

## 2021 Region M RWP Prioritization Notes, Assumptions, and Comments

### Sources:

1. List of WMS projects provided by the TWDB, which is directly sourced from the TWDB database (DB22);
2. TWDB Project Prioritization guidance (updated November 2018);
3. 2021 Region M RWP; and
4. Project sponsor updates.

All assumptions are used where specific information regarding the project is not available.

### **SWIFT funding category “flags”**

TWDB has noted that these labels will not request funding opportunities or priorities of projects; “flags” will be determined by TWDB for each project when an application is submitted.

### Rural/Agricultural Conservation Projects

- Irrigation District Conservation
- Assume all Irrigation WUGs, County-other WUGs, Irrigation Districts
- Added all WSCs: East Rio Hondo, El Jardin WSC, NAWSC, Olmito WSC, Rio WSC, Sharyland WSC, Military Highway WSC, Union WSC, Webb County Water Utility, and Zapata County Waterworks, as they serve primarily rural connections.

### Reuse/conservation Projects

- Direct potable and non-potable reuse
- Water loss reduction and conservation

### **Criteria 1A & 1B**

A. What is the decade the RWP shows the project comes online?

B. In what decade is initial funding needed?

- 1A is based on the first decade of supply indicated for the WMS in DB22
- 1B has been based on the decade funding is required, indicated in the published plan, IFR data (tab in the spreadsheet), or other published information. When no specific information is available, the decade of implementation is assumed to be the decade that funding is required.

### **Criteria 2A**

What supporting data is available to show that the quantity of water needed is available?

- 0 Models suggest insufficient quantities of water or no modeling has been performed
- 3 Models suggest sufficient quantity of water
- 5 Field tests, measurements, or project specific studies confirm sufficient quantities of water



- Advanced municipal conservation includes toilet, showerhead, and aerator retrofits, clothes washer rebates, irrigation water audits, rainwater harvesting and rain barrels, and commercial general rebate. These are measurable, known means toward water conservation, so the water is said to be available. (5)
- Conversion of Water Rights is based on the Water Availability Model Firm Yield coupled with historical rates of urbanization, so the water is known to be available. (5)
- ID conservation is based on measurements of current losses. (5)
- New groundwater wells (fresh or brackish desalination) are assumed to only have modeling done (3), unless it is known that test/monitoring wells have been drilled.
- Expansion of groundwater wells assumes that monitor well data is available. (5)
- Direct reuse (both potable and non-potable) WMS have been developed with field data supporting drought year firm yield (5)
- All weirs and reservoir yields are based on WAM modeling, firm yield of water rights, and project-specific studies (5)
- Sufficient quantities of water for Seawater desalination are available (5)
- For Resaca restoration, it is assumed there is a sufficient quantity of water (5)
- Distribution and transmission projects that provide either measured loss reduction or supplies to new end users are assumed to be field tested (5)
- New/Expanded surface water treatment plant yields are based on either existing supplies (limited by treatment capacity) or include purchase of converted water rights (5)
- Rio Grande City meter replacement yield is based on measured water savings (5)

### Criteria 2B

If necessary, does the sponsor hold necessary legal rights, water rights and/or contracts to use the water that this project would require?

- 0 legal rights, water rights and/or contract application not submitted
- 2 application submitted
- 3 application is administratively complete
- 5 legal rights, water rights and/or contracts obtained or not needed

- Water rights and/or contracts not needed for Advanced Municipal Conservation projects (5)
- Water rights and/or contracts not needed for ID Conservation (5)
- Conversion of water right through urbanization may be available; all entities with this WMS implemented in 2020 are assumed to have initiated an application (2). All others are assumed not to have submitted an application (0) unless the conversion is for agricultural rights already held by the entity (5)
- New or Expansion of groundwater wells and brackish desalination were given (5) because no GCDs are actively managing the area
- No water rights are needed for seawater desalination (5)
- Banco Morales water rights are considered as “have been applied for” but have not been approved yet by Mexico (3)
- No water rights are required for Brownsville resaca restoration (5)
- Direct Potable and Non-Potable Reuse are assumed to already have water rights obtained or are not needed (5)



- Donna reservoir and pump station is assumed to have applied for storage permit (2)
- Expansion of surface WTP are assumed to require water rights, and have been applied for in 2020 and not applied for in future decades (0) unless known otherwise.
- Transmission and distribution projects (interconnects, pipelines) are assumed to not require water rights (5)
- Meter replacement requires no water rights (5)

**Criteria 2C**

What level of engineering and/or planning has been accomplished for this project? (Points based on progress on scientific data collection, stage of studies and design)

1	Project idea is outlined in Regional Plan.	6	Preliminary engineering report initiated.
2	Feasibility studies initiated.	7	Preliminary engineering report completed.
3	Feasibility studies completed.	8	Preliminary design initiated.
4	Conceptual design initiated.	9	Preliminary design completed.
5	Conceptual design completed.	10	Final design complete.

- Brownsville Resaca Restoration is under way (10 pts)
- Seawater Desalination – Feasibility studies initiated (2)
- Advanced municipal conservation assumed to be only outlined in the regional plan (1) unless specific studies were submitted (e.g. meter replacement for Rio Grande City (5))
- Assuming the preliminary engineering report is completed (7) for all of the distribution and transmission, storage, surface water treatment projects, groundwater wells and treatment that were submitted with sufficient detail to be included.
- Preliminary engineering report completed for all non-potable reuse projects submitted (7)
- Conceptual design completed for all submitted potable reuse projects (5)
- Irrigation Districts that submitted conservation projects were considered preliminary design complete (9):
  - Brownsville ID
  - CCID 2
  - Delta Lake ID
  - Donna ID
  - Engleman ID
  - Harlingen ID
  - HCCID 9
  - HCID 1
  - HCID 16
  - HCID 2
  - HCID 5
  - Hidalgo WID 3
  - Santa Cruz ID
  - United ID
- Non-submitting IDs were assigned (2) for feasibility studies initiated



- Conversion of Water Rights is given an (8) because it requires no engineering
- Brackish Groundwater Desalination submitted (5) conceptual design completed, BGD developed by RWPG (1)
- Expand existing ground water wells – assume feasibility studies initiated (2), (preliminary costs in RWP)
- Assuming the PER for the Banco Morales reservoir is completed (7)
- Donna reservoir has initiated preliminary engineering reports (6)
- Supply and infrastructure WMS developed by the RWPG were considered as outlined in the regional plan (1)

**Criteria 2D**

Has the project sponsor requested in writing that the project be included in the Regional Water Plan? [No = 0 points; yes = 5]

- Yes – Examples: email, letters, published statements (5)
- No – Examples: No correspondence, submitted/developed by RWPG (0)
  - Typical for Conversion of Water Rights (urbanization), unless directly stated

**Criteria 3A & 3B**

In the decade the project supply comes online/final decade of planning, what is the % of the WUG's (or WUGs') needs satisfied by this project? [Calculation is based on the needs of all WUGs receiving water from the project.]

- Entities with 0 needs when project is implemented receive 0% for 3A & 3B
- 3A and 3B are calculated using the volume of the WMS related to the project (when the project is a component of a WMS)

**Criteria 3C**

Is this project the only economically feasible source of new supply for the WUG, other than conservation?

- 0 no
- 5 yes

- Entities with only conservation strategies are given (0) points.

**Criteria 3D**

Does the project serve multiple WUGs?

- All projects serving multiple WUGs are given 5 pts

**Criteria 4A**

Over what period of time is this project expected to provide water (regardless of the planning period)?

- 5 less than or equal to 20 years
- 10 greater than 20 years

- Decades of supply are shown for each project, used to calculate the duration of supply

**Criteria 4B**

Does the volume of water supplied by the project change over the regional water planning period?

- 0 decreases
- 3 no change
- 5 increases

- If the water supply for a project increase and decreases, use the overall trend from decade of implementation to last decade of supply (or last decade of planning horizon)

**Criteria 5**

What is the expected unit cost of water supplied by this project compared to the median unit cost of all other recommended strategies in the region's current RWP? (Project's Unit Cost divided by the median project's unit cost)

- 0 200% or greater than median
- 1 150% to 199% of median
- 2 101% to 149% of median
- 3 100% of median
- 4 51% to 99% of median
- 5 0% to 50% of median

- Project unit costs and median unit cost are based on **complete** unit costs (debt service on capital, O&M) at the decade of implementation for each strategy.