

Efficiency • Diversification • Evolution



INTEGRATING ENVIRONMENTAL
SOLUTIONS FOR THE U.S.-MEXICO BORDER

A N N U A L R E P O R T 2 0 0 9

2009
ANNUAL REPORT 2009



Efficiency
Diversification
Evolution



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Message from the General Manager and Deputy General Manager

In 2009, the Border Environment Cooperation Commission (BECC) celebrated 15 years of serving the U.S.-Mexico border region. These first 15 years have been very similar to the process of human maturity, with an initial stage involving a few first hesitant steps, a second stage of learning certain skills, such as how to efficiently manage projects in the core environmental infrastructure sectors, and a third and most recent phase of organizational maturity during which more complex systems and concepts have been implemented to address environmental challenges in the region and even at a global level, with recent initiatives in the area of climate change.

The results of BECC's work have been highly encouraging because of the substantial advancement that has been achieved in the core areas of environmental infrastructure - drinking water, wastewater, water conservation and sustainable solid waste management.

Recognizing those results and the existence of a reliable process to develop projects, in 2009 BECC continued to strengthen its focus on an expanded range of environmental sectors. To address the complexity of some of these sectors BECC has acquired additional capabilities and enhanced its innovation efforts.

Throughout 2009 BECC continued implementing measures aimed at achieving improved management practices, greater productivity, budget efficiency, continuous improvement and quality control efforts, the streamlining of processes, the systematization of work tools, enhancing the ability to diversify activities and the direct and timely interaction with local governments through regional planning. All of these actions have been managed in an integrated manner

using a high performance strategic tool known as the Balanced Scorecard (BSC). The results of this effort show a streamlined organization with outstanding performance.

The BECC remains committed to becoming an international organization that transforms and supports the sustainable development of environmental infrastructure projects along the border region.

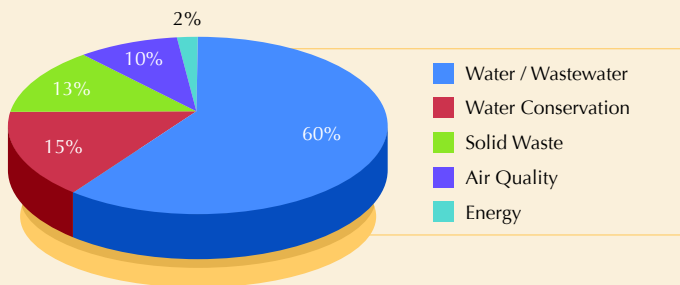
In 2009, the **Border Environment Cooperation Commission (BECC)** worked diligently throughout the year in cooperation with its sister institution, the North American Development Bank (NADB), and many other border stakeholders to successfully advance the development and implementation of environmental infrastructure projects. Below are brief highlights of the efforts of this past year followed by a description of the evolving role BECC anticipates as a focus for 2010 and beyond.

2009 Performance and Result Highlights

During 2009, **BECC certified 15 new projects** which addressed infrastructure needs related to the entire spectrum of BECC's eligible environmental sectors - water/wastewater, solid waste, air quality and clean energy. By year-end 2009, **BECC had certified a total of 167 environmental infrastructure projects - 86 in Mexico and 81 in the US - with an estimated total cost of more than \$3.645 billion.**



**BECC - Certified Projects
1994 - 2009**



Of these projects, 101 propose new or improved water and wastewater services, 22 intend to address municipal solid waste management needs, 25 include infrastructure aimed at conserving water resources, 16 create conditions to reduce harmful emissions released to the atmosphere, and 3 improve the generation and use of energy sources. Details related to all BECC-certified projects can be found on BECC's website, www.cocef.org.

The portfolio of total certified projects continues to evolve with the proportion of project types related to air quality and energy increasing slightly from 2008. This same trend can be seen in the mix of projects represented in BECC's project pipeline; therefore, BECC has worked to enhance its institutional capacity to efficiently facilitate the advancement of these new project types to meet its certification criteria while at the same time complying with the requirements of its board, funding partners and regulatory authorities.

As part of those efforts, one of the most important activities of this past year was the development of guidelines to determine a project's anticipated environmental and human health benefits between BECC, NADB and their board of directors. To facilitate definition of these guidelines, BECC, together with the U.S. Environmental Protection Agency and Mexico's Ministry of the Environment and Natural Resources (SEMARNAT), proposed a methodology to calculate the baseline emission conditions and future emission conditions of a project area based on the use of proven emission and dispersion models and feasibly obtainable data such as vehicle counts and velocity or standard emission factors related to various energy generation practices. The development of this methodology, along with increased expertise in air quality concepts at BECC, supports a greater ability to measure the results of project investments by BECC and NADB in the border region. These efforts strengthen BECC's commitment to document the data for these projects and monitor their progress in achieving the expected air quality improvements.

With 15 years of experience in certifying infrastructure projects, BECC continually seeks opportunities to diversify its products and services to support solutions for emerging environmental issues in the border region. Through synergies with EPA and SEMARNAT, BECC has been able to have a significant participation in the Border 2012 Binational Environmental Program and Methane to Markets, specifically supporting projects of the solid waste landfill subcommittee.

Regarding strategic planning, BECC employs several results-oriented tools such as the ISO 9000:2001 certification it holds for its project development process, a results measurement system developed to document outcomes of project investments and the Balanced Scorecard (BSC) method of driving its performance through seven comprehensive institutional programs. BECC utilizes its BSC to set strategic objectives and evaluate its accomplishments in each of these programs. Notable institutional program activities for the year are highlighted below.

Program 1: Technical Assistance and Project Certification

Offering technical services and/or financial assistance to support high-quality project development efforts and achieve certification for environmental infrastructure projects.

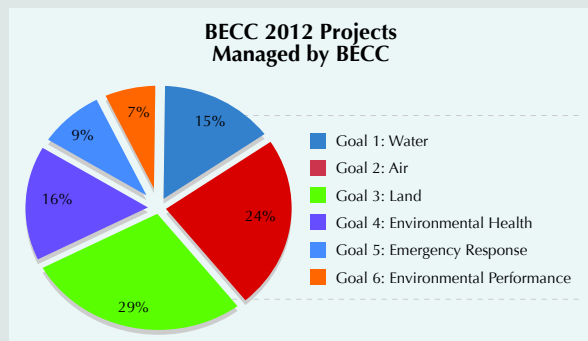
- **Certified 15 environmental infrastructure projects**, representing an estimated infrastructure investment of approximately \$458 million and benefiting nearly 5 million border residents with improved environmental and human health conditions.
- Managed between 85 and 100 projects at any one period, **including an increase in the ratio of non-core sector projects from 2008 to 2009**. As development of these projects advances, their certification can be scheduled with greater accuracy.
- **Advanced the project development of more than 60 projects selected for funding from BEIF and/or PDAP¹** - a significant increase from the 37 projects managed for this funding source in the previous year - including the full development and certification of nine BEIF water and wastewater infrastructure projects.
- **Awarded 10 technical assistance grants totaling nearly \$400,000** from its operating funds to support the development of projects.
- **Achieved a 97% approval rating** from project sponsors completing the BECC certification process.

In 2009, BECC certified a residential-based renewable energy project in San Diego County, CA. Its unique funding scheme is supported by special state legislation known as Property Assessed Clean Energy or PACE legislation.

Program 2: Environmental Project Management

Advancing efforts, other than infrastructure projects, to improve the human health and environment along the US-Mexico border.

- **Managed 123 Border 2012 projects supported by \$6.5 million in grants from EPA**, representing a 53% increase in project pipeline from 2008.
- **Supported a joint EPA and SEMARNAT Air Policy Forum held August 31st -**



Recovery in Municipal Landfills

- **Outreach and Experience Sharing Project in Mexico** to support efforts to identify opportunities for addressing multiple environmental issues

- **September 1st in Monterrey, Nuevo Leon.**
- **Managed \$170,000 grant from an EPA program - "Methane**

while potentially developing new energy sources.

Program 3: Strategic Planning

Identifies needs, develops/prioritizes solutions, and optimizes resources to achieve local, state and regional environmental and human health goals.

- **Coordinated the development of greenhouse gas inventories and projections for the six Border States of Mexico.**
- **Initiated environmental infrastructure assessments in Arizona, California and Texas, which are anticipated to be complete in 2010.** Upon the completion of these efforts, assessments will be available for all 10 Border States.
- **Actively participated in the Border Governor's Conference work**
- **tables related to environment and energy**, assisting in coordination, strategy development, funding identification.
- **Continued activities to review the results of completed projects through the close-out reporting process for BEIF projects.**
- **Conducted training for BECC/NADB staff on the implementation of the results measurement system for all projects.**

1. The Project Development Assistance Program (PDAP) and Border Environmental Infrastructure Fund (BEIF) are funded through resources provided by the U.S. Environmental Protection Agency's (EPA) US-Mexico Border Program.

Program 4: Knowledge Management

Generates, enhances and promotes the exchange of information regarding projects, environmental news, and special studies.

- **Developed two publications:**

- **Energy Infrastructure Assessment for Mexico's Border**

States - providing information for decision-makers to determine opportunities for promoting the use of renewable energies and adoption of energy efficiency measures

- **Sustainable Residential Development Design Manual**

-establishing evaluation criteria for environmentally and socially sustainable urban development plans.

- **Issued 38 Border Environmental Flash reports**, a brief publication focused on current environmental events occurring in the border region, to an email registry of more than 1,000 subscribers



- **Launched BECC's new website** designed to improve access to information about the organization and the work that has been implemented in the region to improve the quality of life of border residents.

Program 5: Public Participation and Capacity Building

Promotes sustainable development along the border through efforts aimed at inspiring community-based support for a project, providing transparency in each border initiative and strengthening the institutional capacity of border communities and utility providers.

- Shared knowledge and expertise as invited participants in **more than 50 environmental infrastructure and border policy forums**, such as: Border Governors' Conference; Border 2012 National Coordinators Meeting; Good Neighbor Environment Board; XVI US-Mexico Border Energy Forum; Binational Forum on Climate Change; Binational Water Conservation and System Efficiency Conference; and others
- **Provided updates on border conditions and performance results** to important border stakeholders such as congressional and other elected officials
- **Provided operator training, in coordination with the Mexican**

Institute of Water Technology (IMTA), to water utility personnel representing service providers from the state of Chihuahua Mexico in November 2009; the effort was supported by a \$25,000 grant from EPA

- Assisted project sponsors in working with **13 new community steering committees and conducting 14 public meetings** for projects
- Increased awareness of BECC's role and contributions in the border region, evidenced by **media participating at 100% of BECC events.**

Program 6: Performance Improvement

Identifies, develops, and implements institutional improvements to optimize BECC's human and financial resources, thus enhancing its capacity to achieve high-quality products and services.

- Designed and implemented a **new project management information system utilizing the Office Project Server platform.** The new system will provide greater technological reliability, as well as improved tools for project and data management including the creation of reporting services, which will be effective for internal and external stakeholders.
- Achieved Certification by the International Standards Organization (ISO) for **Border 2012 project management and logistics processes.**
- **Obtained ISO 14000 Certification** for BECC's strong commitment to institutional responsibility based on implementing objectives related to minimizing the environmental impacts of its operations

Program 7: General Support

Provides responsive and high quality services important to the daily operations of BECC.

- Management continues to focus the available budget on institutional priorities, with **69% of BECC's human and financial resources devoted to project certification and technical assistance (Program 1) and Environmental Project Management (Program 2), 18% to innovation and strategy (Programs 3-6), and only 13% to administrative tasks (Program 7).**
- **Averaged more than 70 training hours per employee throughout 2009.**
- **Completed building improvements intended to optimize productivity through functional placement of staff** and to take advantage of natural light to support energy cost reduction strategies and the general well-being of employees. Several measures aimed at increasing security at BECC facilities were also implemented.
- Six cross-directorate committees are charged with evaluating institutional efforts to optimize the use of financial resources; to improve consistency and quality of products and services; to strengthen image and credibility; to promote environmental awareness and social responsibility; and to create a stimulating work environment.

Doubling its 2008 philanthropic efforts, BECC's Social Responsibility Committee implemented bathroom reconstruction efforts valued at more than \$26,000 at eight Juarez elementary schools supported by employee financial contributions and an EPA grant.

In 2009, BECC successfully met 83% of its BSC objectives. Additional information about each program and related BSC objectives is available in the **Year in Review: BECC Performance and Results 2009** report available on our website, www.cocef.org.

BECC's institutional objectives establish the basis for defining directorate and staff goals and performance targets. Utilizing these tools, staff is more clearly aware of management's expectations and better understands their individual contributions to the overall success of the institution. Hand-in-hand with the commitment of each employee, BECC's management strives to create a work environment which induces professionalism, innovation and excellence.

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 programs and projects management.

The BECC's commitment to accountability and excellence has earned the confidence of many border stakeholders. Looking toward the next decade of service, BECC seeks to prepare itself for an evolving role in the US-Mexico border region and maintain stakeholder trust by continuing to establish the institutional capacity necessary to advance solutions for emerging environmental sectors, such as **air quality, transportation, energy and climate change planning**. BECC has already initiated a strategic response to facilitate solution-oriented measures for the anticipated environmental concerns of tomorrow. This approach focuses on, but is not limited to, the following essential activities:

- **Strengthening Border Stakeholder Cooperation** with increased participation in forums such as Border 2012 border-wide and regional taskforce/policy groups, Border Governors' Conference (including the Water, Energy and Environment Tables), Border Legislators' Conference, and other environmental topic meetings, BECC offers its knowledge and experience to assist in project/program coordination, consistent information exchange, and strategy development.
- **Strategic Planning**, as recommended in a recent audit report by the Government Accountability Office (GAO-10-126, Dec 09), an overall needs assessment of the region is necessary to improve the effectiveness of infrastructure program investments in the border region. To date, BECC has completed initial environmental infrastructure assessments in all six border states in Mexico and anticipates having the reports for the four US border States complete in 2010.
- **Climate Change Planning, Mitigation and Adaptation Initiatives** including the development of essential technical assistance tasks such as greenhouse gas inventories and projections as well as energy resource assessments. In 2010, BECC will focus on climate action planning for the six Mexican states as well as identifying opportunities in current climate action efforts for the US states, supporting the efforts of both countries for emission reductions.
- **Energy Efficiency and Renewable Source Projects** which can be implemented for a broad range of uses such as municipal lighting, utility services, as well as residential needs. Hand-in-hand with a more efficient use of water, BECC is working to facilitate energy efficiency efforts that can be quick and cost-effective for large energy users like utilities. BECC also hopes to replicate projects, like that certified in San Diego supported by state legislation, which establishes a feasible financing tool for residential installation of renewable energy source technology.

2009 Project Report / Map

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, the BECC works to facilitate projects, conceived by local, state, federal and private-sector sponsors, through an appropriate project development process aligned with its Project Certification Criteria, NADB financing prerequisites, and other applicable regulatory or funding requirements. This well-balanced process evaluates the environmental, technical, financial, and social feasibility of the proposed infrastructure investment and seeks long-term project sustainability for the sponsor, investors and the intended beneficiaries. Once a project sufficiently satisfies these elements, it is presented to the BECC/NADB Board of Directors for certification and financing approval.

Environmental Infrastructure is

intended to prevent, control or reduce environmental pollutants or contaminants, improve the drinking water supply, or protect flora and fauna so as to improve human health, promote sustainable development, or contribute to a higher quality of life.

In 2009, the Board of Directors approved BECC certification and NADB financing for 15 environmental infrastructure projects. Each of these projects is expected to achieve project-specific outcomes related to improving the environmental and human health conditions at the project location. The accumulated results present an impressive advancement of the institution's mandate to improve the quality of life of border residents through the implementation of environmental infrastructure. As of December 31, 2009, their joint accomplishments have included:

- **167 certified projects** (81 US/86 Mexico) representing nearly **\$3.645 billion in environmental infrastructure investment**, directly benefiting 12.8 million border residents.
- **NADB financing has supported 132 BECC-certified projects with \$1.08 billion in loans and grants, of which 87% has been disbursed to project sponsors.** At year-end 2009, an additional 15 projects had received funding approval and were pending funding agreements totaling over \$118 million.
- As of December 31, 2009, **81 of the certified projects financed by NADB had been completed and were in operation**, providing access to safe and sanitary water infrastructure, increased wastewater management efficiency, proper waste disposal and improved air quality to approximately 6.2 million border residents.
- **Water and wastewater projects valued at \$2.1 billion** providing new or improved services to 10.7 million border residents. These projects have influenced a dramatic improvement to service coverage for drinking water, sewer and wastewater treatment in Mexico's border region with the most significant being an increase in wastewater treatment coverage from 21% to 82% (1995-2009), whereas Mexico's national average wastewater treatment coverage is less than 40%.
- **Water conservation** projects estimated to save energy and to **decrease water losses by approximately 330 million gallons per day (MGD)**, enough water to serve the average demands of some four million people.
- **Solid Waste projects accommodating approximately 1,550 tons/day** of waste previously disposed of in open or uncontrolled sites.
- **Air Quality projects related to paving will eliminate approximately 100,000 tons per year of PM₁₀**, caused primarily by vehicular traffic on unpaved roadways.
- **Energy projects anticipated to prevent greenhouse gas emissions equivalent to nearly 640,000 metric tons of CO₂** per year through the use of alternative energy and fuel sources. In 2009, the first approval for certification and financing of a solar energy project was provided by the BECC/NADB board, creating access to an affordable financing mechanism designed to support the installation of photovoltaic solar, thermal solar and energy efficiency systems for residents in San Diego County, California.

Certified wastewater projects include the capacity to eliminate more than 350 MGD of untreated or inadequately treated discharges, equivalent to the wastewater generated by nearly 8 million persons or 1.86 million households.

The 15 projects certified and approved for financing in 2009 include 11 water/wastewater projects, one solid waste project, and three air quality/energy projects. A brief description of each project is provided in the following sector sub-sections.

Basic Eligibility Requirements:

Environmental Sectors

- Potable Water Supply*
- Wastewater Treatment*
- Water Conservation*
- Municipal Solid Waste Management*
- Air Quality Improvement
- Clean and Renewable Energy
- Energy Efficiency
- Industrial and Hazardous Waste
- Public Transportation

* PrioritySectors

Geographic Jurisdiction

Eligible projects must be located:

- Within 100 kilometers (about 62 miles) north of the international boundary in the four U.S. states of California, Arizona, New Mexico, and Texas; or
- Within 300 kilometers (about 186 miles) south of the border in the six Mexican states of Baja California, Sonora, Chihuahua, Coahuila, Nuevo Leon, and Tamaulipas.

Projects beyond this area may be eligible if they remedy a transboundary environmental or health problem.

Drinking Water and Wastewater Infrastructure

Reducing the risk of water-borne disease and water pollution

The fundamental objective of water and wastewater projects is to eliminate exposure to unsanitary water conditions, which can have immediate and severe health and environmental impacts. Because of the shared water resources along the border and the movement of goods, people, and services back and forth across the border, the investment to improve these this infrastructure sector in either country provides a benefit to the human health of the residents in the neighboring country that can be associated with risk of contagious water-borne diseases. The level of investment and progress in infrastructure access has been greatly influenced by the availability of grant funding provided through PDAP and BEIF.

Together, the 11 water and wastewater projects certified in 2009 are intended to benefit more than two million border residents, including first-time drinking water services provided to just over 8,000 households and first-time wastewater collection and treatment services to nearly 160,000 households. These projects are anticipated to reduce the disposal of approximately 63.5 million gallons per day of untreated or inadequately treated wastewater currently polluting community streets, irrigation systems and shared water bodies in the border region. Water and wastewater projects certified during 2009 are described as follows:

Colonia Esperanza, Chih.

Drinking water distribution system improvements



Benefited Population:	1,267.
Project Cost:	US \$ 0.33 million.
Funding Partners:	State and Federal grant, NADB BEIF grant
Existing Condition:	Residents are exposed to unsanitary drinking water conditions, accessing water thru hauled water services.
Anticipated Outcome:	Increase access and use of sustainable potable drinking water service, contributing to the reduction in risk of waterborne diseases.
Measurement:	360 residential connections (185 new and 175 rehabilitated).

Playas de Rosarito, B.C.

Wastewater treatment plant expansion (Rosarito I)



Benefited Population:	21,802.
Project Cost:	US \$ 4.53 million.
Funding Partners:	Federal grant, NADB-BEIF grant, NADB loan.
Existing Condition:	Rosarito I WWTP is operating above 100% capacity resulting in inadequate treatment and insufficient capacity to address new ww collection services expanded to serve areas with direct wastewater discharges.
Anticipated Outcome:	Provide access to wastewater treatment and eliminate exposure to untreated wastewater, contributing to the reduction of pollution and the risk of waterborne diseases.
Measurement:	Eliminating discharge of 1.37 MGD untreated wastewater.

Playas de Rosarito (Lomas de Rosarito), B.C.

Wastewater collection system expansion project



Benefited Population:	2,014.
Project Cost:	US \$ 0.71 million.
Funding Partners:	Federal grant, NADB- BEIF grant, NADB loan.
Existing Condition:	Residents of the area currently lack wastewater collection services and rely on latrines, septic tanks, or discharges to open drains for their wastewater disposal.
Anticipated Outcome:	Increase access and use of wastewater collection services and eliminate exposure to untreated wastewater, contributing to the reduction of pollution and the risk of waterborne diseases.
Measurement:	490 new sewer connections.

Rosarito (Independencia), B.C.

Wastewater collection system expansion project



Benefited Population:	4,528.
Project Cost:	US \$ 0.69 million.
Funding Partners:	Federal grant, NADB-BEIF grant, NADB loan.
Existing Condition:	Residents of the area currently lack wastewater collection services and rely on latrines, septic tanks, or discharges to open drains for their wastewater disposal.
Anticipated Outcome:	Increase access and use of wastewater collection services and eliminate exposure to untreated wastewater, contributing to the reduction of pollution and the risk of waterborne diseases.
Measurement:	1,099 new sewer connections.

Playas de Rosarito (Aztlan), BC.

Wastewater collection system expansion project



Benefited Population:	6,806.
Project Cost:	US \$ 1.42 million.
Funding Partners:	Federal grant, NADB-BEIF grant, NADB loan.
Existing Condition:	Residents of the area currently lack wastewater collection services and rely on latrines, septic tanks, or discharges to open drains for their wastewater disposal.
Anticipated Outcome:	Increase access and use of wastewater collection services and eliminate exposure to untreated wastewater, contributing to the reduction of pollution and the risk of waterborne diseases.
Measurement:	1,660 new sewer connections.

Tijuana, B.C.

Water and Wastewater project

Benefited Population:	722,711.
Project Cost:	US \$ 37.75 million.
Funding Partners:	Local equity, NADB loan.
Existing Condition:	Residents in some areas of Tijuana and Playas de Rosarito currently rely on hauled water for drinking water and discharge wastewater to non-compliant on-site systems, such as latrines, septic tanks and open drains.
Anticipated Outcome:	Increase access and use of sustainable water and wastewater services and eliminate exposure to untreated wastewater, contributing to the reduction of pollution and the risk of waterborne diseases.
Measurement:	7,659 new drinking water connections; 15,667 new sewer connections; and eliminating discharge of 2.74 MGD untreated wastewater.



Cd. Juarez, Chih.

Wastewater project - South Wastewater Treatment Plant



Benefited Population:	360,000.
Project Cost:	US \$ 35.66 million.
Funding Partners:	Federal grant, NADB-BEIF grant, Santander Bank loan, private equity
Existing Condition:	The existing South WWTP has insufficient hydraulic and treatment capacity, resulting in untreated discharges to agricultural drains in the area which eventually reach surface and/or groundwater resources.
Anticipated Outcome:	Increase access and use of wastewater treatment capacity and eliminate exposure to untreated wastewater discharges, contributing to the reduction of pollution and the risk of waterborne diseases.
Measurement:	Eliminate untreated ww discharges (18.26 MGD); Provide first-time wastewater treatment capacity to 93,264 connections.

Cd. Juarez, Chih.

Wastewater project - South-South Wastewater Treatment Plant



Benefited Population:	180,000.
Project Cost:	US \$ 39.32 million.
Funding Partners:	Federal grant, NADB loan, private equity, NADB-BEIF Grant.
Existing Condition:	Wastewater flows (8.56 MGD) generated from the services area are currently discharged into agricultural canals and soil which eventually reach surface and/or groundwater resources.
Anticipated Outcome:	Increase access and use of wastewater treatment capacity and eliminate exposure to untreated wastewater discharges, contributing to the reduction of pollution and the risk of waterborne diseases.
Measurement:	Eliminate untreated ww discharges (8.56 MGD); Provide first-time wastewater treatment capacity to 46,632 connections.

Clint, Tx.

Wastewater project



Benefited Population:	1,099
Project Cost:	US \$ 11.56 million
Funding Partners:	State loan, USDA Rural Development loan and grant, local equity, NADB-BEIF grant
Existing Condition:	Residents currently discharge wastewater to non-compliant on-site systems, such as latrines, septic tanks and open drains.
Anticipated Outcome:	Increase access and use of wastewater collection services and eliminate exposure to untreated wastewater, contributing to the reduction of pollution and the risk of waterborne diseases.
Measurement:	289 new sewer connections.

Yuma Country, Az.

Wastewater collection project



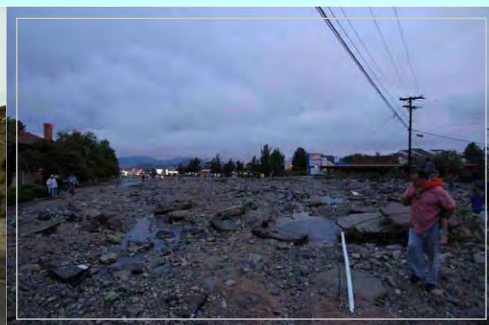
Benefited Population:	6,149.
Project Cost:	US \$ 22 million.
Funding Partners:	USDA Rural Development grant and loan, State/Federal loan, NADB-BEIF grant.
Existing Condition:	Residents currently discharge wastewater to non-compliant on-site systems, such as latrines, septic tanks and open drains.
Anticipated Outcome:	Eliminate exposure to untreated wastewater and avoid aquifer contamination by providing the wastewater collection service to first time users, contributing to the reduction in risk of waterborne diseases and pollution.
Measurement:	716 new sewer connections.



EL Paso, Tx.

Stormwater project

Benefited Population:	742,062.
Project Cost:	US \$ 67.5 million.
Funding Partners:	NADB loan, State loan, local equity.
Existing Condition:	Lack of adequate storm water management infrastructure contributes to risks of water contamination, pooling water conditions favorable for vector and other nuisances, and flooding conditions for area residents.
Anticipated Outcome:	Reduce exposure to unmanaged storm water, contributing to a reduction in risks of water-borne diseases and water pollution as well as to enhance protection of human life and water resources.
Measurement:	Improve 86% of proposed infrastructure to 100-yr-storm capacity; 7% to 80-yr-storm capacity; 7% to 20-yr-storm capacity.



Waste Management

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

In 2009, one solid waste management project was certified which will result in the proper closure of a landfill and six sub-standard dumpsites, the construction of new landfill capacity and the purchase of new solid waste collection equipment. The project will provide the capacity to properly dispose of nearly 100 tons of garbage per day. The project was supported, in part, by grant funding from NADB's Solid Waste Environmental Program (SWEP).

Nogales, Son.

Solid waste project

Benefited Population:	213,976.
Project Cost:	US \$ 2.97 million.
Funding Partners:	Equity, Federal grant, NADB-SWEP grant.
Existing Condition:	Inadequate solid waste disposal, soil and groundwater contamination and the risk of vector-related disease and other harmful effects.
Anticipated Outcome:	Increase access and use of solid waste disposal services; decreased exposure to improperly disposed waste.
Measurement:	Access to proper solid waste disposal (1.68 million metric tons); closure of 1 open air dumpsite (600 metric tons waste).



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 certified by BECC to date entail 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 transportation infrastructure projects that contribute to improved air quality, BECC continues to develop specific strategies to address other emission-reduction infrastructure opportunities. This approach offers a broad spectrum of project types, including energy and transportation related efforts.

In 2009, BECC certified two transportation infrastructure projects intended to improve urban mobility and influence air quality

improvements through the decrease of harmful vehicle emissions.

The third project certified in this sector is a unique clean energy project which offers an affordable financing mechanism for residential energy efficiency improvements and renewable energy source installation in San Diego County, California. The program is supported by State legislation referred to as PACE or Property Assessed Clean Energy. The States of Arizona, New Mexico and Texas have all passed similar legislation paving the way to similar program development in these other three US border states. The description of these projects and outcome expectations for each are presented below.

Nuevo Laredo, Tamaulipas

Roadway mobility project

Benefited Population:	310,915.
Project Cost:	US \$ 44.91million.
Funding Partners:	Local equity & Grants, NADB loan.
Existing Condition:	Inadequate road infrastructure creates conditions of traffic congestion, increased idling times, and exposure to harmful vehicle emissions.
Anticipated Outcome:	Reduce the concentration of harmful emissions - CO, VOC, NOx, PM (2.5&10), contributing to the improvement in air quality and human health for the residents.
Measurement:	TBD.



United States



Certified Projects 1995-2008

	U.S. México Total		
Water & Wastewater	50	51	101
Solid Waste	5	17	22
Water Conservation	24	1	25
Air Quality	0	16	16
Energy Efficiency	2	1	3
Totals	81	86	167
Total Cost: \$ 3.645 billion			

Air Quality 

Water 

Wastewater 

Water/Wastewater 


Water Conservation 

Solid Waste 

Energy Efficiency 

Capitals 

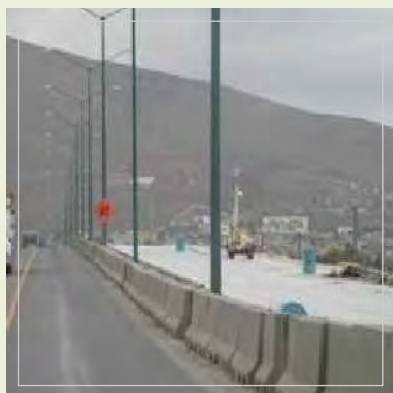
Twin Cities 

Townships 



Tijuana, Baja California

Air Quality Project



Población beneficiada:	1,540,000.
Costo del proyecto:	US \$ 125.46 million.
Financiamiento:	CEMEX Equity/loan, NADB loan.
Problemática:	Deteriorated road infrastructure creates conditions of traffic congestion, increased idling times, and exposure to harmful vehicle emissions.
Resultado previsto:	Reduce the concentration of pollutant air emissions (NOx and CO) with value-added environmental benefits associated with using concrete materials for repaving such as decreased waste generation in construction and maintenance as well as potential long-term benefits related to heat isle effect, albedo and energy use requirements.
Medición:	CO and NOx < no action future scenario.

San Diego, California

Clean Energy



Benefited Population:	1,336,865.
Project Cost:	US \$ 70.64.
Funding Partners:	Private equity, NADB loan.
Existing Condition:	Residential, commercial and industrial facilities are responsible for approximately 35% of the energy use and one third of the Greenhouse gases (GHG) emissions in the US. Energy efficiency improvements and solar energy generation for residential use are typically hindered due to high upfront costs creating a dependency on traditional energy generation practices.
Anticipated Outcome:	Reduce demands on traditional fossil-fuel based energy production through the installation of solar photovoltaic, thermal solar, and energy efficiency residential systems capable of providing cleaner energy generation or more efficient energy use, contributing to the improvement of air quality and health in the border region.
Measurement:	Quantity of kWh produced per year and quantity of CO2 emissions avoided. Reviewed on an annual basis based on system installations and related capacity. (Phase 1 Target = 1,690 tons and Total Project Target = 4,650 tons).

Binational Mandate and Structure

BECC, headquartered in Ciudad Juárez, 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 US-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.

Operating to advance the intent of this important bi-national agreement, the institutions continue to fulfill an essential role in effectively applying policies and programs that support the sustainable development of environmental infrastructure on both sides of the US-Mexico border. BECC works in close coordination with NADB and other border stakeholders including federal, state, and local agencies, the private-sector and general public to identify, develop, certify and implement environmental infrastructure projects primarily in five key sectors: **Water, Wastewater, Waste Management, Air Quality, as well as 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. The chairmanship alternates between the U.S. and Mexico each year.

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 civil society.”

BECC - NADB Board of Directors

México

Secretary of Finance and Public Credit
Lic. Ernesto Cordero Arroyo

Secretary of Foreign Relations
Lic. Patricia Espinosa Cantellano

Secretary of the Environment and Natural Resources
Ing. Juan Rafael Elvira Quesada

Mexican Border State Representative
Gobernador José Guadalupe Osuna Millán

Mexican Border Resident Representative
Ing. Roberto Zambrano Villarreal

United States

Secretary of the Treasury
Timothy F. Geithner

Secretary of State
Hillary Rodham Clinton

Administrator of the Environmental Protection Agency
Lisa Jackson

U.S. Border State Representative
Lorenzo A. Larrañaga

U.S. Border Resident Representative
Vacant

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, each distinctly a national of either the US or Mexico, creates a model for bi-national teamwork which permeates the entire organization. BECC's general managers are supported by a staff, which is organized into four primary work groups or directorates charged with facilitating projects, implementing programs and coordinating initiatives related to its mission throughout the border region. **The multi-disciplinary talents within each group form intra- and inter-directorate teams, resulting in synergies effective for responding to new demands posed by emerging environmental issues such as mitigating climate change and developing sustainable energy resources.** The primary functions of each directorate include:

- *Projects:* Implementation of project development and certification for water and wastewater infrastructure; project promotion; and coordination/facilitation efforts.
- *Administration:* Budget administration and accounting; human resources; and building management.
- *Planning and Technical Assistance:* Development of regional planning; management of technical assistance and environmental programs; procurement and contract management; project development/certification for solid waste and new sector projects;
- *Legal and Communication:* Direct support to the Board of Directors; management of legal matters; communication functions such as outreach strategies, publications and logistical support.

BECC Management	BECC Directors	Senior Staff Advisors
Daniel Chacon Anaya <i>General Manager</i>	Arkelao Lopez Perez <i>Projects</i>	Gonzalo Bravo Vera <i>Communications Manager</i>
Maria Elena Giner, P.E. <i>Deputy General Manager</i>	Mario Vazquez <i>Planning and Technical Assistance</i>	Martha Lopez <i>External Relations Specialist</i>
	Gloria Melendez <i>Administration</i>	Miguel Carrillo <i>Continuous Improvement Manager</i>
	Donald Hobbs <i>General Counsel</i>	Renata Manning-Gbogbo <i>Senior Policy Advisor</i>

The General Managers and directors are also supported by four senior staff members: Communications Manager, External Relations Specialist, Continuous Improvement Manager, and Senior Policy Advisor. These key advisory positions are responsible for facilitating tasks related to government and media relations; consistent and timely communication with the Board and other stakeholders; the advancement of improvement initiatives identified through BECC's quality management system; the implementation of BECC's internal and external strategic planning efforts; the development of policy, programs and procedures; as well as response requirements related to the Board and other external partners.

BECC strives to be an organization that encourages effectiveness and efficiency, fosters professional and personal development, and promotes innovation and excellence. As BECC completed its 15th year of service to the border, its organizational structure promotes teamwork and allows adaptability in consideration of the vibrant region and dynamic sectors in which it works.

Budget and Financial Statements

BECC's operating budget is funded by contributions from Mexico, through the 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 US-Mexico Border Program, as well as several environmental management initiatives funded by EPA through the Border 2012 Program. To off-set the resources required to manage these important border programs, EPA provides an administrative subsidy to BECC, which supplements its normal operating budget.

The annual operating budget is developed by the BECC General Manager and reviewed and approved by the Board of Directors. For fiscal year 2009, the Board authorized a budget of \$6.54 million, which included \$3.92 million to support administrative expenses and nearly \$2.4 million reserved for BECC's Technical Assistance program. The operating budget was subsidized by EPA

funds in an amount of \$1.49 million, offsetting the expenses related to administering PDAP and Border 2012 activities. Additionally, BECC budgeted \$2.5 million of EPA funds for PDAP and Border 2012 grants to support projects, technical studies, and activities during 2009.

BECC has pledged to continuously achieve cost-saving efforts with the intent of transferring those administrative savings to technical assistance resources available to assist project sponsors in the development of critical environmental infrastructure projects.

Supplemented by extraordinary contributions in the budget from existing and new sources, BECC's efforts to contain spending in fiscal year 2009 have resulted in an opportunity to carry-over approximately \$2.5 million to the technical assistance reserve fund for use in fiscal year 2010.

Financial Statements

BECC's consolidated financial statements as of December 31, 2009 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 at www.cocef.org.

Statement of Assests, Liabilities and Fund Balance

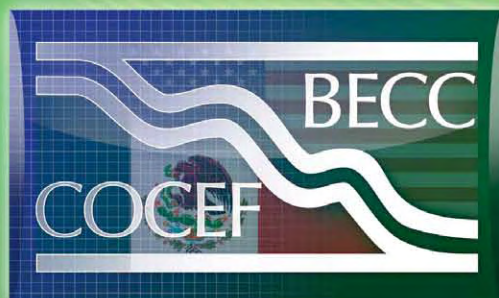
- As of December 31, 2009 (US dollars)

Assets	
- Current Assests	\$ 27,614,065
- Furniture and equipment - net	\$ 121,996
Total Assests	\$ 27,736,061
Liabilities and Fund Balance	
- Current Liabilities - Total	\$ 3,564,620
- Employee Benefits	\$ 16,110
- Unrestricted Fund Balance	\$ 24,155,331
- Total Liabilities and Fund Balance	\$ 27,736,061

Statement of Revenues, Expenses and Changes in Fund Balance

- Year ended December 31, 2009 (US dollars)

Revenues	
- Contributions - USA/Mexico	\$ 3,870,000
- Contributions - EPA	\$ 10,761,025
	\$ 14,631,025
Expenses	
- Salaries and benefits	\$ 3,571,582
- Fixed travel and transportations	\$ 328,275
- Technical Assistance and fees	\$ 4,262,229
- Other expenses	\$ 1,769,636
	\$ 9,931,722
Other income - Net	\$ 339,492
Interest income - Net	\$ 357,200
Increase in unrestricted fund balance	\$ 5,395,995
Unrestricted fund balance at beginning of year	\$ 18,759,336
Unrestricted fund balance at end of year	\$ 24,155,331



México

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