

Proposed Appropriation Language

CONSTRUCTION

For detailed plan preparation and construction of authorized projects, \$31,900,000, to remain available until expended, as authorized.

INTERNATIONAL BOUNDARY AND WATER COMMISSION CONSTRUCTION

Resource Summary

(\$ in thousands)

Appropriations	FY 2010 Actual	FY 2011 CR	FY 2012 Request
American Positions	18	18	18
Funds	43,250	43,250	31,900

Program Description

The International Boundary and Water Commission (IBWC) is a treaty-based binational organization comprised of a United States Section and a Mexican Section. The United States Section is headquartered in El Paso, Texas, and the Mexican section is headquartered in Ciudad Juarez, Chihuahua. Both Sections have field offices strategically situated along the boundary, which enables the IBWC to carry out its mission objectives and meet its required obligations.

Pursuant to treaties between the United States (U.S.) and Mexico and U.S. law, the IBWC carries out several construction projects. This appropriation provides funding for construction projects undertaken independent of, or with, Mexico to rehabilitate or improve water deliveries, flood control, boundary preservation, and sanitation.

Since the Convention of February 1, 1933, which provided for rectification of the Rio Grande through the El Paso–Juarez valley, the two governments have participated in several binational construction projects. The Treaty of 1944 provided for the two governments to construct diversion and storage dams on the Rio Grande and Colorado River. The dams provide the means for conservation and regulation of international river waters. In addition, the 1944 Treaty provides for flood control works on the Rio Grande, Colorado River, and Tijuana River. It also provided for both governments to give priority attention to border sanitation issues.

This appropriation provides funding for construction and major renovations along the U.S. – Mexico border that enables the storage, distribution, and delivery of international waters in the Rio Grande and Colorado River, affording protection of lives and property from floods in bordering communities. In addition, the appropriation provides for the preservation of the international boundary, and the improvement of the water quality on both sides of the border.

Border Sanitation

Under the authority of the 1944 Water Treaty between the U.S. and Mexico, the IBWC is entrusted to give preferential attention to border sanitation issues. Presently, residents in IBWC’s jurisdiction are facing a number of sanitation problems in the western land boundary region. These problems are mostly a result of trash, debris, and sewage entering into the U.S. from Mexico through rivers and storm water runoff. The IBWC is currently working toward addressing bi-national sanitation issues at the following areas: Nogales AZ, Calexico, CA (New River), and in San Diego, CA (Tijuana River Valley, Estuary and coastal environment).

The inflow of trash, debris, and raw sewage from Mexico through the New River has for years created major health and sanitation concerns in Calexico, CA. The U.S. Environmental Protection Agency (EPA) is currently working on a project to address the sewage issues across the border in Mexicali, and the

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IBWC is working on addressing the trash and debris problem that affects U.S. residents in Calexico, California. The IBWC is working with the City of Calexico to develop defensive measures to eliminate or reduce the amount of trash and debris conveyed into the U.S. through the New River.

In 1997, the IBWC completed construction of the advanced primary treatment portion of the South Bay International Wastewater Treatment Plant (SBIWTP). The purpose of the SBIWTP is to capture and treat Tijuana wastewater, which would otherwise flow into the U.S. through the Tijuana River and canyons, to secondary standards for discharge into the Pacific Ocean. In the interest of addressing public health and environmental concerns as expeditiously as possible, the IBWC and EPA decided to construct the SBIWTP in stages and operate the advanced primary plant and discharge the effluent into the ocean prior to the construction of the secondary treatment facilities. Construction of secondary treatment facilities are in the final stages of completion and testing has begun. On completion of testing in April SBIWTP will be brought into full compliance with the Clean Water Act (CWA) and its discharge permit.

The City of Nogales and the IBWC jointly own the Nogales International Wastewater Treatment Plant (NIWTP), located 8.8 miles from the border in Nogales, Arizona. The plant, which is operated by the IBWC, provides treatment of wastewater from both Mexico and the United States, and discharges the effluent into the Santa Cruz River. In 2001, standards that are more stringent were applied to the CWA discharge permit but the NIWTP was not able to attain them. As a result, the IBWC worked with the City of Nogales, EPA, and the Border Environmental Cooperation Commission (BECC) to upgrade the NIWTP to meet current CWA discharge permit standards. BECC certified a project, which was primarily funded by EPA, to develop and incorporate upgrades at the NIWTP to ensure compliance with the new discharge standards. A design-build contract was awarded in November 2006. Construction of the NIWTP upgrades was completed in August 2009.

Flood Control

The IBWC operates and maintains flood control systems along the Tijuana River and the Rio Grande. These flood control systems protect the lives and property of over 3 million U.S. residents. Each country owns and is responsible for the maintenance of flood control works in its respective territory.

Currently, the IBWC is in the process of rehabilitating deficiencies that have been identified in numerous portions of its Rio Grande flood control systems, addressing a large portion with funds appropriated in the American Recovery and Reinvestment Act of 2009. The Canalization segment starts in southern New Mexico and ends at the American Dam where the international segment of the Rio Grande begins. The rectification (in far west Texas), Presidio, and Lower Rio Grande (south Texas) segments are on the international portion of the Rio Grande River, which require coordination with Mexico; however, the work is limited to the U.S. portions of the flood control systems. The canalization segment (130 miles of levees on both side of river), authorized by law in 1935 to facilitate water deliveries to Mexico under the Convention of 1906 and to protect against Rio Grande floods, extends 106 miles from Percha Dam in south central New Mexico to American Dam in El Paso, Texas. The Lower Rio Grande Flood Control Project (270 miles of levee) and the Rectification segment (91 miles of levee) were both authorized by legislation in the 1930s and law authorized the Presidio segment (15 miles of levee) in 1970. The Lower Rio Grande Project was authorized solely for flood control, while the Presidio and Rectification segments serve the dual purpose of flood control and boundary preservation.

The IBWC's construction program is organized into four subprogram groups, which coincide with the agency's strategic goals: Boundary Preservation, Water Conveyance, Water Quality, and Resource and Asset Management. The Boundary Preservation Subprogram addresses all land and river boundary demarcation and delineation efforts, including mapping of the river boundaries. The Water Conveyance

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Subprogram consists of all mission activities related to the conveyance, distribution, diversion, storage, and accounting of boundary/transboundary river waters, including flood control and hydroelectric power generation. The Water Quality Subprogram involves the construction or rehabilitation of sewage treatment facilities or other infrastructure, which improves the quality of river waters. The Resource and Asset Management Subprogram provides capital assets that support mission operations, such as administration buildings, warehouses, heavy mobile equipment, and security enhancements at field office facilities.

The IBWC will carry out projects under these subprograms, while exploring innovative and best practices in both the private and public sectors, to achieve its mission.

Justification of Request

The FY 2012 request of \$31.9 million reflects a decrease of \$11.350 million below the FY 2010 Actual level. This level of funding supports high priority requirements for the agency in fulfilling its mission requirements in flood control, river water allocation, sanitation, and advances on its obligations to stakeholders and employees by protecting its critical infrastructure and restoring its facilities and heavy equipment:

Water Conveyance Program: \$24,700,000

Safety of Dams Rehabilitation: \$15,000,000

Originally funded in FY 2001, this project will continue a multi-year effort for the rehabilitation and proper operation of all IBWC dams, as recommended by the Joint Technical Advisors of the Federal Safety of Dams Program. The IBWC is solely responsible for operation and maintenance of two diversion dams on the Rio Grande (American and International), and jointly responsible for four international dams (Amistad, Falcon, Anzalduas, and Retamal). These dams provide for distribution of the Rio Grande waters between the U.S. and Mexico as well as for the conservation, flood control, water storage, power generation, and regulation of the flow of the river, pursuant to the 1944 Water Treaty.

Amistad, Falcon, Anzalduas, and Retamal Dams were inspected by the Joint Technical Advisors, which includes the U.S. Army Corps of Engineers (USACE), in April 2007. These four dams were rated in accordance with the risk-based action classification system used by the USACE. The safety inspection yielded urgent and high priority deficiencies at three of the four dams. Amistad Dam received a category rating of Dam Safety Action Class (DSAC) II, "urgent, potentially unsafe." Falcon and Retamal Dams received a DSAC III rating, "high priority, conditionally unsafe," while Anzalduas Dam received a DSAC IV rating, "priority, marginally safe." As a result, the IBWC is developing strategies to address these deficiencies and is revising its work plan accordingly. The FY 2012 request will address the sinkhole problems on the foundations and embankments of the Amistad and Falcon Storage Dams. A comprehensive Dam Modification Study will be conducted with Mexico. This study will involve sonar surveys, willow-stick surveys, exploratory borings, seepage explorations, and development of viable remediation alternatives. Remaining project needs for FY 2012 and beyond are estimated to be approximately \$280 million.

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Rio Grande Flood Control System Rehabilitation: \$9,700,000

This project, initially funded in 2001, is a multi-year effort that includes the evaluation of approximately 510 miles of existing Rio Grande levees, and rehabilitation or improvement of deficient levee segments and related flood control structures in the United States. These levees contain about 440 miles of river and interior floodway channel along three unique Rio Grande Flood Control Systems. These three flood control systems identified as the Upper Rio Grande, Presidio Valley, and Lower Rio Grande Flood Control Systems. The Upper Rio Grande Flood Control System protects 1 million U.S. residents in the metropolitan statistical areas of Las Cruces, New Mexico and El Paso, Texas with its 225 miles of levees. The fifteen-mile long Presidio Valley Flood Control System provides flood protection to nearly 5,000 people in Presidio, Texas. The Lower Rio Grande Flood Control System, with its 270 miles of river and interior floodway levees, protects one million U.S. residents in the following metropolitan statistical areas of Brownsville-Harlingen and McAllen-Edinburg-Mission in south Texas.

Deficient levee segments will be improved in order of priority, determined by risk, and population. The IBWC is currently working together with the Department of Homeland Security and other stakeholders to address the flood control deficiencies jointly with border security improvements. In FY 2012, the IBWC will use the request to continue design and construction of levee and floodwall improvements for the Paisano segment in El Paso, which stretches 2.1 miles from American Dam to International Dam. In addition, the IBWC will construct the following improvements in the Upper Rio Grande region: 1) environmental enhancements to mitigate for project impacts; 2) Canutillo Phase 2 (5.6 mi.) - floodwall and levee improvements along the east riverbank at Canutillo, Texas; and 3) a project in Vado, New Mexico, which will include a floodwall and levee improvements along the east riverbank, and reestablishment of channel within right-of-way.

Water Quality Program: \$1,500,000

Nogales International Outfall Interceptor Replacement: \$1,500,000

This is a multi-year project, initially funded in FY 2010, for the replacement of the Nogales International Outfall Interceptor (IOI). The IBWC and the City of Nogales are co-owners of the Nogales International Wastewater Treatment Plant (NIWTP), which is located in Rio Rico, Arizona, and provides treatment of sewage for both Nogales, Arizona, and Nogales, Sonora. The IOI is the infrastructure that conveys wastewater from Nogales, Sonora, Mexico and Nogales, Arizona to the NIWTP. The treated effluent is discharged into the Santa Cruz River, where it provides a perennial surface water source to recharge groundwater levels and sustain riparian habitat.

The pipeline, which was placed into operation in 1972, has lost approximately half of its thickness due to erosion and developed many cracks. Excessive amounts of groundwater water infiltrate the pipe through these cracks, significantly increasing the volume in the wastewater system. This increased volume results in higher than normal operations and maintenance costs for treatment of the wastewater at the NIWTP. The IBWC will work with the City of Nogales and other stakeholders to jointly replace the deteriorated IOI pipeline and rehabilitate/replace any necessary IOI manholes. Since the IOI runs underneath and alongside the Nogales Wash, which is a concrete-lined storm water conveyance system, replacement of the IOI will require removing and reconstructing some, if not all, of the Wash.

Project alternatives are still being considered and evaluated. Preliminary estimates suggest that the cost for this project will be approximately \$100 million. Construction will be phased in over a three- or four-year period. The FY 2012 request will be used to conduct the geotechnical, engineering, and design

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requirements for the project. The project will be phased over the out-years and will be prioritize by sections of the IOI based on risk. The IBWC anticipates that its share of the project will be \$40 million.

Resource and Asset Management Program: \$5,700,000

Facilities Renovation: \$2,000,000

Originally funded in FY 1992, this project will continue with a multi-year program to renovate and modernize deteriorated IBWC facilities along the U.S.-Mexico border region to current industry standards. These facilities, most of which were constructed between 1930 and 1950, require major rehabilitation work to meet OSHA safety standards, current environmental laws, and to provide more efficient, effective and secure working environments. The project consists of structural, electrical, and mechanical improvements; as well as renovations necessary for compliance with environmental, occupational safety and health, handicap, and other regulatory requirements. The IBWC will use the FY 2012 request to demolish and reconstruct the administration office buildings at Amistad, Falcon, and Mercedes Dams. The Mercedes project will also involve the renovation of the warehouse and maintenance shop building. In San Diego, IBWC will design an administration building to replace an old trailer originally intended to be a temporary office. In addition, IBWC will perform the required environmental and historical documentation to renovate the maintenance and the administration office buildings at American Dam.

Critical Infrastructure Protection: \$2,500,000

The IBWC is requesting funds to continue a five-year project, initially funded in FY 2009, to improve security at its facilities, which includes the critical infrastructure: Amistad and Falcon International Storage Dams and Power Plants, and the South Bay and Nogales International Wastewater Treatment Plants. This project will assist the agency in countering potential threats to its critical infrastructure and deter illegal activity away from these facilities. This project is consistent with the Department of Homeland Security initiatives (Homeland Security Presidential Directives 7 and 13), the Critical Infrastructure Protection (CIP) Framework Agreement between the U.S. and Mexico, and the USA PATRIOT (Uniting and Strengthening America by Providing Appropriate Tools Required to Intercept and Obstruct Terrorism) Act. The U.S./Mexico CIP Program specifically states that both nations will conduct bi-national vulnerability assessments of trans-border infrastructure, communications, and transportation networks to identify and take required protective measures. The FY 2012 request will be used for threat and vulnerability assessments, and installation of deterrents, controls, and detection systems at the most critical infrastructure; Amistad and Falcon International Storage Dams and Power Plants. Since threat and vulnerability assessments are still underway for other facilities, estimated project costs will be adjusted to reflect the most accurate information.

Heavy Equipment Replacement: \$1,200,000

Originally funded in FY 2001, this multi-year program replaces deteriorated and obsolete heavy construction equipment. Heavy construction equipment is essential for daily operations such as levee maintenance, floodway mowing, erosion control, arroyo clearing, roadway maintenance, riprap replacement, sludge, and silt removal. Having the proper equipment available and in an operational status has proven to be critical during flood events and other emergencies. The proper equipment greatly improves the agency's ability to control flooding and protect approximately 2 million U.S. residents and 1.5 million acres of property, and improves the agency's operational efficiency and productivity. FY 2012 funds will be used to purchase a bulldozer for Amistad Dam, a vacuum truck for Mercedes, and a

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vacuum truck and water truck for Nogales. This equipment is needed for maintenance of the flood control system and wastewater treatment facilities. Remaining project needs for FY 2012 and beyond are estimated at \$8.6 million. This equipment is needed for maintenance of flood control systems and wastewater treatment facilities.

Staff by Program Activity (\$ in thousands)

International Boundary and Water Commission, El Paso ,Texas	FY 2010 Actual	FY 2011 CR	FY 2012 Request
IBWC-Construction	18	18	18
Water Quality Program	2	2	2
Water Quantity Program	16	16	16
Total	18	18	18

Funds by Program Activity (\$ in thousands)

Activities	FY 2010 Actual	FY 2011 CR	FY 2012 Request
IBWC-Construction	43,250	43,250	31,900
Resource and Asset Management	6,700	6,700	5,700
Water Quality Program	6,750	6,750	1,500
Water Quantity Program	29,800	29,800	24,700
Total	43,250	43,250	31,900

Funds by Object Class (\$ in thousands)

	FY 2010 Actual	FY 2011 CR	FY 2012 Request
2500 Other Services	43,250	43,250	30,700
2600 Supplies and Materials	0	0	1,200
Total	43,250	43,250	31,900