

THE ECONOMIC IMPORTANCE OF THE 1944 WATER TREATY ON SOUTH TEXAS AGRICULTURE



Rio Grande River (Photo Sam Craft/Texas A&M AgriLife)

The Lower Rio Grande Valley (LRGV) of Texas, one of the most productive farming regions in the state, has been facing a growing crisis for years: a severe irrigation water shortage that could lead to nearly \$1 billion in regional economic losses if left unresolved (Ribera et al., 2023). This water shortfall is linked to ongoing delivery deficits from Mexico under the 1944 Water Treaty, with serious implications for both producers and rural communities across Cameron, Hidalgo, Starr, and Willacy counties.

Treaty Obligations and the Current Deficit

The 1944 Water Treaty between the U.S. and Mexico requires Mexico to deliver **1.75 million acre-feet** of water to the United States over a five-year cycle, or an average of 350,000 acre-feet annually. The current cycle, which ends in October 2025, is experiencing its largest deficit in three decades. As of April 5, 2025, Mexico has delivered just **512,604 acre-feet**—less than 30% of its treaty commitment (IBWC, 2025).

Contact

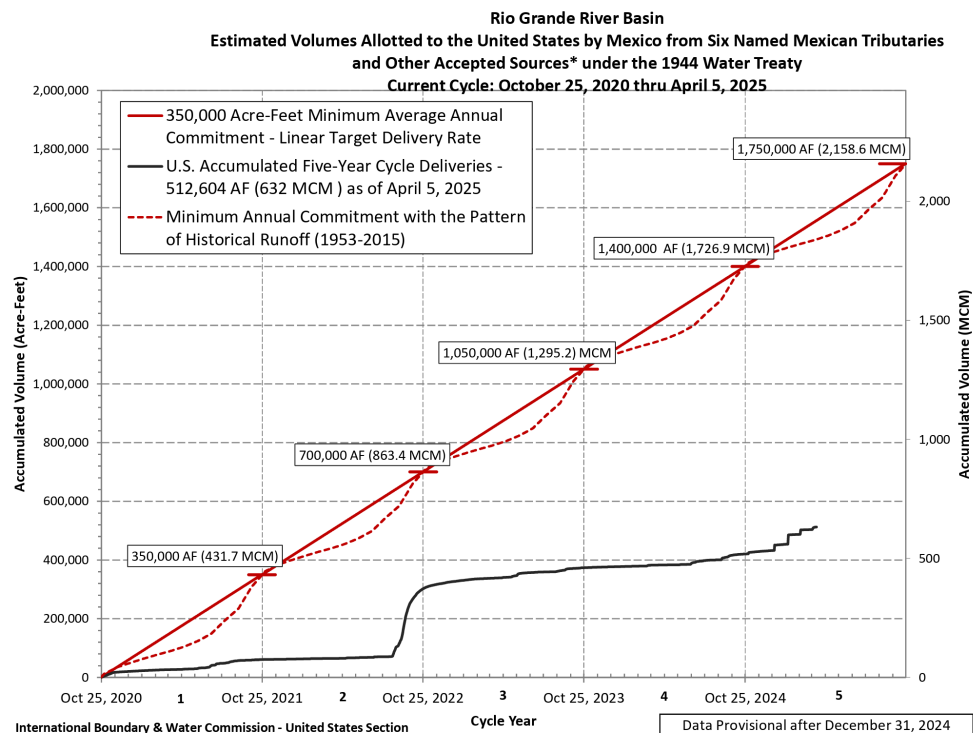
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April 11, 2025

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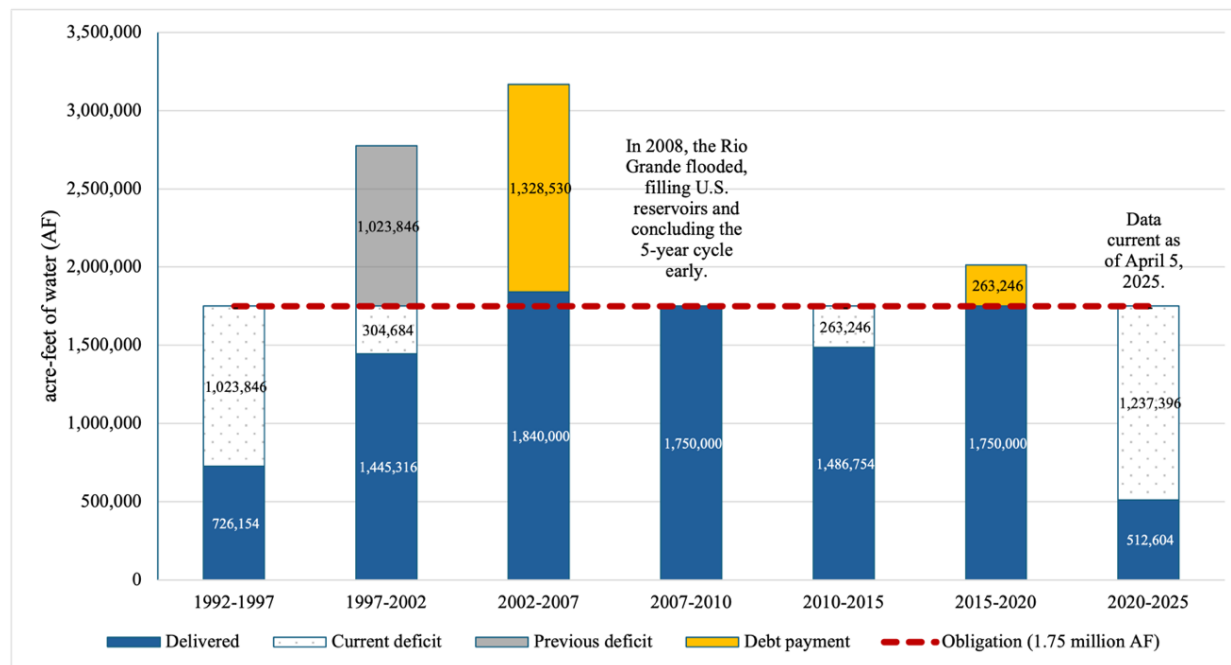
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Figure 1: Estimated deliveries during the current 5-year cycle as of April 5, 2025.



Source: IBWC (2025).

Figure 2: Historical estimated deliveries from 1992 to 2025.



Source: Adapted from Robb, K. (2022), and IBWC (2025).

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This deficit significantly limits irrigation resources for crops like cotton, corn, sorghum, sugarcane, vegetables, and citrus— all essential components of South Texas agriculture that depend on consistent irrigation to achieve profitable yields and quality.

Production Vulnerability

In 2023, the LRGV generated nearly **\$660 million in agricultural output**, with feed crops, cotton, vegetables, fruits, and nuts contributing approximately **\$479 million**, or 73% of total production (Robinson, 2024). About **50% of the region’s planted acreage is irrigated**, leaving it especially vulnerable during times of water scarcity.

One of the most noticeable consequences of the ongoing water shortage occurred in 2024, when the Rio Grande Valley Sugar Growers, Inc. (RGVSG)—Texas’s only remaining sugar mill with over 30,000 acres—announced its permanent closure. After more than 50 years in operation, a combination of prolonged drought, high input costs, and insufficient irrigation water made sugarcane production financially unsustainable for growers (Texas Farm Bureau 2024).

Economic Impact on the Agricultural Sector

A 2023 study conducted by the Center for North American Studies and Texas A&M AgriLife Extension, led by Ribera et al., indicates that a complete lack of irrigation water may have serious repercussions in the Lower Rio Grande Valley, as follows:

- \$495.8 million in direct crop revenue losses
- \$993.2 million in total economic output losses
- 8,400+ full- and part-time jobs lost
- \$554.8 million in value-added losses to the Texas economy

These figures capture farm-level impacts and broader supply chain impacts, including input suppliers, equipment dealers, and local rural businesses.

Crops Most at Risk

Crop	Estimated Loss
Citrus	\$268.4 million (includes orchard transition costs)
Vegetables	\$108.5 million
Cotton	\$31.3 million
Corn	\$9.4 million
Sorghum	\$3.6 million
Sugarcane*	\$98.5 million

Source: Ribera et al. (2023)

* in 2024, the sugar mill closed its operations.

Citrus and vegetable crops rely on irrigation and cannot be profitably cultivated in dryland conditions. Without a reliable water source, producers may be forced to convert these acres to lower-value dryland crops, reducing revenue potential and farm profitability

Next Steps and Considerations

The current water delivery deficit highlights the necessity for proactive measures that promote agricultural sustainability and economic resilience. With the current cycle concluding in October 2025, the final status of deliveries remains uncertain. However, the long-term economic viability of irrigated agriculture in South Texas will rely on both short-term mitigation and long-term planning based on water security.

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