



Panama

CLEANING THE WATER IN PANAMA BAY TO SPUR ECONOMIC GROWTH

Twenty years ago, Panama Bay had significant water quality issues — in fact, it was so polluted that shellfish and other organisms could not survive. A key cause was a lack of water filtration infrastructure, which allowed urban wastewater to be flushed directly into the river system without treatment. To turn the environmental degradation around, the Panamanian government established a plan to invest in water and wastewater treatment systems.

USTDA engaged Panama's Ministry of Health to support their plans for developing strong and resilient infrastructure to provide cleaner water for Panamanians. Through USTDA-funded technical assistance, the U.S. environmental firm Hazen & Sawyer (New York City, NY), conducted a holistic analysis of investments needed to clean up the Panama Bay watershed. After a thorough evaluation, Hazen & Sawyer produced a master plan to inform the design of wastewater collection, pumping and treatment facilities. The plan also selected and confirmed potential sites for wastewater treatment plants; established potential sludge management alternatives; and developed conceptual designs of the pump stations, force mains and wastewater treatment plants.

The impact of Hazen & Sawyer's recommendations is still being felt today, helping to improve the lives of over 1.2 million people in Panama City through reduced disease, enhanced tourism, increased business development, improved bay ecology and increased recreational opportunities. Using the technical assistance as a roadmap, the Ministry of Health reached several milestones. Specifically, the first module of the Juan Díaz Wastewater Treatment Plant is now in operation. Over 350 kilometers of sewer systems have been constructed throughout the region, and contractors have laid 70 kilometers of collector tubes and large diameter pipes that collect sanitary discharges from the sewer network, allowing for the safe transport of waste to the Juan Díaz Wastewater Treatment Plant.

The master plan also enabled the project to attract financing, satisfying outstanding lending requirements of the Inter-American Development Bank and the Japan Bank for International Cooperation.

To date, the project has generated over \$74 million in U.S. exports of consulting services, aeration tanks, plumbing supplies, mixers, industrial materials, training programs and auditing services. These exports directly benefitted U.S. companies based in Florida, Virginia, New Jersey, Michigan, Illinois, Kentucky and Missouri.

