

# BUILDING A WORLD OF DIFFERENCE

## 2021 REGIONAL WATER PLAN

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September 16, 2020



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# AGENDA

## 4. Presentation and Consider ACTION on Revised Water Management Strategies (WMSs)

1. Application of Non-MAG Gulf Coast Aquifer in Cameron and Willacy Counties
  - A) Supply Balance Revisions
  - B) Proposed Recommended WMSs
2. Newly Submitted WMSs Since the IPP
  - Consider ACTION on All Proposed Recommended WMSs
3. TWDB / Public Comments and Responses
  - Discussion on TWDB Comment 1.b
  - Inclusion of LRGWQI into RWP

### Reminder

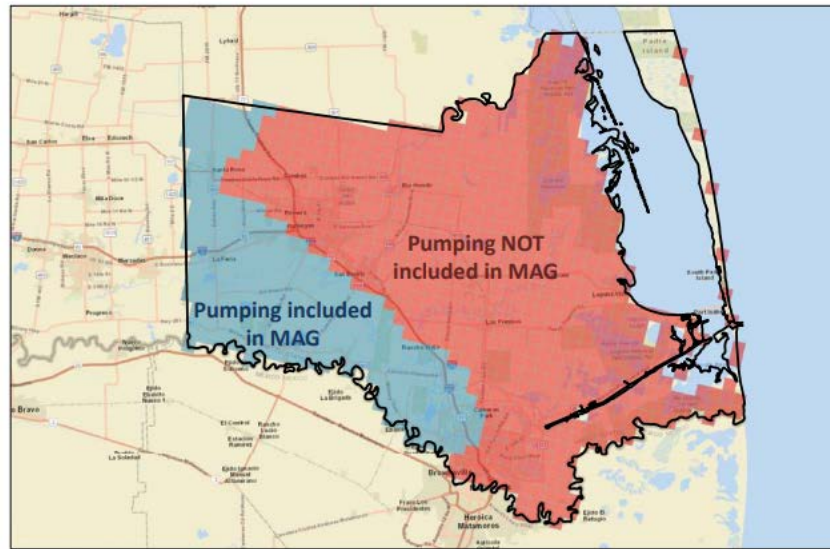
- Final Regional Water Plan Chapters Review
  - Deadline for RWPG Comments and WMS Sponsors Responses by Thursday September 24

# 4.1. APPLICATION OF NON- MAG GULF COAST AQUIFER IN CAMERON AND WILLACY COUNTIES

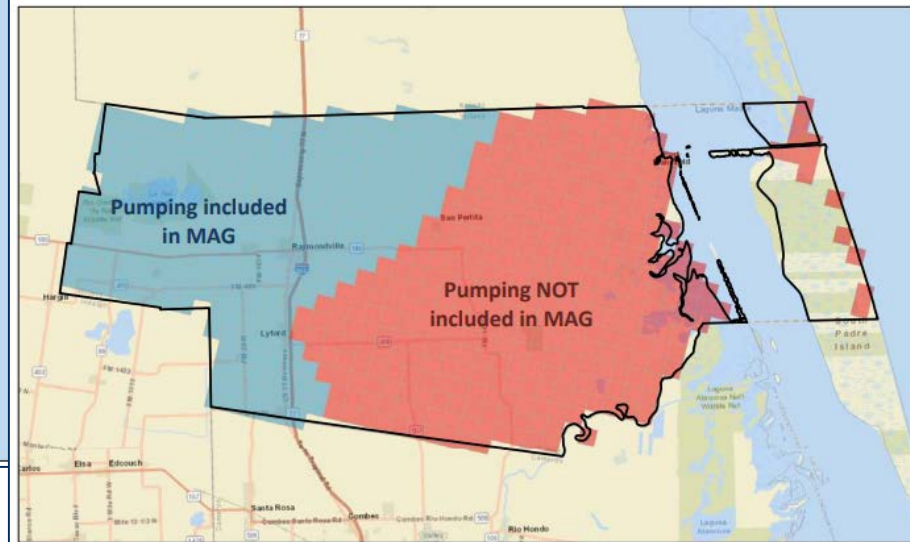
# NON-MAG SOURCE: GULF COAST AQUIFER

Presented at July 1, 2020 Meeting

Non-District Cameron County



Non-District Willacy County



Groundwater Management Area 16  
 Joint Planning Cycle 2019-2022:  
 Preliminary Model Results

Falfurrias, TX  
 January 28, 2020  
 Jevon Harding, P.G.  
 Steve Young, Ph.D., P.G., P.E.



- Approved by TWDB on May 21, 2020
- Enabled accurate revisions to entity supply balances
- Enabled re-evaluation of Alternative WMS



# SUPPLY BALANCE REVISIONS

## Presented at July 1, 2020 Meeting

**Table 4. Pumpage included in the final MAG simulation in Cameron and Willacy Counties outside of the official Gulf Coast Aquifer System boundary in acre-feet/year based on TWDB analysis.**

County	River Basin	2020	2030	2040	2050	2060
Cameron	Nueces-Rio Grande	38,969	42,395	45,821	49,247	52,673
Cameron	Rio Grande	646	772	899	1,026	1,151
Willacy	Nueces-Rio Grande	1,191	1,407	1,622	1,838	2,053

**Pumping used in the model outside of the official extent of the aquifer has been approved as an additional source: “Non-MAG Gulf Coast Availability”**

# SUPPLY BALANCE REVISIONS

## Summary of Supply Balance Revisions in 2030 (acft/yr)

WUGs	2030 Demand	MAG-Limited		Revised for Final RWP	
		Supplies	Needs*	Supplies	Needs*
Brownsville PUB	41,198	4,906	(4,184)	9,991	(90)
East Rio Hondo WSC	4,458	192	(1,022)	376	(679)
Los Fresnos	516	129	328	267	465
Military Highway WSC	7,639	1,605	(844)	2,352	(62)
North Alamo WSC	34,079	379	(11,519)	912	(10,986)
Primera	467	87	(30)	205	88
Valley MUD 2	1,129	238	20	550	332

\*Needs calculation incorporate other known constant sources (e.g. surface water, other groundwater, reuse, etc.)

# PROPOSED RECOMMENDED WMSs ACCESSING NON-MAG GULF COAST AQUIFER

## Methodology

1. Identify groundwater Alternative WMSs in Section 5.4 in Cameron and Willacy counties that were MAG-limited;
2. Determine if WMS locations may access Non-MAG portion;
3. Estimate WMS supplies drawn from Non-MAG portion and adjust as necessary;
4. Move and revise WMSs from Section 5.4 Alternative WMS Evaluations to Section 5.3 Recommended WMS Evaluations; and
5. Revise all associated Chapters (i.e. Chapters 2, 3, 4, 5, 6, 10, and 11).

## Priorities

1. Alternative WMSs submitted by Sponsors;
2. New WMSs submitted by Sponsors since the IPP; and
3. Alternative WMSs developed by the RWPG.

# PROPOSED RECOMMENDED WMSs ACCESSING NON-MAG GULF COAST AQUIFER

Entity	WMS Name	Decade of Need <sup>1</sup>	Yield (acft/yr)
County-Other, Cameron	Expanded Groundwater Supply	2020	1,000
East Rio Hondo WSC	North Cameron Regional WTP Wellfield Expansion <sup>2</sup>	2030	400
La Feria	Water Well with RO Unit	2030	1,120
North Alamo WSC	Delta Area Brackish Groundwater Desalination Plant	2020	2,240
North Alamo WSC	North Cameron Regional WTP Wellfield Expansion <sup>2</sup>	2030	800
Primera	RO WTP with Groundwater Well	2030	1,120
Rio Hondo	New Groundwater Supply	2020	1,120
San Benito	New Groundwater Supply (Desal)	2030	1,120

<sup>1</sup> Anticipated Decade of Need dependent on Sponsor response

<sup>2</sup> North Cameron Regional WTP Wellfield Expansion supplies both ERHWSC and NAWSC



# 4.2. NEWLY SUBMITTED WMSs SINCE THE IPP

# PROPOSED RECOMMENDED WMSs SUBMITTED OR REVISED SINCE IPP

Entity	Type	WMS Name	Decade of Need <sup>1</sup>	Yield <sup>2</sup> (acft/yr)
Irrigation, Jim Hogg	Fresh GW	<b>Additional Groundwater Wells<sup>3</sup></b>	2020	300
Laguna Madre Water District	Surface Water	<b>WTP No. 1 Expansion and Process Improvements<sup>4</sup></b>	2020	2,352
Los Fresnos	Surface Water	<b>WTP Expansion (1.0MGD to 1.5MGD)<sup>4</sup></b>	202	560
McAllen	Conserv.	<b>AMI Project</b>	2020	1,140
Olmito WSC	Surface Water	<b>WTP Expansion (2.0MGD to 3.0MGD)<sup>4</sup></b>	2020	1,120
Olmito WSC	Reuse	<b>New Biolac WWTP (Non-Potable)<sup>5</sup></b>	2020	290
San Juan	Reuse	<b>WWTP Potable Reuse</b>	2040	2,240
San Juan	BGD	<b>Brackish Groundwater and Desalination</b>	2030	1,120
Webb County Water Utility	Fresh GW	<b>Expanded Groundwater Supply (MAG Limited)</b>	2030	76

<sup>1</sup> Anticipated Decade of Need dependent on Sponsor response

<sup>2</sup> Anticipated Yield dependent on MAG and Conversion of Water Rights limitations

<sup>3</sup> Additional Groundwater Wells project moved from alternative based on available MAG in Jim Hogg County

<sup>4</sup> Requires Conversion of Water Rights

<sup>5</sup> New Biolac WWTP project yield is demand limited

# **PROPOSED RECOMMENDED WMSs**

## **CONSIDER ACTION ON ALL PROPOSED RECOMMENDED WMSs**

- **Eight (8) proposed WMSs accessing Non-MAG Gulf Coast Aquifer in Cameron and Willacy Counties**
- **Nine (9) newly submitted or revised WMSs**
- **WMS Requirements:**
  1. Full evaluations;
  2. Revision of plan chapters; and
  3. Consistency with DB22.

# 4.3

# TWDB / PUBLIC COMMENTS AND RESPONSES

# DISCUSSION ON TWDB COMMENT 1.B

1.b) Please provide the specific basis on which the planning group anticipates that it is feasible that the seven groundwater desalination, one seawater desalination, and five other surface water WMSs will all **actually be online and providing water supply by January 5, 2023**. For example, provide information on actions taken by sponsors and anticipated future project **milestones** that **demonstrate sufficient progress toward implementation**. [31 § TAC 357.10(21); Contract Exhibit C, Section 5.2]

## Project Milestones

- Feasibility Studies
- Conceptual Designs
- Engineering Reports
- Final Design

## Projects Delivering Water After January 5, 2023 or No Response from Sponsor?

- Move WMS project to 2030 decade, resulting in:
  - Potential Unmet Needs
  - Revision of plan chapters

# DISCUSSION ON TWDB COMMENT 1.B

Entity	Type	WMS Name	NOTES
Alamo	GW Desal	Brackish Groundwater Desalination Plant	Originally recommended by RWPG since 2011; No response
Brownsville PUB	Other SW	Banco Morales Reservoir	Moved to 2030
Laguna Madre Water District	Seawater Desal	Seawater Desalination Plant	Moved to 2050
McAllen	GW Desal	Brackish Groundwater Desalination Plant	Moved to 2030
McAllen	Other SW	Raw Waterline Project	Confirmed
Mission	GW Desal	Brackish Groundwater Desalination Plant	Originally recommended by RWPG since 2016; No response
North Alamo WSC	GW Desal	Delta Area Brackish Groundwater Desalination Plant	Submitted letter to RWPG; Need project milestones confirmation
Roma	Other SW	Regional WTP	Moved to 2030
San Juan	GW Desal	WTP No. Upgrade and Expansion	Moved to 2030
Sharyland WSC	GW Desal	Water Well and RO Unit at WTP No. 2	No Response
Sharyland WSC	GW Desal	Water Well and RO Unit at WTP No. 3	No Response

- Will need confirmation and milestones for newly recommended WMSs

# DISCUSSION ON INCLUSION OF LRGWQI INTO RWP

# SCHEDULE FOR COMPLETION OF REGIONAL WATER PLAN



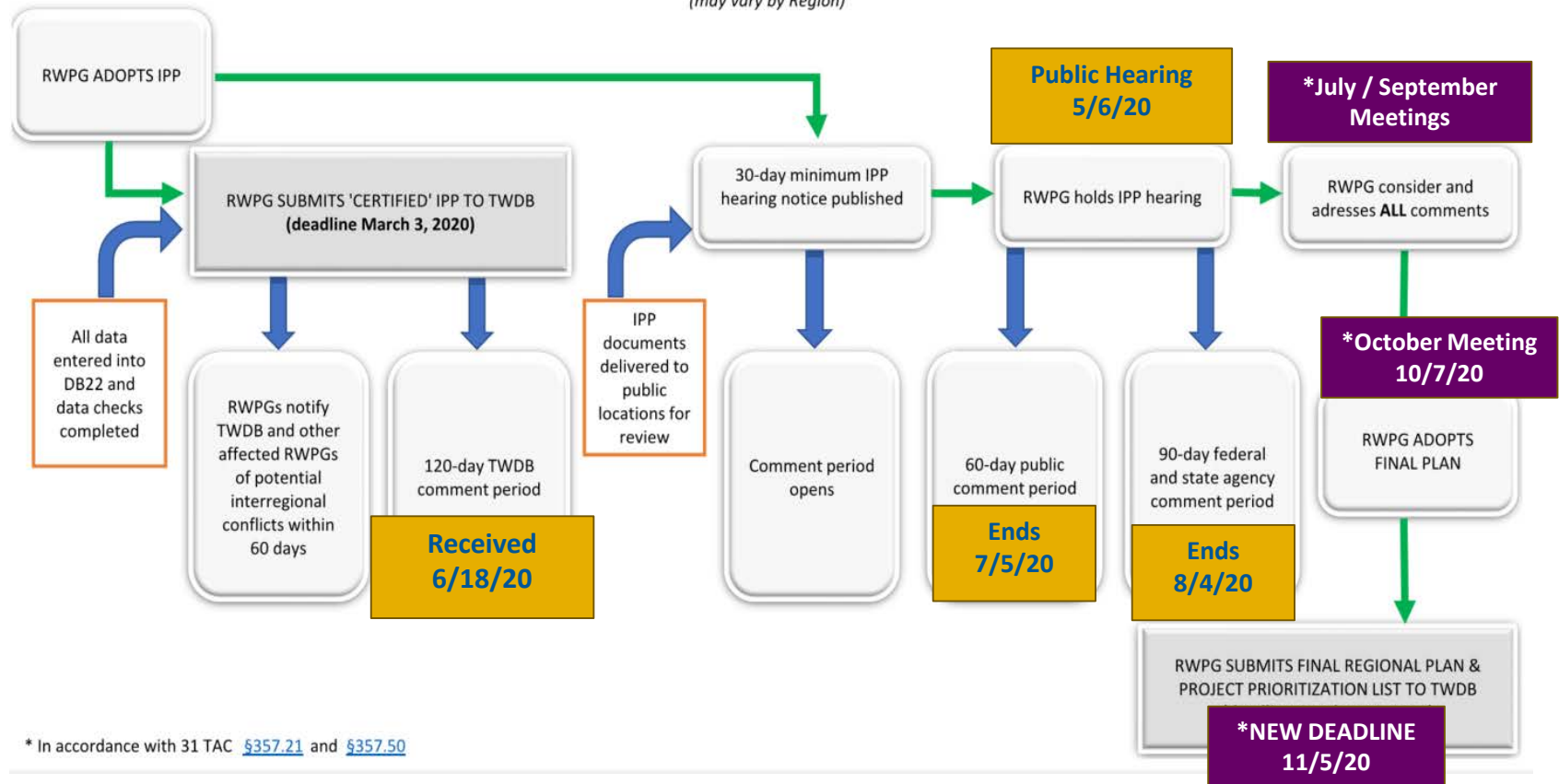
# SCHEDULE



## 2021 Regional Water Plans

### Initially Prepared Plan (IPP) and Final Plan Process Schematic\*

*(may vary by Region)*



\* In accordance with 31 TAC [§357.21](#) and [§357.50](#)

# SCHEDULE

8/19	★ MEETING
9/19	
10/19	
11/19	
12/19	★ MEETING
1/20	
2/20	★ MEETING
3/20	IPP Due 3/3/20
4/20	
5/20	★ PUBLIC HEARING
6/20	
7/20	★ MEETING
8/20	★ MEETING
9/20	
10/20	★ MEETING
11/20	RWP Due 11/5/20

## REMINDER

- Final Region M RWP Chapters Review
- Deadline for RWPG Comments and WMS Sponsor Responses by **Thursday September 24**
- Draft Prioritization will be sent once DB22 is finalized

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