

AGENDA

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

9:30 A.M. WEDNESDAY, NOVEMBER 6, 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/930352525>

You can also dial in using your phone.
Access Code: 930-352-525
United States: +1 (408) 650-3123

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

PRESIDING: JIM DARLING, CHAIR

-
-
1. Call to Order & Roll Call.....Chairman
 2. Consideration and **ACTION** to Approve August 7, 2024, Meeting MinutesChairman
 3. Public Comment.....Chairman
 4. US Army Corps of Engineers, Galveston District.....Lieutenant Colonel Darryl W. Kothmann
Deputy District Commander
 5. Consideration and Possible **ACTION** regarding request from Agua SUD for a Letter of Support for a
Consistency Waiver for Brackish Groundwater Project in Hidalgo County
 6. Consideration and Possible **ACTION** regarding request from Legacy WSC for a Letter of Support for
a Consistency Waiver for Groundwater Project in Webb County

7. 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** to Designate Water Management Strategies as Recommended, Alternative, or Considered.
 - a. Consideration and Possible **ACTION** regarding Designation of Legacy WSC as a Wholesale Water Provider (WWP) as defined in 31 TAC §357.10(44) for Regional Water Planning Purposes
 - b. 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
- 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 GrantsChairman
- G. Report on Regional Water Resource Advisory Committee (RWRAC)..... Melisa Gonzales
RWRAC

8. Reports from Federal and State Agencies

ACTION MAY BE TAKEN ON ANY OF THE FOLLOWING ITEMS

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

- 1. New TWDB Board Member and Executive Administrator
- 2. Resources for IPP and Final Regional Water Plan Processes

B. IBWCDr. Maria-Elena Giner
Commissioner

C. TCEQ Watermaster.....Georgina Bermea
Rio Grande Watermaster

- 1. Status of Reservoirs

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

10. 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 2.

MEETING MINUTES

MINUTES

RIO GRANDE REGIONAL WATER PLANNING GROUP (RGRWPG)

(REGION M) 9:30 AM WEDNESDAY, AUGUST 7, 2024

LRGVDC MAIN CAMPUS

VIA GOTOMEETING VIDEO CONFERENCE & IN PERSON

INITIATED AND CHAIRED AT 301 W. RAILROAD STREET, WESLACO, TX

PRESIDING: JIM DARLING, CHAIRMAN

1. Call to Order and Roll Call

Mr. Manuel Cruz called the meeting to order at 9:32 am and confirmed that a quorum of the voting membership was present.

The following voting members were in attendance:

Board Members

Jim Darling
Sonny Hinojosa
Frank Schuster
Nick Benavides
Tomas Rodriguez
Glenn Jarvis
Dale Murden
Dr. Neal Wilkins
Jorge Flores
Tom McLemore
Debbie Framer
Steven Sanchez
Marilyn Gilbert
Judge Joe Rathmell

Category

River Authorities
Water Districts
Other
Small Business
Public
Other
Agriculture
Agriculture
Municipalities
Water Districts
Ground Water Districts
Water Utilities
Municipalities
Counties

The following voting members were **not in attendance**:

Donald McGhee
Carlos Garza
Jaime Flores
Louie Pena
Comm. David Fuentes
Robert Latham

Industries
Small Business
Environmental
Ground Water Districts
Counties
Electric Generating Utility

2. Consideration and Action to Approve May 15, 2024, Meeting Minutes.

Glenn Jarvis had a comment about the minutes, he states in the minutes, I have a technical clarification regarding paragraph 4E, which addresses water conservation plans and drought management plans. There is a reference indicating that the plan should be submitted either directly to Mr. Jim Darling or to the Lower Red Grand Valley Development Council. While it's fine for you to receive copies, the submission should go directly to Region M. He states that Region M can use those. Additionally, we maintain a record for the various districts regarding the timely filing of those plans. I believe there should be a reference stating that the plans must be submitted directly to Region M. I'm uncertain whether you would like to receive copies or not. Mr. Jim darling stated that he does receive the plans and send them over, so there seems to be some confusion about the correct recipients. I appreciate the clarification, and we'll make that change. Since most cities are involved with the LRGVDC, there seems to be some confusion about who Region M is. It should be clarified

that submitting plans to the LRGVDC effectively means they are being sent to Region M. With that correction, are there any other corrections, deletions, or additions? If not, Mr. Darling entertained a motion to approve the minutes as presented with the correct to be made. ***Mr. Dale Murden made a motion to approve the minutes for the May 15, 2024, meeting as presented. Mr. Glen Jarvis seconded the motion, and upon a vote, the motion was carried unanimously.***

3. No Public Comment

Mr. Darling then moved on to public comment, He stated that Mr. Jordan Furnace signed up for public comment. Mayor, this is David Earl. I would also like to speak and would like to coordinate with Dr. Furnace before his comment. My name is David Earl, and I am here as an attorney representing AGUA, an entity created by the Legacy Water Supply Corporation, the Legacy Municipal Management District, the City of Laredo, and Webb County. The purpose of Agua is to serve as an administrative agency to facilitate the creation of a secondary water supply for the City of Laredo and Webb County, including over 2,500 residents in Colonias who currently lack water service. Additionally, AGUA will provide water for the Legacy Municipal Management District, which serves a 13,000-acre development project under special state statute in Webb County, Texas, just north of Laredo. As you are all aware, due to the diligent work of this group and others involved in the State Water Plan, we are currently facing severe drought conditions. Laredo and Webb County are now considering brackish water as a potential solution. We have a plan and a project in place to implement this, which will enable brackish water to flow to Laredo and Webb County. This will serve as a primary source of water for the Legacy Municipal Management District and a secondary source to support future growth and development in Webb County.

This will not only benefit Webb County as part of a robust drought management plan but will also alleviate pressure on the Rio Grande River, which many communities and water user groups rely on exclusively for drinking water and irrigation. Mr. Earl wanted to inform that this initiative is underway and are requesting that an item be added to the next business meeting agenda. This item will consider a variance request from the Legacy Water Supply Corporation as a water wholesaler, on behalf of these water user groups and AGUA, under Section 16.053K of the Texas Water Code, along with other specific variances. We would like to begin collaborating with your group and its consultants, and if necessary, enter a contract to navigate the application process for the variance to secure state funding for Webb County and Laredo. This initiative will also benefit the entire Region M area. We have briefed GMA 13 on this issue and have been in communication with them for over three years. The challenge we face is that GMA 13 has set the desired future conditions for Carrizo withdrawals at 916 acre-feet for the entire Webb County region year after year, including the most recent plan. The City of Laredo and Webb County have officially requested an increase in this allocation to facilitate the brackish water project. Although this request has not yet been addressed, we will need your input on our variance request to make this project a reality at the Texas Water Development Board. We have also briefed the Texas Water Development Board on this issue.

Mr. Jordan Furnans started off by stating that he is a hydrogeologist and a licensed engineer and geologist in Texas. He has been studying the Carrizo Aquifer in Webb County for the past four or five years on behalf of the Legacy Water Supply Corporation. I want to provide a brief overview of our findings and begin to demonstrate that there is indeed water available for the project Mr. Earl outlined. This is not just speculation; the water is present and of decent quality. It is slightly salty but requires only minimal treatment, and I can provide more details at any time.

In previous work, they developed groundwater models that are utilized by GMA-13 and other entities to calculate the available groundwater and assess how much water can be drawn from an aquifer to meet the desired future conditions for that area. Mr. Furnans' team participated in the GMA-13 joint planning process during the last round, so we were heavily involved in all aspects of that planning and the resulting calculations of the Managed Available Groundwater (MAG). The challenge faced was that the Legacy Water Supply Corporation project was developed during the joint planning process, and we only had viable geological information by the end of that term. As a result, they could not present this data to GMA-13 in time to adjust the desired future conditions (DFCs). Over the past three years, they have collaborated with GMA-13 to

incorporate new data into the groundwater availability modeling for the area. They have been working with Dr. Bill Hutchinson, who is leading that modeling and planning process for GMA-13.

Mr. Furnans stated that they have drilled four new wells in Webb County, two of which reach the Deep Carrizo Aquifer at about 3,000 feet deep. They have conducted full aquifer testing on these wells, and they are nearing certification as public water supply wells by the TCEQ. They have gathered excellent aquifer property data from these wells, as well as water quality data indicating that the total dissolved solids (TDS) range from 1,300 to 1,800 milligrams per liter. While this is slightly above TCEQ public water supply standards, it is treatable, and we can use brackish desalination to provide a reliable water supply for the region. Overall, they have made significant progress in revising the groundwater availability modeling (GAM). They are enhancing the groundwater availability modeling (GAM) with Dr. Hutchinson and have conducted a detailed study of all aquifers in Webb County, including creating a three-dimensional stratigraphic model encompassing all five aquifers, not just the Carrizo and Sparta. This model is the most comprehensive resource for groundwater availability ever developed for Webb County.

Mr. Furnans stated that they now have precise information on where wells can be placed and where they should not be, along with a better understanding of expected well yields. They believe this project is viable and would like to share this information. Additionally, they hope to collaborate with Region M and Black & Veatch, Ms. Burke, to incorporate some of this data into the next Region M plan or at least into the GMA-13 work, which I know the team is not directly involved with. Mr. Furnans is available to discuss this further at any time and am happy to work with Ms. Jaime Burke outside of these meetings to provide the necessary information and assist you in making more informed decisions.

4. South Texas Water Development Private Utilities, LL, Request to Amend the 2021 RGRWP to Add a Seawater Desalination Project

4A. Background on Process by Black & Veatch

Ms. Jaime Burke mentioned that Dr. O'Connor is set to give a presentation on his request, but before he does, I wanted to provide some background on the amendment process and how we can proceed. As noted in the agenda item, the planning group has received a request from South Texas Water Development Private Utilities to consider amending the 2021 plan to include a seawater desalination project.

Today's discussion will focus on whether the planning group wishes to move forward with the amendment process. This is not about approving an amendment or making any decisions related to it; rather, it's about deciding if you want to pursue the amendment process. One key consideration for this situation is that the TWDB requires the project sponsor to be part of the 2021 group, which includes a Water User Group (WUG) or a Wholesale Water Provider (WWP). According to the planning rules, a wholesale water provider is defined as any person or entity, including river authorities and irrigation districts, that delivers or sells water wholesale to Water User Groups (WUGs) or other wholesale water providers, or that the planning group expects or recommends will sell water wholesale during the period covered by the plan.

The planning groups are responsible for identifying wholesale water providers within each region for evaluation in the plan development. Currently, South Texas Water Development Private Utilities is not included in the plan as a wholesale water provider. This is one of the considerations for the planning group as we move forward: whether to include South Texas Water Development Private Utilities in the plan by identifying them as a wholesale water provider, meaning they would potentially provide water in the future during the period covered by the plan.

As we progress through this process, please note that several additional steps will be necessary before the planning group can consider adopting the amendment. A request will need to be submitted to the Water Development Board to determine if this is a minor or major amendment. If it is deemed a major amendment, a public hearing will be required, which would involve a 30-day public notice followed by a 30-day public comment period.

Additionally, for South Texas Water Development Private Utilities to be eligible for SWIFT funding, they would need to be included in the plan. Currently, eligible applicants for the SWIFT program include only political subdivisions or non-profit water supply corporations with projects in the most recently adopted state water plan. The TWDB only finances SWIFT program projects through bonds, so the entity would need to be able to issue bonds to participate in the SWIFT program. In addition, to prepare the amendment materials

and submit the amendment to the planning group, South Texas Water Development Private Utilities would need to contract with LRGVDC and Black & Veatch to facilitate this process. These are some of the necessary steps to move towards completion of the amendment process.

Mr. Kevin Smith then stated that the only alternative would be to include it in the 2026 plan, which is nearly three-quarters complete. Typically, when entities come forward with applications or amendments, it's because they intend to apply for SWIFT program funding. Those abbreviated applications are due in February. I'm not sure of the entity's intentions here today, but if they are looking to pursue an amendment or start this process now with the goal of obtaining funding in February for SWIFT, that is something to consider. I want to emphasize that if this is determined to be a major amendment, as Jamie mentioned, it involves a rigorous process that includes a public hearing. The group must submit a determination request, and then the board will respond to classify it as either a minor or major amendment. If it is classified as minor, we would need to hold at least one additional meeting to approve the amendment. Additionally, the TWDB has its own process for amending the plan. To adopt or accept the group's amendment to their regional plan, we also need to amend the state water plan, which makes this a thorough process. In summary, the timeline for a major amendment would not be feasible. If the entity intends to submit an abridged application for SWIFT this upcoming February, the timeline is very compressed, even for a minor amendment. I'm not sure if that is their intention. Mr. Darling mentioned, they are currently working on a new plan. If their financial schedule allows for it to not be this February, then those timelines would be less of a concern. I believe there could be a window for next year's SWIFT funding. After that, the focus would likely shift to the 2026 regional water plan, so there's a lot to discuss.

Mr. Darling then stated that currently, they are neither a political subdivision nor a water supply corporation. Additionally, the project is in Mexico, and it involves a desalination plant, with the only existing pilot project in our area being in Brownsville. This would require acquiring rights-of-way for a couple hundred miles for distribution systems, which raises many questions for me. I would have concerns about whether we should put the staff through this process without addressing those questions first. Mr. Smith also states I'm not sure if we have time to address this in today's meeting, but I've seen another proposal for desalination north of Corpus, where they would pipe water to Falcon Reservoir for storage and then deliver it to the river. I would want to see the IBWC's permission from Mexico and consider all those aspects.

There have been discussions on four or five similar projects recently. All of these are major projects that deviate from our traditional approaches. We're also working on groundwater plans and exploring individual city initiatives for drilling wells and reuse, but we're encountering complications with reuse due to TCEQ return flow obligations. Even the simpler projects are becoming more complex, and something like this would add further challenges. I would want to know more about the feasibility of this project before we proceed with involving staff, especially since we are currently busy preparing for our new plan. Mr. Glenn Jarvis then made a statement Mr. Chair; I agree with your statements. I know that Brownsville and some water supply corporations are working on desalination projects near the Gulf. As I understand it, this entity is a limited liability company, so we would need to determine if it can deliver or sell water during the period covered by the plan. It doesn't seem feasible for us to make that determination since they are not currently a political subdivision, nor do they appear likely to be one in the future. It may be more achievable in the next plan.

4B. Presentation from South Texas Water Development Private Utilities, LLC

Dr. Armando Ocana provided a presentation. He is the president of the South Texas Water Development Board and is requesting that the planning group accept the presentation as a formal request for a minor amendment, not a major amendment. If the TCEQ determines that it is a major amendment, we will pursue a different process. Our intent is for this to be a minor amendment to the 2021 approved Region M water plan, as amended on September 29, 2023.

The South Texas Water Private Utility LLC is requesting permission to construct a large-scale seawater desalination plant at the Port of Brownsville, along with an integrated 54-inch desalinated water distribution pipeline from Brownsville, Texas, passing through Falcon Lake and ending in Laredo, Texas. Based on the amendment file, the minor amendment request would fall under Chapter Five, adding to Table 5-1, which lists potential feasibility projects. This seawater desalination plant and pipeline project would be designated as 5-21-26. This project will also comply with page 707 of the approved Region M water plan, which states that the RWPS is committed to seeking ways to achieve economic growth for the benefit of this region and the state.

This project represents an additional solution to address designated drought needs and unmet water supply needs, as outlined in the plan. It serves as a drought-tolerant alternative. This project was initiated by Armando Cana, Pete Sines, Gustavo Brito, Pedro Jara, Rene Lopez Jr., and Ray Hernandez. It was formed to create a team focused on producing desalinated water for the Rio Grande Valley, from Brownsville, Texas, to Laredo, Texas, passing through Falcon Lake and Mexico. Our goal is to access 3.3 million gallons per day by 2027, which underscores the need for the Region M amendment to establish a large-scale desalination water plant for our warehouse customers as we expand our customer base.

He stated that desalination water venture is essential, especially since everyone knows that fresh water from the Rio Grande is currently the only source for the United States and northern Mexico. The main issue is that there is only one water source available currently. While brackish water options are emerging, they are not optimal yet.

The picture on the right of the presentation was taken in July 2019 at Falcon Lake. There is a common myth that seawater desalination cannot be used for farming, and that desalinated water causes certain issues. However, this situation was not caused by desalinated water; according to the source of the slide, it was attributed to fresh water from the Rio Grande, and we need a new mindset. It is planned to establish the plant at the Port of Brownsville, sourcing intake water from the channel, which has been permitted based on a previous pilot project conducted in the same area. He stated that they are entering an agreement with the Port of Brownsville for this intake. Additionally, our plans include an 11-mile extension from the site to the Gulf of Mexico, allowing for a secondary intake directly from the Gulf. The pipeline material is specified in the plans and will be constructed from the Port of Brownsville to Laredo, doing one mile at a time. Initially, the project started as a single pipeline running from the Port of Brownsville directly to Laredo, but as they have engaged with stakeholders and conducted further research, the scope has evolved.

Dr. Ocana noted that they have developed the latest plan, which is not set in stone and can be adjusted as needed; the intention is not to cut anything. The pipeline will primarily be 54 inches in diameter, except in San Benito, where it will transition to a 48-inch pipeline all the way to Edinburg. They have already contacted the cities of Edinburg, Laredo, Roma, Rio Grande City, San Benito, and Brownsville, and they all have copies of the pipeline proposal. Additionally, the managers of the irrigation districts also have copies. Most of the members present here should already have a copy, and now everyone in attendance should have received one as well. We are focused on water warehouse sales and want to clarify that our intent is not to take anyone's job or interfere with existing systems. We do not aim to change anyone's water plant. What we are asking for is the opportunity to establish this company and process, positioning this water as a drought alternative for the Rio Grande Valley, like how irrigation districts were developed in the 1930s and 1940s to support farming in the region.

The main challenge faced is that the Rio Grande Valley is growing, particularly to the north. All cities capable of expanding northward are doing so and are expected to continue this growth over the next 30 years, which will lead to increased development. Mr. Nick Benavides followed with a question, who will you be providing water for at the end of the line? What is your goal? Dr. Ocana answered, we plan to provide water to any existing sources, such as irrigation districts and municipalities. I understand that most municipalities purchase water from irrigation districts, and we are open to serving any city that would like our service. However, we will not be targeting individual customers or residential areas; that is not our intent or part of our plan. That's why we are focusing solely on this approach. Mr. Benavides then asked, are you planning to provide service to Laredo? Dr. Ocana answered, we have been in discussions with the city of Laredo for the past two years. They are working on a process to elect our information, and we are submitting the necessary documentation. We have already conducted several presentations for the City of Laredo as we progress. The

intent is to serve the City of Laredo. Our role is to provide the pipeline and the capability to deliver water, and then it will be up to them to decide whether they want to purchase it or not. Mr. Benavides states that, I want to return to the first presenter from Legacy. This is relevant to my region and my county, especially with Laredo being the largest inland port—we are in major need of water. I know that Legacy has already made a multimillion-dollar investment. While I'm not familiar with this new group, I believe we should give both considerations, as Laredo is in dire need. We are in a tough situation in Laredo, and I think everyone is aware of that. I hope we can provide both groups with the attention they deserve.

4C. Consideration and Possible ACTION to Purse Amendment to 2021 RGRWP to Incorporate Seawater Desalination Project

There was no discussion on the item; therefore, no action was taken.

4D. Consideration and ACTION to Authorize Execution of Contract with South Texas Water Development Private Utilities, LLC, to Pay for Costs Associated with 2021 RGRWP Amendment

There was no discussion on the item; therefore, no action was taken.

4E. Consideration and Possible ACTION to Authorize LRGVDC and Black & Veatch to Execute Contract to Perform Tasks RE: Technical Evaluation and Preparation of Amendment Material

There was no discussion on the item; therefore, no action was taken.

4F. 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

There was no discussion on the item; therefore, no action was taken.

4G. Consideration and Possible ACTION for Black & Veatch to Submit a Minor Amendment

There was no discussion on the item; therefore, no action was taken.

4H. 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

There was no discussion on the item; therefore, no action was taken.

5. Status Report

5A1. Schedule and Progress Update

Ms. Jaime Burke reported that they are currently focused on water management strategies and will provide updates. As shown in our timeline, we are in the third quarter of 2024. We are deeply engaged in evaluating water management strategies and writing the corresponding chapters. Between this meeting and the next, we aim to present all the water management strategies in preparation for the initially prepared plan, which is due to be completed by March 3, 2025, and submitted to the board. I wanted to give you a heads up that we will likely have a meeting in November 2024, followed by meetings in January and February 2025 to get the initially prepared plan approved. Ms. Burke mentioned that they have submitted the adopted amendment for infeasible water management strategies to TWDB and received some informal comments on our technical memorandum. These comments highlighted a few items we need to include in the initially prepared plan, but there is nothing concerning.

Ms. Burke noted they have also received notice to proceed on our approved scope of work for Task 5B, which involves the water management strategy evaluations. Mr. Jim darling had a question for Jaime Burke, Regarding the infeasible plan, have you notified each entity that we will be removing it due to their lack of action over the past five years? Is that kind of the standard? Ms. Burke responds Yes, we coordinated with them, and they were the ones who informed us. After some discussions, we decided to push the timeline back a decade rather than remove anything from the plan. We want to keep it included in case they decide to act on it in the future. Mr. Darling mentions that he believes that as the water situation continues to decline, people are reconsidering some of those projects that previously seemed less feasible. I've received about five calls from individuals inquiring about them.

Ms. Burke continued to report that they are continuing to work on draft chapters and hope to send some out to the planning group. A few are currently in the quality control process, so you can expect them for review soon. Additionally, we reached out to rural entities within the region to share county summary information from the Water Development Board and to encourage their engagement in the regional water planning process. Mr. Darling asked, some NGOs have approached me regarding colonias development projects, such as pilot projects and humidifiers for drinking water. They have county sponsorship, but their NGO will be managing the projects. I'm wondering if they might qualify for funding, possibly from sources like the EPA. How will you handle the eligibility for these types of projects? Ms. Burke stated that if they fall under "county other," we can include them in the plan along with their projects, if we are aware of them. She mentioned they have been reviewing the drought contingency plans that LRGVDC received and provided. Along with that, they are working on Chapter 7 of the plan, which focuses on drought response. They still need to begin updates on the policy recommendations in Chapter 8. Ms. Burke will be reaching out to those who expressed interest in being on that subcommittee, particularly the executive committee and Marilyn Gilbert. If anyone else is interested in updating policy recommendations, please feel free to reach out to Valerie or Melissa to get involved.

5A2. Water Management Strategy Updates and ACTION, as needed

Ms. Burke began by listing the approved scope of work water management strategies for evaluation. For the August meeting, Advanced Municipal Conservation, Irrigation District Conservation, Agricultural Conservation, Industrial Conservation, Conversion of Water Right Classification, Biological Control of Arundo Donax, and Drought Management will be discussed, with the rest being presented at the November meeting. At the November meeting, the RWPG will also decide which strategies to include as recommended, and which to include as alternative in the 2026 Plan. All strategies are in draft form and are subject to change, and any location maps shown are conceptual in nature and not meant to represent actual locations of facilities. Advanced Municipal Conservation was presented as active conservation measures a municipal WUG can take to reduce water loss or reduce water use. The strategy is broken into Water Loss Mitigation and Water Use Reduction, but the water savings (GPCD reduction times projected population) and costs were shown as lumped together in summary form by WUG.

Irrigation District Conservation was presented as improvements irrigation districts can make to reduce water loss, including canal lining, replacing canal with pipeline, controls, interconnects, and general repairs. Total Region M savings were presented but will be broken out by benefit to WUG at the November meeting. Agricultural Conservation was presented as on-farm conservation strategies that can reduce water loss and reduce water use. On-farm conservation measures include water use management practices, land management systems, and on-farm water delivery systems. Industrial Conservation was presented as all industrial WUGs performing water audits once every five years, resulting in a 10 percent water savings and the costs reflecting the cost of the water audit itself. Conversion of Water Right Classification was presented as "urbanization" occurring which results in reductions to irrigation demand and the conversion of irrigation water rights to DMI water rights. Converted DMI supplies were presented by county and will be broken out by WUG for the November meeting. Any known cost data regarding the market value of water rights was requested to the RWPG. Biological Control of Arundo Donax was presented as a minor update to last cycle's strategy, which uses biological methods (insects) to control the invasive species Arundo Donax within riparian areas. Drought Management was presented as municipal water use reductions and associated costs determined using the TWDB Drought Management Costing Tool. The RWPG was asked to provide input on

what percent reduction of residential water use should be used – 5%, 10%, 15%, or 20%. The RWPG chose 5% water use reduction.

5A3. Consideration and ACTION Regarding Threshold for Significant Identified Water Needs in the Region (To Consider ASR as a Potential Strategy to Meet Those Needs)

Ms. Burke stated that The Water Development Board requires us to establish a threshold for what the region considers significant identified water needs. This is important because if an entity reaches that threshold, we must consider aquifer storage and recovery as a potential strategy to address those needs. This requirement began in the last cycle and is being carried over to this one. In the previous cycle, the planning group selected a threshold of 10,000 acre-feet per year or greater for any municipal water user group (WUG) with an identified need. If we maintain that threshold this cycle, it will apply to McAllen and North Alamo Water Supply Corporation. ***Mr. Tomas Rodriguez made a motion to approve Regarding threshold for Significant Identified water Needs in the Region (to consider ASR as a potential Strategy to meet those needs). Mr. Nick Benavidez seconded the motion, and upon a vote the motion was carried unanimously.***

5B1. Consideration and Action to Accept Expenditure Report

Mr. Manuel Cruz provided a brief budget report. The year's starting budget is \$22,650. The expenditures for the second quarter are just a little under \$4,000. To date, we have spent \$5,691.16, leaving a balance of \$16,958.84. A motion was made to approve the financial report as presented. ***Mr. Sonny Hinojosa made a motion to Accept the Expenditure Report, Mr. Tomas Rodriguez seconded the motion and upon a vote the motion was carried unanimously.***

5C. Status of Joint Groundwater Is planned in GMA's 13 & 16

Mr. Louie Pena was not present for this meeting; however, provided a brief update for staff to read. Mr. Pena provided the following update, GMA 16 met on Wednesday, July 24th, 2024, at 1:00 pm. The GMA 16 was undecided and had concerns with the new model from the TWDB, a letter was sent expressing their concerns. The TWDB is working on a new model and will hopefully respond before the next GMA 16 meeting. The GMA 16 will meet again on October 29, 2024, in Falfurrias, TX., at 1:00 pm.

Ms. Debbie Farmer provided a brief update for the GMA 13. The GMA 13 committee met on June 14, 2024, at the Evergreen Underground Water Conservation District Office in Pleasanton, Texas. Ms. Farmer reported on the Region M-RGWPG meeting held on May 15, 2024. Mr. Darrel Brownlow reported on the Region L-SCTRWPG group. Dr. Bill Hutchison presented his status report on the Groundwater Availability Model (GAM) recalibrations. The approval of a resolution to submit a request to TWDB to update the GAM for the southern portion of the Carrizo Wilcox, Queen City, and Sparta aquifers on model revisions was tabled. During the Stakeholders agenda item, David Earl, a lawyer representing a 13,000-acre development in Webb County that plans to utilize 50,000,000 gallons of Carrizo Aquifer water per day for commercial and residential development use, water for the colonias, and a secondary source of water to the City of Laredo, made a presentation about the proposed development and its water use. The GMA 13 meeting was scheduled for September 20, 2024, at 10:00 a.m. in Pleasanton.

5D. Reports from Other Regional Water Planning Groups (Reports from Liaisons with: Region J, Region L, and Region N)

No updates were reported.

5E. Report on Water Conservation Plans and Drought Management Plans Filed with Region

A second notification regarding enforcement of conservation plans has been sent out within the cities. Currently we are still under 20%, we're above the drought of record number but we're still under 20% so continued enforcement needs to remain.

5F. Report on Notices of Applications for Funding and Grants.

Mr. Kevin Smith mentioned that you have a 2021 plan for planning, acquisition, and design, which includes a commitment for that funding. I believe the loan amount was about ten million dollars.

5G. Report on Regional Water Resource Advisory Committee (RWRAC)

Mrs. Melisa Gonzales reported the next RWRAC meeting date will be September 11, 2024, at 2:00 pm, hybrid

6. Reports from Federal and State Agencies

6A. TWDB Updates

Mr. Kevin Smith provided the following updates:

6A1. 2026 Regional Water Plan Water Supply Needs/Surplus Map

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

6A2. 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.

6A3. 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. At least a quarter of the billion will come to this fund.
- 7/23 Board Agenda Item: <https://www.twdb.texas.gov/board/2024/07/Board/Brdo2.pdf>. You will find that discussion at this meeting was where the money will be placed for funding.

Mr. Smith noted, Regarding the Texas Water Fund implementation plan, during the last legislative session, an appropriation of \$1 billion dollars was approved for this new Texas Water Fund. This fund will serve as an umbrella for the board's existing funds, allowing them to allocate money where they see fit. Additionally, there is a new initiative, noted in bullet two, called the New Water Supply for Texas Fund. A portion of the new fund, specifically at least a quarter of the one billion dollars, will be allocated to this fund. It focuses on defining examples of new water supply, such as seawater desalination and produced water. During our board meeting on July 23rd, we discussed the implementation plan, which includes a timeline aimed at having rules established for the New Water Supply for Texas Fund by this winter or early next year. The board agenda item provides greater detail, and you can find the link to that document. Notably, we are proposing to allocate funding into all existing funds, as well as the new water supply fund.

6B1. TWDB Financial Assistance Briefing

Ms. Enriqueta Caballero gave a brief presentation. She stated that she part of the outreach team at the Texas Water Development Board under the water supply and infrastructure division. If you are familiar with TWDB

agency, then you know that this is the section that finances projects so our goal as part of the outreach team is to market all our financial assistance programs throughout the State of Texas. Ms. Caballero mentioned that they conduct state regional financial workshops, as well as webinars, presentations, and one-on-one meetings. Ms. Caballero's purpose was to come and introduce herself to let the planning group know that the next regional workshop will be held in the Valley, they are still confirming the venue but potentially looking in the City of Pharr. She noted that this past fiscal year they held a workshop in the City of Weslaco and there was very well attendance. She stated that the valley communities are very proactive in tapping into the financial programs. Ms. Caballero mentioned that besides SWIFT, they administer two Federal Programs and several state programs, and currently waiting for direction from our Board once it's been approved on how we're going to do projects solicitation for the new Texas Water Supply fund for Texas. Ms. Caballero looks forward to coming back and doing a full presentation to the planning group.

6C. IBWC

Mr. Delbert Humberson started by saying before presenting the analysis, it's important to understand the data source. The IBWC has maintained a stream gauging program since the 1930s, with some gauges dating back to the late 1800s. This established history supports our water accounting program created in the 1950s, which tracks water allocations from each country to international reservoirs on a weekly and monthly basis.

The map displayed is from our water data portal, showing stream gauge data available to the public. Red indicators represent imported data from other agencies, while blue and yellow dots indicate our accounting gauges and flood monitoring gauges, respectively. Our traditional accounting method allocates water based on the influence from each country at the confluence, without tracking individual sources until that point. We calculate the water allocation at river reaches, such as where the Rio Conchos enters. For instance, if 60% of the water leaving an area is from the U.S. and 40% from Mexico, we don't separate the sources further downstream. Given current storage conditions, we need to ask where this water originates, particularly how much of the volume entering Amistad comes from the Conchos after accounting for evaporative losses. A methodology was developed to estimate this volume. The U.S. typically receives one-third of the Rio Conchos, more if Minute 234 is in effect, which allows for increased allocations after a debt cycle. Other sources include Terlingua and Alamito Creeks, as well as the Pecos and Devils rivers, which flow directly into Amistad.

Additionally, we account for 100% of Goodenough Springs, despite them being inundated. Unmeasured inflows are split 50-50 during our accounting process. The plot presented shows water entering Amistad from these various sources. The upper left shows the Rio Conchos, with the y-axis representing volume in thousand acre-feet and the x-axis indicating time over four decades: the 1980s, 1990s, 2000s, and 2010s. The data points reflect annual volumes, highlighting significant year-to-year variability, ranging from about 13,000 to nearly 800,000 acre-feet in the 1990s.

Next is Alamito Creek, which also shows variability, though on a smaller scale, ranging from around 1,000 acre-feet to as low as 30 acre-feet. Terlingua Creek exhibits similar patterns, while the Pecos and Devils rivers display considerable variability as well. Finally, we have the 50-50 water allocation. The y-axis on these plots is consistent, allowing for direct comparison of magnitudes. Notably, the 50-50 water allocation is a significant source for both the U.S. and Mexico. The bottom right plot shows total U.S. inflows, which appear messy as annual data points, so we've grouped them by decade. This presentation focuses solely on inflows at the main stem of the Rio Grande, without investigating upstream factors. From the 1980s to 2020, we observe a declining trend in total inflows, with a reduction of about 5 million acre-feet per decade. The gray line represents total inflows belonging to the U.S., including allocations from the Rio Conchos. The blue bars represent inflows from U.S. tributaries (Rio Conchos, Alamito, Terlingua), while the red bars show inflows from the Devils and Pecos rivers. In summary, U.S. inflows decreased by nearly 5 million acre-feet over the decade, with 1.5 million from the Devils and Pecos and 3 million from the main stem.

The new methodology enhances our analysis, breaking down sources beyond just main stem flows. Reviewing the data, the tiny blue bars represent Terlingua and Alamito Creeks, showing significant variability despite being 100% U.S. water. The orange bars indicate the Rio Conchos, which exhibits a declining trend over time. The green bars represent the 50-50 water allocation, highlighting its importance compared to other sources, also showing a declining trend. The Pecos and Devils rivers show a decline as well, but at a less steep rate. The

gray line at the top indicates total losses or reductions over time. We're examining total inflows to Amistad for each country, not contributions to the main stem. The gray line represents U.S. inflows, including water from the Conchos, while the green line reflects Mexico's inflows, which include their two-thirds from the Conchos and 50-50 water. Both countries have experienced a reduction of about five million acre-feet over the past decade.

For Falcon, the U.S. typically receives one-third from Arroyo de las Bajas and other rivers, but with Minute 234 in effect, this can increase. In 2020, the U.S. received 100% from those sources. Pinto Creek and San Felipe Creek also contribute, and like Amistad, the U.S. gets 50% of any other unallocated flows. This analysis focuses on new water entering the system, excluding previously accounted Amistad releases. Plots by source show high variability, with significant peaks from events like Hurricane Alex. Analyzing by decade (1980s to 2010s), we observe a decline in total inflows, about 1 million acre-feet over a decade for Falcon, compared to 5 million acre-feet for Amistad. This translates to approximately 460,000 acre-feet annually for the U.S., with contributions from various tributaries.

The right plot from the 2022 State Water Plan highlights that a significant portion of water sources comes from the Rio Grande. It's encouraging to see discussions about alternative water sources, especially given the variability in the Rio Grande Basin. This graph shows accumulated volume over a five-year cycle, with the y-axis representing total deliveries and the x-axis indicating cycle number. Short, steep lines represent periods during hurricanes when reservoirs filled, causing resets per the 1944 Treaty.

More notably, the flatter lines that extend across the graph indicate delivery rates. The red dashed line represents Mexico's annual delivery target of 350,000 acre-feet. Lines below this mark indicate insufficient deliveries, and many lines are below the red line after five years. This graph illustrates the ongoing drought, showing data back to the 1990s. The current cycle (black line) is the lowest recorded, falling short by about 840,000 acre-feet from the average. While there are declining inflows, the data doesn't account for reservoir transfers from Mexico to Amistad and Falcon during deficits. Combined storage in Amistad and Falcon has reached record lows, with a dashed line indicating current conditions. As of July 27th, the U.S. was at 20% capacity, while Mexico was at 11%. For the Rio Conchos, Mexico is at 19% full, and middle tributaries are at 27.6% full. Other reservoirs near the Gulf, such as Marte Gomes and El Cuchillo, are currently full.

Mr. Humberson mentioned the several engagements with Mexico to get water delivered. State Department officials met on multiple occasions with stakeholders such as Members of Congress and farmers' representatives to learn about the impacts of Mexican water delivery shortfalls and seek solutions. The Secretary of State raised the issue directly with Mexico's Foreign Secretary, asking Mexico to sign the Rio Grande Minute and make immediate water deliveries. The State Department has sent two diplomatic notes to Mexico's Foreign Ministry calling for the signing of the proposed Rio Grande agreement and immediate water deliveries from Mexico to the U.S. The U.S. Ambassador to Mexico, Ken, Salazar, and other Senior U.S. Officials continue to urge the Mexican Government to take these steps and have participated in several meeting with CONAGUA and Mexico's Foreign Ministry. Commissioner Giner traveled Matamoros in May and twice to Mexico City in June to press the state of Tamaulipas and the Mexican Federal Government to support and sign the Rio Grande Minute and asked Mexico's National Water Commission (CONAGUA) to share its plans for making water deliveries to the U.S. under wet or dry scenarios, and CONAGUA agreed to do so. Commissioner Giner reinforced this request formally in letters to the Mexican Section of IBWC.

6D1. TCEQ Watermaster

Ms. Georgina Bermea provided a brief update. The following information was prepared based on IBWC data which can be found on their public website. She reminded everyone that they have also added data for informational purposes to this report and our daily flows report that shows the amount of Amistad/Falcon and percentage of U.S. usable storage of normal conservation capacity. This information accounts for the U.S. dead storage behind in each dam and in total and the U.S. water that can be used out of the reservoirs.

On July 27, 2024, the U.S. combined ownership at Amistad/Falcon stood at 19.71% of normal conservation capacity, impounding 665,430 acre-feet, down from 25.59% (868,038 AF) of normal conservation a year ago. The U.S. combined usable storage at Amistad/Falcon stood at 19.17% of normal conservation capacity, impounding 647,036 acre-feet. Overall, the system is holding 16.09% of normal conservation capacity, impounding 948,111 acre-feet with Amistad at 19.43% of conservation capacity, impounding 626,959 acre-feet

and Falcon at 12.05% of conservation capacity, impounding 321,152 acre-feet. Mexico has 11.23% of normal conservation capacity, impounding 282,681 acre-feet at Amistad/Falcon.

Regarding our Watermaster operations, currently they are releasing 15 CMS from Amistad, and 10 CMS from Falcon Dam and 9.44 CMS at Anzalduas. Many account balances started off very low for the water year 2024. Ms. Bermea noted that they continue to operate our releases based on daily demand and reservoir projections. They are re-evaluating numbers every week due to the low storage conditions and plan accordingly based on the demand we are experiencing. They have updated their public website to facilitate information sharing related to contractual water for sale and water rights for sale in the watermaster area. There are forms listed online for potential sellers to add their information to the lists and both lists are updated each month and posted on our public website for potential buyers.

7. Discussion, Consideration and Action on Date for Next Business Meeting.

The next meeting is scheduled for November 6, 2024, at 9:30 am.

8. Adjournment

Mr. Jim Darling, Chairman

ITEM 5.

Agua SUD Presentation

**(Consideration & Possible ACTION regarding request from Agua SUD for a
Letter of Support for a Consistency Waiver for Brackish Groundwater
Project in Hidalgo County)**

Request For Consistency Waiver:

Agua SUD Brackish Groundwater Project

Regional Water Planning Group – Region M 2021 Plan



Need for the project



- Critical need for a reliable and clean source of water to the Agua SUD communities
 - District primarily relies on surface water (Rio Grande River)
-
- Current drought conditions requires for Agua SUD to look at another source water
 - Task of providing water for a rapidly growing population

New Source Water

- new source for Agua SUD Brackish Groundwater
- Source would come from the Gulf Coast Aquifer System

-
- Brackish Groundwater is a reliable source
 - Reduces the need to rely on only the Rio Grande River

-
- Brackish Groundwater will require treatment
 - Combination with current surface water project

Supply Volumes Generated

Project Yield estimated to be 5 MGD or 5,600 ac-ft/yr

Initial Phase 2 to 3 MGD

Combine with existing surface water supply

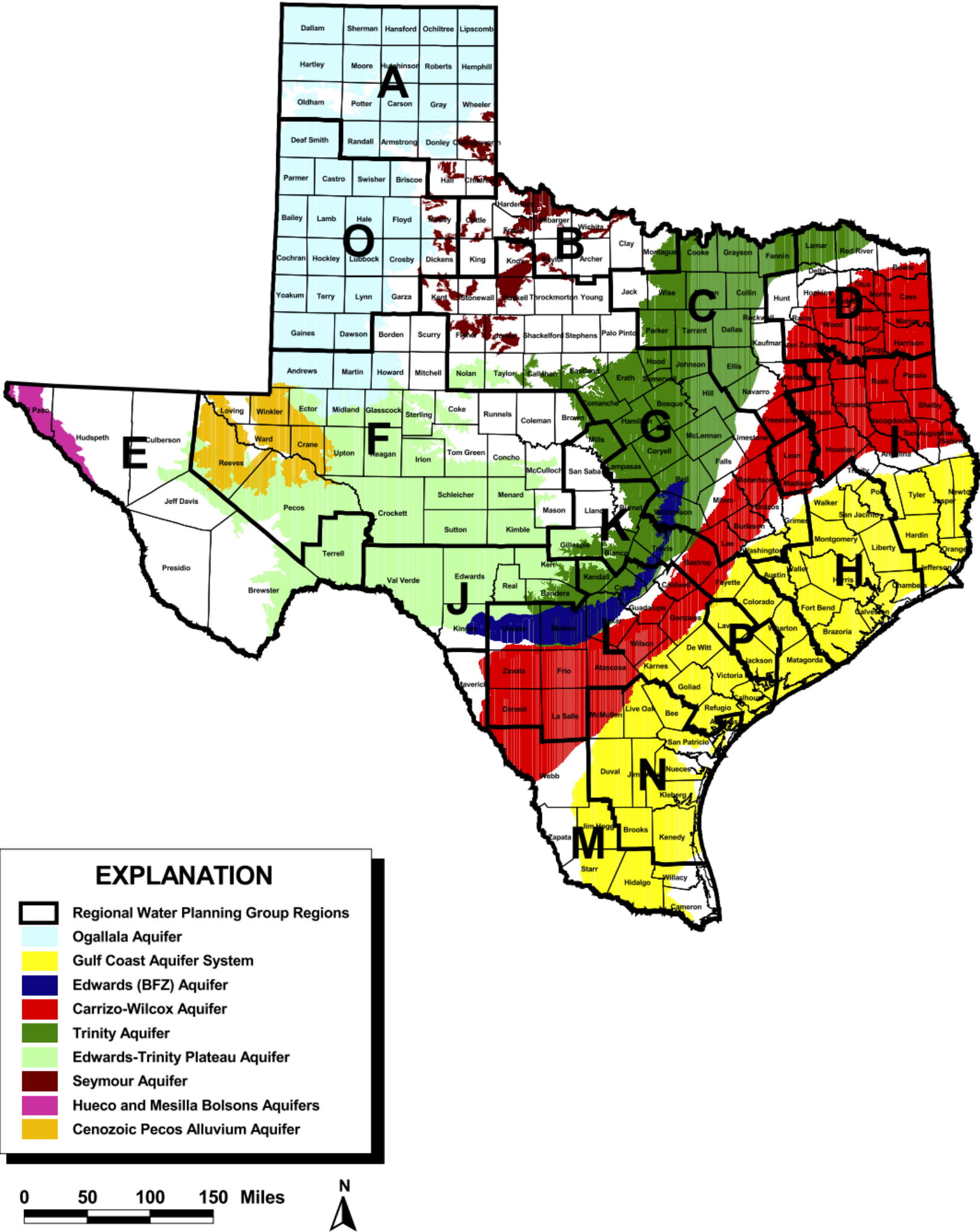


Sufficient available supplies

According to draft information from Black and Veatch Gulf Coast Aquifer System is a Major aquifer for this region total availability up to year 2080 is approximately 107,171 ac-ft/yr

Source Water remaining after existing supplies subtracted for year 2080 is 77,738 ac-ft/yr

Sufficient water remaining available for Agua SUD project



Agua SUD Service Area

The Agua Special Utility District (Agua SUD) was established in 2005 to provide drinking water and sewer collection services to the residents of Hidalgo and Starr County. It is situated approximately west of Mission.

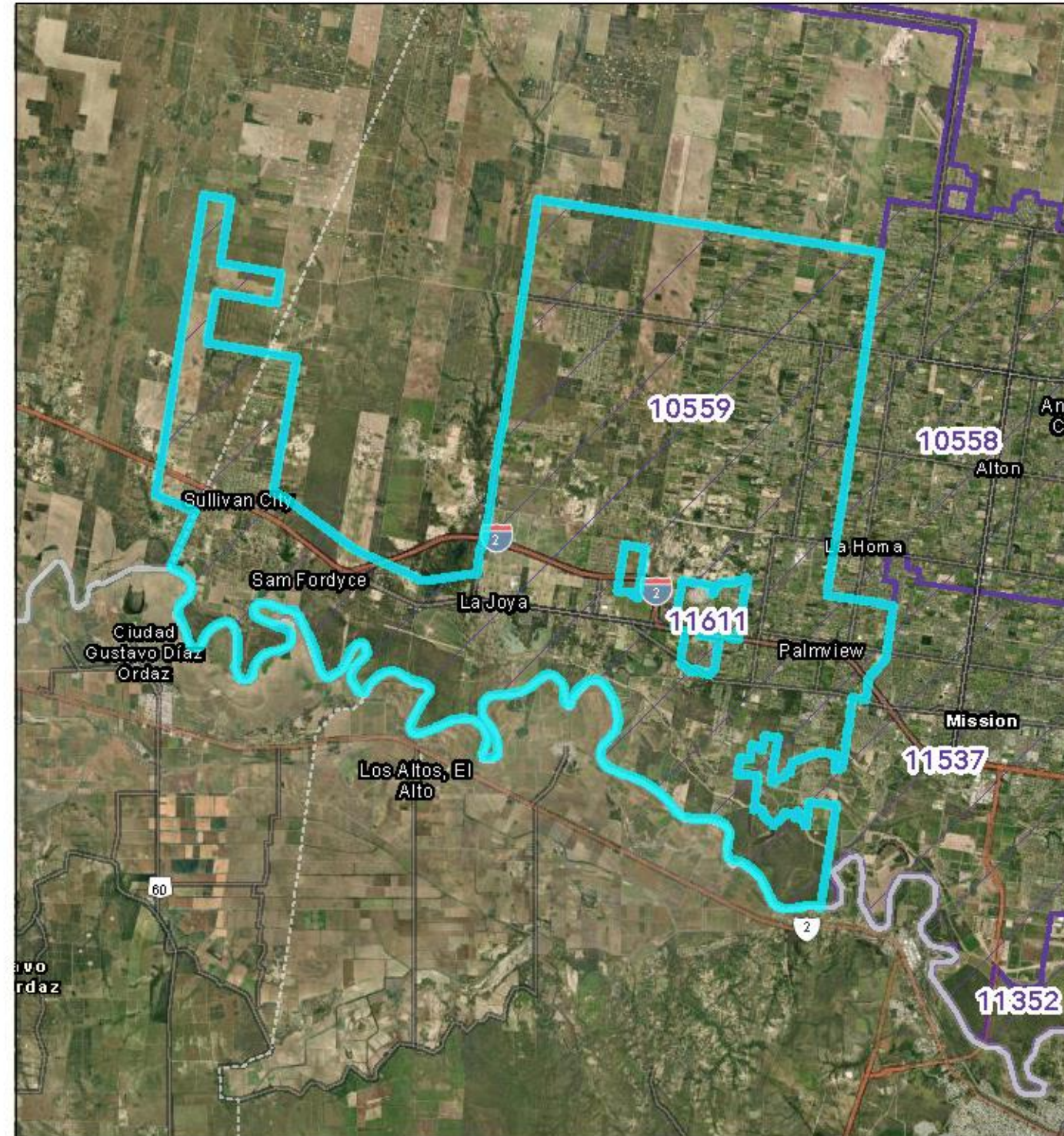
The district's eastern boundary is delineated by the City of Mission's city limits in the southern half and Bentsen Palm Dr. in the northern half. To the south, the district is bounded entirely by the Rio Grande River and the U.S./Mexico Border.

Agua SUD serves the City of Palmview, the City of Peñitas, the City of Sullivan, and the communities of Cuevitas, Areas of Precint 3 and Los Ebanos.

Agua SUD Service Area Map

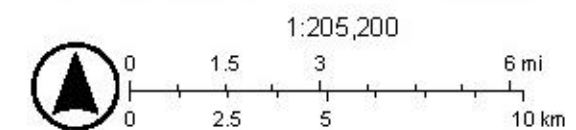


Agua SUD Service Area



10/29/2024, 2:40:10 PM

 Water CCN Service Areas



Texas Parks & Wildlife, CO NAMP, Esri, TomTom, Garmin, FourSquare, SafeGraph, METVNSA, USGS, EPA, NPS, USDA, USFWS, EsriStar Geographics

Agua SUD Future Growth

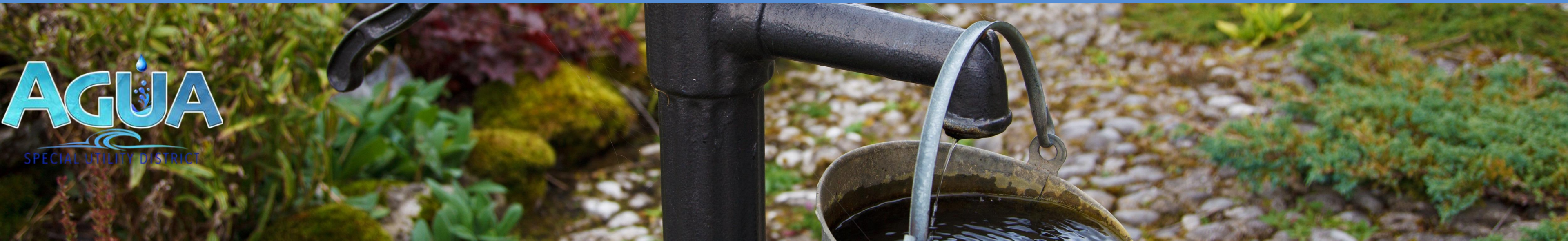
- According to a study done by SAMES Engineering an ultimate average day water demand of 19.2 MGD is expected by 2042
- Current capacity is 13.5 MGD leaving a deficit of approximately 6 MGD

- An ultimate projected total of 26,563 water connections is expected by 2042 at their current growth rate according to SAMES report
- Current number of connections is 17,712

- Plan is to meet the deficiency by using both surface water and brackish groundwater
- 2.5 to 3 MGD surface water and 2.5 to 3 MGD brackish groundwater

Region M Water Plan

- Agua SUD is currently on Region M Water Plan for Water Reuse
- Strategy changed to use of Brackish Groundwater
- TWDB available funding and requested for Agua SUD to request for consistency waiver



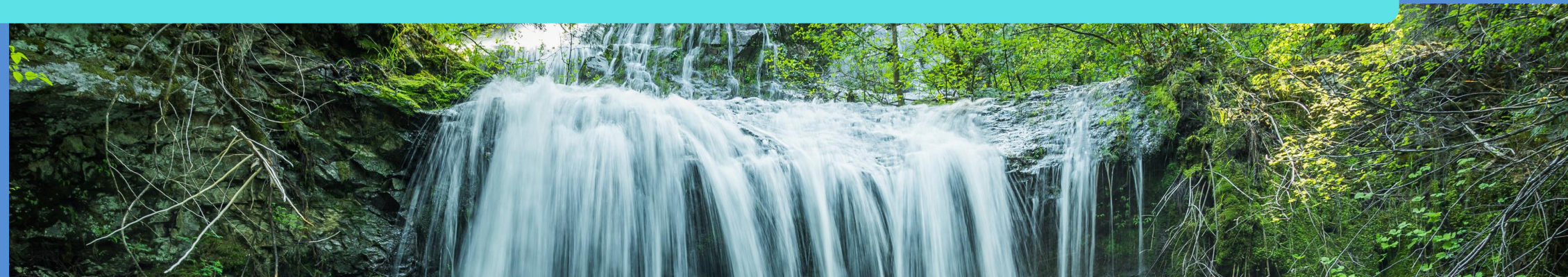


TWDB Funding for project

3.2 Million currently
available from
TWDB

TWDB funding to be used
for Planning, Acquisition,
and Design phase

Funding Deadline
December 2024





Agua SUD to request Consistency Waiver support letter (Requested in October 2024)

Agua SUD and NorrisLeal reached out to Black and Veatch Water Planning Leader for assistance

Agua SUD reached out to regional planning group at Hidalgo County region's top water experts meeting

Call to Action



ITEM 7A.

**STATUS ON CURRENT
TWDB CONTRACT
ACTIVITIES**

BLACK & VEATCH

Nov. 2024

Agenda Item 7.A.1:
Schedule and Progress Update

© Black & Veatch Corporation, 2023. All Rights Reserved. The Black & Veatch name and logo are registered trademarks of Black & Veatch Corporation.

1

Conceptual Schedule for
Region M Plan Development

	2021				2022				2023				2024				2025			
	QTR				1				1				1				1			
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

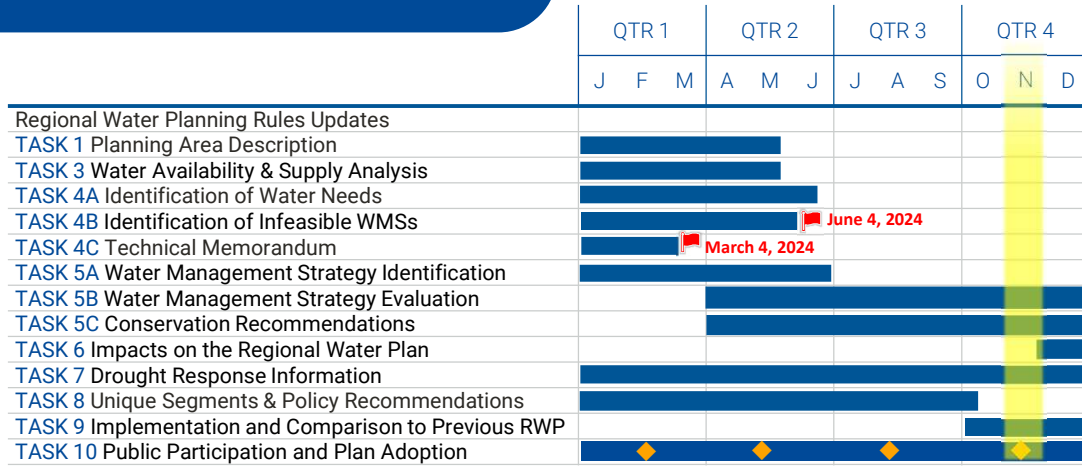
TWDB Deadline

2

2

1

2024 Region M Schedule



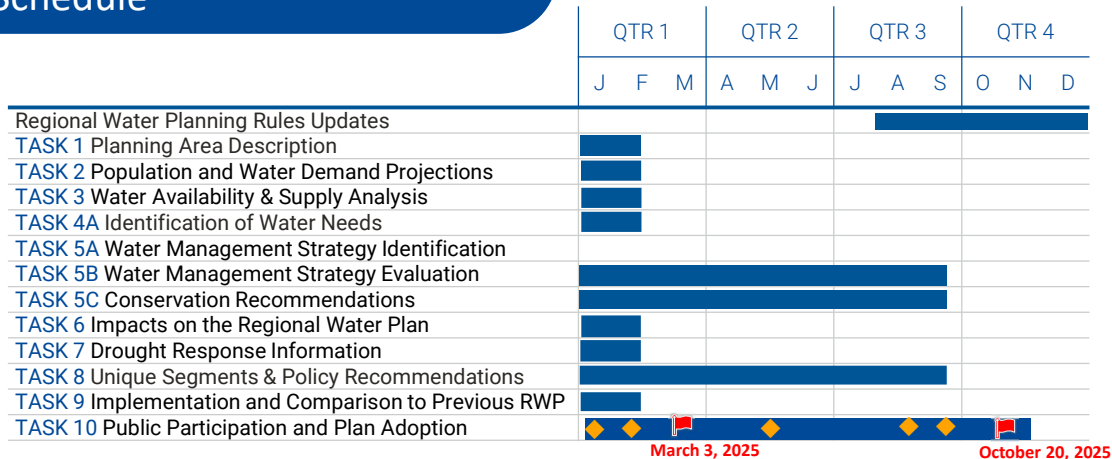
LEGEND

■ Region M RWPG Activities ◆ Tentative Region M RWPG Meeting 🚩 TWDB Deadline

3

3

2025 Region M Anticipated Schedule



LEGEND

■ Region M RWPG Activities ◆ Tentative Region M RWPG Meeting 🚩 TWDB Deadline

4

4

Progress Since Last Meeting

- Continued working on water management strategy evaluations
 - Municipal needs have all been met by identified water management strategies
 - All non-municipal needs except for irrigation have also been met
- Continued work on draft chapters
 - Chapters 1-4 and 7 (Drought Response) will be sent out for RWPG review
 - Please submit comments for incorporation/consideration at January meeting
- Worked with Executive Committee to make edits and updates to Chapter 8 – Legislative and Policy Recommendations
 - Chapter 8 will be sent out soon in track changes for RWPG review and consideration
 - Please submit comments to be considered at the January meeting

5

5

Update on New or Ongoing Efforts

- Begin work on:
 - Chapter 5 – Water Management Strategies
 - Chapter 6 – Impact of the Regional Water Plan
 - Chapter 9 – Implementation and Comparison to Previous RWP
 - Chapter 10 – Public Participation
 - Will send out to RWPG for initial comments at January meeting, with follow up before approval at February meeting
- Begin entering all water management strategy data into the TWDB Database (DB27)

6

6

Agenda Item 7.A.2: Water Management Strategy Updates and Action to Designate WMS as Recommended, Alternative, or Considered

© Black & Veatch Corporation, 2023. All Rights Reserved. The Black & Veatch name and logo are registered trademarks of Black & Veatch Corporation.

7

Water Management Strategies Approved for Evaluation

Group 1

Presented at August Meeting

- Advanced Municipal Conservation
 - See Handout A in Today's Meeting Package
- Irrigation District Conservation
 - See Handout B in Today's Meeting Package
- Agricultural Conservation
 - See Handout C in Today's Meeting Package
- Industrial Conservation
- Conversion of Water Right Classification
 - Revisiting Today
- Biological Control of *Arundo Donax*
- Drought Management

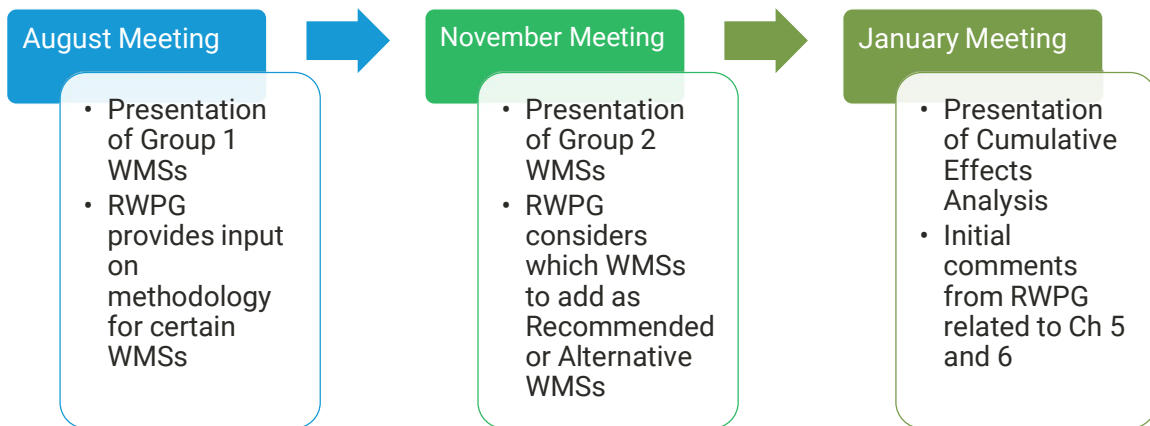
Group 2

To Be Presented at November Meeting

- New or Expanded Surface Water Treatment
- New or Expanded Distribution and Transmission Facilities Resulting in Increased Supplies
- New or Expanded Fresh Groundwater Supply
- New or Expanded Brackish Groundwater Desalination
- Seawater Desalination
- Reuse
- Aquifer Storage and Recovery
- Update to Off-Channel Storage
- Regional Water Supply Facilities

8

Timeline and Process for WMS Evaluations



Presentation of Group 2 WMS Evaluations

Important Disclaimer and Notes:

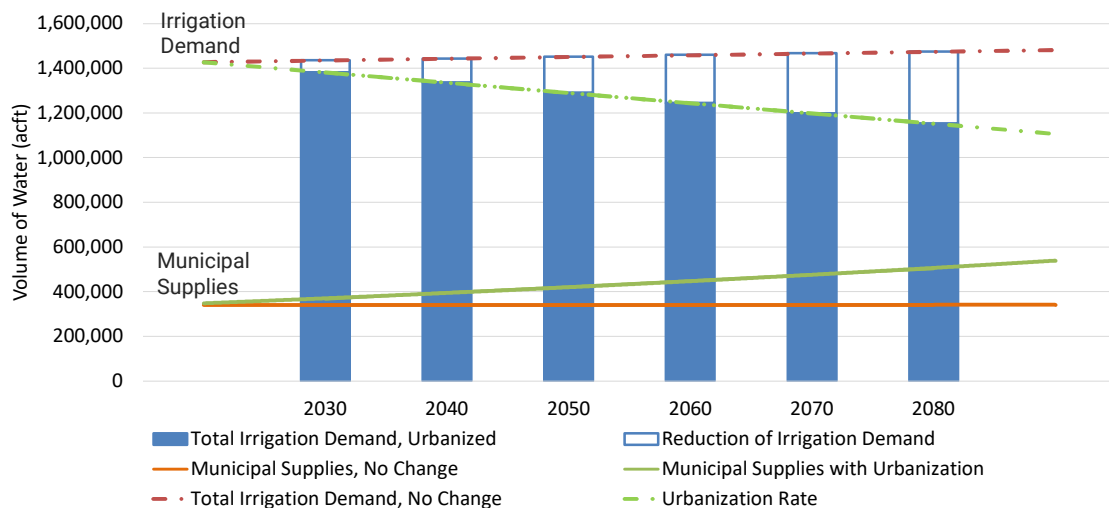
- All WMSs are evaluated uniformly.
- All summaries of WMSs are in DRAFT form and are subject to change.
- Location maps include hypothetical locations of facilities for regional planning purposes only as it relates to planning-level cost estimates. The locations shown on the maps are conceptual in nature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

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.
- Costing
 - For this Planning Cycle, the Market Value of Water is estimated to be \$3,480/acft
 - Subchapter O of Chapter 49 Texas Water Code, a municipal supplier can buy water rights to the net irrigable acres in a subdivision at 68 percent of the market value. Therefore, for municipal water providers the Market Value of Water is estimated to be \$2,370/acft

11

Conversion of Water Right Classification



12

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

13

Conversion of Water Right

- This table does not obligate any user to convert/purchase from another user.
 - Assumed volumes are currently based on any associated surface water treatment projects or those entities with needs that use surface water. These numbers could change.

Purchasing Entity	Volume (acft/yr)						Total Cost (\$)	Unit Cost (\$/acft)
	2030	2040	2050	2060	2070	2080		
Agua SUD		1,120	1,120	1,120	1,120	1,120	\$2,654,000	\$ 2,370
East Rio Hondo WSC	560	560	560	560	560	560	\$1,327,200	\$ 2,370
East Rio Hondo WSC			1,700	1,700	1,700	1,700	\$4,029,000	\$ 2,370
Donna	950	2,240	2,240	2,240	2,240	2,240	\$5,308,800	\$ 2,370
North Alamo WSC		4,480	4,480	4,480	4,480	4,480	\$10,617,600	\$ 2,370
North Alamo WSC			1,680	1,680	1,680	1,680	\$3,981,600	\$ 2,370
County-Other, Cameron	2,011	2,011	2,011	2,011	2,011	2,011	\$4,766,070	\$ 2,370
County-Other, Hidalgo	805	805	805	805	805	805	\$1,907,850	\$ 2,370
County-Other, Starr	113	113	113	113	113	113	\$267,810	\$ 2,370
County-Other, Webb	773	773	773	773	773	773	\$1,832,010	\$ 2,370

14

Conversion of Water Right

- This table does not obligate any user to convert/purchase from another user.
 - Assumed volumes are currently based on any associated surface water treatment projects or those entities with needs that use surface water. These numbers could change.

Purchasing Entity	Volume (acft/yr)						Total Cost (\$)	Unit Cost (\$/acft)
	2030	2040	2050	2060	2070	2080		
El Sauz WSC	49	57	67	71	75	79	\$187,230	\$ 2,370
El Tanque WSC	10	10	10	10	10	10	\$ 23,700	\$ 2,370
La Grulla	660	660	660	660	660	660	\$1,564,200	\$ 2,370
La Joya	193	193	193	193	193	193	\$ 457,410	\$ 2,370
Mining, Maverick	3,118	3,118	3,118	3,118	3,185	3,185	\$7,548,450	\$ 2,370
Pharr	947	947	947	947	947	947	\$2,244,390	\$ 2,370
Port Mansfield PUD	24	34	45	66	86	105	\$ 248,850	\$ 2,370
Primera	1	154	260	340	428	477	\$1,130,490	\$ 2,370
Rio Grande City	243	243	243	243	243	243	\$ 575,910	\$ 2,370
Rio WSC	125	215	294	294	294	294	\$ 696,780	\$ 2,370
Union WSC	542	542	542	542	542	542	\$1,284,540	\$ 2,370



Costs reported as September 2023 Dollars

15

15



Water Management Strategy (WMS) Updates,
Draft WMS Evaluations

New or Expanded
Surface Water Treatment

© Black & Veatch Corporation, 2023. All Rights Reserved. The Black & Veatch name and logo are registered trademarks of Black & Veatch Corporation.

16

New or Expanded Surface Water Treatment

Description:

- New or Expanded Surface Water Treatment projects were carried forward from the previous planning cycle for inclusion in the 2026 RWP and updated to reflect current conditions.
 - No new strategies requested for this cycle.
 - Strategies focus on water treatment plant expansion

Methodology for WMS in 2026 Plan:

- The TWDB Uniform Costing Model (UCM) was used to develop planning level costs for projects
- Costs for purchasing surface water rights are not included with this strategy, but are included under the Conversion of Water Rights strategy

17

New or Expanded Surface Water Treatment

Strategy Yield

2021 Plan Designation	Entity Name	Strategy/Project Name	Yield (acft/yr)					
			2030	2040	2050	2060	2070	2080
Recommended	Donna	WTP Expansion	950	2,240	2,240	2,240	2,240	2,240
Recommended	East Rio Hondo WSC	North Harlingen Surface WTP Phase I	560	560	560	560	560	560
Recommended	North Alamo WSC	Delta WTP Expansion Phase I	-	4,480	4,480	4,480	4,480	4,480
Recommended	North Alamo WSC	Delta WTP Expansion Phase II	-	-	1,680	1,680	1,680	1,680
Recommended	Olmito WSC	WTP Expansion	1,120	1,120	1,120	1,120	1,120	1,120

18

New or Expanded Surface Water Treatment

Strategy Yield

2021 Plan Designation	Entity Name	Strategy/Project Name	Yield (acft/yr)					
			2030	2040	2050	2060	2070	2080
Alternative	East Rio Hondo WSC	North Harlingen Surface WTP Phase II with IBT	-	-	2,500	2,500	2,500	2,500
Alternative	Elsa	WTP Expansion and Interconnect to Engelman ID	1,120	1,120	1,120	1,120	1,120	1,120
Alternative	Laredo	WTP Phase 1 Expansion	28,000	28,000	28,000	28,000	28,000	28,000
Alternative	Laredo	WTP Phase 2 Expansion	-	28,000	28,000	28,000	28,000	28,000
Alternative	Laredo	WTP Phase 3 Expansion	-	-	-	33,600	33,600	33,600
Alternative	Laredo	WTP Phase 4 Expansion	-	-	-	-	-	33,600
Alternative	North Alamo WSC	WTP No. 5 Expansion	4,480	4,480	4,480	4,480	4,480	4,480

19

New or Expanded Surface Water Treatment

Strategy Cost Summary

2021 Plan Designation	Entity Name	Strategy/Project Name	Cost of Facilities	Project Cost	Annual Cost	Unit Cost	Unit Cost W/o Debt Service
Recommended	Donna	WTP Expansion	\$30,023,000	\$43,167,000	\$3,818,000	\$1,704	\$571
Recommended	East Rio Hondo WSC	North Harlingen Surface WTP Phase I	\$54,205,000	\$75,778,000	\$8,738,000	\$15,604	\$6,093
Recommended	North Alamo WSC	Delta WTP Expansion Phase I	\$14,620,000	\$20,379,000	\$2,608,000	\$582	\$262
Recommended	North Alamo WSC	Delta WTP Expansion Phase II	\$8,706,000	\$12,135,000	\$1,677,000	\$998	\$490
Recommended	Olmito WSC	WTP Expansion	\$7,523,000	\$10,490,000	\$1,490,000	\$1,330	\$671

20

New or Expanded Surface Water Treatment

Strategy Cost Summary

2021 Plan Designation	Entity Name	Strategy/Project Name	Cost of Facilities	Project Cost	Annual Cost	Unit Cost	Unit Cost W/o Debt Service
Alternative	East Rio Hondo WSC	North Harlingen Surface WTP Phase II with IBT	\$10,599,000	\$14,775,000	\$1,975,000	\$790	\$374
Alternative	Elsa	WTP Expansion and Interconnect to Engelman ID	\$10,599,000	\$14,207,000	\$1,795,000	\$1,603	\$711
Alternative	Laredo	WTP Phase 1 Expansion	\$57,022,000	\$80,900,000	\$9,684,000	\$346	\$143
Alternative	Laredo	WTP Phase 2 Expansion	\$57,022,000	\$80,900,000	\$9,684,000	\$346	\$143
Alternative	Laredo	WTP Phase 3 Expansion	\$66,425,000	\$94,247,000	\$11,281,000	\$336	\$138
Alternative	Laredo	WTP Phase 4 Expansion	\$66,425,000	\$94,247,000	\$11,281,000	\$336	\$138
Alternative	North Alamo WSC	WTP No. 5 Expansion	\$23,422,000	\$32,799,000	\$3,704,000	\$827	\$313

21

Water Management Strategy (WMS) Updates,
Draft WMS Evaluations

New or Expanded Distribution and
Transmission Facilities Resulting in
Increased Supplies

22

New or Expanded Distribution and Transmission Facilities Resulting in Increased Supplies

Description:

- New or Expanded Distribution and Transmission Facilities projects were carried forward from the previous planning cycle for inclusion in the 2026 RWP and updated to reflect current conditions.
 - No new strategies requested for this cycle.
 - Strategies focus on pipelines and pump stations

Methodology for WMS in 2026 Plan:

- The TWDB Uniform Costing Model (UCM) was used to develop planning level costs for projects

23

New or Expanded Distribution and Transmission Facilities Resulting in Increased Supplies

Strategy Yield

2021 Plan Designation	Entity Name	Strategy/Project Name	Yield (acft/yr)					
			2030	2040	2050	2060	2070	2080
Recommended	East Rio Hondo WSC	FM 2925 Transmission Line	-	30	30	30	30	30
Recommended	El Jardin WSC	Distribution Pipeline Replacement	-	11	11	11	11	11
Recommended	HCID No. 6	Service Area Expansion	-	1,120	1,120	1,120	1,120	1,120
Recommended	McAllen	Raw Waterline Project with HCID No. 1	800	800	800	800	800	800
Recommended	Rio Hondo	Emergency Interconnects	20	20	20	20	20	20

24

New or Expanded Distribution and Transmission Facilities Resulting in Increased Supplies

Strategy Cost Summary

2021 Plan Designation	Entity Name	Strategy/Project Name	Cost of Facilities	Project Cost	Annual Cost	Unit Cost	Unit Cost W/o Debt Service
Recommended	East Rio Hondo WSC	FM 2925 Transmission Line	\$14,023,000	\$20,283,000	\$1,589,000	\$52,967	\$5,400
Recommended	El Jardin WSC	Distribution Pipeline Replacement	\$56,398,000	\$80,692,000	\$5,678,100	\$516,191	\$9
Recommended	HCID No. 6	Service Area Expansion	\$17,572,000	\$ 24,007,000.00	\$1,725,000.00	\$1,540	\$211
Recommended	McAllen	Raw Waterline Project with HCID No. 1	\$1,554,000.00	\$ 2,258,000.00	\$198,000.00	\$248	\$50
Recommended	Rio Hondo	Emergency Interconnects	\$5,231,000.00	\$ 7,551,000.00	\$635,600.00	\$31,780	\$5,280

25

Water Management Strategy (WMS) Updates,
Draft WMS Evaluations

New or Expanded Fresh Groundwater Supply

26

New or Expanded Fresh Groundwater

Description:

- New or Expanded Fresh Groundwater projects were carried forward from the previous planning cycle for inclusion in the 2026 RWP and updated to reflect current conditions.
 - No new strategies requested for this cycle.
 - Strategy components focused on wells, pumps, pipelines, and disinfection treatment

Methodology for WMS in 2026 Plan:

- Some strategies are limited by groundwater availability. In these cases, all strategies developing supplies from overallocated aquifers had the available yield reduced proportionally to avoid aquifer overallocation
- The TWDB Uniform Costing Model (UCM) was used to develop planning level costs for Groundwater projects

27

New or Expanded Fresh Groundwater

Strategy Yield

2021 Plan Designation	Entity Name	Strategy/Project Name	County	Aquifer	Yield (acft/yr) *					
					2030	2040	2050	2060	2070	2080
Recommended	Alamo	Fresh Groundwater Well	Hidalgo	Gulf Coast	1,120	1,120	1,120	1,120	1,120	1,120
Recommended	County-Other, Cameron	Expanded Fresh Groundwater Supply	Cameron	Gulf Coast	2,500	2,500	2,500	2,500	2,500	2,500
Recommended	County-Other, Starr	Additional Fresh Groundwater Wells	Starr	Gulf Coast	400	400	400	400	400	400
Recommended	County-Other, Webb	Additional Fresh Groundwater Wells	Webb	Carrizo-Wilcox	560	560	560	560	560	560
				Yegua-Jackson	560	560	560	560	560	560
Recommended	Edcouch	New Groundwater Supply	Hidalgo	Gulf Coast	500	500	500	500	500	500
Recommended	Hidalgo	Expand Existing Groundwater Wells	Hidalgo	Gulf Coast	-	300	300	300	300	300

28

New or Expanded Fresh Groundwater

Strategy Yield

2021 Plan Designation	Entity Name	Strategy/Project Name	County	Aquifer	Yield (acft/yr) *					
					2030	2040	2050	2060	2070	2080
Recommended	Rio Hondo	New Groundwater Supply	Cameron	Gulf Coast	1,040	988	1,106	1,120	1,120	1,120
Recommended	Webb County Water Utility	Expanded Groundwater Supply	Webb	Carrizo-Wilcox	180	180	180	180	180	180
Recommended	Weslaco	Groundwater Development and Blending	Hidalgo	Gulf Coast	560	560	560	560	560	560
Alternative	McAllen	Fresh Groundwater Phase I	Hidalgo	Gulf Coast	500	500	500	500	500	500
Alternative	McAllen	Fresh Groundwater Phase II	Hidalgo	Gulf Coast	-	-	-	1,000	1,000	1,000
Alternative	Mercedes	Expand Existing Groundwater Wells	Hidalgo	Gulf Coast	560	560	560	560	560	560
Alternative	Military Highway WSC	Fresh Groundwater	Hidalgo	Gulf Coast	560	560	560	560	560	560

New or Expanded Fresh Groundwater

Strategy Cost Summary

2021 Plan Designation	Entity Name	Strategy/Project Name	Cost of Facilities	Project Cost	Annual Cost	Ultimate Yield		Limited Yield	
						Unit Cost	Unit Cost W/o Debt Service	Unit Cost	Unit Cost W/o Debt Service
Recommended	Alamo	Fresh Groundwater Well	\$1,714,000	\$2,411,000	\$210,000	\$188	\$36		
Recommended	County-Other, Cameron	Expanded Fresh Groundwater Supply	\$7,918,000	\$11,549,000	\$1,080,000	\$432	\$107		
Recommended	County-Other, Starr	Additional Fresh Groundwater Wells	\$1,216,000	\$1,718,000	\$182,000	\$455	\$153		
Recommended	County-Other, Webb	Additional Fresh Groundwater Wells	\$12,617,000	\$18,353,000	\$1,504,000	\$1,343	\$190		
Recommended	Edcouch	New Groundwater Supply	\$6,395,000	\$9,529,000	\$801,000	\$1,602	\$262		
Recommended	Hidalgo	Expand Existing Groundwater Wells	\$2,612,000	\$3,811,000	\$325,000	\$1,083	\$190		

New or Expanded Fresh Groundwater

Strategy Cost Summary

2021 Plan Designation	Entity Name	Strategy/Project Name	Cost of Facilities	Project Cost	Annual Cost	Ultimate Yield		Limited Yield	
						Unit Cost	Unit Cost W/o Debt Service	Unit Cost	Unit Cost W/o Debt Service
Recommended	Rio Hondo	New Groundwater Supply	\$6,177,000	\$8,738,000	\$729,000	\$651	\$103	\$701	\$111
Recommended	Webb County Water Utility	Expanded Groundwater Supply	\$2,467,000	\$3,549,000	\$299,000	\$1,661	\$272		
Recommended	Weslaco	Groundwater Development and Blending	\$1,343,000	\$1,943,000	\$157,000	\$280	\$36		
Alternative	McAllen	Fresh Groundwater Phase I	\$1,309,000	\$1,874,000	\$190,000	\$380	\$116		
Alternative	McAllen	Fresh Groundwater Phase II	\$2,663,000	\$3,808,000	\$367,000	\$367	\$99		
Alternative	Mercedes	Expand Existing Groundwater Wells	\$1,358,000	\$1,944,000	\$197,000	\$352	\$107		
Alternative	Military Highway WSC	Fresh Groundwater	\$1,358,000	\$1,944,000	\$197,000	\$352	\$107		



* Green indicates limited aquifer availability 31

31



Water Management Strategy (WMS) Updates,
Draft WMS Evaluations

New or Expanded Brackish Groundwater Desalination

© Black & Veatch Corporation, 2023. All Rights Reserved. The Black & Veatch name and logo are registered trademarks of Black & Veatch Corporation.

32

New or Expanded Brackish Groundwater Desalination

- **Description:** Brackish Groundwater Desalination projects were either carried forward from the previous planning cycle and updated to reflect current conditions, or were new projects submitted by sponsors for inclusion in the 2026 RWP.
- **Methodology for WMS in 2026 Plan:**
 - Some strategies are limited by groundwater availability. In these cases, all strategies developing supplies from overallocated aquifers had the available yield reduced proportionally to avoid aquifer overallocation
 - The TWDB Uniform Costing Model (UCM) was used to develop planning level costs for Groundwater Desalination projects
 - TDS was assumed to be 3,500mg/L unless otherwise provided
 - RO efficiency of 80% was assumed unless otherwise provided
 - Injection wells were included for brine disposal unless otherwise provided

33

New or Expanded Brackish Groundwater Desalination

Strategy Yield

2021 Plan Designation or New WMS	Entity Name	Strategy/Project Name	County	Aquifer	Yield (acft/yr) *					
					2030	2040	2050	2060	2070	2080
Recommended	Alamo	Brackish Groundwater Desalination	Hidalgo	Gulf Coast	896	896	896	896	896	896
Recommended	East Rio Hondo WSC	North Cameron Regional WTP Wellfield Expansion	Cameron	Gulf Coast	1,290	1,225	1,371	1,389	1,389	1,389
Recommended	La Feria	Water Well with RO Unit	Cameron	Gulf Coast	1,120	1,120	1,120	1,120	1,120	1,120
Recommended	Lyford	Brackish Groundwater Desalination	Willacy	Gulf Coast	-	560	560	560	560	560
Recommended	McAllen	Brackish Groundwater Desalination	Hidalgo	Gulf Coast	6,720	6,720	6,720	6,720	6,720	6,720
Recommended	Mission	Brackish Groundwater Desalination	Hidalgo	Gulf Coast	2,688	2,688	2,688	2,688	2,688	2,688
Recommended	North Alamo WSC	Delta Area Brackish Groundwater Desalination	Cameron	Gulf Coast	2,080	1,976	2,211	2,240	2,240	2,240

34

New or Expanded Brackish Groundwater Desalination

Strategy Yield

2021 Plan Designation or New WMS	Entity Name	Strategy/Project Name	County	Aquifer	Yield (acft/yr) *					
					2030	2040	2050	2060	2070	2080
Recommended	Primera	RO WTP with Groundwater Well	Cameron	Gulf Coast	1,120	1,120	1,120	1,120	1,120	1,120
Recommended	San Benito	Brackish Groundwater Desalination	Cameron	Gulf Coast	560	560	560	560	560	560
Recommended	San Juan	Brackish Groundwater Desalination	Hidalgo	Gulf Coast	1,120	1,120	1,120	1,120	1,120	1,120
Recommended	San Juan	WTP 1 Expansion with Brackish GW Desalination	Hidalgo	Gulf Coast	3,360	3,360	3,360	3,360	3,360	3,360
Recommended	Sharyland WSC	Well and RO Unit at WTP 2	Hidalgo	Gulf Coast	-	900	900	900	900	900
Recommended	Sharyland WSC	Well and RO Unit at WTP 3	Hidalgo	Gulf Coast	-	900	900	900	900	900

35

New or Expanded Brackish Groundwater Desalination

Strategy Yield

2021 Plan Designation or New WMS	Entity Name	Strategy/Project Name	County	Aquifer	Yield (acft/yr) *					
					2030	2040	2050	2060	2070	2080
New	Agua SUD	Brackish Groundwater Desalination (Phase 1)	Hidalgo	Gulf Coast	2,800	2,800	2,800	2,800	2,800	2,800
New	Agua SUD	Brackish Groundwater Desalination (Phase 2)	Hidalgo	Gulf Coast	-	-	2,800	2,800	2,800	2,800
New	Eagle Pass	Brackish Groundwater Desalination	Maverick & Kinney	Carrizo Wilcox & Edwards-Trinity-Plateau, Pecos Valley, and Trinity Aquifers	5,210	5,210	5,210	5,210	5,210	5,210
New	East Rio Hondo WSC	Brackish Desal Wellfield and RO at NRWTP and MASWTP	Cameron	Gulf Coast	-	2,766	3,096	3,136	3,136	3,136
New	East Rio Hondo WSC	Expansion of MASWTP	Cameron	Gulf Coast	-	988	1,106	1,120	1,120	1,120

36

New or Expanded Brackish Groundwater Desalination

Strategy Yield

2021 Plan Designation or New WMS	Entity Name	Strategy/Project Name	County	Aquifer	Yield (acft/yr) *					
					2030	2040	2050	2060	2070	2080
New	Southmost RWA	Brackish Groundwater Desalination Wellfield Expansion	Cameron	Gulf Coast	961	913	1,022	1,035	1,035	1,035
New	Southmost RWA	Phase 3 SRWA Wellfield and WTP Expansion	Cameron	Gulf Coast	2,372	2,312	2,447	2,464	2,464	2,464
New	Southmost RWA	Phase 4 SRWA Wellfield and WTP Expansion	Cameron	Gulf Coast	13,696	12,989	14,590	14,784	14,784	14,784

37

New or Expanded Brackish Groundwater Desalination

New WMS submitted for inclusion in the 2026 RWP

- Agua SUD Brackish Groundwater Desalination (Phase 1)
 - Hidalgo County Wellfield in the Gulf Coast Aquifer System
 - 3 production wells with a capacity of 1,000gpm each
 - New 2.5 MGD Desalination Plant with 1 injection well for brine disposal
 - Pump station with 14", 1,000-foot transmission line
 - 2 MG ground storage tank
 - Planned for 2030 decade
- Agua SUD Brackish Groundwater Desalination (Phase 2)
 - Hidalgo County Wellfield in the Gulf Coast Aquifer System
 - 3 production wells with a capacity of 1,000gpm each
 - New 2.5 MGD Desalination Plant with 1 injection well for brine disposal
 - Pump station with 14", 1,000-foot transmission line
 - 2 MG ground storage tank
 - Planned for 2050 decade

38

New or Expanded Brackish Groundwater Desalination

New WMS submitted for inclusion in the 2026 RWP

- Eagle Pass Brackish Groundwater Desalination
 - Kinney County Wellfield in the Edwards-Trinity-Plateau, Pecos Valley, and Trinity Aquifers (Region J)
 - 7 production wells with a capacity of 750gpm
 - Maverick County Wellfield in the Carrizo Wilcox Aquifer
 - 2 production wells with a capacity of 250gpm
 - New Desalination Plant that produces 4.7MDG treated water with 4 injection wells for brine disposal
 - Infrastructure includes 30-mile transmission line from the Kinney County Wellfield to the WTP
 - Planned for 2030 decade

New or Expanded Brackish Groundwater Desalination

New WMS submitted for inclusion in the 2026 RWP

- East Rio Hondo WSC – North Cameron Regional WTP Wellfield Expansion
 - 2 production wells with a capacity of 1,000gpm
 - Infrastructure includes 10-mile transmission line, 2MG storage tank
 - No additional treatment capacity required
 - Planned for 2030 decade
- East Rio Hondo WSC – Brackish Desalination Wellfield and RO at NRWTP and MASWTP
 - 6 production wells with an average capacity of 500gpm and 3 injection wells for brine disposal
 - Nelson Road WTP Expansion by 4MGD
 - Martha Ann Simpson WTP Expansion by 1.6MGD
 - Planned for 2040 decade
- East Rio Hondo WSC – Expansion of MASWTP Desalination
 - 2 production wells with an average capacity of 1000gpm and 1 injection well for brine disposal
 - Martha Ann Simpson WTP Expansion by 1MGD
 - Planned for 2040 decade

New or Expanded Brackish Groundwater Desalination

New WMS submitted for inclusion in the 2026 RWP

- Southmost RWA – Brackish Groundwater Desalination Wellfield Expansion
 - 2 Rio Grande Alluvium Wells with a production capacity of 400gpm each
 - Requires 1/2-mile 24" transmission line to connect new wellfield to existing wellfield pumpstation
 - No additional treatment capacity required
 - Planned for the 2030 decade
- Southmost RWA – Phase 3 Wellfield and WTP Expansion
 - 2 Rio Grande Alluvium Wells with a production capacity of 400gpm each
 - Includes reconstruction of 20 existing wells for optimization
 - Plant expansion and optimization to produce additional 2.2MGD of treated water
 - Planned for the 2030 decade
- Southmost RWA – Phase 4 Wellfield and WTP Expansion
 - 34 Rio Grande Alluvium Wells with a production capacity of 400gpm each
 - Plant expansion to produce additional 12.5MGD of treated water
 - Planned for the 2030 decade

41

New or Expanded Brackish Groundwater Desalination

Strategy Cost Summary

2021 Plan Designation or New WMS	Entity Name	Strategy/Project Name	Cost of Facilities	Project Cost	Annual Cost	Ultimate Yield		Limited Yield	
						Unit Cost	Unit Cost W/o Debt Service	Unit Cost	Unit Cost W/o Debt Service
Recommended	Alamo	Brackish Groundwater Desalination	\$26,468,000	\$37,573,000	\$7,380,000	\$8,237	\$5,286	-	-
Recommended	East Rio Hondo WSC	North Cameron Regional WTP Wellfield Expansion	\$25,848,000	\$35,856,000	\$2,804,000	\$2,019	\$202	\$2,174	\$218
Recommended	La Feria	Water Well with RO Unit	\$28,386,000	\$39,709,000	\$7,565,000	\$6,754	\$4,260	-	-
Recommended	Lyford	Brackish Groundwater Desalination	\$15,464,000	\$21,611,000	\$3,913,000	\$6,988	\$4,271	-	-
Recommended	McAllen	Brackish Groundwater Desalination	\$67,303,000	\$95,598,000	\$17,809,000	\$2,650	\$1,649	-	-
Recommended	Mission	Brackish Groundwater Desalination	\$45,681,000	\$63,913,000	\$11,794,000	\$4,388	\$2,715	-	-
Recommended	North Alamo WSC	Delta Area Brackish Groundwater Desalination	\$36,130,000	\$50,511,000	\$9,585,000	\$4,279	\$2,692	\$4,851	\$3,052

42

New or Expanded Brackish Groundwater Desalination

Strategy Cost Summary

2021 Plan Designation or New WMS	Entity Name	Strategy/Project Name	Cost of Facilities	Project Cost	Annual Cost	Ultimate Yield		Limited Yield	
						Unit Cost	Unit Cost W/o Debt Service	Unit Cost	Unit Cost W/o Debt Service
Recommended	Primera	RO WTP with Groundwater Well	\$32,317,000	\$45,926,000	\$8,041,000	\$7,179	\$4,295	-	-
Recommended	San Benito	Brackish Groundwater Blending	\$971,000	\$1,399,000	\$120,000	\$214	\$39	-	-
Recommended	San Juan	Brackish Groundwater Desalination	\$28,746,000	\$40,253,000	\$7,626,000	\$6,809	\$4,280	-	-
Recommended	San Juan	WTP 1 Expansion with Brackish GW Desalination	\$45,870,000	\$65,264,000	\$11,966,000	\$3,561	\$2,195	-	-
Recommended	Sharyland WSC	Well and RO Unit at WTP 2	\$27,423,000	\$38,480,000	\$6,567,000	\$7,297	\$4,289	-	-
Recommended	Sharyland WSC	Well and RO Unit at WTP 3	\$27,423,000	\$38,480,000	\$6,567,000	\$7,297	\$4,289	-	-

43

New or Expanded Brackish Groundwater Desalination

Strategy Cost Summary

2021 Plan Designation or New WMS	Entity Name	Strategy/Project Name	Cost of Facilities	Project Cost	Annual Cost	Ultimate Yield		Limited Yield	
						Unit Cost	Unit Cost W/o Debt Service	Unit Cost	Unit Cost W/o Debt Service
New	Agua SUD	Brackish Groundwater Desalination (Phase 1)	\$46,518,000	\$66,173,000	\$11,405,000	\$4,073	\$2,411	-	-
New	Agua SUD	Brackish Groundwater Desalination (Phase 2)	\$46,518,000	\$66,173,000	\$11,405,000	\$4,073	\$2,411	-	-
New	Eagle Pass	Brackish Groundwater Desalination	\$130,647,000	\$181,710,000	\$23,367,000	\$4,485	\$2,034	-	-
New	East Rio Hondo WSC	Brackish Desal Wellfield and RO at NRWTP and MASWTP	\$79,212,000	\$110,697,000	\$21,747,000	\$6,935	\$4,451	\$7,862	\$5,046
New	East Rio Hondo WSC	Expansion of MASWTP	\$11,169,000	\$15,652,000	\$1,913,000	\$1,708	\$725	\$1,936	\$822

44

New or Expanded Brackish Groundwater Desalination

Strategy Cost Summary

2021 Plan Designation or New WMS	Entity Name	Strategy/Project Name	Cost of Facilities	Project Cost	Annual Cost	Ultimate Yield		Limited Yield	
						Unit Cost	Unit Cost W/o Debt Service	Unit Cost	Unit Cost W/o Debt Service
New	Southmost RWA	Brackish Groundwater Desalination Wellfield Expansion	\$3,292,000	\$4,605,000	\$395,000	\$403	\$73	\$411	\$75
New	Southmost RWA	Phase 3 SRWA Wellfield and WTP Expansion	\$45,258,000	\$63,112,000	\$10,769,000	\$4,371	\$2,568	\$4,540	\$2,668
New	Southmost RWA	Phase 4 SRWA Wellfield and WTP Expansion	\$126,956,000	\$177,392,000	\$31,056,000	\$2,218	\$1,327	\$2,268	\$1,357



* Green indicates limited aquifer availability 45

45



Water Management Strategy (WMS) Updates,
Draft WMS Evaluations

Seawater Desalination

© Black & Veatch Corporation, 2023. All Rights Reserved. The Black & Veatch name and logo are registered trademarks of Black & Veatch Corporation.

46

Seawater Desalination

Description: Seawater Desalination projects were carried forward from the previous planning cycle for inclusion in the 2026 RWP and updated to reflect current conditions, or were new projects submitted by sponsors for inclusion in the 2026 RWP.

- Seawater Desalination is the process of removing dissolved solids and other minerals from seawater
 - Prevalent membrane technology is reverse osmosis (RO) – forces saline water through semi-permeable membranes to separate fresh water from solids
 - Higher total dissolved solids (TDS) in water requires more energy and cost and produces less fresh water

Methodology for WMS in 2026 Plan:

- The TWDB Uniform Costing Model (UCM) was used to develop planning level costs for Seawater Desalination projects
- RO efficiency of 80% was assumed unless otherwise provided

Seawater Desalination

Strategy Yield

2021 Plan Designation or New WMS	Entity Name	Strategy/Project Name	County	Yield (acft/yr)					
				2030	2040	2050	2060	2070	2080
Recommended	Laguna Madre	Seawater Desalination Plant	Cameron	-	-	1,120	1,120	1,120	1,120
Alternative	Brownsville PUB	Seawater Desalination Demonstration	Cameron	2,800	2,800	2,800	2,800	2,800	2,800
Alternative	Brownsville PUB	Seawater Desalination Implementation	Cameron	-	-	-	25,200	25,200	25,200
New	South Texas Water Development Private Utilities	Seawater Desalination Plant and Integrated Pipeline (Phase 1)	Cameron, Hidalgo, Starr, Zapata, Webb	1,120	1,120	1,120	1,120	1,120	1,120

Seawater Desalination

New WMS submitted for inclusion in the 2026 RWP

- South Texas Water Development Private Utilities - Seawater Desalination Plant and Integrated Pipeline (Phase 1)
 - Phase 1 of the Desalination Water Treatment Plant, to produce 1MGD treated water
 - 220-mile 54" Transmission pipeline from Port of Brownsville to Laredo
 - Other infrastructure required includes seawater intake, pump stations, and brine discharge pipe into Gulf
 - Planned for 2030 decade

49

49


Seawater Desalination

Strategy Cost Summary

2021 Plan Designation or New WMS	Entity Name	Strategy/Project Name	Cost of Facilities	Project Cost	Annual Cost	Unit Cost	Unit Cost W/o Debt Service
Recommended	Laguna Madre	Seawater Desalination Plant	\$42,261,000	\$59,001,000	\$9,895,000	\$8,835	\$5,129
Alternative	Brownsville PUB	Seawater Desalination Demonstration	\$80,811,000	\$112,746,000	\$17,448,000	\$6,231	\$3,399
Alternative	Brownsville PUB	Seawater Desalination Implementation	\$440,475,000	\$613,945,000	\$95,911,000	\$3,425	\$1,884
New	South Texas Water Development Private Utilities	Seawater Desalination Plant and Integrated Pipeline (Phase 1)	\$2,720,316,000	\$3,686,526,000	\$300,257,000	\$268,087	\$36,854

50

50

 BLACK & VEATCH

Water Management Strategy (WMS) Updates,
Draft WMS Evaluations

Reuse


© Black & Veatch Corporation, 2023. All Rights Reserved. The Black & Veatch name and logo are registered trademarks of Black & Veatch Corporation.

51

Reuse


Description: Reuse projects were carried forward from the previous planning cycle for inclusion in the 2026 RWP and updated to reflect current conditions, or were new projects submitted by sponsors for inclusion in the 2026 RWP.

- Non-potable reuse is typically used to meet irrigation or industrial demands
- Indirect reuse uses an “environmental buffer”
- Direct typically feeds treated water directly to WTP/potable distribution system



Methodology for WMS in 2026 Plan:

- The TWDB Uniform Costing Model (UCM) was used to develop planning level costs for Reuse projects

 BLACK & VEATCH

52

52

Reuse – Non-Potable

Strategy Yield – Non-Potable

2021 Plan Designation or New WMS	Entity Name	Strategy/Project Name	Yield (acft/yr)					
			2030	2040	2050	2060	2070	2080
Recommended	Edinburg	Edinburg Non-Potable Reuse	-	3,920	3,920	3,920	3,920	3,920
Recommended	Rio Hondo	Rio Hondo - Non-Potable Reuse	-	30	30	30	30	30
Alternative	Agua SUD	Non-Potable Reuse - Alternative	350	350	350	350	350	350
Alternative	La Feria	Reuse (Direct Non-Potable) - Alternative	50	170	170	170	170	170
Alternative	San Benito	Reuse (Indirect Non-Potable) - Alternative	1,120	1,120	1,120	1,120	1,120	1,120

53

Reuse – Potable

Strategy Yield – Potable

2021 Plan Designation or New WMS	Entity Name	Strategy/Project Name	Yield (acft/yr)					
			2030	2040	2050	2060	2070	2080
Recommended	Agua SUD	West WWTP Indirect Potable Reuse	-	1,120	1,120	1,120	1,120	1,120
Recommended	Brownsville	Brownsville Southside WWTP Potable Reuse Phase I	-	-	3,360	3,360	3,360	3,360
Recommended	Brownsville	Brownsville Southside WWTP Potable Reuse Phase II	-	-	-	-	1,680	1,680
Recommended	Laredo	Laredo - South Laredo WWTP Potable Reuse Phase I	-	3,360	3,360	3,360	3,360	3,360
Recommended	Laredo	Laredo - South Laredo WWTP Potable Reuse Phase II	-	-	-	3,360	3,360	3,360
Recommended	McAllen	McAllen - North WWTP Potable Reuse Phase I	-	3,880	3,880	3,880	3,880	3,880
Recommended	McAllen	McAllen - North WWTP Potable Reuse Phase II	-	-	-	2,180	2,180	2,180
Recommended	Mission	Mission- Potable Reuse	-	3,920	3,920	3,920	3,920	3,920

54

Reuse – Potable

Strategy Yield – Potable

2021 Plan Designation or New WMS	Entity Name	Strategy/Project Name	Yield (acft/yr)					
			2030	2040	2050	2060	2070	2080
Recommended	Pharr	Pharr- Indirect Potable Reuse	-	3,360	3,360	3,360	3,360	3,360
Recommended	San Juan	San Juan - Potable Reuse	-	-	1,120	1,120	1,120	1,120
Recommended	Weslaco	Weslaco North WWTP Potable Reuse	-	-	1,120	1,120	1,120	1,120
Alternative	San Benito	Reuse (Direct Potable) - Alternative	-	1,120	1,120	1,120	1,120	1,120
New	Brownsville	Brownsville Indirect Potable Reuse	4,480	4,480	4,480	4,480	4,480	4,480

55

Reuse - New

New WMS submitted for inclusion in the 2026 RWP

- Brownsville PUB Indirect Potable Reuse
 - Project will pipe treated effluent from the Brownsville Robindale WWTP and outfall in the Resaca De La Guerra, and then be pulled out for treatment at the Brownsville WTP No. 2.
 - Advanced treatment for the WWTP effluent before leaving the WWTP site would likely be needed
 - Infrastructure components include:
 - Advanced treatment
 - 16", 8,500-foot transmission line
 - Additional brackish treatment may be needed at the WTP
 - Two years are assumed for construction
 - Land acquisition is only assumed to be needed for the transmission line
 - Planned to be online by 2030

56

Reuse – Non-Potable

Strategy Cost Summary – Non-Potable

2021 Plan Designation or New WMS	Entity Name	Strategy/Project Name	Cost of Facilities	Project Cost	Annual Cost	Unit Cost W/o Debt Service	Unit Cost
Recommended	Edinburg	Edinburg Non-Potable Reuse	\$14,770,000	\$20,488,000	\$2,526,000	\$644	\$278
Recommended	Rio Hondo	Rio Hondo - Non-Potable Reuse	\$2,563,000	\$3,861,000	\$333,000	\$11,100	\$2,033
Alternative	Agua SUD	Non-Potable Reuse - Alternative	\$4,566,000	\$6,366,000	\$901,000	\$2,574	\$1,294
Alternative	La Feria	Reuse (Direct Non-Potable) - Alternative	\$3,938,000	\$5,620,000	\$627,000	\$3,688	\$1,365
Alternative	San Benito	Reuse (Indirect Non-Potable) - Alternative	\$2,967,000	\$4,233,000	\$370,000	\$330	\$66

57

Reuse - Potable

Strategy Cost Summary - Potable

2021 Plan Designation or New WMS	Entity Name	Strategy/Project Name	Cost of Facilities	Project Cost	Annual Cost	Unit Cost W/o Debt Service	Unit Cost
Recommended	Agua SUD	West WWTP Indirect Potable Reuse	\$26,990,000	\$38,987,000	\$3,570,000	\$3,188	\$740
Recommended	Brownsville	Brownsville Southside WWTP Potable Reuse Phase I	\$37,770,000	\$52,618,000	\$7,408,000	\$2,205	\$1,104
Recommended	Brownsville	Brownsville Southside WWTP Potable Reuse Phase II	\$15,819,000	\$22,050,000	\$3,502,000	\$2,085	\$1,161
Recommended	Laredo	Laredo - South Laredo WWTP Potable Reuse Phase I	\$55,358,000	\$79,397,000	\$9,436,000	\$2,808	\$1,146
Recommended	Laredo	Laredo - South Laredo WWTP Potable Reuse Phase II	\$28,815,000	\$41,426,000	\$6,498,000	\$1,934	\$1,067
Recommended	McAllen	McAllen - North WWTP Potable Reuse Phase I	\$43,387,000	\$62,443,000	\$8,611,000	\$2,219	\$1,088
Recommended	McAllen	McAllen - North WWTP Potable Reuse Phase II	\$20,740,000	\$29,818,000	\$4,617,000	\$2,118	\$1,156
Recommended	Mission	Mission- Potable Reuse	\$38,520,000	\$55,415,000	\$8,053,000	\$2,054	\$1,060

58

Reuse - Potable

Strategy Cost Summary - Potable

2021 Plan Designation or New WMS	Entity Name	Strategy/Project Name	Cost of Facilities	Project Cost	Annual Cost	Unit Cost	Unit Cost W/o Debt Service
Recommended	Pharr	Pharr- Indirect Potable Reuse	\$37,965,000	\$53,850,000	\$7,373,000	\$2,194	\$1,104
Recommended	San Juan	San Juan - Potable Reuse	\$16,115,000	\$23,305,000	\$3,173,000	\$2,833	\$1,371
Recommended	Weslaco	Weslaco North WWTP Potable Reuse	\$15,706,000	\$22,720,000	\$3,101,000	\$2,769	\$1,342
Alternative	San Benito	Reuse (Direct Potable) - Alternative	\$19,410,000	\$28,025,000	\$3,533,000	\$3,154	\$1,396
New	Brownsville	Brownsville Indirect Potable Reuse	\$74,693,000	\$107,403,000	\$17,849,000	\$3,984	\$2,298

59

Water Management Strategy (WMS) Updates,
Draft WMS Evaluations

Aquifer Storage and Recovery (ASR)

60

ASR

Description: Aquifer Storage and Recovery (ASR) projects were carried forward from the previous planning cycle for inclusion in the 2026 RWP and updated to reflect current conditions.

No new strategies were requested, and ASR was identified as not feasible for McAllen and North Alamo WSC.

Methodology for WMS in 2026 Plan:

- The TWDB Uniform Costing Model (UCM) was used to develop planning level costs for projects
- Strategy components include well field with dual purpose pumps, pipelines, and water treatment

ASR is the active process of storing and accessing potable water in an aquifer. Water can be pumped into the aquifer when there is excess available and recovered through the same wellfield when needed.

Benefits & Drawbacks:

- No evaporative losses
- No storage capacity loss due to sedimentation
- Smaller footprint
- Requires specific hydrogeology

61

ASR

Strategy Yield

2021 Plan Designation or New WMS	Entity Name	Strategy/Project Name	County	Aquifer	Yield (acft/yr)					
					2030	2040	2050	2060	2070	2080
Alternative	Eagle Pass	ASR	Maverick	Carrizo-Wilcox	-	3,360	3,360	3,360	3,360	3,360

62

ASR							
Strategy Cost Summary							
2021 Plan Designation or New WMS	Entity Name	Strategy/Project Name	Cost of Facilities	Project Cost	Annual Cost	Unit Cost W/o Debt Service	
Alternative	Eagle Pass	ASR	\$56,922,000	\$81,870,000	\$8,812,000	\$2,623	\$908

63



Water Management Strategy (WMS) Updates,
Draft WMS Evaluations

Off-Channel Storage and Regional
Water Supply Facilities

© Black & Veatch Corporation, 2023. All Rights Reserved. The Black & Veatch name and logo are registered trademarks of Black & Veatch Corporation.

64

Off-Channel Storage and Regional Water Supply Facilities

Description: Both the Off-Channel Storage and Regional Water Supply Facilities strategies include reservoirs and may include transmission. The Regional Water Supply Facilities projects also include treatment. The Brownsville projects were included in previous plans and have been updated for the 2026 Plan, while the HCDD#1 projects were added as an amendment to the 2021 Plan, are have been updated for the 2026 Plan.

Methodology for WMS in 2026 Plan:

- The TWDB Uniform Costing Model (UCM) was used to develop planning level costs for projects
- Water Availability Modeling was performed to determine the yields for the projects.

65

Off-Channel Storage and Regional Water Supply Facilities

Strategy Yield

2021 Plan Designation or New WMS	Entity Name	Strategy/Project Name	Yield (acft/yr)					
			2030	2040	2050	2060	2070	2080
Recommended	Brownsville	Banco Morales Reservoir	-	140	140	140	140	140
Recommended	HCDD #1	Delta Region Water Supply - Delta "Panchita" Reservoir	5,600	5,600	5,600	5,600	5,600	5,600
Recommended	HCDD #1	Delta Region Water Supply - Santa Cruz Reservoir	-	5,600	5,600	5,600	5,600	5,600
Recommended	HCDD #1	Delta Region Water Supply - Engleman Reservoir	-	-	900	900	900	900
Alternative	Brownsville	Matamoros Weir and Reservoir	-	2,035	2,035	2,035	2,035	2,035

66

Off-Channel Storage and Regional Water Supply Facilities

Strategy Cost Summary

2021 Plan Designation or New WMS	Entity Name	Strategy/Project Name	Cost of Facilities	Project Cost	Annual Cost	Unit Cost	Unit Cost W/o Debt Service
Recommended	Brownsville	Banco Morales Reservoir	\$9,906,000	\$14,638,000	\$899,000	\$6,421	\$1,200
Recommended	HCDD #1	Delta Region Water Supply - Delta "Panchita" Reservoir	\$61,580,000	\$89,113,000	\$12,110,000	\$2,163	\$1,072
Recommended	HCDD #1	Delta Region Water Supply - Santa Cruz Reservoir	\$79,234,000	\$120,121,000	\$14,051,000	\$2,509	\$1,126
Recommended	HCDD #1	Delta Region Water Supply - Engleman Reservoir	\$22,934,000	\$33,665,000	\$3,644,000	\$4,049	\$1,601
Alternative	Brownsville	Matamoros Weir and Reservoir	\$9,173,000	\$16,569,000	\$914,000	\$449	\$68

67

Make Initial Determination on which Strategies are Recommended, Alternative, or Neither

Input Needed from RWPG

Designate each strategy as recommended, alternative, or considered but not recommended

- Looking to move forward with Chapter 5 and 6 drafting.
- Asking RWPG to make initial determination on whether each strategy is recommended, alternative, or just considered.
 - Determination can change before IPP is submitted, or up until final plan adoption.
- A strategy may need to be "alternative", based on its sources and yields.
- Some WUGs/MWPs may have multiple strategies to meet a need, and one strategy can be recommended, while another is "alternative".
 - Plan amendment would be needed to move an "alternative" strategy to "recommended" for a WUG to be eligible for SWIFT funding.

68

Designation of Water Management Strategies

No.	Entity Name	Water Management Strategy/Project	Status Last Cycle (or New This Cycle)	Suggestion for This Cycle
1	Various Municipal Users	Municipal Conservation - Water Use Reduction: AMI and Non-Capital Measures	Recommended	Recommended
2	Various Municipal Users	Municipal Conservation - Water Loss Mitigation: Leak Detection and Repair	Recommended	Recommended
3	All Irrigation Districts, WWPs and Customers	Irrigation District Conservation	Recommended	Recommended
4	All Irrigation	On-Farm Conservation	Recommended	Recommended
5	All Industrial	Industrial Improvements	Recommended	Recommended
6	Various	Conversion-Purchase of Surface Water Rights	Recommended	Recommended
7	All Irrigation	Bio Control of Arundo Donax	Recommended	Recommended
8	Various Municipal Users	Municipal Drought Management	Recommended	Recommended
9	Donna	WTP Expansion	Recommended	Recommended
10	East Rio Hondo WSC	North Harlingen Surface WTP Phase I	Recommended	Recommended

69

Designation of Water Management Strategies

No.	Entity Name	Water Management Strategy/Project	Status Last Cycle (or New This Cycle)	Suggestion for This Cycle
11	East Rio Hondo WSC	North Harlingen Surface WTP Phase II with IBT	Alternative	Alternative
12	Elsa	WTP Expansion and Interconnect to Engelman ID	Alternative	Alternative
13	Laredo	WTP Phase 1 Expansion	Alternative	Alternative
14	Laredo	WTP Phase 2 Expansion	Alternative	Alternative
15	Laredo	WTP Phase 3 Expansion	Alternative	Alternative
16	Laredo	WTP Phase 4 Expansion	Alternative	Alternative
17	North Alamo WSC	Delta WTP Expansion Phase I	Recommended	Recommended
18	North Alamo WSC	Delta WTP Expansion Phase II	Recommended	Recommended
19	North Alamo WSC	WTP No. 5 Expansion	Alternative	Alternative
20	Olmito WSC	WTP Expansion	Recommended	Recommended
21	East Rio Hondo WSC	FM 2925 Transmission Line	Recommended	Recommended

70

Designation of Water Management Strategies

No.	Entity Name	Water Management Strategy/Project	Status Last Cycle (or New This Cycle)	Suggestion for This Cycle
22	El Jardin WSC	Distribution Pipeline Replacement	Recommended	Recommended
23	HCID No. 6	Service Area Expansion	Recommended	Recommended
24	McAllen	Raw Waterline Project with HCID No. 1	Recommended	Recommended
25	Rio Hondo	Emergency Interconnects	Recommended	Recommended
26	Alamo	Fresh Groundwater Well	Recommended	Recommended
27	County-Other, Cameron	Expanded Fresh Groundwater Supply	Recommended	Recommended
28	County-Other, Starr	Additional Fresh Groundwater Wells	Recommended	Recommended
29	County-Other, Webb	Additional Fresh Groundwater Wells	Recommended	Recommended
30	Edcouch	New Groundwater Supply	Recommended	Recommended
31	Hidalgo	Expand Existing Groundwater Wells	Recommended	Recommended
32	McAllen	Fresh Groundwater Phase I	Alternative	Alternative

71

Designation of Water Management Strategies

No.	Entity Name	Water Management Strategy/Project	Status Last Cycle (or New This Cycle)	Suggestion for This Cycle
33	McAllen	Fresh Groundwater Phase II	Alternative	Alternative
34	Mercedes	Expand Existing Groundwater Wells	Alternative	Alternative
35	Military Highway WSC	Fresh Groundwater	Alternative	Alternative
36	Rio Hondo	New Groundwater Supply	Recommended	Recommended
37	Webb County Water Utility	Expanded Groundwater Supply	Recommended	Recommended
38	Weslaco	Groundwater Development and Blending	Recommended	Recommended
39	Agua SUD	Brackish Groundwater Desalination (Phase 1)	New	Recommended
40	Agua SUD	Brackish Groundwater Desalination (Phase 2)	New	Recommended
41	Eagle Pass	Brackish Groundwater Desalination	New	Recommended
42	East Rio Hondo WSC	Brackish Desal Wellfield and RO at NRWTP and MASWTP	New	Recommended
43	East Rio Hondo WSC	Expansion of MASWTP	New	Recommended

72

Designation of Water Management Strategies

No.	Entity Name	Water Management Strategy/Project	Status Last Cycle (or New This Cycle)	Suggestion for This Cycle
44	Southmost RWA	Brackish Groundwater Desalination Wellfield Expansion	New	Recommended
45	Southmost RWA	Phase 3 SRWA Wellfield and WTP Expansion	New	Recommended
46	Southmost RWA	Phase 4 SRWA Wellfield and WTP Expansion	New	Recommended
47	Alamo	Brackish Groundwater Desalination	Recommended	Recommended
48	East Rio Hondo WSC	North Cameron Regional WTP Wellfield Expansion	Recommended	Recommended
49	La Feria	Water Well with RO Unit	Recommended	Recommended
50	Lyford	Brackish Groundwater Desalination	Recommended	Recommended
51	McAllen	Brackish Groundwater Desalination	Recommended	Recommended
52	Mission	Brackish Groundwater Desalination	Recommended	Recommended
53	North Alamo WSC	Delta Area Brackish Groundwater Desalination	Recommended	Recommended
54	Primera	RO WTP with Groundwater Well	Recommended	Recommended

73

Designation of Water Management Strategies

No.	Entity Name	Water Management Strategy/Project	Status Last Cycle (or New This Cycle)	Suggestion for This Cycle
55	San Benito	Brackish Groundwater Blending	Recommended	Recommended
56	San Juan	Brackish Groundwater Desalination	Recommended	Recommended
57	San Juan	WTP 1 Expansion with Brackish GW Desalination	Recommended	Recommended
58	Sharyland WSC	Well and RO Unit at WTP 2	Recommended	Recommended
59	Sharyland WSC	Well and RO Unit at WTP 3	Recommended	Recommended
60	Brownsville PUB	Seawater Desalination Demonstration	Alternative	Alternative
61	Brownsville PUB	Seawater Desalination Implementation	Alternative	Alternative
62	Laguna Madre	Seawater Desalination Plant	Recommended	Recommended
63	South Texas Water Development Private Utilities	Seawater Desalination Plant and Integrated Pipeline (Phase 1)	New	Alternative
64	Agua SUD	Non-Potable Reuse - Alternative	Alternative	Alternative
65	Agua SUD	West WWTP Indirect Potable Reuse	Recommended	Recommended

74

Designation of Water Management Strategies

No.	Entity Name	Water Management Strategy/Project	Status Last Cycle (or New This Cycle)	Suggestion for This Cycle
66	Brownsville	Brownsville Southside WWTP Potable Reuse Phase I	Recommended	Recommended
67	Brownsville	Brownsville Southside WWTP Potable Reuse Phase II	Recommended	Recommended
68	Brownsville	Brownsville Indirect Potable Reuse	New	Recommended
69	Edinburg	Edinburg Non-Potable Reuse	Recommended	Recommended
70	Laredo	Laredo - South Laredo WWTP Potable Reuse Phase I	Recommended	Recommended
71	Laredo	Laredo - South Laredo WWTP Potable Reuse Phase II	Recommended	Recommended
72	McAllen	McAllen - North WWTP Potable Reuse Phase I	Recommended	Recommended
73	McAllen	McAllen - North WWTP Potable Reuse Phase II	Recommended	Recommended
74	Mission	Mission- Potable Reuse	Recommended	Recommended
75	Pharr	Pharr- Indirect Potable Reuse	Recommended	Recommended
76	Rio Hondo	Rio Hondo - Non-Potable Reuse	Recommended	Recommended

75

Designation of Water Management Strategies

No.	Entity Name	Water Management Strategy/Project	Status Last Cycle (or New This Cycle)	Suggestion for This Cycle
76	Rio Hondo	Rio Hondo - Non-Potable Reuse	Recommended	Recommended
77	San Juan	San Juan - Potable Reuse	Recommended	Recommended
78	Weslaco	Weslaco North WWTP Potable Reuse	Recommended	Recommended
79	La Feria	Reuse (Direct Non-Potable) - Alternative	Alternative	Alternative
80	San Benito	Reuse (Indirect Non-Potable) - Alternative	Alternative	Alternative
81	San Benito	Reuse (Direct Potable) - Alternative	Alternative	Alternative
82	Eagle Pass	ASR	Alternative	Alternative
83	Brownsville	Banco Morales Reservoir	Recommended	Recommended
84	Brownsville	Matamoros Weir and Reservoir	Alternative	Alternative
85	HCDD #1	Delta Region Water Supply - Delta "Panchita" Reservoir	Recommended	Recommended
86	HCDD #1	Delta Region Water Supply - Santa Cruz Reservoir	Recommended	Recommended
87	HCDD #1	Delta Region Water Supply - Engleman Reservoir	Recommended	Recommended

76

Consider Action



Consider action to designate each strategy as recommended, alternative, or considered but not recommended

77

77

Consideration of WWP Designation

In order to include water management strategies as recommended or alternative in the plan, they must have a project sponsor that is a WUG or a WWP.

- The Brackish Groundwater Desalination Project for Webb County would need Legacy WSC to be designated as a WWP.
- The Seawater Desalination Project for unallocated supplies for South Texas Water Development Private Utilities, would require that they be designated as a WWP.
- a. Consideration and Possible **ACTION** regarding Designation of Legacy WSC as a Wholesale Water Provider (WWP) as defined in 31 TAC §357.10(44) for Regional Water Planning Purposes
- b. 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

78

78

Handout A

2026 Region M

Municipal Conservation - Water Loss Mitigation

Includes leak detection and repair efforts and pipeline replacement throughout planning cycle

WUG	Pipe Replaced (Miles)	Water Loss Mitigation Yield (acft/yr)						Water Loss Mitigation Costs				
		2030	2040	2050	2060	2070	2080	Total Cost of Facilities	Total Cost of Project	Largest Annual Cost	Annual Cost of Water (\$ per AF)	Annual Cost of Water (\$ per 1,000 gal)
Brownsville	715	322	329	332	331	330	329	\$ 19,827,000	\$ 27,042,000	\$ 3,200,000	\$ 9,639	\$ 30
Eagle Pass	481	96	102	107	112	116	121	\$ 13,311,000	\$ 18,154,000	\$ 2,148,000	\$ 17,752	\$ 54
East Rio Hondo WSC	444	36	43	50	55	58	61	\$ 12,340,000	\$ 16,830,000	\$ 1,992,000	\$ 32,656	\$ 100
Edinburg	471	112	121	127	129	131	133	\$ 13,033,000	\$ 17,776,000	\$ 2,104,000	\$ 15,820	\$ 49
El Jardin WSC	108	14	14	14	14	14	14	\$ 3,050,000	\$ 4,160,000	\$ 492,000	\$ 35,143	\$ 108
El Sauz WSC	11	2	2	2	2	2	2	\$ 164,000	\$ 226,000	\$ 26,000	\$ 13,000	\$ 40
El Tanque WSC	9	2	2	2	1	1	1	\$ 164,000	\$ 226,000	\$ 26,000	\$ 13,000	\$ 40
Falcon Rural WSC	3	2	1	-	-	-	-	\$ 82,000	\$ 113,000	\$ 13,000	\$ 6,500	\$ 20
Harlingen	517	148	151	153	152	152	152	\$ 14,281,000	\$ 19,477,000	\$ 2,305,000	\$ 15,065	\$ 46
Hidalgo County MUD 1	36	5	5	5	6	6	6	\$ 971,000	\$ 1,324,000	\$ 157,000	\$ 26,167	\$ 80
La Grulla	56	44	16	16	17	17	18	\$ 1,525,000	\$ 2,080,000	\$ 246,000	\$ 5,591	\$ 17
La Joya	24	6	6	7	7	7	7	\$ 693,000	\$ 945,000	\$ 112,000	\$ 16,000	\$ 49
La Villa	8	2	3	3	3	3	3	\$ 277,000	\$ 378,000	\$ 45,000	\$ 15,000	\$ 46
Laguna Madre Water District	140	139	142	144	143	143	142	\$ 3,882,000	\$ 5,295,000	\$ 627,000	\$ 4,354	\$ 13
Laredo	1,166	418	433	438	433	429	424	\$ 32,306,000	\$ 44,062,000	\$ 5,214,000	\$ 11,904	\$ 37
McAllen	747	1,148	1,272	1,393	477	489	502	\$ 20,659,000	\$ 28,177,000	\$ 3,334,000	\$ 2,393	\$ 7
Military Highway WSC	130	65	66	66	67	68	69	\$ 3,605,000	\$ 4,916,000	\$ 582,000	\$ 8,435	\$ 26
Mission	473	542	571	197	202	207	212	\$ 13,172,000	\$ 17,966,000	\$ 2,126,000	\$ 3,723	\$ 11
North Alamo WSC	3,500	353	388	411	415	419	423	\$ 97,057,000	\$ 132,375,000	\$ 15,664,000	\$ 37,031	\$ 114
Olmito WSC	40	40	14	14	14	14	14	\$ 1,109,000	\$ 1,513,000	\$ 179,000	\$ 4,475	\$ 14
Palm Valley	7	7	2	2	2	2	2	\$ 82,000	\$ 113,000	\$ 13,000	\$ 1,857	\$ 6
Pharr	399	91	97	101	103	105	107	\$ 11,092,000	\$ 15,129,000	\$ 1,790,000	\$ 16,729	\$ 51
Port Mansfield PUD	50	4	5	6	8	10	12	\$ 821,000	\$ 1,132,000	\$ 132,000	\$ 11,000	\$ 34
Rio Grande City	84	126	134	140	48	50	51	\$ 2,357,000	\$ 3,215,000	\$ 380,000	\$ 2,714	\$ 8
Rio WSC	54	8	10	10	10	10	10	\$ 1,525,000	\$ 2,080,000	\$ 246,000	\$ 24,600	\$ 75
Roma	117	25	26	27	28	29	30	\$ 3,189,000	\$ 4,350,000	\$ 515,000	\$ 17,167	\$ 53
Sharyland WSC	475	466	169	179	181	183	186	\$ 13,172,000	\$ 17,966,000	\$ 2,126,000	\$ 4,562	\$ 14
Union WSC	50	12	13	13	14	14	15	\$ 1,387,000	\$ 1,892,000	\$ 224,000	\$ 14,933	\$ 46
Valley MUD 2	28	29	30	30	30	30	30	\$ 832,000	\$ 1,135,000	\$ 134,000	\$ 4,467	\$ 14
Webb County	31	15	21	26	26	26	25	\$ 832,000	\$ 1,135,000	\$ 134,000	\$ 5,154	\$ 16
Weslaco	140	55	56	57	59	61	63	\$ 3,882,000	\$ 5,295,000	\$ 627,000	\$ 9,952	\$ 31
Zapata County	100	55	19	19	18	18	18	\$ 2,773,000	\$ 3,782,000	\$ 448,000	\$ 8,145	\$ 25
Zapata County San Ygnacio & Ramireño	10	2	1	-	-	-	-	\$ 164,000	\$ 226,000	\$ 26,000	\$ 13,000	\$ 40
Zapata County WCID-Hwy 16 East	122	5	5	5	5	5	2	\$ 1,969,000	\$ 2,715,000	\$ 318,000	\$ 63,600	\$ 195

2026 Region M

Municipal Conservation - Water Use Reduction

Includes implementation of advanced metering infrastructure (AMI) in 2030 decade and non-capital reductions throughout planning cycle (includes 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)

WUG	Smart Meters Installed	Water Use Reduction Yield (acft/yr)						Water Use Reduction Costs*						
		2030	2040	2050	2060	2070	2080	Total Cost of Facilities	Total Cost of Project	Largest Annual Cost	Annual Cost of Water (\$ per AF)	Annual Cost of Water (\$ per 1,000 gal)	Annual Cost of Water after Debt Service (\$ per AF)	Annual Cost of Water after Debt Service (\$ per 1,000 gal)
Brownsville	65,533	2,903	4,321	5,782	7,116	8,376	9,561	\$ 21,626,000	\$ 29,028,000	\$ 6,305,760	\$ 660	\$ 2.02	\$ 330	\$ 1.01
County-Other, Cameron	1,431	423	475	451	373	301	204	\$ 472,000	\$ 634,000	\$ 210,505	\$ 443	\$ 1.36	\$ 330	\$ 1.01
County-Other, Hidalgo	2,332	160	178	77	115	160	184	\$ 770,000	\$ 1,034,000	\$ 177,680	\$ 966	\$ 2.96	\$ 330	\$ 1.01
County-Other, Starr	1,982	26	50	77	112	150	190	\$ 654,000	\$ 878,000	\$ 161,815	\$ 852	\$ 2.61	\$ 330	\$ 1.01
County-Other, Webb	1,313	70	80	57	76	82	82	\$ 433,000	\$ 581,000	\$ 93,790	\$ 1,144	\$ 3.51	\$ 330	\$ 1.01
County-Other, Zapata	527	8	17	26	36	45	55	\$ 174,000	\$ 233,000	\$ 44,165	\$ 803	\$ 2.46	\$ 330	\$ 1.01
Eagle Pass	24,820	864	1,348	1,875	2,411	2,961	3,520	\$ 8,191,000	\$ 10,994,000	\$ 2,358,695	\$ 670	\$ 2.06	\$ 330	\$ 1.01
East Rio Hondo WSC	15,067	146	354	634	940	1,224	1,524	\$ 4,972,000	\$ 6,674,000	\$ 1,248,215	\$ 819	\$ 2.51	\$ 330	\$ 1.01
Edinburg	34,167	452	1,001	1,633	2,215	2,780	3,339	\$ 11,275,000	\$ 15,134,000	\$ 2,797,830	\$ 838	\$ 2.57	\$ 330	\$ 1.01
El Jardin WSC	4,336	53	113	177	213	213	212	\$ 1,431,000	\$ 1,920,000	\$ 291,695	\$ 1,369	\$ 4.20	\$ 330	\$ 1.01
El Sauz WSC	703	7	12	13	13	13	13	\$ 232,000	\$ 312,000	\$ 40,355	\$ 3,104	\$ 9.53	\$ 330	\$ 1.01
El Tanque WSC	248	8	14	19	24	26	28	\$ 82,000	\$ 110,000	\$ 21,235	\$ 758	\$ 2.33	\$ 330	\$ 1.01
Falcon Rural WSC	49	5	9	10	10	10	9	\$ 16,000	\$ 22,000	\$ 6,050	\$ 605	\$ 1.86	\$ 330	\$ 1.01
Harlingen	29,352	1,332	1,983	2,656	3,275	3,860	4,411	\$ 9,686,000	\$ 13,001,000	\$ 2,861,995	\$ 649	\$ 1.99	\$ 330	\$ 1.01
Hidalgo County MUD 1	2,036	21	36	37	37	39	40	\$ 672,000	\$ 902,000	\$ 118,370	\$ 2,959	\$ 9.08	\$ 330	\$ 1.01
La Grulla	3,373	102	274	355	429	504	579	\$ 1,113,000	\$ 1,494,000	\$ 351,105	\$ 606	\$ 1.86	\$ 330	\$ 1.01
La Joya	1,877	24	53	84	115	146	176	\$ 619,000	\$ 831,000	\$ 151,545	\$ 861	\$ 2.64	\$ 330	\$ 1.01
La Villa	882	10	22	38	44	43	43	\$ 291,000	\$ 390,000	\$ 59,505	\$ 1,352	\$ 4.15	\$ 330	\$ 1.01
Laguna Madre Water District	3,787	325	751	1,145	1,491	1,798	2,071	\$ 1,250,000	\$ 1,678,000	\$ 761,370	\$ 368	\$ 1.13	\$ 330	\$ 1.01
Laredo	90,847	1,670	3,593	5,620	7,434	9,115	10,667	\$ 29,980,000	\$ 40,241,000	\$ 7,963,115	\$ 747	\$ 2.29	\$ 330	\$ 1.01
McAllen	72,616	2,684	6,686	11,092	15,816	17,848	19,873	\$ 23,963,000	\$ 32,164,000	\$ 9,775,155	\$ 492	\$ 1.51	\$ 330	\$ 1.01
Military Highway WSC	15,617	259	545	844	1,147	1,443	1,733	\$ 5,154,000	\$ 6,918,000	\$ 1,339,520	\$ 773	\$ 2.37	\$ 330	\$ 1.01
Mission	34,610	1,266	2,988	5,095	5,960	6,819	7,677	\$ 11,421,000	\$ 15,330,000	\$ 4,119,825	\$ 537	\$ 1.65	\$ 330	\$ 1.01
North Alamo WSC	88,923	3,188	5,130	7,201	8,971	10,686	12,342	\$ 29,344,000	\$ 39,387,000	\$ 8,371,295	\$ 678	\$ 2.08	\$ 330	\$ 1.01
Olmito WSC	2,621	92	239	298	355	410	463	\$ 865,000	\$ 1,162,000	\$ 276,945	\$ 598	\$ 1.84	\$ 330	\$ 1.01
Palm Valley	446	17	43	53	62	71	79	\$ 147,000	\$ 197,000	\$ 47,485	\$ 601	\$ 1.84	\$ 330	\$ 1.01
Pharr	33,611	367	786	1,276	1,530	1,561	1,593	\$ 11,092,000	\$ 14,888,000	\$ 2,243,230	\$ 1,408	\$ 4.32	\$ 330	\$ 1.01
Port Mansfield PUD	337	10	26	48	79	119	170	\$ 111,000	\$ 149,000	\$ 64,055	\$ 377	\$ 1.16	\$ 330	\$ 1.01
Rio Grande City	7,250	295	706	1,120	1,601	1,810	2,021	\$ 2,393,000	\$ 3,212,000	\$ 986,850	\$ 488	\$ 1.50	\$ 330	\$ 1.01
Rio WSC	3,508	32	78	92	93	92	92	\$ 1,158,000	\$ 1,554,000	\$ 212,315	\$ 2,283	\$ 7.01	\$ 330	\$ 1.01
Roma	8,590	99	216	349	479	612	640	\$ 2,835,000	\$ 3,805,000	\$ 644,050	\$ 1,006	\$ 3.09	\$ 330	\$ 1.01
Sharyland WSC	35,583	1,087	2,999	3,885	4,636	5,371	6,087	\$ 11,742,000	\$ 15,761,000	\$ 3,694,805	\$ 607	\$ 1.86	\$ 330	\$ 1.01
Union WSC	2,896	111	170	235	299	365	431	\$ 956,000	\$ 1,283,000	\$ 280,880	\$ 652	\$ 2.00	\$ 330	\$ 1.01
Valley MUD 2	1,050	68	157	240	312	376	433	\$ 347,000	\$ 466,000	\$ 172,815	\$ 399	\$ 1.22	\$ 330	\$ 1.01
Webb County	7,358	60	172	335	443	536	531	\$ 2,428,000	\$ 3,259,000	\$ 547,550	\$ 1,022	\$ 3.13	\$ 330	\$ 1.01
Weslaco	12,480	496	741	1,003	1,276	1,554	1,839	\$ 4,119,000	\$ 5,529,000	\$ 1,206,680	\$ 656	\$ 2.01	\$ 330	\$ 1.01
Zapata County	3,308	128	327	402	470	530	587	\$ 1,092,000	\$ 1,466,000	\$ 349,545	\$ 595	\$ 1.83	\$ 330	\$ 1.01
Zapata County San Ygnacio & Ramireño	55	5	9	10	10	11	11	\$ 18,000	\$ 24,000	\$ 6,355	\$ 578	\$ 1.77	\$ 330	\$ 1.01
Zapata County WCID-Hwy 16 East	179	11	25	39	50	60	72	\$ 59,000	\$ 79,000	\$ 30,350	\$ 422	\$ 1.29	\$ 330	\$ 1.01

*Facilities and Project costs include the installation of smart meters. Annual costs include also include costs associated with non-capital efforts

Handout B

2026 Region M

Irrigation District Conservation

Includes improvements to system, including canal lining, replacement of canal w/pipeline, controls, interconnects, and general repairs throughout planning cycle until ID reaches maximum system efficiency of 90%

Irrigation District	2026 RWP Efficiency	Irrigation District Conservation Savings (acft/yr)						Irrigation District Conservation Costs				
		2030	2040	2050	2060	2070	2080	Total Cost of Facilities	Project Costs	Annual Cost	Annual Unit Cost of Water (\$ per AF)	Annual Unit Cost of Water (\$ per 1,000 gal)
Bayview Irrigation District	68%	255	510	765	1,020	1,275	1,530	\$ 10,676,000	\$ 14,881,000	\$ 1,047,000	\$ 684	\$ 2.10
Brownsville Irrigation District	68%	608	1,216	1,823	2,431	3,039	3,647	\$ 25,449,000	\$ 35,473,000	\$ 2,496,000	\$ 684	\$ 2.10
Cameron County Irrigation District No. 2, San Benito	80%	1,248	2,497	3,745	4,994	6,242	7,491	\$ 52,278,000	\$ 72,869,000	\$ 5,127,000	\$ 684	\$ 2.10
Cameron County Irrigation District No. 6, Los Fresnos	85%	272	543	815	1,086	1,358	1,629	\$ 11,369,000	\$ 15,848,000	\$ 1,115,000	\$ 684	\$ 2.10
Cameron County W.I.D No. 10, Rutherford Harding	68%	372	744	1,115	1,487	1,859	2,231	\$ 15,567,000	\$ 21,699,000	\$ 1,527,000	\$ 684	\$ 2.10
Delta Lake Irrigation District	65%	4,222	8,444	12,666	16,888	21,110	25,331	\$ 176,782,000	\$ 246,411,000	\$ 17,338,000	\$ 684	\$ 2.10
Donna Irrigation District Hidalgo Co. No. 1	71%	1,412	2,824	4,235	5,647	7,059	8,471	\$ 59,117,000	\$ 82,401,000	\$ 5,798,000	\$ 684	\$ 2.10
Engleman Irrigation District	71%	218	435	653	870	1,088	1,306	\$ 9,112,000	\$ 12,701,000	\$ 894,000	\$ 685	\$ 2.10
Harlingen Irrigation District No. 1	85%	600	1,200	1,800	2,400	3,000	3,600	\$ 25,124,000	\$ 35,019,000	\$ 2,464,000	\$ 684	\$ 2.10
Hidalgo and Cameron Counties Irrigation District No. 9, Mercedes	70%	2,915	5,830	8,745	11,661	14,576	17,491	\$ 122,065,000	\$ 170,143,000	\$ 11,971,000	\$ 684	\$ 2.10
Hidalgo County Irrigation District No. 1, Edinburg	71%	2,886	5,772	8,658	11,543	14,429	17,315	\$ 120,837,000	\$ 168,432,000	\$ 11,851,000	\$ 684	\$ 2.10
Hidalgo County Irrigation District No. 2, San Juan	75%	2,588	5,176	7,763	10,351	12,939	15,527	\$ 108,358,000	\$ 151,037,000	\$ 10,627,000	\$ 684	\$ 2.10
Hidalgo County Irrigation District No. 5, Progreso	71%	183	366	549	732	915	1,098	\$ 7,666,000	\$ 10,685,000	\$ 752,000	\$ 685	\$ 2.10
Hidalgo County Irrigation District No. 6, Mission 6	71%	679	1,359	2,038	2,718	3,397	4,076	\$ 28,448,000	\$ 39,653,000	\$ 2,790,000	\$ 684	\$ 2.10
Hidalgo County Irrigation District No. 13	71%	55	110	165	220	275	330	\$ 2,304,000	\$ 3,211,000	\$ 226,000	\$ 685	\$ 2.10
Hidalgo County Irrigation District No. 16, Mission	71%	543	1,087	1,630	2,174	2,717	3,260	\$ 22,754,000	\$ 31,716,000	\$ 2,232,000	\$ 685	\$ 2.10
Hidalgo County Water Improvement District No. 3	90%	0	0	0	0	0	0	\$ -	\$ -	\$ -	\$ -	\$ -
Hidalgo County Water Improvement District No. 18	71%	1	2	2	3	4	5	\$ 34,000	\$ 48,000	\$ 3,000	\$ 600	\$ 1.84
Hidalgo County Water Improvement District No. 19, Sharyland	71%	101	202	304	405	506	607	\$ 4,239,000	\$ 5,908,000	\$ 416,000	\$ 685	\$ 2.10
La Feria Irrigation District, Cameron County No. 3	68%	1,455	2,911	4,366	5,822	7,277	8,733	\$ 60,945,000	\$ 84,950,000	\$ 5,977,000	\$ 684	\$ 2.10
Maverick County Water Improvement District	67%	2,136	4,272	6,408	8,544	10,680	12,816	\$ 89,439,000	\$ 124,666,000	\$ 8,772,000	\$ 684	\$ 2.10
Santa Cruz Irrigation District No. 15	60%	1,536	3,073	4,609	6,146	7,682	9,219	\$ 64,333,000	\$ 89,673,000	\$ 6,310,000	\$ 684	\$ 2.10
United Irrigation District	85%	469	939	1,408	1,878	2,347	2,816	\$ 19,655,000	\$ 27,396,000	\$ 1,928,000	\$ 685	\$ 2.10
Valley Acres Irrigation District	71%	206	412	618	825	1,031	1,237	\$ 8,632,000	\$ 12,032,000	\$ 847,000	\$ 685	\$ 2.10
TOTAL		24,960	49,924	74,880	99,845	124,805	149,766	\$ 1,045,183,000	\$ 1,456,852,000	\$ 102,508,000		

2026 Region M

Irrigation District Conservation

Includes improvements to system, including canal lining, replacement of canal w/pipeline, controls, interconnects, and general repairs throughout planning cycle until ID reaches maximum system efficiency of 90%

Allocations to WUGs	Irrigation District Conservation Savings (acft/yr)					
	2030	2040	2050	2060	2070	2080
Bayview Irrigation District	255	510	765	1,020	1,275	1,530
County-Other, Cameron	7	13	20	27	34	40
Irrigation, Cameron	248	496	744	990	1,234	1,477
Unallocated	0	1	1	3	7	13
Brownsville Irrigation District	608	1,216	1,823	2,431	3,039	3,647
County-Other, Cameron	12	24	37	49	61	73
El Jardin	44	88	132	176	220	264
Irrigation, Cameron	467	934	1,399	1,863	2,322	2,779
Unallocated	85	170	255	343	436	531
Cameron County Irrigation District No. 2, San Benito	1,248	2,497	3,745	4,994	6,242	7,491
County-Other, Cameron	10	20	30	40	50	60
ERHWSC	92	184	276	369	460	553
Irrigation, Cameron	1,012	2,023	3,032	4,036	5,032	6,022
Rio Hondo	13	26	39	51	64	77
San Benito	118	234	352	469	586	703
Steam-Electric, Cameron	3	6	10	13	16	19
Unallocated	0	4	6	16	34	57
Cameron County Irrigation District No. 6, Los Fresnos	272	543	815	1,086	1,358	1,629
Brownsville	2	5	7	10	13	15
Industrial, Cameron	0	0	0	1	1	1
Irrigation, Cameron	161	321	482	641	800	957
Los Fresnos	9	18	26	35	44	53
Olmito	16	32	47	62	78	94
Unallocated	84	167	253	337	422	509
Cameron County W.I.D No. 10, Rutherford Harding	372	744	1,115	1,487	1,859	2,231
Irrigation, Cameron	116	232	348	464	578	692
Mining, Cameron	1	1	2	2	3	3
Unallocated	255	511	765	1,021	1,278	1,536
Delta Lake Irrigation District	4,222	8,444	12,666	16,888	21,110	25,331
County-Other, Willacy	4	8	13	17	21	25
Irrigation, Hidalgo	1,652	3,302	4,949	6,588	8,214	9,829
Irrigation, Willacy	1262	2522	3780	5031	6273	7506
Lyford	40	82	122	164	204	246
Port Mansfield	6	13	19	25	31	38
Raymondville	240	480	720	960	1200	1440
Unallocated	1,018	2,037	3,063	4,103	5,167	6,247
Donna Irrigation District Hidalgo Co. No. 1	1,412	2,824	4,235	5,647	7,059	8,471
County-Other, Hidalgo	85	170	256	341	426	511
Donna	139	277	416	555	693	832
Irrigation, Hidalgo	1188	2374	3558	4736	5905	7067
Unallocated	0	3	5	15	35	61
Engleman Irrigation District	218	435	653	870	1,088	1,306
Irrigation, Hidalgo	218	435	652	868	1082	1294
Unallocated	-	-	1	2	6	12
Harlingen Irrigation District No. 1	600	1,200	1,800	2,400	3,000	3,600
Combes	7	13	20	26	33	40
East Rio Hondo WSC	1	2	3	-	-	-
ERHWSC	3	6	9	12	14	17
Harlingen WW	199	400	599	801	1,000	1,199
Irrigation, Cameron	378	755	1,133	1,511	1,883	2,254
Military Highway	6	12	18	23	29	35
Palm Valley	3	5	8	10	13	16
Primera	3	7	10	13	17	20
Unallocated	-	-	-	4	11	19
Hidalgo and Cameron Counties Irrigation District No. 9, Mercedes	2,915	5,830	8,745	11,661	14,576	17,491
Edcouch	16	31	47	62	78	93
Elsa	36	73	109	145	181	217
Irrigation, Cameron	169	339	507	675	842	1,008
Irrigation, Hidalgo	2,120	4,236	6,349	8,451	10,537	12,609
La Villa	12	25	36	48	60	73
Mercedes	108	216	324	432	540	648
NAWSC	187	374	561	748	935	1,123

Handout B

Weslaco	266	532	798	1,063	1,330	1,595
Unallocated	1	4	14	37	73	125
Hidalgo County Irrigation District No. 1, Edinburg	2,886	5,772	8,658	11,543	14,429	17,315
Edinburg	343	687	1,030	1,374	1,717	2,061
Hidalgo MUD	26	52	77	103	129	154
Irrigation, Hidalgo	936	1,870	2,802	3,730	4,651	5,565
McAllen	127	253	380	507	633	760
NAWSC	44	89	133	177	222	266
Sharyland	313	625	939	1,252	1,565	1,877
Unallocated	1,097	2,196	3,297	4,400	5,512	6,632
Hidalgo County Irrigation District No. 2, San Juan	2,588	5,176	7,763	10,351	12,939	15,527
Alamo	104	209	313	418	522	626
Edinburg	100	201	300	400	501	601
Irrigation, Hidalgo	1,321	2,640	3,957	5,267	6,567	7,859
McAllen	561	1,123	1,684	2,245	2,806	3,368
NAWSC	86	175	261	349	435	523
Pharr	167	335	502	669	836	1,004
San Juan	63	127	190	253	317	380
Unallocated	186	366	556	750	955	1,166
Hidalgo County Irrigation District No. 5, Progreso	183	366	549	732	915	1,098
Irrigation, Hidalgo	183	366	548	730	910	1,089
Unallocated	-	-	1	2	5	9
Hidalgo County Irrigation District No. 6, Mission 6	679	1,359	2,038	2,718	3,397	4,076
Agua SUD	264	528	792	1,055	1,319	1,582
Irrigation, Hidalgo	415	831	1,245	1,657	2,066	2,473
Unallocated	-	-	1	6	12	21
Hidalgo County Irrigation District No. 13	55	110	165	220	275	330
Irrigation, Hidalgo	55	110	165	219	274	327
Unallocated	-	-	-	1	1	3
Hidalgo County Irrigation District No. 16, Mission	543	1,087	1,630	2,174	2,717	3,260
Agua SUD	118	234	352	470	586	704
Irrigation, Hidalgo	409	819	1,229	1,634	2,038	2,439
La Joya	16	33	49	65	81	97
Unallocated	-	1	-	5	12	20
Hidalgo County Water Improvement District No. 3	-	-	-	-	-	-
Hidalgo County Water Improvement District No. 18	1	2	2	3	4	5
Irrigation, Hidalgo	1	2	2	3	4	5
Hidalgo County Water Improvement District No. 19, Sharyland	101	202	304	405	506	607
Irrigation, Hidalgo	101	202	303	404	503	602
Unallocated	-	-	1	1	3	5
La Feria Irrigation District, Cameron County No. 3	1,455	2,911	4,366	5,822	7,277	8,733
County-Other, Cameron	33	66	99	132	165	198
Irrigation, Hidalgo	1,255	2,508	3,759	5,003	6,238	7,464
La Feria	121	242	363	484	605	726
Santa Rosa	33	66	99	132	165	198
Siesta Shores	9	20	29	38	49	58
Unallocated	4	9	17	33	55	89
Maverick County Water Improvement District	2,136	4,272	6,408	8,544	10,680	12,816
County Other- Maverick	35	72	107	142	177	212
Irrigation, Maverick	2,062	4,121	6,177	8,222	10,252	12,268
Unallocated	39	79	124	180	251	336
Santa Cruz Irrigation District No. 15	1,536	3,073	4,609	6,146	7,682	9,219
Irrigation, Hidalgo	1,399	2,798	4,197	5,596	6,995	8,394
NAWSC	37	75	112	150	187	225
Sharyland	100	200	300	400	500	600
Unallocated	-	-	-	-	-	-
United Irrigation District	469	939	1,408	1,878	2,347	2,816
Irrigation, Hidalgo	58	116	174	232	289	346
McAllen	94	187	281	375	469	563
Mission	181	361	541	722	902	1,083
Sharyland	87	173	261	347	434	521
Unallocated	49	102	151	202	253	303
Valley Acres Irrigation District	206	412	618	825	1,031	1,237
Irrigation, Cameron	28	56	83	111	138	166
Irrigation, Hidalgo	178	356	534	711	886	1,061
Unallocated	-	-	1	3	7	10

2026 Region M

On-Farm Conservation

Includes on-farm water delivery system improvements in 2030 and water use management practices (e.g., scheduling, moisture metering, and on-farm audits) and land management systems (e.g., laser leveling, narrow border citrus, and furrow dikes) throughout planning cycle

County	Basin	2030 Demand Projections	% Split	2080 Savings by Strategy (acft/yr)			Total Savings (acft/yr)
				Management Practices	Land Management Systems	On-Farm Water Delivery Systems	
CAMERON	Nueces-Rio Grande	488,773	94%	3,055	6,110	815	9,980
CAMERON	Rio Grande	31,199	6%	195	390	52	637
HIDALGO	Nueces-Rio Grande	640,071	96%	4,000	8,001	1,067	13,068
HIDALGO	Rio Grande	26,489	4%	166	331	44	541
JIM HOGG	Nueces-Rio Grande	282	81%	2	3	1	6
JIM HOGG	Rio Grande	66	19%	-	1	-	1
MAVERICK	Rio Grande	59,725	100%	373	747	100	1,220
STARR	Rio Grande	23,109	100%	144	289	39	472
WEBB	Rio Grande	10,090	100%	63	126	17	206
WILLACY	Nueces-Rio Grande	96,412	100%	603	1,205	161	1,969
ZAPATA	Rio Grande	4,936	100%	31	62	8	101

County	Basin	On-Farm Conservation Savings (acft/yr)						On-Farm Conservation Costs					
		2030	2040	2050	2060	2070	2080	Lifetime Facility Costs	2030 Facility Costs	Project Costs by Decade	Annual Cost	Project Yield per Decade	Annual Cost of Water (\$ per AF)
CAMERON	Nueces-Rio Grande	2,343	3,870	5,398	6,925	8,453	9,980	\$ 16,816,852	\$ 2,852,097	\$ 3,975,000	\$ 478,000	2,343	\$ 204
CAMERON	Rio Grande	150	247	345	442	540	637	\$ 1,073,380	\$ 182,047	\$ 254,000	\$ 31,000	150	\$ 207
HIDALGO	Nueces-Rio Grande	3,067	5,067	7,068	9,068	11,068	13,068	\$ 22,020,303	\$ 3,734,732	\$ 5,206,000	\$ 626,000	3,067	\$ 204
HIDALGO	Rio Grande	127	210	293	375	458	541	\$ 911,615	\$ 154,548	\$ 216,000	\$ 26,000	127	\$ 205
JIM HOGG	Nueces-Rio Grande	2	3	4	4	5	6	\$ 10,110	\$ 1,495	\$ 2,000	\$ -	2	\$ -
JIM HOGG	Rio Grande	0	0	1	1	1	1	\$ 1,685	\$ 406	\$ 1,000	\$ -	0	\$ -
MAVERICK	Rio Grande	287	473	660	847	1,033	1,220	\$ 2,055,768	\$ 348,669	\$ 486,000	\$ 58,000	287	\$ 202
STARR	Rio Grande	111	183	256	328	400	472	\$ 795,346	\$ 134,885	\$ 188,000	\$ 23,000	111	\$ 207
WEBB	Rio Grande	49	80	112	143	175	206	\$ 347,121	\$ 58,830	\$ 82,000	\$ 10,000	49	\$ 206
WILLACY	Nueces-Rio Grande	462	764	1,065	1,366	1,668	1,969	\$ 3,317,874	\$ 562,554	\$ 784,000	\$ 94,000	462	\$ 203
ZAPATA	Rio Grande	24	39	55	70	86	101	\$ 170,191	\$ 28,922	\$ 40,000	\$ 5,000	24	\$ 213

Project costs include engineering and contingency costs and a 10-year, 3.5% debt service.

ITEM 7B.

FINANCIAL REPORT

ITEM 8A.

REPORTS FROM FEDERAL & STATE AGENCIES - TWDB

Region M TWDB Update November 6, 2024

New TWDB Board member and Executive Administrator

- Bryan McMath announced (Sept. 4) as new TWDB Executive Administrator. McMath had been serving as Interim Executive Administrator since March 6, 2024.
- Tonya Miller appointed (Sept. 16) to the Texas Water Development Board for a term set to expire on Feb. 1, 2027.

Resources for IPP and Final Regional Water Plan Processes

- IPP and Final Regional Water Plan Process Schematic: Schematic showing the IPP and final plan submittal and IPP hearing and public comment process.
- IPP and Final Regional Water Plan Public Notice Summary: List of the public notice requirements associated with the IPP adoption, IPP public hearing, and final plan adoption.
- IPP Review Checklist: Checklist TWDB staff will utilize to conduct the review of each IPP to ensure statute, rule, and contract requirements are met.