2011 ANNUAL REPORT



BORDER ENVIRONMENT
COOPERATION COMMISSION



TABLE OF CONTENTS

- 4 Message from BECC Management
- Institutional Performance and Result Highlights
- 2011 Institutional Performance and Result Highlights
- Pillar 1: Project Certification
- Pillar 2: Technical Assistance through Grants and Technical Expertise
- Pillar 3: Stakeholder Collaboration
- Pillar 4: Institutional Capacity-Building through Information and Training
- 25 2011 Projects Report
- 26 Water and Wastewater
- Air Quality, Energy and Transportation
- 34 Bi-National Mandate and Structure
- Budget and Financial Statements











Message from BECC Management

For more than 16 years, the Border Environment Cooperation Commission (BECC) has worked with its sister institution the North American Development Bank (NADB) with one purpose—helping to preserve, protect and enhance the environment and human health of the U.S.-Mexico border region. With the synergy achieved during their first year under new management teams, the two institutions defined a set of strategic initiatives to be implemented, including:

- The establishment of the Community Assistance Program (CAP), funded with NADB's retained earnings.
- An update to the BECC's certification criteria.
- The expansion of project sectors under the current Mandate.



The Community Assistance Program (CAP) was created to facilitate critical environmental infrastructure projects in low-income communities in the U.S.-Mexico border region. The CAP guidelines were developed and approved by the board. A call for project proposals was issued on November 1st, 2011 with the submission period closing on February 15, 2012. Upon conclusion of that period, the applications received will be prioritized using criteria based mainly on financial need, level of project readiness and number of residents to benefit.

The BECC and NADB updated the project certification criteria to improve services for an increasingly varied type of clients and project sectors.

BECC and NADB conducted a comprehensive review and update of its project certification criteria to more closely reflect requirements of the BECC/NADB Charter. The proposed criteria were designed to provide all project sponsors with greater clarity and uniformity regarding the technical, environmental and financial requirements that should be met to achieve project approval. Additionally, the provisions in the criteria related to public information and documenting public participation were updated to reflect a broader range of public and private sector projects.

The expansion of Project Sectors eligible for BECC/NADB consideration. Based on the opportunities identified by BECC and NADB to address a greater variety of environmental infrastructure projects, the Board of Directors approved an expansion of the project

sectors eligible under the current mandate of the institutions; these additional sectors include: energy transmission or distribution infrastructure; renewable energy generation; public transportation, including border crossings; production of goods and services designed to enhance or protect the environment, if the project also provides a net environmental benefit to the border region; and other infrastructure designed to minimize future negative environmental impacts in the border.



Four Pillars

In addition to the strategic initiatives achieved with the NADB, BECC streamlined its seven institutional programs into four pillars: project certification, technical assistance, stakeholder collaboration, and institutional capacity building. In 2011, this effort resulted in important achievements:

- The certification of 14 new environmental infrastructure projects relating to water, wastewater and air quality, worth over an estimated \$373 million* in construction investment and benefiting more than 1.8 million border residents. These projects will provide more than 60,000 new sewer connections, eliminate over 5.0 million gallons per day (MGD) of untreated wastewater, provide reliable water service to more than 39,000 households and reduce the concentration of harmful emissions such as PM₁₀ and PM_{2.5}.
- As of December 31, 2011, BECC had a total of 56 applications for project certification in its pipeline, with an estimated cost of \$1.2 billion, benefitting a population of 7,060,254. These applications include an increasing number of projects aimed at improving air quality and using clean and efficient energy.
- In coordination with the U.S. Environmental Protection Agency (EPA) and NADB, the Project Development Assistance Program/Border Environment Infrastructure Fund (PDAP/BEIF) 2011-2012 Prioritization Process was completed. There were 200 applications received with a construction cost of \$800 million. Of these, 23 projects were selected at an estimated construction cost of \$193,791,160 that will benefit a population of 1,165,065. Also, \$867,730 in PDAP funds for technical assistance

- was approved for the development of 14 projects for certification. An additional \$268,492 in BECC technical assistance funds were approved for seven projects.
- BECC also continued to provide essential support to environmental initiatives, such as the U.S.-Mexico Border 2012 Environmental Program. BECC approved, with EPA authorization, approximately \$1.14 million in technical assistance grant funding for 25 Border 2012 projects. There were 40 projects under development, most of which were related to scrap-tire management, water, soil, air, environmental health and emergency preparedness and response.
- BECC published a series of studies aimed at clearly documenting the existing environmental needs and opportunities in border communities. The most notable of these publications are: Paving Needs Assessments with Satellite Images Interpretation; Manuals on Green Technologies for Sustainable Building Practices and Assessment of Investment Needs in Basic Infrastructure. These publications will serve as key tools for state and local governments to implement public policy focused on infrastructure sustainability and will generate environmental infrastructure projects that will provide basic services to help reduce greenhouse gas emissions and trigger investments.

* Not considering energy projects





Institutional Performance and Result Highlights

Accomplishing an Ambitious Mandate

Technical assistance for the development of environmental infrastructure projects and certifying those projects for financing by NADB or other funding partners is the core of BECC's mandate. BECC certification is granted once a project's environmental and health benefits, regulatory compliance, technical feasibility, appropriate public outreach efforts, and sustainability have been documented.

From 1995 to December 31, 2011, BECC's most notable project-related accomplishments include the following:

- Certification of 189 projects (86 U.S./103 Mexico) representing nearly \$4.343 billion in environmental infrastructure investment, directly benefiting 14 million border residents. NADB has provided financing to 152 of those BECC-certified projects, with approximately \$1.33 billion in loans and grants, of which 93% has been disbursed to project sponsors.
- Completion of 109 certified projects financed by NADB, providing access to safe and sanitary water infrastructure, increased wastewater management efficiency, proper waste disposal and improved air quality to approximately
 7.75 million border residents.
- 115 new or improved water and wastewater systems for 12 million border residents through projects valued at \$2.3 billion. These projects have contributed to a dramatic improvement in 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). Federal, state and municipal government support has also contributed to these achievements.

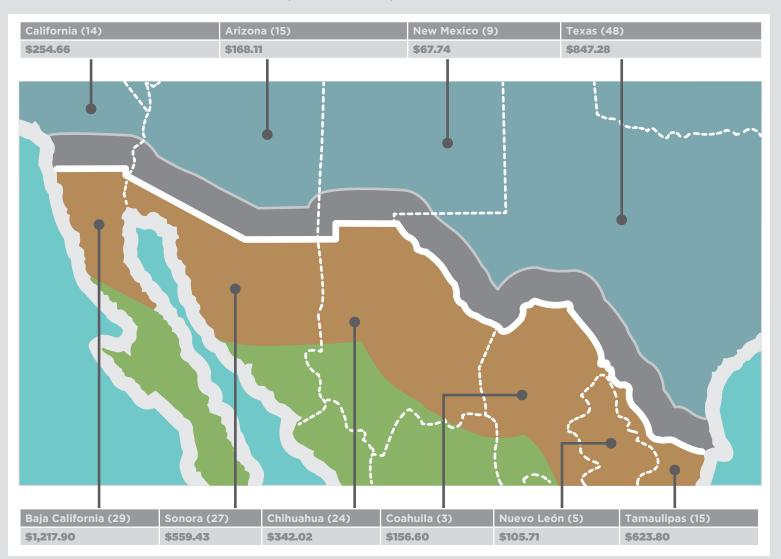
- 22 solid waste projects accommodating approximately 1,550 tons/day of waste previously disposed of in open or uncontrolled sites; benefiting more than 3.5 million people.
- 22 air quality projects related to paving and urban mobility, eliminating approximately 200,000 tons per year of PM₁₀, generated primarily by vehicular traffic on unpaved roadways.
- 25 water conservation projects estimated to save energy and to decrease water losses by approximately 330 MGD; enough water to serve the average demands of some four million people.
- 5 renewable energy projects anticipated to prevent greenhouse gas emissions equivalent to nearly 700,000 metric tons of CO₂ -e per year through the use of alternative energy and fuel sources.



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.**

Certified Projects

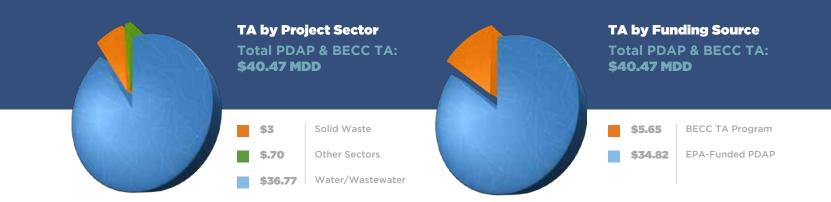
(U.S. Millions) Dec-31-2011





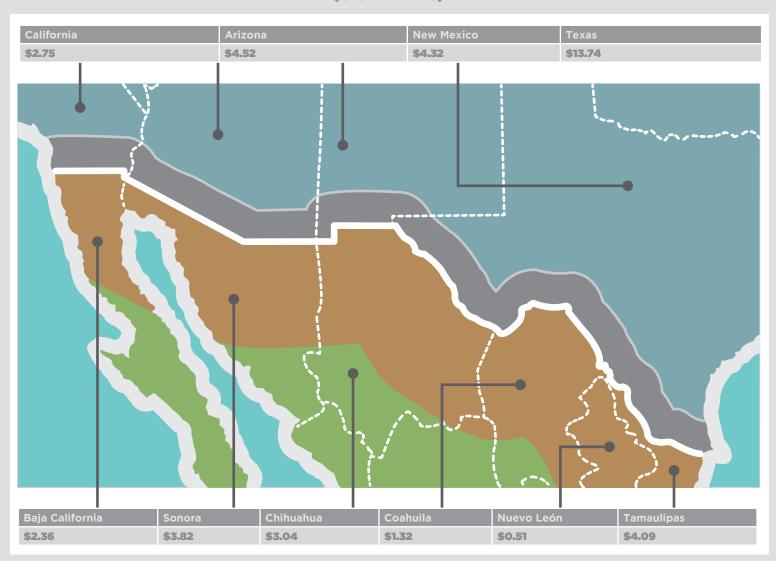


BECC supports the development of these projects with planning, environmental and final design studies through two technical assistance programs: the Project Development Assistance Program (PDAP), funded by the Environmental Protection Agency (EPA); and a special program funded through BECC's operating budget. **Since its inception, BECC has provided \$40.47 million in technical assistance grants** supporting the development of projects in 162 communities.



Technical Assistance Grants (1995-2011)

(U.S. Millions)



72 COMMUNITIES IN MÉXICO (\$15.14)

90 COMMUNITIES IN U.S. (\$25.33)

2011 Institutional Performance and Result Highlights

BECC's success in fulfilling its ambitious mandate requires having the right tools to guide and measure those results. Using the Balanced Scorecard (BSC) model to translate annual strategic objectives into clear and measurable actions, BECC developed its annual goals from the perspective of its clients—the expectations of its Board, NADB, and other border stakeholders—as well as to assure sufficient institutional capacity.

In 2011, BECC successfully met 86% of its Balanced Scorecard objectives and continued to advance its mission through significant accomplishments in each

of its four institutional pillars. Additional information about each program and its related BSC objectives is available in the Year in Review: BECC Performance and Results 2011 report published on our website,

www.becc.org.

In early 2011, based on the experience of the last three years, BECC consolidated its efforts into four performance pillars: project certification, technical assistance, stakeholder collaboration, and institutional capacity-building. Each pillar, along with notable accomplishments, is described below.

Pillar 1: Project Certification

The primary purpose of BECC is to support border communities to identify, develop and achieve BECC certification and NADB funding for environmental infrastructure projects that improve human health, promote sustainable development, and contribute to enhance the quality of life in the border region.



SunPeak Solar Park in Niland, CA -Since solar energy does not use water for its operations, this project will help minimize the use of water resources. **14 environmental infrastructure projects** successfully completed the comprehensive BECC certification process, representing an estimated infrastructure investment of approximately \$373.38 million and benefiting nearly 2.5 million border residents with improved environmental and human health conditions. Most notable is the certification of two solar projects, in Niland, California and Tucson, Arizona. The following table shows the projects, the benefitted population, and costs:

Certified Projects	Cost (US MD)	Population Benefitted
Construction of the La Morita Wastewater Treatment Plant in Tijuana, Baja California	\$6.70	124,691
Construction of the Tecolote-La Gloria Wastewater Treatment Plant in Tijuana, Baja California	\$9.64	187,036
Wastewater Treatment Plant Project for the City of Hermosillo, Sonora	\$86.15	785,082
Air Quality Improvements through Street Paving in Hermosillo, Sonora	\$68.25	154,400
Air Quality Improvements through Street Paving in Agua Prieta, Sonora	\$29.64	32,800
Wastewater Collection Expansion to Unserved Areas-Alcatraces in Tijuana, Baja California	\$1.11	3,020
Wastewater Collection Expansion to Unserved Areas-Plan Libertador and Ampliacion in Playas de Rosarito, Baja California	\$3.75	14,436
Water Improvements Project in Anthony, New Mexico	\$8.82	8,388
SunPeak Solar Park in Niland, California	Reserved	174,528
Wastewater Collection System in Rio Grande City, Texas	\$0.45	111
FRV Tucson Solar Park in Picture Rocks, Arizona	Reserved	980,263
Expansion and Rehabilitation of the Water Distribution System in Praxedis G. Guerrero, Chihuahua	\$1.83	3,641
Municipal Planning Project in Valle de las Palmas in Tijuana, Baja California	\$110.00	40,000
Municipal Paving Project in Mexicali, Baja California	\$46.41	59,881
TOTAL (14 Projects)	\$373.38*	2,568,277

*Does not reflect cost of energy projects

Managed a diverse project pipeline, developing clear schedules for each project, thus ensuring more accuracy in their development and certification. As of December 31, 2011, BECC had 56 applications for project certification in its pipeline. Of these, 24 were in the U.S. and 32 in Mexico with an estimated investment cost of approximately \$1.2 billion.

Following is a table categorizing project applications in the pipeline by type, state and country:

	Number of Projects in the Pipeline					
State	Solid		Energy	Water/Wastewater		
	Waste			Non-BEIF	BEIF	TOTAL
U.S.	2	0	3	0	19	24
CALIFORNIA	0	0	1	0	4	5
ARIZONA	0	0	2	0	5	7
NEW MEXICO	0	0	0	0	1	1
TEXAS	2	0	0	0	9	11
MÉXICO	1	9	2	3	17	32
BAJA CALIFORNIA	0	2	1	2	2	7
SONORA	0	3	0	1	2	6
CHIHUAHUA	0	2	0	0	2	4
COAHUILA	0	0	0	0	0	0
NUEVO LEÓN	0	1	0	0	0	1
TAMAULIPAS	1	1	1	0	11	14
TOTAL	3	9	5	3	36	56

Pillar 2: Technical Assistance through Grants or Technical Expertise

Under this Program BECC provides technical assistance through grants or technical expertise that will promote the development of high-quality environmental infrastructure projects and initiatives that could access NADB funding or Border 2012 or other special grants.



To efficiently and effectively advance the development of projects, many sponsors require the support of the BECC's technical services and/or technical assistance grant programs. Our technical services are provided by a specialized, multi-disciplinary project development team of professionals with the expertise and experience to assist project sponsors with a wide range of needs—at no cost to the project. This support, in turn, strengthens the project sponsors' institutional capacity. The staff at BECC strives to provide a model of best management practices that can be routinely implemented by present or future project sponsors in all environmental infrastructure projects.



BECC's Technical Assistance Fund supports the development of water and wastewater projects that are unable to receive PDAP funds, as well as projects in other eligible sectors. In 2011, BECC awarded seven technical assistance grants totaling \$268,492.

BECC 2011 Technical Assistance Awards (by Community) BECC Technical Assistance Program

Community - Sponsor	TA Amount	Project Type	Description
MEXICALI, BC	\$28,360.00	Air Quality	Establish a methodology for the review and interpretation of air quality information obtained from monitoring stations
TIJUANA, BC	\$50,000.00	Wastewater Infrastructure	Treated Wastewater Infiltration
CD. JUÁREZ, CHIH.	\$33,656.00	Wastewater Infrastructure	Environmental Information Document
CHIHUAHUA, CHIH.	\$34,488.00	Other	Climate Change Action Plan
CANANEA, SON.	\$37,500.00	Water and Wastewater Infrastructure	Capacity Building for five Sonora Municipalities
CD. VICTORIA, TAM.	\$34,488.00	Other	Climate Change Action Plan
UVALDE, TX	\$50,000.00	Solid Waste Management	Final Design
Total	\$268,492.00		

The Project Development Assistance Program (PDAP), for project development and design, and the **Border Environment Infrastructure Fund (BEIF),** for construction, are programs funded by the U.S. Congress through EPA and are administered by BECC and NADB, respectively. In 2011, 17 technical assistance grants were administered to 14 communities totaling \$867,730.

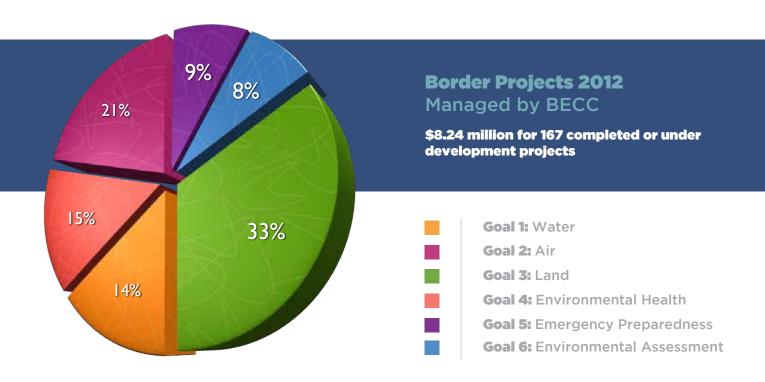
BECC has approved US\$40.47 million to support the development of projects in 162 communities. Of this amount US\$34.82 million are PDAP-funded and US\$5.65 million are BECC-funded. Approximately 85% of these funds have led to projects already implemented or under development.

	BECC 2011 Technical Assistance Awards (by Community) Project Development Assistance Program (funded by EPA)				
Community- Sponsor	TA Amount	Project Type	Description	Amount per activity	
BENSON, AZ	\$24,160.50	Drinking Water Infrastructure	Environmental Information Document	\$24,160.50	
BISBEE, AZ	\$12,899.50	Wastewater Infrastructure	Cleaning Services	\$4,940.00	
Diobin, An	Ψ12,033.30	wastewater initiastracture	Additional Services for Final Design	\$7,959.50	
WILLCOX, AZ	\$85,438.00	Wastewater Infrastructure	Preliminary Engineering Report, Environmental Information Document and Draft Environmental Assessment	\$85,438.00	
HOLTVILLE, CA	\$190,900.00	Wastewater Infrastructure	Final Design WW Gravity Main (Outfall) and Two Residential WW Pipelines Replacement	\$190,900.00	
PALO VERDE, CA		Wastewater Infrastructure	Supplemental Preliminary Geotechnical Investigation and Report	\$24,200.00	
PALO VERDE, CA	\$53,800.00	wastewater illifastructure	Second Supplemental Preliminary Geotechnical Investigation and Report	\$29,600.00	
LOMA BLANCA, CHIH.	\$13,517.00	Wastewater Infrastructure	Environmental Impact Study (drinking water)	\$13,517.00	
NACO, SON.	\$70,000.00	Wastewater Infrastructure	Feasibility Study for treated wastewater disposal alternatives	\$70,000.00	
			Development of additional maps for pumping stations	\$3,433.00	
MATAMOROS, TAM.	\$21,779.94	Wastewater Infrastructure	Final Design Activities of the Southwest Wastewater Collection Infrastructure Expansion	\$18,346.94	
MIGUEL ALEMAN, TAM.	\$1,325.89	Wastewater Infrastructure	Additional funds for the Final Design	\$1,325.89	
CITY OF PRIMERA, TX	\$100,570.00	Wastewater Infrastructure	Facility Plan and Environmental Impact Document	\$100,570.00	
EL PASO, TX	\$27,090.00	Drinking Water Infrastructure	Technical Memorandum and EID	\$27,090.00	
PROGRESO, TX	\$101,500.00	Drinking Water Infrastructure	Pilot Study to Determine Design Parameters for Full-Scale Reverse Osmosis System	\$101,500.00	
RIO HONDO, TX	\$91,750.00	Wastewater Infrastructure	Facility Plan and EID	\$91,750.00	
VINTON, TX	\$73,000.00	Wastewater Infrastructure	Additional Funds for the Facility Plan and EID Updates	\$73,000.00	
Total	\$867,730.83				

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 binational 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 Secretariat 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 \$8.24 million in grant funding for 167 BECC-managed Border 2012 projects, related to all program goals: Water, Air, Land, Environmental Health, Emergency Response, and Environmental Performance.



In 2011, with the concurrence of EPA, BECC approved \$1.14 million in technical assistance funds for 25 projects. These projects are in compliance with the Border 2012 Goals and Objectives and support EPA and SEMARNAT. The binational program has entered its final stage and will be officially completed by August 2012. The next phase of this binational effort has been designated as Border 2020.

BORDER 2012 PROGRAM Technical Assistance Approved During 2011

B-2012 Goal	Technical Assistance Description	Amount (US\$)
1	Partnership with selected Independent School District lesson plans for Water Monitoring Curricula in Laredo, TX	\$ 10,000.00
2	Air Pollution Related Health Costs in Mexicali and Tijuana, B.C.	\$ 80,000.00
2	Educational and Research Center Program, Nuevo Laredo, Tamps.	\$ 7,000.00
2	Photovoltaic System for ITN Electronics Laboratory Lighting, Nogales, Son.	\$ 6,453.00
2	Rio Rico Landfill Gas to Energy Project Phase 2, Nogales, AZ	\$ 119,969.00
2	The Coahuila Climate Action Planning Project (CCAPP)	\$ 120,000.00
3	"Composting Center in Tijuana"	\$ 74,000.00
3	Cañón Limpio: Strengthening community capacity for improved solid waste management, in Tijuana, B.C.	\$ 53,401.92
3	Tire Clean-up Program in Nuevo Laredo, Tamps.	\$ 50,000.00
3	Cleaning of the Scraptire Collection Center in Ejido Guadalupe in Matamoros, Tamps.	\$ 30,000.00
3	Community Project for the Responsible Management of Organic and Solid Waste in Tecate, B.C.	
3	Electronic Wastes-Life Cycle Analysis and Management proposal for Border Cities in Coahuila, Nuevo Leon and Tamaulipas	\$ 50,000.00
3	Electronic Waste Disposal Program in Nuevo Laredo, Tamps.	\$ 30,000.00
3	Existing and Future Market Assessment for recycled rubber from scrap tires, Cd. Acuña, Coah.	\$ 40,000.00
3	Hazardous Waste Collection Program, Reynosa, Tamps.	\$ 20,000.00
3	Hazardous Waste Temporary program in Nuevo Laredo, Tamps.	\$ 20,000.00
3	Hazardous waste temporary storage centers in Matamoros, Tamps.	\$ 25,000.00
3	Colonias Household Hazardous Waste Collection Project, Laredo, TX	\$ 45,000.00
3	Implementation of a Clean Up and Recycling Site in "Las Anacuas" area, Reynosa, Tamps.	\$ 30,000.00
3	Scrap tire collection in public areas of Ciudad Juárez, Chih.	\$ 30,000.00
3	Tire Feasibility Analysis Community of Ojinaga, Chih.	\$ 8,870.00
4	Theatrical Training/Education for Migrant Workers and Their Families on the Hazards of Pesticides, Alamo, TX	
5	Strengthen San Diego/Tijuana, Imperial County/Mexicali Sister Cities and California and Baja California emergency preparedness programs	\$ 80,000.00
5	U.SMexico Sister Cities Updating Emergency Response and Preparedness Plans for: Eagle Pass/Piedras Negras and Del Rio/Ciudad Acuña	\$ 92,000.00
6	"Sustainable Business Practices—The Key to Your Competitive Future," in Mexicali	\$ 89,940.00
	Total B2012	\$ 1,137,258.92

Prioritization of Water and Wastewater Infrastructure Projects

Long recognized as the sectors with the greatest potential impact on human health and environmental conditions in any community, including those in the border region, water and wastewater infrastructure projects continue to be one of BECC's main priorities.

Since 1997, the **U.S.-Mexico Border Water Infrastructure Program**, funded by EPA, has awarded grants to water and wastewater systems in the border region through the **PDAP** for project development and design and the **Border Environment Infrastructure Fund (BEIF)** for construction. PDAP is managed by BECC, while BEIF is managed by NADB. The following are a few of the notable accomplishments supported with these resources:

- More than \$34 million in PDAP technical assistance grants for project development in more than 155 communities. Approximately 85% of these funds have led to projects already implemented or under development.
- \$568.7 million in BEIF funds committed to the implementation of 91 drinking water and wastewater infrastructure projects valued at \$1.7 billion and directly benefiting more than 8.5 million border residents.
- Capacity to adequately treat more than 400 MGD of wastewater discharges has been built, equivalent to the wastewater discharge of nearly 8 million persons or 1.86 million households.

PDAP/BEIF Investments				
Infrastructure Components	Total	Communities		
		# in U.S.	# in México	
Water Treatment Components	18	15	3	
Water Distribution Systems	28	18	10	
Wastewater Treatment Plants	52	21	31	
Wastewater Collection Systems	69	28	41	



Available funding through the U.S.-Mexico Border Water Infrastructure Program has decreased significantly in recent years, even though pressing needs in the water and wastewater sectors still exist. To maximize the impact of available grant funding, a bi-yearly process has been implemented by BECC, EPA, CONAGUA/SEMARNAT and their partner stakeholders to prioritize projects for funding.

The objective of the prioritization process is to ascertain which drinking water and wastewater

projects will address the most severe public health and environmental conditions identified in communities along the border.

In 2011, EPA in coordination with BECC, completed the FY2011-2012 BEIF/PDAP Prioritization Process for drinking water and wastewater infrastructure projects along the U.S.-Mexico border region. As of December 31, 2011, 23 projects are under consideration for funding at a total cost of \$193,791,161. These projects are distributed as follows.

	FY2011-2012 BEIF/PDAP Prioritization Process Results				
States	Total number of applications	Estimated BEIF Construction Costs	Number of Applications Accepted in 2011	Estimated BEIF Construction Costs 2011	
ARIZONA	11	\$20,665,871	3	\$10,953,206	
CALIFORNIA	22	\$125,740,229	2	\$10,977,906	
NEW MEXICO	11	\$40,404,551	1	\$16,626,000	
TEXAS	54	\$266,133,733	2	\$22,693,511	
Total U.S.	98	\$452,944,384	8	\$61,250,623	
BAJA CALIFORNIA	43	\$105,690,269	3	\$11,117,740	
CHIHUAHUA	11	\$44,476,103	0	0	
COAHUILA	8	\$13,397,690	0	0	
SONORA	10	\$27,594,189	3	\$21,886,000	
TAMAULIPAS	30	\$150,853,543	9	\$99,536,798	
Total MX	102	\$342,011,794	15	\$132,540,538	
TOTALS	200	\$794,956,178	23	\$193,791,161	

Pillar 3: Stakeholder Collaboration

Through participation in forums, state and local initiatives, project/program coordination, consistent information exchange, and strategy development, BECC promotes institutional relationships with Border stakeholders, including federal, state and local agencies, international organizations, academia, private sector and civil society for the purpose of strengthening collaboration efforts that will support the BECC mandate.

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 still persist in the border region. Cognizant of essential stakeholder relationships, BECC continues to earn trust by being transparent and providing effective communication. BECC appreciates the importance of fostering partnerships and, in doing so, creates a better environment for all those it serves in the border region.

BECC Internal and External Communication

In 2011, 33 BECC Bulletins were produced and distributed to an email registry of more than 1,000 subscribers.

Additionally, 28 BECC Press Releases were issued. These publications are focused on key BECC activities in communities throughout the border region.

The creation of the "INSIDEBECC" an internal, informational publication, used by management to communicate notable accomplishments, important events, and department collaboration.

FAMILIA OF THE STATE OF THE STA

BECC Website updated to reflect detailed information regarding the 189 certified projects (through 2011).



United States



CERTIFIED PROJECTS 1995-2011

	U.S.	México	Total
Water & Wastewater	53	62	115
Solid Waste	5	17	22
Water Conservation	24	1	25
Air Quality	0	22	22
Energy Efficiency	4	1	5
Totals	86	103	189

Total Cost: US \$4.3 billion



Strong Public and Private Stakeholder Relationships

BECC is focused on developing and fostering collaborations and partnerships by facilitating involvement in capacity-building initiatives and working to identify potential project opportunities. The most relevant activities conducted by BECC during 2011 include:

- More than 40 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 and continue to make to assist communities in achieving a better quality of life.
- BECC further strengthened its working relationship with both sections of the International Boundary and Water Commission (IBWC) where projects that fall under its jurisdiction are jointly facilitated.
- BECC actively participated with the Good Neighbor Environmental Board (GNEB) leading up to their report titled "The Potential Environmental and Economic Benefits of Renewable Energy Development in the U.S.-Mexico Border Region, December 2011." The report responds to the charge set by the Council on Environmental Quality to develop actionable recommendations on the potential environmental and economic benefits of renewable energy development in the U.S.-Mexico border region.

Pillar 4: Institutional Capacity-Building through Information and Training

The information generated through strategic studies is intended to identify needs and project opportunities, as well as improve the effectiveness of infrastructure program investments that could be supported by BECC and NADB. Capacity-building is related to the technical training needed to enhance the sustainability of projects and address emerging issues.



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.

STATE CLIMATE ACTION PLANS

- BECC continued its coordinated work with Mexico's National Ecology Institute—which is under SEMARNAT- and the State Governments to support the development of State Climate Action Plans for the six Mexican Border States. Through these efforts, BECC expects to identify priority climate change adaptation and mitigation projects that could be developed with BECC-NADB assistance.
- With Border 2012 funds, the first phase of this process, which included a stakeholder based process, was completed in 2011 for Baja California, Sonora and Coahuila. 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 transport, urban light rail systems, vehicle inspection programs, and methane management in rural farms.

BECC WORKSHOPS AND CAPACITY-BUILDING

BECC conducted five key training events, with the participation of 325 attendees representing federal, state and local governments, academia and public interest groups, which included the following:

- Workshop on Comprehensive Management of Solid Waste in Hermosillo, Sonora
- Workshop on Comprehensive Management of Solid Waste for municipalities and state consultants, in coordination with the Office of Urban Development and Environment of the State of Tamaulipas and the Texas Commission on Environmental Quality (TCEQ)
- Water and wastewater operations training in Sonora for operating managers
- Second Session of the State Climate Action Planning for Mexican border states
- Third Session of the State Climate Action Plan where simultaneous webinar broadcasts joined all six Mexican border state capitals with the Ministry of the Environment and Natural Resources (SEMARNAT)—including the National Institute of Ecology— and the Center for Climate Strategies



BECC PUBLICATIONS

Technical reports developed and published by BECC in 2011 include:



- Paving Needs Assessments with Satellite Images Interpretation (impacting 12 cities in Sonora, MX)
 - July 2011
- Manuals on Green Technologies for Sustainable Building Practices - June 2011
- Assessment of Investment Needs in Basic Infrastructure - December 2011
- Analysis of Utility Performance Benchmarks for Mexico's Border Area (in close collaboration with the World Bank) - May 2011
- White Paper on Energy Efficiency, Renewable Energy and Transportation: Project Opportunities in the U.S.-Mexico Border Region - November 2011



Available at www.becc.org

2011 PROJECT REPORT BECC • 2011 ANNUAL REPORT

2011 Project Report

BECC and NADB were established to help address 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, 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 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 2011, the Board of Directors approved BECC certification and NADB financing for 14 environmental infrastructure projects. Each of these projects is expected to achieve project-specific outcomes related to improving environmental and human health conditions at the project location.

The 14 projects certified and approved for financing in 2011 include eight water/wastewater projects, three air quality projects, two clean energy projects, and a project for municipal planning. A brief description of each project is provided in the following sector subsections.





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 this infrastructure in either country provides the residents in the neighboring country human health benefit associated with risk of contagious water-borne diseases. The level of investment and increased access to this infrastructure has been greatly influenced by the availability of grant funding provided through PDAP and BEIF.

Together, the eight water and wastewater projects certified in 2011 are intended to benefit 1,126,405 border residents, including **first-time and enhanced** drinking water services provided to 3,970 households and **first-time** wastewater collection and treatment services to 287,063 households. These projects are anticipated to reduce the disposal of approximately 50.8 MGD of untreated wastewater currently polluting community streets, irrigation systems and shared water bodies in the border region. The certified projects will provide a total design wastewater treatment capacity of 71.5 MGD

Water and wastewater projects certified during 2011 are described as follows:

Tijuana, Baja California Wastewater Treatment (La Morita)

Benefited Population:	124,691
Project Cost:	US\$6.70 million
Funding Partners:	Federal grant, Tijuana Utility (CESPT) grant, NADB loan, Japan Bank for International Cooperation (JBIC) loan
Existing Condition:	Residents of the area currently lack wastewater treatment services resulting in inappropriate discharge of untreated wastewater, a portion of which eventually reaches the Pacific Ocean, contributing to water contamination.
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 88 lps (2 MGD) of untreated wastewater



2011 PROJECT REPORT BECC • 2011 ANNUAL REPORT

Tijuana, Baja California Wastewater Collection System in Colonia Alcatraces



Enrique Carrillo, Chairman of the Plan Libertador Neighborhood Committee

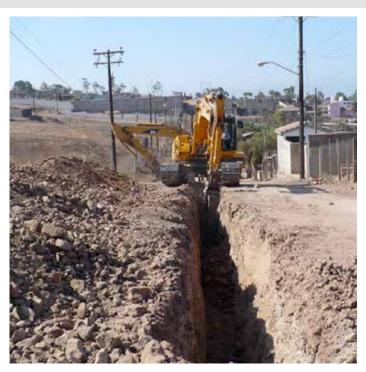
Benefited Population:	3,020
Project Cost:	US\$1.11 million
Funding Partners:	Federal grant, NADB-BEIF grant, NADB loan
Existing Condition:	Residents of the area currently lack wastewater collection services and rely on latrines, septic tanks, or discharges to open drains for their wastewater disposal; these discharges eventually result in wastewater runoff, which flows into the Pacific Ocean.
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:	733 new sewer connections, eliminating discharge of 8.7 lps (0.2 MGD) uncollected wastewater

Hermosillo, Sonora Wastewater Treatment

Benefited Population:	785,082 residents
Project Cost:	US\$86.15 million
Funding Partners:	Federal grant, National Infrastructure Fund (FONADIN), BOT Contractor, NADB Ioan
Existing Condition:	Residents of the area currently lack wastewater treatment services resulting in inappropriate discharge of untreated wastewater, which eventually flows into the Sonora River, contaminating this body of water and creating a source of infection for local residents.
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 2,000 lps (45.6 MGD) of untreated wastewater.



Playas de Rosarito, Baja California Wastewater Collection System in Ejido Plan Libertador



Benefited Population:	14,436
Project Cost:	US\$3.75 million
Funding Partners:	Federal grant, NADB-BEIF grant, NADB loan
Existing Condition:	Residents from the area currently lack wastewater collection services and rely on latrines, septic tanks without drain fields, 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:	3,504 new sewer connections, eliminating discharge of 44.33 lps (1.01 MGD) uncollected wastewater

Anthony, New Mexico Water Improvements

Benefited Population:	8,388	
Project Cost:	US\$8.82 million	
Funding Partners:	New Mexico Finance Authority (NMFA) Ioan, NMFA grant, USDA grant, USDA Ioan, NADB-BEIF grant	
Existing Condition:	Currently, drinking water quality in the project area doesn't meet the EPA's primar drinking water standards for Arsenic.	
Anticipated Outcome:	Increase access and use of safe potable drinking water service, contributing to the reduction in risk of waterborne diseases.	
Measurement:	3,100 improved residential connections 0.87 MGD of treated water	



Rio Grande City, Texas Wastewater Collection Improvements

Benefited Population:	111	
Project Cost:	US\$0.45 million	
Funding Partners:	NADB-BEIF grant	
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; these discharges eventually result in wastewater runoff, which flows into the Rio Grande River.	
Anticipated Outcome:	Provide access to wastewater collection services and eliminate exposure to untreated wastewater, contributing to the reduction of pollution and the risk of waterborne diseases.	
Measurement:	27 new sewer connections, eliminating discharge of 0.01 MGD of uncollected wastewater	



Praxedis G. Guerrero, Chihuahua Water Distribution System



Benefited Population:	3,641	
Project Cost:	US\$1.83 million	
Funding Partners:	Federal, NADB-BEIF grant	
Existing Condition:	More than half of the local residents are exposed to unsanitary drinking water conditions, accessing water through 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:	870 residential connections (600 new and 270 rehabilitated)	

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 urban mobility infrastructure projects that contribute to improved air quality, BECC continues to develop specific strategies aimed at promoting other emission-reduction infrastructure opportunities.

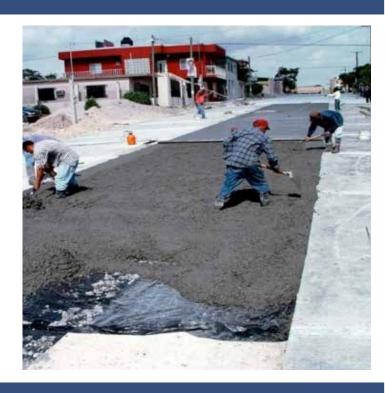
In the energy sector, BECC has increasingly supported projects related to the generation of clean and efficient energy, as well as energy savings in general.

In 2011, BECC certified three air quality projects intended to improve urban mobility and influence air quality improvements by decreasing harmful emissions caused by motor vehicles on unpaved. Additionally, BECC certified two projects related to renewable energy.

A description of these projects, including the expected outcomes for each one, is presented below:

Hermosillo, Sonora Street Paving (Air Quality)

Benefited Population:	154,400	
Project Cost:	US\$68.25 million	
Funding Partners:	Municipal funds, NADB Ioan	
Existing Condition:	Residents are subject to air pollution caused by suspended dust particles associated with the use of vehicles on unpaved roadways (PM ₁₀), a condition exacerbated by prevailing winds.	
Anticipated Outcome:	Improve air quality in the project area by reducing the concentration of PM ₁₀ particles.	
Measurement:	 Reduction of 22,120 tons of PM₁₀ particles Reduction in incidence of acute respiratory diseases Increase number of residents with direct access to paved roads by 154,400 Increase paving coverage by 1,558, 668 m² 	



Agua Prieta, Sonora Street Paving (Air Quality)

Benefited Population:	32,800	
Project Cost:	US\$29.64 million	
Funding Partners:	Municipal funds, NADB Ioan	
Existing Condition:	Residents are subject to air pollution caused by suspended particles associated with the use of vehicles on unpaved roadways, a condition exacerbated by prevailing winds.	
Anticipated Outcome:	Improve the air quality of the project area by reducing the concentration of PM ₁₀ particles.	
Measurement:	Reduction of 4,700 tons of PM ₁₀ particles Reduction in incidence of acute respiratory diseases Increase number of residents with direct access to paved roads by 32,800 Increase paving coverage by 943,433 m ²	



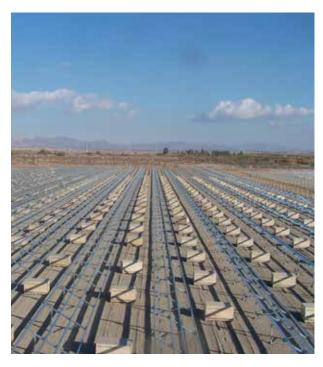
Mexicali, Baja California Street Paving (Air Quality)

Benefited Population:	59,881	
Project Cost:	US\$46.41 million	
Funding Partners:	State, Municipal funds, NADB loan	
Existing Condition:	The City of Mexicali, Baja California, faces an air pollution problem caused by suspended particles associated to the use of vehicles on unpaved roadways, a condition that is exacerbated by the action of prevailing winds.	
Anticipated Outcome:	Improve air quality in the project area by reducing the concentration of PM ₁₀ particles.	
• Reduction of 15,587 tons of PM ₁₀ particle • Reduction in incidence of acute respirate diseases (< 11,539 cases per year) • Increase number of residents with direct to paved roads by 59,881 • Increase paving coverage by 1,094,668 in		





Niland, California Clean Energy (Solar)



Benefited Population:	174,528	
Project Cost:	Reserved information	
Funding Partners:	Equity, NADB Ioan	
Existing Condition:	Electricity production in the United States 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 generation practices.	
Anticipated Outcome:	Reduce the amount of greenhouse gases produced by traditional fossil-fuel-based power generation by installing solar photovoltaic systems capable of providing cleaner energy generation, thereby contributing to the improvement of air quality and health in the border region.	
Measurement:	 Reduce demand for fossil-fuel-based energy generation = 23 MW Reduce harmful emissions (metric tons/year): CO2 > 20,000; SO2 > 100; NOx > 85). 	

Picture Rocks, Arizona Clean Energy (Solar)

Benefited Population:	980,263	
Project Cost:	Reserved information	
Funding Partners:	Equity, NADB loan	
Existing Condition:	Electricity production in the United States 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 a dependency on traditional energy generation practices.	
Anticipated Outcome:	Reduce the amount of greenhouse gases produced by traditional fossil-fuel-based power generation by installing solar photovoltaic systems capable of providing cleaner energy generation, thereby contributing to the improvement of air quality and health in the border region.	
Measurement:	 Reduce demand for fossil-fuel-based energy generation = 20 MW Reduce harmful emissions (metric tons/year): C02 > 35,000; SO2 > 200; NOx > 125). 	



In 2011 the BECC also certified a Municipal Planning project, which addresses several environmental infrastructure needs, including water and wastewater systems, storm drainage and roadways. Following are the most relevant aspects of this project.

Valle de las Palmas, Tijuana, Baja California Municipal Planning



Benefited Population:	40,000	
Project Cost:	US\$110.63 million	
Funding Partners:	Equity, NADB loan	
Existing Condition:	Accelerated population growth in northern Mexico, coupled with limited public and private investment capacity for urban development, has given rise to uncontrolled urban sprawl and the proliferation of substandard housing developments that lack basic services, posing environmental and health risks for residents.	
Anticipated Outcome:	A well-planned, sustainable community with all of the basic amenities—water, wastewater, storm drainage and paved roads—as well as other sustainable development features, such as a treated wastewater reuse system and green spaces for recreation to further preserve, protect and enhance the environment and human health.	
Measurement:	 10,000 new homes with access to reliable water/wastewater services, adequate drainage and safe roadways. Construction of a water treatment plant 125lps (2.85 MGD) and two wastewater treatment plants 96 lps (2.19 MGD). 35 lps (0.79 MGD) of water for reuse that will reduce the demand on potable water. 	

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 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'sMISSION

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 (2011)





BECC-NADB Board of Directors (2011)

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 Governor José Guadalupe Osuna Millán (Baja California)

Mexican Border Resident Representative Ing. Roberto Zambrano Villareal



BECC-NADB Board of Directors (2011)

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

^{*} Board Chair 2011

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 United States or Mexico, 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

José Mario Sánchez Soledad
Deputy General Manager

BECC Directors

Renata Manning-Gbogbo
Projects
Mario Vázquez
Environmental Program 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 Program Development: Development of regional planning; management of technical
 assistance and environmental programs; 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; procurement and contract management; and management of material resources.
- Legal and Communication: Management of legal and policy 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

BEEC's operating budget is funded by contributions from the United States, through the Department of State and from México, through SEMARNAT. 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 offset the resources required for managing these important border programs, EPA provides an administrative subsidy to BECC, which supplements its normal operating budget.

Eighty-one 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 sixty-one percent of the funds. In

contrast, BECC's general support and performance improvement activities only require seven percent of the total funding.

The annual operating budget is developed by the BECC administration and reviewed and approved by the Board of Directors. For fiscal year 2011, the Board authorized a budget of \$7.1 million, which included \$4.51 million to support administrative expenses and nearly \$2.6 million reserved for BECC's Technical Assistance program. The operating budget was subsidized by EPA funds, with \$1.1 million to offset expenses related to administering PDAP and \$232,000 for Border 2012. Additionally, during 2011, BECC expended \$841,000 of EPA funds through PDAP and \$1.51 million through Border 2012 grants to support projects, technical studies, and activities.

FINANCIAL STATEMENTS

BECC's consolidated financial statements as of December 31, 2011 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.becc.org.

Statement of Assets, Liabilities and Fund Balance

As of December 31,2011 (US Dollars)

Assets	
Current Assets	\$ 24,536,325
Furniture and equipment - net	175,122
Total Assets	24,711,447
Liabilities and Fund Balance	
Current Liabilities - Total	226,381
Employee Benefits	19,721
Unrestricted Fund Balance	24,465,345
Total Liabilities and Fund Balance	\$ 24,711,447

Statement of Revenues, Expenses and Changes in Fund Balance

Year ended December 31, 2011 (US Dollars)

Revenues		
	Contribution - USA	\$ 2,245,000
	Contribution - México	\$ 1,750,000
	Contribution - EPA	4,011,471
		8,006,471
Expenses		
	Salaries and benefits	3,402,514
	Travel and transportation expenses	275,244
	Technical Assistance and fees	3,066,849
	Other expenses	1,236,118
		7,980,725
Other incom	ne - Net	43,432
Interest income - Net		15,157
Increase in u	nrestricted fund balance	84,335
Unrestricted fund balance at beginning of year		24,381,010
Unrestricted fund balance at end of year		\$ 24,465,345



USA

P.O. Box 221648 El Paso, TX • 79913 Tel: (915) 975-8280

México

Blvd. Tomás Fernández 8069 Cd. Juárez, Chihuahua, México C.P. 32470

Tel: (52-656) 688-4600 Fax: (52-656) 625-6999

