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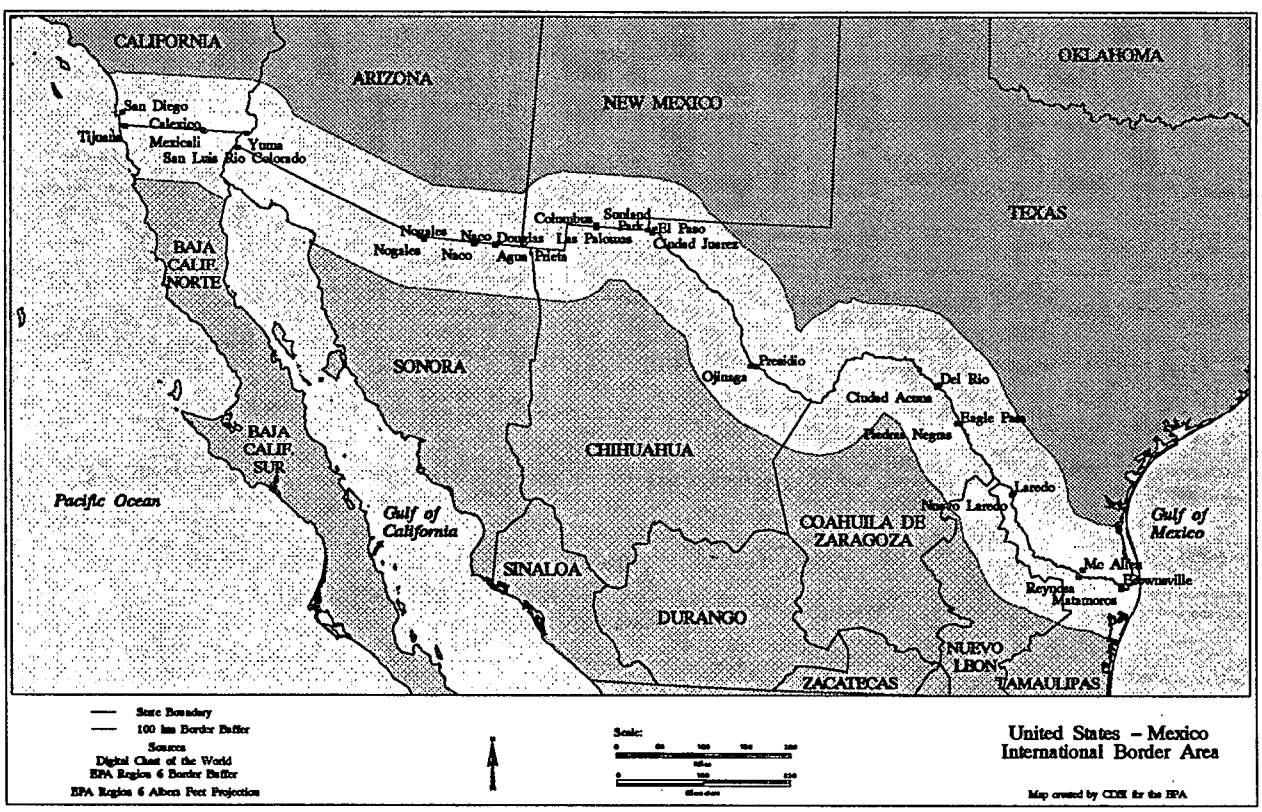
Compendium Of EPA Binational And Domestic U.S./Mexico Activities



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Office of Air and Radiation
Office of Enforcement and Compliance Assurance
Office of Planning, Policy, and Evaluation
Office of Prevention, Pesticides, and Toxic Substances
Office of Research and Development
Office of Solid Waste and Emergency Response
Office of General Counsel
Office of International Activities

Compiled by Brent Maier and Paul Valdez (Office of International Activities)

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Environmental Services Division
Dallas, Texas

Map created on 5/5/95 by CDSI for
EPA Office of International Activities

Compendium of EPA Binational and Domestic U.S./Mexico Activities

This compendium represents an effort by the Environmental Protection Agency (EPA) to compile a comprehensive inventory of ongoing United States/Mexico projects receiving EPA funding and/or involving EPA participation. These projects are designed to protect and improve the environment of the U.S./Mexico border area, improve our understanding of the border environment, increase cooperation between the U.S. and Mexico in the environmental arena, and address priority environmental issues of the two countries, both inside and outside the border area. Much of this work is done by state and local governments with EPA grants. Also described herein are recently completed projects and proposed projects likely to be implemented. EPA, in addition, sponsors expert speakers to participate in numerous conferences and workshops in Mexico and in the U.S. in support of the above goals and to share EPA's experiences on environmental protection and management; this is not specifically represented in the compendium.

Compendium Organization

For simplicity, the projects are primarily organized by binational La Paz working groups. Binational efforts not organized under the La Paz Agreement, U.S. domestic projects in the border area, and projects funded through the Southwest Center for Research and Policy (SCERP) have separate sections. For some projects, discerning the working group with the primary responsibility is not easy, since working groups often collaborate on joint projects and much of the work is inter-related.

La Paz Agreement

EPA formally began working with the environmental authorities in Mexico (at that time the Secretariat for Urban Development and Ecology- SEDUE) to address issues of common concern in the border area through the Agreement between the United States of America and the United Mexican States on Cooperation for the Protection and Improvement of the Environment in the Border Area (1983 La Paz Agreement). SEDUE has since been replaced with the Secretaría de Desarollo Social (SEDESOL) and the Secretaría de Medio Ambiente, Recursos Naturales, y Pesca (SEMARNAP). The La Paz Agreement created a framework for binational working groups to address the priority environmental problems of the border area. Currently, there are six binational La Paz working groups: Air, Contingency Planning and Emergency Response, Cooperative Enforcement, Hazardous Waste, Pollution Prevention, and Water. These binational working groups meet regularly to set priorities, report on progress of project implementation, and exchange relevant information. Much of the work described in the following pages is the direct result of the efforts of these La Paz working groups or domestic subgroups of these binational La Paz working groups. Some other projects had their genesis through associated environmental agreements.

New Institutions

To ensure the environment was protected with establishment of the North American Free Trade Agreement (NAFTA), the U.S., Mexican and Canadian governments created the Commission for Environmental Cooperation (CEC). Also, in an effort to address the long-neglected

environmental infrastructure needs of the border region, the U.S. and Mexico created the Border Environmental Cooperation Commission (BECC) and the North American Development Bank (NADBank) to provide the necessary funding and technical assistance to border communities. The appendix of this document includes summaries of progress to date on the CEC, the BECC, and the NADBank. These new institutions will play a large role in addressing the priority environmental concerns in the U.S./Mexico border area and throughout the North American continent.

Next Steps

During 1995, a review of ongoing environmental initiatives will be undertaken with the Mexican government and efforts will be focused on developing a new border plan, *Border 2000*. Border 2000 will cover the period 1995-2000, and build on achievements and lessons learned from the 1992 *Integrated Environmental Plan for the Mexican-U.S. Border Area, First Stage*. Together with the CEC, BECC, NADBank, state, and local governments, and Mexico's environmental authorities, EPA will continue to work to improve and protect the environmental quality of the U.S./Mexico border region.

As written currently, the document has not been formally reviewed by agencies in Mexico or U.S. agencies other than EPA; future versions will seek to incorporate such input. The compendium will be updated periodically and expanded as necessary. We hope it will be used as a tool to better inform federal agencies, border states and border communities how EPA is directing its resources and to foster discussion on how EPA can maximize the benefit to the border communities with its limited resources. Any feedback on the utility of this document would be appreciated for incorporation into future versions.

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AIR WORK GROUP

Project Name: **Tijuana-San Diego/Mexicali-Imperial Valley Air Programs**

1) Purpose and Objectives: Develop and operate six station networks in Tijuana and Mexicali for nitrogen oxides, ozone, carbon monoxide, sulfur dioxide, particulates (PM-10), lead, selected airborne toxic compounds, and meteorological parameters (e.g., wind speed/wind direction). These efforts are intended to lay the foundation for an air quality management program with overall goals of determining ambient air pollution concentrations, apportioning sources and their relative impacts, recommending cost effective control strategies, and measuring progress/compliance in the long-term.

2) Funding: In an ongoing attempt to foster State and local involvement, the following grants are in the process of being awarded to the California Air Resources Board (CARB): 1)$300,000 for Tijuana Air Monitoring; 2) $200,000 for the Tijuana Air Toxics Monitoring and Analysis; and 3) $400,000 for Mexicali-Imperial Air Monitoring. Funds include resources for a Border Coordinator position at the CARB.

3) Partners: Primary U.S. partners are CARB, San Diego Air Pollution Control District, Imperial Valley Air Pollution Control District, and City of Nogales, Arizona. Primary Mexican partners are Instituto Nacional de Ecología (INE) and Procuraduría Federal de Protección al Ambiente (PROFEPA) in Mexico City and Baja California.

4) Description: Given the physical, demographic, vehicular traffic, and industrial characteristics of the Tijuana-San Diego airbasin, there is an immediate need to evaluate levels of targeted air pollutants. Annex V to the 1983 La Paz agreement directs EPA and INE to assess the causes of and develop solutions to air quality problems in border sister cities. In addition to the La Paz agreement directives, the Clean Air Act directs EPA, in coordination with Mexican agencies, to monitor and improve air quality along the border.

The Tijuana-San Diego and Mexicali-Imperial Valley projects represent a continuation of efforts to complete and operate the Tijuana air monitoring network, initiate monitoring in Mexicali, purchase equipment to complete and operate the Mexicali network, analyze samples, quality assure data, and provide overarching technical support.

5) Status: CARB has procured the ambient monitoring instruments, instrument racks and will be acceptance testing the equipment. The California-Baja California Technical Sub-workgroup of the Binational Air Workgroup has met regularly to discuss this project. In response to a request for proposal, the sub-workgroup has selected a contractor to provide technical support in the installation, operation and maintenance of the network.

6) Schedule: The sub-workgroup will be meeting in April 1995 to discuss a draft workplan for the project including roles and responsibilities, schedule and data collection and exchange.

7) U.S. Contacts: Bill Jones, EPA Region 9, (415) 744-1283
Gaspar Torres, Imperial County Bill Oslund, CARB Don White, San Diego

Project Name: **Ambos Nogales Air Programs**

1) Purpose and Objectives: Complete the ongoing particulate (PM-10)/air toxics study with an overall goal of determining ambient air pollution concentrations, apportioning sources and their relative impacts, recommending cost effective control strategies, and measuring progress/compliance in the long-term.

2) Funding: In an ongoing attempt to foster State and local involvement, a $300,000 FY95 grant has been awarded to the Arizona Department of Environmental Quality (ADEQ). These funds include support for a ADEQ Border Air Coordinator.

3) Partners: Instituto Nacional de Ecología (INE) and Procuraduría Federal de Protección al Ambiente (PROFEPA), the State of Sonora, the City of Nogales, Sonora, ADEQ

4) Description: Given the physical, demographic, vehicular traffic, and industrial characteristics of the Ambos Nogales airbasin, there is an immediate need to evaluate levels of targeted air pollutants. Annex V to the 1983 La Paz agreement directs EPA and INE to assess the causes of and develop solutions to air quality problems in border sister cities. In addition to the La Paz agreement directives, the Clean Air Act authorizes EPA, in cooperation with counterpart Mexican agencies, to monitor and improve air quality in regions along the border.

A total of six sites measuring PM-10 and meteorological parameters and four sites measuring selected air toxics are operating on the both sides of the border. Sites have been operating since April 1994.

5) Status: All sites ran on a winter intensive (3-day cycle) sampling schedule from October 5, 1994, through February 19, 1995, and subsequently returned to the regular (6-day cycle) sampling schedule.

6) Schedule: The monitoring portion of the study will terminate on June 30, 1995, although 2 base sites will remain in place for ongoing measurement of PM-10 and meteorological parameters. Emissions inventory development will begin in March 1995 and continue through July 1995. Subsequent to the completion of these activities, a draft final report will be prepared by November 1, 1995, and will include exposure/risk assessment, source attribution, and potential control strategies. A final report should be ready by the end of 1995.

7) U.S. Contacts: Gerardo Monroy, ADEQ
Bill Jones, EPA-Region 9, (415) 744-1283

Project Name: **Agua Prieta-Douglas Air Programs**

1) Purpose and Objectives: Initiate a particulate (PM-10)/air toxics study with an overall goal of determining ambient air pollution concentrations, apportioning sources and their relative impacts, recommending cost effective control strategies, and measuring progress/compliance in the long-term.

2) Funding: In an ongoing attempt to foster State and local involvement, a $150,000 FY95 grant has been awarded to the Arizona Department of Environmental Quality (ADEQ). These funds include support for an ADEQ Border Air Coordinator.

3) Partners: Instituto Nacional de Ecología (INE) and Procuraduría Federal de Protección al Ambiente (PROFEPA), the State of Sonora and the City of Nogales, Sonora, ADEQ

4) Description: Given the physical, demographic, vehicular traffic, and industrial characteristics of the Douglas-Agua Prieta airbasin, there is an immediate need to evaluate levels of targeted air pollutants. Annex V to the 1983 La Paz agreement directs EPA and INE to assess the causes of and develop solutions to air quality problems in border sister cities. In addition to the La Paz agreement directives, the Clean Air Act authorizes EPA, in cooperation with counterpart Mexican agencies, to monitor and improve air quality in regions along the border.

A total of four sites measuring PM-10, selected air toxics and meteorological parameters are operating on the both sides of the border.

5) Status: A draft workplan has been developed.

6) Schedule: A rough emissions inventory will be developed and sampling sites located starting in August 1995, with an aim for completion by the end of the year. Sampling is scheduled to begin on February 1, 1996, with a winter intensive study to be undertaken October 1, 1996, through February 1, 1997. A final report is expected to be completed by July 1, 1997.

7) U.S. Contacts: Gerardo Monroy, ADEQ
Bill Jones, EPA-Region 9, (415) 744-1283

Project Name: **Ciudad Juarez-El Paso-Sunland Park Air Programs**

1) Purpose and Objectives: Continue a wide variety of programs including: advanced monitoring, emissions inventory development, modelling and identification of innovative emissions controls. The overall goal of these efforts is an air quality management program which assesses and protects the air quality and consequently the public health of the El Paso-Juarez border community.

2) Funding: In an ongoing attempt to foster State and local involvement, the following FY95 grants are in the process of being awarded: 1) $539,900 to the Texas Natural Resource Conservation Commission (TNRCC); 2) $200,000 to the City of El Paso; 3) $100,000 to the New Mexico Environment Department (NMED); 4) $30,000 to the Environmental Defense Fund (EDF); 5) $60,000 to the U.S. Department of Energy; and 6) $639,800 for contractor support. These resources include support for a TNRCC Border Air Coordinator position and technical staff expenses.

3) Partners: Instituto Nacional de Ecología (INE), the State of Chihuahua, the City of Juarez, TNRCC, City of El Paso, NMED, Office of Air Quality Planning and Standards (OAQPS), U.S. Department of Energy, EDF.

4) Description: Given the physical, demographic, vehicular traffic, and industrial characteristics of the Ciudad Juarez-El Paso-Sunland Park airbasin, there is an immediate need to evaluate levels of targeted air pollutants. Annex V to the 1983 La Paz agreement directs EPA and INE to assess the causes of and develop solutions to air quality problems in border sister cities. Annex V has specifically designated El Paso-Ciudad Juarez-Sunland Park as Study Area A, the only such designation made thus far under this annex. In addition to the La Paz agreement directives, the Clean Air Act authorizes EPA, in cooperation with counterpart Mexican agencies, to monitor and improve air quality in border regions.

Ongoing and new activities include: 1) operation of five-station monitoring network in Juarez for nitrogen oxides, ozone, carbon monoxide, sulfur dioxide, particulates (PM-10), lead, and wind speed/wind direction and other meteorological parameters; 2) operation of 17 monitoring sites in El Paso county testing for ozone, carbon monoxide, sulfur dioxide, nitrogen oxides, PM10, lead, toxics, and meteorological conditions; 3) operation of hot-spot monitoring; 4) collection of upper air wind speed and wind direction data for air modeling purposes; 5) refinement of existing emissions inventories; 6) utilization of advanced technologies to estimate Juarez mobile source emissions; 7) improvement of Juarez industrial emissions inventory; 8) adaptation of the new PM-10 dispersion model for use in the area; 9) development of a workplan for collecting, and data collection of, ozone and potentially air toxics pollutants in El Paso-Juarez; and 10) promotion of widespread community involvement in the implementation of innovative, cost-effective air quality solutions through the continued support of the identification of El Paso - Juarez Sunland Park as a U.S.-Mexico Air Quality Management District (AQMD) with a joint Air Quality Improvement Committee. It is anticipated that the Joint Air Quality Improvement Committee would investigate ways to ease bridge queing to reduce air emissions from idling vehicles; training Juarez I/M mechanics; and sponsoring a symposium to explore economic incentives and locally-based clean-up programs.

5) Status/Schedule: For a detailed discussion please contact Jim Yarbrough.

6) U.S. Contacts: Jim Yarbrough, EPA-Region 6 (214) 665-7232
Cecilia Williams, NMED Archie Clouse, TNRCC
Jesus Reynoso, City of El Paso Pete Emerson, EDF

Project Name: **Big Bend Air Quality Study and Carbon I-II ADVACATE Feasibility Study**

1) Purpose and Objectives: Determine by monitoring methods the likely impact from the Mexican Carbon I-II power plants on Big Bend National Park. Study the applicability of ADVACATE (dry scrubbing technology for SO_2 removal) to Carbon I-II.

2) Funding: A total of $95,770 in FY94 funds have been awarded to the National Park Service (NPS); [a total of $450,000 has been made available from various EPA offices for the ORD ADVACATE demonstration].

3) Partners: NPS, Instituto Nacional de Ecología (INE), Procuraduría Federal de Protección al Ambiente (PROFEPA), Texas Natural Resource Conservation Commission (TNRCC)

4) Description: Many visitors to North America's national parks and wilderness areas are unable to enjoy some of the beautiful and dramatic views that would prevail in the absence of air pollution. Scenic vistas in most U.S. parklands are often diminished by haze that reduces contrast, washes out colors, and renders distant landscape features indistinct or invisible. Visibility-reducing particles and their precursors can remain in the atmosphere for several days and can be carried tens, hundreds, or thousands of kilometers downwind from their sources to remote locations, such as national parks and wilderness areas. The major cause of visibility impairment is sulfate particles formed principally from sulfur dioxide (SO2) emitted by coal combustion in electric utility boilers. The Big Bend Air Quality Study will involve source-receptor analysis of monitoring data to "fingerprint" source types responsible for visibility degradation in the area.

Carbon I-II are coal-fired electricity generating facilities located approximately 20 miles south of Eagle Pass, Texas and 130 miles southeast of Big Bend National Park. Carbon I was constructed in the 1980's and Carbon II is still under construction. Carbon I-II taken together would be the 7th largest SO2 source in the U.S. were they located there. Neither plant is equipped with pollution controls for sulfur dioxide (SO2) emissions. Mexico and the U.S. are considering a feasibility study of sulfur dioxide controls based on the ADVACATE technology applicable to the Carbon I-II near Rio Escondido, State of Coahuila, Mexico. The performance criteria and a system design would be developed for application of ADVACATE, a low cost calcium silicate flue gas desulfurization technique that could potentially reduce SO2 emissions from the facilities by as much as 70 percent. EPA estimates that the cost of retrofitting ADVACATE on a unit of Carbon I-II is one-third to one-fifth of the costs of retrofitting a unit of Carbon I-II with conventional "wet scrubbers."

5) Status/Schedule: NPS is in the process of locating additional resources for the Big Bend Monitoring Study. A draft workplan for the study is being reviewed by EPA and revisions are pending given final commitments from other project participants. Both governments are investigating mechanisms for implementing the workplan, pending final approval.

6)U.S. Contacts: Jim Yarbrough, EPA Region 6, (214) 665-7232
Charlie Sedman, EPA - ORD, (919) 541-7700

Project Name: **Toxic Sampling in Hidalgo County, Texas**

1) Purpose and Objectives: Expand toxic sampling along the border through the deployment of sampling equipment in Hidalgo County, Texas and other border communities.

2) Funding: A grant of $38,250 has been awarded to the Texas Natural Resource Conservation Commission (TNRCC).

3) Partners: TNRCC.

4) Description: TNRCC will deploy monitoring equipment at two existing ozone monitoring sites in Hidalgo County to sample for selected air toxics and schedule mobile laboratory sampling in the border areas. Sampling of toxics in the Lower Rio Grande Valley has been an issue of extreme importance due to concern among the local population about potential human health exposures to airborne toxics.

5) Status/Schedule: The TNRCC is currently operating 2 monitors in Brownsville and is in the process of establishing a new continuous air monitoring site in Laredo. Additional sites are also planned for Cameron County.

6) U.S. Contacts: Jim Yarbrough, EPA Region 6, (214) 665-2164
Scott Mgebroff, TNRCC

Project Name: **Training Needs Assessment and Referral**

1) Purpose and Objectives: Build infrastructure and expertise in Mexico to deliver needed air quality management training in an efficient and coordinated manner.

2) Funding: The University of Texas Arlington (UTA) has been awarded a grant of $325,000.

3) Partners: Instituto Nacional de Ecología (INE), Procuraduría Federal de Protección al Ambiente (PROFEPA), Universidad Autonoma Metropolitana (UAM), Instituto Tecnologico de Estudios Superiores de Monterey (ITESM), and UTA.

4) Description: This project is divided into two main elements: 1) air pollution training needs assessment; 2) Mexico's air pollution training program. The first element, air pollution training needs assessment, will identify the current and future training needs of federal, municipal and state staff in 5 cities along the border (Tijuana, Nogales, Ciudad Juarez, Ciudad Acuña, and Matamoros). The second element, Mexico's air pollution training program will identify and develop needed infrastructure to efficiently prepare and deliver air quality management training in Mexico.

5) Status: Due to SEDESOL organizational changes, the schedule for completion of the needs assessment has been delayed and is in the process of being revised. Regarding Mexico's air pollution training program, the preparation of a blueprint, development of infrastructure for satellite downlink sites, and preparation of training courses are underway.

6) Schedule: Needs assessment completion: November 1995; Training program blueprint: August 1995; First satellite downlink site: August 1995.

7) U.S. Contacts: Lourdes Morales, EPA - OAQPS, (919) 541-4940

Project Name: **Emissions Inventory Methodology Pilot Project**

1) Purpose and Objectives: Design a methodology for the development of an emissions inventory for Mexico, field test and refine methodology, and train Mexican air quality management officials in the development of emission inventories.

2) Funding: The following 1995 grant has been awarded to the Grand Canyon Visibility Transport Commission (GCVTC) of the Western Governor's Association (WGA): Phase I - $165,000; Phase II - $200,000;

3) Partners: Instituto Nacional de Ecología (INE); GCVTC; Texas Natural Resources Conservation Commission (TNRCC); California Air Resources Board (CARB); and the Arizona Department of Environmental Quality (ADEQ).

4) Description: The GCVTC and Mexico have common needs for emissions inventory information. The GCTVC is sponsoring projects to develop an emission inventory for areas, including Mexico, that potentially contribute to regional haze on the Colorado Plateau. Mexico is conducting a variety of air quality planning efforts that will benefit from country-wide emission information. In particular, INE is interested in developing a national methodology for their emission inventory program.

Phase I of the project is the development of an emissions inventory methodology that can be used by Mexican State air quality management officials. Phase II of the project will be to evaluate and refine the methodology and to train Mexican officials in emission inventory development. This project will eventually lead to the development of an improved inventory for Mexico.

5) Status: The final workplan has been developed and the contractor is finishing a needs assessment of Mexico's emission inventory development capabilities and developing a draft methodology.

6) Schedule: The technical advisory committee (see aforementioned list of partners) is tentatively scheduled to meet in Mexico City on May 8 - 9, 1995, to review the draft methodology and discuss next steps.

7) U.S. Contacts:
John Leary, GCVTC
Bill Jones, EPA - Region 9, (415) 744-1283
Bill Kuykendal, EPA - OAQPS, (919) 541-5372
Gary Neuroth, ADEQ
Carl Snow, TNRCC

Project Name: **Pesticides Training and Outreach**

1) Purpose and Objectives: Provide bilingual training and outreach programs as well as ongoing technical assistance on priority pesticides-related issues in the California-Baja California, Texas-Tamaulipas and Arizona-Sonora border areas.

2) Funding: The following grants have been awarded: California Department of Pesticide Regulation (CA DPR) - $75,000; the Texas Department of Agriculture (TDA) - $75,000; and the Arizona Structural Pest Control Commission (AZ SPCC) will receive a grant of $70,000.

3) Partners: U.S. partners include CA DPR, TDA, and the AZ SPCC. Mexican partners include the Secretaría de Medio Ambiente, Recursos Naturales, y Pesca (SEMARNAP), Agriculture and Water Resources (SARH), and Health (SDS) as well as other relevant Mexican agencies.

4) Description: There are agricultural lands on both sides of the border utilized for crop production. Growers in Mexico and the U.S. use significant quantities of pesticides in the production of these crops, particularly for fruits and vegetables. Training and outreach is crucial in light of the potential for health or environmental problems due to worker exposure and/or air and water contamination.

In addition to day-to-day technical assistance and outreach, training sessions for the safe and effective use of pesticides, recognition and management of pesticide poisoning symptoms for medical staff, and investigative sampling techniques have been developed.

5) Current Status/Schedule: Ongoing.

6) U.S. Contacts: Nicholas Surjan, DPR
Bud Paulson, AZ SPCC
Bill Jones, EPA - Region 9, (415) 744-1283
Jim Yarbrough, EPA Region 6, (214) 665-2164

Project Name: **Brownsville /Laredo Air Programs**

1) Purpose and Objectives: Develop and operate monitoring station networks in Brownsville and Matamoros for nitrogen oxides, ozone, carbon monoxide, sulfur dioxide, particulates (PM-10), lead, pesticides, and meteorological parameters (e.g., wind speed/wind direction). These efforts are designed to acquire better baseline air quality information for these cities.

2) Funding: A grant of $80,000 has been awarded to the Texas Natural Resource Conservation Commission (TNRCC).

3) Partners: TNRCC

4) Description: We all pay, individually and as a community, an immense price for polluted air, both in terms of our health and our economy -- in lost work days, diminished job performance, crop damage, reduced property values and increased health cots. Given the physical, demographic, vehicular traffic, and industrial characteristics of the Brownsville-Matamoros and Laredo-Nuevo Laredo airbasins, there is an immediate need to evaluate levels of targeted air pollutants. Annex V to the 1983 La Paz agreement directs EPA and Instituto Nacional de Ecología (INE) to assess the causes of and develop solutions to air quality problems in border sister cities. In addition to the La Paz agreement directives, the Clean Air Act authorizes EPA, cooperation with counterpart Mexican agencies to monitor and improve air quality in regions along the border.

5) Current Status: Sites are in operation.

6) Schedule: Continued operation in 1995.

7) U.S. Contacts: Stuart Dattner, TNRCC
Jim Yarbrough, EPA Region 6, (214) 665-2164

Project Name: **U.S./Mexico Information Center on Air Pollution - Centro de Información Sobre Contaminación de Aire (CICA)**

1) Purpose and Objectives: Develop a technology transfer center for Mexico as an extension of the existing Control Technology Center (CTC). The center will provide Mexican Federal, state, local environmental officials, and universities with access to pertinent information on control technologies and pollution prevention programs that will aid in achievement of emission reductions.

2) Funding: $150,000 to Control Technologies Center.

3) Partners: Instituto Nacional de Ecología (INE), Office of Air Quality Planning and Standards (OAQPS)

4) Description: The technology transfer center capabilities will include: access to EPA technical expertise through a Spanish-language hotline; specific technical assistance on particular air-related problems; and Spanish-language versions of technical documents (e.g., control techniques guidance documents); feasibility study of implementation of a Spanish-language bulletin board system on the Technology Transfer Network through which specific questions can be answered or information obtained.

5) Status: We have now a full-time person through the Senior Environmental Employment (SEE) program to staff the Spanish-language hotline. Current contract support for technical assistance.

6) Schedule: The Spanish language hotline is currently operating and is fully funded through September 30, 1996. Contractor support is available for technical assistance projects. Brochures describing services and information available through CICA are available from EPA contacts listed below.

7) U.S. Contacts: Bob Blaszczak - EPA, OAQPS, CTC, (919) 541-5432
Jaime Mendieta - EPA, OAQPS, (919) 541-0547
Allyson Siwik - EPA, OAQPS, (919) 541-7775
CICA Hotline (919) 541-1800

WATER WORK GROUP

Project Name: **Tijuana Wastewater**

1) Purpose and Objectives: The purpose is to provide adequate wastewater treatment for the Tijuana, Baja California, area, to reduce a serious existing threat to public health and the environment. Objectives include construction of the South Bay International Wastewater Treatment Plant (ITP), Land Outfall, and Ocean Outfall and implementation of an effective pretreatment program.

2) Funding: EPA has received $239,400,000 for planning, design, and construction of the ITP and outfall facilities. The City of San Diego will pay a pro rata share (40% for the ocean outfall) for its use of the outfall facilities. The State of California has contributed $5,300,000 for the outfall facilities. Mexico will contribute funds to the ITP in the amount it would have spent to construct its own plant in Mexico. Current estimates indicate that sufficient funds are available to construct the advanced primary treatment plant and ocean outfall, but funding may not be sufficient for the canyon collectors and secondary treatment plant.

3) Partners: Primary U.S. partners include USIBWC, State of California (SWRCB), and City of San Diego. Mexico is participating through MxIBWC.

4) Description: Raw sewage from Tijuana contaminates the Tijuana River and results in adverse impacts to the Tijuana River National Estuarine Research Reserve and quarantine of U.S. beaches. IBWC Minute No. 283 calls for the construction of the ITP and outfall facilities to supplement Tijuana's existing treatment plant. This construction, in conjunction with improvements in Tijuana's collection system, will eliminate the dry-weather contamination of the river. Three types of structures will be constructed: canyon collectors (to convey renegade sewage flows from canyons which drain to the U.S. to the ITP); the ITP; and the outfall pipelines. Minute No. 283 also calls for Mexico to develop and implement an effective pretreatment program.

5) Status: The primary treatment phase of the ITP is under construction. The secondary treatment facilities and canyon collectors are being designed. The South Bay Land Outfall has been constructed and the design of the ocean outfall has been completed. Cooperation on pretreatment program development is being discussed by IBWC.

6) Schedule: Construction of the advanced primary treatment plant will be completed in February 1997. Design of the secondary treatment facilities will be completed in December 1995. Canyon collector design will be completed by October 1995. Construction of the ocean outfall will begin in July 1995 and be completed in May 1998.

7) U.S. Contacts: Doug Eberhardt, EPA Region 9, (415) 744-1280
Bill Ruth, USIBWC, (915) 534-6690
Bart Christensen, SWRCB, (916) 227-4426

Project Name: **Mexicali Wastewater**

1) Purpose and Objectives: The purpose is to provide adequate wastewater treatment for Mexicali, Baja California, and thereby improve the quality of the New River. Objectives include improvement of the existing wastewater treatment system (Mexicali I), development of a second system (Mexicali II), and implementation of an effective pretreatment program. Control of industrial and domestic wastewater will result in considerable improvement in the quality of the New River where it crosses the international boundary, reducing a serious existing public health threat.

2) Funding: EPA has given $47,500,000 to USIBWC for this and other border wastewater projects. Additional U.S. funding for this project could come from EPA or BECC/NADBank.

3) Partners: Primary U.S. partners are USIBWC and State of California (State Water Resources Control Board [SWRCB] and Regional Water Quality Control Board, Colorado River Basin Region [RWQCB 7]). Primary Mexican partners are MxIBWC, CNA, and State of Baja California Norte (CESP).

4) Description: The City of Mexicali is currently served by the Mexicali I wastewater collection, conveyance, and treatment system and by the Gonzales-Ortega treatment plant. The Mexicali I system needs to be repaired and upgraded and the Gonzales-Ortega plant is badly overloaded. Existing deficiencies result in the discharge of considerable amounts of untreated or partially treated domestic and industrial wastewater to the New River, and the Alamo River is also threatened. The project, as defined in IBWC Minute No. 288, involves the planning, design, and construction of improvements to the Mexicali I system and a new Mexicali II system (which will replace or augment the Gonzales-Ortega plant).

5) Status: In December 1994, the U.S. proposed the idea of a facility plan which will analyze the technical, financial, and environmental aspects of the available project alternatives. The facility plan would examine options for the long term solution to the wastewater problem, but short-term projects, which are relatively inexpensive and certain to be part of the overall solution to the (quick fixes), will be identified and constructed immediately. In February 1995, Mexico submitted a facility plan to the U.S. for review. One short-term project, to build a weir across the Alamo River at the border, was announced by Mexico.

6) Schedule: The U.S. will soon respond to Mexico's facility plan. No schedule has been identified for construction of the Alamo River weir.

7) U.S. Contacts: Doug Eberhardt, EPA-Region 9, (415) 744-1280
Bill Ruth, USIBWC, (915) 534-6690
Bart Christensen, SWRCB, (916) 227-4426
Phil Gruenberg, RWQCB 7, (619) 346-7491

Project Name: **Colorado River and New River System Monitoring**

1) Purpose and Objectives: The purpose is to determine the quality of selected waters in the Colorado River system. Objectives include determining the levels of toxic pollutants in the lower Colorado River and in the New River, as well as monitoring of the New River for conventional pollutants. Mexico has requested monitoring of the lower Colorado River due to concern about the quality of the water supply for Mexicali and Tijuana. Monitoring of the New River will help document progress resulting from implementation of the Mexicali wastewater project. Interest in New River monitoring was elevated when Imperial County and a coalition of environmental justice groups filed petitions under Toxics Substances Control Act (TSCA).

2) Funding: EPA has dedicated $769,000 to monitoring of the Colorado and New Rivers.

3) Partners: EPA funds have been awarded to United States Geological Service (USGS), California Regional Water Quality Control Board (Colorado River Basin Region), and University of California at Davis. Additional U.S. partners include USIBWC, USBR, United States Fish and Wildlife Service (USFWS), and State of Arizona (Department of Environmental Quality, Department of Game and Fish). Mexican partners include MxIBWC and CNA.

4) Description: A binational program for the monitoring toxic pollutants on the Colorado and New Rivers has been developed. Three sites on each river will be monitored. For the U.S., USGS will analyze water and sediment samples for specific toxic pollutants, UC Davis will analyze water samples for toxicity, and CA Fish and Game will analyze fish tissue samples for bioaccumulation. the U.S. is undertaking several related monitoring efforts. The regional board is continuing its monitoring of the New river at the international boundary for heavy metals and conventional pollutants. UC Davis is collecting samples along the length of the New River and will use the results to develop a model which will predict the behavior of toxic organic pollutants in river sediments and water. EPA will also fund the preparation of bilingual reports summarizing and synthesizing existing water quality data for the New and lower Colorado Rivers.

5) Status: EPA funding has been awarded to USGS, the Regional Board, and UC Davis. Binational sampling of the New River occurred in March/April 1995. UC Davis collected its initial samples in February 1995. Discussions are underway with Mexico on expanding the Regional Board effort into Mexico.

6) Schedule: Binational sampling of the Colorado River will occur in June 1995. Second round binational sampling is scheduled for November 1995.

7) U.S. Contacts: Doug Eberhardt, EPA Region 9, (415) 744-1280
Roy Schroeder, USGS, (619) 637-6824
Bill Ruth, USIBWC, (915) 534-6690
Phil Gruenberg, RWQCB 7, (619) 346-7491

Project Name: **Nogales Wastewater**

1) Purpose and Objectives: The purpose is to provide adequate wastewater treatment for the Ambos Nogales area to protect public health and the environment. Objectives include providing additional treatment capacity for Nogales, Sonora, and implementation of an effective pretreatment program.

2) Funding: EPA has given $47,500,000 to USIBWC for this and other border wastewater projects. Additional U.S. funding for this project could come from EPA or BECC/NADBank funds in future years. In addition, EPA has provided USIBWC $200,000 for development of a pretreatment program.

3) Partners: Primary U.S. partners are USIBWC, State of Arizona (Arizona Department of Environmental Quality), and City of Nogales, Arizona. Primary Mexican partners are MxIBWC, State of Sonora, and City of Nogales, Sonora.

4) Description: The Ambos Nogales area is currently served by the Nogales International Wastewater Treatment Plant (ITP). However, deficiencies in the current system result in raw sewage flowing across the border in the Nogales Wash and in adjacent washes and canyons. Also, Nogales, Sonora, is utilizing its full capacity at the ITP and additional capacity is needed. The project involves the planning, design, and construction of facilities to provide for improved wastewater collection and conveyance and additional treatment capacity.

The project also involves the development and implementation of an effective pretreatment program for the ITP. IBWC will hire a consultant to calculate the maximum levels of toxic pollutants that can safely be treated at the ITP (headworks analysis). IBWC will then allocate the allowable amounts to the two countries, which will regulate users of the system to ensure compliance. IBWC will also monitor wastewater arriving at the ITP and at various points in the collection system and set-up laboratory equipment for binational use.

5) Status: In January 1995, the U.S. proposed that a facility plan be prepared which will analyze the technical, financial, and environmental aspects of the available project alternatives. EPA is considering the proposal from the City of Nogales, Arizona to make immediate improvements (quick fixes) and conduct further study of infiltration and inflow into the collection system in the U.S. Issuance of the pretreatment contract for preparation of the headworks analysis, development of a QA/QC plan for wastewater monitoring, and set-up of the laboratory equipment have been delayed while IBWC staff complete other assignments.

6) Schedule: The U.S. will soon make a more detailed proposal regarding (1) preparation of a facility plan and (2) immediate improvements (quick fixes) to the collection system to reduce infiltration and inflow. Once initiated, the facility plan should be completed in about a year.

7) U.S. Contacts: Doug Eberhardt, EPA-Region 9, (415) 744-1280
Bill Ruth, USIBWC, (915) 534-6690
Mario Castanada, ADEQ, (602) 207-4409
Hugh Holub, City of Nogales, Arizona, (602) 287-6571

Project Name: **Nogales Ground Water Monitoring**

1) Purpose and Objectives: The purpose is to determine the extent and possible origin of volatile organic compounds (VOC) in the transboundary aquifer under the Nogales Wash in ambos Nogales, which could pose a potential public health threat. Objectives include the construction of monitoring wells and implementation of a quarterly monitoring program to quantify VOC and other contaminant levels, assist in ground water contaminant source identification and control, and establish a baseline for VOC levels in the transboundary aquifer.

2) Funding: EPA has provided $200,000 to USIBWC and $65,000 to Arizona Department of Environmental Quality (ADEQ) to implement this project. EPA is also funding a position at ADEQ in part to provide technical support on this project.

3) Partners: ADEQ will be the lead for the U.S. and USIBWC will also be a primary partner. Mexican partners include MxIBWC and CNA.

4) Description: Past studies of ground water quality in the Nogales, Arizona, area have indicated the presence of VOCs and trihalomethanes in the transboundary aquifer under the Nogales Wash. The problem seems to be on both sides of the border, but the problem has not been satisfactorily studied on a binational level. The project will consist of the construction and monitoring of equal numbers of wells on each side of the border. Samples will be taken and analyzed on a quarterly basis. All samples taken will be split for separate analysis by the U.S. and Mexico.

5) Status: The U.S. has prepared a workplan for well construction and USIBWC has solicited bids from contractors. ADEQ is in the process of obtaining rights-of-entry from U.S. property owners to drill wells on their property. Mexico has indicated that it has some concerns with the well construction workplan and has requested a meeting.

6) Schedule: IBWC is trying to resolve concerns regarding the workplan and will schedule a binational meeting. The U.S. will be proceeding with construction of wells on the U.S. side of the border and the wells on the Mexican side of the border will be constructed later. Well construction on the U.S. side is scheduled to start in May 1995.

7) U.S. Contacts: Doug Eberhardt, EPA Region 9, (415) 744-1280
Bill Ruth, USIBWC, (915) 534-6690
Mario Castenada, ADEQ, (602) 207-4409

Project Name: **Nogales Wellhead Protection**

1) Purpose and Objectives: The purpose is to employ wellhead protection strategies in an effort to protect the quality of the ground water in the transboundary aquifer under the ambos Nogales area. Objectives include enhancement of local voluntary involvement in the management of ground water quality, education of the public on ground and drinking water issues, and direct environmental and human health benefits for the wellhead protection area.

2) Funding: EPA is providing $195,078 to the SouthEastern Arizona Governments Organization (SEAGO) to implement the project, including the funding of a staff person (IPA). EPA is also funding a position at Arizona Department of Environmental Quality (ADEQ) in part to provide technical support on this project. EPA has reserved funds to extend the IPA, if necessary.

3) Partners: U.S. partners include SEAGO, City of Nogales, AZ, Santa Cruz County, ADEQ.

4) Description: This project is intended to protect the region's ground water to prevent it from becoming contaminated. The project focuses on the apparent, but often ignored, link between activities that take place on the land near aquifer recharge areas and the quality of ground water supplied by wells. General elements of the project include defining the land area to be protected, identifying and locating potential sources of contamination, managing the protection area, and planning accordingly through possible measures such as inter-community agreements, a zoning overlay district, technical assistance to industry, and/or others.

5) Status: Currently, the project is focussed on developing a wellhead protection program for the Nogales, Arizona, area, but the effort could be extended into Nogales, Sonora, if Mexico is interested, through the IBWC at the federal level, and through the Mayors' Binational Environmental Advisory Committee at the local level. A Planning Advisory Committee, comprised of two subcommittees: Technical Committee and Education Committee, has been formed. The Technical Committee conducted a technical workshop for the Education Committee members to assist them in developing curricula to use in Nogales schools. A Core Educators Group has been formed and is drafting bilingual curricula for grades K through 12. The Technical Committee has decided that the first phase of the wellhead protection area delineation and data collection effort will address City-owned and operated wells. ADEQ has produced a GIS-based preliminary basemap of the study area. The map will be revised to include the wellhead protection areas and other resource information (e.g., rivers and streams). ADEQ has also produced a preliminary delineation of the wellhead protection areas of three of the City's six public water supply wells. The other WHPA will be finalized next week, and field work in support of the source identification was completed last week.

6) Schedule: Drafts of the K - 12 school curricula and finals of the delineation of wellhead protection areas for water supply wells will be completed in May 1995. Curricula materials will be used in schools beginning in September 1995. Draft wellhead protection management options will be presented by the Technical Committee to decision makers in late 1995 and a final plan will be adopted in early to mid 1996.

7) U.S. Contacts:

Evelyn Wachtel, EPA R9, (415) 744-1948
Mario Castenada, ADEQ, (602) 207-4409
Bill Ruth, USIBWC, (915) 534-6690
Michele Kimpel, SEAGO, (602) 432-5301

Project Name: **Inventory of U.S. Drinking Water Facilities Along the US/Mexico Border in Region 6**

1) Purpose and Objectives: To accumulate current information on water supplies and identify current as well as future financial needs of water systems within 100 kilometers of the border

2) Funding: Internal EPA study.

3) Partners: The partners are EPA Region 6, Texas Natural Conservation Commission (TNRCC), New Mexico Environment Department (NMED).

4) Description: To review 307 public water systems for water quality compliance with state and Federal Drinking Water Regulations. Chemical/bacteriological violations were evaluated using EPA's Federal Reporting Data System. TNRCC conducted a survey need of 249 public water supply systems for system capacity and infrastructure needs. These needs were identified for upgrading water distribution systems, water production, and upgrade of plant equipment.

5) Status: U.S./Mexico border drinking water study for New Mexico and Texas is currently out for peer review in draft form, however some copies have been released as final.

6) Schedule: Review next steps of the study.

7) U.S. Contacts: Blake Atkins, EPA, (214) 665-2297

Project Name: **Technical Assistance for Small Community Drinking Water Systems in the New Mexico/Mexico Border**

1) Purpose and Objectives: To provide technical assistance on organizational structure, and finance of small water supply systems along the border.

2) Funding: On September 22, 1994, EPA awarded $50,000 to The University of New Mexico Board of Regents, NM Engineering Research Institute. On December 16, 1994, EPA increased the amount by $23,000 for a total award to-date of $73,000.

3) Partners in the Project: The partners in the project are EPA Region 6 and the University of New Mexico Environmental Finance Center (EFC).

4) Description of Project: To address viability concerns related to the technical, financial and managerial components of small water system viability. To address legal organizational structure and finance options to small systems. To conduct a workshop with the Border Environmental Cooperation Commission (BECC) to address the range of finance alternatives to meet border infrastructure improvements for small community drinking water systems in the U.S.- Mexico border area.

5) Status: Work is being initiated.

6) Schedule: Continue with tasks in the workplan.

7) U.S. Contacts: David Reazin, EPA Region 6, (214) 665-7501
Tracy Eagle, Environmental Finance Center, The University of New Mexico

Project Name: **Demonstration Of Safe Drinking Water Treatment Technologies in Mexico**

1) Purpose and Objectives: To demonstrate cost-effective package treatment plant technologies for control of toxic chemicals and pathogenic microorganisms in drinking water in Mexico. The intent is to use a mix of proven and advanced treatment technologies, one each at three Mexico sites. Knowledge gained might provide a competitive advantage for the U.S. environmental industry.

2) Funding:

	FY94($K)	FY95($K)	FY96($K)
U.S. EPA, Environmental Technology Initiative (ETI)	450		
U.S. Dept. of Agr., (In-kind)	25	90	41
Contractor (Anticipated)		15	10
Manufacturers (Anticipated)		15	15
TOTALS	475	120	66

3) Partners: U.S. EPA, ETI (technical lead); U.S.D.A.(administrative oversight); Contractor (oversee design, installation, sampling, analysis); U.S. Package Plant Manufacturers (plant operation); Mexican Contractors (site selection, plant operation); Mexican community representatives (site selection).

4) Description: The process will be (1) to select candidate demonstration sites in Mexico in communities of less than 500 people, (2) to select appropriate treatment technologies based on water quality, performance criteria, and water source, (3) to install and field test selected package plants, (4) to collect and analyze a sufficient number of water samples to fully demonstrate the performance of the treatment systems, (5) to collect system operation and maintenance data, and (6) to assess communities' acceptance of the treatment systems.

5) Status: The EPA-Department of Agriculture inter-agency agreement was completed and signed on September 20, 1994. The project is now expected to start in June, 1995.

6) Schedule: June, 1995 - June, 1997.

7) U.S. Contacts: Ben W. Lykins, Jr., U.S. EPA. Phone: (513) 569-7201
Elizabeth Mayhew, U.S.D.A. Phone: (202) 690-2870

Project Name: **Las Cruces, New Mexico, Wellhead Protection (WHP) Demonstration Project**

1) Purpose and Objectives: Demonstrate the feasibility of using county SIC codes in the process of conducting a contaminant source inventory for the public water supply wells of Las Cruces, New Mexico. Demonstration project will provide an additional level of protection to the City's 40+ public water supply wells.

2) Funding: In October 1992, the City of Las Cruces, New Mexico, was awarded assistance funds in the amount of $39,000.

3) Partners: New Mexico Environment Department, EPA Region 6, City of Las Cruces, New Mexico State University

4) Description: The City of Las Cruces is engaged in a four part WHP project. This assistance agreement funds the implementation of Phase II and Phase III. Phase II will identify potential contaminant sources within the delineated WHP areas and store that information into a Geographical Information System and Phase III is the methodology the City plans to use in developing a city ordinance for their program.

5) Current Status: The project has been completed. A final report of the demonstration project is available.

6) U.S. Contacts: Patty Senna, EPA Project Officer, (214) 665-7178
Debbie Hartell, City of Las Cruces, (505) 527-7841

Project Name: **Environmental Partnership Effort Along the U.S./Mexico Border: Ciudad Juárez/El Paso Wellhead Protection/Ground Water Pilot Project**

1) Purpose and Objectives: The purpose of this project is to implement the State of Texas' Wellhead Protection (WHP) Program in all communities along the U.S. border with Mexico. The project will also provide technical assistance to Ciudad Juárez's Junta Municipal de Agua y Saneamiento as they develop a WHP program for the 200+ public drinking water wells in Ciudad Juárez. The project will result in an added level of protection for the drinking water supply wells along the U.S. side of the border and will set a standard for which future Mexican ground water protection efforts may use as a template.

2) Funding: In September 1993, EPA awarded assistance funds to the Texas Natural Resource and Conservation Commission (TNRCC) in the amount of $150,000.

3) Partners: Texas Natural Resource Conservation Commission, Junta Municipal de Agua y Saneamiento de Ciudad Juárez, Comision Nacional del Agua, Comisión Internacional de Limites y Aguas, EPA Region 6, U.S. Section, International Boundary and Water Commission, the University of Texas at El Paso, and the Retired and Senior Volunteer Program.

4) Description: The TNRCC is responsible for implementing the State's approved WHP program. This project funded the implementation of the State's program in all U.S. communities along the Texas/Mexico border that rely on ground water as a source of drinking water. The Commission was also funded to provide technical assistance and programmatic guidance to Ciudad Juárez to aid in the development of a ground water protection program for that city's 200+ public water supply wells. The TNRCC also assists in providing technical assistance to 20 university students and 10 senior citizen mentors in the EPA AmeriCorps ground water protection project.

5) Status: The project has been completed with twelve communities along the Texas/Mexico border currently participating in the State's WHP program. On February 3, 1995, Ciudad Juárez held an official launch of it's WHP program and the inventory efforts are underway. Mexico's inventory of potential sources of contamination is being placed into an international data base.

6) Schedule: The project is essentially complete. However, TNRCC has requested an extension of the budget/project period to allow for completion of the final project report.

7) U.S. Contacts: Ken Williams, EPA Project Officer, (214) 665-7129
Brad Cross, TNRCC, (512) 239-4753

Project Name: **Characterization of Transboundary Aquifers in the El Paso/Ciudad Juárez/Las Cruces Region of the U.S./Mexico Border**

1) Purpose and Objectives: This study is a joint effort by the governments of the United States and Mexico and the States of Texas and New Mexico designed to identify the region's transboundary aquifers, quantify the natural and induced chemical quality of each aquifer, characterize and quantify the available supply of each aquifer, determine the direction of ground water flow and its relationship to the flow of the Rio Grande/Rio Bravo, and develop Geographic Information System coverages of the region.

The New Mexico portion of the study will also include a Sunland Park, New Mexico public water system investigation to determine the cause of and recommend solutions to nematodes and other invasive organisms in the distribution system.

2) Funding: In August 1994, EPA awarded $50,000 to the Texas Water Development Board for the Texas and Mexico portion of the study.

In September 1994, EPA awarded $74,821 to New Mexico State University's Water Resources Research Institute for the New Mexico portion of the study.

3) Partners: EPA Region 6 , the Texas Water Development Board,
New Mexico State University's Water Resources Research Institute, Comisión Internacional de Limites y Aguas (CILA),
City of Las Cruces, New Mexico

4) Description: The project will review existing literature and water quality information to identify gaps where additional information is needed to characterize the area's shared ground water resources. The study will be "blind" to political boundaries and will focus on the chemical and physical characteristics of the aquifers.

5) Status: The partners are currently gathering/reviewing information and establishing a common GIS database.

6) Schedule: The study is scheduled to be completed in June 1996.

7) U.S. Contacts: Ken Williams, EPA Project Officer, (214) 665-7129
John Ashworth, TWDB, (512) 445-1433
Bobby Creel, NMSU-WRRI, (505) 646-4337

Project Name: **Wastewater Pretreatment Curriculum for Mexican Officials**

1) Purpose and Objectives: Responds to Mexican interest in the U.S. Pretreatment Program restricting incompatible discharges to municipal sewer systems. EPA will present, and repeat several times, a five-day training course for Mexican environmental officials. The course meets a commitment of the Integrated Environmental Plan for the Mexican-U.S. Border Area, 1992-1994" (IBEP) for specific actions to address border area environmental issues, and will be applicable to the interior of Mexico as well. Course objectives include:

Support the goals of the IBEP and other USG environmental initiatives

Relate environmental management and pollution reduction to:

- Health and safety of Mexican citizens
- Protection of ecosystem and natural resources
- Protection of wastewater treatment plants
- Economic growth (NAFTA, commercial development, and tourism)

Foster the development of a binational pretreatment program

2) Funding: EPA Office of Wastewater Management/Permits Division (OWM) has provided the following for contractor assistance:

FY94: $260,000 FY95: $ 90,000 from OWM

3) Partners: U.S. EPA (OWM, Office of International Activities, Region 9 & Region 6) and the U.S. and Mexican Sections of the International Boundary and Water Commission.

4) Description: The course will cover environmental protection and the components of a municipal pretreatment program, using a "train the trainer" approach to:

Demonstrate how a municipal pretreatment program can help to attain the goals of environmental protection

Describe how to protect the environment using a multimedia approach

Describe available wastewater treatment technologies

Describe pollution reduction techniques, including pollution prevention, technology-based controls, and environmentally-based limits

Demonstrate the benefits of environmental measurements and data management

Demonstrate skills to help future instructors to achieve course goals

5) Status: The course was provided to wastewater management technicians in Ciudad Juarez in June 1994 and was very well received.

6) Schedule: The next session, to be held in Mexicali, Mexico in the summer of 1995, will be taught in Spanish, with Spanish course manuals. Funds are available for an additional session in FY95.

7) U.S. Contacts: Bryan Holtrop, U.S. EPA, (202) 260-6814

Project Name: **U.S. - Mexico Peer Matching Wastewater Treatment Facilities Operation Demonstration Project**

1) Purpose and Objectives: To foster ongoing peer relationships between wastewater treatment operators and managers in the U.S. and Mexico to facilitate the exchange of information and technology.

2) Funding: On July 12, 1994, EPA awarded $150,000 to the University of Texas Engineering Extension Service (TEEX).

3) Partners: EPA Region 6 and the Texas Water Utility Association and other TEEX Divisions

4) Description: The Texas Engineering Extension Service (TEEX), Water and Wastewater Division will form partnerships with the Texas Water Utility Association and other TEEX Divisions and conduct bi-national seminars attended by wastewater treatment operators from both countries to encourage ongoing peer relationships.

5) Status : Sites have been selected, training modules have been developed, and coordination has been made with Mexican contacts.

6) Schedule: Demonstration Seminars will be conducted from March through July 1995.

7) U.S. Contacts: Oscar Cabra, Jr. P.E., EPA, (214) 665-7110
Clark Benson, TEEX, (409) 845-6247

Project Name: Toxics Study of the Rio Grande

1) Purpose and Objectives: The purpose of the study is to screen the Rio Grande for the prevalence, magnitude, and impact of toxic chemical contamination.

2) Funding: EPA has provided $806,000 to the Texas Natural Resource Conservation Commission to coordinate water quality studies with Mexico on the Rio Grande. Regional Geographic Initiative funds of $325,000 were part of the EPA total funding for this effort.

3) Partners: U.S. and Texas agencies involved in monitoring the river include EPA, the Texas Natural Resource Conservation Commission (TNRCC), the Texas Parks and Wildlife Department, the Texas Department of Health and the International Boundary and Water Commission, U.S. Section. Mexican agencies involved include the National Water Commission of Mexico and the International Boundary and Water Commission, Mexican Section. These agencies were involved in workplan development, data collection, and data evaluation.

4) Description: The study included determinations of toxic pollutant concentrations in water, sediment, and fish tissue; toxicity testing of water and sediment using minnows and waterfleas; and biological assessments of fish and macroinvertebrate communities that live in the river. The study area was from Brownsville/Matamoros to El Paso/Juarez, with sampling conducted in eight stretches of the river where the greatest likelihood for toxic chemical contamination exist.

5) Status: Sample collection began in November 1992 and was completed March 1993. There was excellent cooperation among the Mexican and U.S. scientists involved. A final binational report was released September 1994. In evaluating the Rio Grande, the U.S. and Mexico found that the river is not heavily impacted by toxic substances.

6) Schedule: Additional binational studies are scheduled to begin in April 1995. EPA has provided $400,232 to the Texas Natural Resource Conservation Commission to coordinate these studies. Additional funds will be needed to continue joint monitoring studies being conducted by Mexico and the State of Texas. These funds will be used to develop additional binational water quality reports. These reports will help identify areas where additional water pollution control is needed.

7) U.S. Contacts: Federal: Carl Young, EPA, (214) 665-6645
State of Texas: Patrick Roques, TNRCC, (512) 239-4604.

Project Name: Watershed Alliance for the Rio Grande/Rio Bravo Basin

1) Purpose and Objectives: To establish a Watershed Alliance that will facilitate the development and implementation of a Basin Management Plan for the Rio Grande/Rio Bravo basin.

2) Funding: EPA has provided $134,300 to the Texas Natural Resource Conservation Commission (TNRCC) to develop the Watershed Alliance. An additional award of $169,000 is currently in process to assist with the project.

3) Partners: The TNRCC is developing a list of Rio Grande/Rio Bravo stakeholders that will form the Watershed Alliance. The identified stakeholders will become partners in this project.

4) Description: The project will develop and establish a formal coordination framework, a "Watershed Alliance," that will lead to a water quality management program for the Rio Grande/Rio Bravo Basin. The Alliance will recognize and coordinate the roles and responsibilities of the Federal, State, local agencies, International Boundary Water Commission and organizations active in the area of water quality within Basin. The overall focus of the project is to build partnerships, focus on pollution prevention, identify environmental justice opportunities and integrate activities with an ecosystem focus.

5) Status: Award of the FY94 104(b)(3) Cooperative Agreement with TNRCC was made on August 30, 1994. TNRCC is developing a final workplan that addresses the development of the Watershed Alliance, prioritization of water quality issues in the basin, and an implementation plan. TNRCC is also working on an internal workgroup that will integrate border activities within TNRCC.

6) Schedule: The TNRCC Internal Rio Grande Water Quality Workgroup has been established and will meet in February, 1995. The internal workgroup will prepare a list of recommended stakeholders that will comprise the Alliance. The workgroup will also make preliminary contact with potential Alliance members to provide background information prior to the first meeting. The first Alliance meeting is scheduled for November, 1995.

7) U.S. Contacts: EPA - Susan Branning, (214) 665-8022
TNRCC - Terry Buchanan, (512) 239-4620 or Gail Rothe (512) 239-4617

Project Name: **Interagency Agreement Between the International Boundary and Water Commission and the Environmental Protection Agency in the Administration of a U.S./Mexico Wastewater Initiative**

1) Purpose and Objectives: Planning and design of wastewater facilities to control wastewater discharges from Mexico into the Rio Grande/Rio Bravo.

2) Funding: In accordance with the Appropriations Act of 1995, EPA awarded $10 million in January 1995 to the International Boundary and Water Commission (IBWC).

3) Partners: EPA's primary contact will be the U.S. Section of the IBWC, however the Mexican Section of the IBWC will participate as will the National Water Commission (CNA) in Mexico.

4) Description: The Interagency Agreement is to create facilities plans and designs for wastewater treatment and collection systems which may be based on criteria developed by the Border Environmental Cooperation Commission. Projects will likely include, but not be limited to, Ciudad Acuña, Piedras Negras and Reynosa.

5) Status: Work has just begun.

6) Schedule: The initial task will be the development of project proposals by the IBWC. The IAG is in effect for one year and may be renewed.

7) U.S. Contacts: Federal: Oscar Cabra Jr. P.E., EPA, (214) 665-7110
IBWC: Bobby Ybarra, USIBWC, (915) 534-6700

Project Name: **Bi-national Water Supply Operators Training**

1) Purpose and Objectives: To conduct training for water supply operators along the border to provide information on the requirements of the Safe Drinking Water Act (SDWA) in a bi-national forum.

2) Funding: EPA expects to award $100,000 to the American Water Works Association (AWWA).

3) Partners: The partners in the project are EPA Region 6 and the AWWA.

4) Description: Drinking water operators will be trained in the importance of source protection (sanitary survey for surface supplies or wellhead protection for ground water supplies); treatment techniques and the importance of testing and quality control; and methods to maintain the quality of the finished water within the distribution system. This grant will cover a 4 or 5 year period.

5) Status: Grant process is underway.

6) Schedule: Develop workplan outlining training program.

7) U.S. Contacts: David Reazin, EPA Region 6, (214) 665-7501
Randy Goss, AWWA

Project Name: Bi-national Wastewater Operators Training

1) Purpose and Objectives: To have the Water Environment Federation (WEF) conduct training for wastewater treatment plant operators along the border in a bi-national forum.

2) Funding: EPA expects to award $100,000 to the WEF.

3) Partners: The partners in the project are EPA Region 6 and the WEF.

4) Description: Wastewater plant operators will be trained in the importance of source protection (surface and ground water supplies); treatment techniques and the importance of testing and quality control; and methods to maintain the treatment plant and the collection system. This grant will cover a 4 or 5 year period.

5) Status: Grant processing process is underway.

6) Schedule: Develop workplan outlining training program.

7) U.S. Contacts: EPA: Oscar Cabra Jr. P.E., (214) 665-7110
WEF: Rhonda Harris, (214) 985-7147

HAZARDOUS WASTE WORK GROUP

Project Name: **Nogales Municipal Landfill Closure Training Project**

1) Purpose and Objective: Assist federal, state and local authorities from Mexico with site-specific training on closure of a municipal landfill. The training will primarily focus on how to prepare a landfill closure plan and will use the Nogales, Sonora landfill as a case study. The overall goal of this technical assistance project is to address health and safety concerns on both sides of the U.S. - Mexico border caused by the old Nogales landfill.

2) Funding: The project budget is $139,000. EPA has entered into an Interagency Agreement with the U.S. Army Corps of Engineers for technical assistance with this project. Most of the funds are going to Harding Lawson Associates who is under contract with the Corps of Engineers.

3) Partners: Army Corps of Engineers, City of Nogales.

4) Description: The Nogales, Sonora site is a municipal landfill located approximately two to three miles south of the U.S. - Mexico border and the neighboring community of Nogales, Arizona. During the last few years, various parties have expressed concerns to officials in Mexico and the U.S. about the occurrence of fires at the Nogales, Sonora landfill. The migration of air emissions from the landfill into Santa Cruz County, Arizona has been documented by local health officials. Emergency health warnings have been issued by the County during certain intervals of burning.

The government of Mexico has constructed a new sanitary landfill for Nogales. Construction of the new Nogales, Sonora landfill makes it possible to close the old landfill. At the April, 1994 National Coordinator's meeting in Tucson, Arizona, EPA and SEDESOL agreed that EPA will provide SEDESOL with technical assistance on closure of the existing landfill.

5) Status: A copy of an existing closure plan that was used for closure of the Nogales landfill has been obtained from the City of Nogales, AZ. EPA and Harding Lawson Associates are currently reviewing the closure plan. EPA plans to provide PROFEPA and the City of Nogales with an analysis of the closure plan, including recommendations for next steps in the closure process.

6) Schedule: EPA will submit a report on the Nogales, Sonora landfill closure plan to PROFEPA and the City of Nogales by April 15, 1995. The report will address health and safety issues related to post-closure use of the landfill site. We will then work with PROFEPA and the City of Nogales to plan a landfill closure training seminar and to identify additional needs for technical assistance at the site.

7) U.S. Contacts: Donna Orebic, EPA Region 9, U.S.-Mexico Border Team, (415) 744-1284
Pat Zurick, Director, Santa Cruz County Health Department
Tibaldo Canez, Arizona Department of Environmental Quality

Project Name: Binational Sampling and Analysis Capacity Building

1) Purpose and Objectives: The goals of this project are to reach an understanding between th U.S. and Mexico on sampling and analytical protocols, chain of custody procedures, quality assurance/quality control procedures, and how best to provide testimony in enforcement proceedings. In addition, this project will aim to improve the capacity of personnel on both sides of the border to carry out these understandings.

2) Funding: The amount of funding and recipient have not yet been determined.

3) Partners: California Department of Toxic Substances Control, Arizona Department of Environmental Quality, County of San Diego

4) Description: The investigation and prosecution of transborder cases relating to transportation and disposal of hazardous waste has been hampered by the different protocols and testing procedures of the two countries. In addition, delayed communication between the U.S. and Mexico regarding suspected illegal transportation of hazardous waste and lack of a norm for coordinating cross-border evidence gathering has caused evidence to be lost. This project is intended to result in increased cooperation and coordination between the two countries on all issues related to sampling, analysis, evidence gathering and testimony.

5) Status: A work group is now being formed which will look at a variety of issues including: the need to expand the "Guidelines for Repatriation of Hazardous Waste," improving field sampling capacity on both sides of the border, improving lab capacity on both sides of the border, assessing the compatibility between Mexico and U.S. sampling and analysis requirements, and assessing the need for a binational laboratory. Region 9 has developed a draft "Proposal to Expand and Improve Hazardous Waste Field Sampling and Lab Capacity along the U.S./Mexico Border" and is currently seeking comments on the proposal.

6) Schedule: The work group for this project will finalize a proposal for presentation to the Hazardous Waste Work Group and the Enforcement Work Group at the next Binational Coordinator's meeting which is scheduled for some time in June 1995.

7) U.S. Contacts:

John Rothman, EPA Region 9, Office of Regional Counsel, (415) 744-1353
Donna Orebic, EPA Region 9, U.S. Mexico Border Team, (415) 744-1284
Peter Husby, EPA Region 9, Environmental Services Branch, (510) 412-2331
Larry Sperling, EPA HQ, OECA/IEP, (202) 260-3087
John Misleh, County of San Diego, Hazardous Materials Management Division
Pam LePen, Cal-EPA, Department of Toxic Substances Control
Melanie Pierson, U.S. Attorney's Office, San Diego

Project Name: Sampling and Analysis Training

1) Purpose and Objectives: To develop and implement a training program for border officials on sampling and analysis of samples.

2) Funding: The budget for this project is $50,000.

3) Partners: Western States Hazardous Waste Project, California EPA Department of Toxic Substances Control, San Diego County

4) Description: The investigation and prosecution of transborder cases relating to transportation and disposal of hazardous waste has been hampered by the different protocols and testing procedures of the two countries. In addition, there is a growing need to improve overall sampling and analysis capacity on both sides of the border in order to achieve increased compliance and enforcement under both country's hazardous waste laws. This training will cover topics such as personal protection, sample collection and preservation, proper field QA/QC procedures, the chain of custody process, procedures for analyzing samples, interpreting analytical results, and record keeping and documentation of findings. We will work with local and state officials in California and Arizona to develop and implement the course.

5) Status: We plan to enter into a cooperative agreement with the Western States Hazardous Waste Project to conduct the training sessions. We have received a proposed course outline from the County of San Diego which we have provided to the Western States Project.

6) Schedule: We have received a draft workplan from the Western States Project and will soon commit the funds. We plan to conduct the first course in the San Diego/Tijuana area this summer and to hold another training along the Arizona/Sonora border later in the year.

7) U.S. Contacts:

Donna Orebic, EPA Region 9, U.S.-Mexico Border Team, (415) 744-1284
Peter Husby, EPA Region 9, Environmental Services Branch, (510) 412-2331
Larry Sperling, EPA HQ, OECA/IEP, (202) 260-3087
John Misleh, County of San Diego, Hazardous Materials Management Division
Pam LePen, Cal-EPA, Department of Toxic Substances Control
Melanie Pierson, U.S. Attorney's Office, San Diego

Project Name: **Tijuana Municipal Solid Waste Landfill Operations Training Class**

1) Purpose and Objectives: Provide training on municipal solid waste landfill design, operations and closure for officials and other interested parties in Baja California.

2) Funding: The budget for this project is $55,000. The recipient is Eastern Research Group who is under contract to the Center for Environmental Research Information at EPA's Office of Research and Development in Cincinnati.

3) Partners: Eastern Research Group, EPA's Office of Research and Development, Cincinnati

4) Description: In November, 1993 EPA held a Seminar on the Design, Operation and Closure of Municipal Solid Waste Landfills in Nogales, Sonora. Approximately 60 individuals from local, state and federal agencies in Mexico attended the seminar. The course was based on an Office of Research and Development seminar held across the U.S. after the RCRA Subtitle D landfill criteria were promulgated. Over 90% of the attendees rated the seminar as either very good or excellent. We would like to replicate this successful training project in Tijuana.

5) Status: Although we have received written communications from Mexico City confirming interest in the seminar, we have as yet been unable to begin plans for holding the seminar with officials in Baja California.

6) Schedule: We are hoping to select dates and a location for the seminar in the near future. We will then commence with selecting speakers and other logistics for the seminar.

7) U.S. Contacts: Donna Orebic, EPA Region 9, U.S. Mexico Border Team, (415) 744-1284

Project Name: Recycling Initiative

1) Purpose and Objectives: Research existing cross-border trade of recyclables and identify ways to expand binational markets for recycled commodities.

2) Funding: $60,000 is available for this project. We do not yet have a funding recipient.

3) Partners: To Be Determined

4) Description: The public outreach goals of the IBEP addressed the need to involve the general public in efforts to prevent illegal dumping and to foster pollution prevention and waste reduction. In October, 1993 Regions 9 and 6 co-sponsored a conference held by the Southwest Public Recycling Association to promote markets for recycled materials. The conference included a U.S. Mexico border track that addressed recycling along the border and the impact of NAFTA on border trade of recyclables.

With the passage of NAFTA, we would now like to look more closely at ways to promote binational markets for recycled materials. While a great deal of trade in recycled materials and products already occurs, the potential to expand existing markets is enormous. This project will seek to assess current trade of recyclables across the border and identify obstacles to expanding such trade. Ultimately, we would like to identify steps needed to stimulate markets for cross-border trade of recyclables.

5) Status: Project not yet started.

6) Schedule: We will develop a scope of work for the project and identify a contractor to carry out the first phase of the project by July 1, 1995.

7) U.S. Contacts: Donna Orebic, EPA Region 9, U.S. Mexico Border Team, (415) 744-1284

Project Name: Repatriation of Illegally Exported Hazardous Waste

1) Purpose and Objectives: Provide technical assistance in repatriation of hazardous waste illegally exported to Mexico from the United States in accordance with the Repatriation Guidelines adopted in 1992 by the Hazardous Waste Working Group.

2) Funding: To Be Determined

3) Partners: To Be Determined

4) Description: In FY 94, EPA Region 6 assisted the Secretaría de Desarollo Social (SEDESOL) in facilitating the safe shipment of 600 abandoned drums of maquiladora waste from Ciudad Juarez to U.S. disposal facilities. In addition Region 9 facilitated the safe shipment of 6000 abandoned drums of maquiladora waste from the Mexaco site to the U.S. for disposal. EPA and SEDESOL exchanged technical information on maquiladora facilities that generate hazardous wastes.

5) Status: The Hazardous Waste Workgroup is prepared to assist in similar repatriation efforts in the future as needed.

6) Schedule: Ongoing.

7) U.S. Contacts: John Rothman, EPA Region 9, Office of Regional Counsel, (415) 744-1353
Don White, EPA Region 9, Field Operations Branch, (415) 744-2353
Bonnie Romo, EPA Region 6, (214) 665-8323

Project Name: **Transborder Hazardous Waste Electronic Data Interchange (EDI) Reporting Program**

1) Purpose and Objectives: EPA Region 6 has initiated a project to electronically transmit Hazardous Waste Manifest (HWM) data from Mexican maquiladora facilities to EPA Regional and State offices and other federal agencies.

2) Funding: $135,000 expended for EDI contractor support.

3) Partners: Participants in the project include a number of Maquiladora companies and their U.S. parent company, the USEPA Region 6 Office, the Texas Natural Resource Conservation Commission (TNRCC), the Mexican Instituto Nacional de Ecologia (INE), treatment, storage, and disposal (TSD) facilities, U.S. Customs, and associated customs brokers and transporters.

4) Description: "Maquiladora facilities" are non-domestic industries operating in Mexico. Many of these industries transport hazardous waste from their Mexican facilities, through customs border ports, to TSD facilities in the U.S. These transboundary shipments require submittal of extensive environmental compliance documentation and reporting to multiple agencies on both sides of the border.

EPA long-term goals include promoting a uniform approach to compliance reporting across EPA programs and states, improving data quality, providing more timely access to data for the US/Mexico hazardous waste tracking system (HAZTRAKS) and achieving cost savings for data submission and acquisition. Associated with this process is the elimination of manual data entry bottlenecks.

In this EDI project system, environmental shipment information is exchanged between trading partners in the form of electronic transaction sets, which equate to paper business documents. Each transaction set may carry the same information as a completed paper form. EDI transaction standards and conventions have already been defined, reviewed and approved by the Accredited Standards Committee (ASC) X12 of the American National Standards Institute (ANSI).

5) Status: The current phase includes field testing of the viability of electronic reporting of manifest and compliance data required of industry for the transboundary shipments of hazardous waste imported from Mexico and shipped to the U.S. for treatment, storage and disposal.

6) Schedule: A final report is expected at the conclusion of the current 90-day field test phase.

7) U.S. Contacts: Joe Schultes, Region 6, (214) 665-2244

Project Name: **U.S./Mexico Hazardous Waste Tracking System (HAZTRAKS)**

1) Purpose and Objectives: The U.S. and Mexico focused early efforts on developing a joint capability to monitor transboundary waste shipments in accordance with their bilateral commitments. These efforts culminated with development of a U.S./Mexico Hazardous Waste Tracking System (HAZTRAKS) in October 1992. The first effort of its kind, HAZTRAKS was developed to track transboundary waste shipments between the United States and Mexico by the U.S. This is an on-going project.

2) Funding: $160,000 expended for contractor support.

3) Partners: The information needed for the HAZTRAKS database is received from EPA Region 6 states, EPA Region 9 states, U.S. Customs and from Mexican Instituto Nacional de Ecologia (INE).

4) Description: HAZTRAKS was designed to track volumes and types of waste crossing the U.S./Mexico border. The information received in the database is based on the manifests required to import or export hazardous waste. In Mexico, INE must authorize an import or export of hazardous waste by issuing an Ecological Guide (Guia Ecologica). This "Guia" is compared with the U.S. Uniform Hazardous Waste Manifest by the U.S. Customs Port Hazardous Waste Coordinator when the waste reaches the U.S. border, and the Customs official sends the manifest to EPA Region 6 where the information is entered into the HAZTRAKS data base. INE also enters the Guia data into HAZTRAKS reporting all of the Guias issued by INE in each of the Mexican border states. TSD import notifications are also collected by the U.S. Border States and entered into HAZTRAKS.

5) Status: As a result of the tracking system, EPA and INE can track the volumes and types of waste crossing the U.S./Mexico border. The tracking system enables environmental enforcement officials from both countries to monitor and confirm the movement of hazardous waste and thus detect violations of import/export regulations of the respective countries.

As a result of HAZTRAKS, EPA has filed seven complaints with the total proposed penalty amount of $295,000. The EPA complaints generally dealt with violations of manifest requirements in the transportation of hazardous waste, such as failure to list the foreign generator, failure to obtain the EPA identification numbers, and use of transporters without EPA identification numbers and DOT registrations.

6) Schedule: Since HAZTRAKS is now in full operation, it is anticipated that many more cases will be developed as a result of the tracking system. Efforts are underway to place HAZTRAKS on an electronic platform to enable all participants with prompt and current access.

7) U.S. Contacts: Joe Schultes, Region 6, (214) 665-2244

Project Name: Texas Border Intercept Program

1) Purpose and Objectives: Since the inception of the maquiladora industrial operations in the border area, the U.S./Mexico transboundary movement of hazardous waste has been a continuing subject of public concern. The Border Intercept Program, through funds granted to the Texas Natural Resource Conservation Commission (TRNCC), provided an outreach to the maquiladora industry to ensure regulatory compliance of transboundary shipments of hazardous wastes traveling to and from Mexico.

2) Funding: EPA awarded a total of $743,000 (funds from Headquarters and Regions) to the Texas Natural Resources Conservation Commission (TNRCC) and the Office of the Attorney General, State of Texas for FY 1995 and 1996.

3) Partners: TNRCC, Texas Office of the Attorney General, Secretaría de Medio Ambiente, Recursos Naturales, y Pesca (SEMARNAP), U.S. Customs, Federal Bureau of Investigation, Texas Department of Public Safety, State Fire Marshalls, and the Laredo Fire Department.

4) Description: The Grant calls for inspections and investigations of transporters of hazardous waste travelling to/across the Texas/Mexican border. This includes inspections at U.S. Customs inspections areas, weigh stations, and transporter yards. Inspections will investigate cargo, containers, manifests, packaging, markings, labeling, and vehicle placarding. Samples and photographs will be taken as necessary.

The Grant also calls for training regarding regulations, requirements, and enforcement matters related to the transboundary shipment of hazardous waste. Training will be offered to U.S. Customs inspectors, TNRCC inspectors, U.S. based brokers, transporters, and other interested parties. TNRCC will conduct at least two bilingual training sessions at selected border locations with the goal of encouraging U.S./Mexico customs cooperation in detecting transboundary shipment violations.

Furthermore, the Grant calls for the establishment of a task force of representatives from U.S. Customs, EPA, DOT, Texas Department of Public Safety, TNRCC, and appropriate local authorities to address transboundary waste issues.

5) Status: Of the more than 400 warehouses identified in Laredo, nearly 40 were inspected by five teams of inspectors. Nine facilities received Notices of Violation (NOV) letters and 3 were referred to TNRCC for enforcement action. Similar activity is ongoing elsewhere along the Texas border.

6) Schedule: To be conducted in FY 1995 and 1996

7) U.S. Contacts: Walter Biggens, EPA Region 6, Chief of Grants and Authorization (214) 665-6705
Joe Schultes, Region 6 (214) 665-2244
John Young (TNRCC), FOD Program Director (512) 239-0400

Project Name: New Mexico Environment Department Border Hazardous Waste Grant

1) Purpose and Objectives: To hire an inspector for New Mexico who will be dedicated to hazardous waste inspections for facilities located in the U.S./Mexico border area and to monitor shipments of regulated materials in the area.

2) Funding: EPA awarded $70,000 to the New Mexico Environment Department (NMED) for FY 1995. The amounts comprising this grant are: $60,000 from Region 6 and $10,000 from OECA. In FY 1994, OECA provided NMED $50,000 grant for this purpose.

3) Partners: New Mexico Environment Department

4) Description: The areas of responsibility of the inspector hired pursuant to the grant will be to enforce RCRA Hazardous Waste Regulations and will also participate in other media areas. The funds will be used for training and outreach for NMED inspectors in the regulations pertaining to transboundary shipments of hazardous waste. This enables NMED inspectors to provide training to U.S. Customs inspectors and Mexican inspectors.

The State of New Mexico will conduct 36 border checks at the Santa Teresa Border Crossing and 12 at the Palomas Border Crossing. The inspections will be conducted in cooperation with the U.S. Immigration, U.S. Customs, and Mexican officials. The State will also conduct 10 compliance evaluation inspections at facilities that are known to handle hazardous waste which is imported from Mexico.

5) Status: The New Mexico inspector was hired in October 1994.

6) Schedule: To be conducted in FY 1995.

7) U.S. Contacts: Walter Biggens, EPA Region 6
Chief of Grants and Authorization
(214) 665-6705

Benito Garcia, Bureau Chief
Hazardous and Radioactive Materials Bureau
New Mexico Environmental Department

Project Name: **Review of SEDESOL's Environmental Impact Assessment and Risk Assessment Programs**

1) Purpose and Objectives: At Secretaria de Desarrollo Social (SEDESOL's) request, to provide technical assistance and input into development of SEDESOL's procedures.

2) Funding: No grant or contract funds were involved. Investment was staff time and travel dollars for four EPA Region 6 team members.

3) Partners: EPA Region 6 and SEDESOL, Instituto Nacional de Ecología (INE) and Procuraduría Federal de Protección al Ambiente (PROFEPA)

4) Description: A team of Region 6 staff visited SEDESOL in September 1993 to review SEDESOL's environmental impact assessment and risk assessment programs. The review was requested by Arq. Rene Altamirano, who was then the Mexican Co-Chair of the Hazardous Waste Work Group and a Director of INE. The team interviewed numerous SEDESOL officials and staff and reviewed its procedures.

5) Status: The team developed a draft report, which was transmitted to Arq. Altamirano on November 3, 1993. (The report was never finalized, as Arq. Altamirano left this position and his successor did not request further action on the issue.)

6) Schedule: No further action anticipated.

7) U.S. Contacts: Bill Honker, EPA-Region 6, (214) 665-6770

Project Name: **Technical Assistance on the Regulation of Combustion of Hazardous Wastes in Cement Kilns**

1) Purpose and Objectives: At Secretaria de Desarrollo Social (SEDESOL's) request, to provide technical assistance and input into development of SEDESOL's regulatory program.

2) Funding: No grant or contract funds were involved. Investment was staff time and travel dollars for EPA staff.

3) Partners: EPA Region 6 and SEDESOL,Instituto Nacional de Ecología (INE)

4) Description: SEDESOL made several requests for information and assistance on this issue during FY94. Region 6 provided copies of EPA regulations and guidance relating to cement kilns and provided speakers on the subject for two conferences in Mexico.

5) Status: Project complete.

6) Schedule: No further action anticipated.

7) U.S. Contacts: Bill Honker, EPA-Region 6, (214) 665-6770

Project Name: **U.S./Mexico Consultative Mechanism for the Establishment of New Sites and for Existing Sites**

1) Purpose and Objectives: To ensure timely and thorough exchange of information on siting of new hazardous/radioactive/solid waste facilities and on existing hazardous/radioactive/solid waste facilities in the U.S./Mexico border zone.

2) Funding: No grant or contract funds were involved. Investment was staff time and travel dollars for EPA staff.

3) Partners: EPA Regions 6 and 9 and OIA; U.S. Department of State; States of California, Arizona, New Mexico, and Texas; Secretaria de Desarrollo Social (SEDESOL), Instituto Nacional de Ecologia (INE) and Procuraduria Federal de Proteccion al Ambiente (ProFePA); Mexican State Department.

4) Description: The U.S./Mexico Hazardous Waste Work Group adopted the Consultative Mechanism on June 25, 1992, and has implemented it since that time. Actions include timely provision of information on newly-proposed sites within 100 km of the border, an inventory of existing solid and hazardous waste sites in this area, and quarterly updates of the status of proposed sites in the border zone.

5) Status: Region 6 has provided a large volume of information to SEDESOL on proposed sites in the border zone in Texas, as well as the quarterly reports required by the Mechanism. With the transfer of the Work Group lead to EPA Region 9, it has assumed the lead responsibility for the quarterly reports and information exchange.

6) Schedule: Quarterly reports to be submitted.

7) U.S. Contacts: John Hamill, EPA-Region 9, (415) 744-1281
Linda Pratt, EPA Region 9, (619) 338-2215
Donna Orebic, EPA Region 9, (415) 744-2184
Eileen Sheehan, EPA Region 9, (415) 744-2190

COOPERATIVE ENFORCEMENT WORK GROUP

Project Name: **Multimedia Inspection Course for Mexican Environmental Inspectors**

1) Purpose and Objectives: The purpose of this training course is to prepare Mexican environmental inspectors to conduct multimedia inspection of the regulated industries within their country; and to provide cooperative assistance to Mexico's PROFEPA in its efforts to develop an in-house training capacity..

2) Funding: $130,000 in FY1995

3) Partners: A total of 561 Mexican environmental inspectors have been trained thus far through the joint cooperation and participation of the U.S. EPA and the Mexican Federal Government. U.S. State environmental officials will be invited as trainers and participants in 1995 course deliveries.

4) Description: This 5-day course prepares Mexican environmental inspectors to conduct inspections and to be familiar with a number of industrial processes and related pollution. The course includes a plant site visit on the final day, following 4-1/2 days of intensive classroom lectures, discussions, and reference materials. Course improvements in 1994 included adding information on Pollution Prevention opportunities in specific industries.

5) Status/Schedule: The 5-day Course has been presented thus far at six locations as follows:

Tijuana	March 23-27, 1992	55 trainees
Ciudad Juarez	June 8-12, 1992	79 trainees
Matamoros	September 14-18, 1992	80 trainees
Mexicali	September 21-25, 1992	86 trainees
Mexico City	April 26-30, 1993	93 trainees
Guadalajara	July 19-23, 1993	88 trainees
Monterrey	August 29-Sept. 2, 1994	63 trainees

In addition, a 4-day "train-the-trainers" seminar to teach Mexican officials to conduct the course for their own inspectors has been presented in Mexico City, May 31-June 3, 1994, with 17 trainees. A total of 561 inspectors have received training. In 1995, the course will be improved to include water quality inspections, in accordance with the consolidation of water quality implementation under a single Mexican environmental agency. Two additional course deliveries are being planned for 1995-1996. These deliveries will continue "train-the-trainer" efforts by beginning to use trained Mexican instructors.

6) U.S. Contacts: Richard Emory, (202) 260-9667
Lawrence Sperling, EPA/OECA, (202) 260-3087

Project Name: **Enforcement Data Management Technical Consultation/ Cooperative Targeting Data Analysis**

1) Purpose and Objectives: The purpose of this project is to support possible bilateral enforcement targeting initiatives in the border area. Additionally, this project will support an evaluation of the enforcement data systems needs of Secretaría de Medio Ambiente, Recursos Naturales, y Pesca (SEMARNAP).

2) Funding: To Be Determined

3) Partners: To Be Determined

4) Description: This project will assist EPA in its development and evaluation of data to support U.S./Mexico exchange of environmental enforcement information and possible bilateral cooperative targeting initiatives. Such data may include data maintained on EPA databases on the enforcement and compliance status of facilities operating on the U.S. side of the U.S./Mexico border area, as well as data on the export of chemical products for use in Mexico's maquiladora industry and the importation of finished products and wastes by Maquiladora firms. Sources of such export or import data may include data which EPA may obtain rom the U.S. Census Bureau and/or Customs Service, as well as data on hazardous waste imports in the EPA/SEMARNAP binational HAZTRAKS database. Based on consultations with SEMARNAP, EPA will determine the precise nature of the data on facility enforcement/compliance and on product and waste import and export to be evaluated (e.g., which industries; which chemicals of concern; which geographic regions; which types of facilities). This analyses will allow EPA to exchange enforcement information with SEMARNAP and to identify possible targets for further investigation by EPA or SEMARNAP into possible violations of U.S. or Mexican environmental laws and regulations.

In addition to conducting data analyses, this project will evaluate the enforcement data systems needs of SEMARNAP, in support of the cooperative efforts of the Cooperative Enforcement Strategy Work Group. Such evaluation will be conducted with regard to enhancing the compatibility and comparability of enforcement systems, and to facilitating possible bilateral cooperative enforcement initiatives between EPA and SEMARNAP.

5) Status: Preliminary data analysis work will begin soon. The evaluation of SEMARNAP's enforcement data systems is on-going.

6) Schedule: Data analyses to support targeting initiatives will be conducted over the next few months, and will continue throughout the summer as dictated by consultations with SEMARNAP. The evaluation of SEMARNAP data systems will be completed in 4/95.

7) Contacts: Lawrence Sperling, OECA-EPA, (202) 260-3087
Ing. Alfredo Gidi. PRFA-SEMARNAP

Project Name: **U.S. and Mexican Border Customs Training Course**

1) Purpose and Objectives: The purpose of the project is to deliver a training course for Customs and environmental inspectors on both sides of the U.S. and Mexican border using the "Hazardous Waste Compliance Monitoring for Customs Inspectors" video as a primary training tool. The training course provides inspectors with information and procedures to assist in increased detection of international hazardous waste shipments and enable inspectors to assist EPA and the Mexican environmental secretariat in their continuing efforts to enforce and monitor compliance with hazardous waste regulations.

2) Funding: $150,000

3) Partners: EPA (Headquarters, Region 9, Region 6), U.S. Customs, Procuraduría Federal de Protección al Ambiente (PROFEPA), Mexican Customs, U.S. Department of Transportation (DOT), County environmental agencies and Regional Environmental Enforcement Associations

4) Description: The project consists of expanding existing training materials and facilitating delivery of U.S. and Mexican training course at several border locations. The training course is interactive and covers detection, inspection, regulatory compliance of transboundary hazardous waste shipments, and, to a limited extent, safety considerations. The training course will be presented to both U.S. and Mexican Customs and environmental inspectors in cooperation with EPA regional offices, state agencies, and the Mexican environmental secretariat.

The video and training manual are the main training tools used during delivery of the course. These tools are enhanced through interactive participation between course instructors and trainees and through the use of existing EPA, Mexican, and state environmental agency speakers and training course materials.

The training course is delivered in English and Spanish and enhances interaction among officials from both sides of the border. Each session consists of a Spanish-speaking group and an English-speaking group. A trainer facilitates each group, discusses the video, and reviews the training manual with participants. This will be followed by a facilitated joint discussion or case study.

5) Status: An initial training focus group and initial training pilot delivery took place at Otay Mesa, California on September 28, 1994 and November 17, 1994. San Diego County conducted a similar training session in Tecate in February 1995, supported by EPA grant funding. The course was delivered at the Calexico U.S. Customs facility on March 28 and 29, 1995. Additional trainings will be scheduled at key locations along the border throughout 1995.

6) Schedule: The next training is anticipated to be held at a Texas border crossing in June. Subsequent trainings and a train-the-trainers session will then be scheduled at key border locations.

7) U.S. Contacts: Mr. Lawrence Sperling, EPA OECA, (202) 260-3087

Project Name: Enforcement/Hazardous Waste Subworkgroups

1) Purpose and objectives: To target and coordinate enforcement actions and to organize response to and prevention of illegal transport of hazardous waste among federal, state and local enforcement agencies on both sides of the border.

2) Funding: Only travel and interpretation expenses needed.

3) Partners: The California/Baja California group includes Cal EPA, Cal Attorney General, San Diego Task Force (local, state and federal enforcement agencies), Procuraduría Federal de Protección al Ambiente (PROFEPA) and, we hope, the Procuraduria de la Republica (PGR) and the State of Baja California. The Arizona/Sonora group will include Arizona Dept. of Environmental Quality, the Arizona Attorney General, U.S. Attorney's Office, PROFEPA for Sonora and, we hope, the PGR and the State of Sonora.

4) Description: These groups provide the means for targeting and coordinating enforcement in the Region and organizing the prevention of and response to the illegal transport of hazardous waste across the border. The contacts made at the group meetings will allow rapid response to violations on either side of the border and will develop the trust necessary to coordinate binational enforcement targeting and more effective prevention.

5) Status/Schedule: The group for California/Baja California had its first meeting more than one year ago; the Arizona/Sonora group has not yet met. The groups were temporarily suspended pending agreement on binational enforcement initiatives and the Mexican presidential elections. If the Binational Enforcement and Hazardous Waste Workgroups reach agreements for action, the subgroups will meet soon thereafter. Subworkgroups anticipate at least two meetings for each group per year.

6) U.S. Contacts: Donna Orebic, EPA Region 9, (415) 744-1284
John D. Rothman, EPA Region 9, (415) 744-1353

Project Name: Principles of Environmental Enforcement Training Course

1) Purpose and Objectives: To present the training course to policy makers in the Mexican Environmental Ministry and to representatives of public interest groups and the regulated community.

2) Funding: $50,000 from U.S. Agency for International Development (AID) will pay for travel and expenses of presenters. Mexico will pay for expenses for participants and, probably, for interpreters.

3) Partners: US AID is funding the presentation of the course. Region 9 is taking the lead, with assistance from the Office of Enforcement (OE) and Region 6, in presenting the course.

4) Description: This is an intensive, 3-day course in fundamental principles for designing and implementing environmental enforcement programs.

5) Status/Schedule: First course delivery currently scheduled for late May 1995. If Mexico desires, we plan to present the course a second time, with Mexican presenters assisting, and a third time, presented completely by Mexico. This will allow Mexico to take over the course and use it independently.

6) U.S. Contacts: John D. Rothman, EPA-Region 9, (415) 744-1353

Project Name: **Binational Conference on Environmental Laws and Enforcement**

1) Purpose and Objectives: To promote mutual understanding among lawyers and policy makers of how each of our agencies and laws work and what motivates the behavior that each agency finds so baffling in the other.

2) Funding: $65,000 that have been awarded to EPA Office of Regional Counsel (ORC), Region 9.

3) Partners: The Binational Enforcement Workgroup would sponsor the conference.

4) Description: This would be a 2-3 day conference based on the presentation of case studies by each of the participants that demonstrate concretely how environmental law and enforcement function in real contexts. The conference will be directed to lawyers and policy makers at USEPA and the Mexican Environmental Ministry and allied environmental enforcement agencies (eg. Department of Justice, Procuraduria General de la Republica, state agencies).

5) Status/Schedule: The conference will follow presentation of Principles of Environmental Enforcement training course, which has been delayed. Subject to scheduling with PROFEPA, we hope to hold this conference in the Fall of 1995. Conference could be repeated periodically.

6) U.S. Contacts: John D. Rothman, EPA Region 9, (415) 744-1353

Project Name: Enforcement Data Management Technical Consultation

1) Purpose and Objectives: The purpose of this project is to develop an analysis of PROFEPA's enforcement data management needs, and make appropriate recommendations regarding the development of data systems to support enforcement and compliance activities.

2) Funding: $25,000, in EPA Work Assignment with DPRA, Inc.

3) Partners: EPA and Procuraduría Federal de Protección al Ambiente (PROFEPA)

4) Description: By analyzing available data, enforcement resources can be targeted to ensure their effective utilization in addressing priority concerns and in maximizing the role of enforcement in achieving environmentally beneficial behavioral changes. This project involves evaluating the enforcement data systems needs of PROFEPA, and making recommendations to enhance PROFEPA's ability to utilize data for enforcement targeting purposes. Such evaluation will also consider the issue of comparability of U.S. and Mexican enforcement data, and facilitating possible U.S./Mexican bilateral cooperative enforcement targeting initiatives.

5) Status: EPA is reviewing a draft report prepared by the contractor.

6) Schedule: Recommendations paper will be finalized this spring. Paper will be used to inform additional cooperative efforts in this area. It is hoped this effort will assist SEMARNAP and PROFEPA in utilization of World Bank funds for enforcement data management systems development.

7) U.S. Contacts: Lawrence Sperling, EPA/OECA (202)260-3087

Project Name: Enforcement Results Data-Sharing

1) Purpose and Objectives: To exchange data on environmental enforcement activities in the border area, on both sides of the border.

2) Funding: EPA and Procuraduría Federal de Protección al Ambiente (PROFEPA) relying on in-house personnel.

3) Partners: EPA; PROFEPA, U.S. border state environmental agencies; United States Attorneys Offices; U.S. Customs

4) Description: The U.S. and Mexico have periodically exchanged data on enforcement activities in the border area. Mexico provides periodic aggregate summaries of numbers of inspections, facility shut-downs, and penalties imposed. EPA provides periodic reports on enforcement actions initiated and completed in the border area, and press releases or other descriptive information on individual cases. EPA also provides Mexico with its annual enforcement accomplishments report summarizing environmental enforcement activities nationwide.

5) Status: EPA and PROFEPA are discussing regularizing the exchange of border area Enforcement Results Data on a semi-annual basis, as part of the Cooperative Enforcement Work Group's Work Plan. EPA and PROFEPA are also discussing exchanging more anecdotal information on individual cases in the border area; however, Mexico is concerned regarding the applicability of its industrial secrets data to sharing of specific information on completed enforcement cases. In the context of the North American Commission on Environmental Cooperation, EPA, PROFEPA, and Canadian environmental authorities will be addressing the comparability of enforcement statistics.

6) Schedule: 1995 Work Plan Draft for Cooperative Enforcement Strategy Work Group calls for semi-annual data exchanges, and for EPA and PROFEPA to identify criteria for exchanging detailed case-specific information and to examine issues pertaining to public disclosure, confidentiality, and the use of case-specific information.

7) U.S. Contacts: Lawrence Sperling, EPA/OECA (202)260-3087

Project Name: Consultation on Enforcement Penalty Policies

1) Purpose and Objectives: To exchange information about each country's respective policies for calculating economic sanctions in enforcement cases, and to provide cooperative assistance in ensuring that environmental enforcement actions are effective in eliminating the economic benefit of non-compliance.

2) Funding: EPA and Procuraduría Federal de Protección al Ambiente (PROFEPA) relying on in-house personnel. Pursuant to cooperative agreement, regional environmental enforcement networks may provide cooperative assistance in arranging future technical consultation.

3) Partners: EPA and PROFEPA; potential contribution of regional environmental enforcement networks in the U.S. (the Western States Project and Southern Environmental Enforcement Network).

4) Description: In 1993-1994, EPA and PROFEPA exchanged substantial information regarding their respective policies for calculating economic sanctions in enforcement cases.

The Cooperative Enforcement Strategy Work Group's draft 1995 Work Plan proposes to hold a more detailed technical consultation on the calculation of economic sanctions, wherein EPA would share with PROFEPA detailed information regarding EPA's methodology and computer program for calculating the economic benefit of non-compliance, and ensuring that penalties exceed that amount.

5) Status: Technical consultations to be scheduled in 1995, pending finalization of Enforcement Work Group's 1995 Work Plan.

6) U.S. Contact: Lawrence Sperling, EPA/OECA (202)260-3087

Project Name: **Voluntary Compliance and Environmental Auditing Outreach and Technical Consultation**

1) Purpose and Objectives: To promote voluntary compliance with Mexican environmental laws, pollution prevention, and environmental auditing, by U.S. industries operating in Mexico; to conduct technical exchange among EPA and Procuraduría Federal de Protección al Ambiente (PROFEPA) of information regarding each country's programs and policies to encourage environmental auditing and voluntary compliance.

2) Funding: $50,000 in work assignment with SAIC to assist in outreach to U.S. companies with Mexican operations; possible additional assistance of U.S. regional environmental enforcement networks (Western States Project and Southern Environmental Enforcement Network) in sponsoring technical consultations.

3) Partners: EPA, PROFEPA, U.S. border state environmental agencies, regional environmental enforcement networks.

4) Description: Mexico has implemented an innovative program of assuring compliance through voluntary environmental auditing. EPA has translated into English PROFEPA's Terms of Reference for its Environmental Auditing Program, and is preparing a letter to a number of U.S. parent companies operating in Mexico to encourage their participation in the program. Contractor will assist in followup and expanded outreach efforts.

EPA has proposed to PROFEPA to conduct one to two technical seminars for U.S. and Mexican industry in key border cities, providing information on each country's programs and policies for environmental auditing and voluntary compliance.

EPA has also proposed to engage with PROFEPA in a technical exchange regarding each country's environmental auditing programs and policies. Topics of discussion would include the role of environmental auditing in identifying pollution prevention opportunities while assuring environmental regulatory compliance.

5) Status: EPA outreach efforts underway Spring, 1995.

6) Schedule: Pending PROFEPA approval, EPA has proposed border technical seminars for industry and interagency technical exchange to take place in 1995.

7) U.S. Contact: Lawrence Sperling, EPA/OECA (202/260-3087).

Project Name: Protocol for Investigatory Cooperation

1) Purpose and Objectives: To enhance case-by-case cooperation in enforcement investigations involving transboundary aspects, including sampling, evidence-gathering and technical assistance.

2) Funding: EPA staff time only.

3) Partners: EPA, U.S. Department of Justice, Procuraduría Federal de Protección al Ambiente (PROFEPA)

4) Description: The draft Work Plan for the U.S./Mexico Cooperative Enforcement Strategy Work Group calls for EPA and PROFEPA to explore the possibility of developing a protocol for cooperation in the development of evidence for enforcement cases, including exchange of information, taking of physical samples, use of laboratory analysis, and provision of testimony. The Cooperative Enforcement Work Group will coordinate this effort with the Hazardous Waste Work Group's "Binational Sampling and Analysis Capacity-Building Project"

5) Status: EPA hopes to begin discussions with PROFEPA regarding a possible protocol in 1995. Such a protocol may be considered as part of expanded Guidelines for Repatriation of Hazardous Waste.

6) U.S. Contacts:

John Rothman, EPA Region 9 ORC	(415) 744-1353
Lawrence Sperling, EPA/OECA	(202) 260-3087
Charles Sheehan, U.S. Department of Justice	

Project Name: Transboundary CFC Shipment Training and Outreach

1) Purpose and Objectives: To enhance capacity for compliance monitoring and enforcement of regulations pertaining to the transboundary shipment of chlorofluorocarbons and other ozone-depleting chemicals, and promote voluntary compliance.

2) Funding: $100,000, in contract work assignment.

3) Partners: EPA, U.S. Customs, Federal Bureau of Investigation (FBI), state environmental agencies, Mexican Customs, Procuraduría Federal de Protección al Ambiente (PROFEPA)

4) Description: Under the Montreal Protocol on Substances that Deplete the Ozone Layer, the U.S. is phasing out the use of chlorofluorocarbons and other ozone-depleting chemicals, and has imposed taxes, labelling requirements, and other restrictions during the phase-out period. As a result of increasing prices for CFC's as the U.S. phases them out, CFC's are increasingly being illegally imported from Mexico to the U.S. Under this project, EPA and its contractor will develop and deliver training, directed toward U.S. Customs and other federal and state agencies involved with enforcement of transboundary environmental laws, and possibly Mexican Customs and environmental authorities, to enhance vigilance and enforcement of EPA's regulations implementing the U.S. commitments under the Montreal Protocol. In addition, EPA and its contractor will develop and propose procedures for Customs for cooperation in investigating illegal CFC shipments and disposing of contraband CFC chemicals. Finally, EPA and its contractor will launch a public outreach effort, directed to potential CFC importers, to increase public awareness about the CFC import requirements and possible enforcement ramifications, thereby encouraging voluntary compliance with these regulations.

5) Status: Contract Work Assignment has been drafted and is pending finalization.

6) Schedule: Training, procedure development, and outreach activities to take place in 1995-1996.

7) U.S. Contacts: Phyllis Rimmer, EPA Region 6
Alan Zemsky, EPA Region 9
Craig Haas, EPA/OECA-Air
Lawrence Sperling, EPA/OECA (202) 260-3087

Project Name: **Third International Conference on Environmental Enforcement, Oaxaca, Mexico, April 25-28, 1994**

1) Purpose and Objectives: Mexico hosted, and U.S. EPA co-sponsored, a ~~global~~ conference to promote effective environmental compliance and enforcement programs world-wide.

2) Funding: Funding and logistical support for the Conference was provided by U.S. EPA and the Agency for International Development, the Governments of Mexico, Canada and the Netherlands, the United Nations Environment Program, and the World Wildlife Fund.

3) Partners: Sponsors were EPA, Mexico's SEDESOL, Netherland's Ministry of Housing, Spatial Planning and the Environment, United Nations Environment Program, and the World Wildlife Fund. The Executive Planning Committee also included officials from Canada, Chile, Costa Rica, Jamaica, Indonesia, and Nigeria.

4) Description: The Conference was perhaps the most successful in a growing series of international efforts to promote effective environmental compliance and enforcement programs world-wide. Fifty-four countries and nine international organizations participated in the Conference, giving Mexico an opportunity to highlight its commitment to environmental enforcement.

Key topics included the relationship between environmental compliance and sustainable development; frameworks for environmental compliance/enforcement; challenges to environmental compliance; designing compliance and enforcement programs; and building international enforcement networks. Special workshops addressed illegal transboundary shipments; CFC controls; criminal enforcement; government facilities; voluntary compliance; field citations; and enforcement of economic instruments. Mexico presented a paper on its enforcement program. U.S. officials presented several papers, including one on the development of a North American Environmental Enforcement Network.

A one-day workshop was held presenting a shortened version of the Principles of Environmental Enforcement international training course. The course materials were translated into Spanish. Five new case studies, emphasizing pollution prevention and control options, were developed to offer realistic situations for Mexico and other countries: petroleum, mining, residential and industrial waste disposal, deforestation and tourism along with stand-alone technical support documents on these subjects.

5) Status: The Conference was successfully held in April, 1994. The Fourth International Conference on Environmental Enforcement is being planned for Thailand in April, 1996. Mexico and U.S. EPA are heavily involved in planning.

6) U.S. Contacts: Cheryl Wasserman, EPA/OECA (202)260-4486

Project Name: Promoting Inter-Agency Cooperation

1) Purpose and Objectives: Enhance effectiveness of environmental enforcement on both sides of the border by building networks of cooperation among the various agencies at local, state and federal government levels.

2) Funding: $100,000 cooperative agreement in 1995 with regional environmental enforcement networks (Western States Project and Southern Environmental Enforcement Network) includes, inter alia, enforcement network-building activities. $50,000 grant each to Texas and New Mexico Attorneys General in 1995 to support Colonias Enforcement Activities ($50,000 grant to Texas Attorney General in 1994); $50,000 grants each to California Department of Toxic Substances Control and Arizona Department of Environmental Quality to support hazardous waste enforcement activities in the border area. In 1993-1994, $150,000 grant to Texas and $60,000 to New Mexico for border area hazardous waste enforcement. (Note: these figures reflect EPA/OECA funds, which were supplemented by additional funds from other offices. For a more detailed description of each of the state grants, see the sections on Hazardous Waste Work Group and Domestic Border Initiatives).

3) Partners: EPA, U.S. and Mexican Customs, U.S. border state environmental agencies and Attorneys General, U.S. regional environmental enforcement associations; PROFEPA. Potential additional partners include Mexico's National Water Commission, the IBWC, and Mexican state environmental agencies.

4) Description: The draft 1994 Cooperative Enforcement Work Plan calls for EPA and PROFEPA to work to improve coordination among all the state and federal agencies on both sides of the border involved in environmental enforcement, including working with the Hazardous Waste Work Group to improve field coordination among customs officials, and to develop multiagency task forces to stimulate compliance.

San Diego County's Environmental Task Force is a model of interagency cooperation in the border area. EPA and the Texas Natural Resources Conservation Commission are working to develop similar task forces in the Texas border area, and EPA's grants to the border states for border area enforcement encourage similar cooperation. The Customs training effort, discussed elsewhere in this section, has a prime goal of promoting transboundary cooperation among the Customs and environmental agencies of both countries. The regional environmental enforcement network associations will play a valuable role in enhancing the interagency cooperation which has been growing border-wide.

5) Status: Activities ongoing

6) U.S. Contact: Lawrence Sperling, EPA/OECA (202/260-3087)

POLLUTION PREVENTION WORKGROUP

Project Name: Pollution Prevention San Diego - Tijuana

1) Purpose and Objectives: The project is designed to provide opportunities to focus on the economic and environmental benefits associated with pollution prevention. It is a partnership between businesses and the San Diego County Environmental Health Services, and EPA. The project provides training and educational outreach programs to businesses on both sides of the border, advocating a commitment to "environmental excellence."

2) Funding: $74,100

3) Partners: A wide range of governmental and business leaders from both sides of the border.

4) Description: Information packets were sent to 36 businesses in San Diego County which were listed as having maquiladora facilities in the Tijuana region. The packets contained a description of the project and a brief application form to complete if the business wanted to participate with the educational outreach component of the Tradex project. The mailing was followed up by a telephone survey. A new list of 60 business has been used for a second mailing and followup telephone survey.

5) Status/Schedule: Five of the companies contacted were very supportive of the program and said that they are ready to participate. The first group of 5 companies will be offered free pollution prevention assessments at their facilities in both San Diego and the Tijuana region. The remaining 60 will be invited to participate in a U.S.-Mexico roundtable discussion to be held in summer of 1995.

March 1995:	Final list of businesses willing to participate in the assessments and/or the roundtable
April:	Initial visit to facilities
May-June 1995:	Assessments along with written recommendations
End of July:	Roundtable
Mid September:	Second Roundtable
End of September:	Final report

7) U.S. Contacts: Linda Pratt, San Diego County Pollution Prevention
Donna Orebic, EPA Region 9, (415) 744-1284
Eileen Sheehan, EPA Region 9, (415) 744-2190

Project Name: Border Environmental Technology Conference

1) Purpose and Objectives: To facilitate an exchange of information regarding community based partnerships and pollution prevention principles in the border area.

2) Funding: $25,000 in Regional Geographic Initiative Funds which Texas Natural Resources Conservation Commission matched on 25/75 state to federal dollar ratio. Additional funding was received from the Ford Foundation; University of Texas at Austin, Lyndon Baines Johnson School of Public Affairs; and, University of Texas at Austin, Institute for Latin American Studies.

3) Partners: Co-sponsors of the conference in addition to Texas Natural Resources Conservation Commission included: Centro de Calidad Ambiental, Monterrey Technical Institute; Environmental Defense Fund; U.S. EPA, Region 6; University of Texas at Austin, Lyndon Baines Johnson School of Public Affairs; University of Texas at Austin, Institute for Latin American Studies; University of Texas at El Paso, Center for Environmental Resource Management; and, the Western Governors' Association.

4) Description: On October 4 & 5, 1994, the Texas Natural Resource Conservation Commission (TNRCC) hosted a bi-national environmental conference "The Border Environment: An Exchange" in El Paso, Texas. Over 350 individuals from both sides of the border participated. The theme for the conference was brought out in a series of case studies and presentations highlighting cross-border cooperation on environmental issues; overviews of new institutions created under the North American Free Trade Agreement (NAFTA) including the Border Environment Cooperation Commission (BECC), the North American Development Bank (NADBank), and the Commission on Environmental Cooperation (CEC); overview of the World Bank's Northern Border Environment Project; and, current institutional relationships.

The conference included case studies of successful bi-national partnerships in the environmental arena; concurrent media discussions of problems and potential joint solutions for water and wastewater, air quality, municipal solid waste, industrial hazardous waste, and pollution prevention; and, concurrent panel sessions on how to create public-private partnerships.

5) Status: Completed

6) Schedule: TNRCC has applied for grant funds to hold a second conference in 1995.

7) U.S. Contacts: Rob Lawrence, EPA Region 6, (214) 665-6580
David Guarino, TNRCC, (512) 239-3169

Project Name: Bilingual Pollution Prevention Manuals

1) Purpose and Objectives: Translate pollution prevention information material into Spanish for use in maquiladora facilities.

2) Funding: $90,000 in Regional Geographic Initiative and Office of International Activities funds for the development of the manuals.

3) Partners: The U.S./Mexico Pollution Prevention Work Group which is leading this effort is composed of the following agencies: EPA Region 6; EPA Region 9; EPA Office of Prevention, Pesticides, and Toxic Substances (Environmental Analysis Division and Pollution Prevention Division); Arizona Department of Environmental Quality; California Department of Toxic Substances Control; New Mexico Environment Department; Texas Natural Resource Conservation Commission; and, the Institute for National Ecology within SEMARNAP.

4) Description: The U.S./Mexico Pollution Prevention Work Group has developed and published two bilingual pollution prevention manuals for use in the border area. The first manual focused on the metal finishing industry. The second manual dealt with pollution prevention options and techniques for wood finishing operations. A third manual, targeted at the electronics industry, is being produced in 1995.

5) Status: The contractor, PRC Environmental Management Inc., is conducting a literature search for case studies and relevant techniques for the computer circuit board manufacturing, small appliance assembly, and wiring systems.

6) Schedule: Region 6 is funding a fourth bilingual manual on an industrial sector as yet undetermined. Primary candidates include printing/publishing and textile/tannery facilities.

7) U.S. Contacts: Rob Lawrence, EPA Region 6, (214) 665-6580

Project Name: **Video on Pollution Prevention as a Solution to Compliance Problems in the Maquiladora Industry**

1) Purpose and Objectives: The purpose of this project is to develop a video that will provide visual information on the link between pollution prevention and compliance to compliance officials and industries on both sides of the border. The video will emphasize the industrial subsectors prevalent among the maquiladoras, and will provide information about pollution prevention opportunities to achieve or exceed compliance and to resolve compliance problems. The video will attempt to stimulate voluntary adoption of pollution prevention practices as a way to resolve compliance problems. Both English and Spanish versions will be produced.

2) Funding: $81,000

3) Partners: EPA, Instituto Nacional de Ecología (INE) and Procuraduría Federal de Protección al Ambiente (PROFEPA)

4) Description: The video will highlight pollution prevention practices for selected industries, and provide basic information on the role of pollution prevention in reducing regulatory burdens and enforcement risks.

Location filming will be completed in approved areas. The footage will include current activities of industries on both sides of the border and the pollution prevention opportunities available to those industries for achieving or exceeding compliance standards. A professional narrator will narrate the video in English and in Spanish. The video will be finalized and distributed, possibly with brief written materials providing contact and background information.

5) Status: Industries, pollution prevention practices, and level of technical detail have been completed. A script is currently being drafted incorporating this information. Representative industries incorporating pollution prevention practices are being identified as filming candidates. Once identified, candidate industries will be contacted and a filming and production schedule established.

6) U.S. Contacts: Lawrence Sperling, EPA OECA, (202) 260-3087

Project Name: **Border Pollution Prevention Technical Assistance - Industrial Facilities**

1) Purpose and Objectives: To provide voluntary on-site evaluation of operations to highlight opportunities for pollution prevention implementation by Mexican industrial facilities.

2) Funding: $40,000

3) Partners: Texas Natural Resource Conservation Commission (TNRCC) is currently working on a series of agreements with environmental agencies in Mexico to codify their working relationships. Over the past year, TNRCC personnel have made a number of pollution prevention presentations to Mexican government officials, consulting engineers, and facility managers.

4) Description: The Texas Natural Resource Conservation Commission (TNRCC) is implementing the Permanent Pollution Prevention Program (P4) in the El Paso area. The program is designed to approach pollution prevention on a regional basis. P4 brings together several facilities, providing them with a framework and the technical assistance to implement permanent pollution prevention programs. This approach allows the pooling of knowledge and sharing of information on common issues and solutions. P4 builds industrial and governmental cooperation, assists facilities to develop environmental partnerships, and fosters environmental leadership.

5) Status: The introductory training and corporation kick-off breakfast was held on September 7 with 26 facilities from both sides of the border represented. TNRCC was invited to hold a similar session for 50 maquiladora facilities located in a single industrial park in Juarez on September 30. Facility Team training was conducted on September 27 for the El Paso based industries. TNRCC staff members conducted on-site assessment visits with 5 facilities in the El Paso area. A follow-up training workshop on P4 for all of the participants was held on October 27 in El Paso, in which over 50 industry representatives took part. The facilities that were provided with on-site assessments made presentations and share their pollution prevention programs.

6) Schedule: Upon approval by SEDESOL, TNRCC will conduct additional facility site visits in 1995.

7) U.S. Contacts: Rob Lawrence, EPA Region 6, (214) 665-6580
Pierre Lichaa, TNRCC, (512) 239-3132

Project Name: **Border Pollution Prevention Technical Assistance - Small Business Operations**

1) Purpose and Objectives: To address a prevalent source of volatile organic compound (VOCs) emissions which directly impact ozone pollution in border communities, practical and common sense solutions are being used.

2) Funding: $30,000

3) Partners: Texas Natural Resource Conservation Commission (TNRCC) and the Small Business Advocate for the State of Texas

4) Description: TNRCC will build a model paint spray booth at El Paso Community College that will be used as a demonstration site for training of operators in the auto body and paint shops industry. Four instructional workshops will be held at the community college and the attendees will receive a pollution prevention and compliance assistance information packet. Included in the materials will be a construction blueprint and materials list to assist these small businesses with building their own paint booths with pollution prevention techniques. Blueprints for the demonstration paint booth have been drafted and are under revision. Dates for the initiation of the instruction aspect have not been established pending the construction of the demonstration booth.

5) Status: TNRCC has developed a pollution prevention and compliance packet for the auto body industry. The material has been translated into Spanish. To date, three workshops have been held in the Rio Grande Valley for this industry sector. Over 150 people have participated in the workshops.

6) Schedule: While TNRCC has been able to reach a wide audience of the auto body industry with the technical workshops, the construction of the demonstration paint booth in El Paso will allow "hands-on" training for paint operators from that area. Unfortunately, for logistical reasons, the operators in other border communities will not receive the "hands-on" training unless they travel to the El Paso Community College.

7) U.S. Contacts: Rob Lawrence, EPA Region 6, (214) 665-6580
Kerry Drake, TNRCC, (512) 239-1112

Project Name: **Bilingual Pollution Prevention Technical Conferences**

1) Purpose and Objectives: In order to encourage the use of pollution prevention information, the Work Group decided to hold technical conferences for maquiladora facilities based on industrial sectors.

2) Funding: $50,000 in funding through a Regional Geographic Initiative as well as Office of International Activities funding to contract with Waste Reduction Technologies for development and presentation of the courses.

3) Partners: The U.S./Mexico Pollution Prevention Work Group is composed of the following agencies: EPA Region 6; EPA Region 9; EPA Office of Prevention, Pesticides, and Toxic Substances (Environmental Analysis Division and Pollution Prevention Division); Arizona Department of Environmental Quality; California Department of Toxic Substances Control; New Mexico Environment Department; Texas Natural Resource Conservation Commission; and, the Institute for National Ecology within SEMARNAP.

4) Description: Based on the first two bilingual pollution prevention manuals have been used as the case materials for technical conferences held in the El Paso/Ciudad Juarez and Laredo/Nuevo Laredo areas. Metal finishing technical conferences have been held in Juarez and Laredo. A wood finishing technical conference was held in El Paso.

5) Status: It is anticipated that technical conferences held following publication of the electronics manual will receive a great deal of attention due to the extensive presence of this industry within the border area.

6) Schedule: Region 6 is funding a series of bilingual technical conferences based on the electronics industry manual currently under development.

7) U.S. Contacts: Rob Lawrence, EPA Region 6, (214) 665-6580

Project Name: **Infrastructure Development Exchange With Mexico**

1) Purpose and Objectives: To provide technical assistance to Mexico as it develops its pollution prevention and clean technology programs

2) Funding: Pending amount of $110,000 through a Regional Geographic Initiative and Office of International Activities as a grant to the Texas Natural Resource Conservation Commission (TNRCC).

3) Partners: TNRCC and Secretaría de Medio Ambiente, Recursos Naturales, y Pesca (SEMARNAP)

4) Description: There are several components including:

Provision of technical assistance to the SEMARNAP's Attorney General for the Environment (PROFEPA) in development of a pollution prevention focused element to the Mexican environmental audit program. Assistance will be in the form of an exchange of technical materials and on-site visits to industrial facilities in Texas and Mexico by a team of TNRCC, EPA and SEMARNAP technical staffs.

Exchange of technical materials from U.S. environmental agencies and field visits by INE staff to TNRCC and other state environmental agencies with active pollution prevention programs. INE staff would be invited to participate in regional and/or national pollution prevention roundtables to study evolving U.S. programs.

Extension of the TNRCC's Permanent Pollution Prevention Program (P4) to the maquiladora industries through the Monterrey Institute of Technology's interactive video network which downlinks to 26 satellite campuses throughout Mexico. Classroom instruction in pollution prevention methods could be augmented by on-site waste audits provided by Monterrey Tech, SEMARNAP, and TNRCC staff members. In addition to the provision of in-plant pollution prevention techniques, the program will serve as a training device for SEMARNAP inspectors and Monterrey Tech extension service engineers.

5) Status: TNRCC has filed a grant application for the project.

6) Schedule: Funds should be awarded in the Spring of 1995, with work to start in the Summer of 1995.

7) U.S. Contacts: Rob Lawrence, EPA Region 6, (214) 665-6580
Pierre Lichaa, TNRCC, (512) 239-3132

Project Name: **Development of Mexican State Governmental Programs on Recycling and Solid Waste Reduction**

1) Purpose and Objectives: To assist in the development of local recycling and solid waste reduction programs

2) Funding: $25,000 in Office of International Activities funds as a grant to Texas Natural Resource Conservation Commission

3) Partners: TNRCC, Secretaría de Medio Ambiente, Recursos Naturales, y Pesca (SEMARNAP), Mexican state governmental agencies

4) Description: Training for state governments and maquiladora associations related to developing and improving workplace recycling and community recycling programs. A major focus will be on the reduction of solid waste material generation and disposal. Process will also identify potential markets for recyclable materials in the border region and opportunities for the development of recycling industries.

5) Status: Grant was awarded in Spring of 1995.

6) Schedule: Implementation expected to begin in Summer of 1995.

7) U.S. Contacts: Rob Lawrence, EPA Region 6, (214) 665-6580
David Guarino, TNRCC, (512) 239-3169

Project Name: Baja California Municipal Solid Waste Landfill Operations Training

1) Purpose and Objectives: Provide training on municipal solid waste landfill design, operations and closure for officials and other interested parties in Baja California.

2) Funding: The budget for this project is $55,000. The recipient is Eastern Research Group who is under contract to the Center for Environmental Research Information at EPA's Office of Research and Development in Cincinnati.

3) Partners: EPA's Office of Research and Development

4) Description: In November, 1993 EPA held a Seminar on the Design, Operation and Closure of Municipal Solid Waste Landfills in Nogales, Sonora. Approximately 60 individuals from local, state and federal agencies in Mexico attended the seminar. The course was based on an Office of Research and Development seminar held across the U.S. after the RCRA Subtitle D landfill criteria were promulgated. Over 90% of the attendees rated the seminar as either very good or excellent. We now plan to replicate this successful training course for officials in Baja California.

5) Status: We have begun discussions with PROFEPA officials in Mexicali about course content and logistics. We have also begun the process of selecting speakers for the seminar.

6) Schedule: We will hold the training course in Mexicali on June 22-23.

7) U.S. Contacts: Donna Orebic, EPA Region 9, U.S. Mexico Border Team, (415) 744-1284

Project Name: Recycling Initiative

1) Purpose and Objectives: Identify ways to expand binational markets for recycled materials and commodities.

2) Funding: $60,000 is available for this project. We have not yet selected a funding recipient.

3) Partners: We hope to partner with the City of San Diego and the California EPA Integrated Waste Management Board on this project.

4) Description: The public outreach goals of the Integrated Border Environmental Plan (IBEP) addressed the need to involve the general public in efforts to prevent illegal dumping and to foster pollution prevention and waste reduction. In October, 1993 Regions 9 and 6 co-sponsored a conference held by the Southwest Public Recycling Association to promote markets for recycled materials. The conference included a U.S. Mexico border track that addressed recycling along the border and the impact of NAFTA on border trade of recyclables.

With the passage of NAFTA, we would now like to look more closely at ways to promote binational markets for recycled materials. While a great deal of trade in recycled materials and products already occurs, the potential to expand existing markets is enormous. This project will seek to assess current trade of recyclables across the border and identify obstacles to expanding such trade. Ultimately, we would like to identify steps needed to stimulate markets for cross-border trade of recyclables.

5) Status: We have begun discussions with the City of San Diego about the possibility of creating a Binational Recycling Market Development Zone for the Cities of San Diego and Tijuana. The general goal of such an endeavor would be to identify industrial areas within Tijuana that are contiguous with the existing San Diego Recycling Market Development Zone, and work to attract appropriate (i.e. non-hazardous waste) recycling facilities and recycled product manufacturers to the binational area. This could be accomplished by creating a variety of incentives (e.g. permitting or financing assistance) to help foster the growth of reuse and recycling industries within the Zone.

6) Schedule: The Cities of San Diego and Tijuana are currently exploring the possibility of putting together a funding proposal to the EPA. EPA plans to discuss the project with San Diego and Tijuana officials at a Binational Recycling Workshop to be held in San Diego in June.

7) U.S. Contacts: Donna Orebic, EPA Region 9, U.S. Mexico Border Team, (415) 744-1284

Project Name: Pollution Prevention Curriculum Conference

1) Purpose and Objectives: To foster exchange of pollution prevention curriculum for technical colleges and universities in order to shape the scientific and technical leaders of the next generation

2) Funding: $25,000 provided by EPA Office of International Activities

3) Partners: Texas Natural Resource Conservation Commission (TNRCC), University of Texas - Pan American, Monterrey Technical University

4) Description : Assistance support in the development of a conference focused on the development of pollution prevention curriculum for undergraduate and graduate engineering courses. University of Texas - Pan American's College of Engineering is organizing the conference to include engineering programs from Mexico, Canada, and U.S. Conference goals include 1) creation of prevention based engineering curriculum materials; 2) dissemination of available information materials; and 3) exchange of creative problem solving approaches.

5) Status: Grant was awarded in Spring of 1995

6) Schedule: Grant implementation will begin in the Summer of 1995

7) U.S. Contacts: Rob Lawrence, EPA Region 6, (214) 665-6580
Pierre Lichaa, TNRCC, (512) 239-3132

CONTINGENCY PLANNING AND EMERGENCY RESPONSE WORK GROUP

Project Name: Sister City Profiles

1) **Purpose and Objectives:** The purpose of this project is to collect information and analyze activities related to chemical emergency preparedness and response in order to promote effective contingency planning for hazardous material emergencies.

2) **Funding:** $84,699

3) **Partners:** Partners in the program included EPA Regions 6 and 9 as well as each of the specific U.S. sister cities.

4) **Description:** The project consists of developing profiles on each of the sister cities along the border which includes the following information: physical description of the Sister City; local leadership; response systems and capabilities currently in place; notification procedures and protocols for emergency response situations; on-going process for plan development on the U.S. and Mexican side of the border and issues remaining unresolved; status of the local plans; and status of community-industry-governmental interactions. This information will, in turn, be used to assist sister cities begin development or further develop sister city contingency plans.

5) **Status:** Project has been completed for the sister cities in Region 6 and is currently on hold for the sister cities in Region 9.

6) **Schedule:** Project is pending

7) **U.S. Contacts:** Jim Staves, EPA Region 6, (214) 665-2277
Kathleen Shimmin, EPA Region 9, (415) 744-2100

Project Name: **The International City/County Management Association (ICMA) Sister City Initiative**

1) Purpose and Objectives: The purpose of this project is to assess the emergency planning needs of the border communities, with the long-term objective of facilitating the creation of joint contingency plans in the sister cities.

2) Funding: $100,000 to the International City/County Management Association (ICMA)

3) Partners: Partners in the program included ICMA, Region 6, Region 9, and the cities of Douglas/Aqua Prieta; Del Rio/Ciudad Acuña; and Yuma/San Luis Rio Colorado.

4) Description: ICMA, in cooperation with EPA Regions 6 and 9, conducted three (3) binational workshops (in Douglas/Aqua Prieta; Del Rio/Cuidad Acuña; and Yuma/San Luis Rio Colorado) for members of Local Emergency Planning committees (LEPCs), city, county, and state officials, and community groups in the United States and Mexico. In addition, Region 6 organized three (3) similar workshops in Laredo, Brownsville, and El Paso. The ICMA sister city workshops were modeled after ICMA's SARA Title III Peer Exchange Program, which brings together members of LEPCs that need to strengthen there contingency planning and emergency response efforts with their counterparts in LEPCs that have already established successful programs. In order to determine the strengths, weaknesses, and needs of each of the sister cities, ICMA sent a "needs assessment" questionnaire to each LEPC and Proteccion Civil officials along the border. Based on those needs and consultations with EPA, six sister city pairs were selected for workshop sites. These binational workshops were designed to bring together city officials, first responders, industry representatives and interested citizens to discuss chemical emergency contingency planning and response. Initial presentations at the workshop focused on highlighting planning and response resources, followed by work group discussions focused on issues identified by the sister cities.

5) Status: Completed

6) Schedule: The EPA is considering providing additionally resources to ICMA for further workshops.

7) U.S. Contacts: Kim Jennings, EPA Headquarters, (202) 260-5046

Project Name: Revision to U.S./Mexico Joint Inland Contingency Plan

1) Purpose and Objectives: The purpose for this project is to revise the U.S./Mexico Joint Inland Contingency Plan to better reflect the realities and changes in each of the countries.

2) Funding: Approximately $5,000 to contractor to assist with incorporation of comments, changes, etc.

3) Partners: Federal representatives from EPA and Secretaría de Medio Ambiente, Recursos Naturales, y Pesca (SEMARNAP)

4) Description: Working together, the U.S. and Mexico are revising the 1988 U.S./Mexico Joint Inland Contingency Plan (JCP). Since 1988, there have been significant changes to legislation, policies, procedures, and organization structures in both countries related to chemical emergency prevention, preparedness, and response. Therefore, the representatives from the U.S. EPA and SEMARNAP (PFPA) have been working to revise the JCP to reflect these changes. A meeting was held in June 1994 of the entire U.S./Mexico Joint Response Team to discuss this overall project and suggested format and a workgroup was established. In October 1994, the workgroup met to develop an outline and suggest language for the revised JCP.

5) Status: Ongoing

6) Schedule: The revised JCP will be distributed at the next U.S./Mexico Joint Response Team (JRT) meeting for comment. Following the JRT review, it will be distributed to the states and sister cities for their review and comment. The document will have a final review by the JRT and be finalized.

7) U.S. Contacts: Kim Jennings, EPA Headquarters, (202) 260-5046

Project Name: **Contingency Planning and Emergency Response Grants to States**

1) Purpose and Objectives: The purpose of this project is to provide funding to States along the U.S./Mexican border to improve their contingency planning and emergency response programs in the border area.

2) Funding: $95,000 to New Mexico; $100,000 to Texas; $49,350 to Arizona; and $94,000 to California for a total of $338,350.

3) Partners: Partners in the project include the four states, EPA Region 6 and Region 9, and the sister cities along the border.

4) Description: Under these grants, the States are: providing training for international border city planners and responders in the area of contingency planning and emergency response and coordinating and hosting interagency workshops on applicable regulations, risk assessment issues, and information exchange.

5) Status/Schedule: Ongoing -- until 9/96

6) U.S. Contacts: Kim Jennings, EPA Headquarters, (202) 260-5046

Project Name: CAMEO Translation and Training

1) Purpose and Objectives: The purpose of this project is to translate the international version of the CAMEO computer system into spanish, distribute it and provide training in each of the sister cities along the border, and collect the data for the system.

2) Funding: To Be Determined

3) Partners: EPA and Procuraduría Federal de Protección al Ambiente (PROFEPA)

4) Description: CAMEO is "Computer Aided Management of Emergency Operations" and is a software package used as a tool to aid emergency planning efforts involving a chemical accident. It was initially designed for use in the U.S. by local emergency responders to assist them with their obligations under SARA Title III. Recently, however, a new windows version of CAMEO has been developed which is a "generic, international" version, for use in any country, which does not reflect any specific legislation. This new version will be used by UNEP in their APELL program. There are four steps to this project: (1) CAMEO will be translated into Spanish; (2) identify needed data and collect data as necessary; (3) input data; and (4) provide software and train U.S. and Mexico border localities on use of the system.

5) Status: Ongoing

6) Schedule: A meeting was held in Matamoros on February 16-17, 1995 by the Mexican government to develop a strategy including goals, objectives, and milestones for the project.

7) U.S. Contacts: Kim Jennings, EPA Headquarters, (202) 260-5046

Project Name: **Miscellaneous Training and Grants in the Border Communities**

TRAINING:

Description: 8 HAZMAT Emergency Response Courses at McAllen, Del Rio, Eagle Pass, Brownsville, Laredo, Harlingen, El Paso, Texas and Deming, New Mexico

Funding: Hours - 1536 Cost - $45,072

Description: Air Monitoring and Emergency Response Operations in Laredo-Nuevo Laredo

Funding: Hours - 310 Cost - $16,255

Description: 2 HAZMAT Emergency Response in El Paso (in 1995)

Funding: Hours - 154 Cost - $4,043

Description: 3 40- hour Health and Safety courses (including Incident Command System) in Spanish, in Juarez, at request of the El Paso LEPC/Fire Department. Planned for March/April.

Funding: Hours- 855 Cost - $27,000

GRANTS:

Description: EPA Innovative Technology Grants

State of Texas:	Cameron County	$24,000
	El Paso County	$45,250
	Laredo	$23,950
	Val Verde-Del Rio	$2,800
State of New Mexico:		$95,000
State of Arizona:		$49,350
State of California:		$94,000

Description: DOT HMTA Grants (5-year) (Through State of Texas)

Cameron County lst year	$24,000
Laredo	30,000

Description: Workshop - Laredo (to review grants) (Sponsored by State of Texas) $4,000

Contact (for all the above): Kim Jennings, EPA Headquarters, (202) 260-5046

DOMESTIC BORDER INITIATIVES-COLONIAS

Project Name: **Wastewater Assistance for U.S. Colonias**

1) Purpose and Objectives: To improve and protect environmental and human health along the U.S.-Mexico border by providing wastewater facilities in U.S. colonia communities.

2) Funding: Total EPA infrastructure grants awarded for wastewater treatment improvements (FY 93 through 95): Texas: $150 million; New Mexico: $20 million. Additional EPA grants: FY 1994: $197,000 to provide wastewater managerial/technical services to Texas colonias; FY 1994: $200,000 grant to assist Texas Attorney General's Office "Colonias Strike Force" enforcement initiative; FY 1995: $100,000 to Texas and New Mexico ($50,000 each) for enforcement activities in colonias; FY 1994-95: $185,000 for wastewater managerial/technical services to colonias in Texas.

3) Partners: EPA Office of International Activities (OIA), EPA Office of Enforcement and Compliance Assurance (OECA), Environmental Justice, Housing and Urban Development (HUD), U. S. Department of Agriculture Rural Development Association (RDA), Department of Justice (DOJ), Department of Commerce (DOC), Health and Human Services (HHS)

4) Description: Planning, design, construction and management assistance for wastewater facilities to serve U.S. colonias located along the U.S.-Mexico border.

5) Status: 16 Texas water and wastewater construction projects are underway with a total commitment of $123 million. About 40 plans have been initiated for projects which will result in some $160 million of construction. No estimate available for New Mexico.

6) Schedule: $50 million requested for Texas colonias in FY 96 President's budget. Next steps include funding authorization for FY 96 through 98 ($150 million needed for Texas). Participation in Interagency Plan Group to develop a national strategy for addressing colonia needs. Continue to organize and chair subgroup meetings at state level in New Mexico and Texas, to coordinate state/federal efforts.

7) U.S. Contacts: Steve Hogye, U.S EPA, (202) 260-5841
Oscar Cabra, U.S. EPA Region 6, (214) 665-7110

Project Name: **Texas Colonias Plumbing Loan Program**

1) Purpose and Objectives: To improve public health for the colonia residents by providing safe and sanitary drinking water and wastewater service.

2) Funding: Amount of money invested and recipient(s) of funds: On September 27, 1991, EPA awarded a $15,000,000 grant to the Texas Water Development Board (TWDB).

3) Partners: EPA Region 6 and the TWDB.

4) Description: Loans are made between the TWDB and a local government. Loans to low income residents are made available and administered at the local level for residential plumbing improvements to improve public health for the colonia residents in designated border counties.

5) Status: Loans have been made to: the City of Pharr, the City of Edinburg and El Paso County.

6) Schedule: The TWDB is continuing to make the program available.

7) U.S. Contacts: Federal: Oscar Cabra Jr. P.E., EPA Region 6, (214) 665-7110
State: Fernando Escarcega, TWDB, (512) 475-2068

Project Name: **Identify Barriers to Local Government Participation in Water/Wastewater Assistance to Colonias**

1) Purpose and Objectives: This project will provide a report on identifying barriers to achieving local government interest in colonias sanitation problems.

2) Funding: In August 1993, EPA awarded a $50,000 grant to the International City/County Management Association.

3) Partners: EPA Region 6 and the International City/County Management Association.

4) Description: The project report is to provide the views and opinions on various barriers of assisting colonias from the local government perspective. This report will assist State and Federal assistance providers to assess possible changes to their programs and delivery methods.

5) Status: A brief overview of the final document was provided in December 1994.

6) Schedule: Final Report submission - February 15, 1995

7) U.S. Contacts: Federal: Oscar Cabra Jr. P.E., EPA Region 6, (214) 665-7110
ICMA: Ann McKinney, (202) 962-3544

Project Name: **Constructed Wetlands Wastewater Treatment Model Project to Address Wastewater Treatment in the Colonias**

1) Purpose and Objectives: This project will demonstrate the Constructed Wetlands type of wastewater treatment technology in a colonia as provided for in the FY93 Appropriations Act.

2) Funding: On December 22, 1992, a $650,000 grant was awarded to the New Mexico Environment Department (NMED).

3) Partners: Mesquite Mutual Water Association

4) Description: The NMED administers the planning, design and construction of this project. EPA provides the performance standards to be achieved by the treatment facility, technical consultation during design and assists NMED in oversight during construction. EPA also provides technical consultation to NMED during the design of the monitoring program and oversight during monitoring.

5) Status: Final plans, specifications and contract (bid) documents have been reviewed and approved.

6) Schedule: Expect request for bids (advertisement) in April 1995. Expect construction to begin by June 1995. Expect construction completion by end of 1995.

7) U.S. Contacts: Federal: Oscar Cabra Jr. P.E., EPA Region 6, (214) 665-7182
State: Patrick Oleachea, NMED, (505) 827-2812

Project Name: **Texas Colonia Wastewater Treatment Assistance Program**

1) Purpose and Objectives: To expedite the construction of eligible wastewater treatment improvements which address the existing wastewater needs of the unincorporated colonias in existence as of November 9, 1989.

2) Funding: On December 22, 1992, EPA awarded a $50,000,000 grant to the Texas Water Development Board (TWDB). On January 22, 1995, EPA increased the amount by $100,000,000.

3) Partners: The Texas Water Development Board (TWDB) provides a 100% match to the FY 1993 EPA funds and a 20% match to the FY 1995 funds. Various local water and wastewater service providers participate in the project.

4) Description: The TWDB administers this program and provides grants to local governments and non-profit water supply corporations for design and construction of wastewater collection and treatment facilities in the colonias. The TWDB has set aside $2 million for regional facility planning studies to address areas where a regional solution is possible. The TWDB has set aside $2 million for rural planning to provide direct technical support and financial assistance for facility planning in areas not well suited to a regional or sub-regional solution.

5) Status/Schedule: TWDB has awarded grants totalling over $70 million for construction and rural/urban planning. Two projects have completed construction and seven projects are under construction. 31 projects are in planning/design. The TWDB has regional facility planning studies underway in Cameron County and in Hidalgo County. The TWDB has rural facility planning studies underway in Cameron, Hidalgo, Webb and El Paso Counties.

6) U.S. Contacts: Federal: Oscar Cabra Jr. P.E., EPA Region 6, (214) 665-7110
State: Fernando Escarcega, TWDB, (512) 475-2068

Project Name: **New Mexico Colonias Wastewater Construction Grants Program**

1) Purpose and Objectives: To make grants to construct eligible wastewater treatment improvements which address the existing wastewater treatment needs of the unincorporated colonias in existence before November 28, 1990.

2) Funding: On December 22, 1992, EPA awarded $10,000,000 to the New Mexico Environment Department (NMED). On January 20, 1995, EPA awarded $10,000,000 to the New Mexico Environment Department.

3) Partners: The NMED provided a 5% match to the funds awarded in 1992 and a 20% match to the funds awarded in 1995.

4) Description: The NMED administers this program and provides grants to local governments and non-profit water supply corporations for planning, design and construction of wastewater collection and treatment facilities in the colonias.

5) Status: NMED has awarded 13 grants totalling $4.9 million for planning, design and construction.

6) Schedule: Approximately 15 grants are targeted for FY 95.

7) U.S. Contacts: Federal: Oscar Cabra Jr. P.E., EPA Region 6, (214) 665-7110
State of New Mexico: Patrick Oleachea, NMED, (505) 827-2812

Project Name: **Evaluation of Wastewater Treatment Ponds for Use Along the U.S.-Mexico Border**

1) Purpose and Objectives: To evaluate ponds as a low-cost, low-technology method of municipal wastewater treatment under Mexico border climatic conditions; and to provide information for planners and engineers preparing preliminary border project designs.

2) Funding: FY94: $25,000 U.S. EPA Office of Wastewater Management (OWM)/Municipal Construction Division

3) Partners: U.S. EPA Office of Wastewater Management, EPA Region 6 & Region 9 and International Boundary Water Commission (IBWC)

4) Description: A technology transfer-style evaluation report will be based upon an independent assessment and summary of available information, and a field trip to border facilities in California, Arizona, and Texas. The report will summarize potential municipal wastewater pollution removal capabilities of conventional stabilization ponds, aerated ponds, and other pond treatment alternatives for municipal wastewater. It will also address operations and maintenance issues; the technology's applicability to treating domestic, industrial, agricultural, and mixed waste sources; and innovative technologies for retrofitting existing pond systems to increase their efficiency. The report will identify areas of inadequate information and recommend corrective measures. It will be closely coordinated with related EPA efforts to support wastewater treatment improvement in the border region.

5) Status & Schedule:

Project concept approval	Spring 1994
Funding approval	Summer 1994
Work Plan development	Sept. 1994
Work Plan approval	Dec. 1994
Final Report	Sept. 1995

6) U.S. Contacts: Bob Bastian, U.S. EPA/OWM, (202) 260-7378
Oscar Cabra, U.S. EPA Region 6, (214) 665-7110
Doug Eberhardt, U.S. EPA Region 9, (415) 744-1280

Project Name: **Colonia Assistance and Management Support Program**

1) Purpose and Objectives: Provide assistance to eligible political entities in border counties regarding wastewater and water supply. Provide overall management and coordination assistance to colonia areas which will result in an application for financial assistance to implement needed drinking water and wastewater facilities improvements. Prepare any required engineering and/or legal documents necessary in order for an eligible entity to submit an application for financial assistance for design and construction.

2) Funding: In September 1994, EPA awarded a $142,000 grant to the Texas Water Development Board (TWDB). EPA awarded a $55,000 grant under the Colonia Assistance and Management Support Program (CAMSP) to the El Paso Water Utilities Public Service Board (PSB), in July 1994. In January 1995, EPA awarded an additional $150,000 to the Texas Water Development Board.

3) Partners: Texas Water Development Board
El Paso Water Utilities Public Service Board

4) Description: Grants to local political subdivisions and non-profit water supply corporations that would be willing to perform management, engineering and other activities on behalf of the colonias that will result in an application for financial assistance to implement needed drinking water and wastewater facilities improvements

5) Status: The TWDB has identified the cities of Hidalgo, Mission and McAllen to receive funding thus far under this program. The PSB is actively working on the Westway colonia in the El Paso area.

6) Schedule: TWDB will continue to contact potential colonia sponsors. The PSB expects to complete its work in the Westway colonia during 1995.

7) U.S. Contacts: Federal: Oscar Cabra Jr. P.E., EPA Region 6, (214) 665-7182
State of Texas: Fernando Escarcega, TWDB, (512) 475-2068

Project Name: **Texas Colonia Enforcement Strike Force**

1) Purpose and Objectives: Support the Texas Attorney General in the enforcement of State laws relating to colonia development.

2) Funding: On June 15, 1994, EPA awarded $150,000 to the Office of the Attorney General, State of Texas. This amount was increased by $50,000 for a total of $200,000 on September 13, 1994. In 1995, EPA awarded an additional $50,000 for this project.

3) Partners: EPA Region 6 and the Texas Attorney General's Colonias Strike Force.

4) Description: Funding for personnel and office equipment to support the Colonias Strike Force in Austin and in McAllen, Texas, to investigate and prosecute violations of State law involving illegal subdivisions.

5) Status: Two attorneys on duty. Two investigators are being hired.

6) Schedule: Three cases in litigation, two cases being investigated, one case pending trial, one case under consideration for litigation.

7) U.S. Contacts: Federal: Oscar Cabra Jr. P.E., EPA Region 6, (214) 665-7182
Lawrence Sperling, EPA-OECA (202) 260-3087
State of Texas: Gregg A. Cooke, Asst. Atty. Gen., (512) 463-2012

Project Name: **New Mexico Colonias Enforcement Action**

1) Purpose and Objectives: Support the New Mexico Attorney General in the enforcement of State laws relating to colonia development.

2) Funding: In 1995, EPA awarded $60,000 for this project. Funding for this grant is being provided by EPA's Office of Enforcement and Compliance Assurance (OECA) and the Office of International Activities (OIA).

3) Partners: New Mexico Attorney General will provide $15,000 (in-kind) for this project.

4) Description: Funding for personnel and supplies to fund the expenses of litigation and support the effort to stem the development of colonias and alert potential purchasers to the environmental and health dangers of colonia development through innovative use of state enforcement authorities.

5) Status: Application received January 16, 1995.

6) Schedule: Project period is one year. The project schedule is dependent upon the court imposed litigation schedule.

7) Contacts: Federal: Oscar Cabra Jr. P.E., EPA Region 6, (214) 665-7110
Lawrence Sperling, EPA OECA, (202) 260-3087
State of New Mexico: Eugene I. Zamora, Asst. Atty. Gen., (505) 827-6060

Project Name: **Municipal On-site Wastewater Assistance Program**

1) Purpose and Objectives: Provide on-site technical assistance to small communities in Texas along the U.S. - Mexico border.

2) Funding: On July 28, 1994, EPA awarded a $50,000 grant to the Texas Water Development Board (TWDB).

3) Partners: EPA Region 6 and the Texas Water Development Board

4) Description: The Texas Water Development Board will develop an on-site technical assistance program for small community wastewater treatment plant operators and managers along the U.S./Mexico border.

5) Status: The TWDB has mailed out a flier describing the program. Assistance has been provided to 8 communities, including Presidio which was under an enforcement order. A number of communities are on a waiting list for assistance in evaluating their collection systems by using TWDB smoke testing equipment. The TWDB loans out the equipment after training the local staff in its operation.

6) Schedule: TWDB will continue to provide the assistance until resources are exhausted or the end of the project/budget period, August 31, 1995.

7) Contacts: Federal: Oscar Cabra Jr. P.E., EPA Region 6, (214) 665-7182
State of Texas: Joe Mendoza, TWDB, (512) 936-0802

Project Name: **Circuit Rider Technical Assistance for Public Water Systems along the U.S./Mexico Border**

1) Purpose and Objectives: To provide for concentrated management and technical assistance to water utilities along the border over a two year period. The Texas Rural Water Association will provide the hands-on assistance with an experienced "circuit rider" personnel. The goals are to decrease by 50 % the number of public drinking water systems in substantial noncompliance with drinking water standards, and to ensure that 100 % of the regulated water and wastewater utilities provide reliable and adequate customer service in a cost effective manner.

2) Funding: On September 1, 1994, EPA awarded $140,000 to the Texas Natural Resource Conservation Commission (TNRCC).

3) Partners: The partners are EPA Region 6, the Texas Natural Resource Conservation Commission (TNRCC) and the Texas Rural Water Association (TRWA).

4) Description: To help utilities comply with State and Federal regulations in a cost effective manner, and to ensure that water and wastewater utility services are maintained and expanded, where possible, by identifying financial resources and helping utilities to access those resources.

5) Status: Work is being initiated.

6) Schedule: Continue contacting utilities along the border and assessing need.

7) U.S. Contacts: David Reazin, EPA Region 6, (214) 665-7501
George Fritag, TNRCC
Tommy Duck, TRWA

Project Name: Cameron Park Colonia Recycling Program

1) Purpose and Objectives: The citizens of Cameron Park Colonia have requested financial assistance to establish a solid waste recycling program, along with an educational outreach program for the Colonia and the surrounding neighbors.

2) Funding: $40,000 has been requested by the Lower Rio Grande Valley Council of Governments (LRGVCOG).

3) Partners: EPA, Lower Rio Grand Valley Council of Governments, Cameron County, Colonia Residents

4) Description: The project will develop and distribute to the citizens of Cameron Park and other surrounding communities in Cameron County, educational materials on what, how, when, where and why to recycle. The materials will be printed in English and Spanish. The project will also establish a collection center for recyclable materials at Cameron Park Community Center.

5) Status: EPA is awaiting a formal application from the Lower Rio Grande Valley Council of Governments. Application was expected in March 1995.

6) Schedule: EPA anticipates making the grant award by August 1995.

7) U.S. Contacts: Paul Thomas, Region 6, (214) 665-6707

OTHER DOMESTIC INITIATIVES

Project Name: **El Paso City/County Health and Environmental District - Wellhead Protection (WHP) Project**

1) Purpose and Objectives: The purpose of the El Paso City/County WHP project is to implement the City of El Paso's ground water protection program throughout El Paso County with special emphasis on the area's colonias. The project will add an additional level of protection to the area's drinking water supply wells by using WHP program tools.

2) Funding: Amount of Money Invested and Recipient of Funds: In September 1992, the El Paso City/County Health and Environmental District was awarded assistance funds in the amount of $42,100.

3) Partners: Texas Natural Resource Conservation Commission, City of El Paso - RSVP program, EPA Region 6

4) Description: The El Paso City/County Health and Environmental District's WHP demonstration project borrows elements of the City of El Paso's WHP program to develop and implement a WHP program for the public drinking water supply wells in the county. The project focused a significant portion of it's resources to the water quality problems associated with the county's colonias.

5) Status: The project has been completed. However, the District is requesting an extension of it's budget/project period to continue working on the project by providing technical assistance to the UTEP AmeriCorps project.

6) Schedule: The necessary paperwork is being processed for an extension of the budget/project period until June 30, 1995.

7) U.S. Contacts: Ken Williams, EPA Project Officer, (214) 665-7129
Godwin Ubany, El Paso City/County Health and Environmental District, (915) 771-5792

Project Name: **Intergenerational AmeriCorps® Ground Water Protection Program: El Paso, Texas Wellhead Protection Project**

1) Purpose and Objectives: The project is designed to add an additional level of protection for the 200+ public water supply wells providing drinking water for the El Paso area.
III. Amount of Money Invested and Recipient(s) of Funds: An assistance agreement in the amount of $126,370 ($108,910 Corporation for National and Community Service - CNCS [L6Q], $6,000 EPA [BUH], and $11,460 TNRCC) was awarded to the University of Texas at El Paso in September 1994.

2) Funding:

CNCS (Grant to EPA $42,833, AmeriCorps Members Living Allowance $69,677, Education Awards $47,260)	$ 159,770
EPA Headquarters Matching Funds (Includes contributions from Region 6, TNRCC, UTEP, and the City of El Paso)	$119,682
TNRCC Matching Funds (Required 15% match for AmeriCorps member's Living Allowance)	11,460
	$ 290,912

3) Partners: EPA Headquarters, EPA Region 6, TNRCC, UTEP, City of El Paso RSVP Program.

4) Description: The El Paso, Texas AmeriCorps project is designed to combine federal, state, and city governments together with an intergenerational, bilingual team of local citizens. The team is comprised of Retired Senior Volunteer Program members and 20 University of Texas at El Paso AmeriCorps members, and is involved with the inventory of and the recommendation of controls for existing and potential sources of ground water contamination located around the public drinking water supply wells for the City and County of El Paso. The initiative is an enhancement to an existing EPA Region 6 funded Wellhead Protection Demonstration project that is being implemented by the City/County of El Paso through the Texas Natural Resource Conservation Commission.

5) Status: All AmeriCorps members have received training on the Wellhead Protection program and will soon begin the contaminant source inventory process of the project.

6) Schedule: The project is funded for FY95, with additional funding being requested for FY96.

7) U.S. Contacts: Ken Williams, EPA Project Officer, (214) 665-7129
Dr. Romy Ledesma, UTEP, (915) 747-6850
Helga Butler, EPA National NSP Coordinator (202) 260-4179

Project Name: **Sunland Park Health Consultations**

1) Purpose and Objectives: The Border Health Office, New Mexico Department of Health, requested that the Agency for Toxic Substances and Disease Registry (ATSDR) address the potential health impact that the Nu-Mex Landfill in Sunland Park and the ASARCO smelter in nearby El Paso, Texas, might have on the community. Findings and recommendations are to be reported in one or more health consultations completed by ATSDR.

2) Funding: Both ATSDR and the New Mexico Border Health Office (NMBHO) are using program funds for the project. No grants or specifically identified funds have been requested at this time.

3) Partners: ATSDR and New Mexico Border Health Office

4) Description: The impact of the facilities on the community will be based on an evaluation of existing environmental and biological information/data. Additional data may be generated if significant gaps in the existing data bases are identified. Recommendations for follow-up actions will be provided if appropriate.

5) Status: Scoping visits by ATSDR and NMBHO representatives have been made to the two facilities. Meetings have been held with governmental agencies (EPA/Texas and New Mexico health and environmental agencies/local health agencies) to identify and collect existing data. Representatives from the Gadsden Independent School District and elected officials have been briefed. A Community Forum was held to allow local residents and other individuals an opportunity to voice their concerns.

6) Schedule: The project is in the data collection, evaluation and analysis stage. Further action is expected in Summer, 1995.

7) U.S. Contacts: NMBHO - Dan Reyna, Director, Border Health Office, NMDOH
ATSDR - Jennifer Lyke, Regional Rep., Region 6, (214) 665-8362

Project Name: Geographic Targeting of Abandoned and Inactive Sites Activities

1) Purpose and Objectives: As part of the Integrated Border Environmental Plan (IBEP), a strategy to identify inactive and abandoned dump sites along the U.S. border area was developed. This is an on-going project from 1993.

2) Funding: $ 800,000 in extramural funds were obligated in order that EPA contractors could complete this project.

3) Partners: EPA Region 6

4) Description: EPA Region 6 is using Geographic Information Systems (GIS) tools to generate maps showing areas of concern in which further aerial photography should be utilized to identify any potential abandoned and inactive sites that may be eligible for evaluation under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA). The criteria used to select these areas of concern include population, ground water and surface water use, sensitive environments (wetlands, etc.), as well as types of industry, and types of wastes generated by industry. Available technology, including GIS and available databases have been utilized in the site identification strategy. Once this information is compiled, potential sites are identified for the EPA contractor to conduct field surveys from which sites could later be selected for Preliminary Assessments (PAs).

5) Status: Field surveys were performed in the Brownsville area in July 1993. Information from these surveys led to the identification of ten sites which were selected for PAs. The assessments were completed in 1994. None of the sites assessed in the Brownsville area were eligible for the National Priorities List.

GIS studies in the El Paso and Laredo areas were started in 1994 as well as field surveys. This information was used to determine number and location of sites for PAs. Nine sites were tasked in the El Paso area. Sites in the Laredo area, located in Webb County, were also evaluated. None of the sites were tasked for PAs as a result of the study. The El Paso/Las Cruces area was also evaluated using available databases. PAs were conducted at 10 sites.

A two-week training course on Remote Sensing and Aerial Photography was held from May 16-27, 1994, for the staff from the Procuradoría Federal de Protección del Ambiente, who had requested this type of training from EPA.

6) Schedule: Complete the GIS study for Webb and El Paso counties and complete the evaluation of contractor-generated PAs for the El Paso area.

7) U.S. Contacts: Ed Sierra, EPA Region 6, (214) 665-6740

Project Name: **Global Positioning System (GPS) Location of Regulated Facilities along the Region VI-Mexican Border**

1) Purpose and Objectives: The goal of this project is to develop a comprehensive Geographic Information System (GIS) database containing the location of all environmentally regulated facilities impacting the U.S.-Mexico border area of Region VI.

2) Funding: On September 23, 1994, FY94 funding for this project was approved and a $150,000 cooperative agreement was awarded to the Bureau of Economic Geology (BEG) at the University of Texas at Austin. Additional FY95 funds have been appropriated, but not yet awarded, to complete all remaining GPS project work not completed with FY94 funding and/or commence work on developing similar comprehensive locational databases for other critical environmental areas of Region VI.

3) Partners: The BEG will furnish final relevant GIS database info to the following: Environmental Protection Agency (EPA) - Region VI, Texas Natural Resource Conservation Commission (TNRCC), New Mexico Environment Department (NMED), and other local environmental groups such as 1) through the Lower Rio Grande Valley Development Council (LRGVDC) to their Regional Arc/Info System Database, and 2) through the Texas Natural Resources Information System to their Texas/Mexico Borderlands Data and Information System. In addition, field data collection activities conducted within the LRGVDC region will be coordinated with the LRGVDC office.

4) Description: GPS, currently considered the best practicable geocoding technology by the Agency, is being utilized to accurately locate regulated facilities (to within +/-25 meters) in the States of New Mexico and Texas and along the U.S.-Mexico border. hence, complying with Agency Locational Data Policy. The majority of the regulated facilities are located in and around major U.S. population centers of New Mexico (Las Cruces and Columbus) and Texas (Brownsville, McAllen, Laredo, Presidio, Eagle Pass and Del Rio).

5) Status/Schedule: The BEG has submitted a preliminary and revised Quality Assurance Project Plan (QAPP) for the project, which Region 6 has reviewed and conditionally approved, recommending only minor changes. Region 6 has downloaded and forwarded to the BEG electronic data files and printed hard copy listings of facility information contained in its relevant program databases. The downloaded facility info will be incorporated into the final GIS database. In addition, the BEG has completed testing of real-time GPS equipment specifically purchased for use in this project and has verified the accuracy of corrected locational data collected using the equipment to within +/-5 meters.

6) U.S. Contacts: BEG: Jay Raney, Associate Director (512) 471-1534
TNRCC: *Databases*- Rodney Peschel (512) 239-0983
GIS- Barry Allison (512) 239-0850 *GPS*- Mary Smith (512) 239-0848
NMED: *Databases*- Jane Lockwood (ORACLE) (505) 827-2771
Don Ditmore (STORET) (505) 827-2822
GIS: Fred Gross (505) 827-2771 *GPS*: Eric Galloway (505) 827-2923

Project Name: **U.S.-Mexico Cooperation on Environmental Impact Assessment (EIA)**

1) Purpose and Objectives: Upgrading EIA methodology and procedures.

2) Funding: $ 75,000 ($55,000 for development of EIA course by SAIC, Inc.; $20,000) for travel and related logistics for delivery of existing basic course on EIA and more advanced course under development and consultation on review of EIA documents

3) Partners: Mexican environmental staff and officials concerned with EIA.

4) Description: (1) Repeat presentation of basic EIA course originally presented in Dallas, Texas in 1992. (This will be done only if Mexican environmental staff and officials concerned with EIAs believe that new staff members would benefit from repeating the original course and based on the willingness of previously trained facilitators to assist instruction.) (2) Present advanced EIA course currently under development which will focus on mechanisms and tools for carrying out EIA. This course will be oriented towards applications of EIA assessment techniques, and will have a more technical focus than the first course. (3) Technical conference on review of EIA documents with EPA and Mexican environmental staff and officials who are responsible for reviewing EISs (U.S.) and EIA documents (Mexico) will meet and discuss approaches to carrying out reviews and common problems. This will cover: determining the level of review, coordinating reviews by different technical experts, criteria for evaluating EIAs, process for getting comments on EIAs to proponents, process for resolving issues, etc. (4) On-going coordination between EPA Region 6, EPA Region 9, and Mexican environmental staff and officials should become an integral part of U.S./Mexico coordination on EIA.

5) Status: In December 1992 EPA initiated technical cooperation on EIA by providing a basic course on EIA to SEDESOL staff at EPA's regional office in Dallas. In FY 1994 EPA initated development of an advanced EIA training course targeted for first use in Mexico. In May 1994 EPA wrote to SEDESOL proposing the next course of action (see above), and there has been follow-on discussion between EPA Region 6 and Mexican environmental staff and officials concerned with EIAs. Due to re-organization in Mexico plans have not been finalized. Meanwhile U.S. EPA is developing the course and expects to have it ready for delivery in Mexico by early fall. EPA is prepared to deliver the basic EIA course and/or a technical confernce on EIA document review within several weeks of agreement with Mexico on meeting time and place.

6) Schedule: Complete development of advanced course, await reaction from Mexico on proposed plan of action.

7) U.S. Contacts: Joe Montgomery, EPA (202) 260-8793

Project Name: **Environmental Justice Border Community Grants**

1) Purpose and Objectives: The purpose of the grants program is to provide financial assistance and stimulate a public purpose by supporting projects for affected border communities that are eligible under applicable statutory authorities and are working or plan to carry out projects to address environmental justice issues. Funds can be used to develop a new activity or to substantially improve the quality of existing activities.

2) Funding: In FY 94 one $30,000 grant was awarded to the Arizona Department of Environmental Quality and one $8,000 grant was awarded to Prescott College.

3) Partners: Arizona Department of Environmental Quality, Prescott College

4) Description: In its 1992 report, Environmental Equity: Reducing Risk for All Communities, EPA found that minority and low-income communities experience higher than average exposure to toxic pollutants than the general population. The Office of Environmental Justice (OEJ) was established in 1992 to help these communities identify and assess pollution sources, to implement environmental awareness and training programs for affected residents, and to work with community stakeholders to devise strategies for environmental improvements.

Fiscal year 1995 is the second year of the Environmental Justice Small Grants Program. This year an additional $50,000 in grant funds is being made available through EPA Region 9 specifically for awards dealing with environmental issues of concern along the U.S. Mexican Border. Priority for funding under this grant program will be given to community-based/grassroots organizations whose projects will: 1) develop an environmental justice project, activity, method, or technique that has wide application, 2) enhance the community's skills in addressing environmental justice issues and problems, and 3) establish or expand environmental and public health information systems for local communities.

In FY 94 EPA funded two border-related projects through this grants program. One grant was awarded to the Arizona Department of Environmental Quality for development of a video about environmental and health issues along the border and one grant was awarded to Prescott College to support development of Binational Teacher Education Workshops on environmental education in Ambos Nogales.

5) Status: Project proposals were due to EPA regional offices on February 4, 1995.

6) Schedule: EPA program officials will review, evaluate and select FY 95 grants by March 31, 1995. The grants will then be processed and awards will be made by May 31, 1995. Grantees projects or activities will begin around June 1, 1995.

7) U.S. Contacts:

Donna Orebic, EPA Region 9, U.S.-Mexico Border Team, (415) 744-1284
Lori Lewis, EPA Region 9, Environmental Justice Coordinator, (415) 744-1561

Project Name: California Department of Toxic Substances Control Grant

1) Purpose and Objectives: Fund Border Coordinator position in the California Department of Toxic Substances Control (DTSC) to support implementation of the Border Plan in California, and fund several specific border projects through the Coordinator.

2) Funding: DTSC has approximately $300,000 for border activities in FY 95. This figure may fluctuate during the fiscal year. Approximately $300,000 has been proposed to support DTSC border work in FY 96.

3) Partners: California Department of Toxic Substances Control, County of San Diego

4) Description: The general activities being conducted under the grant are: 1) Serve as a liaison to EPA on all significant border activities and issues; 2) Develop a DTSC strategy for border issues; 3) Manage a contract with the County of San Diego to monitor the import/export of hazardous waste shipments between California and Mexico and determine if these shipments conform with applicable laws and regulations; 4) Increase technical support to federal, state and local agencies and the public related to imports and exports of hazardous waste; and 5) Conduct complaint inspections and provide technical assistance on criminal investigations within 100 km of the border or involving import/export of hazardous waste from/to Mexico.

5) Status: We had a mid year meeting with DTSC in March 1995. Good Progress is being made on most activities under the grant.

6) Schedule: All grant activities are ongoing throughout the duration of FY95.

6) U.S. Contacts:

Donna Orebic, EPA Region 9, U.S. Mexico Border Team, (415) 744-1284
Frances Schultz, EPA Region 9, California Project Officer, (415) 744-2058
Pam LePen, Cal-EPA, Department of Toxic Substances Control, (310) 590-5909

Project Name: Arizona Department of Environmental Quality Grant

1) Purpose and Objectives: Fund Border Coordinator position in the Arizona Department of Environmental Quality (ADEQ) to support implementation of the border plan in Arizona, and one and one half inspectors in Tucson and Nogales.

2) Funding: $214,300 was provided to ADEQ to support FY 95 border activities. For FY 96, $285,700 has been proposed.

3) Partners: Arizona Department of Environmental Quality

4) Description: In FY 94, ADEQ hired a new hazardous waste border coordinator and a hazardous waste inspector for the Tucson office. The inspector will also coordinate emergency responses. The major border tasks included in the FY 95 workplan are: TSD and LQG inspections, hazardous waste complaints and referrals, technical support activities, formal and informal enforcement and compliance activities, permits-related activities, import/export manifest tracking, and participation in broader border program activities.

5) Status: Activities during the first quarter were limited due to the departure of the Waste Programs Manager from the Tucson office. ADEQ is currently in the process of filling this vacancy.

6) Schedule: All grant activities are ongoing throughout the duration of FY95.

6) U.S. Contacts:

Donna Orebic, EPA Region 9, U.S. Mexico Border Team, (415) 744-1284
Bridget Coyle, EPA Region 9, Arizona Project Officer, (415) 744-2032
Tibaldo Canez, Arizona Department of Environmental Quality, (602) 207-2234

OTHER U.S./MEXICO PROJECTS (NOT SPECIFIC TO THE BORDER)

Project Name: **Strengthening State and Local Environmental Policymaking and Enforcement Capacity in Mexico**

1) Purpose and Objectives: To evaluate and help strengthen the legal framework and the enforcement capacity for environmental protection at the state and local levels in Mexico.

2) Funding: FY95: $200,000 U.S. EPA; $10,530 Environmental Law Institute (ELI).

3) Partners: U.S. EPA; ELI team (incl. four Mexican attorneys).

4) Description: The project involves a thorough examination of state and local environmental laws and institutions within the Mexican states of Baja California, Nuevo Leon, Mexico, Veracruz and Oaxaca. Teams of U.S. and Mexican attorneys are to review all relevant legislation and regulations in these five states, and are to interview state and local officials regarding the interpretation and implementation of legal standards. The project is compiling information not only on environmental laws and regulations, but also on the institutional mechanisms and practices that have been established to monitor compliance with, and enforce, those laws and regulations.

5) Status and Schedule: As of March, 1995, the project team has completed its review of legislation in all five states, and has completed interviews with officials in those states. The team is now completing its draft report, which will be made available in Spanish and English versions to be circulated in Mexico and the United States for comment. The project final report is expected to be ready for distribution by the end of the summer, 1995.

6) U.S. Contacts: Patricia Koshel, EPA HQ, OIA, (202) 260-0797
Susan Bass, ELI, (202) 328-5150

Project Name: **Eco-Industrial Park Feasibility Study (PIP No.52)**

1) Purpose and Objectives: To explore the applications of industrial ecology theory (re-using wastes, conserving water and energy) to economic development in the U.S.- Mexico border area. To publish a case study and a field guide on eco-industrial parks (to be released by September, 1995) delineating which environmental technologies are needed for eco-industrial development and assessing government's role in fostering such development.

2) Funding: FY94: $295,000 U.S. EPA Office of Policy, Planning and Evaluation (OPPE)

3) Partners: U.S. EPA (OPPE, R6, R9, Border Offices); Research Triangle Institute; Inc. (RTI); Indigo Development (Oakland, California); President's Council on Sustainable Development; U.S. DOE; Urban Land Institute; Nat'l. Assn. of Industrial and Office Parks; Environmental Defense Fund; California Environmental Technology Center; Texas Natural Resources Conservation Commission; City of Brownsville, Texas; City of Matamoros, Mexico.

4) Description: RTI has formed a study team that is developing three scenarios in a case study involving business development and environmental management in the U.S.- Mexico border area. The baseline scenario models "business as usual." The second scenario models opportunities to go beyond simple compliance with law -- by reusing wastes, and conserving water, energy and other resources within the Brownsville - Matamoros area. The third scenario examines opportunities to create value-added production in the community by establishing businesses applying technologies that re-process wasted materials, water and energy emanating from traditional businesses. The study team will also examine the role of environmental technology development and transfer as well as regulatory and policy barriers affecting each of the three scenarios.

5) Status/Schedule: Draft technical memos and workshop materials have been prepared. The case study is almost completely drafted. About $120,000 has been expended to date. A draft report and field guide is to be available in early May, 1995. A project workshop is scheduled for May 4th and 5th, 1995. The final report is to be completed by October, 1995. The President's Council on Sustainable Development will include the Brownsville - Matamoros case study in its March, 1995 report to the President.

6) U.S. Contact: Brendan Doyle, US EPA, OPPE; (202) 260-2693

Project Name: **Groundwater Protection Workshop: Underground Storage Tank (UST) and Underground Injection Control (UIC) Training for Mexican Regulators and Industry**

1) Purpose and Objectives: To help build a U.S.- Mexican environmental partnership through training on UST leak detection methods, as well as UST and UIC cleanup technologies, for Mexican regulatory inspectors and the Mexican regulated community.

2) Funding: FY94:$40,000 U.S. EPA Office of International Activities (OIA) and EPA Region 9 Underground Injection Control (UIC) program

3) Partners: U.S. EPA; San Diego Emergency Response Team.

4) Description: Week-long classroom and field training of 35 participants from Mexican private industry and cleanup contractors; from SEMARNAP offices in Tijuana, Juarez and Mexico City; from State of Baja California Department of Ecology; from PEMEX; and from Mexican consulting firms working for SEMARNAP.

5) Status and Schedule: This was a one-time training course, Mar.22 - 25, 1994

6) U.S. Contacts:

Dana Tulis, US EPA Office of Underground Storage Tanks, (703) 308-8891
Armando Aparicio, EPA Region 9, (415) 744-2081

Project Name: United States Environmental Training Institute (USETI) Mexico Program

1) Purpose and Objectives: To develop training courses to address Mexico's immediate environmental training needs, to be a vehicle for Mexican public and private sectors access to U.S. environmental technology products and services, and to develop a long-term "in country" presence in Mexico.

2) Funding: Total EPA funds to USETI for Mexico Program are $500,000.00. USETI's contributions will amount to at least $89,995.00.

3) Partners: U.S. EPA and USETI. USETI's partners in the Mexico Program are from both public and private sectors in Mexico and the US. For example: National INstitute of Ecology (INE), R.E. Baker Company, Inc., Pan-American Health Organization (PAHO), Bio-Sure Environmental , Ltd., PAHO/CEPIS (Lima, Peru), Medical Compliance Service, Joab, Inc., Instituto Tecnologico de Ciudad Juarez, and National Confederation of Industrial Chambers (CONCAMIN). Other U.S. companies are: Grupo WMX, IT Corporation, DunCorp, and Pollution Prevention International.

4) Description: USETI, a nonprofit organization that holds training programs using governmental and non-governmental instructors, is developing a series of training courses for its Mexico Program to address the enormous needs of environmental training and promote the US environmental technologies in Mexico. The program will span a 3-year period beginning March 14, 1994 and ending on March 13, 1997.

5) Status and Schedule: During 1994, USETI organized one course regarding "Medical Waste Management and Proposal Development" in Ciudad Juarez. During 1995, USETI is planning to have a minimum of six environmental training courses and also hire a Mexican national staff person to serve as USETI's liaison in Mexico. The schedule for the training courses is as follows:

Industrial and Municipal Wastewater Treatment Technologies	March 24-31, 1995
Hazardous Waste Management	May 15-19, 1995
Pollution Prevention	June 19-23, 1995
Medical Waste Management and Proposal Development	July 10-14, 1995
Municipal Solid Waste Management	October 2-6, 1995
Air Pollution Control Technologies - Stationary Sources	November 13-17, 1995

6) Contacts: Mark Kasman, U.S.EPA/OIA, (202) 260-0424

Project Name: **University of New Mexico Environmental Finance Center (EFC)**

1) Purpose and Objectives: To offer graduate-level educational courses through a regular university curriculum, as well as train practicing professionals in traditional and innovative finance techniques for environmental infrastructure; to provide technical assistance to state and local governments and the private sector relating to the management and finance of new or existing environmental infrastructure; and to perform research and analysis of issues relevant to current problems in the field of environmental finance.

2) Funding: Since 1992, the Environmental Finance Center (EFC) has received a total of $288,750.00 from the following sources:

- $225,000 from U.S. EPA;
- $ 20,000 from U.S. Department of State;
- $ 30,000 discretionary funding from U.S. EPA Region 8
- $ 13,750 as 5% match from various sources.

3) Partners: U.S. EPA Office of Administration and Resources Management (OARM) & EPA Region 6; U.S. Department of State

4) Description: Since its creation in 1992, the EFC has provided training/assistance in traditional and innovative finance techniques for environmental infrastructure to a variety of communities and governmental entities. It has also hosted a number of conferences, including the Border Environmental Infrastructure Colloquy for top U.S./Mexican environmental officials in 1992 and the BECC/NADBank Environmental Financing Conference in 1994, jointly sponsored by U.S. Department of State and U.S. Environmental Protection Agency.

5) Status & Schedule: The EFC is exploring various ways to assist communities to develop, finance and manage environmental infrastructure along the border areas. Currently, it is analyzing the regionalization of small water systems via two separate grants from the U.S. EPA:

a) Under a $50,000 grant, the EFC will identify various types of legal and organizational structures available to the colonias in Doña Ana County, New Mexico, which are not served by water systems, sewer treatment facilities, or electricity. The EFC will also assist in analyzing user fees to pay for the operation, maintenance and debt service for selected systems.

b) Under a $20,000 grant, the EFC is analyzing options to link 15 to 20 existing small water systems together into a regionalized water supply consortium by means other than physical connection. Regionalization will allow these systems to improve operations and maintenance, capital planning and financing, and overall systems management functions. The outcome of this project will provide a useful model for mobilizing rural systems to better meet the requirements of the SDWA.

6) U.S. Contacts: Norm Falk, NM Engineering Research Institute, (505) 272-7343
Tracy Eagle, NM Engineering Research Institute, (505) 272-7372
George F. Ames, U.S. EPA/OARM, (202) 260-8227

Project Name: **Technical Assistance and Training for Border Communities**

1) Purpose and Objectives: This project will provide assistance to border communities in finding financial and management solutions for infrastructure development among the U.S. colonias in New Mexico and Texas.

2) Funding: Amount of money invested and recipient(s) of funds: On September 15, 1993, a $50,000 grant was awarded by EPA to the University of New Mexico, Environmental Finance Center (EFC).

3) Partners: EPA Region 6 and the University of New Mexico

4) Description: The EFC worked with Doña Ana County officials on wastewater plans and preparations for training assistance on the County's water system development program.

5) Status: The grant has been closed out

6) U.S. Contacts: Federal: Oscar Cabra Jr. P.E., EPA Region 6, (214) 665-7182
EFC: Norman Falk. NMEFC, (505) 272-7343

Project Name: U.S.- Mexico Pesticide Residue Standards Working Group

1) Purpose and Objectives: To identify and where possible resolve differences in pesticide residue standards between the two countries

2) Funding: OIA/AID PASA funds supported April 20-23 meetings between EPA and FDA officials and Mexican counterparts. (Approximately $4600)

3) Partners: EPA, Comisión Intersecretarial para el Control de Plaguicidas, Fertilanzantes, y Sustancias Toxicas (CICOPLAFEST), FDA, and some USDA involvement

4) Description: Working group members are identifying key crop-pest-pesticide combinations that are important to Mexican agriculture but lack necessary U.S. pesticide residue tolerances. The U.S. has provided information on possible alternatives and FDA residue violation data, and preliminary contacts to assess likelihood of tolerance data development support have been made.

5) Status: Ongoing

6) Schedule: Talks on these issues began in 1990-91; no final "completion" date has been set, since we expect residue standards in the two countries will continue to change and there will be an ongoing need for consultation. We are currently investigating merging this activity with the U.S.-Canada Technical Working Group, creating a trilateral forum.

7) U.S. Contacts: Mary Frances Lowe, EPA, (703) 305-7102
John Wessel, FDA, (301) 543-1815

Project Name: **U.S.-Mexico Border Interagency Project and the Office of Research and Development's (ORD'S) Lower Rio Grande Valley Monitoring Study**

1) Purpose and Objectives: Representatives from EPA, the Department of Health and Human Services, and the US border States of Texas, California, Arizona, and New Mexico have formed a partnership to address environmental quality and health concerns along the US-Mexico border. Activities of the ICC have focused on developing an in-depth program strategy to address border concerns in a coordinated and timely manner to ensure that credible science and research are incorporated at the onset, establishing priorities, maximizing use of available resources and increasing community acceptance of decisions. Initial efforts have concentrated on the Lower Rio Grande Valley because of the community's concerns about the potential health impact of local environmental pollutants in the Valley. However, the intent is to develop a strategy that is applicable border-wide.

2) Funding: FY93-$1.5M, FY94-$1.5M, FY95-$2.5M; funding has been used by EPA's laboratories, EPA contractors, USPHS, Texas State agencies, and academic institutions.

3) Partners: USEPA, USPHS, Texas, New Mexico, Arizona, California

4) Description: In collaboration with the ICC, EPA's ORD is conducting an exposure monitoring study in the Rio Grande Valley to (1) identify and evaluate exposures and (2) identify sources and major pollutant pathways contributing to these exposures. Phase I, a pilot project, was conducted during 1993 and was designed as a scoping study to collect environmental data at a limited number of sites. The results of the pilot study were reported back to the participants and the community in June 1994. Data from these pilot studies are being used to design a second phase of the study - the exposure characterization - which will be a series of projects/activities to provide more substantial data to targeted exposures and for which health risk can be more effectively evaluated. Phase II is expected to begin in 1995.

5) Status/Schedule: Finalize the development of an MOU between EPA and HHS/PHS or collaboration on environmental public health programs along the US-Mexico border. Finalize the interim interagency research strategy document. Continue the coordination of activities and capabilities of multiple agencies. Continue to increase involvement of other border states and develop state and community capacity. Affirm the ICC's role as the health conduit for the US-Mexico Border 2000 Action Plan.

6) U.S. Contacts: Hal Zenick, US EPA ,(919) 541-2283

Project Name: **Community Empowerment Grant - Communities in New River Area**

1) Purpose and Objectives: The purpose of this project is to address industrial pollutant issues raised by the communities in the vicinity of the New River. EPA received three citizens' petitions in 1993 and 1994 regarding the pollution in the New River. The purpose of the project is to gather information on chemical discharges to the river in order to determine if there is risk of imminent hazard to human health or the environment. As part of EPA's efforts to assist the community to understand information and monitoring data about the river, EPA provided a community empowerment grant to the Environmental Health Coalition (EHC).

This project is being coordinated with and compliments other activities being undertaken by EPA's Region 9 office, other EPA offices, and the Agency for Toxic Substances and Disease Registry (ATSDR). The other activities taking place to address the pollution in the New River include an ATSDR health consultation; monitoring of the New River; chemical fate study of the New River; industrial wastewater pretreatment training; bilingual training for pesticide applicators; and support, to the extent possible, of upgrades to the Mexicali wastewater treatment facilities.

2) Funding: Community Empowerment Grant to EHC in FY94 of $50,000

3) Partners: EPA and ATSDR

4) Description: EPA launched an information gathering effort on September 21, 1994, by issuing administrative subpoenas under TSCA section 11 to 95 U.S. parent companies with facilities in the vicinity of the New River in the Mexicali area. EPA is currently evaluating responses to the subpoenas in order to determine if there is a risk of imminent hazard to human health or the environment. The data gathered from the subpoenas will be used to focus the monitoring program of the New River. EPA is compiling and aggregating the data into a report which will be available to the public in the spring of 1995.

The community empowerment grant will be used by EHC to assist the communities most affected by pollution in the New River; Calexico, California, USA and Mexicali, Baja California, Mexico. The grant will be used to help create an appropriate community organizations to identify research and information needs and develop and implement a community involvement and education strategy.

5) Status/Schedule: EPA is currently evaluating responses to the subpoenas and preparing a report which will be publically available this spring. In addition, they are planning to obtain the necessary technical assistance so they can review the information gathered by EPA through the subpoenas. The EHC is in the process of creating a Calexico/Mexicali citizens' advisory committee for the New River. Project period for the EHC grant is 10/1/94 to 9/30/95.

6) U.S. Contact: Michelle Price (202) 260-3372

Project Name: **Pollutant Release and Transfer Register (PRTR) Development in Mexico**

1) Purpose and Objectives: The purpose of this project is to establish chemical emissions inventories, like the US Toxics Release Inventory (TRI) in Mexico and other industrializing nations.

2) Funding: FY94 $115,000
FY95 $200,000

3) Partners: OECD, United Nations Institute for Training and Research (UNITAR), International Registry of Potentially Toxic Chemicals (IRPTC)

4) Description: Agenda 21, the action plan from the 1992 Earth Summit, called for the establishment of national chemical emission inventories, or PRTRs. The United States, with its experience from TRI, was the primary advocate for this position.

UNITAR is the international organization tapped to work with industrializing nations to develop PRTRs. The initial stage of UNITAR's work is the selection of four nations to serve as pilot nations. One of these four countries, Mexico, is of particular interest to the US. A Mexican PRTR would provide needed data on chemical emissions from facilities on the Mexican side of the heavily industrialized US-Mexican border. A Mexican PRTR also would complement US and Canadian PRTR data, giving a picture of toxic emissions for all of North America.

To facilitate the development of the Mexican PRTR, the US EPA is providing financial support to UNITAR through a cooperative agreement. This agreement between EPA and UNITAR ensures that Mexico receives the technical and logistical help needed to implement a PRTR.

5) Status: UNITAR, which began its PRTR work in October 1994, presently is working with representatives from the Mexican Government in the preliminary stages of the PRTR development process. These people are tasked with creating work plans, consulting with industry and NGOs, and holding a national workshop for interested parties.

6) Schedule: During 1995, Mexican Officials will attend three PRTR meeting held by OECD; UNITAR will complete six guidance papers for PRTR development; Mexico implements steps prepared by UNITAR for PRTR development; Mexico selects region for pilot PRTR; US EPA works with Mexico and other parties to gather industry data for border region.

7) U.S. Contact: John Harman (202) 260-6395

Project Name: **Assessment of Land cover, Carbon Dynamics and Forest Management Options in Southeastern Mexico**

1) Purpose and Objectives: To model biogenic carbon flux with the atmosphere due to land cover change and forest management in tropical Mexico. Products from this research will provide insight into forest and other land use planning to optimize terrestrial carbon conservation and sequestration.

2) Funding: $2,781,528 FY93: ERL-C, $334,491; EMSL-LV, $522,657; AID-M, $200,000
FY94: ERL-C, $411,491; EMSL-LV, $289,380; AID-M, $200,000
FY95: ERL-C, $359,000; EMSL-LV, $250,000; AID-M, $100,000
FY96: ERL-C, $115,000
TOTALS: ERL-S, $1,219,491; EMSL-LV, $1,062,037; AID-M; $500,000

3) Partners: Universidad Nacional Autonoma de Mexico, Mexico City
- Centro de Ecologia (UNAM -CE)
- Instituto de Geografia (UNAM-IG)

Centro de Investigacionas Ecologias del Sureste - San Cristobal de las Casas, Chiapas (CIES)
Centro de Investigacion Cientifica de Yucatan - Merida, Yucatan (CICY)
U.S. EPA, ERL - Corvallis; U.S. EPA, EMSL - Las Vegas; U.S. AID, Mexico
Oregon State University, Corvallis, OR (OSU); U.S.D.A. Forest Service

4) Description: The Environmental Research Laboratory - Corvallis (ERL -C), through the Agency's Global Change Research Program, is characterizing and quantifying carbon dynamics and emissions of carbon from land cover/land use change in tropical Mexico over the past twenty years. Using remote sensing imagery analysis, field measurement of ecosystem biomass density, and ancillary data, ERL-C is modelling carbon pools and flux over time for the terrestrial biosphere. In addition, field research will be used to label, verify and validate land cover characteristics data derived from satellite imagery. mechanisms used to complete the project include Cooperative agreements, Interagency Agreements, contracts and in-house modeling capabilities. Outputs will enable forest managers in Mexico to evaluate practices in light of the U.N. Framework Convention on Climate Change.

5) Status: 1993 - 1996 ERL-C has entered into Cooperative Agreements with OSU and CIES and a contract with CICY. Also, ERL-C has entered into an on-site LOE contract with MERSC and an IAG with USDA-FS. All of these instruments have been funded for two of three total anticipated years. Funding for the third year is in the approval process in EPA headquarters. Approximately 50% of the research data has been collected and is in the process of analysis and preparation for modeling at ERL-C.

6) Schedule: Funding packages for final year IAG, Cooperative and contract agreements are currently being prepared. The remaining 50% of the data collection will be completed in 1995-96. In-house modelling will proceed through FY96.

Contact: ERL-C: Michael Cairns (503) 754-4378

Project Name: Epidemiologic Studies of Criteria Pollutant Particles and Gases

1) Purpose and Objectives: To support research in Mexico City examining the health effects of ozone, particulate pollution, and other ambient pollution on respiratory illness, school absenteeism, lung function level, lung function growth, lung function in excercising children, emergency room visits, hospital admissions and mortality.

2) Funding:

Year 1994 Mexico Subcontract:	Total Costs: $161,156
	Cost Sharing: $19,700
	Total Cost to EPA: $141,456
Year 1995 Mexico Subcontract:	Total Costs: $168,401
	Cost Sharing: $21,381
	Total Cost to EPA: $147,020

3) Partners: EPA and Brigham and Women's Hospital

4) Description: Project includes conducting field studies in Mexico City and analysis of data resulting from those field studies. In addition, existing data sets have been identified and are being utilized to investigate the health effects of air pollution.

5) Status: Project has completed studies on the relationship between ambient pollution and baseline lung function, and between pollution and lung function in exercising children. Data has been gathered on pollution and emergency room visits, daily respiratory symptoms, absenteeism, and mortality in the southwest of Mexico City.

6) Schedule: Remaining project plans include analyzing data on emergency room visits, daily respiratory symptoms, absenteeism, and mortality in the southwest of Mexico City, where ozone levels are high and particulate levels are relatively low. Additional collection and analysis of data on emergency room visits, daily respiratory symptoms, absenteeism, and mortality in the northeast of Mexico City, where ozone levels are moderate and particulate levels are high.

7) Contacts: Dr. William McDonnell, US EPA, (919) 966-6220
Dr. Diane Gold, Brigham and Women's Hospital

Project Name: Lead Poisoning Education and Outreach

1) Purpose and Objectives: The purpose is to develop a model lead poisoning education project for the U.S.-Mexico border area, fostering international cooperation in addressing lead exposure and environmental contamination issues and problems involving the two countries. The project is to be piloted in the San Diego/Tijuana metropolitan area, with the idea that it may be replicated in sister cities all along the border.

2) Funding: EPA Region 9 plans to fund the pilot project at $49,999, with the participating organizations contributing over 25% of the total project costs.

3) Partners: The University of California, San Diego Extension Department of Environmental Management will partner with the U.S.-Mexico Border Progress Foundation and will work in collaboration with San Diego County and State of California Departments of Health Services, and Tijuana public health agencies.

4) Description: The project will create and deliver a system to motivate local residents to be more environmentally conscious in making informed decisions and taking responsible actions to reduce lead exposures from paint, dust, soil, home remedies, and ceramics. Using a neighborhood needs assessment tool developed for the occasion (a standard survey and interview accompanied by user instructions, written material in Spanish, and pictures), trained Community Health Workers will work in neighborhoods to assess community awareness of lead hazards, and remediate as necessary. Informational brochures will be developed for the target population to help increase awareness of lead issues such as the importance of preventing lead poisoning and ways of avoiding contamination.

5) Status/Schedule: EPA Region 9 is planning to fund this project in April 1995. Grant activities are scheduled to be finished by 3/31/96.

6) U.S. Contacts: Adam Browning, EPA Region 9, (415) 744-1121
David Carey, UCSD, Program Director (619) 534-6157

Project Name: Technology Transfer under the Montreal Protocol Multilateral Fund

1) Purpose and Objectives: The Montreal Protocol Multilateral Fund was created to help developing countries bear the costs of phasing out of CFCs and other stratospheric ozone-depleting chemicals (ODS). In addition to the World Bank and UNDP, EPA's technology transfer partners are typically Ozone Protection Units in developing country governments that coordinate their country's efforts to phase out ODS. The U.S. can use up to 20% of its contribution to the Fund to support developing country phase-out activities.

2) Funding: $2.0 million contract; $0 Travel. These funds constitute part of the U.S. contribution to the Montreal Protocol Multilateral Fund. FTE: 4.0

3) Partners: All projects are completed in conjunction with United Nations Environment Program (UNDP) and the World Bank.

4) Description: Activities are underway or have been completed in Mexico, Venezuela, China, Malaysia, Uruguay, Panama, Ecuador and Argentina. A pound of ODS emitted anywhere in the world affects the stratosphere. Under Section 617(b) of the Clean Air Act of 1990, the Environmental Protection Agency Administrator is charged with providing technical and financial assistance to developing countries for phaseout programs. Typically, we develop a partnership with the Ozone Protection Unit in the host country. We then identify, prepare, or implement projects, or conduct any combination of those activities, to eliminate ODS use in that country's industrial sector.

5) Status: Ongoing

6) Schedule: To date the program has concentrated on halon, mobile air conditioning MACs), solvent, and building air conditioners and commercial refrigeration. The major focus of our current work is MACs, halon, and commercial refrigeration.

7) U.S. Contacts: Jeff Wells, EPA HQ, (202) 233-9148

Project Name: EPA's Ozone Partnerships Program Activities in Mexico

1) Purpose and Objectives: Assisting the government of Mexico to reduce Mexico's use of ozone-depleting substances (ODS) such as CFC's. EPA has aided Mexican companies applying for assistance from the Multilateral Fund, has held training workshops, has provided technical assistance facilitating change to alternative production processes, and has helped strengthen Mexican government capacity to work toward reducing ODS emissions from a wide spectrum of sources. Current assistance is in the area of mobile air conditioning. Possible future assistance may be in the halon and methyl bromide sectors.

2) Funding: $1.85 million

3) Partners: National Institute of Ecology, Ozone Protection Unit; ICF Kaiser International and its subcontractors; Mexican businesses; the World Bank; the United Nations development Programme; the United Nations Environment Program; the United Nations Industrial Development Program.

4) Description: Not Provided

5) Status/Schedule: On-going for years 1991-1995

6) Contacts: Not Provided

Project Name: Semi-Arid Land Surface Atmospheric (SALSA) Experiment

1) Purpose and Objectives: To develop a long-term monitoring and research program to quantify land degradation related to human-induced impacts using remote sensing platforms. Research will determine ecosystem vulnerability and trends in conditon usiing landscape pattern indicators derived from land cover information generated from remote imagery. Specifically, the program is modelled to answer questions related to sustainability and ecosystem resilience, watershed integrity (water supply and quality), and biological integrity.

2) Funding: FY95 - $100K (State of Arizona)
FY96 - $100K Proposed (State of Arizona)
Total Proposed Funding for Project Period - $6,761,782 (multiple sources)

3) Partners: U.S. Environmental Protection Agency, Environmental Monitoring Systems Laboratory; U.S. Agricultural Research Service ; U.S. Geological Survey, EROS Data Center; U.S. Department of Defense; U.S. Bureau of Land Management; U.S. Forest Service; University of Arizona; Rutgers University, University of Maryland; Utah State University; Institute of Hydrology; Jet Propulsion Laboratory Los Alamos National Laboratory; ORSTOM (Montpellier, France); OLERTS (Toulouse, France); CIDESON (Hermosillo, Sonora, Mexico); Instituto de Recuros Naturales (Montecillo, Mexico)

4) Description: The project involves a multi-national mix of interdisciplinary scientists to conduct watershed research in the upper San Pedro River. The San Pedro River is a semiarid mountainous region that transitions between the Chihuahuan and Sonoran Deserts. The study basin originates near Cananea, Sonora and flows north into southeast Arizona. The project will acquire multi-temporal imagery from a variety of sources, i.e. Landsat Thematic Mapper, Landsat Multi-spectral Scanner, NOAA advanced Very High Resolution Radiometer, aerial photography, etc. Conservation of natural resources necessary for sustainable agriculture and protection of the environment are goals of highest priority for the United States and Mexico. The proposed research is significant to both countries in meeting their individual natural resources and environmental research and conservation goals. The research will provide improved scientific knowledge and new technology for the selection of improved, or development of new, conservation management systems for sustainable natural resources.

5) Status: The project is scheduled to commence in FY96 and will be conducted over a period of 3-10 years, depending on funding.

6) Schedule: Project planning will occur during FY95-96. Separate tasks will be completed by FY2005.

7) U.S. Contacts: Primary contacts for the project include David Goodrich and Russell Scott of the U.S. Agricultural Research Service (Southwest Watershed Research Center, Tucson, AZ 602/670-6481). Primary contacts within the U.S. Environmental Protection Agency (Environmenta Monitoring Systems Laboratory, Las Vegas, NV) include Bill Kepner (702) 798-2193 and Bruce Jones (702) 798-2671.

Project Name: North American Landscape Characterization (NALC) Landsat Pathfinder

1) Purpose and Objectives: Derive land cover and land cover change products for the North American continent for ecological trend assessment and carbon flux tracking. Current scope covers Mexico and the contiguous U.S.A.

2) Funding: All funding for the NALC image processing and land cover generation activities has been provided through the EPA Global Climate Change Research Program administered through OPPE. Funding levels were $1.8M for FY94, and $1.67M for FY95.

3) Partners: The USGS ER0S Data Center (EDC) is a partner with EPA in the production of the NALC data, and the NALC project is part of the NASA Landsat Pathfinder Global Research Program. NALC land cover activities involve further partnerships with the Canada Centre for Remote Sensing (CCRS) and the Instituto de Geografia, Uuiversidad Nacional Autonoma de Mexico (UNAM).

4) Description: Landsat MultiSpectral Scanner (MSS) imagery was identified and acquired from the Landsat archive for each path/row (satellite image scene area) of the North American continent representing the peak gowing season for cach of three decadal epochs - the early 1970's, the mid 1980's, and the early 1990's. The imagery is being registered to a precision map base and precisely coregistered image-date to image-date. Subsequently, the spectral image data is being statistically clustered and land cover labels assigned. Labeling is most advanced for the Mexican portion, which is being done by Instituto de Geografia, Universidad Nacional Autonoma de Mexico (UNAM) through an EPA Cooperative Agreement.

5) Status: NALC was initiated in I99l. The image registration and three-date assembly will be completed in FY96. Land cover labeling of the imagery should continue into FY98. Current funding constraints limit image production and land cover categorization to the cotermineus United States and Mexico.

6) Schedule: A11 project funding has been expended or committed, with several FY95 funding documents, including the UNAM Cooperative funding increment, in process. The outlook for continued funding is uncertain. EPA GCRP planning documents for FY96 project $800K for NALC. FY95 funding will pre-pay the processing and registrwtion costs at EDC for the coterminous U.S. and Mexico, and should be completed by the end of FY9. Land cover work in Mexico is covered through the current Cooperative with FY95 funds and should be completed by the end of FY96. Completion of land cover generation for the U. S. will depend on future funding sources. Anticipated sources of cooperative labeling efforts include the National Biological Service Gap Analysis Program (GAP) and EWP Landscape Ecology. The U.S. land cover effort is anticipated to be completed by FY98.

7) U.S. Contacts: Project information can be obtained from Curtis Edmonds (702)798-2264, Mason Hewitt (702)798-2377, and Bruce Jones (702)798-2671, EPA EMSL-LV, EPA project coordination; Michael Cairns, EPA BRL-Corvalis, EPA field studies; Roman Alvarez and Jose Palacio, Instituto de Geografia, UNAM, Mexico project coordination; and Burt Guindon, CCRS, Canadian project activities.

Project Name: **Intergovernmental Information Systems Architecture (ISA) and Data Coordination Initiative**

1) Purpose and Objectives: To implement an intergovernmental Information Systems Architecture between the NAFTA parties to improve the sharing and co-management of environmental data. Homogeneously coordinate how environmental data is collected, analyzed and reported, across borders. Provide a shared platform for data capturing and dissemination that can be made available to government entities, other interested parties and to the public.

2) Funding: To Be Determined

3) Partners: EPA, Instituto Nacional de Ecologia (INE) , OIA, IRM Branch Region 9, Dave Bittenbenter, Telecommunications, National Data Processing Division at Triangle Park. (Canada partners to follow)

4) Description: Phase I - Implement an Intergovernmental Information Systems Architecture. EPA negotiated with INE to develop an information system architecture (ISA). This ISA will provide a reliable intergovernmental platform that will facilitate the sharing and co-management of data and information systems, between EPA/INE. It will provide a much needed communication network link between EPA and INE. This effort will also serve to streamline interagency information management and statistical reporting as it relates to EPA. It is intended that the ISA also be integrated with Canada's architecture so that we achieve a trilateral homogenous information and technology bridge among the partners. The ISA will create another level of partnership between Mexico, Canada and the United States.

Phase II - Information Systems and Data Management initiatives: Parallel to the development of the shared ISA we are implementing a data management committee that will identify environmental indicators that the partners are interested in tracking, analyzing and reporting. This effort includes the overall management of data including the capturing of data, selection and/or development of comprehensive data management systems. The main objective being: to make available the needed information for trend analysis and planning to the partners and the general public.

5) Status: In November of 1994, The EPA IRM branch at Region 9 contracted an Information Systems Specialist who is coordinating these efforts with EPA /INE. This individual is stationed in Mexico and is working with the Environmental Attache and with INE to ensure that the new governmental network and infrastructure that is pending installation at INE will be compatible with the EPA's existing and planned initiatives related to information systems. As part of the implementation of the ISA and data management initiative, we are also identifying unnecessary duplication of effort and resources within EPA. Via this initiative we are also providing the Mexican Government with the transfer of USA technology, methodologies and with development, data management and enduser training and support.

6) Schedule: The communication network is schedule to be in place by June 1995. The data management and coordination efforts have began and the committee will be active as of June 1995.

7) U.S. Contacts: Dave Henderson, IRM Chief, R9, (415) 744-1811
Enrique Manzanilla, EPA Attache 52 52 11 00 42 x3595

Project Name: US/Mexico Border Data Management Initiative

1) Purpose and Objectives: A baseline of information will both complement the many individual efforts underway to characterize the border environment and establish a benchmark to measure environmental change due to free trade. This is the first time a comprehensive, regional baseline of border statistics and information will be compiled. The effort directly supports the Office of International Activities in its next phase of environmental planning with Mexico.

2) Funding: Three FTE's and $130K in grants to develop baseline. Inter-Agency Agreement (IAG) with Department of Energy (DOE) to use Battelle NW Labs to support baseline development. One FTE and $65K to plan and conduct first Border workshop.

3) Partners: Development of a baseline of border statistics is not possible without the full cooperation of federal (including EPA regional and border offices), state and local government agencies (including environmental, public health, economic and social welfare agencies, among others), non-profit organizations, academic institutions and any other experts conducting research on the environment and quality of life in the border area.

4) Description: The Environmental Statistics and Information Division (ESID) within the Office of Policy, Planning, and Evaluation (OPPE) is developing a baseline of environmental statistics that will integrate national (and some state) data bases to develop a regional picture of the quality of the air, water and life in the border area. The baseline will be "ground-truthed" and enhanced using additional data and information that have been generated by other local studies. This project will be coordinated with EPA Regional and Border offices, other federal agencies, state and local agencies, and environmental and statistical organizations in Mexico. As part of this project ESID is planning, with contract support from Science Applications International Corporation, a series of binational workshops that will bring together the expertise to compile and integrate, to the extent possible, the data and information that are available on the border environment.

5) Status/Schedule: Products that will be generated within fiscal years 1995 and 1996 include a baseline of border environmental statistics, an inventory of border data bases. A review draft presenting baseline statistics for the US side of the border area is near completion. The review draft compiles and displays data from the major EPA national databases to characterize environmental quality in the border area. The US/Mexico Border Information workshop will allow us to expand this effort.

6) U.S. Contacts: Ronald Schafer, EPA -HQ (202) 260-6966
Judy Calem, EPA - HQ (202) 260-8638

Project Name: CIESIN'S U.S./Mexico Border Environmental Information System

1) Purpose and Objectives: The Consortium for International Earth Science Information Network (CIESIN), under a cooperative agreement with the U.S. EPA, is developing an inventory of the existing environmental data and information in the U.S./Mexico border area. The purpose is to make this data and information available to decision makers and resource managers who are developing plans to augment environmental assessment, mitigation, and monitoring efforts in the region.

2) Funding: Amounts To Be Determined.

3) Partners: Bureau of Economic Geology, University of Texas at Austin, EPA's Environmental Statistics and Information Division, and Office of International Activities

4) Description: The project will further develop the catalog system component of the Regional Environmental Information System (REIS) for the U.S./Mexico border area. This regional system will provide directory and guide information for EPA national-level resources, as well as EPA and select non-EPA geographic initiative resources. The system will be compatible with the interagency Global Change Data and Information System (GCDIS), and the Global Change Master Directory (GCMD). CIESEN will expand the accessibility of data sets in border states and adjacent northern Mexico, advance the compilation of the environmental atlas, and provide a capability for multi-attribute analysis. The project will result in a system capable of addressing targeted socioeconomic, public health, and environmental issues.

5) Status: Portions of this project are currently underway, contingent on future funding.

6) Schedule: Deliverables from this project during a two year time period will include such items as management summary/quarterly reports, compendium of Regional data sets for the U.S./Mexico border area, data set guides, implementation plans for 1-2 non-EPA sites. Year two deliverables is contingent on year two funding and would include a U,.S./Mexico Border Area Catalog System User's Manual, and Non-EPA Regional Catalog System Nodes.

7) U.S. Contacts: Dr. Thomas H. Mace, U.S. EPA National Data Processing Division, Research Triangle Park, (919) 541-2710

Project Name: Committee on the Use of the Mexico City Water Supply

1) Purpose and Objectives: To assess the physical limitations on the use of the aquifer in the Valley of Mexico to supply the present and future needs of the metropolitan area, and examine water transfers, water quality and health issues, conservation measures, and institutional responsibilities and to further the binational relationship between the U.S. and Mexican academies and foster the National Research Council model of providing independent advice to the government.

2) Funding: $340,000 U.S., ($50,000 from EPA's Office of Ground Water & Drinking Water Program) as well as Mexican expenditures of approximately $126,000

3) Partners: Ford Foundation, Tinker Foundation, U.S. Environmental Protection Agency, and the National Research Council.

4) Description: The comittee's report resulted from a binational, non-government partnership between the U.S. National Research Council and the Mexican Academies of Science and Engineering. The purpose of the partnership is to sustain and strengthen science in both countries through collaborative activities.

5) Status: A prepublication copy of the report was produced for dissemination at meeting held on March 21, 1995 in Mexico City. The Mexican academy also produced their own, more expansive version in Spanish that is directed to local water planners. The bilingual report is recognized as the formal product of the study, having gone through the review process of both academies. The experience with the water study was instrumental in the formation of the Mexican National Research Council.

6) Schedule: Final report completed. The bilingual publication available from National Academy Press.

7) U.S. Contacts: Charles DuMars, University of New Mexico
Ismael Herrera Revilla, Mexico National University
Ron Hoffer, EPA Office of Ground Water & Drinking Water, (202) 260-7096

Project Name: Detecting Plant Community Condition and Pattern From AVHRR Imagery in Arid Systems

1) **Purpose and Objectives:** Evaluate the degree to which spatial patterns in plant communities of arid ecosystems can be derived from AVHRR spectral signatures. The primary objective is to develop a remote sensing approach to assess status and trends in plant community composition and pattern in arid landscapes.

2) **Funding:** Funding for FY94 - $100K (EPA/ORD/EMAP Rangelands)
Funding for FY95 - $200K (EPA/ORD/EMAP Rangelands and Landscapes)
Organizations receiving funds include tbe ARS in Las Cruces, N.M. (via an Interagency Agreement) and New Mexico State University Geography Department (via COOP with ARS).

3) **Partners:** The primary partners (in addition to the EPA EMSL-LV Lab) are the Agricultural Research Service (ARS) and New Mexico State University. Collaboration with Mexican scientists (to be determined) will begin in mid to late FY95.

4) **Description:** The project involves acquisition of AVHRR imagery for most of the Chihuahuan Desert, including portions in northern Mexico, est Texas, southern New Mexico, and southeast Arizona. We will attempt to calibrate temporally-robust spectral signatures derived from AVHRR with plant community composition and pattern on long-term research sites within the region. Currently, 16 sites have been selected covering thc broad geographic area listed above, including: (1) Big Bend National Park, (2) Waste Isolation Pilot Plant (between Hobbs and Carlsbad, N.M.), (3) Carlsbad Caverns National Monument, (4) Fort Bliss, (5) White Sands Missile Range, (6) Hollaman Air Force Base, (7) Jornada Experimental Range, (8) New Mexico State University Ranch, (9) Sevielleta LTER and Wildlife Refuge, (1O) Fort Huachucha, (11) San Pedro Riparian area, (12) Empire Cienega Ranch, (13) Santa Rita Experiment Range, (14) Elgin Research Ranch, (15) Walnut Gulch Watershed, (16) and the La Campana Research Ranch in Chihuahua, Mexico. In FY94, this work was restricted to the area in and around the Jornada LTER site. Preliminary results on the Jornada showed that AVHRR can detect changes in grass and shrub compositions in the Chihuahuan Desert. In FY95 and FY96, the pro~ect will be expanded to the larger desert region and compared to field data on the 16 sites. The aim is to develop a cost-effective remote sensing approach that will assess status and trends in plant communities over large areas within arid regions of North America. These data will be used to assess issues of desertification, rangeland productivitv, and biodiversity.

5) **Status:** The project started in FY94 and will be completed at the end of FY97.

6) **Schedule:** The project will be expanded to cover most of the Chihuahuan Desert in FY95 and FY96, including northern Mexico. A primary spin-off benefilt is the application of this technique in other North American deserts as well as other deserts of the world, to address desertification, rangeland productivity, and biodiversity.

7) **U.S. Contacts:** Dr. Walter Whitford (505) 646-8017 Daniel T. Heggem (702) 798-2278
K. Bruce Jones (702) 798-2671 Dr. Al Peters (505) 646-1892.

Project Name: **Technical Assistance on Health Risk Assessment for Latin America and the Caribbean**

1) Purpose and Objectives: To promote the use of environmental epidemiology methodology in Latin American and Caribbean countries as an instrument to evaluate adverse health effects which may result from environmental exposure to chemical agents and ultimately to help develop policies and intervention projects that will improve the environmental health in these countries.

2) Funding: U.S. EPA-Pan American Health Organization Cooperative Agreement proposed funding

	Total Costs	Cost Sharing	Total Cost to EPA
FY93	$400,000	$100,000	$300,000
FY94	$325,000	$ 75,000	$250,000
FY95	$325,000	$ 75,000	$250,000

3) Partners: U.S. EPA and the Pan American Center for Human Ecology and Health

4) Description: The cooperative agreement provides for the conduct of training in the basic concepts of risk assessment and management, comparative risk, ecological risk and cost/benefit analysis. In addition, opportunities for future epidemiological studies in the region are being identified. Specific studies that focus on environmental epidemiology and related areas that cover gaps in the knowledge needed to support risk management decisions are now beginning.

5) Status: A risk assessment course developed by the U.S. EPA was modified for use by PAHO and given in Managua, Nicaragua and Concepcion, Chile. Book entitled Environmental Epidemiology: A Project for Latin American and the Caribbean has been produced which describes the four specific priority areas of air pollutants, heavy metals, pesticides, and solvents. Based on the recommendation of the working groups dealing with each specific priority area, several studies are being funded; these include: 1) a study on exposure-related saturation of the mechanism of inorganic arsenic methylation and its implications for setting a drinking water standard; 2) assessment of neurological effects in children exposed to arsenic, lead, and cadmium near a smelter in San Luis Potosi, Mexico; and 3) a pilot study comparing health risks derived from exposure to various environmental chemical contaminants in Mexico.

6) Schedule: Well-planned studies which elucidate the human health effects in the four priority areas of interest (pesticides, metals, air pollution, and solvents) and which fill knowledge gaps needed to support risk management decisions will be sought out by requests for proposals for preliminary sutdies. PAHO representatives in each country and a journal advertisement will be used to facilitate this solicitation. Scoping excercises will be conducted to review research needs in the epidemiology of exposure to hazardous waste via an ad hoc working group. Risk assessment courses for Mexico, the Andean Region, and the English speaking Caribbean are planned for this year. A course in environmental epidemiology developed by PAHO, U.S. EPA, and WHO will be given also.

7) U.S. Contacts: Dr. Chon Shoaf, U.S. EPA (919) 541-4155
Dr. Rob McConnell, ECO

Project Name: Climate Change Country Study for Mexico

1) Purpose and Objectives: Through the U.S. Climate Change Country Studies Program, twelve federal agencies are providing technical and financial assistance to developing and transition countries in order to build expertise and capacity to respond to climate change. Countries participating in the program agree to produce a greenhouse gas inventory, and may also assess their vulnerabilities to climate change and their options for mitigating greenhouse gas emissions. The studies should help the participating countries to comply with their commitments under the Framework Convention on Climate Change, and in particular, to communicate their national climate change policies and measures.

2) Funding: US $1,036,190 in FY93 funds

3) Partners: The Instituto Nacional de Ecologia (formerly in SEDESOL) is the recipient and project manager for the cooperative agreement. UNAM''s Centro de Ciencias de la Atmosfera is the technical coordinator. Approximately two dozen other Mexican research and government agencies are participating in the project.

4) Description: Under this agreement, Mexico will produce a greenhouse gas inventory for the year 1990 (and other years). They will assess their vulnerabilities to climate change, including in the agriculture, coastal, hydrological, human settlements and other areas. They will also examine future scenarios of economic and energy development to identify greenhouse gas implications and cost and other impacts.

5) Status: The agreement began in early 1994. First full reports from each of the three main areas of work (GHG inventories, vulnerabilities, and mitigation scenarios) are now available, and review will begin. A full final report is expected before the end of 1995.

6) Schedule: Work is expected to be complete before the end of 1995.

7) U.S. Contact: Jane Leggett Emil, OPPE/Climate Change Division
(202) 260-8624

SOUTHWEST CENTER FOR ENVIRONMENTAL RESEARCH AND POLICY (SCERP)

Project Name: **Overview of Cooperative Agreement with the Southwest Center for Environmental Research and Policy (SCERP)**

1) Purpose and Objectives: EPA's FY 1995 appropriation included "$2,000,000 for the Southwest Center for Environmental Research and Policy." EPA's objective with this cooperative agreement is to provide for the improvement of the health and environment along the U.S./Mexico border. Since no media focus (i.e., air, water, waste, etc.) was specified by the appropriation language, SCERP and the Office of Air and Radiation will pursue efforts in most, if not all, media. EPA is working together with member institutions to better coordinate on-going activities, minimize duplication of efforts, and ensure that research projects are relevant to the border community.

2) Funding: $2,000,000 Congressionally directed to SCERP. An additional $100,000 is provided by the recipient as a 5 percent matching contribution.

3) Partners:

SCERP Institutions
- University of Utah
- San Diego State University
- University of Texas, El Paso
- New Mexico State University
- Arizona State University

SCERP Partners
- Instituto Technólogico y de Estudios Superiores de Monterrey
- Universidad Autónoma de Baja California
- Instituto Tecnólogico de Ciudad Juárez
- Universidad Autónoma de Ciudad Juárez
- Office of Air and Radiation, U.S. EPA
- Region 6, U.S. EPA
- Region 9, U.S. EPA

4) Description: Under a cooperative agreement with EPA, SCERP institutions will conduct 10 to 15 projects that address health and environmental problems of the border region. The projects are selected through a competitive process involving individuals from SCERP's management committee, EPA Headquarters, EPA Regions 6 and 9, and private industry. Some of the projects will focus on one media while others may be multimedia in nature (e.g. both air and water). Also, some of the projects may be continuations from last year's SCERP program which focused exclusively on the air media. The agreement covers a one year period. Detailed project descriptions follow.

5) Status: The cooperative agreement is in place and individual project proposals under the grant have been selected.

6) Schedule: The one year project period of this agreement begins April 1, 1995 and continues until March 31, 1996.

7) U.S. Contacts: Todd Rinck, EPA HQ, OAR, (202) 260-2178

Project Name: **Quantitative Analysis of Dynamic Video Images and Static Images of the Paso Del Norte Air Basin: Years 1992-1994**

1) Purpose and Objectives: This project will investigate the use of quantitative analysis of both static camera and dynamic video images of the El Paso-Juarez airshed. Images have been recorded by the Texas Natural Resource and Conservation Commission (TNRCC). One anticipated outcome is a cost-effective quantitative means of measuring air quality.

2) Funding: $84,000 SCERP FY95 funds (EPA)

3) Partners: University of Texas at El Paso (UTEP), TNRCC, Instituto Tecnológico y de Estudios Superiores de Monterrey

4) Description: For three years TNRCC has taken periodic static camera and dynamic video images of the El Paso-Juarez airshed. This project will use computerized imagery analysis to produce quantitative information about the air quality of the basin. The project will analyze images from a two year period and will correlate quantitative image characterization with air quality data from existing monitoring stations.

5) Status: To begin upon receipt of funding (Jun 1, 1995).

6) Schedule: Estimated completion date is March 1996.

7) U.S. Contacts:
Dr. Charles Turner, Dept of Civil Engr, UTEP (915)747-6908
Dr. Norris J. Parks, Dept of Civil Engr, UTEP (915)747-6920
Bob Currey, Ctr for Env Resource Mgmt, UTEP (915)747-6274
Todd Rinck, EPA (202) 260-2178

Project Name: **The Provision of Safe Drinking Water for Low Income Border Communities Using Appropriate Water Purification/Waste Water Techniques**

1) Purpose and Objectives: To improve drinking water quality and promote hygiene education in low-income communities still unserved by water and waste water infrastructure in the El Paso-Juárez area. The intent is to transfer to local community agencies the Hygiene Education and Appropriate Technologies (HEAT) Model, a low-cost, community-based program which trains volunteers in water purification techniques and hygiene promotion and introduces appropriate technologies. In 1994, the model was successfully field tested in six communities -- training 51 volunteers who worked with a total of 525 families.

2) Funding: $70,000 SCERP FY95 Funds (EPA)

3) Partners: University of Texas El Paso (UTEP); Dirección de Desarrollo Comunitario, Sistema Municipal para el Desarrollo Integral de la Familia (DIF); El Paso City/County Health and Environmental District; Kellogg Community Partnership Institute for Border Community Health Education; Secretaría de Salud, Jurisdicción Sanitaria II; Universidad Autónoma de Ciudad Juárez; University of Houston School of Public Health at El Paso.

4) Description: Project tasks:

a. Transfer the technical and educational skills developed in the pilot project to community agencies already serving low- income border communities (colonias) in the El Paso-Juarez area.

b. Supervise the implementation of the model by these community agencies; provide materials for the implementation and on-going technical support.

c. Develop mechanisms and procedures to enhance the long-term sustainability of the project.

d. Conduct a sample survey of participants in the pilot phase to determine continued levels of utilization and develop remedial techniques, as appropriate.

5) Status: A sample of the participating households from the pilot phase are taking part in the follow-up survey. The project is currently producing a training video to assist in the transfer phase.

6) Schedule: Estimated completion date is May, 1996

7) U.S. Contacts:

Amy Liebman, Ctr for Env Resource Mgmt, UTEP (915) 747-5494
Bob Currey, Ctr for Env Resource Mgmt, UTEP (915) 747-6274
Todd Rinck, EPA OAR (202) 260-2178

Project Name: **Study of Brick Kiln Designs and Development of Technical Courses for the Brickmakers Training Center in Ciudad Juárez**

1) Purpose and Objectives: To continue work to develop techniques to reduce environmental pollution by designing methods to incorporate the use of less polluting energy sources into the brickmaking process. This project will explore the use of solar dryers that will lessen brick firing time, thus reducing fuel consumption and pollution emitted during the firing process.

2) Funding: $71,000 SCERP FY95 funds (EPA)

3) Partners: University of Texas El Paso (UTEP), Instituto Tecnológico y Estudios Superiores de Monterrey, Los Alamos, El Paso Natural Gas, and Instituto de Investigaciones Eco Tecnologicas

4) Description: An ongoing program, this project will field test solar dryers designed by the previous project; determine the most appropriate type of solar dryer for use by brickmakers; and transfer this technology through an on-site demonstration model constructed at the Brickmaker's Training Center in Cd. Juárez and the integration of results into courses taught at the Center.

5) Status: Currently the project is working to determine the most effective methods to incorporate solar drying into the process and to increase the overall efficiency of the brickmaking industry. A model dryer has been designed and is being tested at the UTEP campus. Results will determine the design of the dryer to be field tested by Juarez brickmakers over summer 1995. Those results will lead to final modifications and the construction, installation, and monitoring of working prototypes in Fall 1995 and Spring 1996.

6) Schedule: Project completion date is March 31, 1996

7) U.S. Contacts:

Nancy Lowery, Ctr for Env Resource Mgmt, UTEP (915) 747-6648
Dr. Ryan Wicker, Dept of Mech & Ind Engr, UTEP (915) 747-7099
Bob Currey, Ctr for Env Resource Mgmt, UTEP (915) 747-6274
Todd Rinck, EPA (202) 260-2178

Project Name: **Upper Atmospheric Wind and Temperature Profile Data for the El Paso-Juárez Airshed**

1) Purpose and Objectives: This project samples upper air temperature and wind velocity profiles. These data are necessary to develop computer models for the airshed.

2) Funding: $14,400 SCERP FY95 funds (EPA)

3) Partners: University of Texas El Paso (UTEP) and Texas Natural Resource Conservation Commission (TNRCC)

4) Description: This is an ongoing project in its third year. Upper air temperature and wind velocity profiles are sampled using a pulsed doppler radar and a radio acoustic sounder. A data base is maintained, and one hour averages of the parameters are processed and analyzed to provide seasonal averages and expected wind and temperature associated with particular weather events. These profiles can be used in computer models to determine diffusion and transport of pollutants in the airshed.

5) Status: Monitoring continues.

6) Schedule: Project completion date is March 31, 1996

7) U.S. Contacts:
Dr. Jack Smith, Dept of Electrical Engr, UTEP (915) 747-6959
Bob Currey, Ctr for Env Resource Mgmt, UTEP (915) 747-6274
Todd Rinck, EPA (202) 260-2178

Project Name: **The Border Basket: Analysis of Toxic Metals in Retail Food, El Paso-Juárez**

1) Purpose and Objectives: This project investigates the role of diet as a source of exposure to toxic metals for residents of the El Paso-Juárez border region. It will establish use patterns of food, utensils, and medicinals and determine the levels of toxic metals and other elements in those items.

2) Funding: $159,000 SCERP FY95 Funds (EPA)

3) Partners: University of Texas El Paso (UTEP) and Universidad Autónoma de Ciudad Juárez

4) Description: This project will examine samples of both US and Mexican manufacture and origin, and pay particular attention to popular Mexican products which are commercially imported or purchased by individuals for consumption in the US. This study is expected to document whether diet is a significant route of exposure to toxic metals in the border population. The project will also be a watchdog and serve as a mechanism for alerting appropriate health agencies to products substantiated to be hazardous.

5) Status: To begin upon receipt of funding (Jun 1, 1995).

6) Schedule: Project completion date is March 31, 1996

7) U.S. Contacts:

Dr. Nicholas E. Pingitore, Jr., Geol Sci, UTEP (915) 747-5754
Dr. Maria Amaya, Nursing & Allied Health, UTEP (915) 747-7231
Bob Currey, Center for Env Resource Mgmt, UTEP (915) 747-6274
Todd Rinck, EPA (202) 260-2178

Project Name: **University of Texas El Paso (UTEP) Geographic Information Systems (GIS) Development**

1) Purpose and Objectives: This project will integrate UTEP's GIS environmental research and outreach programs with existing of SCERP and the El Paso-Juárez region.

2) Funding: $20,000 SCERP FY95 Funds (EPA)

3) Partners: UTEP and other SCERP consortium members

4) Description: The project will determine what agencies and organizations are maintaining geographic data of the El Paso-Juárez region, and what data are being maintained. It will explore data formats and determine compatibility among existing GIS users. The goals are integration of existing GIS to reduce duplication of effort, and expanded availability of information.

5) Status: To begin upon receipt of funding (Jun 1, 1995).

6) Schedule: Although SCERP funding for FY95 expires Mar 31, 1996, this will be an ongoing project at UTEP.

7) U.S. Contacts:
Bob Currey, Ctr for Env Resource Mgmt, UTEP (915) 747-6274
Todd Rinck, EPA (202) 260-2178

Project Name: **Prevention of Air Contamination: Volatile Organic Compound (VOC) Reduction in Paint and Body Shops in Juárez**

1) Purpose and Objectives: To train paint and body shop owners in Ciudad Juárez in methods of reducing volatile organic compounds.

2) Funding: $34,800 SCERP FY94 Funds (EPA)

3) Partners: University of Texas El Paso (UTEP) and the Environmental Defense Fund (EDF)

4) Description: This project provides training about less polluting products and methods to paint and body shop owners in Juárez, Mexico.

5) Status: Project team is working with Juárez participants, including representatives from Junta Municipal de Agua y Saneamiento, Dirección de Ecología, Instituto Tecnológico y Estudios Superiores de Monterrey, and Procuraduría Federal de Protección Ambiental (PROFEPA) to develop training materials and set training dates.

6) Schedule: Project period is May 1 to September 30, 1995.

7) U.S. Contacts:

Jan Hartman, Ctr for Env Resource Mgmt, UTEP (915) 747-5721
Dr. Carlos Rincon, EDF, El Paso (915) 747-6644
Bob Currey, Ctr for Env Resource Mgmt, UTEP (915) 747-6274
Todd Rinck, EPA (202) 260-2178

Project Name: **Flows and Regional Risk Assessment of Transporting Hazardous Waste in the U.S.-Mexico Border Region**

1) Purpose and Objectives: To develop estimations of hazardous waste generation by industry type to be used to determine transportation flows in he border region. Flow matrices will be developed under various policy scenarios. The transportation risk assessment will be completed for the Sonora area in Year I based on population and ecological factors. Year II will complete the GIS-risk assessment tool for the entire border region.

2) Funding: A $85,524 SCERP FY 1995 (EPA) grant has been awarded for year I. This covers the period 04/01/95 to 03/31/96.

3) Partners: Arizona State University and EPA

4) Description: The implementation of the NAFTA and enforcement of Mexican environmental regulations may result in a substantial increase in shipments of hazardous waste throughout the border region and into the United States. Research is needed to assess the risks resulting from transportation accidents and policies to avoid and reduce these risks. The study has already begun to collect data and has developed a GIS for the Sonoran region. Management scenarios will be applied to measure their effects on overall environmental risk.

5) Status: EPA and state manifest data have been collected and a database has been established of existing lows. In addition, the risk analysis model (excluding the ecological parameters) has been completed and the GIS for Sonora is operable. Data is being collected on waste generation, employment, and by SIC to determine waste projection factors.

6) Schedule: The database for hazardous waste generation and projection assumptions will be completed by September 1995 and the projections of shipments by November 1995. The risk assessment will be undertaken between October 1995 and March 1996.

7) U.S. Contacts: Duncan T. Patten, ASU, (602) 965-3051
Todd Rinck, EPA (202) 260-2178

Project Name: **Seasonal characterization of inorganic and organic contaminants associated to suspended particle matter and evaluation of its possible effects on children's respiratory health in Nuevo Laredo, Mexico**

1) Purpose and Objectives: Due to rapid development and the subsequent increase in vehicular traffic through the twin cities of Laredo-Nuevo Laredo and their recent industrial growth, a good deal of air contamination is to be expected with Total Suspended Matter (TSM) and many associated chemical contaminants. The adverse health effects in the respiratory system may be magnified by the presence of certain chemical substances within the PM10 fraction. A retrospective epidemiological study will be performed with the data from the health institutions about respiratory illnesses in primary school children to determine negative health effects due to high suspended particle pollution. A database of respiratory health in children in the border area will be compiled and will be useful in proposing the necessary preventive or remedial actions wherever environmental risk exists. The study will enhance the effort to better understand the environmental problems of the U.S.-Mexican border at the Nuevo Laredo-Laredo commerce and vehicle zone.

2) Funding: a $67, 160 SCERP FY 1995 (EPA) grant has been awarded for year I. This covers the period from 4/1/95 to 3/31/96.

3) Partners: Arizona State University, University of Texas, El Paso and Instituto Tecnológico y de Estudios Superiores de Monterrey

4) Description: In this proposal 24 metals and 16 Polyciclic Aromatic Hydrocarbons are chosen as indicators of the chemical pollution carried by the PM10 fraction. It is also expected that the data obtained from the quantification of PM10 and their associated chemical indicators can be correlated to the proposed epidemiological health studies of respiratory function in children in the City of Nuevo Laredo, Mexico. The sampling methodology is based on Mexican and USEPA accepted methods. A retrospective epidemiological study will be performed with data from the health institutions about respiratory tests including standardized spirometric valves and anthropometric measurements at 3 month intervals will be performed in 100 children in each one of the nearby schools of the sampled areas.

5) Status: Bibliographic research and selection of the sampling sites has begun. Sampling with Hi-Volume method will begin July 15, 1995.

6) Schedule: By January 1996, we will have collected enough data to begin to compile and evaluate results with similar studies with the purpose of obtaining a more complete analysis of the behavior of the contaminants.

7) U.S. Contact: Duncan T. Patten, ASU, (602) 965-3051
Todd Rinck, EPA (202) 260-2178

Project Name: **Database Coordination Initiative Sources of Air Pollution Along the Border: Analysis of Data, Databases, and Information. Economic Incentives for Pollution Reduction**

1) Purpose and Objectives: To develop a binational data base that identifies and characterizes principal sources of air pollution along the US-Mexico border. The data will be incorporated into related Geographical Information Systems (GIS) being developed for the border regions. The information will be used as a basis for developing realistic, cost effective, mitigation strategies to reduce air pollution in the border region. Strategies that address the technical aspects of abatement, economic costs and benefits of various scenarios, and institutional barriers on both sides of the border will be addressed. Because a large fraction of the air pollutants in the border region originate from the energy sector, e.g., power plants and vehicles, we will focus our efforts on the power generating and transportation sectors on both sides of the border.

2) Funding: $190,000 SCERP FY95 Funds (EPA)

3) Partners: Universidad Autónoma de Baja California (UABC), Institute of Engineering, Mexicali; Universidad Autónoma de Mexico, Mexico City; San Diego Association of Governments (SANDAG), San Diego, California; Air Pollution Control District, San Diego, California.

4) Description: Project Tasks:

a) Collect data on both sides of border for point sources of air pollution. Develop contacts within CFE (Mexican National Electric Utility), PEMEX, Mexican state and local statistical offices.

b) Design standard data formatting for use on both sides of border.

c) Develop GIS procedures for both sides of border.

d) Adapt SANDAG and CALTRANS transportation models for use in Mexican border cities.

e) Develop mitigation strategies for air pollution reduction in border region, particularly in the principal twin-city regions.

f) Develop economic incentive approaches to reduce air pollution in the border region.

5) Status: Most of the data for the US and about 30% of the data for the Mexican side of the border has been collected. Transportation modelling for Mexican border cities has begun. Preliminary input to border GIS systems has taken place.

6) Schedule: Estimated completion date is May 1996

7) US Contacts: Alan Sweedler, SDSU, (619) 594-6155
Paul Ganster, SDSU, (619) 5940-5423
Todd Rinck, EPA (202) 260-2178

Project Name: **An Integrated Cross-Border Geographic Information System for the San Diego-Tijuana Interface**

1) Purpose and Objectives: This project involves the development of a comprehensive GIS for the San Diego-Tijuana interface and its utilization in a set of environmental concerns.

2) Funding: $184,441 SCERP FY 1995 funds (EPA)

3) Partner: San Diego State University and El Colegio de la Frontera Norte

4) Description: The goals of the research are: 1) to inventory GIS databases and GIS users in the California-Baja California section of the U.S.-Mexico border; 2) to develop a comprehensive GIS database for the San Diego-Tijuana region; 3) to develop a customized user-friendly interface for using the GIS database; 4) to investigate options for transborder GIS data sharing; 5) to integrate air quality data in the San Diego-Tijuana interface with GIS and remote sensing technologies; 6) to analyze the impact of urban expansion within the study area on air quality and downstream water demand, quality, and pollution; 7) to model multiple species preserve designs; and 8) to integrate and train researchers from Mexico and the United States.

5) Status: Good progress is being made on most goals, but especially goals 1, 2, 4, and 6.

6) Schedule: At this time we are beginning to examine goals 3, 5, 7, and 8. The GIS development is being coordinated with other SCERP institutions, namely, the University of Utah, Arizona State University, New Mexico State University, and the University of Texas, El Paso. A final report will be ready after April 30, 1996.

7) U.S. Contact: Richard Wright, SDSU, (619) 594-5466
Todd Rinck, EPA (202) 260-2178

Project Name: **Characterization and Dynamics of Air Pollutants in the Southeastern Mexican-U.S. Border Area**

1) Purpose and Objectives: The eastern US Mexico border region (Brownsville-Matamoros to McAllen-Reynosa) is of great interest to both countries, since several cities, colonias and industries are located at both sides. Also, agricultural activities in the region are extensive and, due to its proximity to the Gulf of Mexico meteorological conditions play an important role in the dispersion of pollutants in the air. The principal thrust of this project is to perform chemical speciation and source apportionment of volatile organic compounds (VOC's) as well as chemical and biological characterization and source apportionment of PM10 and study its dynamics and fate in air at selected monitoring locations along the border region.

2) Funding: $125,000 Year One, FY 1995 SCERP Funds (EPA).

3) Partners: Centro de Calidad Ambiental, ITESM Monterrey, Mexico; Centro de Desarrollo Biotecnolgico, ITESM Monterrey, Mexico; and Center for Micro Analysis (202) 260-2178 and Reaction Chemistry, University of Utah

4) Description: This project is based on two environmental priority study areas of the U.S. Mexico Border Plan: (1) binational monitoring of PM10 and other target pollutants; and (2) development and verification of regional airshed models in non attainment areas along the border. The activities of the project will include a chemical speciation and source apportionment of VOCs as well as chemical and biological characterization and source apportionment of PM10 and study its dynamics and fate in the air at selected monitoring locations along the border region (Brownsville-Matamoros to McCallen-Reynosa).

PM10 receptor and source samples will be characterized by pyrolysis GC/MS as well as microscopic techniques to determine their chemical or biological nature and origin. Principal component analysis, rotation and regression methods will be used for source apportionment of PM10 as well as VOC constituents. At the same time, selected atmospheric dispersion models recom-mended by EPA will be used to study the dynamics of PM10. A geographic information system (GIS) will be developed with the information generated from this project, including the develop-ment of a better understanding of the pollutant dynamics and their impact on population and the environment.

5) Status: This project relates to the 1983 La Paz agreement, annex V, which directs the EPA and INE to assess the causes of and develop solutions to air quality problems, as well as make recommendations for reducing PM10 concentrations/ pollutants in the border region.

6) Schedule: Project period 24 months (4/11/95-3/31/97).
During the first part of year one, the meteorological conditions and ecological variations of the surrounding areas will be studied to determine the best monitoring sites. At these sites, concentrations of PM10 and VOCs will be monitored over 24 hour period at different times of the year in order to address diurnal as well as seasonal variations.

7) U.S. Contacts: Henk Meuzelaar, University of Utah (801) 581 8431
Todd Rinck, EPA (202) 260-2178

Project Name: **Selection and Analysis of the Use of Alternative Fuels in Brick Manufacturing**

1) Purpose and Objectives: Reduce the amount of natural gas or LP gas needed to completely fire each brick thereby increasing the economic attractiveness of using the low polluting fuels. To achieve this goal, a combined experimental and analytical study will examine four key issues: (a) Can the gas fired burner (and/or) the gaseous fuel be slightly altered to increase the radiant flux from the flame and thus enhance overall heat transfer? (b) Can scrap wood or sawdust be used in conjunction with the gas to decrease the overall demand for gas and still not increase pollutant emissions? (c) Can the overall thermal efficiency of the process be improved by altering the furnace configuration and/or cycle scheme? (d) What can be done to improve energy recovery and reduce the sensible heat losses associated with cool down of the bricks?

2) Funding: $95,000 SCERP FY 1995 funds (EPA).

3) Partners: University of Utah, FEMAP Brickmaker's Training Center and the El Paso Natural Gas Company.

4) Description: The firing of bricks in small, privately owned kilns has been identified as a major source of air pollution in the border area. Fortunately, a community group, FEMAP, with strong support from El Paso Natural Gas and many others has built a major training and development center which is currently helping the local population convert these kilns from high polluting waste fuels to natural gas and propane. However, the high cost of natural gas and propane makes it highly desirable to supplement these clean burning fuels with other fuels such as saw dust.

This project will support the on going efforts of the Brickmaker's Training Center in Ciudad Juarez, Mexico. The project will specifically focus on the question of how gas consumption can be reduced through the use of locally available, lower cost fuels (in conjunction with gas firing) and through other changes in the brick kilns to improve thermal efficiency.=20
All proposed modifications of brick kiln design or operation will be evaluated in terms of effectiveness and affordability in regard to the kilns' owners. The project will involve experimental testing in a typical brick kiln to be built at the University of Utah's combustion laboratory and system modeling The modeling will be used to evaluate the effects of modifications to the kilns such as increased insulation, location of burners, distribution of waste fuels, kiln geometry and brick stacking patterns.

5) Status: Ongoing

6) Schedule: A twelve month period (4/11/95-3/31/96) to include tasks involving facility design and construction; experimental testing and measurement; model development, analysis, modification, and simulations.

7) U.S. Contacts: Dr. Geoffrey D. Silcox (801) 581 8820, and
Dr. JoAnn Lighty, (801) 581 5763, University of Utah
Todd Rinck, EPA (202) 260-2178
Mexican Contact: Dr. Octavio Chavez, Centro Competividad Internacional.

Project Name: **Drinking Water Quality in the U.S. Mexican Border Region: Assessment of Water Supplies, Treatment and Distribution**

1) Purpose and Objectives: Assess the status of drinking water sources, treatment, and distribution in the border region; assess the quality of drinking water consumed in the border region, not only in the larger metropolitan areas, but also in the vast rural areas along the border; and identify the primary drinking water concerns in the border region.

2) Funding: $45,000 year one, SCERP FY 1995 funds (EPA)

3) Partners: University of Utah and Collaboration of SCERP database and GIS projects.

4) Description: Rapid population growth along the U.S./Mexico border in recent years has resulted in large increases in municipal, industrial, and agricultural water usage to local streams and groundwater reservoirs have also occurred. Infrastructure improvements have failed to keep up the population growth and modern municipal services (e.g., water supply and sewage collection remain intermittent or non existent in some areas).

This study will document drinking water quality, treatment and distribution practices in the border region. Existing data sources will be used to determine the status of drinking water on both sides of the U.S./Mexican border in rural, suburban, and urban communities. Data on the quality, reliability, and type of water resources serving as raw water sources will be collected and synthesized. Water treatment methods and practices prior to distribution and consumption will also be summarized. Samples of raw water sources and finished water will be obtained from a number of representative locations and tested for the constituents of major concern such as total coliform, TSS, turbidity, conductivity, pH, TDS, TOC, metals, hydrocarbons, and COD. The combination of this information will provide a realistic picture of the drinking water quality in the region. Additionally, distribution methods and their impact upon water quality at the point of consumption will be investigated. This informatin will be presented in a final report with action oriented recommendations for state and local government agencies concerned with drinking water quality.

5) Status: Not yet begun

6) Schedule: The operational tasks of this project are scheduled to begin July 1995 and continue through June 1997. The tasks are as follows:
Task 1: conduct extensive complete literature survey (Sept 1995);
Task 2: gather data on status of drinking water supplies on the U.S. side of the border (Dec. 1995);
Task 3: Gather data on status of drinking water supplies on Mexican side of the border.

7) U.S. Contacts:
Dr. Donald F. Hayes, (801) 581 7110, University of Utah
Todd Rinck, EPA (202) 260-2178

Project Name: **Database Coordination Initiative**

1) Purpose and Objectives: Coordinate and make available to the environmental community the data and databases developed by the SCERP projects

2) Funding: $115,000 Southwest Center for Environmental Research & Policy FY1995.

3) Partners: University of Utah, Arizona State University, New Mexico State University, San Diego State University, University of Texas at El Paso, Instituto Tecnológico y de Estudios de Monterrey (ITESM), Instituto Tecnológico de Ciudad Juárez, Universidad Autónoma de Baja California and Universidad Autónoma de Ciudad Juárez.

4) Description: This project will coordinate databases and data generated by SCERP projects and make important information available through the existing SCERP Gopher server and new World Wide Web sever on Internet to communities, researchers, the private sector, and the public sector. This system will provide a central contact point for obtaining information about SCERP projects. It will also facilitate development of an urgently needed border wide environmental information system to support all sectors and to assess progress on border problems in the environmental areas of: air quality; water quality; hazardous waste and materials; environmental health, training, education, and policy.

5) Status: This continuation project has been revised to facilitate a centralized GIS/database information system on the SCERP environmental research activities implemented in the U.S. Mexico border region.

6) Schedule: The activities planned for this project will cover a 12 month period (3/1/95-4/30/96). They include: (a) acquisition of SCERP project data; (b) development of a baseline text for World Wide Web; (c) Demonstration hypertext to SCERP PIs, the EPA, and other environmental groups in the U.S. Mexican Border region; (d) promote use and access to SCERP project data; (e) development of a pilot database of SCERP contacts; (f) implemention of the database project in at least four Mexican border communities; (g) development and distribution of at least four issues of SCERP.net connections; (h) implemention of a SCERP World Wide Web system, and develop presentation template; (i) preparation of quarterly progress and final reports.

7) U.S. Contacts:

Dr. Ray H. Beckett, (801) 581 3795, University of Utah
Todd Rinck, EPA (202) 260-2178

Project Name: **Geographic Information Systems Development Ambos Nogales**

1) Purpose and Objectives: The basis of our GIS research effort is a regional ecological characterization and database development for the Nogales Sonora/Arizona and the Mexicali/Calexico areas. The ecological database processed in a GIS provides the foundation for the primary research foci which include (a) analysis and modeling of the effects of urban land use dynamics in Nogales on hazardous materials sources, (b) the identification and modeling of surface and subsurface contaminant migration pathways, and (c) the estimation of vulnerability of human populations to hazardous materials incidents in Ambos Nogales.

2) Funding: $130,000 SCERP FY 1995 funds (EPA).

3) Partners: University of Utah and collaboration of Colegio de la Frontera Norte and other SCERP GIS projects.

4) Description: This research project is multi faceted and involves on going scientific investigations using a geographic information systems (GIS) approach for: (a) modeling dense gaseous contaminant pathways in Ambos Nogales; (b) GIS modeling of urban dynamics in Ambos Nogales for the estimation of future air and water contaminant loads; (c) the formulation of sister city response planning based on analysis and GIS modeling of the vulnerability of the residents of Ambos Nogales to a hazardous contaminant release; and (d) the application of the Mexicali/Colexico GIS database in regard to the identification agricultural sites at high risk from non point source water contamination. The project will continue the development of a geographic database (satellite imagery, maps, terrain models, land use classification) for the Mexicali Colexico region. Programs for training and technology transfer of GIS expertise and analytical products to U.S./Mexican SCERP collaborators, governmental agency personnel and the scientific community will continue to be offered. The overall intent is to combine the construction of border GIS databases with a wide spectrum of faculty and graduate student expertise to address critical environmental problems on the Border.

5) Status: Continue development of a geographic database (satellite imagery, maps, terrain models, land use classification) for the Mexicali-Calexico region. Programs for training and technology transfer of GIS expertise and analytical products to U.S. Mexican SCERP collaborators, governmental agency personnel and the scientific community will continue to be offered.

6) Schedule: This project's Nogales study area and the Mexicali study area will cover a 12 month period (4/1/95-3/31/96). This includes enhancement of the Nogales database for emergency response planning; integrating cameo with ARC/INFO database; urban dynamics/GIS model implementation, benchmarking and code refinement; the construction of a model for nitrate transport; testing and validation of a non point source contaminant model; and the planning and hosting of a GIS workshop

7) U.S. Contacts:

Dr. George Hepner, (801) 581 8218, University of Utah
Todd Rinck, EPA (202) 260-2178

APPENDIX A - Border Environmental Cooperation Commission / North American Development Bank

U.S. Environmental Protection Agency
Office of Wastewater Management

BECC AND THE NADBANK — FINANCING ENVIRONMENTAL INFRASTRUCTURE ON THE U.S.- MEXICO BORDER

BRIEF FACTS

- The new **BECC-NADBank Agreement** signed by President Clinton in November, 1993 creates a new environmental infrastructure program, giving U.S.-Mexico border communities a much greater role in determining needs and how to fill them, and incorporating a mix of federal, state, local and private sector funding.

- **The Border Environment Cooperation Commission (BECC)** is a joint U.S.-Mexico organization, headquartered in Ciudad Juarez, Mexico, that will help states, localities, and the private sector to develop and find financing for environmental infrastructure projects along the U.S.-Mexico border.

  - The BECC Board will be advised by a binational Advisory Council.

- **The North American Development Bank (NADBank)**, with its principal office in San Antonio, Texas, will provide loans and loan guarantees to projects certified by the BECC.

  - NADBank will also have a "Community Adjustment and Investment Program" office in Los Angeles, California.

- Both organizations have installed boards of directors, selected general managers, deputies and staff, and have established interim office space, bank accounts, etc.

  - The first organizational meeting of the BECC Board of Directors was held October 12, 1994, in Ciudad Juarez, Mexico. The first BECC public meeting was held November 17, 1994, also in Ciudad Juarez.

  - The first meeting of the NADBank Board of Directors was held June 17, 1994, in San Antonio, Texas.

  - The first joint meeting of the BECC and NADBank Directors was held February 15, 1995 in San Antonio, Texas.

- The charter provisions of the BECC and NADBank provide that:
  - **The two main functions of the BECC** are to:
    (1) Assist states, localities, public agencies and private investors in:
      — Developing projects.
      — Analyzing project environmental and financial aspects.
      — Evaluating project social and economic benefits.
      — Arranging public financing for projects.
    (2) Certify project financing applications to the NADBank or others.
  - **The three main functions of the NADBank** are to:
    (1) Promote public and private capital investment in BECC projects.
    (2) Supplement such investment with NADBank loans and guarantees.
    (3) Provide technical assistance for financing BECC projects.

Infrastructure Financing Sources

- About $8 billion is expected to be available for U.S.-Mexico border environmental infrastructure finance during the next 10 years:
  - $2 billion in U.S. financing from existing sources:
    — State and federal grants and loans
    — State revolving funds
    — State and local tax-exempt bonds
  - $2 billion is expected over the next several years from World Bank and Inter-American Development Bank loans to Mexico to support border environmental activities.

- $4 billion is expected from new joint financing mechanisms:
  - — $600 million or more from private sources.
  - — More than $2 billion by leveraging NADBank capitalization from each country.
    - Starting in Fiscal Year (FY) 1995 each country will capitalize the NADBank through four annual contributions of $56.25 million. The $225 million from each country will provide a total of $450 million in capitalization.
    - Additional capitalization is provided by "callable capital."
  - — $1.4 billion in grant funds ($700 million from each country.)

EPA Financing

- o In concert with the BECC, Federal EPA grants will be used for initial project assistance, and to supplement funding for projects which cannot be completely financed by NADBank, state or local governments, or on the private market.
  - Mexico and the U.S. have each committed to provide $700 million from each nation in federal grants over 7-10 years.
  - The president requested, and Congress has appropriated, $100 million to EPA for FY 1995 for border infrastructure funding to begin meeting that commitment.
    - — EPA's FY 1995 appropriation includes funds for the Tijuana-South Bay International Wastewater Treatment Plant, and wastewater treatment projects in Mexicali, Nogales, and other border cities.
  - U.S. *colonias* wastewater treatment infrastructure funding will be authorized and appropriated separately from other border infrastructure funding.
    - — EPA's FY 1995 appropriation includes $50 million for this purpose.
- o EPA and the government of Mexico are developing a new ***Border 2000 Plan***, the next phase of the *Integrated Environmental Plan for the Mexican-U.S. Border Area (First Stage, 1992-94)*, to include opportunities for improved funding management and coordination with BECC and NADBank; utilizing the coordinated capabilities of government agencies; and obtaining substantial input from border residents, groups and communities.

FURTHER INFORMATION ABOUT BECC

- BECC headquarters are in Ciudad Juarez, Chihuahua, Mexico, directly across the border from El Paso, Texas. While permanent facilities are under design, temporary office space has been leased at:

  Comisión de Cooperación Ecológica Fronteriza/
  Border Environment Cooperation Commission
  Torres Compestre, piso 6
  Blvd. Tomás Fernández # 7940
  Cd. Juárez, Chihuahua
  C.P. 32470
  México

  Apartado Postal 3114-J
  Cd. Juárez, Chihuahua
  México

  - A U.S. point of contact has been established for the BECC:

    Border Environment Cooperation Commission
    P.O. Box 221648
    El Paso, Texas, 79913

  - Telephone service from the U.S. is: 011-52-16-292395
    Facsimile transmission service is: 011-52-16-292397

- The provisions of the BECC and NADBank charter provide that:

  - The bi-national Board of Directors comprises two *ex officio* members and three appointees on each side, for a total of 10 members.

    — Nations alternately select a chairperson who serves for one year.

    — A quorum consists of at least three U.S. and three Mexican members.

    — Decisions require a majority vote, which consists of at least three U.S. and three Mexican votes.

- The Board must meet at least quarterly; more often if it or the General Manager directs. The Board:

  — Accepts requests for assistance from states, localities, other public entities and private investors. May evaluate social and economic benefits and financial feasibility of proposed environmental infrastructure projects within 100 kilometers of either side of the U.S.-Mexico border.

  — May coordinate, prepare, develop, implement, and oversee (but not operate) environmental infrastructure projects.

  — May arrange financing packages including grants, loans, loan guarantees, or other financial assistance.

  — Will focus first on wastewater treatment, water supply, and municipal solid waste management facilities.

- The BECC's principal professional staff members are a General Manager and Deputy General Manager of differing nationalities.

  — The General Manager is H. Roger Frauenfelder, formerly of San Diego, California, U.S.A.

  — The Deputy General Manager is Luis Raul Dominguez, formerly of Cancun, Quintana Roo, Mexico.

o U.S. BECC Board requirements and membership are:

- Two members *ex officio* (authorized by virtue of position):

  1. **Administrator, EPA — Carol M. Browner**
  2. **Commissioner, IBWC — John Bernal**

- Three members authorized and subject to appointment by the President. Must have expertise in environmental planning, economics, engineering, finance "or related matters."

  3. A representative of one U.S. border state (CA, AZ, NM, TX):

     Ygnacio Garza
     Chair, Texas Parks and Wildlife Commission

4. A representative of a "locality in the Border region":

Peter Silva
Deputy Director, San Diego Division of Water Utilities

5. A member of the U.S. public "who is a resident of the border region":

Lynda Taylor
Southwest Research and Information Center, Albuquerque, NM.

- Mexican BECC Board requirements and membership are:

  - Two members *ex officio* (authorized by virtue of position):

    1. **Secretary, SEMARNAP — Julia Carabias Lillo**
    2. **Commissioner, CILA — Arturo Herrera Solis**

  - Three members authorized and subject to appointment by the President of Mexico. Must have expertise in environmental planning, economics, engineering, finance "or related matters."

    3. A representative of one Mexican border state:

    Dr. Rogelio Montemayor Seguy
    Governor of the State of Coahuila

    4. A representative of a "locality in the Border region":

    Horatio Garza Garza
    Mayor of the City of Nuevo Laredo, Nuevo Leon

    5. A member of the Mexican public "who is a resident of the border region":

    Dr. Jorge Bustamante
    President of the College of the Northern Frontier, Baja California

FURTHER INFORMATION ABOUT THE BECC ADVISORY COUNCIL

- The provisions of the BECC and NADBank charter provide that:
  - The bi-national Council comprises 18 members serving two-year terms.
    - Each nation selects one Council co-chairperson.
  - The Council must meet at least quarterly; more often if members wish or the BECC Board so requests. The Council:
    - Must be consulted by BECC Board when acting on a request for assistance.
    - May:
      - Advise the BECC Board on project certification and implementation.
      - "...perform such other functions as directed by the Board"
      - Comment on the Commission draft annual report, program and budget.
- U.S. membership requirements are:
  - Six residents of U.S. border states, at least one from each of the four states. Must represent states, localities, or "local community groups." No knowledge or skill requirement.
  - Three members of the public. These positions have no residency, knowledge or skill requirements, but one must represent an NGO (defined as a scientific, professional, business, non-profit or public interest organization or association.)
- The U.S. Advisory Council members are:

Thomas L. Soto, California
Kathleen Marr, New Mexico
Daniel W. Eckstrom, Arizona
Deborah Kastrin, Texas
Sandra Farniza, Arizona
Travis C. Johnson, Texas
Cynthia Miscikowski, California
Rick Reyes, Texas
Arthur Trujillo, New Mexico

- Mexican membership requirements are:

  - Six residents of Mexican border states, one from each state. Must represent states, localities and/or community groups.

  - Three members of the public. One must represent an NGO (defined as a scientific, professional, business, non-profit or public interest organization or association.)

- The Mexican Advisory Council members (to date) are:

  Arq. Oscar Romo, Baja California
  Ing. Refugio A. Del Campo Perez, Coahuila
  Dra. Elida Rizo Garcia, Nuevo Leon
  Ing. Vernon Perez Rubio, Sonora
  Arq. Arturio Sepulveda Lerma, Tamaulipas
  Ant. Laura Durazo, Baja California

FURTHER INFORMATION ABOUT THE NADBANK

- The NADBank's principal office is in San Antonio, Texas:

  North American Development Bank
  425 Soledad, Suite 610
  San Antonio, Texas 78205-1506

  - Telephone service is: 210-231-8000
    Facsimile transmission service is: 210-231-6232

- The bi-national Board comprises three *ex officio* members on each side, for a total of six members.

  - Nations alternately select a chairperson who serves for one year.

  - A quorum consists of two U.S. and two Mexican members or alternates.

  - Decisions require a majority vote, which consists of at least two U.S. and two Mexican votes.

- The Board must meet at least annually, and more often if it so decides. At least one annual meeting must be open to the public. Votes may be held independently of meetings.

- The NADBank:
  - Provides financing for BECC-certified projects "as appropriate" and, on request, otherwise assists the BECC.
  - Encourages private investment in projects, enterprises and activities contributing to its purposes.
  - Supplements private investment with its own capital, funds raised by it in financial markets, and other available resources when private capital is not available on reasonable terms and conditions.
  - Provides technical and other assistance for the financing and, in coordination with the BECC, the implementation of plans and projects.
  - Reserves 10% of its capital for nationwide "Community Adjustment and Investment" needed to offset any adverse effects from implementation of the North American Free Trade Agreement.
- The NADBank's principal professional staff members are a Manager and Deputy Manager, of differing nationalities. The Manager and Chief Executive Officer is Alfredo Phillips of Mexico City. The Deputy Manager and Chief Operations Officer is Victor Miramontes of San Antonio, Texas.
- U.S. NADBank Board requirements and membership are:
  - Three members *ex officio* (authorized by virtue of position):
    1. **Secretary of State — Warren Christopher**
       (Alternate: Alexander Watson, Assistant Secretary of State for Inter-American Affairs)
    2. **Secretary of the Treasury — Robert Rubin**
       (Alternate: Jeffrey Shafer, Assistant Secretary for International Affairs)
    3. **Administrator, EPA — Carol M. Browner**
       (Alternate: William Nitze, Assistant Administrator for International Activities)

- Mexican NADBank Board requirements and membership are:
  - Three members *ex officio* (authorized by virtue of position):
    1. **Secretary of Finance — Guillermo Ortiz**
       (Alternate: Jonathan Davis, Under Secretary of Finance)
    2. **Secretary of Social Development (SEDESOL) — Carlos Rojas**
       (Alternate: Attorney General for Environmental Protection)
    3. **Secretary of Trade and Industry (SECOFI) — Herminio Blanco**
       (Alternate: Hector Marquas, Under Secretary for International Negotiations)

INFORMATION ABOUT THE NADBANK COMMUNITY ADJUSTMENT AND INVESTMENT ADVISORY COMMITTEE

- Will include low-income community and non-governmental organization representatives.
- The Committee's charter directs it to provide advice on "critical issues" and the guidelines for the NAFTA "Community Adjustment and Investment Program."
- An ombudsman will facilitate communications between the Committee, the public and the NADBank. The ombudsman will also establish procedures for independent inspections of the Community Adjustment and Investment Program.

APPENDIX B -
Commission for Environmental Cooperation

Commission for Environmental Cooperation

The North American Agreement for Environmental Cooperation (NAAEC) was negotiated as a side-agreement to NAFTA to safeguard environmental protection on the continent as we pursue increased economic growth through trade. The Agreement provides for a Commission for Environmental Cooperation (CEC) which will ensure that each country is effectively enforcing its national environmental laws, will facilitate cooperation among the three parties in addressing environmental problems of mutual concern and will serve as a mechanism for the public of all three countries to participate in shaping North American cooperative environmental policy.

The EPA Administrator has been designated by the President to serve as the U.S. representative, along with the environment ministers of Canada and Mexico, to the CEC Council which oversees implementation of the Agreement and the operations of the CEC.

A Secretariat, headquartered in Montreal, will be the operational arm of the CEC and is charged with developing and implementing the annual work program and budget and handling citizen submissions. Victor Lichtinger, of Mexico, has been selected by the Council to serve as the Secretariat's first Executive Director. Jean Hennessy will serve as the U.S. national Deputy and Janine Ferretti will serve as the Canadian national Deputy.

The CEC also includes a Joint Public Advisory Committee comprised of fifteen members (five from each country) representing diverse public and private views. The JPAC met for the second time January 11 and 12. Jacques Gerin, of Canada, was selected by the JPAC to be the Committee's Chairman.

The Council approves a yearly budget for the CEC based on a program of work for that year. The Council formally agreed at the outset, that the budget of the NACEC would have a budget ceiling of a per country, $5.0 million yearly contribution.

In 1995, the CEC is funded at $9.0 million (a per country contribution of $3.0 million). In 1996, the NACEC will be fully operational and is projected to receive up to the full funding level of $15.0 million (a per country contribution of $5.0 million).

The 1995 Annual Program and Budget was formally approved on February 8 by the Council. The work program sets an ambitious course for the CEC in its first full year. The first challenge for the CEC is to identify what activities are currently being engaged in by the three countries so that the CEC can begin its function to improve cooperation among the countries on addressing mutual challenges.

Many of the initial projects are aimed at identifying current programmatic activities and accumulating and establishing baseline information/data in areas of conservation and ecosystem protection, potential effects of NAFTA on the environment, enforcement and compliance practices, pollution prevention techniques, and technology cooperation and capacity building.

The CEC will also be assisting the parties to negotiate an agreement to improve handling of transboundary pollution issues.

Almost a third of the 1995 Budget is held in a Project Implementation Fund (PIF). The Secretariat, the Parties and interested members of the public and private sectors will work to develop and further define projects based on the information gathering and scoping accomplished by the first tranche of projects and to reflect evolving environmental needs or opportunities.

The USG has proposed PIF project concepts to the CEC Secretariat for partnerships in energy efficiency methods, developing recommendations on the regional elimination of high-risk pollutants (DDT, PCBs), demonstrating the feasibility of regional environmental management standards (akin to ISO 14,000), and establishing new approaches to bi-catch fisheries issues. Mexico, Canada, business associations, environmental groups and other interested parties are also in the process of proposing tangible new projects for funding by the Project Implementation Fund.

Currently, no citizen submissions on the non-enforcement of a country's environmental laws (Articles 14 and 15 of the NAAEC) have been received by the CEC. The CEC is in the process of drafting guidelines for the clear and consistent handling of these submissions. The CEC intends to begin 60-90 days of public consultation on the guidelines to ensure the correct level of transparency. This public comment period will begin by summer 1995.

These citizen submissions guidelines and Model Rules of Procedure for dispute settlement are the last remaining rules and procedures needed in order for the CEC to be fully operational.

In 1998, the Agreement stipulates that a thorough review of the CEC and its activities and accomplishments be performed to measure its productivity and utility. Outyear funding of the NACEC will be dependent on a positive outcome to this review.

Commission for Environmental Cooperation
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