



Project:	Water and Wastewater System Improvements		
Location:	Mercedes, Texas	Certification Date:	November 9, 1996
Type:	Water and wastewater	Operation Startup:	February 1, 2001
Population Benefitted:	15,500	Closeout Date:	March 2023

### Pre-project Conditions

The existing water treatment and distribution facilities and wastewater collection infrastructure were operating at or near capacity, limiting the City’s ability to expand its systems to unserved or underserved areas. Residents in outlying colonias did not have access to the water distribution system and had to rely on water wells, bottled water, water hauling services, drainage and irrigation ditches, and their neighbors for their water supply.<sup>1</sup> Likewise, colonia residents typically used septic tanks to dispose of wastewater, as the collection system was limited to residents in the city.

### Project Objective

To expand the water distribution and wastewater collection systems to better serve its existing customers and provide the capacity to offer service to residents in unserved areas or whose facilities were substandard and, in particular, to support a separate project designed to connect 3,885 nearby colonia residents to the water and wastewater systems funded by the Texas Water Development Board (TWDB).

### Project Scope

Water system improvements consisted of installing approximately 18,350 linear feet (3.48 mi.) of 12” AWWA C-900 polyvinyl chloride (PVC) pipe; modifying the existing water pumping station to connect the new water main and install a vertical, high-service pump; increasing the capacity of the water treatment plant from 3.0 to 4.5 million gallons a day (mgd); and constructing a 500,000-gallon elevated storage tank. Improvements to the existing wastewater collection system included construction of a new lift station and modifications to an existing lift station, as well as the installation of a pressure main using 2,640 linear feet (0.50 mi.) of 6” Class 160 PVC pipe and 1,320 linear feet (0.25 mi.) of 12” gravity sewer lines.



<sup>1</sup> Colonias are communities on the U.S. side of the international border with Mexico that lack critical infrastructure, such as paved roads, water distribution lines, sewer systems, flood protection and/or public facilities.

## Project Results

Outputs	Indicator	Target in 1996 (Certification)	Actual (2001)
<b>Drinking water system</b>			
Additional treatment capacity	Million gallons per day (mgd)	1.50	1.50
Transmission lines installed	Miles	3.50	3.50
Water storage tank	Number	1	1
Storage capacity	Gallons	500,000	500,000
<b>Wastewater collection system</b>			
Wastewater collection lines installed	Miles	0.75	0.75
New lift station	Number	1	1
Improved lift station	Number	1	1

In 2007, the city operations staff reported that the water distribution system and wastewater collection system were operating as intended.

Outcomes	Indicator	Target in 1996 (Certification)	Actual (2001)
Additional water treated	mgd	1.5	1.5

### Significant Contribution of the Project

The project was essential to allow expansion of the water and wastewater systems to serve surrounding colonias, including the installation of 40 water and 409 wastewater connections in three colonias under a separate project funded by the TWDB.

## Project Financing (USD)

Sources of Funding	Estimated at certification	Actual Amount
NADBank loan*	\$ 1,874,900	\$ 1,874,900
NADBank BEIF transition assistance grant**	-	896,075
Other sources***	2,242,410	2,242,410
<b>Total</b>	<b>\$ 4,117,310</b>	<b>\$ 5,013,385</b>

\*The bridge loan was approved on December 2, 1996, closed on May 22, 1997, and fully repaid on October 28, 1998.

\*\* Border Environment Infrastructure Fund (BEIF) is funded by the U.S. Environmental Protection Agency (EPA) and administered by NADBank. BEIF transition assistance is used to help pay system debt associated with the project, so that user fees can be raised gradually to the level required to make the system self-sustaining.

\*\*\* Other sources include grants from the U.S. Economic Development Administration (EDA) and the Rio Grande Valley Empowerment Zone.

The project was submitted for certification and financing prior to the establishment of the BEIF program. In 1999, the City requested and obtained BEIF transition assistance to help pay the debt service associated with both the certified project and the TWDB colonia project, as well as to fund the Debt Service Reserve and a Repair and Replacement Reserve.