

Enhancing environmental conditions along the U.S.-Mexico border

During the course of the year, 11 projects began construction or were otherwise launched, including five projects to improve wastewater collection and treatment services, four renewable energy projects that will have a combined generation capacity of 261 MW, a cogeneration facility for a wastewater treatment plant and a border-wide financing program in Mexico for cleaner buses. Twelve projects also completed construction as detailed in the table.

At the end of the year, 40 certified projects were in various stages of implementation, with approximately US\$744.6 million in loans and grants. These projects will help provide safe and reliable water services, prevent raw sewage discharges, pave dirt roads and generate clean energy.

12 completed projects representing a total investment of US\$262.5 million

Projects Completed	Location	Population Benefitted	NADB Funding Type	NADB Funding Amount
Water and Wastewater Improvements				
1 Wastewater Collection System for the Community of Tintown	Bisbee, AZ	112	BEIF	\$ 1.06
2 Wastewater Collection Improvements	Clint, TX	1,099	BEIF	2.30
3 Wastewater Collection and Treatment Project	Colonia Esperanza, CHIH	1,267	BEIF	0.43
4 Water Conservation Improvements	Hidalgo and Cameron Counties ID No. 9, TX		WCIF	1.25
5 Wastewater Gravity Main (Outfall) Replacement	Holtville, CA	6,079	BEIF	1.83
6 Construction of a Wastewater Collector	Nuevo Casas Grandes, CHIH	13,850	CAP	0.29
7 Wastewater Collection System Improvements – Disconnection from Storm Water Sewer	Nuevo Laredo, TAMPS	86,869	BEIF	2.90
8 Expansion and Rehabilitation of the Water Distribution System	Praxedis, CHIH	3,641	BEIF	0.55
9 Water and Wastewater Improvements	San Agustín, CHIH	1,569	BEIF	0.79
10 Drinking Water System Improvement Program – Meter Replacement	Sunland Park, NM	7,000	CAP	0.41
Air Quality Improvements				
11 Comprehensive Paving Project to Improve Urban Mobility	Ciudad Juarez, CHIH	1,332,131	Loan	30.82
Clean Energy				
12 SunPeak Solar Park 2	Niland, CA	19,738	Loan	41.08
		1,473,355		\$ 83.70

BEIF = EPA-funded Border Environment Infrastructure Fund; CAP = NADB-funded Community Assistance Program; WCIF = Water Conservation Investment Fund; ID = Irrigation District

Main Benefits of completed projects:

-  **7 million gallons a day** of sewage is being collected and treated
-  **261 new wastewater connections** providing first-time service to residents in 3 communities
-  **20 MW of new generation capacity** from clean energy, displacing 12,748 metric tons of CO₂ a year

Connecting unserved community to sewer system

Construction of a wastewater collection and conveyance system for the area known as Tintown, located outside Bisbee, AZ, was completed in June 2015, providing first-time sewer service to approximately 112 residents. The project included the installation of 22 residential hookups and the decommissioning of on-site disposal systems. An estimated 12,300 gallons of wastewater are being collected and pumped on a daily basis to the San Jose Wastewater Treatment Plant, helping reduce environmental and related health risks associated with substandard cesspools and failing septic systems.



Automated water metering system

In June 2015, the Camino Real Rural Utility Authority (CCRUA) completed the last phase of its water meter replacement program, which also included the purchase of new meter reading equipment and related data collection and billing software. Altogether, 4,556 water meters were installed in the communities of Sunland Park and Santa Teresa, NM. The new system is improving water resource management by making it easier for CCRUA to detect leaks in the distribution system and implement effective conservation strategies. The automated system has also increased operational efficiency by reducing meter reading times and streamlining the billing process.



Providing reliable water supply system

The Anacuitas Aqueduct, managed by Hidalgo and Cameron Counties Irrigation District No. 9 (HCCID No.9), delivers 388 million gallons a day (mgd) of raw water from the Rio Grande to the cities of Elsa, Edcouch, La Villa, Mercedes, and Weslaco, as well as to an estimated 350 agricultural accounts in the far western portion of Cameron County and the eastern portion of Hidalgo County. Inaugurated in June 2015, the new 290-foot aqueduct replaced the old concrete structure built over 100 years ago and is expected to reduce water losses from spills and leaks, in addition to providing a reliable water supply system for more than 65,000 people.



“We were really concerned about the catastrophic failure of the older structure, and that would’ve just shut the cities down, shut the farmers down and that’s been a really good blessing to have this completed.”

- Randy Winston, General Manager, HCCID#9

Preventing sewage discharges to the Rio Grande

In November 2015, the last of six collapsed sewer lines was replaced, which included disconnecting any interconnections with storm water drains that served as a temporary fix to keep raw sewage from leaking and pooling on local streets in Nuevo Laredo, Tamaulipas. More than 48,600 linear feet of new sewer lines were installed, which is eliminating sewage spills, as well as raw wastewater discharges into the Rio Grande from the storm water system. Specifically, an estimated 5.2 million gallons a day of sewage is being safely collected and delivered for proper treatment.



Generating clean energy from sunlight

SunPeak 2, the 13th solar park to be completed with BECC and NADB support, initiated commercial operations in August 2015. The 20-MW_p solar park was constructed using polycrystalline photovoltaic modules on land north of Niland, CA. The energy produced is being purchased by Imperial Irrigation District, which serves more than 148,500 electricity customers in all of Imperial County and parts of Riverside and San Diego Counties. The project is expected to generate electricity equivalent to the annual consumption of about 7,200 households.



First Cross-border Wind Farm in Operation

Located east of the city of Tecate, B.C., the Energía Sierra Juarez 1 Wind Farm consists of 47 wind turbines, as well as a 4.8 mile transboundary dual-circuit transmission line. The electricity generated by the 155-MW wind farm is being purchased by San Diego Gas & Electric (SDG&E) in California, and is expected to be sufficient to cover the annual consumption of about 70,832 households. Commercial operations began in June 2015, and construction is expected to be fully completed by the end of the first quarter of 2016.



“NADB has played a key role in this binational wind project.”

- Dr. Luis Videgaray, Mexico Secretary of Finance and Public Credit

Putting Cleaner Buses on Mexican Streets

Mercader Financiera, S.A. de C.V., launched its border-wide program in the last quarter of 2015, with a total of 33 diesel-fueled buses financed to expand the existing fleets of two public transportation companies, one in Hermosillo, Sonora, and the other in Tijuana, Baja California. All of the new buses manufactured by DINA Camiones, S.A. de C.V., at a minimum comply with EPA 2004 standards, producing approximately 50% less nitrogen oxides (NOx) and hydrocarbons (HC) and nearly 24% less carbon dioxide (CO₂) than older model buses currently in circulation in Mexico. Having already used about 60% of the NADB loan to finance those buses, Mercader has approached the Bank about increasing the loan in order to finance additional buses.



Improving Sewer Services

With a total investment of less than US\$450,000, the Municipality of Nuevo Casas Grandes, Chihuahua, installed more than 9,500 feet of wastewater collection lines in Colonia Felipe Angeles to replace part of an undersized system that was prone to sewage spills from manholes, as well as to reroute wastewater flows that were being channeled through a creek. The new infrastructure was completed in July 2015 and is preventing approximately 730,000 gallons a day of untreated wastewater from flowing through an open-air canal, as well as sewage discharges in the streets in the area. In addition, 65 households in the neighborhood that did not have access to sewer services are now connected to the system.



Using Biogas to Generate Electricity

Construction of the 1.35-MW cogeneration facility and improvements to the sludge management system at the South Wastewater Treatment Plant in Juarez, Chihuahua, began in July 2015 and was approximately 60% complete by year-end. The new facility will use the biogas produced during the sludge digestion process to generate about 40% of electricity requirements of the treatment plant. This renewable energy alternative will help displace greenhouse gases produced by traditional fossil-fuel based energy generation. The project will also reduce the volume of sludge sent to the municipal landfill for disposal.

