

**UNITED STATES DEPARTMENT OF THE INTERIOR
UNITED STATES-MEXICO BORDER
FIELD COORDINATING COMMITTEE (FCC)**

Fiscal Year 2000 ACTIVITIES

Research and Management of Shared Water Resources

- Progress continues on Shared Water Resources Fact Sheets for the U.S.-Mexico border. Currently in progress are Fact Sheets for the Lower Rio Grande Valley - Below Falcon Reservoir to the Gulf of Mexico (Subarea 8); the Pacific Basins/Salton Sea Trough (Subarea 1); the Mimbres/Animas Basins (Subarea 4); and the Rio Grande - Elephant Butte Reservoir to Above the Rio Conchos (Subarea 5).
- Issue Team members participated on a binational Task Force under the direction of the IBWC to implement recommendations stemming from the binational Rio Grande Symposium, held in Ciudad Juarez on June 14, 2000 (see Lower Rio Grande, below).
- Issue Team members continued to participate with other agencies in planning for the development and use of GIS for examining disease/environmental stressor interactions in a pilot program for evaluating human health issues in the United States-Mexico border region.
- Issue Team members continued to work with the International Boundary and Water Commission, the Environmental Protection Agency, and other State and Federal agencies along the border to develop an agreement to ensure comparability between water quality samples collected by different agencies.
- Issue Team members worked with the IBWC/State Department in planning for a comprehensive aquifer characterization and ground water quantity/quality analysis for the border region.

Upper San Pedro River Basin

- The Issue Team was represented on the Proceedings Committee of the November 1999 San Pedro international conference "Divided Waters ~ Common Ground, Aguas Divididas--Áreas Comunes" held in Cananea, Sonora, Mexico and Bisbee, Arizona. The Committee wrote, published and distributed bi-lingual proceedings of the conference.
- At the request of the Institute for Natural Resources and Sustainable Development for the State of Sonora (IMADES), global positioning system equipment and personnel to survey the boundaries of the San Pedro River in Mexico were provided. This technical assistance was needed for Mexico to prepare a Presidential Decree that will provide a

protected status to a portion of the San Pedro River Basin and other important areas, in accordance with the Joint Declaration signed in June 1999 by the Secretary of the Interior and Mexico's Secretary of the Environment, Natural Resources and Fisheries (SEMARNAP).

- In September 2000, several members of the Issue Team met with Mexican counterparts in Cananea, Sonora, Mexico and developed an initial bi-national action plan for the Upper San Pedro River Basin. Further action on the plan is awaiting a Presidential Decree establishing a portion of the Basin in Mexico as a protected area.
- Initiated a contract with the Arizona State Museum and Water Resources Research Center, University of Arizona, to prepare a book-length report of baseline information about the history of the Upper San Pedro River Basin in Mexico and the United States and the ways in which people have affected the environment through 12,000 years of history to the present, focusing mainly on the last 300 years. Products also will include bi-lingual instructional and educational materials presented in various formats to increase the utility of the information.

Lower Rio Grande

- The DOI and SEMARNAP co-sponsored a Rio Grande Symposium, on June 14, 2000 in Ciudad Juarez, Chihuahua. At the symposium, the Interior Secretaries from the United States and Mexico indicated their intention to develop and implement strategies that ensure protection of the river's environmental, cultural, and natural resources that are of mutual interest to both nations.
- The U.S. Bureau of Reclamation, in conjunction with representatives from the International Boundary and Water Commission, conducted a field assessment of water and habitat conditions in the "Forgotten Reach" of the Rio Grande below El Paso/Juarez.
- The U.S. Fish and Wildlife Service established a binational Ecosystem Team for the Lower Rio Grande for the purpose of enhancing opportunities for cooperation in resource management. The Team has encouraged participation of representatives from Mexican resource entities, as well as representatives from other DOI bureaus.
- The National Park Service, Amistad National Recreation Area, hosted two binational meetings for the purpose of developing a binational cooperative fisheries management plan for Amistad Reservoir.

United States-Mexico "Sisters" Areas

- The National Park Service continued to support fire management research in "sky island" areas of Arizona and Sonora. Attempts to reintroduce fire into fire-adapted ecosystems

through the use of prescribed fire and wildland fire use have resulted in the need for a greater understanding of fire's historic role. This study is intended to provide comparative information on stand structure, composition, and fuel loading between landscapes, to help provide a model for a desired future condition.

- In conjunction with the Universidad Autónoma de Chihuahua, the National Park Service facilitated projects on grassland bird use of wintering areas and on the habitat use and relative distribution of white-sided jackrabbits in open grassland habitat. Both of these projects were conducted by Mexican graduate students with funding support from Border Wildlife, T & E Inc., and the U.S. Fish & Wildlife Service.
- The National Park Service participated in the aerial survey of important wetlands for migrating shore and wading birds in the Mexican Highlands. Perennial and ephemeral wetlands are an integral part of Chihuahuan Desert grassland ecosystem of the Southwest and Mexico interior. This project was supported by U.S. Fish & Wildlife Service, the Universidad Autónoma de Chihuahua, and Ducks Unlimited.
- The National Park Service and the U.S. Fish & Wildlife Service, Organ Pipe Cactus National Monument, Cabeza Prieta National Wildlife Refuge and staff from Reserva de la Biosfera el Pinacate y Gran Desierto de Altar, provided field support on exotic weed removal along the Rio Sonoyta in Sonora. The Rio Sonoyta is the only location where endangered Sonoran Desert Pupfish occur in El Pinacate.
- Work continued on the concept of cross border collaboration for Sonoran Desert conservation. This included action on overall coordination among agencies, and work in support of ecosystem monitoring, exotic weed strategy development, and ecoregional planning. Complementary funding in support of these objectives was acquired from the US Department of Defense and the Ford Foundation.
- Work supporting the riparian restoration in the Mexico stretch of the Santa Cruz watershed continued during FY 2000. This included action on livestock grazing improvements, training, infrastructure improvements, and natural resource research.
- The National Park Service partnered with the Bureau of Indian Affairs (BIA) in providing core support for the International Sonoran Desert Alliance (ISDA). ISDA, a grassroots organization based in Ajo, AZ, has a community-based alliance of citizens from diverse backgrounds from the Sonoran Desert region (both U.S. and Mexico) working to find solutions to the areas complex economic, environmental, and cultural issues.

Aerial Photography and Resource Mapping

- As a contributing member of the Department of the Interior (DOI), United States – Mexico Field Coordinating Committee (FCC), the U.S. Geological Survey (USGS) has

been working with partners to produce imagery and integrated digital geospatial data and graphic maps for the U.S. – Mexico Border Region. Each digital data layer represents a specific theme, which can include roads, parcels of land, bodies of water, or specific geographic land features. Currently, the USGS is more than half-way through a ten to twelve year, \$30 plus million mapping project for the U.S. portion of the Border Region.

- These efforts have benefited from partnership with other entities including the U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) and Farm Service Agency (FSA), the U.S. Army Corps of Engineers, and the EPA. State and local partners include the Texas Stratmap program and San Diego Association of Governments (SANDAG).
- The USGS has also been working with INEGI, the Mexican mapping agency, to build GIS data sets along the Mexican side of the Border. Both agencies have initiated a joint pilot project to test data sharing procedures (i.e., program compatibilities, cross-referencing of key GIS data standards) in the Ciudad Juárez-El Paso border area.

Project Status as of September 30, 2000:

Color Infrared Photography; 1:40,000-scale: 100%; completed 1996; includes over 12,000 photo images

Digital Elevation Models: 100% completed 1996; includes 2,581 quadrangles

Digital Raster Graphics: 100% completed 1997; includes 2,581 quadrangles

Public Land Survey System (CA, AZ, NM, n/a in Texas); 100% completed 1996

Political Boundaries: 100% completed 1996; includes 2,581 quadrangles

Digital Orthophoto Quadrangles: 100% completed 1999; includes 10,324 quarter-quads

Transportation: 38% completed in FY00

Hydrography: 42% completed in FY00

Project Plans for FY 2001:

Hydrography revision and NHD projects to complete Texas portion of Border Region

Transportation revision projects to complete Texas portion of Border Region

Graphic Map revision projects to complete Organ Pipe Cactus National Monument and Tucson Vicinity

Cultural Resources

- A new Issue Team dealing with cultural resources of the United States-Mexico border region was established in FY2000.
- A colloquium on the Camino Real de Tierra Adentro was held in the El Paso, Texas, Las Cruces, New Mexico, and Ciudad Juarez, Chihuahua region. This event united anthropologists, archeologists, historians, artisans, entertainers, teachers, students, politicians, and families from the United States and Mexico to celebrate the historic and cultural significance of the Camino Real.
- A Camino Real multimedia program in CD format was designed and includes a digitized map of the Camino Real in the states of Aguascalientes, Zacatecas, Durango, and Chihuahua. The program also includes pictures, historic illustrations, and written text on sites of interest in Mexico. This year we plan to incorporate maps, photographs, and text describing the historic sites in New Mexico. The NPS, BLM, and the INAH are the principal partners in the development of this program.
- An international Workshop on Conservation of Adobe Historic Structures hosted for cultural resource managers and restoration specialists from the U.S. and Mexico.

- Work continues with the Mimbres-Paquime Connection Project which involves collaboration with the New Mexico communities of Silver City, Lordsburg, Deming, Columbus and the Chihuahuan communities of Maderas, Casas Grandes, Nuevo Casas Grandes, Janos, and Palomas. The project focuses on community support for the design and development of a transboundary Mimbres-Paquime tourist loop in both states.
- A second volume CD of musical groups of the Camino Real de Tierra Adentro was produced this year. The musical groups were from Española, New Mexico, as well as Chihuahua, Durango, and Zacatecas, Mexico. The CD recording was possible through a united effort by INAH and NPS colleagues.
- One thousand copies of the papers presented at the 2nd through 4th Camino Real Colloquiums were printed for distribution to schools, public libraries, academic libraries, museums, protected areas, and other sites of historic interest along the Camino Real trail in both countries. This was accomplished through a united effort of personnel from INAH, NPS, and BLM.

United States-Mexico Environmental Education

- The 10th Conference of the U.S.-Mexico Border States on Parks, Recreation, and Wildlife was held in Monterrey, Nuevo Leon, Mexico. Government, academia, and non-governmental entities from the United States and Mexico convened to present formal presentations on international conservation issues, projects, and events. The conference theme was "The Challenge of Mitigating Human Impacts". The principal organizers of the conference included the Universidad Autonoma de Nuevo Leon, Texas Parks And Wildlife Department, U.S. Fish and Wildlife Management, and the National Park Service.
- The National Park Service supported Earth Day activities and educational outreach in Saltillo, Coahuila, where an estimated 8,000 people attended this year's event. The annual event brings various educational, non-governmental and governmental institutions together to celebrate our environment. Informative booths presented to the public topics ranging from water and air quality to dinosaur fossils. There are many booths set up for children to participate in games and learn about the environment they live in.
- U.S.-Mexico participants from various communities participated in the 2nd Eco-Tourism Workshop, convened at Big Bend National Park, to discuss and learn about eco-tourism issues, visitor services and recreation at protected areas.
- The National Park Service provided support and assisted in the development of a Monarch Butterfly Workshop for teachers and natural resource managers in Saltillo, Coahuila Mexico. The workshop curriculum focused on the management of the Monarch Butterfly during its migration season.

DOI United States-Mexico Sonoran and Chihuahuan Desert Initiatives:

Western Sonoran Desert

- A bilingual brochure, poster, and fact sheet on Sonoran Desert ecology and conservation in the adjacent natural protected areas will be produced for distribution throughout the region.
- Binational public education displays about the natural protected areas were erected at the Yuma County Fair and the Yuma International Airport.
- La Ruta de Sonora Ecotourism Association, was legally established as a non-profit organization in 1999, and the Directors of the natural protected areas are board members of the association. “La Ruta” will encourage sustainable visitor use of natural protected areas, provide benefits to local communities, and direct dividends to conservation priorities.
- **The Dry Desert Sub-Region of the Western Sonoran Desert** formed a partnership between Organ Pipe Cactus National Monument (ORPI); Cabeza Prieta National Wildlife Refuge; Special management areas administered by the Bureau of Land Management (BLM); and El Pinacate y Gran Desierto de Altar Biosphere Reserve in Sonora (El Pinacate).
 - ORPI hosted a desert restoration workshop on April 22, 1998 for the staff of the Pinacate Biosphere Reserve. The group visited restoration sites and discussed revegetation techniques. The next workshop will be held in El Pinacate.
 - ORPI hosted a three-day tri-national workshop June 23-25, 1999, on invasive weed management that was designed by the Nature Conservancy, the Sonoran Institute, ORPI, and the Society for Ecological Restoration. Target species and problem areas were identified, and ORPI showed the group field examples of where buffelgrass has been successfully removed. El Pinacate, Cabeza Prieta National Wildlife Refuge, the Tohono O’odham Nation, among others, participated in the workshop.
 - The Sonoran environment agency that is involved in the management of El Pinacate - IMADES - attended a BLM workshop on Geographic Information Systems (GIS) in Phoenix, Arizona in February 1998. One outcome of this workshop is that BLM provided digital data, a new plotter for Geographic Information System (GIS), scanning quads and more GIS training to Pinacate.
 - The natural protected areas are working to make their GIS compatible across the border by using the digital data that has been produced by the binational aerial photography and mapping initiative - between the U.S. Geological Survey and the Mexican National Institute of Statistics, Geography, and Information (INEGI). We now have seamless digital raster graphics, digital elevation models, and

digital orthophoto quads, and wilderness boundaries for the Western Sonoran Desert. DOI Bureau of Land Management is retaining and distributing this data to the region's natural protected areas.

- The first pilot for the GIS group will be a basic digital map indicating the locations of pupfish habitat, which is an endangered species in the United States. Seamless digital raster graphics will be obtained for Pinacate and Organ Pipe to provide a background for applications.
- **The Wet Desert Sub-Region of the Western Sonoran Desert** formed a partnership between the Imperial National Wildlife Refuge on the Lower Colorado River in the U.S. and the Alto Golfo de California y Delta del Rio Colorado Biosphere Reserve (Upper Gulf of California and the Colorado River Delta) in Mexico.
 - The staff of Imperial National Wildlife Refuge assisted the Alto Golfo staff and volunteers from the Ejido Johnson to erect a wildlife viewing tower in the Cienega de Santa Clara, an important wetland in the Colorado River Delta.
 - Personnel from natural protected areas are training residents from the local ejidos as tour guides and park rangers.
 - Riparian habitat restoration projects were conducted on the El Doctor wetlands in Mexico and the Martinez Marsh wetlands in the United States.
 - Waterfowl and shorebird surveys that have been conducted in the U.S. are being expanded across to the Colorado River Delta in Mexico to obtain a more accurate population census and a better understanding of specific migratory routes.
 - An education video on the Lower Colorado River Ecosystem was produced and included information about the binational cooperation between United States and Mexico reserves.

Chihuahuan Desert Big Bend Country

- A three-day binational river patrol took place in the Boquillas Canyon segment of the river with staff from Big Bend National Park (BBNP), Maderas del Carmen and Santa Elena Canyon Flora and Fauna Protected Areas (FFPA).
- A river seminar for private-sector tourist service providers was conducted with staff from BBNP, Santa Elena Canyon and Maderas Del Carmen FFPA's on February 6-8, 2000. The group discussed policies, new regulations, and binational issues for protection of natural resources.
- The federal and state natural protected areas are cooperating on species research projects such as the Peregrine falcon, black bear, and the Big Bend mosquitofish. In addition, a study is being conducted to determine the current status of fish species distribution in the

Rio Grande and its tributary streams.

- A fire along the river in late March 1999 that burned over 200 acres on the Big Bend side was suppressed jointly by firefighters from both sides of the border. Wildland fire emergency telephone numbers have been exchanged between the natural protected areas to facilitate reporting and communications during wildland fires.
- A riparian area workshop was carried out in April 1999 with two villages in Mexico across from Big Bend National Park to increase understanding and awareness of the importance of protecting tributaries to the Rio Grande. Fencing will be built on the banks of the riparian tributaries into the Rio Grande to keep livestock out of the tributaries, the mainstem of the Rio Grande, and Big Bend National Park.

United States-Mexico Border Program Projects

- In FY2000, the FCC received proposals for 37 United States-Mexico Border Program projects. Continued support was provided to three two-year projects that were initiated in 1999 and ten new projects were funded:
 1. Synthesis of Habitat Conservation Activities Along the United States-Mexico Border (continued funding).
 2. Vegetation Mapping and Habitat Assessment of the Riparian and Wetland Zones in the Colorado River Delta, Mexico (continued funding).
 3. Transboundary GAP Analysis of Biological Conservation for the Rio Grande Ecosystem in the States of Nuevo Leon and Tamaulipas, Mexico (continued funding).
 4. Arizona-Sonora Avian Monitoring Program (new project).
 5. Cooperative Fisheries Management Plan for Amistad Reservoir (new project).
 6. Natural Resource Conservation, Education, and Community Development in the Ajos-Bavispe National Reserve, Sonora, Mexico (new project).
 7. Rehabilitation and Maintenance of an FCC Internet Site (new project).
 8. Rangeland Management Planning, Monitoring, and Assessment in the Southwest: Binational Workshops (new project).
 9. Rio Grande Binational Symposium (new project).
 10. Roots-Raices-Ta:tk International Environmental Youth Program (new project).
 11. Status and Distribution of the Sonoyta Mud Turtle and Other Sensitive Amphibians and Reptiles of the Rio Sonoyta Drainage (new project).
 12. Synoptic Survey of In-Stream and Riparian Zone Natural Resources and Ambient Water-Quality Conditions of the Rio Grande/Rio Bravo from Big Bend Ranch State Park to the End of the Wild and Scenic River Segment (new project).
 13. Upper San Pedro Watershed Ecological History (new project).

Other

- The FCC continued to represent the Department on the Good Neighbor Environmental Board throughout the year.
- Members of the FCC participated throughout the year as members of the Southwest Strategy United States-Mexico Relations Work Group. This Work Group is developing a listing of existing efforts and projects along the border, coordinating and recommending training for interagency teams in cultural awareness and sensitivity, and developing a US-Mexico bi-lingual directory to identify roles, responsibilities, and protocols for use in addressing issues.