

# STATE OF THE RIVER 2001

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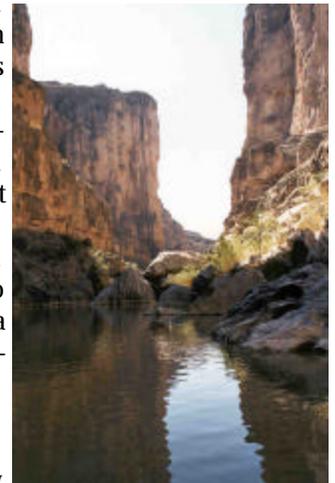
## FACTS ABOUT THE RIO GRANDE

- The river collects rain, snowmelt and spring water from an area about 335,500 square miles in size, equal to 11 percent of the continental U.S. and 44 percent of Mexico. The Rio Grande drainage basin includes parts of three states in the U.S. and five states in Mexico.
- From El Paso to the Gulf of Mexico—a distance of about 1250 miles—the Rio Grande forms the boundary between the U.S. and Mexico.
- In a sense, the Rio Grande is two streams. It dwindles to nearly nothing at Presidio, and only water from the Rio Conchos, coming out of Mexico, sustains its journey to the Gulf.
- The population of Mexican cities and Texas counties bordering on the Rio Grande was nearly 4.5 million in 1995, with these figures expected to double by the year 2020 further straining the region's scarce water resources.
- Mexico continued to be Texas' largest export market. Texas exports to Mexico reached \$41.4 billion during 1999, up 14 percent over 1998.
- The lower Rio Grande Valley is one of America's top birdwatching destinations with over 465 bird species and a wide range of habitats. Bird watchers from around the world contribute over \$100 million to the region annually.

*(Continued on page 2)*

## RIVER PROFILE

The Rio Grande is the fifth longest river in North America, and among the 20 longest rivers in the world. From its origins high in the Rocky Mountains, it travels almost 1900 miles and drops more than two miles before emptying into the Gulf of Mexico. The Rio Grande watershed is huge. The river collects rain, snowmelt and spring water from an area about 335,500 square miles in size, equal to 11 percent of the continental U.S. and 44 percent of Mexico. The Rio Grande drainage basin includes parts of three states in the U.S. (Colorado, New Mexico and Texas) and five states in Mexico (Chihuahua, Durango, Coahuila, Nuevo Leon, and Tamaulipas.) From El Paso to the Gulf of Mexico—a distance of about 1250 miles—the Rio Grande forms the boundary between the U.S. and Mexico. With more than 1.5 million inhabitants between them, El Paso and Ciudad Juarez make up the largest of seven pairs of twin cities that straddle the river along the border. Even in this urbanized area, the river is heavily used for irrigation. With no tributaries to replace water withdrawn for irrigation, the river frequently dries up by the time it reaches Fort Quitman, Texas.



The population of Mexican municipalities and Texas counties bordering on the Rio Grande was nearly 4.5 million in 1995, with these figures expected to double by the year 2020. This will strain the region's scarce water resources further. As the number of people living in the basin grows, the demand for high quality water will also rise. The water in the Rio Grande is fully appropriated, which means that somebody can claim every drop. Only one user is left without water rights—the river itself. As a result many of the ecosystems dependent on sufficient in-stream flows are in crisis.

The river's flow is divided between the U.S. and Mexico according to two treaties. The first, signed in 1906, focuses on water in the river above Fort Quitman, Texas. It states that the U.S. shall deliver 60,000 acre feet of water to Mexico each year at El Paso/Juarez except during extraordinary droughts. A second treaty signed in 1944 established a formula for dividing the flow of the river and its tributaries below Fort Quitman. In the U.S., water in the upper Rio Grande is divided among the states of Colorado, New Mexico, and Texas according to an agreement known as the Rio Grande Compact. Under the terms of this agreement, Colorado and New Mexico are required to let a certain percentage of the river's flow reach the next state downstream. Severe droughts in northern Mexico and Texas over the last decade had led to a deficit of 1.4 million acre-feet of water (456 billion

### Historical Names for the Rio Grande

- Pre-1540 Posage ("big river") – Pueblo Indians
- 1540 -- Río de Nuestra Señora
- 1568 -- River of May
- 1581 -- Río de Nuestra Señora de la Concepción
- Río Guadalquivir ("mighty river")
- 1598 -- Río Bravo
- 1582 -- Río del Norte ("river of the north")
- Río Turbio ("turbulent river")
- 1598 -- Río Grande
- 1695 -- Río de San Buenaventura del Norte
- 1691 -- Río Ganapetuán;
- Río Caudaloso ("carrying much water")
- 1700 -- Río del Norte y de Nuevo Mexico.

*(Continued on page 2)*

## FACTS ABOUT THE RIO GRANDE

(Continued from page 1)

- Between 1990 and 1996, 8.9 million southbound and 8.1 million northbound trucks crossed the Rio Grande. 1996 retail sales totaled over \$33 billion for the border region.
- Irrigation is the biggest use of Rio Grande water in both countries accounting for more than 80% of all the water taken from the river. Municipal water use accounts for about 6% of water withdrawn from surface and groundwater supplies in the basin. Agriculture in the Lower Rio Grande Valley contributes over \$500 million annually to the Texas economy.
- The battle of Palo Alto, the first major engagement of the Mexican War, was fought north of Brownsville on May 8, 1846, between American forces under Gen. Zachary Taylor and Mexican troops commanded by Gen. Mariano Arista.
- The last battle of the Civil War was fought at Palmito Ranch, near Brownsville, on May 13, 1865—one month after General Robert E. Lee had surrendered at Appomattox.
- The arrival of the first Spanish expedition at the Pass of the North in 1581 marked the beginning of more than 400 years of history in the El Paso area.
- In 1659 Fray García de San Francisco founded Nuestra Señora de Guadalupe Mission, which still stands in downtown Ciudad Juárez, the oldest structure in the El Paso area. The missions of San Elizario (c. 1780), Socorro (1682), and Ysleta (1681) are still active today and comprise El Paso's Mission Trail.

## RIVER PROFILE

(Continued from page 1)

gallons) deliveries from Mexico to the U.S. This has reduced the capacity of Amistad and Falcon international reservoirs to 44% and 13% of their total conservation capacity, respectively—equivalent to a deficit of nearly 2,000 billion gallons of water. As a result severe economic losses to agriculture, particularly in the Lower Rio Grande Valley, have occurred. In March 2001, the White House announced that Mexico would repay 200 billion gallons of water owed the U.S. in time for the 2001 agricultural season. Recently completed regional water plans required under Texas Senate Bill 1 identify strategies to meet water demands through 2050. Regions bordering the Rio Grande will rely primarily on water conservation practices (23% to 45% depending on region) to meet future needs. To accommodate growth and maintain natural habitats, ways will have to be found to use the river's water more efficiently, or other sources must be found.



There are varied natural resources in this part of the U.S.-Mexico border region. These include federal parks and wildlife refuges, state parks, historic corridors, and a variety of flora and fauna. The region also contains considerable deposits of oil and natural gas, and fertile agricultural lands. There are two U.S. national parks in the border region—Guadalupe Mountains and Big Bend. In addition, parts of the Rio Grande in Big Bend have been designated as "a wild and scenic river" by the U.S. Department of the Interior. Mexico has designated the Cañón de Santa Elena and Maderas del Carmen as protected areas across the river from Big Bend National Park in Chihuahua and Coahuila, and there is interest in naming these protected areas along with Big Bend as an international peace park. Big Bend National Park draws many visitors with its spectacular Santa Elena and Mariscal canyons. In the Lower Rio Grande Valley, Santa Ana National Wildlife Refuge and the Laguna Atascosa National Wildlife Refuge are havens for migratory birds and draw large numbers of bird watchers.<sup>1</sup>

In Texas, there are several state parks. Just west of Big Bend National Park lies Big Bend Ranch State Park, a new addition to the Texas state parks system. At Seminole Canyon State Park in Val Verde County and Hueco Tanks State Park in El Paso County, visitors can view petroglyphs—prehistoric rock art—thousands of years old. The Laguna Madre, a hypersaline lagoon along the coast, is world renowned for fishing, particularly for sport fishing. Falcon and Amistad reservoirs are known for fishing and recreation. Elsewhere, a variety of fish and animal species call the border region home, ranging from endangered falcons and black bears in Big Bend National Park and the Maderas del Carmen, to the jaguarundi and ocelot in the coastal brush. The Sabal Palm Sanctuary in Cameron County contains the last grove of Sabal palm trees in the Lower Rio Grande Valley.<sup>2</sup>

Local community organizations, such as the Los Caminos del Rio. and the El Paso Community Foundation have joined with state and federal agencies to preserve some of the history of the old route between Laredo, Texas and the Lower Rio Grande Valley, called "Los Caminos del Rio" and the missions along El Paso's Mission Trail. More and more border communities are turning to their rich cultural heritage to explore heritage tourism opportunities to further their economic growth. For example, community leaders are viewing the designation of Palo Alto Battlefield as a National Historic Site administered by the National Park Service as a cornerstone of their heritage tourism industry.

<sup>1</sup>See various entries on the Rio Grande at <http://www.tsha.utexas.edu/handbook/online/>

<sup>2</sup>See various entries on the Rio Grande at <http://www.tsha.utexas.edu/handbook/online/>



# EL PASO, TEXAS: AN AMERICAN HERITAGE RIVER INITIATIVE SUCCESS STORY

The American Heritage Rivers (AHR) Initiative has re-focused community-based efforts on the restoration of the Rio Grande. It has brought communities separated by more than 1,200 miles together. For too many years, communities along the border had turned their backs on the river that had played such a prominent role in their development. Thanks to the AHR Initiative, communities in partnership with Federal and State government agencies are beginning to make a difference. Nowhere is the progress more dramatic than in the west Texas town of El Paso.

Under the leadership of El Paso Mayor, Mr. Carlos M. Ramirez, P.E., the city has embarked on a plan that will provide expanded recreational opportunities for its residents while providing greater access to the region's historical, cultural, and natural resources by the year 2010. The City of El Paso's *Rio Grande Riverpark* embodies the 3 major objectives of the American Heritage Rivers Initiative: environmental protection and natural resource conservation, historical and cultural preservation, and economic revitalization. The *Riverpark* is a proposed contiguous linear park of approximately 42 miles in length. Planned as a sustainable regional park facility, it will connect existing and proposed significant sites along the historic river corridor through a series of trails, cultural destinations, community parks and historical markers. The *Riverpark* seeks to revitalize the river as a focal point in the community for its historic, cultural, environmental and economic development value. By encouraging visitors to use its trails, the *Riverpark* will inform visitors about the area's history, provide recreational facilities, and encourage visitors to spend leisure time at destinations connected to the primary trails. Projects include a number of diverse environmental, recreational and cultural enhancements that seek to:

- *enhance open-spaces along the river corridor and increase regional parkland;*
- *improve the environmental and aesthetic condition of the Rio Grande;*
- *narrate the vibrant history of El Paso throughout the Paso del Norte region; and,*
- *maximize the economic development and recreational opportunities within El Paso and Ciudad Juarez, Mexico. All of these elements emphasize the river's role in the greater El Paso area.*

Specific projects include such things as construction of bicycle and pedestrian trails along the river edge, levees and canals; adaptive reuse of industrial and agricultural buildings along the river's edge; renovation of abandoned facilities into visitor areas with shops and restaurants; and wetland restoration.

This success story is not only about *what* will be accomplished but about *how* it will be accomplished. In October 1999, Mayor Ramirez called for the formation of a *Rio Grande Riverpark Taskforce* to be comprised of public and private organizations to provide a collective vision that focused on developing a plan for implementation of the *Riverpark* concept. More than 70 local, state, and federal organizations and agencies responded to the mayor's call. With assistance from the National Park Service's Rivers, Trails and Conservation Assistance program and participation of the U. S. International Boundary and Water Commission, the Taskforce was able to match a \$750,000 Land and Water Conservation Fund grant through the Texas Parks and Wildlife Department. A Groundbreaking Ceremony was held on October 27, 2000. The Taskforce is now applying for TEA-21 Enhancement funds through the Texas Department of Transportation to continue the *Riverpark*'s development.

- Riverpark Projects**
- Upper Valley Levee Trails
  - Keystone Dam Archeological/ Wetlands Park
  - El Paso Riverwalk
  - Old Smelertown Site Redevelopment
  - Old Fort Bliss/Hart's Mill Renovation
  - Chamizal National Memorial Facilities Expansion
  - Mission Trail Expansion
  - Rio Bosque Wetlands Park

**OTHER CO RIO  
American Heritage River Initiative  
Community Projects**

**CITY OF BROWNSVILLE**

- Resaca Restoration Project
- Palo Alto Land Acquisition and Heritage Center
- Downtown Revitalization
- Ecotourism Development and Promotion
- Wildlife Corridor/Rio Reforestation
- Parks Master Plan and Botanical Garden
- Waterfront Beautification
- Joint Emergency Response with Mexico
- Aquatic Weed Control
- Linear Parks and Hike and Bike Trails
- Transportation Museum

**CITY OF LAREDO AND WEBB COUNTY**

- Binational Water Quality Project
  - Water and Wastewater Treatment
  - Identification of new water sources
  - Groundwater supply study
  - Desalination Plant
  - Water and wastewater services for Colonias
  - Laredo-Nuevo Laredo Birding Trail
  - Laredo "El Portal" Riverfront Project
  - Bilingual-Binational Environmental Education Program

**CITY OF PRESIDIO**

- Expanded Wastewater Treatment Facility
- Wetlands, Reforestation Improvements
- Water and wastewater services for Colonias
- Sister City Collaboration (Presidio-Ojinaga)

**CITY OF ROMA**

- Restoration of historic structures

**REGIONAL PROJECTS**

- Forgotten River Workshop
- Seminar Series
- Rio Grande Anthology
- Film documentary on the Rio Grande
- WWW-based K-12 Educational materials
- Disaster Mitigation Planning
- Dia del Rio
- Transboundary Mapping and Resource Inventories
- Heritage Tourism Initiative

What is Colonia?

# WATER QUALITY AND TRENDS

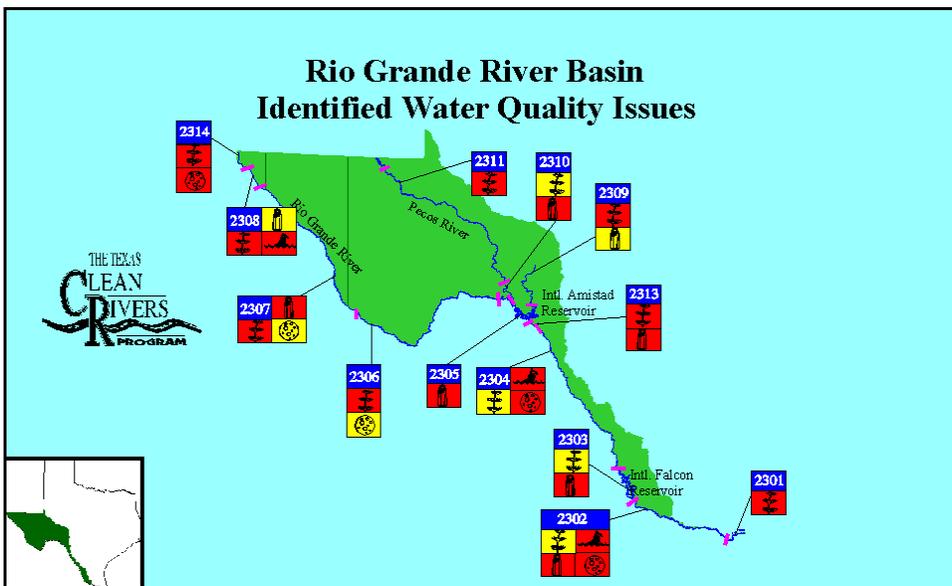
"Colonia" is a Spanish term for neighborhood or community. In Texas, colonia refers to an unincorporated settlement along the Texas-Mexico border that may lack basic water and sewer systems, electricity, paved roads, and safe and sanitary housing. Most colonias are outside city limits or in isolated areas of the county. Many have a very limited property tax base and are either isolated in a rural area or outside city limits. Colonias can be found in Texas, New Mexico, Arizona and California, but Texas has both the largest number of colonias and the largest colonia population. Approximately 400,000 Texans live in colonias. Overall, the colonia population is predominately Hispanic; 64.4 percent of all colonia residents and 85 percent of those residents under 18 were born in the United States. There are more than 1,400 Texas colonias, located primarily along the state's 1,250-mile border with

**WATER QUALITY STATUS AND TRENDS.** In addition to water quantity, water quality in the Rio Grande is one of the biggest issues facing the river and its communities. As illustrated in the graphic below, a 1996 assessment conducted by the Texas Natural Resource Conservation Commission showed salinity, nutrients, and fecal coliform bacteria as concerns throughout the basin. Salinity concentrations in the Rio Grande are the result of both human activities and natural conditions: the naturally salty waters of the Pecos River are a major source to International Amistad Reservoir and possibly to waters downstream. The source for fecal coliform bacteria contamination is primarily from untreated or poorly treated discharges as a result of inadequate wastewater treatment facilities in Mexican cities and Texas *colonias*. A likely secondary source is from non-point sources on both sides of the river, including poorly constructed or malfunctioning septic and sewage collection systems and improperly managed animal wastes. Although frequently identified as a concern, nutrient levels do not represent a threat to human health nor do they cause widespread depressed dissolved oxygen and excessive aquatic plant growth. Nutrient sources are not easily identified, but untreated or poorly treated wastewaters contribute to the problem in some areas.<sup>1</sup> A more recent report completed by the U.S. International Boundary Water Commission shows that these water quality parameters continue to be of concern.<sup>2</sup>

**IMPROVING WATER QUALITY.** The problem with untreated and poorly treated wastewater is being addressed on several fronts through efforts of the Border Environmental Cooperation Commission (BECC), the North American Development Bank (NADB), the U.S. Environmental Protection Agency and other federal agencies, and the State of Texas. BECC's technical assistance program has approved over \$18.5 million to more than 96 communities along the U.S.-Mexico border for infrastructure projects related to water supplies, wastewater treatment, and solid waste.<sup>3</sup> Through the Border Environment Infrastructure Fund, the NADB and EPA approved more than \$65 million in grant funding to benefit 15 communities in fiscal year 1999-2000 alone.<sup>4</sup>

In May 1999, the Texas Secretary of State announced the TEXAS Plan, an effort to coordinate a \$35 million funding package for an estimated 40,000 new water and wastewater connections, serving more than 180,000 colonia residents along the Texas-Mexico border. This is the largest and most comprehensive funding plan for colonias in Texas history. The TEXAS Plan targets

projects in the Texas Water Development Board's Economically Distressed Areas Program (EDAP) in 32 communities in 13 border counties. These new water and sewer connections funded by the North American Development Bank, the Texas Water Development Board, the U.S. Department of Agriculture and the Texas Department of Housing and Community Affairs, should be complete by 2002.<sup>5</sup>



	Concern/ Does not support use/ Not designated for use		Segment No.
	Possible concern		Dissolved Metals
	Segment Boundary		Fish Consumption <sup>1</sup>
			Contact Recreation <sup>2</sup>
			Fecal Coliform Bacteria
	Nutrients		
	Dissolved Minerals		
	Dissolved Oxygen		
	Acidity/Alkalinity		

<sup>1</sup>See [http://www.tnrcc.state.tx.us/water/quality/data/wmt/rio\\_assmt.html](http://www.tnrcc.state.tx.us/water/quality/data/wmt/rio_assmt.html)  
<sup>2</sup>U.S. International Boundary and Water Commission. *Basin Highlights Report: The Rio Grande Basin*. April 2000.  
<sup>3</sup>See BECC-NADB Joint Status Report. June 2000. <http://www.coccf.org/>  
<sup>4</sup>North American Development Bank. Annual Report: 1 April 1999 – 31 March 2000. June 2000.  
<sup>5</sup>See <http://www.sos.state.tx.us/border/colonias/index.shtml>  
 See also *Bordering the Future, Challenge and Opportunity in the Texas Border Region* at <http://www.window.state.tx.us/border/border.html>

# THE CONSORTIUM OF THE RIO GRANDE (CoRio)

In response to the American Heritage Rivers Initiative, communities along the Rio Grande from El Paso to Brownsville joined together through an Inter-Jurisdictional Agreement to nominate the Texas portion of the Rio Grande as a Heritage River. Consortium, or CoRio, membership was drawn from 25 cities, 7 counties, and other organized local jurisdictions along the Rio Grande, whose elected leaders and/or governing bodies urged the river's AHR designation. These jurisdictions serve over 2 million people. The Rio Grande's nomination was spearheaded by a 150-member Citizens Advisory Committee, which developed CoRio's primary objectives.

Various local and regional non-profit organizations are also furthering the goals and objectives of CoRio, particularly in the areas of ecological restoration and heritage/eco-based tourism. For example, through the efforts of the Brownsville Community Foundation and the Keystone Heritage Park, Inc., the Meadows Foundation has provided matching grants for the construction of the Palo Alto Battlefield Heritage Center and land acquisition for El Paso's Keystone site. As a result, over \$3.2 million in Federal and state grants have been secured. The Rio Grande Institute is assisting communities in disaster mitigation planning and capacity building. The Rio Grande/Rio Bravo Basin Coalition is working bi-nationally to formulate grassroots strategies for the protection and preservation of the entire Rio Grande watershed. The Forgotten River Advisory Committee has been established to focus on the stretch between Ft. Quitman and Presidio, Texas to improve in-stream flows and natural habitat.

In the 2 years since the designation of the Rio Grande as an American Heritage River, community investments on restoring the Rio Grande are beginning to pay dividends, largely as a result of the efforts by some of our Federal partners. Some of the commitments made by CoRio's federal partners are illustrated in the table below.

<i>Agency</i>	<i>Type of Project Support</i>	<i>Amount</i>
<i>Economic Development Administration</i>	<i>Funding for Secretariat and the Rio Grande Institute</i>	<i>\$400,000</i>
<i>Environmental Protection Agency</i>	<i>Funding for River Navigator, salary and travel</i>	<i>\$137,500</i>
<i>Army Corps of Engineers (Ft. Worth)</i>	<i>Laredo El Portal Riverfront Park Ecological Restoration Study</i>	<i>\$400,000</i>
<i>Army Corps of Engineers (Galveston)</i>	<i>Brownsville Resaca Ecological Restoration Study</i>	<i>\$50,000</i>
<i>Dept. Housing and Urban Development</i>	<i>Elderly Housing: Socorro, Texas</i>	<i>\$2,340,000</i>
<i>National Park Service</i>	<i>RTCA Support: El Paso Riverpark Project</i>	<i>\$10,000</i>
<i>National Park Service</i>	<i>Palo Alto Heritage Center</i>	<i>\$1,870,000</i>
<i>National Park Service</i>	<i>El Paso Riverpark (LWCF)</i>	<i>\$750,000</i>
<i>Federal Emergency Management Agency</i>	<i>Regional Disaster Mitigation Planning</i>	<i>\$129,000</i>
<i>General Services Administration</i>	<i>Office and Administrative Support for Navigator</i>	<i>\$15,000</i>

Much remains to be accomplished to make the American Heritage Rivers Initiative a greater success. The Initiative is about the Federal government shedding the paradigm of how it assists local communities achieve their own visions in true partnership. Laudable as the goals and objectives of the Initiative may be, these will not be achieved without the full participation of our Federal partners and without greater priorities given to community-based efforts to restore our Nation's rivers. Communities must be invited to participate in formulating agency goals and objectives to the extent practicable. Economically distressed areas must be afforded some relief in grant matching requirements. Federal agencies must invest in capacity building efforts at the local level. Finally, Federal agencies need to be held more accountable for their efforts relative to this Initiative. Those agencies that have embraced this new way of assisting communities should be recognized and rewarded for their efforts.

The Consortium of the Rio Grande and the American Heritage Rivers Initiative has brought together communities 1250 miles apart in an effort to reconnect people with the Rio Grande and to appreciate its importance ecologically, historically, culturally, and economically. Local officials are beginning to view the river as one entity—an entity that unites rather than separates these communities...and two nations.

## FEDERAL PARTNERS

In January 1999, the following Federal agencies signed a Memorandum of Agreement with the Consortium of the Rio Grande (CoRio):

- International Boundary and Water Commission
- US Department of Agriculture
- Rural Development
- Natural Resource Conservation Service
- Department of Commerce—Economic Development Administration
- U.S. Army Corps of Engineers
- U.S. Environmental Protection Agency
- U.S. Department of Housing and Urban Development
- U.S. Department of Education
- U.S. Department of the Interior
- Bureau of Reclamation
- U.S. Geological Survey
- Fish and Wildlife Service
- National Park Service

Federal agencies agreed to:

- Coordinate programs to assist CoRio
- Coordinate with CoRio all agency projects associated with AHR
- Identify an agency single point of contact
- Identify agency programs offering assistance in river conservation and community health and revitalization
- Refocus programs to provide support for communities covered by the AHR designation
- Provide support for CoRio's Action Plan

## CoRio's Objectives

- Assess Local Water Needs into the 21<sup>st</sup> Century
- Support Local Voluntary River Initiatives
- Preserve and restore historic sites and structures associated with life on the Rio Grande;
- Conserve, protect and improve the quality and quantity of waters of the Rio Grande;
- Celebrate the music and literature of the Rio Grande;
- Contribute to economic growth and diversification;
- Develop new opportunities for eco-tourism and river-based recreational facilities.
- Participate Meaningfully in Regional Programs Involving the River
- Have Bilateral Issues Addressed with Due Diligence
- Protect Our Heritage of Freedom
- Broaden the Base for Support for the River

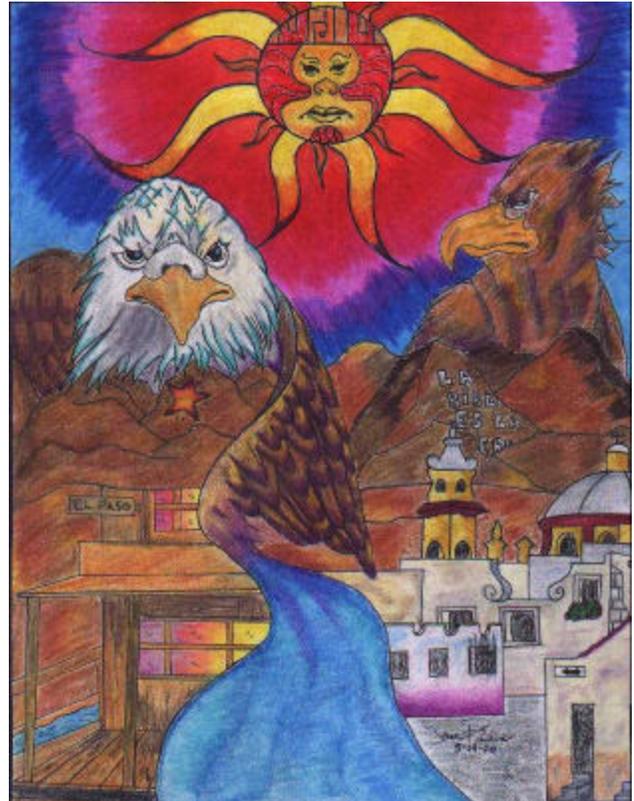
# The Consortium of the Rio Grande



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Rio Grande American  
 Heritage River



**AHR Art Contest Grand Prize Winner**  
**"El Paso Borders" by Jose Rivera**  
**El Paso Bowie High School**



**"Crossing of the Rio"**  
**AHR Art Contest Entry by Jose Lopez**  
**El Paso Bowie High School**



**"Creation of the Rio Grande"**  
**AHR Art Contest Entry by Arturo**  
**Montes**  
**El Paso Bowie High School**



**"History of Cultures"**  
**AHR Art Contest Entry by Jose Angel**  
**Briones, Jr.**  
**El Paso Bowie High School**



**"Immigrant Struggles"**  
**AHR art contest entry by Noe**  
**Peña,**  
**El Paso Bowie High School**