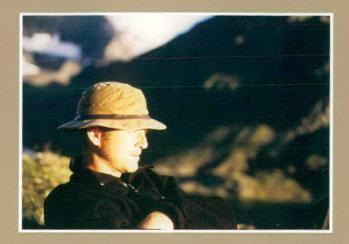


SUSTAINABLE INFRASTRUCTURE FOR THE BORDER

IN MEMORIAM

DEDICATED TO A TRUE CHAMPION FOR A BETTER ENVIRONMENT

PATRICK WHELAN 1964 - 2003



Without a doubt, one of the individuals who stood alone in his leadership, support and commitment for improving the environment in the U.S.-Mexico border region was Patrick Whelan, who served as the Coordinator for the U.S.-Mexico Program within the U.S. Environmental Protection Agency's Office of International Activities. With

his dedication and strong consensus building capabilities, Patrick played a fundamental role in initiating BECC operations in 1996. The untimely loss of Patrick will inspire us to carry on the spirit of his efforts and fulfill his vision of better environmental and human health conditions for the people of the border.

The Border Environment Cooperation Commission (BECC) is the result of efforts by the Governments of the United States and Mexico to address the environmental and human health problems that exist along their common border. The BECC is an international organization created to promote the conservation, protection, and improvement of the environment in the



U.S.-Mexico border region, through the development and certification of environmental infrastructure projects in a framework of sustainability and broad public participation. Once

certified by the BECC, a project can apply for funding from the North American Development Bank (NADB) or other sources requiring such certification.

The BECC is authorized to consider water pollution, wastewater treatment, and municipal solid waste management projects and projects addressing other related matters. Other related matters includes hazardous waste, water conservation, hookups to water and sewer systems, and waste reduction and recycling. Projects related to air quality, transportation, clean and efficient energy, and municipal planning and development, including water management, may also be considered for development.

The BECC's operating budget is funded by contributions from Mexico, through the Secretariat of the Environment and Natural Resources, and from the United States, through both the Department of State and the

U.S. Environmental Protection Agency. In addition to its operating budget, the BECC manages the Project Development Assistance Program (PDAP), which is funded with contributions from the United States Environmental Protection Agency. This program allows the BECC to use grant funds to support border communities in the development of their water and wastewater projects.

In 2002 the BECC's structure continued to include a Board of Directors, an Advisory Council and a bi-national Management team. BECC's governing body is its Board of Directors, composed of 10 members (five from each country), which represents the three levels of government and civil society on the border. The BECC's Advisory Council included 18 members (nine from each country). The BECC's General Manager and Deputy General Manager are responsible for overseeing the institution's daily operations.

The BECC is an innovative mechanism for collaboration between Mexico and the United States that allows environmental infrastructure in the border region to be developed from a border-wide perspective. Thanks to its strong partnerships with the three levels of government and civil society and its ability to provide resources for project development, the BECC has contributed to improving the quality of life of border residents, through the development of environmental infrastructure projects that seek long-term solutions with a strong participation of local communities.

CONTENTS Message from the Board of Directors and Management Project Development Process 4 Certified Projects 2002 6 12 Sustainable Development Public Participation 14 Sharing Experiences 16 Map of Certified Projects 18 20 Technical Assistance 24 Board of Directors BECC Organization Chart/BECC Staff 26

Financial Summary

30





MESSAGE FROM THE BOARD OF DIRECTORS AND MANAGEMENT

During 2002 the BECC achieved important milestones by certifying environmental infrastructure projects, which for the first time included water conservation and air quality improvements.

The BECC contributed to the sustainable management of the Rio Grande basin with the timely certification of the Project for the Modernization and Technical Improvements to the Delicias 005 Irrigation District located along the Conchos River in the state of Chihuahua. This was achieved through outstanding coordination between Mexico's National Water Commission (CNA), the North American Development Bank (NADB), the U.S. and Mexican sections of the International Boundary and Water Commission (IBWC/CILA), Mexico's Secretariat for the Environment and Natural Resources (Semarnat), and the U.S. Environmental Protection Agency (EPA) and the BECC.

The project is part of the water conservation goals established by U.S. President George W. Bush and Mexico's President Vicente Fox, which seeks to address water management issues in this major watershed.

In addition, two paving projects were certified which will help improve air quality in Agua Prieta, Sonora and Ciudad Juárez, Chihuahua.

With regard to the traditional sectors of environmental infrastructure, that is, water, wastewater and solid waste, BECC certified a total of 12 projects. Examples of these important projects are the wastewater project for the La Joya, Texas Water Supply Corporation and the water and wastewater project for Eagle Pass, Texas.

During 2002 BECC's commitment to public participation and sustainable development processes achieved even greater prominence. With the implementation of a new and innovative public participation manual, efforts to promote community involvement, outreach and broad information throughout the project certification process have been enhanced. As part of its sustainable development program, BECC incorporated 14 minimum sustainable development requirements into the project development process, which include reuse and recycling, water conservation, institutional capacity building, waste reduction, and efficient energy use, among other areas. Important progress was also made in learning and furthering the Zero Emissions Research Initiative (ZERI).

With an ongoing commitment to improve the efficiencies of the institution, manuals for Project



Development, Sustainable Development, and Community Participation were developed, which seek to improve the quality of the project certification process; simplify procurement; develop methods to involve communities in the decision-making process from the initial planning stages of a project, and to consider additional technical options within the context of cost-effectiveness, impacts and sustainability, and to achieve a more cost effective final design.

These actions go hand in hand with the establishment of the Rapid Assessment Process that enables the BECC to expedite technical assistance processing and develop a project strategic plan.

In seven years of operation, BECC has managed to gain a strong presence in the border region thanks to the institution's close partnerships with communities and expanding role in developing environmental infrastructure projects. Nevertheless, there is still a long road to travel. 2003 will be a year with major challenges, one of which will consist of participating in the efforts envisioned by the Border 2012 Program. BECC is committed to working with the program coordinators to draw on the BECC's experiences in the areas of binational strategic planning, technical and

environmental expertise, logistical support for work groups, environmental infrastructure project development, technical and environmental information, and identification of new funding sources.

Another challenge will involve working together with partner stakeholders to implement changes to the BECC and its sister organization the (NADB), as agreed to by the Governments of the United States and Mexico. Among the changes that will affect both institutions are the creation of a single board of directors and an expanded geographic scope for the Mexican side of the border. As part of these efforts, BECC will contribute to the successful completion of a business process review that will result in even greater efficiency in the work of the BECC and the NADB. Finally, we will continue assisting in the development of water conservation projects, as part of broader efforts to achieve the sustainable management of this vital resource.

Our Commission is aware of these challenges and is prepared to continue strengthening its bold and proven approach to successfully address the border region's environmental infrastructure needs.

PROJECT DE

Calendar year 2002 provided the setting for a number of important achievements for BECC in terms of project development. Fifteen projects were certified. the highest number of certifications in a 12-month period since the creation of BECC. These certified projects represent an investment of \$450 million, directly benefiting nearly 542,000 residents on both sides of the border. These certifications include the first three projects related to the new sectors of activity. specifically water conservation and air quality, demonstrating that BECC took a significant step forward in meeting its sustainable development goals on the border. Additionally, a project development procedures manual was developed, which promotes tools for ensuring a systematic use of high quality standards throughout the certification process.

New Sectors of Activity

In the autumn of 2000, the Boards of Directors of the BECC and the NADB authorized both institutions to expand their work to new sectors of environmental infrastructure. The purpose of this initiative was to allow for better use of NADB's lending capabilities and provide greater opportunities to apply BECC's innovative practices.

In addition to projects in the traditional sectors of water, wastewater treatment and solid waste, BECC can now address projects related to other areas of environmental infrastructure. These areas include hazardous waste, water conservation, domestic water and wastewater hook-ups, waste reduction and recycling, air quality improvement; transportation, clean and efficient energy and municipal planning and development, including water management.

BECC has laid the groundwork for important progress in its expanded role, with the first certifications of projects in the new sectors of activity, one related to water conservation and two related to air quality improvement. This achievement demonstrated an effective and flexible certification process that allows for addressing the most serious environmental problems facing border communities.

In the water conservation sector, BECC certified a project for modernizing and making technical improvements to the Delicias 005 irrigation district. This project will increase the availability of water for all users of the Rio Grande basin. Additionally, the project represents important progress towards sustainable management of the surface waters of the Rio Conchos, the most important tributary of the Rio Grande.

The other new sector projects certified this year are two air quality improvement projects for the cities of Agua Prieta, Sonora and Ciudad Juárez, Chihuahua.

Certifications are planned for nearly 95 projects in 2003 and 2004, of which potentially 32 are related to the new sectors of environmental infrastructure.

Project Development Manual

A project management procedures manual was developed and implemented, and presents a systematic overview of the procedures that a project must successfully complete before being submitted to the board of directors for certification. This manual, being a more uniform approach to BECC's project development process, provides a blueprint allowing the BECC's staff to define particular duties, responsibilities, and tasks during each phase of the project development process. The manual defines a quality management plan, which specifies quality control activities, such as contract reviews, consulting services control, documents control, and procurement follow-up, ensuring BECC's procedures and criteria are complied with. The manual will allow for greater control and effectiveness in the development of each project.



VELOPMENT

Project Certification Process

The BECC's primary role is to develop and authorize projects, which are subsequently funded by the NADB or other funding institutions. To fulfill this role, the BECC gives primary importance to technical and financial aspects of each project, such as the use of appropriate non-polluting technologies with low operating and maintenance costs, and a viable financial structure that reflects affordable rates. Additionally, BECC makes a significant contribution to the project development process by ensuring project information availability, broad public participation and implementation of sustainability principles. The Commission also facilitates coordination between different government agencies at the federal, state, and local levels, in order to ensure that projects comply with the requirements and standards of each institution.

The certification process begins with an Application for Project Certification received from a Project Sponsor (normally a local community). The Application is submitted to the Rapid Assessment Process (RAP), where the existing conditions are evaluated so as to clearly identify the needs to be addressed by the project. During the RAP, a Project Strategic Plan (PSP) is developed which reviews the project sponsor's institutional capacities, identifies possible obstacles for implementing the project, defines a potential funding strategy, and determines the technical assistance needs to achieve certification. It ensures that the efforts and activities of the project sponsor and participating agencies are coordinated and described in a detailed project schedule, an important tool to guide the timely development of the project. The final PSP and project schedule provide the definition of tasks that are developed into a scope of work to be procured for consultant services, which secures the support services necessary for the development of the project.

The Planning and Environmental Assessment, Public Participation and Financial Feasibility phases determine the recommended action to address the environmental infrastructure needs defined during the RAP. Technical, financial, and environmental studies are conducted for the project. These studies include the evaluation of project alternatives in respect to technical and financial feasibility and impact to the environment and human health characteristics of the community. The efforts to meet the minimum sustainable development criteria are initiated during this phase and important milestones are

accomplished such as rating technical alternatives with the participation of community representatives.

These efforts are supported by on-going public participation activities including the establishment of a local steering committee and development of a community participation plan, which describes the outreach strategy to achieve public support for the technical and financial aspects of the project. The community outreach includes project information

availability and distribution, providing presentations to local organizations and scheduling at least two public meetings where the details of the project are discussed.

Once appropriate environmental assessments have been successfully concluded, final design for the project may begin. During the design process, both sustainable development and community participation efforts are continued which may include community awareness programs for conservation and responsible use of resources along with important design reviews by utility operators. It is also during the design phase when project cost estimates are developed

THE
PROJECT
CERTIFICATION
PROCESS



to a level appropriate to continue the financial feasibility analysis, which includes developing rate studies and a final financial structure to construct the project. The results of these financial studies are presented at the final public meeting and the community is given updated technical information for the project's implementation. Successful conclusion of this process provides documented compliance with BECC criteria. After a final general public comment period, the project is presented to the Board of Directors for certification and subsequent funding by the NADB and other funding sources.

CERTIFIED P

Improvements to Regional System of Potable Water, Sewage, and Sanitation for the City of Eagle Pass, Texas

PROBLEM: The region lacks sufficient sources of water and potable water systems as well as sewage and sanitation systems capable of meeting the community's needs.

PROJECT: Rehabilitation and expansion of the existing water treatment plant, rehabilitation and expansion of the potable water distribution system, expansion of the sewer system and the construction of a new wastewater treatment plant.

Source	Amount U.S. Dollars	Total Cost (%)
Grants		
EDAP-(Economically		
Distressed Program)	\$43,854,404	43
DFUND II-(Texas Water		
Development Fund II)	\$24,076,000	23
DWSRF-(Drinking Water		
State Revolving Fund)	\$33,528,000	32
TDHCA-(Texas Dept. of Health		
and Community Affairs)	\$1,657,103	2
Total	\$ 103,115,507	7 100
Transition Funds—BEIF-NADB	\$ 13,994,000	
Hook Up Assistance—		
BEIF-NADB	\$ 4,000,000	
BECC-Technical Assistance	\$ 1,280,000	

Improvements to the Sanitation Facilities of the La Joya Water Supply Corporation

PROBLEM: La Joya Water Supply Corporation's utility system has no wastewater collection or treatment facilities.

PROJECT: Consists of the construction of two wastewater treatment plants, lift stations, collection networks, and sewer hook-ups.

Source	Amount U.S. Dollars	Total Cost (%)
Grants		
TWDB-(Texas Water		
Development Board		
Funds)-EDAP	\$ 53,000,547	57
BEIF-NADB	\$ 15,439,315	17
Hook Up-BEIF-NADB	\$ 5,625,900	6
Loans		
TWDB Dfund II	\$ 18,710,686	20
TOTAL	\$92,776, 648	100
Transition Funds—BEIF-NADB	\$ 6,587,823	
BECC-Technical Assistance	\$ 1,039,350	

Water and Wastewater System Improvements for the City of San Benito, Texas

PROBLEM: The water-treatment plant has exceeded its treatment capacity; it is very old and cannot be rehabilitated. In addition, the wastewater treatment facility does not comply with discharge standards. The elevated water storage tanks are now obsolete and the lack of pressure at the maximum flow levels constitutes a safety problem in the event of fire.

PROJECT: Calls for the construction of a new watertreatment plant. The project for the community also includes the construction of an elevated tank, transmission lines, and a new wastewater treatment facility.

Amount U.S. Dollars	Total Cost (%)
\$14.010.000	46
\$14,310,004	40
\$17,533,351	54
\$32,444,235	100
\$2,999,341	
	\$14,910,884 \$17,533,351 \$32,444,235

ROJECTS 2002

Improvements to the Water and Wastewater Systems of El Paso County Water & Control Improvement District No. 4, in Fabens, Texas

PROBLEM: Water for domestic use contains high levels of secondary pollutants and does not comply with applicable state standards. The water and wastewater networks do not meet the community's needs.

PROJECT: Expansion of the wastewater treatment plant, rehabilitation of water and wastewater systems, and rehabilitation of the lift stations.

Source	Amount U.S. Dollars	Total Cost (%)
Grants		
BEIF-NADB	\$4,111,274	45
Loans		
RUS-(Rural Utility Service)	\$1,225,234	14
NADB-Loan and		
Guaranty Program	\$2,666,276	29
Local District Funds	\$ 1,099,209	12
Total	\$ 9,101,993	100
Transition Funds—BEIF-NADB	\$ 1,356,248	
BECC-Technical Assistance	\$ 583,717	

Project Consisting of the Construction of a Wastewater Collection System for San Pablo, New Mexico

PROBLEM: The community of San Pablo does not presently have a wastewater collection and treatment system other than on site disposal, which includes the use of holding tanks, individual septic tanks, leach fields, and cesspools. These systems are not functional because of the depth of the aquifers and the low rate of seepage.

PROJECT: Consists of the construction of a wastewater collection system that will be connected to the City of Las Cruces wastewater system.

Source	Amount U.S. Dollars	Total Cost (%)
Grant		
BEIF-NADB	\$1,134,750	40
RUS	\$1,250,000	44
NMED (New Mexico		
Environmental Department)		
State Authorization	\$ 285,000	10
Loan		
NMED State loan	\$ 175,000	6
Total	\$2,844,750	100
Transition Funds—BEIF-NADB	\$ 120,521	
BECC-Technical Assistance	\$ 271,000	

Improvements to the Sewer System in Desert Shores, California

PROBLEM: Desert Shores, California, faces a problem due to the seepage of saltwater into the sewer system and the seepage of treated water with high concentrations of total dissolved solids (TDS) into the water table under the treatment plant.

PROJECT: The project calls for improvements to the wastewater system, with the replacement of lines and the simplification of pumping. The improvements to the sewer system are designed to solve the environmental impacts to the groundwater under of the treatment lagoons.

Source	Amount U.S. Dollars		Total Cost (%)
LOANS			
NADB- Low interest			
Lending Facility Program	\$	530,000	50
USDA (United States Dept. of			
Agriculture)-Rural Development	\$	530,000	50
TOTAL	\$1	,060,000	100
Transition Funds—BEIF-NADB	\$	200,000	
BECC-Technical Assistance	\$	283,782	

Sewage and Sanitation Project for the Water Improvement District of Tornillo, Texas

PROBLEM: Tornillo lacks sewer service. Sewage is eliminated by using a number of common, on-site systems, and many of these are of poor quality and are failing.

PROJECT: This community will receive a sewer collection system and a wastewater treatment facility.

Source	Amount U.S. Dollars		Total Cost (%)
Grants			
BEIF-NADB	\$	5,255,441	43
TWDB	\$	5,334,961	44
Loan			
TWDB	\$	164,000	1
NADB-Low Interest Rate			
Lending Facility-(LIRF)	\$	1,500,000	12
Total	\$	12,254,402	100
Transition Funds—BEIF-NADB	\$	425,621	
BECC-Technical Assistance	\$	655,000	

Replacement of a Potrero Wellfield Water Well in Nogales, Arizona

PROBLEM: The existing well was eliminated from the potable water distribution line since high concentrations of volatile organic compounds (VOCs) were identified close to it, which constituted a human health risk.

PROJECT: The project consists of constructing a drinking water well and the necessary equipment to connect the water produced to the city's potable water network to replace the closed well.

Source	Amount U.S. Dollars				Total Cost (%)
Loan NADB-Loan and Guaranty					
Program	\$	479,226	50		
Municipal Bonds	\$	476,226	50		
TOTAL	\$	958.452	100		

Improvement to the Drinking Water and Sanitation Systems of Santa Rosa, Texas

PROBLEM: Water treatment, storage and distribution of water are inadequate for the inhabitants of Santa Rosa. The current potable water system does not provide adequate service. Also, due to the inadequate operation of the on-site systems, there is poor sanitation that is becoming a serious threat to human health and safety.

PROJECT: The project includes an increase in the water treatment capacity, an expansion of the potable water network and an increase in the wastewater treatment capacity. It also calls for the improvement and expansion of the sewer system.

Wastewater Financial Structure/Source		Total Cost (%)
Grant		
TWDB—EDAP	\$ 5,142,300	68
BEIF-NADB	\$ 1,481,884	20
Loan		
TWDB-EDAP	\$ 870,100	12
SUBTOTAL	\$7,494,284	100
Transition Funds—BEIF-NADB	\$ 1,429,454	
Water Financial Structure/Source	Amount U.S. Dollars	Total Cost (%)
Grant		
TWDB (EDAP)	\$ 976,500	44
BEIF-NADB	\$ 1,063,921	48
Loan		
TWDB-FDAP	\$ 172,000	8
TWDB-EDAP		
SUBTOTAL	\$2,212,421	100
	\$2,212,421 \$9,706,705	100

Air Quality Improvement in Agua Prieta, Sonora

PROBLEM: More than 80 percent of the streets and avenues of the city of Agua Prieta are currently unpaved.

PROJECT: Consists of reducing air pollution by paving the main streets and avenues of this city with asphalt material and hydraulic concrete. Covering the loose material will avoid the particles to maintain suspended in the air. Another important benefit is the eventual reduction in the average driving time per vehicle within the city, which will cut down on the emission of combustion particles into the atmosphere.

Source	Amount U.S. Dollars	
Grants		
Fed/State	\$ 9,470,000	56
Loan		
NADB	\$ 3,000,000	17
Banco Bital	\$ 1,000,000	6
Municipal Funds	\$ 3,530,000	21
Total	\$17,000,000	100

Air Quality Improvement Project in Ciudad Juárez, Chihuahua

PROBLEM: Currently only 53 percent of city's streets are paved, generating air pollution problems and making it difficult for the population in the unpaved areas to receive other public services, such as police and firefighting services, among others.

PROJECT: Consists of paving a total area of 6 million square feet of urban roads in residential areas with hydraulic concrete. Street paving will reduce air pollution from suspended dust particles and consequently contribute to improving the quality of human health in the El Paso del Norte air basin.

Source	Amount U.S. Dollars		Total Cost (%)
Loan			
NADB	\$ 5,5	500,000	40
BANOBRAS-(Banco Nacional			
de Obras y Servicios			
Públicos, S.N.C.)	\$ 5,	500,000	40
Matching Funds			
Other accounts	\$ 3,2	200,000	20
TOTAL	\$14	,200,000	100
BECC-Technical Assistance	\$	5,000	



Modernization and Improvement of the Technology of Irrigation District 005 of Delicias, Chihuahua

The drought in the Rio Grande basin during the last decade, particularly on the Mexican side, has made efficient water management essential, so as to promote not only water conservation but also its more sustainable use. This will require changing traditional water management models and achieving, in practical terms, a substantive increase in agricultural productivity in the area.

To this end, the U.S. and Mexican governments have worked on designing a strategy for this region that will take into account the need to save water with a view toward promoting sustainability and agricultural productivity in the area, it will also enable the compliance with of international treaties between the two countries.

Irrigation district 005, in Delicias, is located south of the capital of the state of Chihuahua and is the largest of the three irrigation districts located in the Rio Conchos basin.

This district is known for the cultivation of alfalfa, walnuts, peanuts and peppers, although the extreme drought has affected the region in the last 10 years, with its cultivated area decreasing from 215,396 acres to just over 113,620 acres.

PROBLEM: The district's irrigation infrastructure has deteriorated substantially, resulting in very low efficiency. Nearly 7 of every 10 gallons distributed through its irrigation system are lost.

PROJECT: The project estimates recovery of up to 300,000 acre feet of water per year by increasing the overall efficiency in the use of irrigation water in area. The project is expected to attain a coverage of 185,250 acres and to raise water use efficiency from the current 33 percent to 55 percent. Likewise, it must meet the challenge of lining or building 373 miles of piping in lateral and sublateral canals, installing low-pressure irrigation systems with gated piping for more than 41,990 acres, and grading just over 511,870 acres of agricultural land.

The most notable benefits of this project include: Water savings and conservation, to increase the in-stream flows of the Rio Conchos and Rio Grande, improve irrigation-water quality in both rivers in periods of long drought, raise crop yields, and increase net income for users.

Source	Amount U.S. Dollars		Total Cost (%)
Grants			
Federal Resources NADB-WCIF (Water Conservation	\$	103,608,700	72
Investment Fund)	\$	40,000,000	28
TOTAL	\$	143,608,700	100
BECC Technical Assistance	\$	46,078	



Comprehensive Municipal Solid Waste Management Project in Tecate, Baja California

PROBLEM: The service life of the current dumpsite is ending and sanitation urban services are inadequate.

PROJECT: The project comprises the construction of a sanitary landfill, in addition to the rehabilitation of the transfer station and the construction of new station; it also calls for equipment and the remapping of macroand microroutes to provide a more efficient service to domestic users and commercial and industrial zones that generate non-hazardous waste.

Source	Amount U.S. Dollars	Total Cost (%)
Grants		
Solid Waste Environmental		
Program (SWEP)-NADB	\$500,000	19
Institutional Development		
Cooperation Program		
(IDP)-NADB	\$120,000	5
Loans		
Loans	\$ 650,373	25
Fed/State/City	\$1,308,655	51
Total	\$2,579,028	100
BECC-Technical Assistance	\$ 177,320	

Improvement of the Sewer and Sanitation Systems and Construction of a Wastewater Treatment Facility in Ojinaga, Chihuahua

PROBLEM: Currently, 56 percent of the population lacks sewer services and sanitation is practically non-existent, since the oxidation lagoon has reached the end of its useful life, after nearly 9 years of operation.

PROJECT: The project includes the improvement of sewer systems and the construction of a wastewater treatment facility. The project will achieve 100 percent sewage and sanitation coverage, with positive impacts on health and a substantial improvement in the quality of the discharges into the Rio Grande.

Source	Amount U.S. Dollars	Total Cost (%)
Grants		
Mexican Government		
Federal Contribution	\$464,084	9.4
State Contribution	\$2,115,953	43
NADB-BEIF	\$1,501,869	30.2
Loan		
NADB	\$ 867,466	17.4
TOTAL	\$4,949,372	100
BECC-Technical Assistance	\$ 434,024	

Construction of a Wastewater Collection System in Gadsden, Arizona

PROBLEM: The population of this area does not have a sewer system and its residual waters are disposed through septic pits or discharged in the open air which causes serious problems of human health.

PROJECT: Gadsden will build a sewage system, pump station, pressure line and conduit to the treatment plant of San Luis Colorado River, Arizona.

Source	Amount U.S. Dollars		Total Cost (%)
Loans			
USDA-Rural Development	\$	600,000	11
Grants			
Community Development			
Block Grant-(CDBG)	\$	801,438	15
USDA-Rural Development	\$	2,489,240	47
BEIF-NADB	\$	1,452,952	27
Total	\$	5,343,630	100
Transition Funds—BEIF-NADB	\$	72,640	

SUSTAINABLE DE

For the BECC, supporting a short-term fix to existing environmental infrastructure problems on the U.S.-Mexico border is insufficient; it must also design comprehensive, sustainable, and innovative yet practical long-term solutions. The BECC's commitment and implementation of sustainable development principles were further achieved in 2002 with the publication of an instructional manual for compliance with sustainable development criteria, updates to the sustainable development guidelines and indicators, and active participation in Zero Emissions (Zeri) initiatives. These important priorities were all subjects of training presented to the BECC's technical consultants in December 2002.

Update to Guidelines and Indicators

The concept of sustainable development is often misinterpreted as only a theoretical idea. To define the concept in respect to the BECC's mission, application guidelines and sustainability indicators have been established in order to clearly set out the objectives of the sustainable development criteria and ensure better results for each project. In 2002, the Guidelines were updated and the list of indicators expanded from an original 119 to 131. In addition, two new sections were incorporated with the guidelines: the 14 Minimum Requirements for Project Compliance with BECC's Sustainable Development Criteria and the Baseline Conditions report.

The Baseline Conditions Report has been established as a component of the Rapid Assessment Process (RAP). This report provides the basis for the need of the proposed improvements and also may identify deficiencies, which may be necessary for future project planning. The report becomes an appropriate tool to measure accomplishments of the implemented project.

The 14 minimum requirements provide clear guidance for tasks required as part of the project development process to address sustainability. Seven of the requirements are applied to all project types, five are

specific to water or wastewater improvement projects and two are applicable only to solid waste projects. The minimum requirements include sustainable development and public participation efforts, therefore ensuring compliance of both certification criteria. For the selection of technical alternatives, community representatives are involved in stakeholder workshops, resource efficiency and conservation alternatives are incorporated, and present worth analysis and affordability tested. Institutional capacities are also assessed including training needs, improvements to administrative systems and the ability to demonstrate long-term protection of system durability. Finally, the minimum requirements contain design reviews by system operators, infrastructure capacity assessments and planning for conservation, reduction, reuse and recycling.

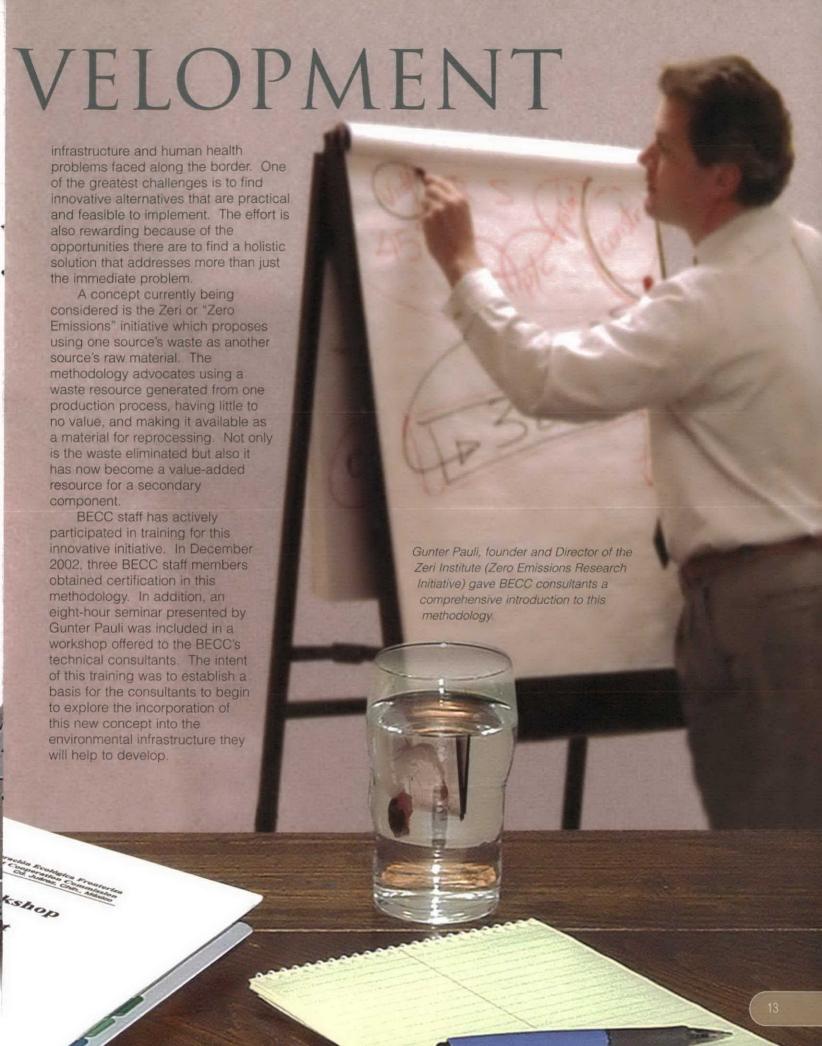
Instruction Booklet – "How to Comply with Certification Criteria Related to Sustainable Development"

With the purpose of facilitating the understanding and implementation of sustainability principles, the BECC published an instruction booklet. The booklet is intended to assist engineering and environmental consultants, as well as project sponsors and community residents. The compliance process is detailed as a step-by-step approach to accomplish the tasks necessary to meet objectives of the sustainable development criteria. More specifically, instructions are provided to describe how and when to incorporate community input in the selection, review and ranking of technical alternatives proposed to meet the community's need. Examples of indicator worksheets, validation exercises and rating activities are provided as an additional tool.

Exploring New Possibilities

The BECC continues to analyze and encourage innovative solutions to prevalent environmental





PUBLIC PAR

One of the BECC's key successes has been public participation. Public participation has made it possible for projects to obtain broad community endorsement through active, local steering committees which ensure the transparency of project information for public review, the involvement of local organizations and presentation of project information at required public meetings.

The impact of the BECC's public participation program reaches beyond the project development process, since it has become an important tool for communities to achieve transparency and valuable public input in the decision-making process. For some communities, this new framework for public participation has introduced important changes regarding the manner in which community development, in general, is envisioned and promoted.

In 2002, we saw significant progress in BECC's public participation processes and strategies. Achievements include the approval and implementation of a public participation manual, improvements in the production and quality of certification videos, overall enhancement of project public participation in our traditional projects, new and private sectors, and involvement in international public participation forums.

Public Participation Manual

For the first time, border communities have a complete and systematic guide for conducting their public participation efforts. The BECC Public Participation Manual for Border Communities and project

sponsors was created as a basic tool that offers practical techniques and methods to guarantee meaningful public participation. The manual synthesizes, applies and improves on the experiences gained by the commission the past seven years. The manual is organized for planning and implementation and is based on the premise that public participation will improve decisions and the decision-making process itself. The manual is a response to the challenge of an everchanging border region where the trend is for increased public participation in decisions that affect people and future generations.

Project Videos

In our second year of creating certification videos production has been improved and fine-tuned. These videos have become a very effective means for showing community problems and demonstrating the best sustainable alternative for dealing with them. They also show the project's human face often lost in technical and financial issues. The 14 project videos produced in 2002 and presented at the Board of Directors' public meetings highlight the steering committee's efforts to inform the community residents and document support for the project.

Project Public Processes

The BECC's coordination efforts are broad and continuous along both sides of the US/Mexico border in

TICIPATION

regards to public processes. For each of the 15 certified projects in 2002, public processes were completed which successfully complied with the certification criteria. In an ongoing effort to improve the quality of the public's input, professionally designed surveys were used in gauging support and opposition in proposed projects. The extra effort was deemed necessary to guarantee that all opinions and concerns were considered prior to certification.

Public processes were on-going for numerous other projects, as described in the section below titled "Public Participation Achievements in 2002".

Participation in International Meetings

Also worth noting is the involvement of the commission's public participation staff in an international forum to discuss, analyze, and share information on public participation trends and practices applied in the world today. In May, BECC staff gave a presentation at the 12th Annual Conference of the International Association for Public Participation (IAP2), conducted in Salt Lake City, Utah in an effort to share BECC's border experience to an international audience.

Public Participation Achievements in 2002

Steering Committees—a total of 20 formed:

<u>United States 9</u>: Seeley, in California; Doña Ana County and Elephant Butte, in New Mexico; Harlingen and Hidalgo County Irrigation Districts, Santa Rosa, Webb County, Del Rio and Los Fresnos, in Texas.

Mexico 11: Mexicali, Tijuana, Ensenada, Tecate and Rosarito, in Baja California; Agua Prieta and Cananea, in Sonora; Ojinaga and Ciudad Juárez in Chihuahua; Ciudad Acuña in Coahuila; and Matamoros, in Tamaulipas.

Public Participation Plans—a total of 18 approved:

United States 7: Doña Ana County and Elephant Butte, in New Mexico; Harlingen and Hidalgo County Irrigation Districts; Webb County, Del Rio and La Feria, in Texas.

Mexico 11: Mexicali, Tijuana, Ensenada, Tecate and Rosarito, in Baja California; Agua Prieta and Cananea, in Sonora; Ojinaga and Ciudad Juárez in Chihuahua; Ciudad Acuña in Coahuila; and Matamoros, in Tamaulipas.

Public Meetings—a total of 38 held:

United States 25 Mexico 13

Project Videos—a total of 14 produced:

United States 9
Mexico 5

SHARING EXPERIENCES

On the premise that information sharing and feedback is a way to achieve innovation, the BECC mission, and role as well as on the project to has participated in a number of international forums, with a view to contribute to the social and economic development of other regions in the

The Commission attended the International Conference on Shared Basins held in Madrid. Spain, in November 2002. The purpose of this event was to share experiences on supporting measures and processes for the integrated management of water resources and in particular on those related to watersheds and the national institutional framework needed for the development of basin organizations.

The BECC gave a presentation on its vision, modernize and improve the technology of Irrigation district 005 of the Río Conchos, which represents a significant step forward in the sustainable management of surface waters and those of the Rio Grande basin.

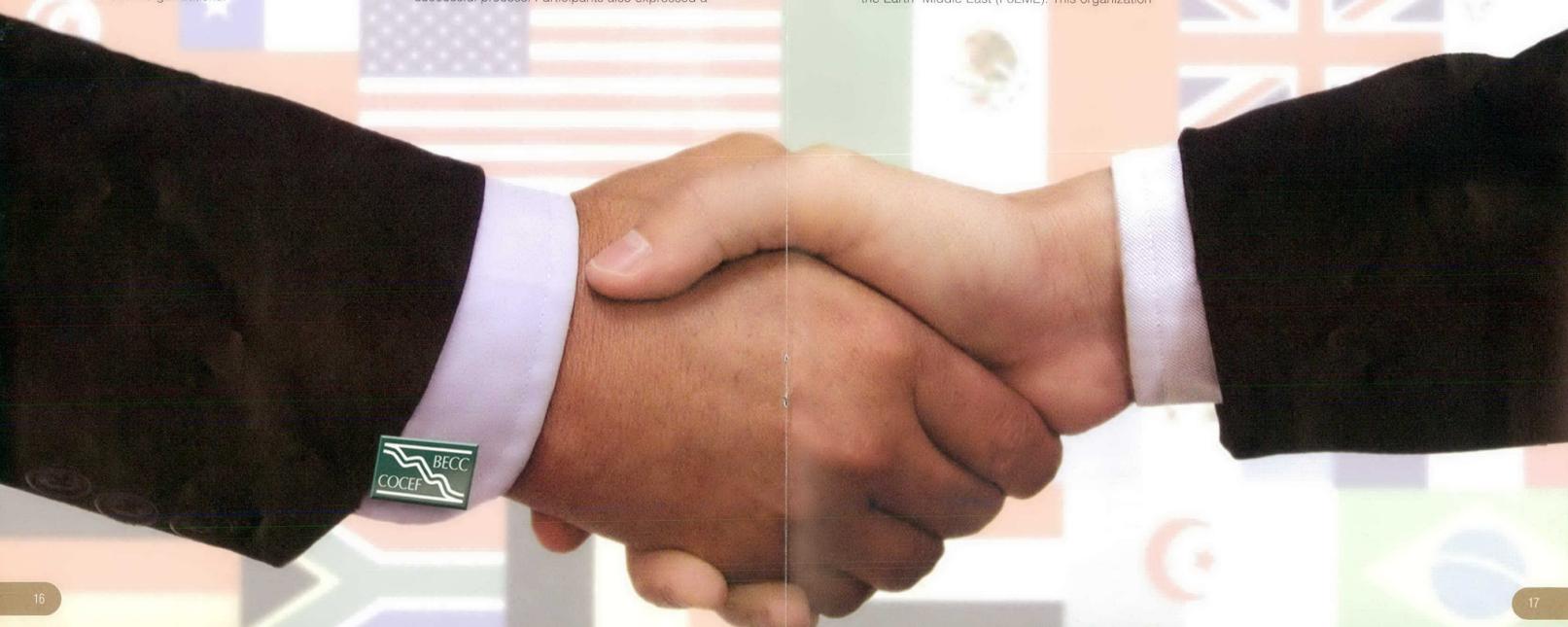
The International Association of Public Participation invited the BECC to give a presentation on its public process initiatives at the 12th International Conference on Public Participation, held in Salt Lake City, Utah. This forum acknowledged the BECC's public participation program as a highly innovative and successful process. Participants also expressed a great deal of interest in the BECC Board of Directors, since it constitutes an unprecedented binational board that balances the views of the federal agencies, state governments and the public.

In December 2002 officials from BECC gave a presentation to a six-person delegation from the Middle East. The delegation was made up of two Israelis, one Arab Israeli, two Palestinians, and one Jordanian. The group visited the U.S.-Mexico border to learn from our experiences in terms of peacefully sharing water resources in a bilateral setting, particularly at the community level.

The trip was sponsored by the NGO Friends of the Earth- Middle East (FoEME). This organization

has developed a good neighbor program that promotes the conservation of water resources named "Good Water Neighbors." It also seeks to develop cooperative relationships between communities on both sides of the "green line" that has separated Israel from the occupied territories since 1967 and between the neighboring populations in Israel and Jordan.

We hope that through efforts such as these BECC can contribute to achieving shared resource management that is based on strong cooperation.





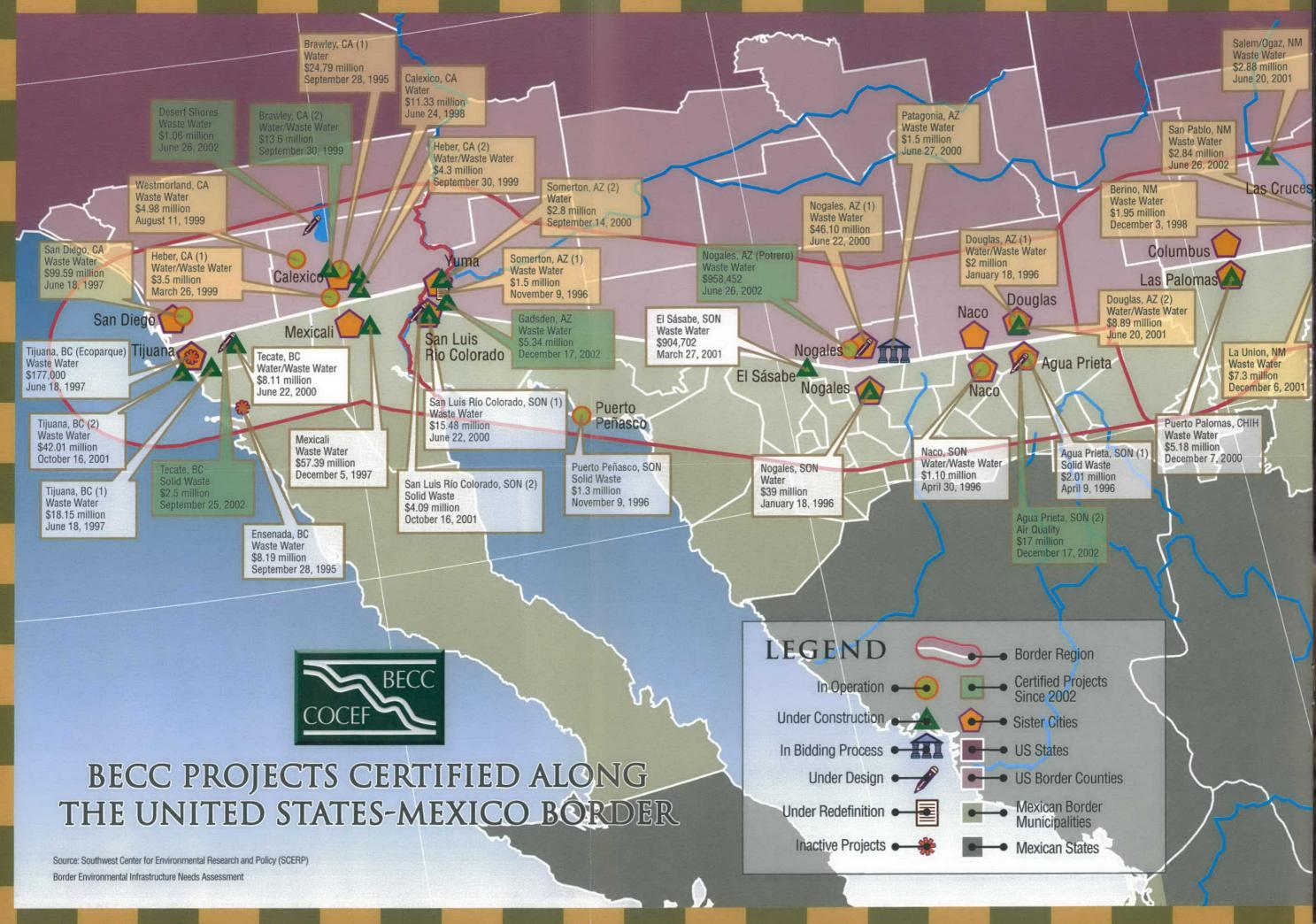


BECC CERTIFIED PROJECTS

ALONG THE

UNITED STATES/MEXICO

BORDER







TECHNICAL

For the Technical Assistance and Quality Control Directorate, 2002 was an intense year, as a number of tools were developed to allow the BECC's processes to be increasingly standardized and to be more effective and efficient. Among the key measures for the year, the TA/QC Directorate implemented the Rapid Assessment Process. developed a Quality Management Plan, and provided a workshop for the BECC's technical consultants, which included training on Sustainable Development, Quality Assurance and the Rapid Assessment Process. In addition, BECC continued to provide vital resources to communities through the Project Development Assistance Program and its own operating budget in the case of projects in the new sectors of activity.

Rapid Assessment Process (RAP)

The Rapid Assessment Process was implemented in 2002 with the purpose of defining a strategy for the development of each project. The RAP produces a report or Project Strategic Plan (PSP), which describes the existing conditions of the Project Sponsor's infrastructure, organizational and financial capacities, defines a comprehensive project objective and potential funding strategy, identifies public participation characteristics including possible obstacles, details roles, responsibilities and tasks to accomplish certification, and recommends technical assistance needs. The process incorporates funding and regulatory agency coordination at the earliest stages to enhance the ability to comply with applicable requirements in a more streamlined manner. The project sponsor shows commitment to the strategy by accepting the PSP and requesting specific technical assistance by formal letter. Most importantly, the process and PSP initiate a teamoriented management process guided by a detailed project schedule for accomplishing a timelier certification and implementation of the critical project.

RAPs were initiated for 14 U.S. projects and 2 Mexican projects in 2002 and completed for the

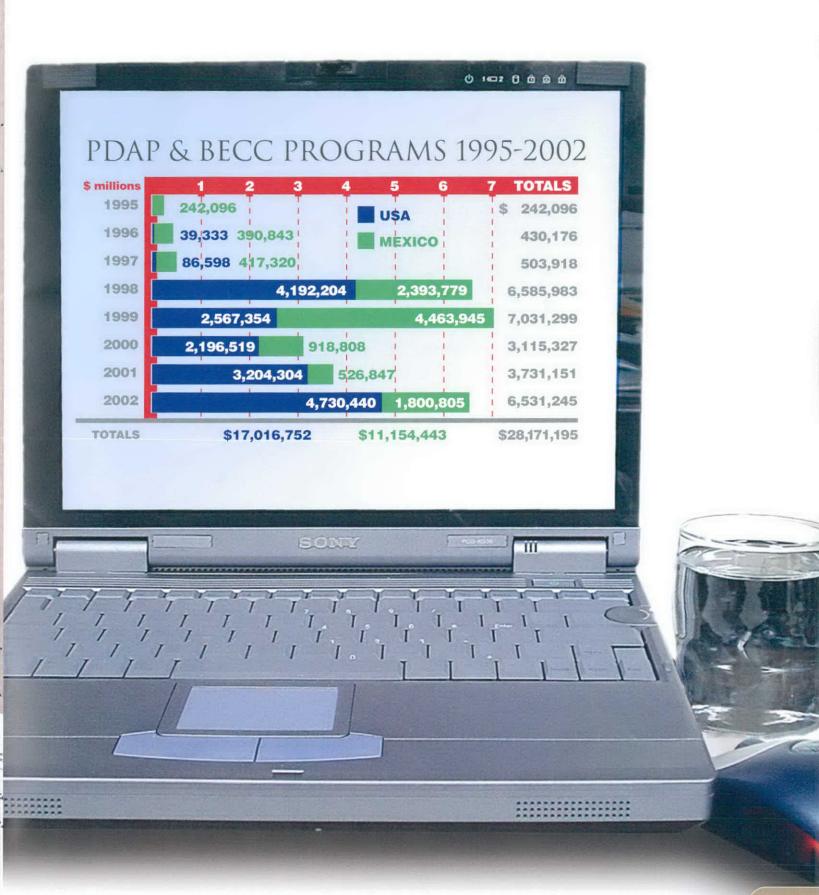
following Texas communities: Weslaco, Mercedes, San Juan, Rio WSC, La Joya, East Rio Hondo WSC and Alamo. To date, RAPs have been accomplished for 3 New Mexico projects, 5 Texas projects, 2 Sonora projects; 2 Tamaulipas projects, as well as 2 Baja California projects. In addition, RAPs are currently under development for projects in Texas, Arizona, California, Baja California, Chihuahua, Coahuila, and Tamaulipas.

The RAP has provided a tool to increase timely responsiveness and a comprehensive approach to addressing critical needs in the community. An added benefit has been the opportunity to build partnerships with the multiple regulatory and funding agencies tasked with similar objectives for improving infrastructure along the border. Looking forward to 2003, this new process will continue to be refined, relationships strengthened and assistance provided.

b) SCOA Consultant Workshop - December 2002

BECC facilitated a first-time training workshop for its technical consultants contracted with the Simplified and Competitive Ordering Agreement (SCOA) on December, 2002 in El Paso, Texas. The workshop was organized to enhance project development in accordance with improved compliance to the certification criteria.

Some 50 consultants from Mexico and the United States attended the workshop. Training was focused in three areas: Sustainable Development, Quality Assurance and the Rapid Assessment Process. Sustainable Development sessions presented the recently developed Instruction Booklet for the Application of the Sustainable Development Methodology with each firm receiving a copy. At these sessions, training on the updated Sustainable Development Guidelines and Indicators was provided along with an introduction to the Zeri methodology.



One half-day session was provided to present new quality assurance requirements. The presentation included significant detail on Quality Assurance Management Plans, which must be submitted by all contracted consultants. Another half-day session presented the RAP and provided sample reports to the technical support consultants that will be contracted to perform this work.

The workshop accomplished several important objectives including providing needed training, contributing to standardized and consistent procedures, and building better interaction between consultants and the BECC.

c) Quality Assurance

For the BECC, guaranteeing the highest levels of quality and uniformity in the project development process is essential, in order to fulfill for the expectations of the communities and of other stakeholders who participate in that process. For this reason, the quality assurance department has been applying rigorous standards to achieve the efficiency and the results required for each project.

In 2002 the BECC implemented a quality management plan aimed at obtaining certification in the ISO 9001:2000. Among other things, this plan allows BECC to verify that projects comply with applicable regulatory requirements and engineering standards.

In addition, the quality plan seeks to ensure that the BECC's staff achieve excellence, by applying a systematic approach through established procedures, to reduce to a minimum the incidence of errors by promoting a philosophy of "doing everything right the first time." Another objective of this plan is to ensure that procedures describe precisely the activities to be carried out and provide a means for demonstrating that quality standards have been met. Moreover, all BECC consultants must apply this plan and these initiatives will be extensively promoted.

In addition, one of the BECC's main objectives is to obtain ISO 9000:2000 certification by the end of 2004. This will incorporate quality assurance procedures into the BECC certification process.

d) Project Development Assistance Program (PDAP)

As of 2002, the United States Environmental Protection Agency (EPA) had provides \$24.90 million to BECC's Project Development Program (PDAP), which is designed with the purpose of supporting water and sanitation projects that are candidates for certification. From this amount, \$8.56 million has been authorized for communities in Mexico and \$16.34 million for communities in the United States.

e) Solid Waste Management Assistance

BECC has also provided technical assistance for the development of solid waste projects. These funds have been allocated from the BECC's operating budget. Over a seven-year period, \$2.37 million had been provided for 46 projects in 42 communities on both sides of the border.

f) Technical Assistance for New Sector Projects

One of the year's greatest challenges for BECC was the limited availability of technical assistance funding to support the development of new sector projects. The expanded scope of eligible environmental improvement projects did not receive a respective budget increase. Through staff dedication and expertise, a minimal amount of earmarked funding, and close coordination with NADB Staff, BECC met the challenge and completed project development and the successful certification of three new sector projects in 2002.

Most notably in 2002, applications for air quality and water conservation were received in significant proportion, including the initial submittals of what would total 46 U.S. water conservation project applications, over \$200 million in improvement efforts, to be considered for potential funding by the Water Conservation Investment Fund administered by NADB. Applications for new sector projects are anticipated to continue in the upcoming years, including projects related to air quality, water conservation, transportation and clean and efficient energy, among others.





Arturo Herrera

Commission

Commissioner, Mexican Section

International Boundary & Water

Ciudad Juárez, Chihuahua

Secretary of Environment and Natural Resources Mexico City, D.F.

Victor Lichtinger





Jorge Bustamante Northern Border College Tijuana, Baja California



Humberto Valdez Richaud State Representative Reynosa, Tamaulipas

Julián de la Garza, Chairman Under Secretary of Ecology Nuevo León State Government Monterrey, Nuevo León MEXICO

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UNITED STATES

IRECTORS PERATION COMMISSION





BORDER ENVIRONMENT COOPERATION COMMISSION **ORGANIZATION**

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Administrative Assistant

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Administrative Assistant

Environmental & Sustainable Development Manager 1

Director of Technical Assistance & Quality Assurance

Technical Assistance Manager

Administrative Assistant

Financial Planning Manager

Quality Assurance Manager

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Publications Specialist

Public Information Specialist

Accounting Analyst

Accounting Assistant

Accounting Assistant

Human Resources & Materials Assistant Receptionist

Courier

Technical Support Specialist

Information Systems Analyst

Project Manager 2

Project Manager 3

Project Manager 4

Project Manager 5

Project Manager 6

Environmental & Sustainable Development Manager 2

Public Participation Officer 1

Public Participation Officer 2

Contract Officer 1

Contract Officer 2

Contract Assistant

Financial Analyst

Q.C.Engineer 1

Q.C. Engineer 2









Both BECC and NADB

their role in the water

issues. I think both

are so valuable in terms of

institutions are being part

of the solutions that the

governments come up

with to address the







The BECC's capacity to create opportunities for interaction with the community has allowed for the creation of projects that have greater sustainability and are accepted by the majority of the public.

Cristóbal Jaime

Commission (CNA)

Jáquez

Director

National Water

problem. Mary Kelly

Senior Attorney and Project Manager of U.S.-Mexico Border Initiatives for Environmental Defense

The BECC is not another bureaucratic agency, but its participation guarantees and secures the viability of the projects, in addition to its significant contribution to the protection of the environment along the border.

Jesús Alfredo Delgado

Mayor of Ciudad Juárez, Chih.

Because the community realized that something had to be done about our aging water and wastewater plants; they embraced the project and were more than willing to pay their share. However, the grant and loan assistance provided by BECC and NADB was invaluable to our community. It made the project affordable and eased the financial burden on our residents tremendously.

Pete Claudio Chairman

Committee San Benito, Texas

Public Participation

With their daily work, the BECC and its sister organization NADB, help address the obstacles faced by utilities and local governments by promoting institutional strengthening and adequate planning for improving the quality of life for border residents

Dr. Carlos Rincón

Environmental Defense Fund and member of the Water Workgroup Paso del Norte



The Rio Conchos project was a great challenge which turned out to be a learning experience for BECC, and at the same time benefited the border communities. In addition, this project is a milestone for the public participation process for agencies like IBWC, CNA, and Semarnat.

Josefina Guerrero Advisory Council Co-Chair for México



BECC has been a successful model, since it promotes the long term planning within the sustainablity mode and community participation. The essence of the process must always stay, particularly community participation.

Lori Saldaña Advisory Council Co-Chair for the U.S.



discussed through a where citizens express opinions and concerns either in favor or against. The Rio Conchos project public participation process played a major role.

Dr. Jorge Bustamante Northern Border College

PROJECT DEVELOPMENT ASSISTANCE PROGRAM-(PDAP)

Balance Sheet As of December 31, 2002

. (In	U.S.	Dol	lars
0.0		0.0.	-	10010

ASSETS	
Current Assets	
Banks	\$ 3,819.99
Account Receivables	
PDAP Authorized Grants	10,132,071.99
Value Added Tax to Recover	87,308.08
Others Accounts Receivable	30,845.45
Total Current Assets	10,250,225.52
Fixed Assets	Tip.
Computer equipment	11,109.53
TOTAL ASSETS	10,265,155.04
LIABILITIES & EQUITY	-
Liabilities	and the second second
Accounts Payable	46,299.93
Equity	
Funding Exercised	(20,281,144.89)
PDAP Equity Contributions	30,500,000.00
TOTAL LIABILITIES & FOLISTY	\$10.265,155,04

COMBINED STATEMENT OF REVENUES & EXPENDITURES IN FUND BALANCES FOR THE SIXTY THREE MONTHS ENDING DECEMBER 31, 2002

		Actuals as of	of Grant amount	
		previous month 10/97-12/01	Authorized	Unexpended
Sources of Funds		1		
Others Income		8,215.70		(8,215.70)
EPA Reimbursements		20,367,928.01	30,500,000.00	10,132,071.99
	Total Source of Funds	\$20,376,143.71	\$30,500,000.00	\$10,123,856.29
EPA Reimbursement	s allocation			
Personnel Expenses		3,132,661.43	3,179,290.53	46,629.10
Office & Computer ed	auipment	46,081.01	50,000.00	3,918.99
Supplies & Incidental	•	6,646.73	10,000.00	3,353.27
Special Consultant	_1	239,963.31	340,476.44	100,513.13
Public Participation		152,875.65	197,112.04	44,236.39
Consultants		16,797,915.58	26,723,120.99	9,925,205.41
	I EPA reimbursements	\$20,376,143.71	\$30,500,000.00	\$10,123,856.29
Contracted Funds			/	-
VAT to recover				87,308.04
Consultants- Technica	al Assistance unpaid -			8,369,907.44)
	grant funds available			\$1,841,256.89

BALANCE SHEET

As of December 31, 2002 U.S. Dollars

Δ	S	S	F٦	rs
~	~	•	-	

Current Assets			
Cash & Short-Term investment			1,397,944
Value Added Tax	*		172,924
Accounts Receivable United Mexican States a	opropriation		121,187
Accounts Receivable Others			23,652
Prepared Expenses			26,647
Total Current Assets			1,742,354
Fixed Assets (Furniture & equipment - net)			188,873
TOTAL ASSETS			\$1,931,227
		1	
LIABILITIES AND FUND EQUITY			
	" 1 B (R)		
Current Liabilities		All a	*
Contribution Advances - United States of America	a .		520,750
Other Account Payables			572,649
Total Current Liabilities			1,093,399
Fund Equity (Excess of Revenues over Expenditu	res)		
Results from Previous Years			996,265
Current Year (Revenues Over/(Under) Expenses			(158,437)
Total Fund Equity			837,828
TOTAL LIABILITIES & FUND FOLLIEV	1.		

Note: The financial statements were audited by Deloitte & Touche. The audited financial statement is available on our web site www.cocef.org

STATEMENT OF REVENUES, EXPENSES AND CHARGES IN FUND BALANCES

YEAR ENDED DECEMBER 31, 2002 U.S. Dollars

REVENUES		
Contributions - United States of America		\$ 2,040,000
Contributions - United Mexican States		1,750,100
		3,790,100
INTEREST - NET		11,915
OTHER INCOME - NET		46,401
Total Revenues		3,848,416
The state of the s		
EXPENSES		
Wages & benefits		2,485,373
Travel expenses		168,473
Public meetings		90,165
Technical assistance and professional fees		775,260
Other expenses	The second second	487,582
Total expenses		4,006,853
EXCESS OF REVENUES OVER EXPENSES		(158,437)
1		
FUND BALANCE BEGINNING OF YEAR		996,265
	*	

Note: The financial statements were audited by Deloitte & Touche. The audited financial statement is available on our web site www.cocef.org

837,828

FUND BALANCE, END OF YEAR

Hugo Guzmán General Director of Hemispheric. Regional and **Binational Affairs**

Jerry Clifford Principal Deputy Administrator Office of International Affairs. U.S. Environmental Protection Agency



Gregg Cook Former Regional Administrator, Region 6 U.S.Environmental Protection Agency

Sarah Sowell U.S.-Mexico Border Coordinator U.S. Environmental Protection Agency











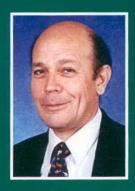
THE BECC RECOGNIZES THESE INDIVIDUALS FOR THEIR OUTSTANDING EFFORTS IN ADVANCING THE PRINCIPLES OF THE BECC



Carlos Yruretagoyena Member, Regional Center for Environmental and Social-Economic Studies



Charles Yancura Former Mayor, City of Madison, Alabama



Oscar Romo Member, National Council for Sustainable Development



Francisco Abel Treviño Member, Rio Bravo/Rio Grande Basin Coalition Board



Raul Mora General Manager, Quality Assurance Systems and Environmental **Engineering Consultants**

Border Environment Cooperation Commission

P. O. Box 221648 El Paso, TX 79913 USA

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OUR MISSION

The Border Environment
Cooperation Commission
identifies, supports,
evaluates, and certifies
affordable environmental
infrastructure projects, as a
binational team, to improve
the quality of life for the
people in the U.S.-Mexico
border region, now and in
the future in an open public
process.



BORDER
ENVIRONMENT
COOPERATION
COMMISSION