



**NORTH AMERICAN DEVELOPMENT BANK  
FACT SHEET  
BISBEE, ARIZONA**

**Project:** Wastewater System Improvements

**Cost:** US\$30,067,321

**Sponsor:** City of Bisbee, Arizona

**Location:** The City of Bisbee is located in Cochise County, approximately 100 miles southeast of Tucson and about four miles north of Naco, Sonora.

**Background:** The City's wastewater system is operated as part of its overall Public Works Department. The wastewater system currently has a total of 3,234 active accounts, of which 2,754 are residential and 480 are non-residential.

Wastewater treatment is currently provided by three facilities that serve the Old Bisbee, Warren and San Jose drainage basins. The Mule Gulch Wastewater Treatment Plant, which provides treatment for Old Bisbee and was built in 1941, is in violation of effluent limits for various toxic metals and has been unable to meet its pollutant discharge limits on a consistent basis. The Warren and San Jose Lagoons were built in the 1970s and treat wastewater from their respective areas. The Warren lagoons have no liners, and the San Jose lagoons have damaged liners, which allow the percolation of untreated sewage into the aquifer.

Due to age, lack of maintenance, and high infiltration and inflow, much of the City's wastewater collection and conveyance infrastructure has reached the end of its useful life. Collection systems in Old Bisbee and Warren consist of sewers primarily constructed of vitrified clay pipe in the early 1900's. Problems include: undersized, deteriorated pipes, sections of pipe at grades too steep or too flat, root intrusion, and significant numbers of reported back-ups and sanitary sewer overflows.

**Description:** The City is proposing a project to mitigate the identified effluent quality problems by correcting the infiltration and inflow problems and providing for a more enhanced treatment process. The proposed project consists of:

- Rehabilitation and replacement of the most undersized and deteriorated sections of the existing collection system

- Construction of a new activated sludge wastewater treatment plant to replace the three existing facilities. The new plant will have increased capacity to accommodate the needs of the community for a minimum of 20 years and will provide preliminary, secondary and advanced treatment, as well as enhanced disinfection.

**BECC Certification:** September 25, 2003

**NADB Funding:** Border Environment Infrastructure Fund (BEIF):  
 Construction Grant Assistance: US\$10,212,541  
 Transition Grant Assistance: US\$ 1,088,910  
 Total: US\$11,301,451

The construction assistance will be applied to the project’s total construction cost, while the transition assistance will be used to reduce the overall impact of increased debt service payments on the city’s ratepayers as a result of the project.

Institutional Strengthening Development Program (IDP)

The Bank also financed a wastewater rate study and a management study.

**Other Funding Sources:**

The remainder of the construction costs will be covered by a loan and grant from the U.S. Department of Agriculture Rural Development (USDA-RD), a loan from the Arizona Water and Infrastructure Finance Authority (WIFA), and equity funds from the City. In addition, the Border Environment Cooperation Commission (BECC) is providing a grant through its Project Development Assistance Program (PDAP) for design.

**Benefits:**

Improvements to the wastewater collection and treatment systems address potentially serious human health and environmental problems by preventing pollution of surface and ground water sources. Replacing and rehabilitating the sewer system will greatly reduce sewage back-ups and overflows, as well as correct infiltration and inflow problems that are overloading the treatment facilities and adversely affecting the quality of the effluent. The new treatment plant will ensure compliance with all federal and state discharge standards.

For more information, contact Juan Antonio Flores,  
 North American Development Bank, 210-231-8000.