



NORTH AMERICAN DEVELOPMENT BANK PROJECT CLOSEOUT FACT SHEET

Project:	Wastewater System Improvements		
Location:	City of Bisbee, Arizona	Certification Date:	September 25, 2003
Type:	Wastewater	Operation Startup:	February 28, 2006
Population Benefitted:	6,096	Closeout Date:	December 10, 2021

Pre-project Conditions

In 2003, wastewater treatment was provided by three facilities that served the Old Bisbee, Warren and San Jose drainage basins. The Mule Gulch Wastewater Treatment Plant built in 1941 and serving Old Bisbee, was in violation of effluent limits for various toxic metals and was unable to meet its pollutant discharge limits on a consistent basis. The Warren and San Jose lagoons built in the 1970's treated the wastewater from their respective areas. However, the Warren lagoons had no liners, and the liners in the San Jose lagoons were damaged, allowing untreated sewage to seep into the aquifer. Moreover, the collection systems in Old Bisbee and Warren were built in the early 1900's mainly using vitrified clay pipe and had reached the end of their useful life. A significant number of sewer back-ups and overflows were reported due to undersized and deteriorated pipes, root intrusion and other problems.

Project Objective

Improve the quality of the treated wastewater produced in compliance with U.S. standards and reduce the amount of untreated wastewater seeping into the groundwater or pooling at the surface by rehabilitating or replacing the treatment plants and most of the deteriorated sections of the existing collection system.

Project Scope

The project consisted of replacing the existing treatment facilities with the construction of a new activated sludge plant with the capacity to provide preliminary, secondary and advanced treatment to meet the needs of the community for a minimum of 20 years. It also included rehabilitating or replacing approximately 146,847 linear feet of sewer lines with diameters ranging from 8 to 18 inches, in the most deteriorated sections of the collection system.



Project Results

Outputs	Indicator	Target in 2003 (at certification)	Actual (Feb. 2007)
New wastewater treatment system capacity	Million gallons a day (mgd)	1.22	1.22
Wastewater collection system lines	miles	27.8	27.8
New lift station	number	1	1

In 2021, the City of Bisbee Public Works Department reported that because of the topography of the area, when it rains the new San Jose Wastewater Treatment Plant receives significant inflows/infiltration, which exceed its design capacity. According to the plant operators an equalization basin is needed.

Outcomes	Indicator	Target in 2003 (at certification)	Actual (Feb. 2007)
Population benefitted	Number	6,096	6,096
Additional wastewater treated	mgd	1.22	1.22

Significant Contribution of the Project

The project helped the City of Bisbee meet all regulatory requirements relative to wastewater treatment to comply with the State of Arizona Aquifer Protection Plan. Additionally, the project included reviewing and updating water rates for the efficient operation of the utility.

Project Financing (USD)

Sources of Funding	Estimated at certification	Actual Amount
NADB BEIF construction assistance grant*	\$ 10,213,000	\$ 10,212,539
NADB BEIF transition assistance grant**	1,100,187	1,034,315
Other sources***	19,350,000	19,350,000
Total	\$ 30,663,187	\$ 30,596,854

* Border Environment Infrastructure Fund (BEIF) funded by the U.S. Environmental Protection Agency (EPA) and administered by NADB

** 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 a loan through the Water Infrastructure Finance Authority (WIFA) and grants from the U.S. Department of Agriculture Rural Development (USDA-RD) as well as funding from the City of Bisbee.