



## U.S.-Mexico Border Water Infrastructure Program

The U.S.-Mexico Border Program's bi-national framework is based on the 1983 La Paz Agreement and the subsequent environmental agreement to NAFTA addressing infrastructure needs and related environmental impacts from the expected trade increase. This report highlights fiscal year 2012 (FY12) accomplishments.

### Public Health Benefits:

The program has provided 60,000 border homes with access to safe drinking water, and 544,000 homes with adequate wastewater collection and treatment services, reducing the risk of disease.

### Environmental Benefits:

The program has developed the capacity to eliminate more than 450 million gallons per day of raw or inadequately treated sewage from being discharged into surface and groundwater, improving water quality and supporting fish populations.

### Economic Benefits:

Program investments benefit the U.S. by over \$6 million annually from avoided disease and over \$13 million from ecological improvements. Average annual program spending of \$65.85 million from 1998 to 2012 has resulted in an estimated U.S. GDP increase of \$75 million per year.

The U.S.-Mexico Border Water Infrastructure Program funds the planning, design and construction of high priority water and wastewater treatment facilities in underserved communities along the border. Border communities seek the program's assistance as a last resort when utilities, cities, or states are not able to fully finance necessary infrastructure improvements.

The 2012 Good Neighbor Environmental Board report, *The Environmental, Economic and Health Status of Water Resources in the U.S.-Mexico Border Region*, documents the multiple challenges this area faces in meeting basic drinking water and wastewater infrastructure needs and the positive impact of EPA's investments in addressing these needs and improving the border ecology.

This U.S.-Mexico Border Program Annual Report highlights program accomplishments for fiscal year 2012 (FY12) and the benefits provided to economically distressed border communities.

Since 1997, EPA has completed 80 projects that benefit more than 5 million border residents. In FY12, the U.S.-Mexico Border Program provided 5,185 homes with safe drinking water and 31,092 homes with adequate wastewater services.

The U.S.-Mexico Border Program currently has 24 projects under construction and is supporting 26 communities in the planning and development of projects for future construction. This assistance helps communities advance their projects to a construction-ready stage, allowing them to successfully apply for a variety of funding sources, including U.S.-Mexico Border Program construction grants.

All program funding is invested in projects that benefit public health and the environment in the United States. For example, a wastewater project in Mexico can only be funded if contaminants would otherwise reach U.S. waters. Treating contaminated water after it has crossed the border is not technically feasible nor financially viable. Treatment of sewage at



the discharge point lowers exposure to contaminated water, reducing waterborne diseases, as well as health care and remediation costs in the United States. In both the New River in California and the middle Rio Grande in Texas, fecal coliform levels have dropped by over 80 percent as a result of two new wastewater treatment plants. The Santa Cruz River in Arizona now supports a healthy fish population, where just a few years ago only bloodworms and other pollution-tolerant species survived. Beaches in southern California that were often closed due to wastewater pollution are now safe for swimming and other recreation activities, due in part to EPA infrastructure investments in the Tijuana watershed.

The program's positive impact on border public health and ecology also benefits the economy of U.S. border communities. These added benefits include direct and

<http://water.epa.gov/infrastructure/wastewater/mexican/index.cfm>

indirect job creation, reduced absenteeism and increased worker productivity, reduced illness, enhanced recreational values of beaches and avoided economic losses associated with beach closures. Investments in water infrastructure projects further stimulate beneficial trade activities.

Proper operation and maintenance is key to ensuring that these facilities achieve their expected useful life. EPA is undertaking initiatives to protect water infrastructure investments and support border communities' sustainability efforts. For example, in FY12, EPA sponsored energy efficiency and capacity building webinars and delivered training to 250 operators working at plants funded by the U.S.-Mexico Border Program. In FY13, EPA will incorporate other initiatives, such as energy efficiency and water conservation audits at selected border facilities.

## PROJECT SUCCESSES IN 2012

### Funding of Last Resort: Laredo and Webb County, Texas

The U.S.-Mexico Border Water Infrastructure Program supplemented funding provided by the Texas Water Development Board and Webb County to provide first-time drinking water and wastewater collection and treatment to 3,725 residents living in 15 colonias. The comprehensive water and wastewater project for colonias in Laredo and Webb County exemplifies the many challenges



*Conditions prior to project implementation*

associated with providing these basic services to underserved border communities. The project consisted of several phases, including the expansion of water distribution and wastewater collection systems. The final phase provided a 0.125 million gallons/day (MGD) wastewater treatment plant to service 4 of the 5 Mines Road Planning Area colonias. This comprehensive project was completed in September 2012, with the construction of additional water and wastewater hookups in two colonias. From a total project cost of close to \$21.6 million, the U.S.-Mexico Border Program contributed approximately \$7.9 million.

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*Construction of water infrastructure hookups to homes*

### Investing in Mexico to Improve U.S. Waters: Nogales, Sonora, Mexico

The Ambos Nogales region is home to the sister cities of Nogales, Arizona and Nogales, Sonora, where waters flow across the border into the Santa Cruz River and northwards through Tucson, Arizona.

A shared history of public health hazards associated with frequent sewage spills and inadequate wastewater treatment infrastructure spurred the development of the Los Alisos Wastewater Conveyance and Treatment project.



*Los Alisos Treatment Project*

Wastewater Conveyance and Treatment project.

The \$19 million project, completed in November 2012, was a joint venture funded by EPA's U.S.-Mexico Border Water Infrastructure Program, Mexico's National Water Commission (CONAGUA), the State of Sonora and the city of Nogales, Sonora.

Currently the 5 million gallons/day (MGD) facility diverts and treats sewage that would otherwise flow north into the United States. Improved water quality from treated wastewater reduces stress on the recently upgraded Nogales International Wastewater Treatment Plant in Arizona. A one-megawatt solar power generating facility, partly funded by EPA, is now under construction and will provide enough power to sustainably operate the wastewater treatment plant.