

4B.2 Aransas County Water Supply Plan

Table 4B.2-1 lists each water user group in Aransas County and their corresponding surplus or shortage in years 2030 and 2060. For each water user group with a projected shortage, a water supply plan has been developed and is presented in the following subsections.

**Table 4B.2-1.
Aransas County Surplus/(Shortage)**

Water User Group	Surplus/(Shortage) ¹		Comment
	2030 (acft/yr)	2060 (acft/yr)	
City of Aransas Pass	0	0	Supply equals demand
City of Fulton	0	0	Supply equals demand
City of Rockport	0	0	Supply equals demand
County-Other	0	(1,443)	Projected shortages in 2050 and 2060 — see plan below
Manufacturing	(97)	(136)	Projected shortages from 2000 to 2060 — see plan below
Steam-Electric	none	none	No demands projected
Mining	0	0	Supply equals demand
Irrigation	none	none	No demands projected
Livestock	0	0	Supply equals demand
¹ From Tables 4A-1 and 4A-2, Section 4 – Comparison of Water Demands with Water Supplies to Determine Needs.			

4B.2.1 City of Aransas Pass

The City of Aransas Pass is in Aransas, Nueces, and San Patricio Counties; consequently, its water demand and supply values are split into the tables for each county. Aransas Pass contracts with the San Patricio Municipal Water District (SPMWD) to purchase treated water. The contract allows the City to purchase only the water that it needs. No shortages are projected for the City of Aransas Pass and no changes in water supply are recommended.

4B.2.2 City of Fulton

The City of Fulton has a contract with the SPMWD to purchase treated water. The contract allows the City to purchase only the water that it needs. No shortages are projected for the City of Fulton and no changes in water supply are recommended.

4B.2.3 City of Rockport

The City of Rockport has a contract with the SPMWD to purchase treated water. The contract allows the City to purchase only the water that it needs. No shortages in annual water supplies are projected for the City of Rockport and no changes in water supplies are recommended.

4B.2.4 County-Other

4B.2.4.1 Description

- Source: Groundwater – Gulf Coast Aquifer
Surface Water – CCR/LCC/Texana System purchased from the SPMWD and run-of-river rights from San Antonio-Nueces River Basin
- Estimated Reliable Supply: 236 to 276 acft/yr (groundwater)
49 to 1,740 acft/yr (surface water)
- System Description: Served by SPMWD and groundwater supplies with estimated well capacity of 295 acft/yr

4B.2.4.2 Options Considered

The function of the County-Other demand projection category is to capture the demands of single-family rural municipal demands as well as demands for small rural water supply systems. The Aransas County-Other water user group has projected shortages of 1,527 acft/yr in 2050 and 1,443 acft/yr in 2060. Their shortages are attributed to shortages for SPMWD, based on customer needs exceeding existing maximum contracted supply of 40,000 acft from City of Corpus Christi. Table 4B.2-2 lists the water management strategy to meet customer needs (Aransas County-Other), references to the report section discussing the strategy, total project cost, and unit costs that were considered for meeting the shortage for County-Other in Aransas County. The Water Management Strategies for SPMWD are discussed in Section 4B.12.12.

Table 4B.2-2.
Water Management Strategies Considered for Aransas County-Other

Option	Yield (acft/yr)	Approximate Cost ¹	
		Total	Unit (\$/acft)
Increase contracted amount provided by Wholesale Water Providers	up to 1,527	N/A	\$498-\$550 ²
¹ Unless otherwise noted, costs are Total Project Cost and Unit Cost (\$/acft/yr) for treated water delivered to the water supply entity or entities. Unit cost is for full utilization of project capacity. ² Unit cost based on development of water management strategies for wholesale water providers in Table 4B.12-5. N/A — Not applicable; wholesale water provider will bear cost of project.			

4B.2.4.3 Water Supply Plan

Working within the planning criteria established by the Coastal Bend RWPG and TWDB, the following water supply plan is recommended to meet the projected 2050 and 2060 shortages for County-Other in Aransas County:

- Increase contracted amount provided by Wholesale Water Provider (San Patricio Municipal Water District)

In addition to the management strategies listed above, the RWPG supports strategies for increased conservation and reuse of existing supplies.

4B.2.4.4 Costs

The recommended Water Supply Plan including anticipated costs is summarized by decade in Table 4B.2-3.

Table 4B.2-3.
Recommended Plan Costs by Decade for Aransas County-Other

Plan Element	2010	2020	2030	2040	2050	2060
Projected Surplus/(Shortage) (acft/yr)	—	—	—	—	(1,527)	(1,443)
Increase Contracted Amount provided Wholesale Water Provider (San Patricio Municipal Water District)						
Supply From Plan Element (acft/yr)	—	—	—	—	1,527	1,443
Total Annual Cost (\$/yr)	—	—	—	—	\$760,500	\$793,650
Total Unit Cost (\$/acft)	—	—	—	—	\$498	\$550
¹ Unit cost based on development of water management strategies for wholesale water providers in Table 4B.11-7.						

4B.2.5 Manufacturing

4B.2.5.1 Description

- Source: Groundwater – Gulf Coast Aquifer
- Estimated Reliable Supply: 195 acft/yr (groundwater)
- System Description: Various manufacturing operations

4B.2.5.2 Options Considered

The Aransas County manufacturing water user group has projected shortages of 72 acft/yr in 2010, 97 acft/yr in 2030, and 136 acft/yr in 2060. Their shortages are attributed to limited well capacity of 195 acft/yr estimated using the procedure in Section 4A.2.2. Table 4B.2-4 lists the water management strategies, references to the report section discussing the strategy, total project cost, and unit costs that were considered for meeting the shortage for Aransas County- Manufacturing.

**Table 4B.2-4.
Water Management Strategies Considered for Aransas County-Manufacturing**

Option	Yield (acft/yr)	Approximate Cost ¹	
		Total	Unit (\$/acft)
Gulf Coast Aquifer Groundwater Supplies — Drill Additional Well(s) (Section 4C.7)	200	\$196,000 ²	\$85 ²

¹ Unless otherwise noted, costs are Total Project Cost and Unit Cost (\$/acft/yr) for treated water delivered to the water supply entity or entities. Unit cost is for full utilization of project capacity.
² Source of Cost Estimate: Section 4C.7. Table 4C.7-15 and \$225 per acft for treatment costs. Cost estimates are based on size and depth of well(s) to meet needs.

4B.2.5.3 Water Supply Plan

Working within the planning criteria established by the Coastal Bend RWPG and TWDB, the following water supply plan is recommended to meet the projected 2010 to 2060 shortages for Aransas County-Manufacturing:

- Gulf Coast Aquifer Groundwater Supplies — Drill Additional Well(s)

In addition to the management strategy listed above, the RWPG supports strategies for increased conservation and reuse of existing supplies.

4B.2.5.4 Costs

The recommended Water Supply Plan, including anticipated costs, is summarized by decade in Table 4B.2-5.

**Table 4B.2-5.
Recommended Plan Costs by Decade for Aransas County-Manufacturing**

<i>Plan Element</i>	<i>2010</i>	<i>2020</i>	<i>2030</i>	<i>2040</i>	<i>2050</i>	<i>2060</i>
Projected Surplus/(Shortage) (acft/yr)	(72)	(86)	(97)	(107)	(116)	(136)
Gulf Coast Aquifer Groundwater Supplies — Drill Additional Well(s)						
Supply From Plan Element (acft/yr)	200	200	200	200	200	200
Total Annual Cost (\$/yr)	\$17,000	\$17,000	\$17,000	\$17,000	\$17,000	\$17,000
Total Unit Cost (\$/acft)	\$85	\$85	\$85	\$85	\$85	\$85

4B.2.6 Steam-Electric

No steam-electric demand exists or is projected for the county.

4B.2.7 Mining

The mining water demands in Aransas County are met by groundwater from the Gulf Coast Aquifer. No shortages are projected for mining users and no changes in water supply are recommended.

4B.2.8 Irrigation

No irrigation demand exists or is projected for the county.

4B.2.9 Livestock

The livestock water demands in Aransas County are met by groundwater from the Gulf Coast Aquifer and surface water from local on-farm sources. No shortages are projected for livestock and no changes in water supply are recommended.

(This page intentionally left blank.)