



# 2001

ANNUAL REPORT



**INTERNATIONAL BOUNDARY  
AND WATER COMMISSION**

***“The jurisdiction of the Commission shall extend to the limitrophe parts of the Rio Grande (Rio Bravo ) and the Colorado River, to the land boundary between the two countries, and to works located upon their common boundary, each Section of the Commission retaining jurisdiction over that part of the works located within the limits of its own country.....”***

## **Article 2, 1944 Water Treaty**



(Front Cover: Pegüis Canyon, Ojinaga, Chihuahua)

# 2001 Annual Report

During 2001, the Commission carried out the various international activities concerning boundary demarcation, river channel maintenance, control and utilization of the international waters, including monitoring for their quantity and quality. These activities were in furtherance of the terms of the boundary and water treaties assumed by the United States Government and the Government of Mexico and entrusted to the International Boundary and Water Commission for application.

During 2001, the Commission carried out technical discussions and led government-to-government negotiations to arrive at Minute No. 307 "Partial Coverage of Allocation of the Rio Grande Treaty Tributary Water Deficit from Fort Quitman to Falcon Dam," signed on March 16, 2001. This agreement established measures to provide water toward a United States allocation from Mexico's tributaries to the Rio Grande under the 1944 Water Treaty. The two governments depended on the Commission to provide a technical basis for further activities to deal with a deficit from these tributaries. At the end of 2001, the issue was brought to the highest levels of the two governments.

These and other activities are outlined in this report prepared in compliance with Article 24, paragraph G of the 1944 Water Treaty.



Mexican Commissioner  
J. Arturo Herrera Solis  
and  
United States Commissioner  
Carlos M. Ramirez



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## Boundary Demarcation/ Sanitation

### Port of Entry Demarcation

The Commission continued to work on the demarcation of Ports of Entry along the international boundary in conformance with Minute No. 302. The work completed by the U.S. Section included the following ports: Tornillo-Guadalupe, Ft. Hancock-Porvenir, Del Rio-Acuna, Solidarity (Laredo III-Colombia), Laredo-Nuevo Laredo I, Lincoln-Juarez, Laredo IV- Nuevo Laredo III, Pharr-Reynosa, Free Trade Bridge, B&M Vehicular, B&M Railroad, Gateway-Puerta Mexico, Veterans-Ignacio Zaragoza, Otay Mesa-Mesa De Otay, Tecate-Tecate, Andrade-Algodones, San Luis-San Luis, Nogales-Nogales II (Mariposa), Nogales-Nogales I (Puerta Mexico-Dennis Deconcini), Naco-Naco and Douglas-Agua Prieta.

In the year 2001, the Mexican Section completed work on the demarcation of the Good Neighbor Bridge in El Paso-Juarez and the Ports of Entry at San Ysidro-Tijuana and El Berrendo – Antelope Wells which were both initiated in 2000. Works of demarcation were also completed on the international bridges in El Paso on the Bridge of the Americas (4 structures), Zaragoza-Ysleta (2 structures), Presidio-Ojinaga, Amistad Dam, Eagle Pass I-Piedras Negras, Falcon Dam, Río Grande City-Camargo, Hidalgo -Reynosa I and II, as well as those Ports of Entry at Calexico -Mexicali (old), Calexico East-Mexicali (new), Lukeville-Sonoita, Columbus-Palomás and Santa Teresa-San Geronimo.

### San Diego, California/Tijuana, Baja California Sanitation

The U.S. Section continued to operate the South Bay International Wastewater Treatment Plant to an advanced primary level. The plant treated 25 million gallons per day (100 million cubic meters -Mm<sup>3</sup>) of Tijuana sewage. The IBWC held informal consultations concerning a manner of achieving secondary treatment in Mexico under terms of legislation in the United States.

### Mexicali, Baja California Sanitation

The U.S. and Mexican Sections continued with the construction of the Mexicali II Wastewater Treatment Project. For the construction of the forcemain, nearly 5.6 miles (9km) of 48-inch (1.14 m) ductile iron pipe was delivered to Mexicali. The pipe will complement the recently completed pump station that will deliver 20 million gallons per day (75,708 Mm<sup>3</sup>) of wastewater to the wastewater treatment plant location. At the end of the year, Mexican authorities asked for reconsideration of the treatment plant location.

### Ambos Nogales Sanitation

The U.S. Section continued to operate and maintain the Nogales International Wastewater Treatment Plant. The plant treated more than 4 billion gallons (15.4 Mm<sup>3</sup>) of



Demarcation of the  
Bridge of the Americas  
El Paso - Cd. Juarez

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## Sanitation

sewage of which approximately 72 % originated from Nogales, Sonora.

The U.S. and Mexican Sections concluded the Nogales Wash Binational Groundwater Monitoring Program by publishing the final report. This binational report (available at [www.ibwc.state.gov](http://www.ibwc.state.gov)) presented the data from a study on the Nogales Wash in Ambos Nogales. The report assesses the transboundary contamination in the shallow aquifer located in both Arizona and Sonora and the process and procedures used to arrive at the findings.

### **Naco, Arizona/Naco, Sonora**

The U.S. and Mexican Sections assisted the North American Development Bank (NADB) in completing the wastewater treatment plant system project certified by the Border Environment Cooperation Commission (BECC) with the deployment of field crews to work on the existing pumping facility that transfers flows to the existing lagoon system. This assistance helped reduce future pollution problems in this area.

### **Douglas, Arizona/Agua Prieta, Sonora Sanitation**

The U.S. and Mexican Sections continue to exchange information on the operation of the Douglas, Arizona Treatment Plant that discharges south to Mexico for use by the irrigators in Mexico.

### **Laredo, Texas/Nuevo Laredo, Tamaulipas Sanitation**

The IBWC continued to coordinate the development of the wastewater and potable water improvement projects for consideration by the BECC. Once completed, these projects will provide the necessary infrastructure for the communities' population through 2015. The IBWC continued to assure the proper operation and maintenance of the International Wastewater Treatment Plant under Minute 279 which has significantly reduced Rio Grande contamination in this area.

### **Matamoros, Tamulipas Sanitation**

The IBWC, as coordinators of the binational technical committee, finalized the report for sanitation projects in this area for the necessary potable water and wastewater improvements needed for the city during the next 20 years. The municipality, which is expected to reach a population of 800,000 in 2015, is preparing the complementary documentation to enable a certification by BECC.

### **Border Environment Cooperation Commission**

The Commission continued to participate in the process to certify border infrastructure projects. The Commissioners, in their role as ex-officio directors, participated in the four public BECC meetings. The Commission technical staffs also participated in the process to evaluate and



## Delivery of Ductile Iron Pipe for the Pump Station in Mexicali, B.C.

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Sanitation/  
Rio Grande



## Water Quality Sampling of the Rio Grande

develop projects that were advanced to the Board for certification.

### Wastewater Treatment Plants

The Commission staff continued to observe and monitor discharges from the Juarez treatment plants and the recently completed wastewater treatment plants at Piedras Negras and Ciudad Acuña, Coahuila.

### Pretreatment Programs

The Commission continued its technical discussion with local utilities at the project cities of Ambos Nogales and Tijuana, B.C. on the implementation and enhancement of pretreatment programs. These programs are intended to improve the efficiency of the treatment plants in these cities and also reduce toxic chemicals that pass through the plants.

In Tijuana, the Commission coordinated a waste characterization monitoring program to control industrial inputs to the sewer system. The Program is conducted by the Baja California State Department of Ecology, the Public Services Commission of Tijuana, State of California, the City of San Diego, State of California, and the two Sections. The State of California and City of San Diego have contributed financially to the program.

### 1906 Convention

The Commission agreed on a schedule and monitored for the delivery of the 60,000 acre feet (74 Mm<sup>3</sup>) of Rio Grande waters to Mexico in the El Paso-Juarez river segment. The Commission also performed repair work at the International Diversion Dam structure that diverts this water to Ciudad Juarez, Chihuahua water intake facilities. The deliveries conformed to the schedule presented by Mexico.



## South Bay International Wastewater Treatment Plant San Ysidro, CA

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## Rio Grande

### 1944 Water Treaty

The IBWC concluded Minute 307, "Partial Coverage Allocation of the Rio Grande Treaty Tributary Water Deficit from Fort Quitman to Falcon Dam," signed on March 16, 2001, which sought to arrive at solutions to Mexico obligations of water in the fourth year of the current five-year accounting cycle. Technical discussions continued throughout the year in order to implement the Minute. U.S.-Mexico discussions continued in the IBWC to arrive at activities by Mexico to deal with a deficit in water made available to the U.S. from Mexican tributaries.

The two Sections made a reconnaissance of the Rio Grande basin in Mexico with experts from both countries to understand the storage conditions in the basin as well as the hydraulic infrastructure. Information was provided on the characteristics of the dams in the basin and the irrigation districts.

### Water Bulletins

The Commission printed the Rio Grande and Western Boundary Water Bulletins which detail the quantity of waters delivered to both countries as outlined in the 1944 Water Treaty. The Bulletins also include conventional water quality parameters at key sites along the international reaches

of streams and rivers as well as other information regarding both basins. These bulletins are available to the public from both Sections of the IBWC.

### Operation and Maintenance of International Dams

The Commission engineers carried out joint operation and maintenance of the International Amistad and Falcon Dams for control and utilization of waters allotted to each country under the 1944 Water Treaty. At the end of 2001, the combined total storage was 1,419,000 acre feet (1,750 million cubic meters).

### Excavation of the Mouth of the Rio Grande

The Commission performed work by excavating a pilot channel in the Rio Grande which has been blocked by silt accumulation as a result of low water flows in the Rio Grande. This work restored the flow of the river to the Gulf of Mexico. The Commission also began preparing an Impact Assessment on the excavation.



Amistad Dam - Located near Del Rio, TX and Ciudad Acuña, Coahuila

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## Rio Grande/ Colorado River

### **Aquatic Weeds**

The Commission consulted with local and federal officials in exchanging information about the invasive aquatic plant species that have inundated both the Rio Grande and Colorado River. Likewise, considering that this has generated problems with the reduction of municipal water supplies, especially in Matamoros, the Commission coordinated with other agencies which undertook mechanical removal of weeds in the lower Rio Grande. These works and other methods will continue in the coming year.

### **Hydraulic Studies**

Technical advisors for the Commission continued to obtain data that would enable IBWC to determine the flood capacity of the Rio Grande along critical reaches in the areas of Presidio, Texas/Ojinaga, Chihuahua, and Laredo, Texas/Nuevo Laredo, Tamaulipas.

### **Operation and Maintenance of the Wellton-Mohawk and El Morillo Drains**

The Commission continued operation and maintenance of pumping and canal bypass facilities utilized for the diversion of saline water from agricultural return flows. In the case of the Morillo Drain, the Commission completed major maintenance works in order to improve the carrying capacity of this drain. In the coming year, the

Commission will continue these works, which will be financed by both countries.

### **River Boundary Obstructions**

The Commission reviewed and approved applications for electrical power transmission lines and natural gas lines between the U.S. and Mexico. Further, the Commission began a review of the initial information of the proposed Anzalduas Bridge and the expansion of the Starr-Camargo Bridge.

### **Colorado River**

The IBWC, in coordination with Mexico's Secretariats of Foreign Relations and Environment and Natural Resources, the Department of Interior, state environmental agencies, Colorado River Basin States, academic institutions and non-governmental organizations, concluded a Symposium in Mexicali on September 11<sup>th</sup> and 12<sup>th</sup>. In the furtherance of actions stated in Minute 306, "Conceptual Framework for the United States – Mexico Studies for Future Recommendations Concerning the Riparian and Estuarine Ecology of the Limitrophe Section of the Colorado River and its Associated Delta," signed in December 2000, the symposium brought together technical experts in the government and academic fields to exchange information on the Colorado River and Delta.



## Morillo Drain Maintenance

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## Colorado River



### Blockage of the Mouth of the Rio Grande at the Gulf of Mexico

The Commission continued to lead discussions on the 4th Work Group on the development of a hydraulic model for the Colorado River limitrophe section and the estuarine area.

The United States delivered 1,500,000 acre-feet (1,850 Mm<sup>3</sup>) of water to Mexico in the Colorado River as stated in our obligations in the 1944 Water Treaty. In addition, these waters were delivered within the salinity differential established in Commission Minute No. 242.

The IBWC continued to coordinate the San Diego-Tijuana Aqueduct Study. This study involves local, state and federal agencies in the US and Mexico that are evaluating options that would increase the conveyance capacity for

delivery of Colorado River water to the San Diego- Tijuana region and provide for treatment and storage of this water.

The IBWC continued to coordinate efforts with San Diego County and Baja California authorities towards an international agreement for emergency water deliveries to Tijuana, Baja California, of a part of Mexico's Colorado River water allotment.

#### Salinity

Coordination continued of projects to improve the quality of waters delivered to Mexico on the Colorado River at the Southerly Land Boundary. These works consisted of the installation of variable speed pumps at the pump station and the construction of a canal to connect the pump station to the Wellton-Mohawk canal.



### Invasion of Aquatic Weeds in the Rio Grande

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