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USIBWC IMPROVES EL PASO FLOOD CONTROL LEVEES

The United States Section of the International Boundary and Water Commission (USIBWC) has completed a project to raise Rio Grande flood control levees in El Paso County, Texas. Work began in May 2007 and was completed at the end of August.

“This work ensures that our levees are high enough to protect most of El Paso from a major Rio Grande flood,” said USIBWC Commissioner Carlos Marin.



USIBWC at work on El Paso levee

The levees were raised as needed through much of the urban area of El Paso. The work was conducted using USIBWC personnel and equipment at a cost of over \$800,000. The USIBWC used 56,400 tons of embankment material and 30,900 tons of surfacing material.

The USIBWC initiated the project after studies showed some levee segments were not high

enough to contain the 100-year flood with 3 feet of freeboard (freeboard is the distance from the water surface elevation to the top of the levee).

The Federal Emergency Management Agency (FEMA) is currently updating flood hazard maps for El Paso County. Property owners where levees are inadequate may be required to purchase flood insurance. By raising the levees, the USIBWC expects to save many residents the expense of this insurance.

Although El Paso experienced significant flooding from storms in 2006, the Rio Grande flood control levees were not overtopped. Flooding occurred due to unprecedented amounts of water in arroyos and urban drainage systems.

Even with completion of a significant amount of levee work in 2007, additional work remains in the Upper Valley and Canutillo areas of El Paso County and portions of Doña Ana County, New Mexico. This work will be undertaken subject to the availability of federal appropriations. Additionally, the USIBWC has begun a major project to raise and rehabilitate levees in Hidalgo and Cameron Counties in South Texas.

The USIBWC is also working with the Mexican Section on flood control improvements in the area of El Paso-Ciudad Juarez, Chihuahua. The two Sections have coordinated to remove sediment in a 2.2-mile reach of the Rio Grande through the central part of the cities in an area known as the Chamizal Project. Engineers have also developed a plan for additional flood control improvements in both countries in a 91-mile reach of the river extending downstream into Hudspeth County, Texas.



MEXICO DELIVERS WATER TO UNITED STATES

Mexico has completed Rio Grande water deliveries to the United States in accordance with the 1944 Water Treaty, fulfilling its obligations for the 2002-2007 water delivery cycle. Under the terms of the treaty, Mexico is to deliver water to the United States from six Rio Grande tributaries. The treaty specifies a minimum delivery of 1.75 million acre-feet during the course of a five-year water delivery cycle. Mexico completed the minimum required deliveries for 2002-2007 on September 30, 2007.

The previous two five-year cycles ended in deficit. In 2005, Mexico completed paying its water debt from those cycles.

“These water deliveries mean that users in the United States have the water they are entitled to under the treaty,” said Carlos Marin, U.S. Commissioner of the International Boundary and Water Commission (IBWC). “It’s good news that we are starting a new cycle without a deficit.”

The IBWC is responsible for applying the boundary and water treaties between the United States and Mexico and settling differences related to the treaties. The IBWC determines the national ownership of waters of the Rio Grande and operates two international storage reservoirs on the river – Falcon and Amistad. The waters delivered by Mexico are stored in the international reservoirs for

release to downstream municipal and agricultural users. Once IBWC determines national ownership, Texas allocates U.S. water to its authorized water right holders.

Mexico fulfilled its treaty obligations at the end of the five-year cycle by making a final water transfer from Mexican ownership to U.S. ownership at Amistad Reservoir near Del Rio, Texas-Ciudad Acuña, Coahuila.

“I am pleased that the government of Mexico is making such a strong effort to meet its obligations,” said Buddy Garcia, Chairman of the Texas Commission on Environmental Quality, which manages Rio Grande water for the State of Texas.

He also praised the International Boundary and Water Commission for its work to assure the area’s future water supplies.

Under the terms of the 1944 Water Treaty, the United States is entitled to one-third of the flow arriving in the Rio Grande from six Mexican tributaries for a minimum annual average of 350,000 acre-feet in cycles of five years. The treaty also addresses delivery by the United States of Colorado River water to Mexico near Yuma, Arizona-Mexicali, Baja California. On the Colorado River, the United States has an annual delivery requirement to Mexico of 1.5 million acre-feet. The United States has always fulfilled its Colorado River water delivery obligation to Mexico.



Mexico transferred water to the United States at Amistad Reservoir



USIBWC ADDRESSES BORDER FENCE ISSUES

While some Americans worry at the thought of illegal immigrants penetrating the border, the USIBWC sweats over the growing issue of how to maintain flood control and boundary demarcation responsibilities while allowing border fences to be built.

Richard Peace, Division Engineer for the Operations and Maintenance Division, said that the USIBWC has been “trying hard” to coordinate proceedings with the Department of Homeland Security (DHS), which is erecting border fences, to ensure a steady balance between the USIBWC’s responsibilities and the DHS mission of border protection. Working hand in hand, the agencies have strived for compatible resolutions that would uphold this balance.

The issue of constructing resilient border fences has been on the national agenda since 2004 when the United States Border Patrol (USBP) determined several high-risk areas along the U.S.-Mexico border. DHS Secretary Michael Chertoff created the Secure Border Initiative (SBI) in November 2005 to take a firm grip on the assembly of border fences. According to officials, nearly 225 miles of fencing should be constructed along the border by the end of 2008.

Among the USIBWC’s concerns are abiding by the requirements of the 1970 Boundary Treaty, ensuring boundary monument access, and maintaining the Rio Grande flood control projects. Under provisions of the 1970 Boundary Treaty, the Commission is responsible for maintaining the Rio Grande and Colorado River as the international boundary, ensuring that a change in either river’s course does not result in territory loss or gain in either country. A particular concern is that fence construction in the floodplain could deflect the river’s flow and alter the international boundary.

“The USIBWC takes measures to make certain that no one builds in the floodplains, which would cause deflection or reduce the flood flow capacity and potentially endanger residential areas on both sides of the border,” said Peace.

One aspect of the fence construction projects that the agencies mutually address includes the assembly of access gates in the border fences, which would enable the USIBWC to maintain boundary demarcation monuments.

“We had asked them to put gates so that we could maintain the monuments,” said Peace. “Efforts are definitely being made.”



Border fence along a canal near Yuma, Arizona

Developing a fence design that’s compatible with the missions of both the USIBWC and DHS has proved to be more difficult. One DHS proposal involved placing a concrete pad on top of the levee with a fence on it, but this idea was rejected for potentially jeopardizing future levee functionality. USIBWC has asked DHS to consider a design that requires building of a concrete wall on the slope of the levee high enough that the levees could be raised in the future; this plan is still under negotiation.

Although the border fencing project entails an infinite line of work, USIBWC and DHS officials are committed to working cooperatively to ensure that border fences will be implemented efficiently and appropriately, mindful of the diverse missions of both agencies.

—by Anthony Jimenez, student employee

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