Industrial Users as defined by the TWDB (TWDB, 2013).

**No new BMPs or info since last cycle*

Approach:

- Recommended for every Manufacturing, Mining, and Steam Electric Power Water User Group in Region M
- Water Audit is the initial action to increase water efficiency
  - On average water audits may help conserve 10-35% of water
  - Apply 10% water demand reduction for industrial users
- Cost
  - Assume costs are based on water audits being performed once every five years.
  - Assume industrial user will only implement BMPs if they have a cost-positive impact on their bottom line, so no additional costs to implement measures.
  - Assume minimum water audit cost of $2,000. Assume cost of audit is proportional to water demand.
    - 1,000 acft/yr of water demand = $10,000 water audit

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Industrial Conservation

WUG	Water Savings (acft/yr)						Annual Cost ($)					
	2030	2040	2050	2060	2070	2080	2030	2040	2050	2060	2070	2080
Cameron Manufacturing	46	48	50	51	53	55	$920	$960	$1,000	$1,020	$1,060	$1,100
Cameron Steam-Electric Power	17	17	17	17	17	17	$400	$400	$400	$400	$400	$400
Hidalgo Manufacturing	393	407	422	438	454	471	$7,860	$8,140	$8,440	$8,760	$9,080	$9,420
Hidalgo Mining	23	26	29	31	34	36	$460	$520	$580	$620	$680	$720
Hidalgo Steam-Electric Power	1,033	1,033	1,033	1,033	1,033	1,033	$20,660	$20,660	$20,660	$20,660	$20,660	$20,660
Jim Hogg Mining	1	1	1	1	1	1	$400	$400	$400	$400	$400	$400
Maverick Manufacturing	10	10	11	11	11	12	$400	$400	$400	$400	$400	$400
Maverick Mining	490	490	490	490	490	0	$9,800	$9,800	$9,800	$9,800	$9,800	$0
Starr Manufacturing	8	8	9	9	9	10	$400	$400	$400	$400	$400	$400
Starr Mining	19	20	21	21	22	22	$400	$400	$420	$420	$440	$440
Webb Manufacturing	8	8	8	9	9	9	$400	$400	$400	$400	$400	$400
Webb Mining	414	414	415	415	415	3	$8,280	$8,280	$8,300	$8,300	$8,300	$0
Webb Steam-Electric Power	13	13	13	13	13	13	$400	$400	$400	$400	$400	$400
Zapata Mining	1	1	1	1	1	1	$400	$400	$400	$400	$400	$400

- Environmental/Cultural Concerns: Decrease in water use may result in decrease in freshwater inflow to a classified water body.

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Water Management Strategy (WMS) Updates,
Draft WMS Evaluations

Conversion of Water Right Classification

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Conversion of Water Right Classification

- Also known as Urbanization
- Approach:
  - Decrease in Irrigation Demand is assumed to be a result of "exclusion" or "urbanization" of land;
  - Assume irrigation WR are converted to a DMI WR, according to TCEQ the maximum authorized diversion is reduced to 50% for Class A and 40% for Class B;
  - Each district's converted water rights will be used to meet the needs of utilities within the district first; and
  - Additional water rights are then made available for other WUGs with needs.

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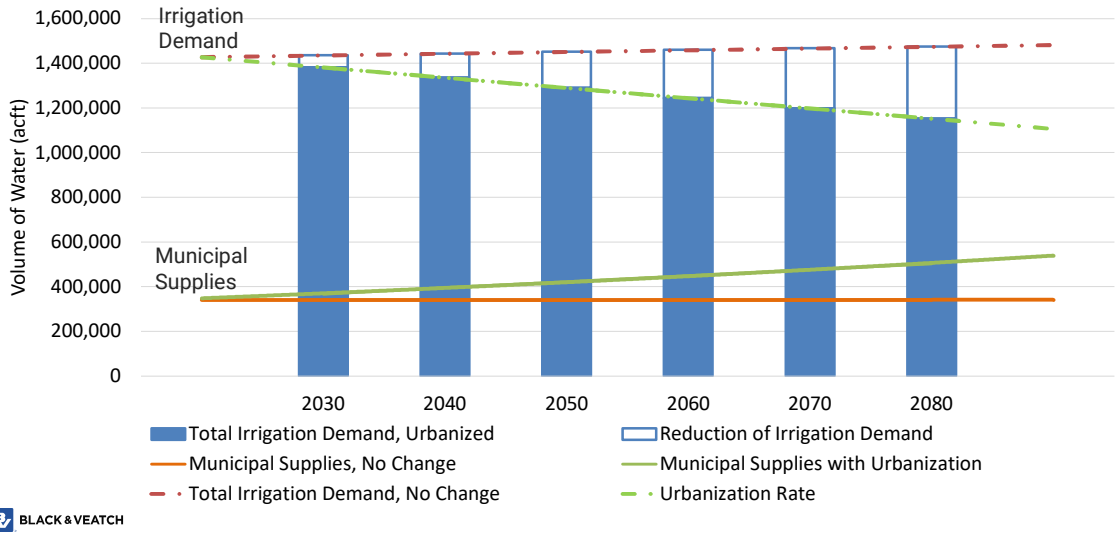
Conversion of Water Right Classification



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Conversion of Water Right Classification

- By County Converted DMI

COUNTY	CONVERTED DMI SUPPLIES (ACRE-FT./YEAR)					
	2030	2040	2050	2060	2070	2080
Cameron	8,624	17,248	25,871	34,495	43,117	51,396
Hidalgo	12,592	25,183	37,774	50,366	62,954	75,042
Jim Hogg	0	0	0	0	0	0
Maverick	2,455	4,909	7,364	9,819	12,273	14,630
Starr	113	226	339	452	565	674
Webb	245	492	738	983	1,229	1,466
Willacy	3,025	6,051	9,077	12,103	15,128	18,033
Zapata	58	116	174	232	290	346
Total	**27,112**	**54,224**	**81,337**	**108,449**	**135,556**	**161,586**

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Water Management Strategy (WMS) Updates,
Draft WMS Evaluations

Biological Control of Arundo Donax

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Biological Control of Arundo Donax

- Known as Carrizo cane and giant reed
- Invasive water-using weed that infests riparian areas of the Lower Rio Grande Basin
- Estimated to use up to 5.0 acre-ft. of water per acre per year
- Grows up to 30 feet tall, at a rate of up to four inches per day
- Native to Mediterranean Europe, where various insect species naturally control growth

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Biological Control of Arundo Donax

- Current control measures: USDA imported insects and cane topping
  - Insects: *Tetramesa romana* (gall wasp); *Rhizaspidiotus donacis* (scale); *Cryptoevra* (fly); and *Lasioptera donacis* (leafminer)
- Gall wasp and scale were released and established in Texas and Mexico in 2009 and 2013, and leafminer planned release in Mexico in 2020
- In 2016, Carrizo cane was reported to have had an average decrease of biomass of 32 percent, leading to a consistent decline (Earthzine, 2017)
- Reported increase in riverine plant diversity of more than 54 native plant species versus a solid monoculture of Carrizo cane

Arundo wasp laying eggs

Carrizo cane damage

Arundo scale

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Biological Control of Arundo Donax

Title	Firm Yield of Biological Control of A. donax, and Resulting Supplies (acft/year)					
Firm Yield	**2030**	**2040**	**2050**	**2060**	**2070**	**2080**
Savings Upstream of Reservoirs	*2,539*	*2,539*	*2,539*	*2,539*	*2,539*	*2,539*
Irrigation Supply Distribution						
Cameron	955	955	955	955	955	955
Hidalgo	1,226	1,226	1,226	1,226	1,226	1,226
Jim Hogg	0	0	0	0	0	0
Maverick	110	110	110	110	110	110
Starr	43	43	43	43	43	43
Webb	19	19	19	19	19	19
Willacy	178	178	178	178	178	178
Zapata	9	9	9	9	9	9
Total	**2,539**	**2,539**	**2,539**	**2,539**	**2,539**	**2,539**

La Azteca, Laredo - Before

La Azteca, Laredo – After; remained for 1 year

Title	Biological Control of A. Donax Estimated Costs					
	2030	2040	2050	2060	2070	2080
Water Saved (acre-ft./year)	2,539	2,539	2,539	2,539	2,539	2,539
Cost per acre-ft.	$14	$14	$14	$14	$14	$14
Total Cost ($)	$35,568	$35,568	$35,568	$35,568	$35,568	$35,568

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Water Management Strategy (WMS) Updates, Draft WMS Evaluations

Drought Management

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Drought Management

Assumes demand reduction for a WUG by activating a drought contingency plan and/or water restrictions

a. Applied to WUGs or WUG/WWPs that exhibit municipal Needs in any decade from 2030 to 2080, and
   - Not applied to WUGS or WUG/WWPs that do not have municipal water demands and;
   - Not applied to County-Others.

b. Those required to submit a DCP
   - Not applied in instances where an entity is required to submit a DCP, but they are not considered a WUG or WUG/WWP, or they do not have municipal water demands

4 scenarios for demand reduction were prepared for RGRWPG consideration:

- 5%;
- 10%;
- 15%; and
- 20%.

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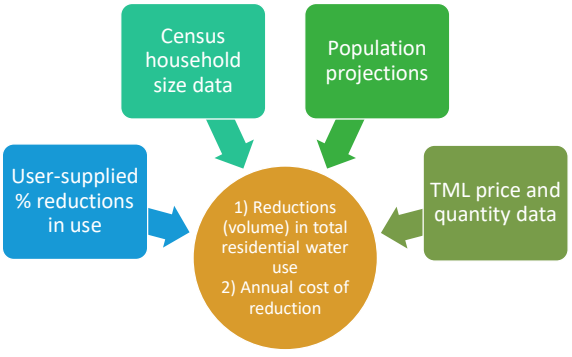
Drought Management- Costing Tool

- TWDB provided the updated Drought Management Costing Tool in March 2024
- Tool estimates the economic and hydrological impact of reductions due to drought WMS.
  - Yield is the total annual reduction of all household water use due to drought management plan implementation
  - Cost is the total annual cost of foregone water use
- Tool Evaluates:
  - Household size
  - Projected population
  - WUG-specific water use and price data
  - User-determined reduction in water use



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Drought Reduction, Yield – Four Scenarios for RWPG Consideration (1 of 3)

Yield (acft/yr) Based on Percent Use Reduction Scenario									
		5%		10%		15%		20%	
No.	WUG	2030	2080	2030	2080	2030	2080	2030	2080
1	Agua SUD	209	248	418	496	627	743	836	991
2	Alamo	89	102	177	204	266	307	354	409
3	Brownsville	661	678	1,322	1,356	1,983	2,034	2,644	2,712
4	Donna	71	84	142	167	214	251	285	335
5	Eagle Pass	217	276	435	551	652	827	869	1,103
6	East Rio Hondo WSC	102	171	204	342	306	513	408	685
7	Edinburg	431	515	862	1,031	1,294	1,546	1,725	2,061
8	El Jardin WSC	127	131	255	261	382	392	509	523
9	El Sauz WSC	4	5	9	11	13	16	18	22
10	El Tanque WSC	4	2	8	4	13	7	17	9
11	Harlingen	346	355	691	710	1,037	1,065	1,383	1,420
12	Hidalgo	50	58	99	117	149	175	199	233
13	Hidalgo County MUD 1	22	25	44	51	66	76	87	102

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Drought Reduction, Yield – Four Scenarios for RWPG Consideration (2 of 3)

Yield (acft/yr) Based on Percent Use Reduction Scenario									
		5%		10%		15%		20%	
No.	WUG	2030	2080	2030	2080	2030	2080	2030	2080
14	La Grulla	61	74	122	149	183	223	244	297
15	La Joya	16	19	32	38	48	56	64	75
16	La Villa	17	21	34	42	50	64	67	85
17	Laguna Madre Water District	45	46	90	93	136	139	181	185
18	Laredo	1,264	1,289	2,529	2,578	3,793	3,866	5,057	5,155
19	McAllen	987	1,299	1,974	2,598	2,962	3,896	3,949	5,195
20	Mercedes	43	49	86	98	129	148	172	197
21	Military Highway WSC	150	159	301	319	451	478	602	638
22	Mission	610	717	1,220	1,434	1,830	2,151	2,440	2,868
23	North Alamo WSC	770	926	1,540	1,853	2,311	2,779	3,081	3,705
24	Pharr	398	471	795	941	1,193	1,412	1,591	1,882
25	Port Mansfield PUD	2	5	4	10	5	15	7	20
26	Primera	24	45	48	90	72	135	96	180

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Drought Reduction, Yield – Four Scenarios for RWPG Consideration (3 of 3)

Yield (acft/yr) Based on Percent Use Reduction Scenario									
		5%		10%		15%		20%	
No.	WUG	2030	2080	2030	2080	2030	2080	2030	2080
27	Rio Grande City	48	59	97	118	145	176	193	235
28	Rio WSC	28	37	57	74	85	111	114	148
29	San Benito	72	74	144	148	216	221	288	295
30	San Juan	88	102	176	203	265	305	353	407
31	Sharyland WSC	309	371	618	742	927	1,113	1,236	1,484
32	Union WSC	26	31	52	62	77	93	103	124
33	Webb County	38	66	77	132	115	197	153	263
34	Weslaco	101	117	202	234	303	351	405	467
35	Zapata County	38	38	77	75	115	113	153	150
REGION M TOTAL		**7,468**	**8,665**	**14,941**	**17,332**	**22,413**	**25,994**	**29,883**	**34,660**

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Drought Reduction, Cost – Four Scenarios for RWPG Consideration (1 of 3)

		5%		10%		15%		20%	
No.	WUG	Avg. Unit $	2080 Total Annual $	Avg. Unit $	2080 Total Annual $	Avg. Unit $	2080 Total Annual $	Avg. Unit $	2080 Total Annual $
1	Agua SUD	124	30,604	261	129,217	414	307,842	587	581,479
2	Alamo	81	8,250	170	34,834	271	82,987	384	156,753
3	Brownsville	115	77,894	243	328,887	385	783,525	546	1,479,992
4	Donna	86	7,214	182	30,457	289	72,560	409	137,057
5	Eagle Pass	124	34,052	261	143,774	414	342,520	587	646,982
6	East Rio Hondo WSC	124	21,137	261	89,247	414	212,618	587	401,612
7	Edinburg	55	28,582	117	120,678	186	287,498	263	543,052
8	El Jardin WSC	124	16,140	261	68,147	414	162,351	587	306,663
9	El Sauz WSC	157	848	331	3,579	526	8,526	745	16,105
10	El Tanque WSC	157	352	331	1,486	526	3,540	745	6,687
11	Harlingen	57	20,303	121	85,722	192	204,220	272	385,749
12	Hidalgo	124	7,214	261	30,437	414	72,512	587	136,966
13	Hidalgo County MUD 1	124	34,052	261	13,252	414	31,571	587	59,634

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Drought Reduction, Cost – Four Scenarios for RWPG Consideration (2 of 3)

No.	WUG	5%		10%		15%		20%	
		Avg. Unit $	2028 Total Annual $	Avg. Unit $	2028 Total Annual $	Avg. Unit $	2028 Total Annual $	Avg. Unit $	2028 Total Annual $
14	La Grulla	89	6,590	187	27,825	297	66,290	421	125,214
15	La Joya	101	1,894	213	7,998	338	19,054	479	35,990
16	La Villa	37	796	79	3,360	126	8,006	178	15,122
17	Laguna Madre Water District	124	5,715	261	24,128	414	57,481	587	108,576
18	Laredo	55	70,838	116	299,095	184	712,551	261	1,345,929
19	McAllen	60	77,619	126	327,723	200	780,751	284	1,474,752
20	Mercedes	102	5,044	216	21,297	343	50,738	486	95,838
21	Military Highway WSC	124	19,686	261	83,118	414	198,016	587	374,030
22	Mission	53	38,134	112	161,012	178	383,586	253	724,552
23	North Alamo WSC	115	106,411	243	449,290	385	1,070,368	546	2,021,807
24	Pharr	80	37,862	170	159,863	270	380,850	382	719,383
25	Port Mansfield PUD	157	801	331	3,381	526	8,054	745	15,213

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Drought Reduction, Cost – Four Scenarios for RWPG Consideration (3 of 3)

No.	WUG	5%		10%		15%		20%	
		Avg. Unit $	2028 Total Annual $	Avg. Unit $	2028 Total Annual $	Avg. Unit $	2028 Total Annual $	Avg. Unit $	2028 Total Annual $
26	Primera	74	3,335	156	14,081	248	33,546	352	63,364
27	Rio Grande City	81	4,774	171	20,159	272	48,025	386	90,714
28	Rio WSC	124	4,555	261	19,231	414	45,814	587	86,538
29	San Benito	103	7,566	216	31,945	344	76,105	487	143,753
30	San Juan	124	12,559	261	53,027	414	126,330	587	238,623
31	Sharyland WSC	124	45,808	261	193,410	414	460,770	587	870,343
32	Union WSC	124	3,834	261	16,187	414	38,563	587	72,840
33	Webb County	124	8,120	261	34,286	414	81,681	587	154,286
34	Weslaco	104	12,135	219	51,237	348	122,066	493	230,569
35	Zapata County	124	4,643	261	19,603	414	46,701	587	88,212
	REGION M TOTAL	**104**	**734,443**	**213**	**3,100,973**	**349**	**7,387,616**	**495**	**13,954,379**

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RWPG Options for Drought Management Reduction Percentages

5%
- Average Demand Reduction : 153 acft/year ($12,908 total annual cost)
- Minimum Demand Reduction : 2 acft/year ($284 total annual cost)
- Maximum Demand Reduction : 1,330 acft/year ($73,091 total annual cost)

10%
- Average Demand Reduction : 305 acft/year ($54,504 total annual cost)
- Minimum Demand Reduction : 4 acft/year ($1,197 total annual cost)
- Maximum Demand Reduction : 2,660 acft/year ($308,667 total annual cost)

15%
- Average Demand Reduction : 458 acft/year ($129,848 total annual cost)
- Minimum Demand Reduction : 5 acft/year ($2,852 total annual cost)
- Maximum Demand Reduction : 3,989 acft/year ($735,211 total annual cost)

20%
- Average Demand Reduction : 610 acft/year ($236,509 total annual cost)
- Minimum Demand Reduction : 7 acft/year ($5,387 total annual cost)
- Maximum Demand Reduction : 5,319 acft/year ($1,388,731 total annual cost)

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8/7/2024

Agenda Item 5.A.3:

Consideration and ACTION Regarding Threshold for Significant Identified Water Needs in the Region
(To Consider ASR as a Potential Strategy to Meet Those Needs)

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Threshold for Significant Identified Water Needs in the Region

- Threshold used to determine whether to consider ASR as a potential strategy for a WUG, other than for those that have requested it.
  - Last cycle, the threshold was any municipal WUG with an identified need of 10,000 acre-feet per year (acft/yr) or greater.
  - For this cycle, this threshold would apply to McAllen and North Alamo WSC
- Does the RWPG have a desire to choose a different threshold this cycle?
- Action needed by RWPG to choose a threshold.

ITEM 5B.

FINANCIAL REPORT

Period from 1/1/2024 to 06/30/2024

Region M 2024 Budget & Expenditure Report

Budget Item	Budget Amount	Revenues to date	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	Total to Date		Available Balance
Salaries: (to include Salary & Fringe)	$13,157.00		$1,270.00	$2,841.87			$4,111.87		$9,045.13
Website Maintenance	$1,100.00		$150.00	$225.00			$375.00		$725.00
Travel	$500.00						$0.00		$500.00
Consumable Supplies	$200.00						$0.00		$200.00
Printing	$500.00						$0.00		$500.00
Communications Phone /Internet	$500.00						$0.00		$500.00
Postage	$100.00						$0.00		$100.00
Sponsorships/other	$2,650.00			$150.00			$150.00		$2,500.00
Indirect Costs	$3,943.00		$325.63	$728.66			$1,054.29		$2,888.71
Local Match		$82,498.66							
Interest Income		$1,562.98							
Budget Total	**$ 22,650.00**	**$84,061.64**	**$1,745.63**	**$3,945.53**	**$0.00**	**$0.00**	**$5,691.16**		**$16,958.84**
Actual Cash Available									**$78,370.48**

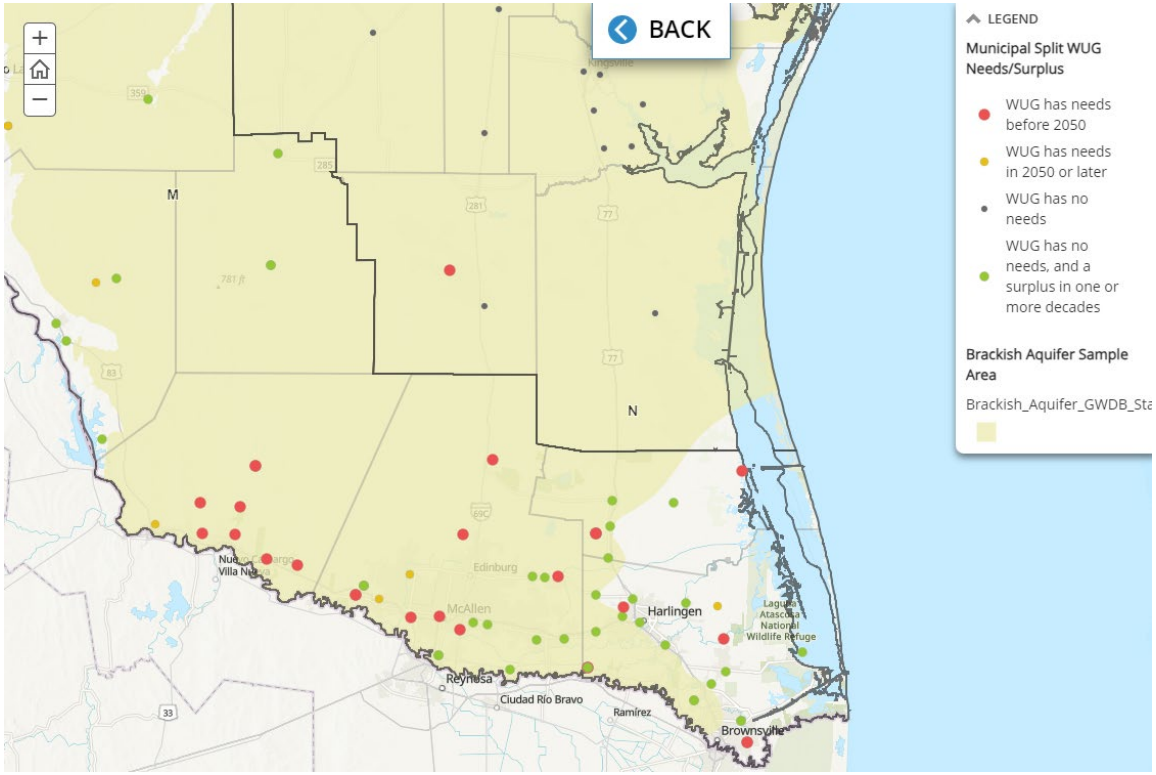
ITEM 6A.

REPORTS FROM FEDERAL & STATE AGENCIES - TWDB

Region M TWDB Update August 7, 2024

2026 Regional Water Plan Water Supply Needs/Surplus Map

- Identify entities that might have similar needs in near proximity that could be met by a shared project
- https://twdb.maps.arcgis.com/apps/MapSeries/index.html?appid=383ac05ff15b4e2694a21f2442d14a7d



Region M TWDB Update August 7, 2024

Flood Mitigation Projects with Water Supply Benefit List

- As part of the ranking for the Flood Infrastructure Fund, scoring identifies flood mitigation projects included in the regional flood plans that were identified as providing a water supply benefit.
- Planning groups are required to identify potentially feasible WMSs, that, in addition to providing water supply, could potentially provide non-trivial flood mitigation benefits or that might be the best potential candidates for exploring ways that they might be combined with flood mitigation features to leverage planning efforts to achieve potential cost savings or other combined water supply and flood mitigation benefits.
- List found here: https://www.twdb.texas.gov/financial/programs/fif/doc/FMP-Ranked-List.xlsx
- State Flood Plan, Section 8.3 for more detailed information.

Region M TWDB Update August 7, 2024

Texas Water Fund Implementation Plan

- Implementation plan discussed at 7/23 Board meeting.
- Winter 2024/2025 Board consideration of adoption of New Water Supply for Texas Fund rules.
- 7/23 Board Agenda Item: https://www.twdb.texas.gov/board/2024/07/Board/Brd02.pdf