# **BORDER ENVIRONMENT COOPERATION COMMISSION**



WIND ENERGY CAMERON & WILLACY COUNTIES, TX.

ANNUAL

REPORT



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# **BORDER ENVIRONMENT COOPERATION COMMISSION**



## **Message from BECC's Management**

New partnerships, new sectors and a vision of helping preserve, protect and enhance human health and the environment of the U.S.-Mexico border region were part of what made 2012 a significant year for the Border Environment Cooperation Commission (BECC). Along with its sister organization, the North American Development Bank (NADB), BECC reached milestones, and ventured into emerging areas.

In its 17 years of operation, BECC has certified more than 200 environmental infrastructure projects along the U.S.-Mexico border. For its part, NADB has managed approximately US\$1.91 billion to finance 171 certified projects estimated to cost a total of US\$5.12 billion to build.

During 2012, BECC certified 19 projects representing a total estimated investment of US\$1.8 billion, of which NADB financed US\$583.9 million. An estimated 7.5 million border residents will benefit from improved environmental and health conditions as a result of these projects.

With the potential to produce almost 800 megawatts of energy, BECC's renewable energy and energy efficiency portfolio grew to 13 projects, with nine projects developed in the past 18 months. In response to this emerging sector, BECC and NADB have worked with municipal, state and federal governments, as well as the private sector to establish significant institutional capacity, and develop, certify and finance energy sector projects.



In addition to the strategic initiatives achieved with NADB, BECC's strategic approach centers on the following four areas:



# **Certified Projects**

# **Institutional Performance and Result Highlights**

From 1995 to December 31, 2012, BECC's most notable project-related accomplishments include the following:

- 208 certified projects (94 U.S. /114 Mexico) representing nearly \$6.3 billion in environmental infrastructure investment, directly benefiting 17 million border residents.
- 171 BECC-certified projects financed by NADB to date, of which 110 have completed both construction and financing.
- Providing 123 Water and Wastewater projects valued at \$2.4 billion providing new or improved services to 12 million border residents with a capacity to adequately treat more than 450 million gallons per day (MGD) of wastewater discharges, equivalent to the wastewater discharge of nearly 12.8 million people.
- Supporting 23 Solid Waste projects accommodating approximately 1,550 tons/

- day of waste previously disposed of in open or uncontrolled sites, benefiting more than 3.5 million people.
- Implementation of **12 Air Quality** projects related to paving and urban mobility which eliminate approximately 170,000 tons per year of PMio, caused by vehicular traffic on unpaved roadways.
- Supporting 25 Water Conservation projects estimated to save energy and to decrease water losses by approximately **330 MGD**; enough to serve the average demands of some four million people.
- Supporting the development of 13 Clean and Efficient Energy projects anticipated to prevent greenhouse gas emissions (GHG) equivalent to almost **1,265,665 metric tons** of CO<sub>2</sub> per year.





Details regarding all BECC-certified projects can be found on BECC's website, www.becc.org. The following graph illustrates project certifications by border state.



#### (US\$MD)

COMMUNITIES IN U.S. (\$26.35)

# **Technical Assistance Grants (1995-2012)**

(US \$ MD)

BECC supports the development of projects by funding planning, environmental and final design studies through two technical assistance programs: the Project Development Assistance Program (PDAP), funded by the Environmental Protection Agency (EPA); and a special program funded through BECC's operating budget. Since its inception, BECC has provided **\$41.99 million in technical assistance grants** supporting the development of projects in 163 communities.







# **2012 Institutional Performance and Result Highlights**

BECC's success in fulfilling its ambitious and its related BSC objectives is available in the Year in Review: BECC Performance and mandate requires having the right tools to guide and measure those results. Using the Results 2012 report published on our website, Balanced Scorecard (BSC) model to translate www.becc.org. annual strategic objectives into clear and In 2012, BECC successfully met 86% of measurable actions, BECC developed its its Balanced Scorecard objectives and annual goals from the perspective of its continued to advance its mission through clients-the expectations of its Board, NADB, significant accomplishments in each of its four and other border stakeholders—as well as institutional pillars. to assure sufficient institutional capacity. Additional information about each program

#### **Pillar 1: Project Certification**

Working with project sponsors at the local, state and federal levels, BECC's primary purpose is supporting border communities in identifying, and developing environmental infrastructure projects, in order to improve human health, promote sustainable development and contribute to enhancing the guality of life in the border region. With BECC certification border communities can gain access to NADB funding.



**19 environmental infrastructure projects** successfully advanced through the comprehensive BECC certification process in 2012, representing an estimated infrastructure investment of approximately \$1.8 million and benefitting more than 7.5 million border residents with improved environmental and human health conditions. The following table shows the projects, the benefitted population, and costs:

**El Porvenir Wind Energy Farm in Reynosa,** Tamaulipas - The Mexican retailer Organización Soriana will purchase the electricity produced by the wind farm through a long-term power purchase agreement, in order to actively contribute to the development of renewable and sustainable energy, while at the same time reducing its energy costs by purchasing the electricity generated by CETSA through a self-supply structure.

Certification		US\$	Millions	Population	
Date	Certified Projects	TOTAL	NADB Financing Approved	Benefitted**	
01/13/2012	AstroSol First Light Solar Tucson, Arizona	Reserved *	\$13.10	980,263	
02/09/2012	El Porvenir Wind Farm Reynosa, Tamaulipas	Reserved *	\$51.00	608,891	
05/21/2012	Wastewater Collection System Expansion to Unserved Area Ampliacion Lucio Blanco Playas de Rosarito, Baja California	\$1.73	\$0.86	3,752	
05/25/2012	Los Vientos Windpower 1A Willacy and Cameron Counties, Texas	Reserved *	\$110.00	428,345	
05/25/2012	Los Vientos Windpower 1B Cameron County, Texas	Reserved *	\$110.00	406,220**	
07/17/2012	Comprehensive Paving Project to Improve Urban Mobility Cd. Juarez, Chihuahua	\$156.36	\$132.91	1,332,131	
07/17/2012	Solid Waste Transfer Station Starr County, Texas	\$1.43	\$0.45	60,968	
07/17/2012	Wastewater Collection System Improvements Miguel Aleman, Tamaulipas	\$6.25	\$1.98	19,230	
07/17/2012	Wastewater Collection System Improvements - Disconnection from Storm Water Sewer Nuevo Laredo, Tamaulipas	\$5.01	\$2.90	86,869**	
07/17/2012	Basic Environmental Infraestructure Municipality of Nuevo Laredo, Tamaulipas		\$13.26	384,033	
07/17/2012	Expansion of the Wastewater Collection Infrastructure and Construction of the West Wastewater Treatment Plant Matamoros, Tamaulipas	\$69.72	\$28.19	160,879	
07/27/2012	FRV Bryan Solar Park Presidio, Texas	Reserved *	\$35.00	7,818	
10/10/2012	Ocotillo Express Wind Energy Project Imperial County, California	Reserved *	\$110.00	3,269,841	
10/26/2012	La Cuesta, Farallon, and SEDUE-SAAS Wastewater Collection System Improvements Tijuana, Baja California***	\$2.96	\$1.58	116,395	
11/02/2012	Davis-Monthan AFB Solar Park Tucson, Arizona	Reserved *	\$45.00	980,263**	
11/08/2012	Wastewater Collection System for the community of Tintown Bisbee, Arizona	\$1.46	\$0.76	112	
11/08/2012	Water and Wastewater Improvements San Agustín, Chihuahua	\$2.64	\$0.79	1,569	
12/06/2012	Desalination Plant Ensenada, Baja California	\$48.30	\$24.26	96,000	
12/06/2012	Street Lighting Replacement Playas de Rosarito, Baja California	\$4.01	\$3.41	90,668	
	TOTAL	\$1.80	\$683.87	7,560,895	

Since mid-2011, the impact of these certified renewable energy projects along the U.S.-Mexico border has resulted in reducing CO<sub>2</sub> emissions (1,241,009 tons/yr. -equivalent to removing 234.547 passenger vehicles); SO2 emissions (3,320 tons/yr.) and NOx emissions (1,443 tons/yr.).



Los Vientos Windpower I and II - With the February 2012 certification of Los Vientos I and II, a 171- wind turbine farm located north of Harlingen, TX, the total renewable energy capacity being financed by NADB increased by 400 MW. Both projects were certified by BECC in 2012 and are expected to eliminate emissions of carbon dioxide (CO<sub>2</sub>), sulfur dioxide (SO<sub>2</sub>) and nitrogen oxides (NO<sub>x</sub>).

"The certification and financing of these two projects represent the most substantial impact that BECC and NADB have made to emissions reductions to date" stated Maria Elena Giner, BECC General Manager, adding that "ultimately, this translates into improved air quality and improved human health in the border region. The experience we have obtained in both the US and Mexico we envision will help us catalyze the renewable energy sector along the border."

\* Business or proprietary information. Cost included in the total.

\*\* Populations of communities with more than one project are counted only once in the total.

\*\*\* This project is being funded with part of the proceeds of a US\$22 million loan contracted in 2009.



# **CERTIFIED PROJECTS** 1995-2012

	U.S.A.	Mexico	Total
Water & Wastewater	58	69	125
Solid Waste	6	17	23
Water Conservation	24	1	25
Air Quality	0	23	23
Energy Efficiency	10	2	12
Totals	94	114	208

Total Cost: US \$6,307 billion

# Mexico

#### Certified Projects 1995 - 2011

Air Quality Water Wastewater Water/Wastewater Water Conservation Solid Waste Energy Efficiency

Capitals Twin Cities

# Certified Projects 2012 Water

5)

Wastewater

Water/Wastewater

Solid Waste

Paving/Public Lightning

Solar Energy

Paving

Public Lightning

Wind Energy



As of December 31, 2012 BECC had 52 applications for project certification in process. Of these, 27 are for projects in the United States and 25 for projects in Mexico. Thirty-two relate to water and wastewater, one is for solid waste, five relate to clean and efficient energy, three relate to air quality, and 11 are under the NADB's Community Assistance Program (CAP). The following is a table categorizing project applications in the pipeline by type, state and country:

	Projects in the Pipeline								
State	Solid	Solid Air	Clean and	САР		Water / Wastewater		Est. Cost (MD)	
	Waste	Quality	Efficient Energy	CAP	Non- BEIF	BEIF	TOTAL		
CALIFORNIA	0	0	2	1	0	5	8	\$17.74	
ARIZONA	0	0	0	1	0	4	5	\$20.21	
NEW MEXICO	0	0	0	1	0	3	4	\$19.15	
TEXAS	0	0	0	1	0	9	10	\$60.58	
TOTAL US	0	0	2	4	0	21	27	\$117.68	
BAJA CALIFORNIA	0	1	1	0	0	2	4	\$106.96	
SONORA	0	0	1	1	0	2	4	\$17.63	
CHIHUAHUA	0	0	0	3	0	1	4	\$3.30	
COAHUILA	0	0	1	1	0	0	2	\$3.47	
NUEVO LEÓN	0	1	0	1	0	0	2	\$131.37	
TAMAULIPAS	1	1	0	1	0	6	9	\$92.02	
TOTAL MX	1	3	3	7	0	11	25	\$354.75	
TOTAL	1	3	5	11	0	32	52	\$472.43	



In 2011, NADB created the Community Assistance Program (CAP) to provide infrastructure grants funded with a portion of the Bank's retained earnings. CAP grants will be used to support small environmental infrastructure projects in communities with little or no capacity to incur debt. The program is designed to serve low-income communities in the U.S.-Mexico border region.

BECC, in coordination with NADB, officially launched the program on February 15, 2012 with 111 eligible applications received. The project proposals were ranked based on financial need, level of project readiness and the impact of anticipated environmental and health benefits. Four U.S. communities and seven Mexican communities were selected as candidates to receive grants totaling an estimated US\$3.77 million to build or rehabilitate priority water and wastewater infrastructure projects that will directly benefit 178,000 residents on both sides of the U.S.-Mexico border.



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"Supporting communities with critical infrastructure needs, but without sufficient resources to carry out projects, is of great importance to the Bank. In keeping with our mandate, the Bank and BECC will continue to look for ways to promote investment in environmental projects for all border communities."



CAP grants help low-income communities along the U.S.-Mexico build or rehabilitate priority water and wastewater infrastructure projects.

COMMUNITY ASSISTANCE PROGRAM (CAP) Results of the 2012 Project Selection Process					
COMMUNITY	PROJECT DESCRIPTION	PROJECT COST (US\$)			
	United States				
San Luis, AZ	Drinking water system interconnection to increase access to potable water service, and increase service reliability and reduce incidents of low pressure and/ or service interruption.	\$631,176.00			
Brawley, CA	Wastewater system improvements to eliminate exposure to untreated wastewater and reduce the risk of waterborne diseases.	\$526,000.00			
Sunland Park, NM	Drinking water system improvements consisting of the replacement of water meters, which will improve water resource management.	\$750,000.00			
Fabens, TX	Drinking water system improvements consisting of a new water tank to replace the existing tank and a new service line.	\$414,000.00			
	Mexico				
Ascensión, CHIH	Drinking water infrastructure to provide reliable water service and reduce the risks of waterborne diseases.	\$200,000.00			
Nuevo Casas Grandes, CHIH	Wastewater collection system improvements to eliminate exposure to untreated wastewater discharges.	\$500,000.00			
Ricardo Flores Magón, CHIH	Drinking water infrastructure to expand and rehabilitate system and provide reliable service.	\$500,000.00			
Castaños, COAH	Construction of a force main to convey treated wastewater.	\$227,384.00			
Los Fierros (Santiago), NL	Storm water drainage to prevent unsanitary conditions, including flooding and surface ponding.	\$370,000.00			
Bacanuchi (Arizpe), SON	Wastewater collection and treatment system improvements to eliminate exposure to untreated wastewater discharges.	\$310,000.00			
	Drinking water infrastructure to provide reliable				

### **Pillar 2: Technical Assistance through Grants or Technical Expertise**

The purpose of the Technical Assistance (TA) Program is to provide grants or technical expertise to promote the development of high quality environmental infrastructure projects and initiatives that could be eligible for additional funding through NADB, the Border 2020 (B2020) Program or other programs.



To efficiently and effectively develop projects, many project sponsors require the support of BECC's technical services and/or technical assistance through grant programs. A multidisciplinary project development team assists project sponsors in planning, environmental assessment, project design, financial analysis and public participation processes, which strengthens the project sponsors' institutional capacity. BECC staff strives to provide a project development model using best management practices that can be routinely used in other environmental infrastructure projects.

BECC's Technical Assistance Fund supports the development of water and wastewater projects that are ineligible for PDAP funds. In 2012, BECC awarded six technical assistance grants totaling \$452,799.

BECC 2012 Technical Assistance Awards				
COMMUNITY / SPONSOR	GRANT AMOUNT (US\$)	SECTOR	PROJECT DESCRIPTION	
Bisbee, AZ	\$30,000	Wastewater	Sewer Lateral Evaluation Study to update and upgrade the City's sewer base map records.	
El Paso County, TX (Montana Vista Colonia)	\$22,859	Wastewater	Field-Nuisance Survey of the existing septic tanks, pit privies, cesspools, etc., in the Montana Vista Colonia to establish if conditions merit a determination of public health nuisance related to existing wastewater collection and treatment.	
Baja California	\$99,940	Renewable Energy and Energy Efficiency	Development of Greenhouse Gas Reduction and Energy Management Plan for municipal water/wastewater utilities for the purpose of reducing O&M costs associated with energy use.	
Tijuana, BC	\$50,000	Water Storage and Conservation	Water Quality Sampling, Aquifer Level Measurements and Contaminant Transport to determine potential aquifer storage and recovery.	
Chihuahua, CHIH	\$50,000	Renewable Energy	Pilot Solar Energy Project for the Children's Hospital of Chihuahua to complement the funds needed for the development of the overall project.	
Cd. Juarez, CHIH	\$200,000	Water/Wastewater Renewable Energy and Energy Efficiency/Reuse of reclaimed water	Master plan to determine investment needs over the next 20 years. Study includes evaluation of existing system, energy efficiency, renewable energy, and water conservation opportunities as well as development of a capital improvement plan.	
TOTAL	\$452,799			

#### **Energy and Water Audits**

In 2011, BECC began developing an energy and water audit program for communities within the border area. In 2012, preliminary energy audits were developed with a combination of EPA's Project Development Assistance Program (PDAP) and BECC's funds to examine the following areas:

> **Review and propose** efficiency measu on final designs of w wastewater infrastr

Conduct water au and identify cost-effec conservation mea

In addition, the audits will provide recommended conservation measures, such as installation of energy-efficient pumps, operation of UV disinfection, automatic controls for lighting and aeration systems, energy management software and the financial impacts of implementing these measures.



<b>e energy</b>	<b>Conduct energy audits</b>
ures	that will identify cost-effective
vater and	energy efficiency opportunities in
ructure	water and wastewater facilities
<b>udits</b> ctive water asures	<b>Develop performance</b> <b>specifications</b> or other design documents needed to procure and implement the identified measures

As of December 31, 2012, BECC had begun work on energy audits for the Sunland Park Wastewater Treatment Plant, South Central Wastewater Treatment Plant and Fabens Wastewater Treatment Plant as well as the four water and wastewater utilities in the state of Baja California in conjunction with the state's commissions on water and energy. Additionally, BECC conducted an energy audit for the Juarez Municipal Water District as part of its Master Plan.

16 %

15 %

8%

Border 2012: U.S.-Mexico Environmental **Program** is a collaborative effort of the United States and Mexico to improve the environment and protect the health of the nearly 12 million people living along the border. The bi-national program focuses on cleaning the air, providing safe drinking water, reducing the risk of exposure to hazardous waste, and ensuring emergency preparedness along the U.S.-Mexico border. To support EPA and Mexico's Ministry of the Environment and Natural Resources (SEMARNAT) in their efforts to achieve results, BECC provides its services to facilitate stakeholder meetings, as well as to identify, contract, and manage projects. Since 2005, EPA has authorized approximately \$8.6 million in grant funding for 176 BECC-managed Border 2012 projects, related to all program goals: Water, Air, Land, Environmental Health, Emergency **Response, and Environmental Performance.** 

20 %

7%

22



In 2012, with the concurrence of EPA, BECC approved \$437,703 in technical assistance funds for nine projects. These projects comply with the Border 2012 goals and objectives and support EPA and SEMARNAT.

	Border 2012 Program Technical Assistance Approved During 2012	
B2012 Goal	Technical Assistance Description	Amount (US\$)
2	Diagnosis of Paving and Vehicular Load in Relation to Air Quality and Health Effects in Mexicali, BC	\$22,450
2	Mexican Border States Emission Inventories	\$60,000
3	Community Outreach and Habitat Enhancement of the Tijuana River Watershed	\$100,000
4	Development of an Environmental/Epidemiological Database on the Texas-Mexico Border	\$50,000
4	Children's Environmental Health Initiative in Laredo, TX	\$50,000
4	Reducing Children's Environmental Health Risks (Lead, Asthma, and Pesticides) along the U.S./Mexico Border in Imperial County, California	\$25,000
4	Reducing Children's Environmental Health Risks (Lead, Asthma, and Pesticides) along the U.S./Mexico Border in Imperial County, California	\$25,000
4	Transitioning to Reduced-Risk Cotton Pest Management Practices, Mexicali Region	\$55,253
5	U.S./Mexico Sister Cities of Presidio, Texas and Ojinaga, Chihuahua Cross Border Contingency Plan Update	\$50,000
		Total \$437,703
State	Special Studies Description	Cost
Texas	Transporting and Processing Scrap Tires Originating in the City of Presidio,TX	\$11,100
Chihuahua	Collection of Scrap Tires in Cd. Juarez, CHIH	\$21,123
Coahuila	U.S./Mexico Sister Cities Update of Emergency Response and Preparedness Plans for Eagle Pass/Piedras Negras and Del Rio/Cd. Acuña	\$92,000
		Total \$124,223

Border 2012 became the Border 2020 Program as of September 2012. This new program, for which similar goals and objectives have been defined, will be implemented through biannual action plans to be assessed during the National Coordinators' meetings held every two years.

> For more information on Border 2020, please visit:

http://www2.epa.gov/border2020



EPA Administrator Lisa Jackson, SEMARNAT Secretary Juan Rafael Elvira Quesada, Baja California Governor José Guadalupe Osuna Millán, during the signing of the Border 2020 agreement

#### Border 2020: U.S. - Mexico Environmental Program

Goal 1	Reduce Air Pollution: Air pollution presents a substantial environmental risk in some border communities that are frequently exposed to elevated concentrations of particulate matter PM10 and PM2.5, ozone, and toxic air pollutants.

Goal 2

Improve Access to Clean and Safe Water: Protecting and restoring watersheds and water quality in these rivers and providing adequate drinking water and basic sanitation services requires collaborative bi-national, multi-jurisdictional planning efforts.

Goal 3

Promote Materials Management, Waste Management and Clean Sites: Waste management programs and services have not kept pace with border communities' needs and the current waste management structure is not adequate to meet these increasing needs.

Enhance Joint Preparedness for Environmental Response: The 1985 Annex II of the La Paz Agreement establishes cooperative measures for preparing and Goal 4 responding to oil and hazardous substance incidents along the U.S.-Mexico inland border.

Goal 5

Enhance Compliance Assurance and Environmental Stewardship: Rapid industrial growth along the border from maguiladoras, their suppliers, and other industries presents environmental impact concerns that provide an opportunity to promote greener business practices.



To support border communities, BECC builds relationships and partnerships with federal, state and local agencies, international organizations, academia, and the private and public sectors. These associations have resulted in environmental initiatives, increased project/program coordination, consistent information exchange and strategy development that have helped border communities.

Information availability and accessibility are critical for border communities, government agencies, and other stakeholders in prioritizing and coordinating actions intended to address environmental and health issues that persist in the border region. In 2012, BECC established new certification criteria based on input from stakeholders and the public sector, implemented an impact evaluation system to work with stakeholders on identifying a project's overall impact on communities, and continued to build strong partnerships throughout the border region.

#### **Certification Criteria**

BECC conducted a comprehensive revision of its project certification criteria in response to the evolving conditions of project development along the U.S-Mexico border, as well as to the increasingly varied types of environmental infrastructure projects being submitted for certification. The new criteria maintain the core principles of BECC certification, but offer a single set of technical, environmental and financial requirements applicable to any type of project seeking such certification. Furthermore. the criteria contain a stand-alone section describing varying levels of public outreach efforts based on project type. The new criteria have brought added value to the project development and implementation processes.



"Through BECC's work we have a set of tools and resources that helps us identify the needs of the community. This framework outlines health impact indicators for each specific project, monitoring of these indicators and the assessment of health impacts that allows BECC and its partners like PAHO to measure a project's impact on the community. With this information we can provide decision makers with a comprehensive overview of the environmental health of the area and the issues that affect residents."

> Dr. Maria T. Cerqueira Chief of the Office U.S.-Mexico Border Office PAHO

#### Impact Evaluation

BECC designed a framework to conduct project impact assessments aimed at determining whether a project is achieving the environmental and human health objectives it was designed to provide. Impact assessment is a tool that helps stakeholders measure the impact of investments in infrastructure and improve upon policy direction. Initial efforts by BECC have been undertaken with the Pan American Health Organization (PAHO) and the Colegio de la Frontera Norte (COLEF), and involve applying specific indicators to determine results of projects in communities of the region, such as:

**Valle de Juarez -** Determination of the relationship between untreated wastewater used for irrigation, lack of wastewater treatment in the communities, and the prevalence of gastrointestinal diseases in the population of Valle de Juarez.

Results showed the presence in tap water of parasites such as Giardia and Cryptosporidium among others. The rate of positive samples for parasites in drinking water was 55%. The presence of these parasites may be attributed to sources in the aquifer, the distribution lines, the community storage tank, and existing piping in the households where samples were collected.



**Vinton, Texas –** In collaboration with PAHO and the University of Texas at El Paso, a health impact assessment (HIA) will look at the potential health impacts of proposed water and sanitation system improvements in Vinton, TX. This assessment will help identify and address the likely health benefits and risks of a decision to be made by the local government regarding infrastructure improvements and policy.



Vinton residents currently rely on several water systems including private wells for water, and domestic septic tanks for sanitation. The proposed improvements could reduce risks of gastrointestinal diseases, especially for children. The HIA will consider exposure to a range of contaminants in current water supplies and the hazards of poorly functioning waste.

#### **Strategic Partnerships: Strong Public and Private Stakeholder Relationships**

BECC is focused on developing and fostering collaborations and partnerships by facilitating involvement in capacitybuilding initiatives and working to identify potential project opportunities. The most relevant activities conducted by BECC during 2012 include:



Formalized a partnership with the German development bank KfW. BECC will manage technical assistance funds provided by KfW to support development and implementation of climate-related water and wastewater projects in Mexican communities.

More than 35 presentations were made at conferences, further strengthening our partnerships with stakeholders. Each presentation demonstrated to various audiences the importance of environmental infrastructure needs and the strides BECC and NADB have made and continue to make to assist communities in achieving a better quality of life.

**BECC Internal and External Communication** In 2012, 30 BECC Bulletins were produced and distributed to an email registry of more than 1,200 subscribers. Additionally, 16 BECC press releases were issued. These dynamic information tools are focused on key BECC activities in communities throughout the border region.

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Active collaboration with the Good Neighbor Environmental Board (GNEB), resulting in the GNEB's December 2012 report titled "The Environmental, Economic and Health Status of Water Resources in the U.S.-Mexico Border Region."

**Pillar 4: Institutional Capacity-Building through** Information and Training -

BECC's focus on institutional capacity-building helps enhance project sustainability as well as address emerging issues. By strengthening institutional capacities through training and shared information, BECC and its partners develop strategic studies with the goal of identifying needs and project opportunities and improving the effectiveness of infrastructure program investments that could be supported by BECC and NADB.

BECC has developed specialized studies, needs assessments, and various publications intended to serve as tools to identify and implement environmental infrastructure projects in a variety of sectors, among them the planning and development of climate action plans for the six Mexican border states.

#### **State Climate Action Plans**

In 2012, BECC continued its work with the Mexican federal government and the state governments of Baja California, Sonora, Chihuahua, Coahuila, and Tamaulipas in developing State Climate Action Plans (SCAPs). Through these efforts, BECC expects to identify priority climate change adaptation and mitigation projects that could be developed with BECC-NADB assistance.

BECC has formalized a partnership with USAID, through its Mexico Low Emissions Development Program (MLED) to leverage funding for development of Phase II of the state climate action plans in two Mexican border states. Phase II of the state climate action plans will include: Econometric Quantification of Emission Reduction Public Policies resulting in decision-making information, such as a cost-benefit analysis, the potential for job creation and the identification of environmental justice issues.



In response to Mexico's General Law on Climate Change which was signed into law in June 2012 and obligates states to plan for climate change by 2013, BECC continues to expand its work on the Climate Change Initiative in coordination with Mexico's National Institute of Ecology and Climate Change (INECC) and SEMARNAT in the states of Baja California, Sonora, Chihuahua, Coahuila and Tamaulipas.

Sonora was the first border state to prepare an inventory of greenhouse gases and it served as an example for the development of inventories in the other five border states, all of which received BECC assistance.

"We want to be part of BECC's vision and not miss the opportunity to work with this organization," said Sonora Governor Guillermo Padres Elias during a climate change program meeting with BECC staff on September 25, 2012.



Phase I of the SCAPS for Baja California, Sonora and Coahuila were completed with Border 2012 funds in 2011. A total of 134 public policy options for mitigation were identified with the participation of academic institutions, civil organizations and local experts on climate change. These policies included: energy efficiency programs, public building and street lighting, public transportation, urban light rail systems, vehicle verification programs, and methane management in rural farms.

BECC has worked with EPA and Mexico's INECC, which is under SEMARNAT, in the completion of Phase I of the Climate Change Initiative for three of the states and initiated the preliminary stage for two other Mexican border states.

#### **Other Collaboration and Events**

XIX Border Energy Forum held in Hermosillo, Son., was a great success with more than 270 attendees and high-ranking officials such as Governor Padres and U.S. Ambassador E. Anthony Wayne, among others. This was the first time that BECC was involved as an organizer of the event.





BECC leadership meeting with Coahuila state senior officials including Secretary of the Environment, Eglantina Canales, on climate change plans (top photo) and at the installation of the Baja California Climate Change Council (bottom photo).



**Workshops -** In 2012, BECC conducted the following workshops for capacity-building purposes in Saltillo, Coah., which had more than 120 attendess from half of the municipalities of Coahuila (19 municipalities):

• Integrated Management of Solid Waste and Special Handling - presented to the municipalities to provide training related on waste management, including management plans; aspects of Mexican regulations on the management of solid waste; viable options for the utilization of biogas from disposal sites; and methodologies for cost analysis and financial aspects.

• Practical Guide to Sustainable Rehabilitation of Public Schools in the Northern Border Region of Mexico - presented to a multidisciplinary group that included architects, engineers, teachers, college students and government officials of the state of Coahuila to provide guidelines in designing public policy regarding the construction and rehabilitation of schools, from the perspective of environmental sustainability.

• Basis of Design and Definition of First Architectural Proposal for "Public Green Building" Project - presented to the Coahuila State Ministry of Infrastructure and Ministry of the Environment and the Universidad Iberoamericana, featuring a case study developed by BECC on a public building that could gualify as a green building and explaining the design elements needed to achieve "Platinum" certification from the Leadership in Energy and Environmental Design (LEED) of the U.S. Green Building Council (USGBC).



BECC General Manager meets with Ambassador Wayne in Mexico City to review public policies, BECC's Institutional Capacity Building efforts, climate change, green building, needs assessments, and BECC and NADB presence in emerging sectors.



BECC General Manager Giner presents water and wastewater achievements of the U.S.-Mexico Border Program at the 6th World Water Forum at the Mexico Pavilion in Marseille, France. Giner spoke of the joint effort to improve environmental conditions with respect to water and wastewater in the border region between the two countries.

"The Sixth World Water Forum has been an opportunity to show an example of how these institutions operate, and at the same time, it has been an opportunity to hear other opinions regarding water issues and their relation to energy, food security and its relation to water, and water management and climate change, among other topics," said Giner of the event held on March 12, 2012.

#### **Publications in 2012**

"Public Border Transportation for Seven Mexican Cities" - This study is an effort to understand public transportation in cities along the Mexican border. The cities selected for this study were Chihuahua City and Cd. Juarez in Chihuahua, Hermosillo and Nogales in Sonora, and Tijuana, Mexicali and Ensenada in Baja California. BECC developed 15 indicators for these cities, analyzed transport plans, studies and actions in the region, and identified main obstacles to developing public transport projects.

"Guide for Sustainable Rehabilitation of Schools" and "Guide for Sustainable Rehabilitation of Clinics and Hospitals in the Northern Border Region of Mexico" - These studies represent practical guides to encourage public efforts in establishing and boosting the rehabilitation of schools and health centers, with environmental sustainability standards for the design, construction and installation of water and energy devices. These two guides are aimed at reversing the perception that the application of eco-technologies significantly raises the cost of construction and maintenance projects.



## **2012 Project Report**



BECC and NADB were established to help address critical environmental and human health conditions in the border region related to the lack of adequate **environmental infrastructure**. To achieve this objective, BECC works with local, state, federal and private-sector sponsors to develop projects through a process consistent with its Certification Criteria, NADB financing prerequisites, and other applicable regulatory or funding requirements. This well-balanced process evaluates the environmental, technical, social and financial feasibility of the proposed infrastructure investment and seeks long-term project sustainability for the sponsor, investors and the intended beneficiaries. Once a project satisfies these elements, BECC and NADB prepare a certification and/or financing proposal for each project to be presented to the Board of Directors for consideration and approval.

In 2012, the Board of Directors approved BECC certification and NADB financing for 19 environmental infrastructure projects. Each of these projects is expected to achieve projectspecific outcomes related to improving environmental and human health conditions.

In accordance with the project certification table in this report, below is a brief description of the 19 projects certified and approved for financing in 2012 that include eight water/wastewater projects, two air quality projects, eight clean and efficient energy projects, and one solid waste project.

Water and Wastewater Infrastructure (9 projects)

Air Quality (1 projects) Clean and Efficient Energy (8 projects)

Solid Waste Management (1 project)

## **Drinking Water and Wastewater Infrastructure** Reducing the risk of water-borne disease and water pollution.

The fundamental objective of water and benefit nearly 485,000 border residents, wastewater projects is to eliminate exposure including **first-time** and enhanced drinking to unsanitary water conditions, which can water services provided to 1,735 households have immediate and severe health and and first-time and enhanced wastewater environmental impacts. Because of the shared collection and treatment services to more water resources along the border and the than 47,800 households. These projects are movement of goods, people, and services back anticipated to reduce the approximately and forth across the border, the investment to 21 MGD of untreated wastewater currently improve this infrastructure in either country polluting community streets, irrigation provides the residents in the neighboring systems and shared water bodies in the country with a lower risk of contagious waterborder region. Although most of the projects borne diseases. The level of investment and improve collection system infrastructure, two increased access to this infrastructure has of the projects will provide new wastewater been greatly influenced by the availability of treatment capacity totaling 12.5 MGD. Finally, grant funding provided through PDAP and BECC certified a 5.7 MGD desalination facility BEIF. in 2012, which will provide a drinking water source to offset the current extraction Together, the eight water and wastewater from the depleting groundwater resources projects certified in 2012 are intended to currently serving Ensenada, Baja California.

#### Playas de Rosarito, Baja California Expansion of the Wastewater Collection System for the Unserved Area Ampliacion Lucio Blanco (Phase II)



**Certified May 2012** 

Benefited Population:	3,752
Project Cost:	US \$1.73 million
Funding Partners:	NADB-BEIF grant, federal grant
Existing Condition:	Unserved area of Lucio Blanco
Anticipated Outcome:	Increase wastewater collection service; eliminate uncollected wastewater discharges
Measurement:	Increase wastewater collection service (Target= 915 new connections) Eliminate uncollected wastewater discharges (Target= 7.6 liters per second (lps) [0.17 MGD])

2012 PROJECT REPORT

# Matamoros, Tamaulipas Improvements to the Water and Wastewater Systems and Construction of the West Wastewater Treatment Plant

#### **Certified July 2012**

	Benefited Population:	160,879	Benefited Population:	86,869
1. A	Project Cost:	US \$69.71 million	Project Cost:	US \$5.01 million
the second second	Funding Partners:	NADB-BEIF grant, NADB loan, federal and state funds and equity from local water utility, Junta de Agua y Drenaje	Funding Partners:	NADB-BEIF grant funds
jad.com.mx	Existing Condition:	Residents of the West Matamoros Project area currently have wastewater collection services but lack wastewater treatment. The collected wastewater flows are discharged directly into storm drains without any treatment. In the Southwest service area, residents rely on latrines, septic tanks, or discharges to open drains for their wastewater disposal.	Existing Condition:	Untreated wastew due to deteriorate infrastructure, whi water drains and c the Rio Grande. Th pollution and the r
	Anticipated Outcome:	The purpose of the project is to eliminate the discharge of, and exposure to untreated wastewater by providing access to wastewater collection and treatment services, thus contributing to the reduction of water pollution and the risk of waterborne diseases.	Anticipated Outcome:	Eliminate exposure treated wastewate
	Measurement:	Increase access to wastewater collection services (Target = 7,131 new sewer connections) Increase access to wastewater treatment services (Target = 43,956 new wastewater treatment connections) Increase wastewater treatment capacity (Target = 540 lps [12.33 MGD]) Reduce untreated discharges (Target = 415 lps [9.47 MGD])	Measurement:	Eliminate untreate (Target =227.8 lps

### Miguel Alemán, Tamaulipas Wastewater Collection System Improvements

#### **Certified July 2012**

#### Tijuana, Baja California La Cuesta, Farallon and SEDUE-SAAS Wastewater Collection System Improvements



#### Nuevo Laredo, Tamaulipas Wastewater Collection System Improvements - Disconnection from Storm Water Sewer

#### **Certified July 2012**

ADB-BEIF grant and federal, state and municipal

ntreated wastewater discharges occurring ue to deteriorated/collapsed sewer collection frastructure, which is currently connected to storm ater drains and discharging without treatment to e Rio Grande. These conditions contribute to river ollution and the risk of waterborne diseases.

liminate exposure to untreated or inadequately eated wastewater discharges.

iminate untreated wastewater discharges arget =227.8 lps [5.2 MGD])



**Certified October 2012** 

Benefited Population:	116,395
Project Cost:	US \$2.95 million
Funding Partners:	NADB loan, federal and state funds
Existing Condition:	Unserved area of La Cuesta and rehabilitation of aged Farallon collectors and SEDUE-SAAS force main
Anticipated Outcome:	Increase access to wastewater collection service; eliminate untreated wastewater discharges; reduce the risk of exposure to raw wastewater leaks or spills
Measurement:	Increase access to wastewater collection service (Target = 309 new connections) Eliminate untreated wastewater discharges (Target= 2.50 lps [0.057 MGD]) Reduce the risk of exposure to raw wastewater leaks or spills (Target= 235 lps [5.37 MGD])

#### **Bisbee, Arizona** Wastewater Collection System for the Community of Tintown

Benefited

**Population:** 

#### **Certified November 2012**

2012 PROJECT REPORT

A			
a the	Project Cost:	US \$1.46 million	
	Funding Partners:	U.S. Department of Agriculture Rural Development (USDA-RD) grant, NADB-BEIF grant	
	Existing Condition:	The project will help eliminate the use of failing septic tanks and nonconforming cesspools to an unserved area within the City of Bisbee, Arizona.	
	Anticipated Outcome: The purpose of the project is to eliminate exposure untreated wastewater discharges by expanding the wastewater collection system to this unserved area, contributing to the reduction of pollution and the ris waterborne diseases.		
	Measurement:	Increase access to wastewater collection services (Target = 32 new residential connections) Eliminate untreated wastewater discharges (Target = 0.5389 lps [12,300 gallons per day])	

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## Ensenada, Baja California Desalination Plant "El Salitral"

Benefited Population:	96,000
Project Cost:	US \$48.30 million
Funding Partners:	NADB loan, Federal grant
Existing Condition:	The utility obtains drinking have been severely deple- intrusion in recent years. limited sources of water s jeopardize the water utilit and sustainable drinking w population.
Anticipated Dutcome:	Increase sustainable drink the demand on groundwa permitted extraction volu
1easurement:	Capacity to produce drink (Target = 250 lps [5.7 MG Reduce demands on grou (Target ≤ 692 lps [15.5 MG

## Nuevo Laredo, Tamaulipas Basic Environmental Infrastructure

San Agustín, Chihuahua Expansion of the Water Distribution System, Construction of the Wastewater Collection System and the Construction of the Wastewater Treatment Plant

#### **Certified November 2012**

Benefited Population:	1,569	
Project Cost:	US \$2.64 million	
Funding Partners:	Federal and state funds and NADB-BEIF grant	a dia ma
Existing Condition:	93% of the community has access to informal drinking water service. Residents obtain their supply from water trucks or through substandard connections made with plastic hoses inappropriate for this purpose. Additionally, the community of San Agustin does not have a wastewater collection or treatment system. Consequently, there are untreated wastewater discharges from latrines and cesspools that could potentially run off and reach surface bodies of water, such as the Rio Grande and/or groundwater through soil infiltration.	
Anticipated Outcome:	Increase access to basic drinking water and wastewater services in unserved areas and reduce exposure to untreated wastewater discharges by expanding the drinking water system and constructing the wastewater collection and treatment systems, contributing to the reduction of water pollution and the risk of waterborne diseases.	
Measurement:	Increase access and use of drinking water (Target = 50 new residential connections) (Target = 661 improved residential connections) Increase access and use of wastewater collection and treatment services (Target = 711 new residential connections) Increased wastewater treatment capacity (Target = 5.25 lps [0.12 MGD]) Reduce untreated or inadequately treated wastewater discharges (Target = 4.81 lps [0.11 MGD])	



#### **Certified December 2012**

#### nt, private equity

ing water from local aquifers that leted and experienced seawater 5. The region's dry climate and the r suitable for human consumption lity's capacity to provide reliable g water services to the growing

nking water supply and reduce vater resources to comply with lumes.

nking water supply (GD]) oundwater resources 1GD])

#### **Certified July 2012**

Benefited Population:	384,033	
Project Cost:	US \$35.60 million	
Funding Partners:	Federal, state and municipal funds, NADB loan	
Existing Condition:	The purpose of the project is to increase access to basic water and wastewater services in unserved areas, reduce exposure to untreated wastewater discharges, improve storm water management infrastructure, increase street paving coverage and improve roadway infrastructure to promote efficient urban mobility.	
Anticipated Outcome:	Water system improvements will increase potable water service coverage by making it possible for an estimated 1,024 households to connect to the water system in areas currently lacking service. Storm drainage improvements will reduce the risk of flooding within the city.	
Measurement:	Paving and roadway improvements are expected to contribute to the reduction of 265.4 metric tons/year of PM10, while better mobility and less congestion will help reduce vehicle emissions, including an estimated 249.6 metric tons/year of volatile organic compound (VOC) emissions, 652.1 metric tons/year of carbon monoxide (CO) emissions and 253.0 metric tons/year of nitrogen oxides (NOX)	



#### Air Quality, Energy, and Transportation

Improve air quality, reduce risks of respiratory diseases, and reduce demand on fossil fuels.

The majority of the air quality projects emssions produced by traditional fossilcertified by BECC entails paving roadways to reduce PM10 exposure in densely populated communities, which poses significant risks for asthma and other poor respiratory conditions. Supported by the experience gained in successfully developing urban mobility infrastructure projects that contribute to improved air guality, BECC continues to develop specific strategies aimed at promoting other emission-reduction infrastructure opportunities.

In 2012, BECC certified two air quality projects intended to improve urban mobility and influence air quality improvements by decreasing harmful emissions caused by motor vehicles on unpaved roads, as well as seven clean and efficient energy projects that will help displace greenhouse gas (GHG)

fuel-based power generation. Altogether, the three solar energy and four wind energy projects will increase installed renewable energy capacity by more than 600 MW.

> Electricity generation depends to a great extent on fossil fuels, a significant source of greenhouse gases. Clean energy generation and energy efficiency improvements are typically hindered by high upfront costs, fueling dependency on traditional energy.

#### Willacy & Cameron Counties, Texas Los Vientos Windpower IA



#### Tucson, Arizona ASTROSOL First Light Solar

Benefited Population:	980,263	and the second
Project Cost:	Reserved - Business information	
Funding Partners:	Private equity, NADB loan	
Impact/Existing Condition	The project will provide opportunity to displace GHGs and other pollutants produced by traditional fossil-fuel based energy generation, while providing the residents of Pima County with a safe and reliable energy alternative.	
Measurement:	The aggregated environmental impact for the expected life of the project over the next 25 years is estimated to be equivalent to a reduction of nearly 176,000 metric tons of CO2.	

#### **Certified January 2012**

Benefited Population:	406,220
Project Cost:	Reserved - Business
Funding Partners:	Private equity, NADE financial institutions
Impact/Existing Condition	The project is expec each with a 2.4 MW which convert kineti will have a capacity
Measurement:	The production of cl electricity from the p displace over 406,61 dioxide (CO2), 332 m oxide (NOX) and 694 dioxide (SO2) emissi

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**Certified May 2012** 

Benefited Population:	428,345	
Project Cost:	Reserved - Business information	
Funding Partners:	Private equity, NADB loan, loans from other financial institutions	
Impact/Existing Condition:	The project is expected to have 87 turbines, each with a 2.3 MW capacity. The turbines, which convert kinetic energy into electricity, will have a total capacity of 200.1 MW. The project is expected to provide enough electricity for the equivalent of more than 60,000 households.	
Measurement:	The production of clean and emissions free electricity from the project is expected to displace 466,488 metric tons of carbon dioxide (CO2), 381 metric tons of nitrogen oxide (NOX) and 797 metric tons of sulfur dioxide (SO2) emissions per year.	

#### Cameron County, Texas Los Vientos Windpower IB

**Certified May 2012** 

information

B loan, loans from other

cted to have 84 turbines, capacity. The turbines, c energy into electricity, of 201.6 MW.

lean and emissions free project is expected to 13 metric tons of carbon metric tons of nitrogen 4 metric tons of sulfur sions per year.



### **Reynosa, Tamaulipas** El Porvenir Wind Farm Project

**Certified February 2012** 

Benefited	608,891		Benefited Population:	7,818
Population: Project Cost:	Reserved - Business information		Project Cost:	Reserved - Busine
Funding Partners:	Private equity, NADB loan, loans from other financial	DE Onna	Funding Partners:	Private equity, NA
Impact/Existing Condition	Institutions This project will increase the amount of energy obtained from renewable sources in Mexico's national grid, promoting renewable capacity growth and diversifying the mix of power generation sources, and making a significant contribution to sustainable development in the region.		Impact/Existing Condition	The project will ind renewable energy on traditional fossi contributing to the other pollutants fre
Measurement:	The project will have an installed capacity of 54 MW and will generate approximately 156.4 GWh of electricity annually. Estimated emission improvements include the displacement of 90,976 metric tons of carbon dioxide (CO <sub>2</sub> ) during the project's first year of operation, in addition to supporting the decrease of other pollutants, such as sulfur dioxide (SO <sub>2</sub> ) and nitrogen oxides (NO <sub>X</sub> ).		Measurement:	The environmental anticipated for the renewable energy year; and an expect 16,805 metric tons metric tons/year of tons/year of nitrog

## Cd. Juarez, Chihuahua Comprehensive Paving Project to Improve Urban Mobility

#### **Certified July 2012**

## **Presidio, Texas** FRV Bryan Solar Park

enefited opulation:	7,818
oject Cost:	Reserved - Business inf
unding Partners:	Private equity, NADB lo
npact/Existing ondition	The project will increase renewable energy reso on traditional fossil fuel contributing to the disp other pollutants from p
easurement:	The environmental and anticipated for the proje- renewable energy gene year; and an expected of 16,805 metric tons/year metric tons/year of sulf tons/year of nitrogen of

## Imperial County, California Ocotillo Express Wind Energy Project



40

#### **Certified July 2012**

#### formation

#### han

se installed capacity of purces, reducing the demand I-based energy production and placement of GHG emissions and ower generation by fossil fuels.

human health outcomes ject include 10 MW of new eration capacity; >27,500 MWh/ displacement of more than ar of carbon dioxide (CO2), 29 Ifur oxides (SOx) and 14 metric oxides (NOx).



#### **Certified October 2012**

Benefited Population:	3,269,841
Project Cost:	Reserved - Business information
Funding Partners:	Private equity, NADB loan, loans from other financial institutions
Impact/Existing Condition:	The project provides an opportunity to displace GHG and other pollutants produced by traditional fossil- fuel-based energy generation, while providing the residents of the border region with a safe and reliable energy alternative.
Measurement:	The environmental and human health outcomes anticipated for the project include 265.5 MW of new renewable energy generation capacity; >646,000 MWh/year (adjusted gross energy); and an expected displacement of more than 175,000 metric tons/year of carbon dioxide (CO <sub>2</sub> ) and 264 metric tons/year of nitrogen oxides(NOx).

2012 PROJECT REPORT

# Tucson, Arizona Davis Monthan AFB Solar Park

#### **Certified November 2012**

Benefited Population:	980,263
Project Cost:	Reserved - Business information
Funding Partners:	Equity, NADB loan
Impact/Existing Condition	The project is expected to generate sufficient energy to supply about 50% of Davis-Monthan Air Force Base electricity needs, estimated to be the equivalent of the annual consumption of approximately 2,100 households.
Measurement:	The environmental and human health outcomes anticipated for the project include 12.6 MW of new renewable energy generation capacity; >34,000 MWh/year; and an expected displacement of more than 16,964 metric tons/year of carbon dioxide (CO <sub>2</sub> ), 11 metric tons/year of sulfur dioxide (SO <sub>2</sub> ) and 17 metric tons/year of nitrogen oxides (NO <sub>X</sub> ).

### Playas de Rosarito, Baja California Street Lighting Replacement

**Certified December 2012** 

Benefited Population:	90,668	// 11
Project Cost:	US \$4.01 million	
Funding Partners:	Municipal funds, NADB Ioan	
Existing Condition:	The public lighting system in the municipality uses low-efficiency lights which use energy produced by fossil-fuels, a significant source of GHG.	
Anticipated Outcome:	Reduce the amount of GHG produced by traditional fossil-fuel-based power generation by installing energy-efficient luminaires capable of achieving energy savings, thereby contributing to the improvement of air quality and health in the border region.	
Measurement:	Energy savings = 1,795 MWh/year Emissions avoided: target ≥ 903 ton/yr. CO2; 3.3 ton/yr. SO2; 2.4 ton/yr. NOx.	

#### **Solid Waste Management**

Reduce waste generation and risks of waste/vector-related disease and harmful environmental effects of improperly disposed waste.

In 2012, one solid waste management project was certified. The Solid Waste Transfer Station, located in Starr County, Texas, will provide adequate disposal services to county residents while minimizing the potential for illegal dumping and associated environmental and health risks. The project was supported, in part, by grant funding from NADB's Solid Waste Environmental Program (SWEP).

#### Starr County, Texas Solid Waste Transfer Station



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#### **Certified July 2012**

	Benefited Population:	60,968
	Project Cost:	US \$1.43 million
	Funding Partners:	NADB-SWEP grant and commercial bank loan
	Existing Condition:	The Municipal Solid Waste Landfill (MSWL) was about to reach its design capacity. The inadequate disposal of solid waste could be a source of air pollution, soil contamination and surface and underground water contamination with the related environment and human health consequences.
	Anticipated Outcome:	By constructing the transfer station and disposing of the solid waste in existing regional landfills, the County will continue to provide adequate solid waste management services to the population.
	Measurement:	Proper management of the transfer and disposal of up to 300 tons of solid waste per day in compliance with federal and state laws for the next 20 years.

### **Binational Mandate and Structure**

BECC, headquartered in Cd. Juarez, Chihuahua, Mexico, is a bi-national institution created in 1993 by the Governments of the United States and Mexico, under a side agreement to the North American Free Trade Agreement (NAFTA). BECC, along with its sister institution NADB, established by the same agreement and headquartered in San Antonio, Texas, are charged with helping to improve the environmental conditions of the U.S.-Mexico border region in order to advance the well-being of residents in both nations. The scope of their mandate and the specific functions of each institution are defined in the agreement between the two governments (the "Charter"), as amended in August 2004.

BECC works in close coordination with NADB and other border stakeholders, including federal, state, and local agencies, the private-sector and the general public, to identify, develop, certify and implement environmental infrastructure projects primarily in six key sectors: Water, Wastewater, Waste Management, Air Quality, Transportation, and Clean and Efficient Energy. BECC focuses on the technical, environmental, and social aspects of project development, while NADB concentrates on project financing and oversight for project implementation. Both entities offer various types of technical assistance to support the development and long-term sustainability of these projects.

The Charter also establishes a single, ten-member Board of Directors to govern the two institutions. The bi-national Board is comprised of three representatives from each government, a representative of a border state from each country, and a representative of the general public who resides in the border region from each country.

# **BECC's Institutional Vision**

BECC is a strategic, visionary and innovative organization capable of leading the efforts of border communities to accomplish their environmental and public health goals. Our leadership arises from technical excellence, team work and effective program and project management.

# **BECC's Mission**

"To preserve, protect and enhance human health and the environment of the US-Mexico border region, by strengthening cooperation among interested parties and supporting sustainable projects through a transparent binational process in close coordination with NADB, federal. state and local agencies, the private sector, and the general public."



**Secretary of Finance and Public** Credit

**Secretary of Foreign Relations** 

Secretary of the Environment and Natural Resources

> **Mexican Border State** Representative

**Mexican Border Resident** Representative

#### \*Board Chair 2012



# **BECC-NADB Board of Directors in 2012**

# Mexico

United States

**Secretary of the Treasury\*** 

**Secretary of State** 

Administrator of the Environmental **Protection Agency** 

**U.S. Border State Representative** 

**U.S. Border Resident Representative** 

#### Organization

Under the general direction of the joint BECC-NADB Board of Directors, day-to-day operations at BECC are overseen by a General Manager and a Deputy General Manager. This leadership team creates a model for bi-national teamwork which permeates the entire organization.

BECC's general managers are supported by a staff that is organized into four primary directorates charged with facilitating projects, implementing programs and coordinating initiatives related to its mission throughout the border region.

#### **BECC Management**

María Elena Giner, P.E. General Manager Jose Mario Sanchez Soledad Deputy General Manager

#### **BECC Directors**

Renata Manning-Gbogbo Projects Mario Vazquez Environmental Programs Development Gloria Meléndez Administration Donald Hobbs General Counsel

**Projects:** Implementation of project development and certification for projects in all eligible environmental infrastructure sectors; project promotion and coordination/ facilitation efforts; and realization of close-out process to measure project results.

**Environmental Programs Development:** Development of regional planning; management of technical assistance and environmental programs; procurement and contract management; the advancement of quality management initiatives; the implementation of BECC's internal and external strategic planning efforts; and the development of policy, programs and procedures.

**Administration:** Budget administration and accounting; human resources; and office management.

**Legal and Communication:** Management of legal matters; support to the Board of Directors; government and media relations; and communication functions such as outreach strategies, publications and logistical support.

# **Budget and Financial Statements**

Based on its Charter, BECC's operating budget is funded by contributions from Mexico, through SEMARNAT, and from the United States, through the Department of State. In addition to its operating budget, BECC manages the PDAP, which is funded by EPA's U.S.-Mexico Border program, as well as several environmental management initiatives funded by EPA through the Border 2012 Program. To offset the resources required for managing these important border programs, EPA provides an administrative subsidy to BECC, which supplements its operating budget.

Eighty percent of BECC's funds are allocated to productive activities developed under the four operating programs, with significant emphasis placed on the Technical Assistance and Certification Programs, which receives related to administering PDAP and \$242,736 for Border 2012. Additionally, during 2012, BECC expended \$1.41 million of EPA funds through PDAP and \$995,367 through Border 2012 grants to support projects, technical studies, and activities.

#### **Financial Statements**

BECC's consolidated financial statements as of December 31, 2012, were audited by the accounting firm of KPMG Cárdenas Dosal, S.C. in conformity with generally accepted auditing standards in Mexico. A summary of the financial statements is presented below. A copy of the auditor's report with the consolidated financial statements and accompanying notes is available on BECC's website:

sixty-six percent of the funds. In contrast, BECC's general support and performance improvement activities require twenty percent of the total funding.

The annual operating budget is developed by BECC administration and reviewed and approved by the Board of Directors. For fiscal year 2012, the Board authorized a budget of \$7.4 million, which included \$5.2 million to support administrative expenses and nearly \$2.26 million reserved for BECC's Technical Assistance program. The operating budget was subsidized by EPA funds, with \$976,692 to offset expenses related to administering PDAP and \$242,736 for Border 2012. Additionally, during 2012, BECC expended \$1.41 million of EPA funds through PDAP and \$995,367 through Border 2012 grants to support projects, technical studies, and activities.

www.becc.org

### Border Environment Cooperation Commission

#### Statement of Assets, Liabilities, and Fund Balance As of December 31st, 2012 (USD\$)

#### Assets Circular Assets \$23,269,648 Furniture and equipment - net 184,874 Total Assets 23,454,522 **Liabilities and Fund Balance** Current Liabilities - Total 992,536 Employee Benefits 19,721 Unrestricted Fund Balance 22,442,265 Total Liabilities and Fund Balance \$23,454,522

#### Statement of Revenues, Expenses, and Changes in Fund Balance

Revenues				
Contribution - USA	\$2,396,000			
Contribution - Mexico	1,750,000			
Contribution - EPA	1,370,750			
Contribution - NADB	265,410			
Expenses				
Salaries and benefits	3,580,131			
Travel and transportation expenses	275,891			
Technical Assistance and fees	2,873,039			
Other expenses	1,104,614			
	7,833,675			
Other income - Net	12,432			
Increase in unrestricted fund balance	(2,023,080)			
Unrestricted fund balance at beginning of year	24,465,345			
Unrestricted fund balance at end of year	\$22,442,265			



# México

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