



**NORTH AMERICAN DEVELOPMENT BANK  
FACT SHEET**

**HIDALGO COUNTY IRRIGATION DISTRICT NO. 16,  
TEXAS**

- Project:** Water Conservation Improvement Project
- Cost:** US\$3,517,998
- Sponsor:** Hidalgo County Irrigation District No. 16 (HCID #16)
- Location:** The district is located in the Lower Rio Grande Valley of south Texas, within 20 miles of the U.S.-Mexico border. The district covers an area approximately 11 miles long and four miles wide, northeast of the city of La Joya.
- Background:** Established in 1946 to serve an area covering approximately 13,580 acres, the District currently provides service to about 1,452 agricultural accounts, mainly for citrus crops. In addition, the District also supplies raw water to the La Joya Water Supply Corporation (WSC) and the city of La Joya.
- The District diverts raw water directly from the Rio Grande River through its main pump station and conveys it through a pipeline and concrete-lined canal system to the La Joya Lake Reservoir. Although located outside the district's boundaries, the reservoir is maintained by the District and also supplies water to the La Joya WSC and the City of La Joya. Water is conveyed to the district using two re-lift pump stations (Re-lift Pump Stations No. 1 and 2). The District does not have oversized canals for storage, so water is pumped often and the pumping stations operate in series. Consequently, pumping and variable flow management are critical elements of the district's water delivery system. However, the pump stations are currently a constant source of maintenance and inefficiency, which has significantly increased irrigation costs. Moreover, using the existing manual system, irrigation water often cannot be delivered to the fields at the right time, which leads to spillage.
- In addition, the main canal system used for water delivery both outside and within the District requires improvements since the hydraulic head on the canal causes excessive seepage. While the District has completed a project to replace most of the main canal that serves La Joya Lake, there are various concrete-lined sections of the main canal that need to be re-lined to reduce losses from seepage.

**Description:**

The project consists of three main components:

1. Upgrading Re-lift Pump Stations No. 1 and No. 2, along with replacement of two 60-inch steel discharge lines.
2. Installation of modern pump control instrumentation and intra-canal flow meters to transmit flow data to the District office for pump monitoring and control. Supervisory Control and Data Acquisition (SCADA) software will be installed to facilitate the control function.
3. Re-lining of five miles of concrete-lined canal with a geomembrane liner

**BECC Certification:** March 19, 2004

**NADB Funding:** Water Conservation Investment Fund (WCIF):  
Grant: US\$1,376,697

**Other Funding Sources:** Additional grant funding will be provided by State of Texas through an agreement with the State Energy Conservation Office (SECO). The District will cover the remaining project costs through cash contributions and in-kind services, as well as a loan.

**Benefits:** In addition to conserving water, the project will improve water conveyance efficiency and will reduce energy consumption and maintenance costs. Based on district records and tests conducted by Texas A&M, it is estimated that 75% of spillage due to water delivery deficiencies would be eliminated with the project. Overall water savings are estimated at 2,371 acre-feet a year and energy savings at 62,768 KWH/year.

For more information, contact Juan Antonio Flores,  
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