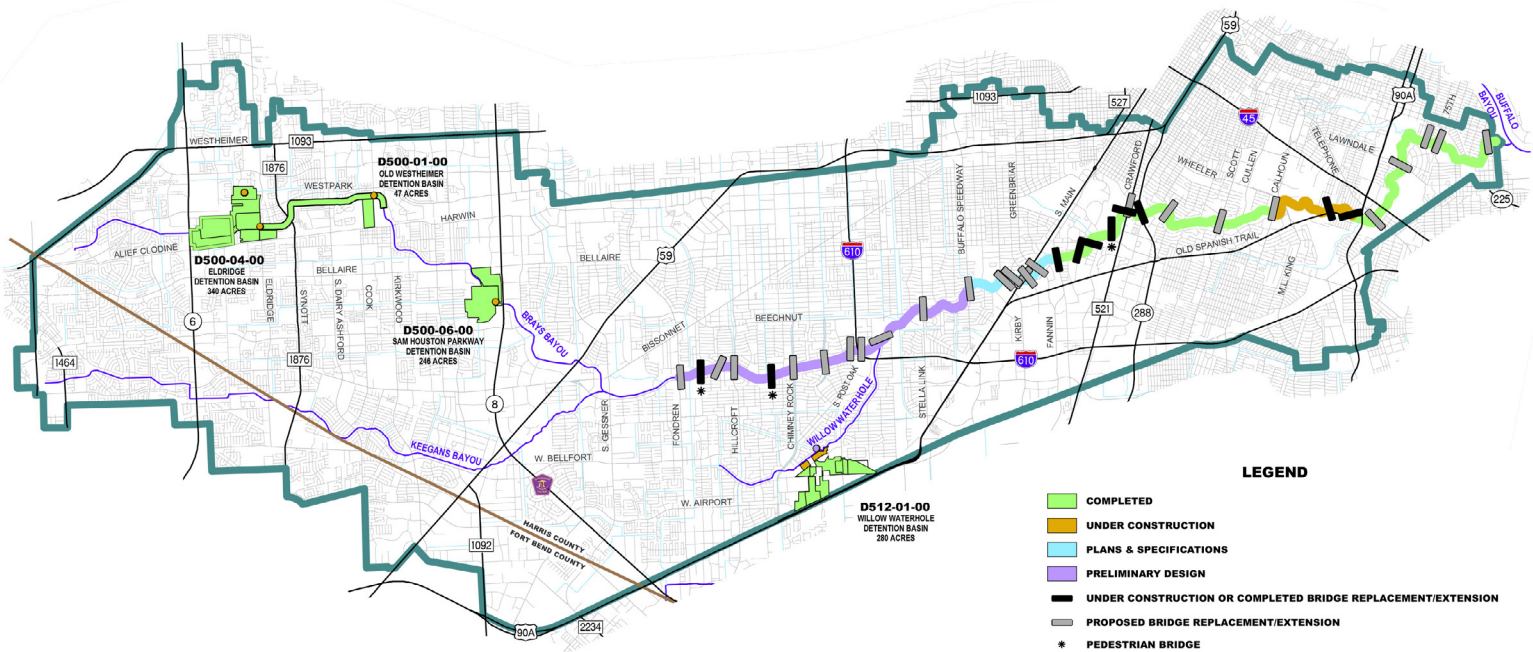


## Brays Bayou Federal Flood Risk Reduction Project

### Project Brays



### Background

Project Brays, an active cooperative effort between the Flood Control District and the U.S. Army Corps of Engineers (Corps), is a multi-year, \$480 million project that substantially reduces flooding risks in the Brays Bayou watershed. It is the largest partnership project the Flood Control District and Corps have conducted to date. Encompassing more than 75 individual project components, Project Brays will help to reduce flooding risks by widening 21 miles of Brays Bayou from the Houston Ship Channel to Fondren Road and from West Houston Center Boulevard to State Highway 6, replacing or modifying 30 bridges to accommodate channel modifications, and excavating four stormwater detention basins that will hold a collective 3.5 billion gallons of stormwater.

In 2000, the Flood Control District and Corps signed an agreement that outlined each party's responsibilities, the federal-local cost share, and federal reimbursements to the Flood Control District. Work started in the upstream end of the project while the Flood Control District and Corps were identifying project components for the downstream reach. In 2010, the original agreement was amended to include the lower reach.

### Project Implementation

The 75 individual components of Project Brays are designed to work together, and must be completed in a particular sequence to avoid temporarily causing increased flood risks outside of the immediate construction area. During the course of the project, these logistical considerations, along with available funding, placed limits on how fast and in what order Project Brays components could be implemented. That is especially true now that the project is nearing completion.

Construction started with excavation of the stormwater detention basins in the project's Upper Reach. The basins hold stormwater during periods of heavy rainfall and slowly release the water back into the bayou as the bayou recedes. As sections of the basins were completed, they held more and more water, reducing the stormwater flow and allowing the Flood Control District to work on channel segments in the lower reach, which increase conveyance capacity.

Bridge replacements and modifications have been sequenced with the channel work and coordinated with the City of Houston and Texas Department of Transportation to minimize traffic disruptions.



### As of November 2016:

- Excavation is complete on all four stormwater detention basins covering a total of more than 800 acres and holding a collective 3.5 billion gallons of stormwater storage. They include the basins at Willow Waterhole, Arthur Storey Park, Bishop Fiorenza Park (Eldridge), and Mike Driscoll Park (Old Westheimer).
- Construction of water level control structures for three basins started in May 2016. A fourth is in design and planned for construction in 2017. These water level control structures maximize the effectiveness of the stormwater detention basins.
- Construction to widen and deepen the channel is complete on 12.6 out of 21 miles of Brays Bayou. Construction is nearing completion on the channel segment from Lidstone to Calhoun; and construction started in June 2016 on the channel segment from Bertner to Buffalo Speedway/Stella Link.
- Construction to replace or modify bridges to accommodate the additional flow of stormwater is complete on 10 of 30 structures.
- Environmental features have been added throughout the project area, including created wetlands, newly planted trees and shrubs, and aesthetically pleasing layouts.

### Project Benefits

Although there is still work to be done on Project Brays, the completion of each stormwater detention basin, channel segment, and bridge replacement or modification brings a reduction in flood levels along the bayou. That will continue as the project moves to completion.

When Project Brays is complete, it will provide a 1 percent (100-year) level of protection in the upstream area of the project. In the downstream area, it will remove the 1 percent (100-year) floodplain from 15,000 homes/businesses. In addition, the number of homes at risk of flooding during a 25-year flood event (a flood that has a 4 percent chance of occurring in any given year) will be reduced by 3,470.

### Project Funding and Outlook

When the Flood Control District partners with the Corps on a flood risk reduction project, the cost share is based on the project features. The Flood Control District is responsible for paying for the project's right-of-way acquisition, utility relocation, and bridge replacement or modification costs. The Flood Control District also maintains the project after completion. The Corps pays for the project's design and construction costs. For Project Brays the cost share works out to about 50/50.

Project Brays was originally estimated at \$550 million, but cost efficiencies implemented by the Flood Control District have lowered that estimate to \$480 million. Project expenditures to date total \$308 million. Cooperative efforts by the Flood Control District, Corps, Harris County, City of Houston, Texas Department of Transportation, Texas Department of Parks and Wildlife, Houston Parks Board and several other local community groups and organizations have allowed the project to move forward at a steady pace, and have allowed the project to maintain that pace during difficult economic times. A continuous stream of federal and local funding has been provided to the Flood Control District and Corps because of the importance of this project to the Houston/Harris County region.

Based on a variety of factors, including sufficient local and federal funding, the earliest that all components of Project Brays will be completed is 2021.

### Recent Rain Events

Each completed component of Project Brays helps to incrementally reduce flood levels and flooding risks in the watershed. Project Brays work completed to date has prevented flooding for hundreds of homes and businesses that otherwise would have flooded during several storms in 2015 and 2016, including Memorial Day 2015, Halloween 2015, and Tax Day/April 2016.. However, even when the total project is complete – depending on the severity of the storm – flooding of some roads, cars, homes and businesses will not be avoided.