

Rio Grande RWPG Meeting

2026 Region M Regional Water Plan

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September 29, 2022



AGENDA

5. Consideration, Discussion and Possible ACTION on Hidalgo County Drainage District #1 (HCDD1) Amendment to 2021 Rio Grande Regional Water Plan

- A. Public Comments Received
- B. Comments from TWDB
- C. Comments from Planning Group Members and/or Consultants
- D. Consideration and ACTION to Adopt Amendment

5.A

Public Comments Received

Full Comments and Responses are included in Attachment E of the Amendment Document

Summary of Public Comments and Responses

- Eight comments were received.
 - Most were in support of the project.
 - Several offered other ideas of strategies/projects the RWPG could consider.
 - The RWPG may choose to revisit those ideas during the 2026 Planning cycle.
 - One was not in support of the project.
- The proposed responses thanked the commenter for their input and engagement in the process.
- No changes to the Amendment occurred as a result of the public comments.

See Attachment E-3 of the Amendment for full comments and responses

5.B

Comments from TWDB

Full Comments and Responses are included in Attachment E of the Amendment Document

Summary of TWDB Comments and Approved Responses

1. Hidalgo County Drainage District 1 (HCDD1) should be identified as a Wholesale Water Provider (WWP) instead of “Other Water Provider” because they meet the planning definition of Wholesale Water Provider.
1. The amendment text was revised to identify HCDD1 as an “Other Wholesale Water Provider” to distinguish it from the Municipal WUGs and Irrigation Districts identified as WWPs already included in the Section.

Summary of TWDB Comments and Approved Responses

- 2. It is not clear whether the region considered the major impacts of the recommended water management strategy on key parameters of water quality. Please clarify where this description is included in the plan for this strategy type or include revisions to Chapter 6 as appropriate.
- 2. The amendment document was revised to incorporate major impacts of the recommended water management strategy on key parameters of water quality. A paragraph was added to *Section A.5.5 Implementation Issues*. No revisions were made to Chapter 6.

Summary of TWDB Comments and Approved Responses

3. Please either 1) revise the firm yield to reflect modeling consistent with an unmodified WAM, including use of the original priority dates, or 2) revise the amendment document (Section A.5.5, Available Supply sub-section) to acknowledge that TWDB has approved the modification of the priority dates through this amendment review process. The amendment document must also identify which modeling scenario is being utilized for the firm yield.
3. The amendment document was revised to incorporate information needed for Option 2. A paragraph was added to *Section A.5.5 Available Supply*.

Summary of TWDB Comments and Approved Responses

4. Please clarify how sedimentation was considered in supply estimates for the reservoirs. If sedimentation was not considered, please include revised supply estimates that account for sedimentation.
4. According to Exhibit C, Section 3.2, sedimentation must be considered for major reservoirs, which are defined as having a storage capacity of 5,000 acft or more. Given that the proposed reservoirs are considered to be minor reservoirs having storage capacities less than 5,000 acft, sedimentation would not need to be considered in supply estimates. After discussions with TWDB on September 13, 2022, TWDB staff confirmed that "inclusion of sedimentation is not required for minor reservoirs." Therefore, no changes are proposed to address this comment.

Summary of TWDB Comments and Approved Responses

5. Please confirm that the return flow portion of the firm yield for this WMS will be available throughout the full period of drought of record conditions. If the supply from the return flow portion cannot be confirmed to be available throughout drought of record conditions, this yield may not be included in the plan.
5. Region M confirms that the return flow portions of the firm yield for this WMS were conservatively estimated such that they would be available throughout the full period of drought of record conditions. In summary, return flows were estimated by selecting the minimum observed return flow from 10 recent years, then further reducing return flows to account for anticipated reductions in the future. The reduced supply from return flows are considered to reflect drought of record conditions, and are the best available estimate to use for this proposed WMS.



5.C

Comments (Discussion) from Planning Group Members and/or Consultants



5.D

Consideration and ACTION to Adopt the Amendment

Suggested Motion Language

Motion to adopt the Hidalgo County Drainage District #1 (HCDD1) Amendment to the 2021 Rio Grande Regional Water Plan, including any edits identified at today's meeting.



AGENDA

6.A Status on Current TWDB Contract Activities

1. Schedule and Progress Update
2. Draft Projections from TWDB for Irrigation and Mining





6.A.1

Schedule and Progress Update

CONCEPTUAL/INITIAL SCHEDULE FOR REGION M PLAN DEVELOPMENT

	QTR	2021				2022				2023				2024				2025			
		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																					
Technical Memorandum Due (March 4, 2024)																					
TASK 5 Water Management Strategy (WMS) 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 10 Public Participation and Plan Adoption																					
TASK 11 Implementation & Comparison to Previous Plan																					
Final Plan Due (October 20, 2025)																					

LEGEND

 TWDB Conceptual Schedule
  B&V Planned Schedule
  TWDB Data Release
  TWDB Deadline

2022 ANTICIPATED REGION M SCHEDULE (Based on Currently Funded Tasks)

	QTR 1			QTR 2			QTR 3			QTR 4		
	J	F	M	A	M	J	J	A	S	O	N	D
Regional Water Planning Rules Updates												
TASK 1 Planning Area Description												
TASK 2A Non-municipal Water Demand Projections												
• Livestock, Manufacturing, Steam-Electric	→ July 2023											
• Mining and Irrigation										→ July 2023		
TASK 2B Population and Municipal Demand Projections												
• WUG list, GPCD, historical population and water use												
• Population and Municipal Water Demand Projections												
TASK 8 Unique Segments & Policy Recommendations												
TASK 10 Public Participation and Plan Adoption												

LEGEND

■ Region M RWPG Act

SEPTEMBER RWPG MEETING – Review/provide feedback on:

- Mining and Irrigation Demands (released in August/September)

Progress Update

- Received and reviewed the draft projections from TWDB for irrigation and mining.
- Submitted the municipal WUG list revision request to TWDB.
- Coordinated on outreach to WUGs regarding drought status and reservoir levels.

2023 ANTICIPATED REGION M SCHEDULE (Based on Current and Anticipated* Funded Tasks)	QTR 1			QTR 2			QTR 3			QTR 4		
	J F M			A M J			J A S			O N D		
	J	F	M	A	M	J	J	A	S	O	N	D
Regional Water Planning Rules Updates												
TASK 1 Planning Area Description												
TASK 2A Non-municipal Water Demand Projections												
• Livestock, Manufacturing, Steam-Electric												
• Mining and Irrigation												
TASK 2B Population and Municipal Demand Projections												
• GPCD, historical population and water use												
• Population and Municipal Water Demand Projections												
TASK 3* Water Availability & Supply Analysis												
TASK 4* Identification of Water Needs												
TASK 5* Water Management Strategy (WMS) Evaluations												
TASK 7* Drought Response Information & Recommendations												
TASK 8 Unique Segments & Policy Recommendations												
TASK 10 Public Participation and Plan Adoption												

LEGEND

■ Region M RWPG Activities 🚩 TWDB Data Release ◆ Tentative Region M RWPG Meeting

🚩 TWDB Deadline

6.A.2

Draft Projections from TWDB for Irrigation and Mining

Draft Irrigation Demand Projections from TWDB

DRAFT Projections for the 2026 Regional Water Plans (Demands in Acre-Feet)

Region	County	2030	2040	2050	2060	2070	2080
M	Cameron	333,373	333,373	333,373	333,373	333,373	333,373
M	Hidalgo	542,604	542,604	542,604	542,604	542,604	542,604
M	Jim Hogg	82	82	82	82	82	82
M	Maverick	57,280	57,280	57,280	57,280	57,280	57,280
M	Starr	6,263	6,263	6,263	6,263	6,263	6,263
M	Webb	2,890	2,890	2,890	2,890	2,890	2,890
M	Willacy	61,960	61,960	61,960	61,960	61,960	61,960
M	Zapata	1,414	1,414	1,414	1,414	1,414	1,414
	Region Total	1,005,866	1,005,866	1,005,866	1,005,866	1,005,866	1,005,866

- Methodology – Average of 2015-2019 historical use
- Demands kept flat across the planning decades

Region	County	Historical Water Use Estimates				
		2015	2016	2017	2018	2019
M	CAMERON	187,426	387,105	401,206	381,670	309,456
M	HIDALGO	250,015	493,801	695,044	657,699	616,459
M	JIM HOGG	80	160	80	50	42
M	MAVERICK	33,423	38,195	63,716	86,619	64,446
M	STARR	4,561	8,691	7,560	5,365	5,139
M	WEBB	1,967	2,620	2,735	3,920	3,206
M	WILLACY	38,274	76,181	69,611	70,718	55,015
M	ZAPATA	1,021	1,524	1,418	1,513	1,593
	Region Total	516,767	1,008,277	1,241,370	1,207,554	1,055,356

Irrigation Demands from 2021 Plan

- Requested revision to use 2011 historical use for 2020 Demand
 - Little rainfall (high demand) and full reservoirs (minimal supply constraints)
- Requested rate of change over the planning horizon that used a combination of sedimentation and historic rate at which irrigation water rights have been converted to municipal use.

Region	County	Historical Water Use Estimates					2021 Regional Water Plan Projections					
		2010	2011	2012	2013	2014	2020	2030	2040	2050	2060	2070
M	CAMERON	255,000	537,217	386,000	266,150	289,334	537,217	519,972	502,725	485,479	468,233	450,987
M	HIDALGO	405,000	688,667	495,222	302,491	410,384	688,667	666,560	644,451	622,343	600,236	578,127
M	JIM HOGG	250	360	292	120	80	360	348	337	325	314	302
M	MAVERICK	52,000	61,706	42,740	42,320	62,158	61,706	59,725	57,744	55,763	53,782	51,801
M	STARR	15,000	23,875	13,000	12,438	3,785	23,875	23,109	22,342	21,576	20,809	20,043
M	WEBB	6,100	10,425	6,675	4,250	1,138	10,425	10,090	9,756	9,421	9,086	8,752
M	WILLACY	45,000	99,610	70,000	53,289	53,177	99,610	96,412	93,215	90,017	86,819	83,621
M	ZAPATA	4,000	5,100	1,650	1,310	1,706	5,100	4,936	4,773	4,609	4,445	4,281
Region Total		782,350	1,426,960	1,015,579	682,368	821,762	1,426,960	1,381,152	1,335,343	1,289,533	1,243,724	1,197,914

Draft Mining Demand Projections from TWDB

DRAFT Mining Water Demand Projections for the 2026 Regional Water Plans (Demands in Acre-Feet)							
Region	County	2030	2040	2050	2060	2070	2080
M	CAMERON	0	0	0	0	0	0
M	HIDALGO	234	260	286	312	337	361
M	JIM HOGG	9	9	9	9	9	9
M	MAVERICK	4,898	4,898	4,898	4,898	4,898	2
M	STARR	193	200	207	213	218	223
M	WEBB	4,142	4,144	4,147	4,149	4,151	31
M	WILLACY	2	2	2	2	2	2
M	ZAPATA	6	6	6	6	6	6
	Region Total	9,484	9,519	9,555	9,589	9,621	634

- Projections were developed in the mining water use study that TWDB conducted in partnership with the University of Texas Bureau of Economic Geology and U.S. Geological Survey.
- For more information regarding the mining study and the report:
<https://www.twdb.texas.gov/waterplanning/data/projections/MiningStudy/index.asp>

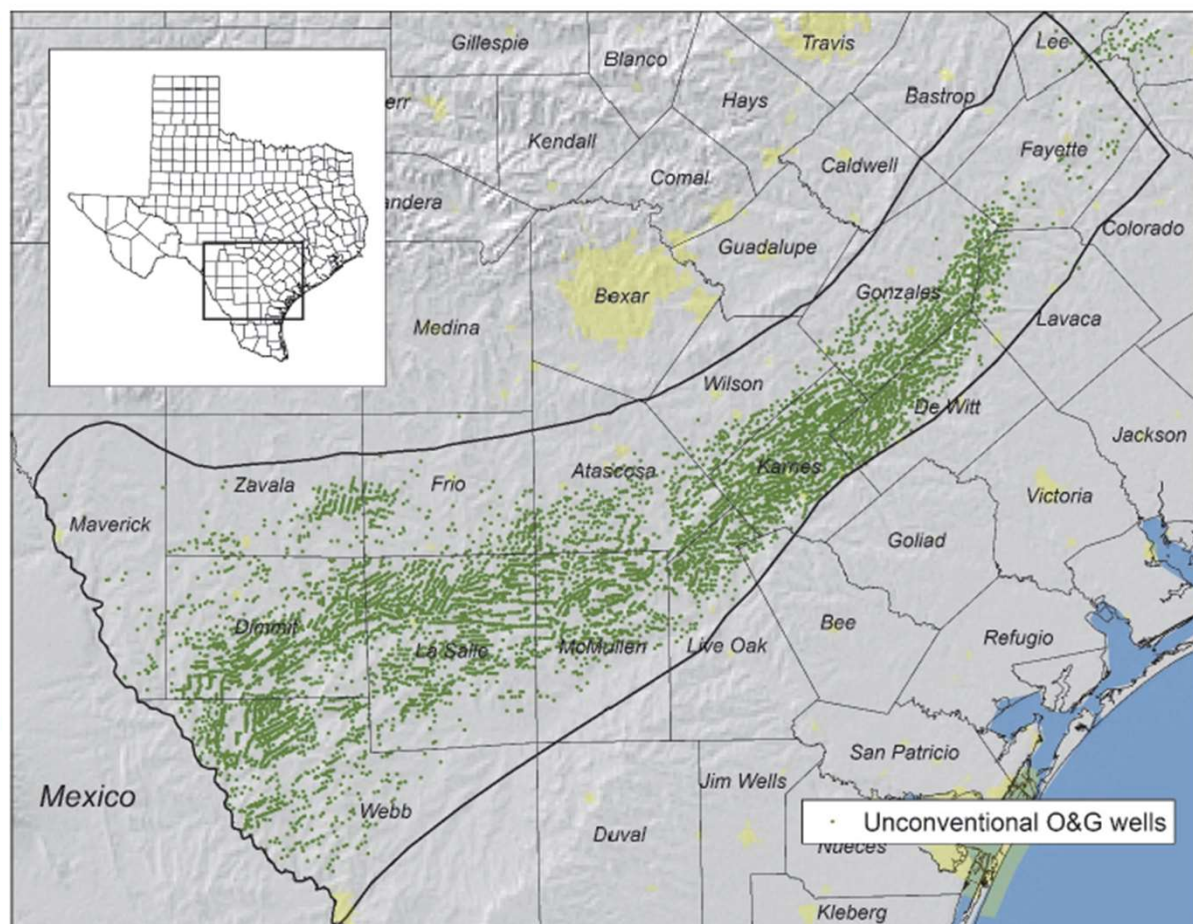


Figure 1-22. Eagle Ford Play locations of unconventional oil and gas wells completed during 2008-2020

Region	County	Historical Water Use Estimates				
		2015	2016	2017	2018	2019
M	CAMERON	0	0	0	0	0
M	HIDALGO	647	633	567	570	509
M	JIM HOGG	44	31	23	0	0
M	MAVERICK	24	14	34	128	91
M	STARR	2	1	0	23	2
M	WEBB	5,286	4,815	7,886	8,341	9,306
M	WILLACY	0	0	0	0	0
M	ZAPATA	18	15	1	2	1
Region Total		6,021	5,509	8,511	9,064	9,909

Oil and Gas Well Figure From BEG Report; Historical Use Table from TWDB Projections Data

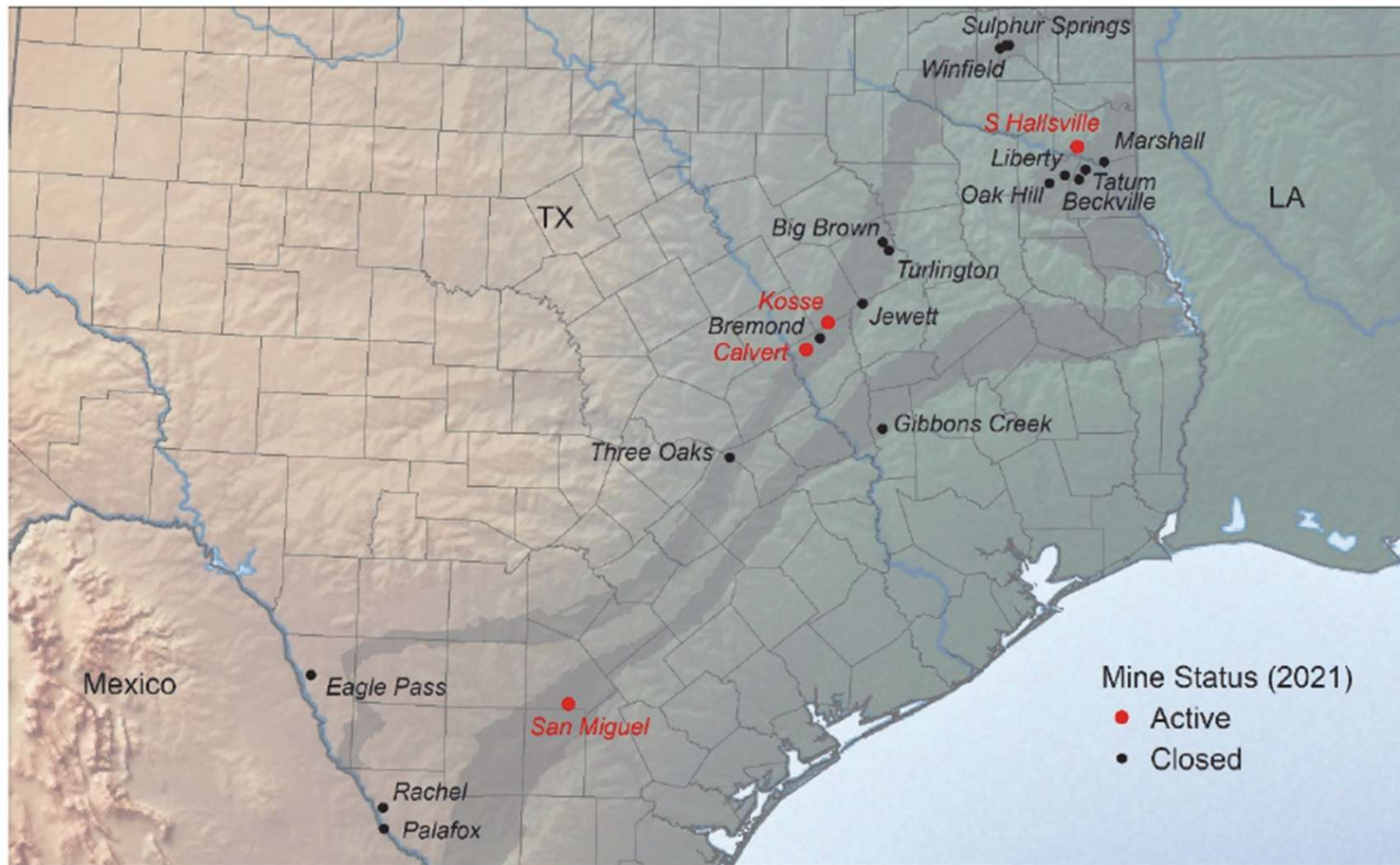


Figure 2-1. Locations of active (red) and closed (black) coal mines in Texas. Shaded areas indicate the outcrop areas of the Carrizo-Wilcox formation (inland) and the Jackson Group.

From BEG Report: Coal mining in Texas – Black locations are closed mines as of 2021

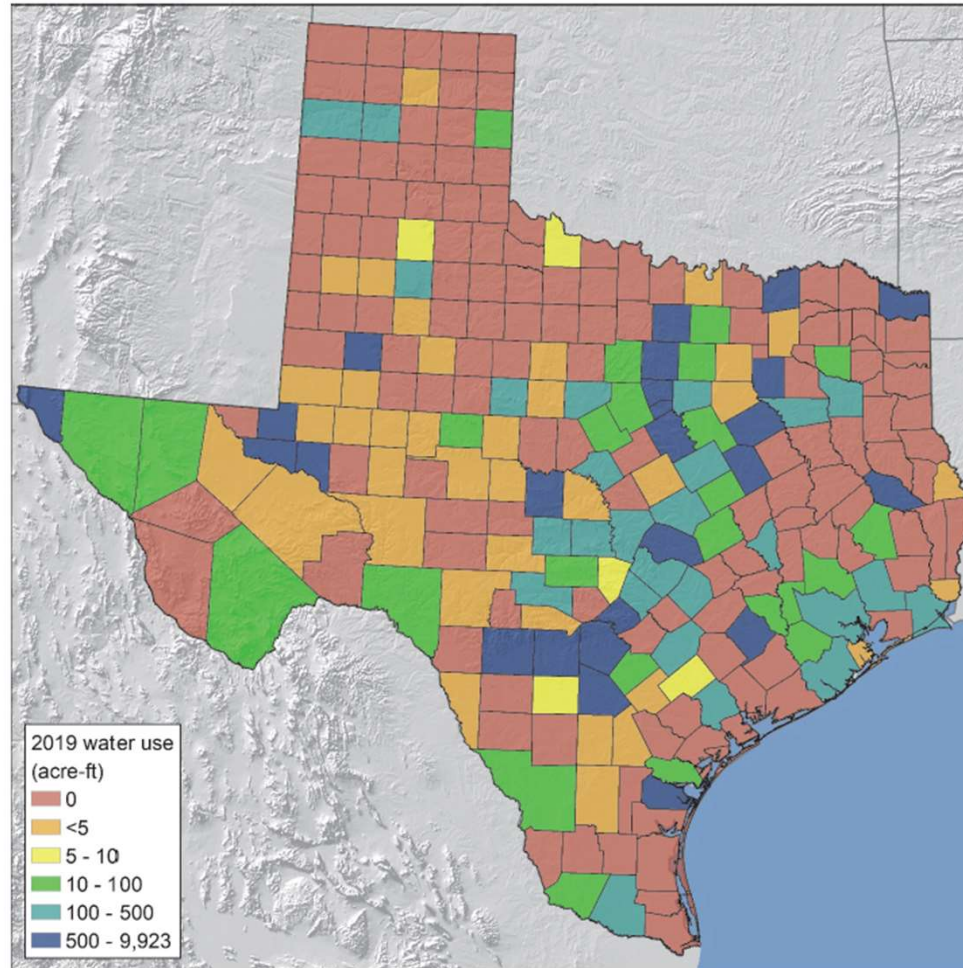


Figure 3-1. Distribution by county of 2019 aggregate industry water use. Total water use was 74,822 acre-ft.

From BEG Report: Areas of Aggregate Mining in 2019