

4B.8 Kleberg County Water Supply Plan

Table 4B.8-1 lists each water user group in Kleberg 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.8-1.
Kleberg County Surplus/(Shortage)**

Water User Group	Surplus/(Shortage) ¹		Comment
	2030 (acft/yr)	2060 (acft/yr)	
City of Kingsville	0	0	Supply equals demand
Ricardo WSC	0	0	Supply equals demand
County-Other	(81)	(155)	Projected shortages in 2020 to 2060 — see plan below
Manufacturing	none	none	No demands projected
Steam-Electric	none	none	No demands projected
Mining	0	0	Supply equals demand
Irrigation	0	0	Supply equals demand
Livestock	0	0	Supply equals demand

¹ From Tables 4A-13 and 4A-14, Section 4 – Comparison of Water Demands with Water Supplies to Determine Needs.

4B.8.1 City of Kingsville

The City of Kingsville has a contract with the South Texas Water Authority (STWA) to purchase treated surface water from the CCR/LCC/Texana System. The City also has five wells with a combined capacity of 6.3 MGD (or 7,055 acft/yr) that pump groundwater from the Gulf Coast Aquifer. South Texas Water Authority provides water to the Ricardo Water Supply Corporation via a pass through agreement with the City of Kingsville. However, since the City of Kingsville does not meet its water needs with 100% surface water, the Ricardo WSC is receiving groundwater supplies from Kingsville's wells.¹ The current contract between the City and the STWA allows Kingsville to purchase as much as 10 percent above what it has purchased in the previous 12 months. This feature of the contract was used in 2020 and beyond to ensure sufficient water supplies to meet the City's needs through 2060. No shortages are projected for Kingsville and no changes in water supply are recommended.

¹ Correspondence from Carola Serrato, May 2005.

4B.8.2 Ricardo WSC

South Texas Water Authority provides water to the Ricardo Water Supply Corporation via a pass through agreement with the City of Kingsville. However, since the City of Kingsville does not meet its water needs with 100% surface water, the Ricardo WSC is receiving groundwater supplies from Kingsville’s wells.² Ricardo WSC demands are met with surface water supplies and groundwater from the Gulf Coast Aquifer. No shortages are projected for Ricardo WSC and no changes in water supply are recommended.

4B.8.3 County-Other

4B.8.3.1 Description

- Source: Groundwater - Gulf Coast Aquifer
- Estimated Reliable Supply: 849 acft/yr (groundwater)
- System Description: Individual Wells

4B.8.3.2 Options Considered

County-Other demands in Kleberg County have shortages of 31 acft/yr in 2020 and increase to 155 acft/yr in 2060. Long-term shortages in 2060 are about 15 percent of demand. Table 4B.8-2 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 County-Other in Kleberg County.

**Table 4B.8-2.
Water Management Strategies Considered for Kleberg County-Other**

<i>Option</i>	<i>Yield (acft/yr)</i>	<i>Approximate Cost¹</i>	
		<i>Total</i>	<i>Unit (\$/acft)</i>
Gulf Coast Aquifer Groundwater Supplies — Drill Additional Well(s)(Section 4C.7)	400	\$447,000 ²	\$123 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.7-12, 0.4 MGD water treatment plant, fully utilized. Cost estimates are based on size and depth of well(s) to meet needs.			

² Correspondence from Carola Serrato, May 2005.

4B.8.3.3 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 shortages for County-Other in Kleberg County:

- Gulf Coast Aquifer 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.8.3.4 Costs

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 recommended Water Supply Plan, including anticipated costs is summarized by decade in Table 4B.8-3.

**Table 4B.8-3.
Recommended Plan Costs by Decade for Kleberg County-Other**

<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)	—	(31)	(81)	(108)	(153)	(155)
Gulf Coast Aquifer Groundwater Supplies — Drill Additional Well(s)						
Supply From Plan Element (acft/yr)	—	400	400	400	400	400
Total Annual Cost (\$/yr)	—	\$49,000	\$49,000	\$49,000	\$49,000	\$49,000
Total Unit Cost (\$/acft)	—	\$123	\$123	\$123	\$123	\$123

4B.8.4 Manufacturing

No manufacturing demand exists or is projected for the county.

4B.8.5 Steam-Electric

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

4B.8.6 Mining

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

4B.8.7 Irrigation

Irrigation demands in Kleberg County are declining over the planning period. These demands are met by groundwater from the Gulf Coast Aquifer. No shortages are projected for irrigation and no changes in water supply are recommended.

4B.8.8 Livestock

The livestock demands in Kleberg 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.