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US Army Corps of Engineers®
Galveston District

Current as of May 2011

UPDATE REPORT FOR THE 29TH DISTRICT

Gene Green
U.S. House of Representatives
29th Congressional District

About the Galveston District

With its rich heritage in Texas history, the U.S. Army Corps of Engineers Galveston District plays a key role in America's well-being by keeping waterways open for navigation and commerce and serves the nation as part of the world's largest public engineering, design and construction management agency.

Encompassing the Texas coast from Louisiana to Mexico; an area that spans across 50,000 square miles, includes 48 counties, two parishes and 16 congressional districts, the Galveston District successfully executes its mission of providing vital public engineering services in peace and war to strengthen our nation's security, energize the economy and reduce risks from disasters.

With its 370 dedicated professionals and annual budget of approximately $150 million, the Galveston District will continue to provide valuable navigation, flood risk mitigation, environmental, shoreline protection, regulatory, military construction and emergency management services to our nation and remains fully committed to continuing our mission of building strong.

"It is a great privilege to serve our nation as the commander of the U.S. Army Corps of Engineers Galveston District."

– Col. Christopher W. Sallese
District Engineer and Commanding Officer
U.S. Army Corps of Engineers Galveston District

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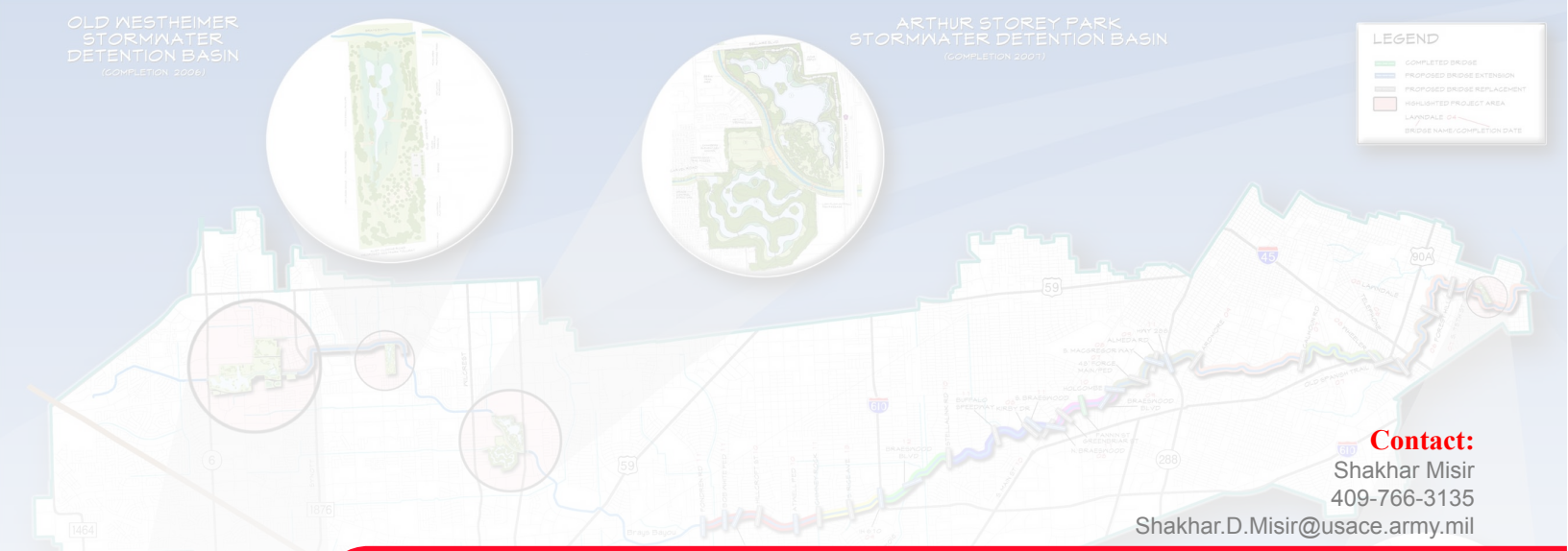

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Brays Bayou

Background:

The authorized project, located in southwest Houston (within Harris County), consists of four regional detention basins (Sam Houston, Old Westheimer Road, Eldridge Road and Willow Waterhole), enlargement or modification of 21.1 miles of earthen channel, replacement and/or lengthening of 27 bridges and recreation features including hike-and-bike trails, picnic facilities, sports fields, comfort stations and parking areas. As stated in the Water Resources Development Act of 1996, Section 211, subject to the approval of the Secretary of the Army, the non-federal interest may design and construct an alternative to the diversion component. The General Re-evaluation Report (GRR) for the alternative to the diversion component was approved April 3, 2009. The Project Corporation Agreement was amended in March 2010, uniting the upstream and downstream (formally the diversion component) into one project.

Brays Bayou.

Issue:

The sponsor is seeking reimbursement for the federal share on the GRR ($2,094,000) for an alternative to the authorized diversion feature (downstream element), and reimbursement for the federal share of the completed construction in both the upstream and downstream detention areas. The sponsor is not constructing both upstream and downstream elements. To date, the sponsor has completed 47 percent of the detention basins and received federal reimbursement for 100 percent of the completed detention basins.

Federal dollars to date:
$91,650,000
Sponsor dollars to date:
$8,629,053
Total cost of project:
$571,660,000
FY11 President's Budget:
$7,740,000
FY12 President's Budget:
$3,000,000

Current Status:

Fiscal year 2011 funds are being used for the Willow Waterhole Detention Basin, Discrete Segment (DS) 203 final reimbursement ($810,000) and partial reimbursement of DS 209 at Willow Waterhole Detention Basin ($6,930,000).

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Buffalo Bayou and Tributaries, Addicks and Barker Dams

Background:

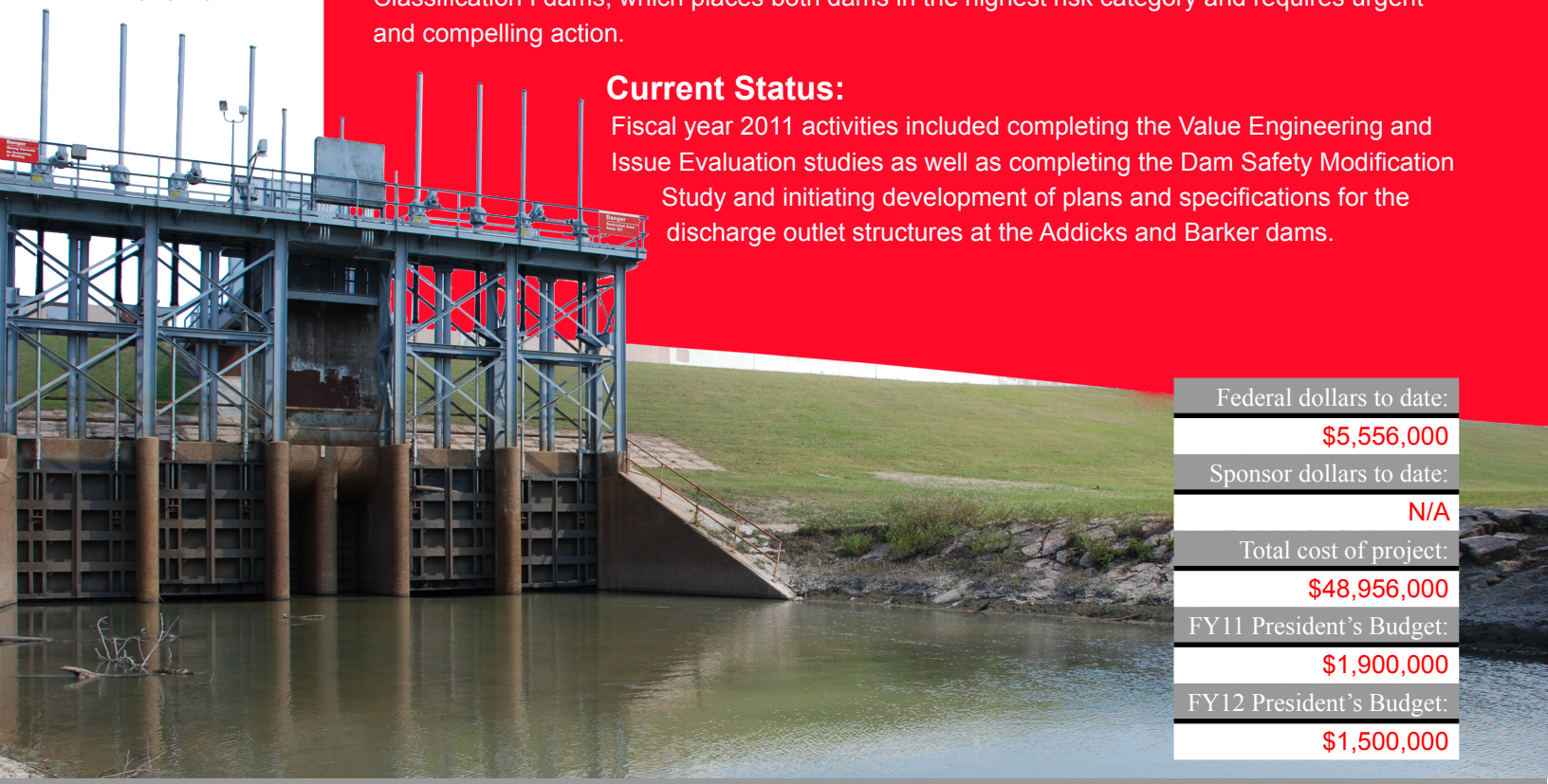
The earthen dams, located in Houston, underwent a major rehabilitation effort under the Dam Safety Assurance Program in 1991. Improvements included raising embankments and protecting the ends of the dams with concrete to protect against possible overtopping and to meet modern safety standards. Significant development in the Buffalo Bayou watershed (since the 1991 upgrade) has increased flow into the reservoir. The dam safety team's most recent screening indicated that both dams were inadequate in areas including the spillway and/or stilling basin system, outlet works and conduit, embankment, and erosion along the reservoirs' rims. The Interim Risk Reduction Measures Plan requires the determination of areas of potential impact and the threat to local interests from a major rainfall event.

Issue:

The National Dam Safety Cadre Team classified Addicks and Barker dams as Dam Safety Action Classification I dams, which places both dams in the highest risk category and requires urgent and compelling action.

Current Status:

Fiscal year 2011 activities included completing the Value Engineering and Issue Evaluation studies as well as completing the Dam Safety Modification Study and initiating development of plans and specifications for the discharge outlet structures at the Addicks and Barker dams.



Outlet structure at Barker Dam.

Federal dollars to date:
$5,556,000
Sponsor dollars to date:
N/A
Total cost of project:
$48,956,000
FY11 President's Budget:
$1,900,000
FY12 President's Budget:
$1,500,000

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Cedar Bayou

Background:

The navigation project extends from its junction with the Houston Ship Channel near Barbours Cut Container Terminal at Mile 25, eastward across Galveston Bay, to the mouth of Cedar Bayou to a point three miles upstream. The proposed project extends the channel by eight miles to Highway 146 (dimensions are 10 by 100 feet). The Water Resources Development Act (WRDA) 2007 not only authorized the Assistant Secretary of the Army (Civil Works) to reimburse the sponsor for their portion of the cost of the feasibility study (50 percent), but also established project cost sharing based on Section 101 of WRDA 1986 for projects under 20 feet, which includes Cedar Bayou. The cost sharing would be 90/10, federal/non-federal, and amends the project authorization to construct a 10-feet deep channel rather than 12-feet deep.

Cedar Bayou and the Houston Ship Channel.

Issue:

The project is authorized and waiting for construction appropriations to deepen and widen the existing channel to more efficiently serve the existing industries along the bayou.

Current Status:

The project is not in the fiscal year 2012 President's Budget and is on hold pending receipt of new start construction funding.

Federal dollars to date:
$418,000
Sponsor dollars to date:
$717,000
Total cost of project:
$17,680,000
FY11 President's Budget:
$0
FY12 President's Budget:
$0

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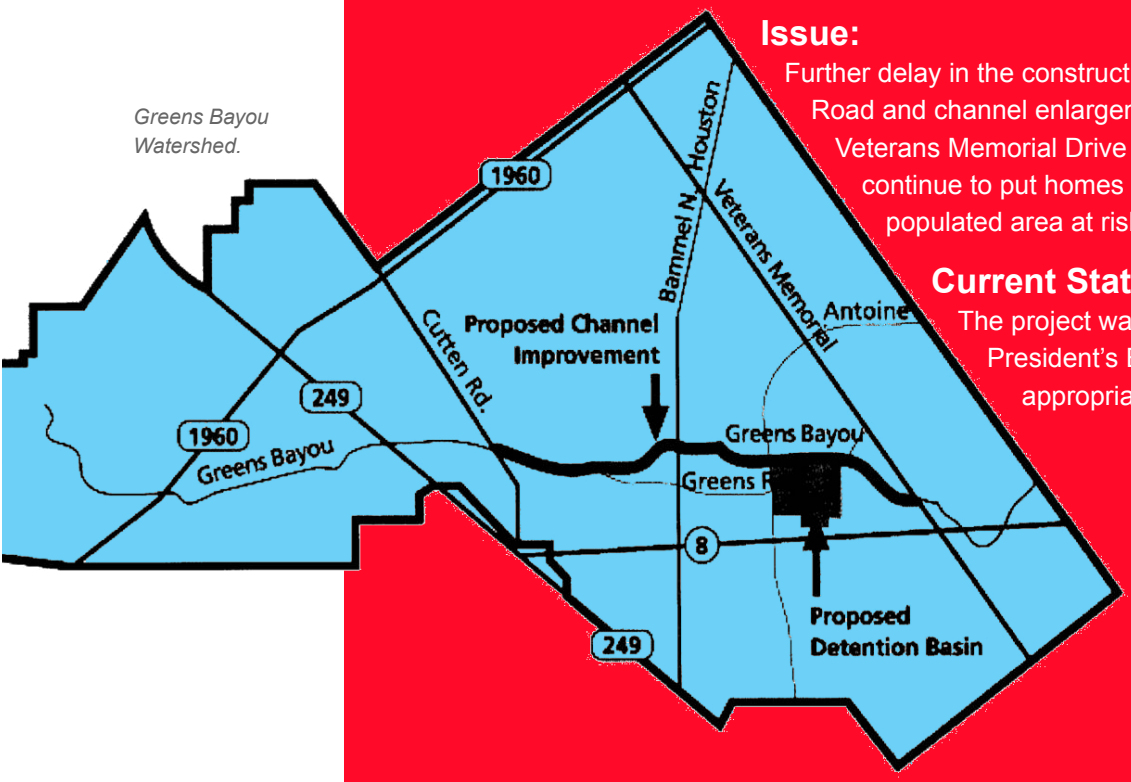
Greens Bayou

Background:

Greens Bayou is a tributary of Buffalo Bayou and is located in the north-central portion of Harris County, Texas. The purpose of the project is flood risk management for an extensively developed urban area. The original authorized plan has been re-evaluated. The reformulated plan consists of 3.7 miles of channel improvement in the upper reaches, between Veterans Memorial Drive and Cutten Road. The project was authorized for construction in the Water Resources Development Act of 2007.

Greens Bayou Watershed.



Issue:

Further delay in the construction of the lower reach at Greens Road and channel enlargement and rectification from Veterans Memorial Drive upstream to Cutten Road will continue to put homes and businesses in this highly populated area at risk for severe flood damage.

Current Status:

The project was not in the fiscal year 11 or FY12 President's Budgets. The project is awaiting appropriation for initial construction.

Federal dollars to date:
$6,686,000
Sponsor dollars to date:
$0
Total cost of project:
$45,080,000
FY11 President's Budget:
$0
FY12 President's Budget:
$0

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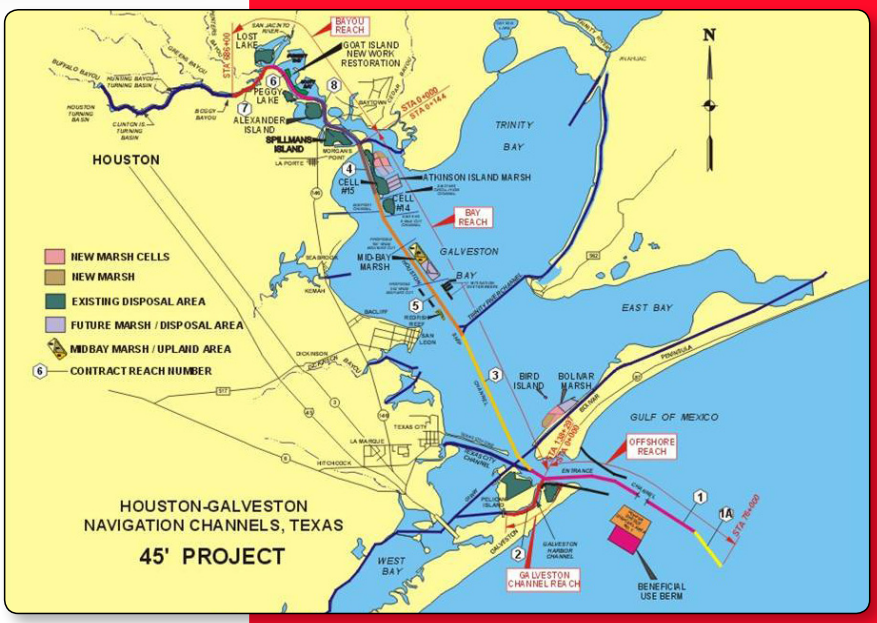
Houston-Galveston Navigation Channel

Background:

The project is located in Texas, Chambers, Galveston and Harris counties. The project includes channel deepening of the Galveston Entrance Channel, Galveston Harbor Channel (GC) and the Houston Ship Channel (HSC) to Boggy Bayou in Houston, Texas, as well as the construction of environmental restoration and mitigation features. Deepening of the HSC and GC were completed in 2005 and 2010, respectively. The ecosystem restoration features of the project include 2,850 acres of marsh at Bolivar and Atkinson Island and a six-acre bird nesting Island. As much as 30 percent (45,000 acres) of estuarine emergent wetlands in Galveston Bay have been lost due to subsidence and development.



Houston-Galveston Navigation Channel map.

Issue:

The remaining marsh creation is to be linked to the continued maintenance of the Bay Reach of the HSC meaning that a new marsh cell will be filled during each maintenance dredging contract. In order for the environmental restoration to not impede channel maintenance, the federal government and the sponsor must diligently budget for the deferred construction so that funds are available when needed.

Current Status:

Current ongoing construction includes efforts to repair placement areas and ecosystem restoration sites damaged by Hurricane Ike, construction of additional marsh acreage at Bolivar, and provision of additional capacity at Lost Lake, Mid Bay, Placement Area (PA) 14, and PA15 for maintenance dredging. Future efforts on this project will be dedicated solely to the creation of marsh within the Atkinson Island marsh complex.

Federal dollars to date:
$487,145,000
Sponsor dollars to date:
$152,452,000
Total cost of project:
$846,145,000
FY11 President's Budget:
$0
FY12 President's Budget:
$600,000

Hunting Bayou Flood Damage Reduction Project

- Widen about 3 miles of Hunting Bayou from U.S. 59 to Wayside Drive
- Replace/modify more than 20 bridges
- Purchase right-of-way for conveyance improvements (including 40-50 residences)
- Excavate 75-acre, 300-million-gallon stormwater detention basin

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Hunting Bayou

Background:

The Hunting Bayou watershed is 29 square miles located approximately five miles northeast of downtown Houston in Harris County, Texas. The watershed is highly developed with a mix of residential, commercial and industrial land use. The proposed project will reduce the number of structures subject to the 100-year storm from 7,000 to 1,400. The reformulated project will be identified by the General Re-evaluation Report (GRR) and is anticipated to include channel modifications and detention features. The U.S. Army Corps of Engineers, Galveston District, will provide guidance and oversight to the Harris County Flood Control District during preparation of the report.

Hunting Bayou.

Issue:

Section 211(f) of Water Resources Development Act 1996 authorizes non-federal interests to plan, design, and construct federal flood risk management projects. Federal funding is needed in order to provide federal oversight of the GRR, which the sponsor is currently working to complete.

Current Status:

This project was not in the fiscal year 2011 or FY12 President's Budgets. Carry over funds will be used to continue oversight of sponsor efforts to continue GRR including a feasibility scoping meeting and Agency Technical Review of the draft GRR.

Federal dollars to date:
$1,435,000
Sponsor dollars to date:
$0
Total cost of project:
$189,930,000
FY11 President's Budget:
$0
FY12 President's Budget:
$0

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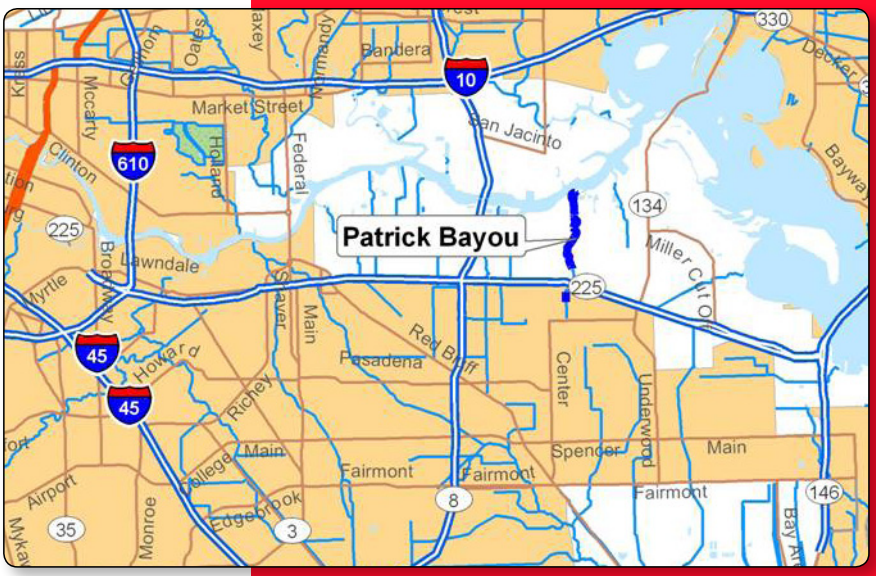
Patrick Bayou

Background:

Patrick Bayou is a small tidal tributary of the Houston Ship channel. The non-tidal portion of Patrick Bayou lies south of State Highway (SH) 225, is largely concrete lined and serves as drainage for the City of Deer Park. The bayou downstream of this point has earthen banks and a soft mud bottom. Most of the bayou north of SH 225 is tidally influenced to some degree. This project would create a 35-acre detention basin south of SH 225 in the Patrick Bayou watershed that would provide for storage of storm water and flooding protection in the Patrick Bayou watershed. The USACE has the authority under Section 205, 1948 Flood Control Act (Public Law 80-858), as amended, to study this type of project.



Map showing Patrick Bayou.

Issue:

A history of flooding has occurred, impacting thousands of residents in the area, as a result of the undersized sewer pipes north of SH 225. Pipes are inadequate to convey the storm water from SH 225 into the open channel of Patrick Bayou.

Current Status:

This project was not in the fiscal year 2011 or FY12 President's Budgets.

Federal dollars to date:
$0
Sponsor dollars to date:
$0
Total cost of project:
$100,000
FY11 President's Budget:
$0
FY12 President's Budget:
$0

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Sims Bayou

Background:

Located in south central Houston within Harris County, the project consists of 19.3 miles of channel improvements that provide flood damage reduction and erosion control. The project also includes environmental quality measures, recreational features and entails connecting the authorized channel end into an existing large detention basin, which magnifies the intended benefits of the project. The recreation plan includes 13.9 miles of trail system along the banks of the improved channel with the trails connecting to seven city parks that currently exist along the bayou. Additional recreational support facilities include benches, picnic tables and drinking fountains.

Issue:

Flood risk management is the primary purpose for this project while recreation, a separable element, is a value added benefit. Final segments of the flood risk management component are under construction and completion is expected by last quarter of fiscal year 2012. The recreation component of the project and Project Partnership Agreement with the non-federal sponsor cannot be executed until substantial completion of the flood risk management component. The recreational component is a secondary feature of work within the flood risk management project's footprint.

Current Status:

Hurricane supplemental funds were used for storm repair and sediment removal while American Recovery and Reinvestment Act of 2009 funds were used to award a contract for the Martin Luther King Bridge plug removal and award the final for South Post Oak to Croquet. FY12 activities include completing the four channel construction contracts and awarding a tree and shrub planting contract. The recreation element will be initiated late FY12, upon completion of the flood risk management features.

Sims Bayou.

Federal dollars to date:
$268,274,000
Sponsor dollars to date:
$21,557,573
Total cost of project:
$393,925,000
FY11 President's Budget:
$0
FY12 President's Budget:
$0

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Texas Environmental Infrastructure Program

Background:

The program consists of providing environmental assistance in the form of planning, design and construction assistance for water-related environmental infrastructure and resource protection and development projects to non-federal interests in Texas. This work includes projects for water supply; storage; treatment and related facilities; water quality protection; wastewater treatment and related facilities; environmental restoration; and surface water resource protection and development; as identified by the Texas Water Development Board (TWDB). The TWDB, in coordination with the Texas Water Conservation Association, Texas Rural Water Association and individual local public entities, have identified $210 million in currently proposed projects that are in urgent need of funds to meet short-term water supply needs. Out of this $210 million, 12 high-priority projects have been identified totaling $46,086,000.

Example of a reservoir near Brownsville, Texas.

Issue:

The Texas State Water Plan regional planning groups identified about 4,500 water management strategies to meet water supply needs over the next 50 years. Many of these strategies have been initiated and federal assistance (under the Texas Environmental Infrastructure Program, coupled with significant funding appropriated by the Texas Legislature), will ensure that water supply needs are met in the most efficient and timely manner.

Current Status:

There were no funds allocated in the fiscal year 2011 or FY12 President's Budgets for this program.

29th District Authorized Studies

Buffalo Bayou and Tributaries (Main Stem)

FLOOD RISK MANAGEMENT STUDY: Buffalo Bayou and Tributaries (main stem) is located entirely within the city limits of Houston, Texas. The study area includes 32 miles of channel extending from the Houston Ship Channel Turning Basin upstream through the business district of Houston to Barker Dam. Congressional interest in this project has increased since Tropical Storm Allison hit the area in June 2001, causing significant flooding within the Houston area and impacting an estimated 45,000 residences (approximately $1.76 billion in damages) and 1,656 businesses (reported damages estimated at $1.08 billion).

FY11 President's Budget:
$0
FY12 President's Budget:
$0
Total cost of project:
$6,900,000

Buffalo Bayou and Tributaries, White Oak Bayou

FLOOD RISK MANAGEMENT STUDY: White Oak Bayou is located in central Harris County, covers about 111 square miles and includes three primary streams: White Oak Bayou, Little White Oak Bayou and Cole Creek. Frequent flooding of residential properties along White Oak Bayou and its tributaries occurs. A series of detention reservoirs and channel adjustments in the upper reaches could facilitate drainage in the watershed. Without additional funding, coordination and oversight of the work performed by the non-federal sponsor, Harris County Flood Control District, to complete the General Re-evaluation Report will not continue.

FY11 President's Budget:
$0
FY12 President's Budget:
$0
Total cost of project:
$9,522,000

Halls Bayou, Houston

FLOOD RISK MANAGEMENT STUDY: The Halls Bayou basin lies between Greens Bayou to the north, and White Oak and Hunting Bayous to the south. This location is about eight miles north of the central business district of Houston. The watershed area comprises older established neighborhoods and is now about 60 percent developed, with a 2009 population of about 309,000 (U.S. Census). The proposed project consists of the construction of 18 miles of stream improvements, recreation trails, picnic facilities, boat ramps, parking facilities and a comfort station. The project will provide an average of about a 30-year flood protection for existing urban developments. Currently, all work is being funded by the non-federal sponsor, Harris County Flood Control District.

FY11 President's Budget:
$0
FY12 President's Budget:
$0
Total cost of project:
$9,775,000

Hunting Bayou

FLOOD RISK MANAGEMENT STUDY: The Hunting Bayou watershed is 29 square miles. The project will reduce the number of structures subject to the 100-year storm from 7,000 to 1,400. The reformulated project will be identified by the General Re-evaluation Report and is anticipated to include channel modifications and detention features. The Corps will provide guidance and oversight to the Harris County Flood Control District during preparation of the report. The project allows the sponsor to conduct the GRR and be reimbursed once it is completed and approved.

FY11 President's Budget:
$0
FY12 President's Budget:
$0
Total cost of project:
$189,930,000

29th District Operations and Maintenance

Barbour Terminal Ship Channel

The Barbour Terminal Channel and Turning Basin is a 1.7-mile long deep draft waterway that extends from the Houston Ship Channel at Mile 26.3 west across Galveston Bay. The project is located in the vicinities of Houston, Pasadena, La Porte, and Shore Acres in Harris County, Texas. Operations and maintenance funds allow the Corps to keep the waterway open for navigation, as the commodities imported and exported through the ship channel contribute to the economic success of the nation.

FY11 President's Budget:
$1,811,000
FY12 President's Budget:
$0

Bayport Ship Channel

The Bayport Ship Channel and Turning Basin is a 4.5 mile long deep draft waterway that extends from the Houston Ship Channel at Mile 20.5 west across Galveston Bay. The project is located in the vicinities of Houston, Pasadena, La Porte, and Shore Acres in Harris County, Texas. The flare of the Bayport Ship Channel serves as the entrance to the Bayport Terminal and its facilities. It has become a high shoal area that requires annual dredging to maintain project depth in this high volume container terminal for the Port of Houston. The Houston Pilots and Coast Guard Vessel Traffic Service closely monitor this section and have imposed draft restrictions in prior years. Operations and maintenance funds allow the Corps to keep the waterway open for navigation, as the commodities imported and exported through the ship channel contribute to the economic success of the nation.

FY11 President's Budget:
$4,028,000
FY12 President's Budget:
$3,776,000

Buffalo Bayou and Tributaries (Addicks and Barker Dams and Reservoirs)

The project is located on Buffalo Bayou and Mayde Creek on the west side of the City of Houston, in Harris and Fort Bend counties, Texas. Addicks Dam and Reservoir is an earthen dam 61,166-feet long and 48.5 feet above the Mayde Creek streambed with a storage capacity of 200,840 acre-feet. Barker Dam and Reservoir is an earthen dam 71,960-feet long and 36.5 feet above the Buffalo Bayou streambed with a storage capacity of 209,000 acre-feet. Operations and maintenance funds for the Addicks and Barker dams and reservoirs allow for the project to continue serving its purpose of reducing flooding in the City of Houston, protecting residents downstream in the nation's fourth largest city.

FY11 President's Budget:
$3,518,000
FY12 President's Budget:
$3,670,000

Cedar Bayou

This shallow draft channel is an important navigation channel adjacent to the Houston and Bayport Ship Channels. The improved portion of the channel extends from its junction with the Houston Ship Channel near Mile 25 eastward across Galveston Bay to the mouth of Cedar Bayou to a point three miles upstream. The project dimensions are 10 by 100 feet and supports heavy barge traffic to facilities. Operations and maintenance funds allow the Corps to keep the waterway open for navigation and reduce safety hazards.

FY11 President's Budget:
$1,695,000
FY12 President's Budget:
$350,000

Greens Bayou Channel

The project is located in the vicinities of Houston and Channelview in Harris County, Texas. The Greens Bayou Channel is a 1.6-mile long deep and shallow draft waterway that extends from the Houston Ship Channel at mile marker 42.9 up into Greens Bayou. Operations and maintenance funds allow the Corps to keep the waterway open for navigation.

FY11 President's Budget:
$0
FY12 President's Budget:
$800,000

Houston Ship Channel

The Houston Ship Channel (HSC) consists of the main channel, Barbour Terminal Channel, Bayport Ship Channel and Greens Bayou Channel. The main channel is a 54-mile long deep draft waterway which extends from Bolivar Roads near Galveston, Texas, north through Galveston Bay, the San Jacinto River, and Main Turning Basin at Houston, Texas, and includes a 6.5- mile long shallow draft reach. The light draft channel extends upstream of the main turning basin. The channel is maintained to 45-feet from Bolivar Roads up to the Upper Bayou where it transitions from 40 feet to 36 feet at the turning basin. The Barbour Terminal Channel and turning basin is a 1.7 mile long deep draft waterway (authorized depth of 40 feet) that extends from the HSC at Mile 26.3 west across Galveston Bay. The Bayport Ship Channel and turning basin is a 4.5-mile long deep draft waterway (authorized depth of 40 feet) that extends from the HSC at Mile 20.5 west across Galveston Bay. The Greens Bayou Channel is a 1.6-mile long shallow and deep draft waterway which extends from the HSC at mile 42.9 northeast up Greens Bayou. Operations and maintenance funds allow the Corps to keep the waterway open for navigation.

FY11 President's Budget:
$17,978,000
FY12 President's Budget:
$18,188,000