



THE BOUNDARY MARKER

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RIO GRANDE FLOOD HITS PRESIDIO

A major Rio Grande flood swept through Presidio, Texas-Ojinaga, Chihuahua last fall shutting down the international bridge and port of entry for weeks and causing flood damage on both sides of the border. Although the urban area of Ojinaga was flooded after a levee failure on the Mexican side, the urban part of Presidio was largely spared thanks in great measure to the round-the-clock flood-fighting efforts of the U.S. Section of the International Boundary and Water Commission (USIBWC).

The flood originated on Mexico's Conchos River, which flows into the Rio Grande just upstream from Presidio-Ojinaga. By early September, flows from the Conchos had caused the Rio Grande to rise to dangerous levels. Rio Grande flow peaked on September 19 at 53,678 cubic feet per second (1520 cubic meters per second), the greatest flow in 30 years.

A segment of the U.S. Rio Grande flood control levee in a rural area downstream of Presidio was overtopped and failed, sending floodwaters onto adjacent farmland and a golf course. Upstream, USIBWC crews worked to shore up the levees protecting the urban part of Presidio, working 24 hours per day to combat seepage and sand boils that put the levees at risk of failure. They also coordinated to have state and local emergency management officials drop huge sandbags in a low spot along an existing railroad embankment to prevent floodwaters from the downstream levee break from backing up into town.

In Mexico, the failure of levees on the Conchos River and Rio Grande caused major flooding in Ojinaga and forced the closure of the international bridge after the Mexican access road and port facilities were flooded.

The USIBWC operates and maintains 15 miles of Rio Grande flood control levees in the Presidio area, providing protection to 5403 acres of land on the U.S. side of the Presidio-Ojinaga Valley. The levees were designed to contain a 25-year flood, a

standard that is commonly used in rural communities.

USIBWC crews were in active flood fight operations from early September until mid-October, conducting regular levee patrols, using heavy equipment and sandbags to repair levee seepage and sand boils, and pumping floodwaters. Supported by managers at the Emergency Operations Center at Headquarters, over 50 additional employees and heavy equip-

ment from other Commission offices were deployed to Presidio to assist. The USIBWC also coordinated closely with Mexican officials regarding flows and dam releases on the Conchos River.

Congress has already appropriated funds to the USIBWC to repair the Presidio levees. Construction of emergency repairs began this winter—an effort that could not commence until saturated soils dried out. The U.S. Section is also coordinating with the Mexican Section of the Commission to plan for long-term improvements to levees in both countries.



Confluence of Rio Grande (l) and Conchos River during 2008 flood. U.S. on left.



AMISTAD DAM MOVES INTO FLOOD OPERATIONS

The International Boundary and Water Commission, United States and Mexico, went into flood operations at Amistad Dam in late September after a rapid rise in the reservoir. The rise occurred after a flood hundreds of miles upstream on the Conchos River in Mexico moved downstream into the Rio Grande. Floodwaters battered the Big Bend region before filling the conservation capacity of Amistad Reservoir, the Commission's large international reservoir at Del Rio, Texas-Ciudad Acuña, Coahuila.

At the beginning of September, Amistad Lake was at 1102 feet (335.8 meters) elevation with storage at 73% of normal conservation capacity. One month later, the lake had risen 17 feet (5 meters) and was at conservation capacity, its highest level in 15 years.

Commission personnel made flood releases from the dam at the rate of 17,657 cubic feet per second (500 cubic meters per second) for nearly one month before tapering back the third week in October. Historically, releases at this rate have occurred every three to five years but have been less frequent in recent years due to drought. To prepare the community, the U.S. Section distributes flood warning notices annually advising of the potential for periodic flooding downstream from the dam.

With increased releases out of Amistad, the Commission then made preparations downstream at Falcon Dam, its other major international reservoir. Falcon, located at Falcon Heights, TX-Nueva Ciudad Guerrero, Tamaulipas, provides flood protection and a stable water supply for the Lower Rio Grande Valley. Like Amistad, Falcon saw a rapid rise, going from 42% of capacity at the beginning of Septem-

ber to full conservation capacity by early November, an increase of 23 feet (7 meters).

The situation at Falcon was complicated by flood flows coming into the reservoir from both the Rio Grande and the Salado River, a Mexican tributary. Downstream, the San Juan River in Mexico was also in flood. As this tributary flowed into the Rio Grande, it caused high flow in the Lower Rio Grande Valley to the Gulf of Mexico. As Falcon continued to rise, the Commission analyzed the best

way to manage the reservoir, fearing that flood releases out of the dam would exacerbate the high flows already experienced downstream and could cause flood conditions in the Valley.

Commission personnel from the United States and Mexico reviewed past practices during similar conditions and decided to establish a new, higher conservation capacity at Falcon. By establish-

ing this new conservation capacity on a temporary basis, the Commission's operating criteria allowed it to store additional water in Falcon. Not only did this decision reduce the risk of flooding downstream but it will ensure the availability of additional water for users in the United States and Mexico in 2009.

The Commission also established a temporary conservation capacity at Amistad Dam to store additional water there. The temporary conservation capacity for both dams will allow for storage of extra water during the non-hurricane season. Both countries agreed to restore the normal conservation capacity on May 1 in order to assure the evacuation of any excess water prior to the start of hurricane season on June 1.



Amistad Dam flood releases in October.



C.W. "BILL" RUTH SWORN IN AS U.S. COMMISSIONER

President George W. Bush in November appointed C.W. "Bill" Ruth to serve as U.S. Commissioner of the International Boundary and Water Commission. Mr. Ruth was sworn in and assumed his duties on November 24. As Commissioner, Mr. Ruth serves at the pleasure of the president.

Mr. Ruth previously worked for the U.S. Section of the Commission for 25 years before retiring in 1998. During his tenure, he served as Principal Engineer of the Special Projects Department, overseeing the Office of Construction Activities and the Office of Facility Planning. As Principal Engineer, he took a lead role in supervising construction of the South Bay International Wastewater Treatment Plant in San Diego and in developing wastewater infrastructure plans for Mexican border communities through a program funded by the U.S. Environmental Protection Agency.

He also held management positions in vari-

ous Headquarters divisions, where he supervised construction and operations activities boundary-wide, and served as Project Manager for the Lower Rio Grande Flood Control Project in Mercedes, Texas. In these roles, he gained extensive experience working with the agency's flood control projects, international storage dams and hydroelectric plants, and international wastewater treatment plants.

In November 2002, Mr. Ruth was appointed by President Bush as Chairman and United States Representative of the Rio Grande Compact Commission. The Commission is responsible for the accounting and distribution of waters of the Rio Grande among the States of Colorado, New Mexico, and Texas from the river's headwaters in Colorado to Fort Quitman, Texas.

Mr. Ruth received his Bachelor of Science Degree in Engineering from Texas Tech University in 1959. He is a Registered Professional Engineer with the State of Texas.



HR Director Kevin Petz (l) administered the oath to Bill Ruth.

CONTRACT AWARDED FOR SAN DIEGO PLANT

The U.S. Section of the International Boundary and Water Commission (USIBWC) in November awarded a contract for construction of the upgrade of the South Bay International Wastewater Treatment Plant (SBIWTP) in San Diego, California. The contract in the amount of \$88 million was awarded to PCL Construction of Tempe, Arizona.

The SBIWTP currently provides advanced primary treatment of 25 million gallons per day (mgd) of wastewater emanating from Tijuana, Mexico. The contract covers construction of a 25 mgd secondary treatment process at the existing plant. The

USIBWC anticipates construction to be completed in approximately two years.

The USIBWC is under court order to upgrade the SBIWTP to provide secondary treatment in compliance with the Clean Water Act. SBIWTP effluent is discharged into the Pacific Ocean 3.5 miles offshore through the South Bay Ocean Outfall.

The upgrade is being constructed in accordance with existing agreements with Mexico that call for activated sludge secondary treatment facilities in the United States to treat up to 25 mgd of sewage from Tijuana.

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