

What is a watershed?

A watershed is a geographical region that drains to a common bayou, creek or other waterway.

Watershed Overview

The Brays Bayou watershed is located in southwest Harris County and drains portions of Fort Bend County and the cities of Houston, Missouri City, Stafford, Bellaire, West University Place and Southside Place. Rainfall within the 129 square miles of the Brays Bayou watershed drains to the watershed's primary waterway, Brays Bayou (HCFCFD Unit D100-00-00). The bayou flows eastward from Fort Bend County to its confluence with the Houston Ship Channel. There are 124 miles of open waterways in the Brays Bayou watershed, including Brays Bayou and its major tributaries, such as Keegans Bayou (HCFCFD Unit D118-00-00) and Willow Waterhole Bayou (HCFCFD Unit D112-00-00). Based on the 2010 U.S. Census, the estimated population of the Harris County portion of the Brays Bayou watershed is 717,198. The Brays Bayou watershed is highly urbanized, although several large urban parks are located within the watershed.

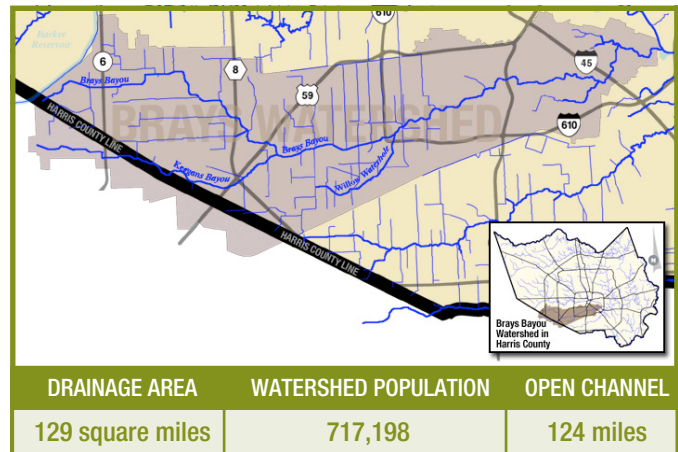
Active Capital Projects

Of the active capital projects within the Brays Bayou watershed, the Brays Bayou Federal Flood Damage Reduction Project, known as Project Brays, is the largest of these capital projects and the largest flood damage reduction program undertaken by the Harris County Flood Control District to date.

Project Brays – Project Brays, a multi-year, \$530 million project that will substantially reduce flooding risks in the Brays Bayou watershed, is a cooperative effort between the Flood Control District and the U.S. Army Corps of Engineers (Corps). This partnership, made possible by Section 211(f) of the Water Resources Development Act of 1996, allows the Flood Control District to work hand-in-hand with the federal government to leverage local tax dollars. Encompassing more than 75 individual projects, 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 32 bridges to accommodate channel modifications and excavating four stormwater detention basins that will hold a collective 3.5 billion gallons of stormwater. Of the estimated \$530 million needed to complete Project Brays, \$278 million has been spent since 1998. Project Brays currently has two projects under construction. For more information about Project Brays, visit www.projectbrays.org

- **Eldridge Stormwater Detention Basin (HCFCFD Unit D500-04-00)** – One project is currently in progress at the 337-acre Eldridge Stormwater Detention Basin located north of Alief-Clodine Road between State Highway 6 and Eldridge Parkway. This ninth and final phase of excavation, formally identified as D500-04-00-E023, will remove approximately 2 million cubic yards of soil from various compartments within the basin. Expected to cost approximately \$12.4 million, this phase began in July 2012 and will be complete in mid 2014, weather permitting. The basin will hold approximately 1.5 billion gallons of stormwater when completed.

- **Willow Waterhole Stormwater Detention Basin (HCFCFD Unit D512-01-00)** – Excavation of the fourth of eight segments of the 279-acre Willow Waterhole Stormwater Detention Basin project was completed in September 2013. This phase removed approximately 1.5 million cubic yards of soil from the southwest compartment of the basin located near South Post Oak



Road and U.S. Highway 90 in southwest Harris County. This phase cost approximately \$8 million. The Willow Waterhole Stormwater Detention Basin will hold approximately 600 million gallons of stormwater when completed.

- **Lidstone Bridge at Brays Bayou (D100-00-00-B040)** - The Flood Control District started construction in July 2013 on the new Lidstone Street Bridge over Brays Bayou. The project includes the demolition of the existing Wheeler Street Bridge and the construction of a new bridge that will connect Lidstone Street across Brays Bayou to Old Spanish Trail. The project will cost approximately \$4.2 million and will take about one year to complete.
- **Channel Modifications** – Seven of the 12 segments of channel modifications are complete. The next project (segment eight) formally identified as D100-00-00-E004, is currently in the design phase.

- **Poor Farm Ditch Conveyance Improvements (D111-00-00-Y003)** – Centrally located in Harris County between the cities of Southside Place and West University Place, Poor Farm Ditch (HCFCFD Unit D111-00-00) channels stormwater into Brays Bayou. The ditch's 50-year-old concrete lining from Bellaire Boulevard to University Boulevard has reached the end of its lifespan and is failing. Initiated in 2002, the Poor Farm Ditch Conveyance Improvements Project began with a regional feasibility study to identify improvements for

Poor Farm Ditch and Kilmarnock Ditch (HCFCD Unit D114-00-00). The study recommended expanding the capacity of Poor Farm Ditch between Bellaire and University, replacing the bridge that crosses the ditch at Bellaire and providing 43 acre-feet of flood storage mitigation to accommodate these modifications. Poor Farm Ditch has presented a challenging set of circumstances for the Flood Control District to consider, such as limited access and right-of-way in a dense residential area, the possible removal of fences and other structures on the District's easement and the general inconveniences that construction causes residents. The project is currently in the design phase.

Completed Capital Projects

The Harris County Flood Control District has spent more than \$290 million on capital projects in the Brays Bayou watershed. Recently completed capital projects include seven channel modification segments, two of the four Project Brays stormwater detention basins and nine bridge projects.

Channel Modifications – Of the 12 segments of channel modifications, seven segments are complete. Those include:

- Houston Ship Channel upstream to Lawndale Street (*Mason Park*)
- Lawndale Street (*Mason Park*) to Old Spanish Trail
- Calhoun Road to Ardmore Street
- Ardmore Street to Holcombe Boulevard
- Holcombe Boulevard to South Braeswood Boulevard
- South Braeswood Boulevard to Bertner Avenue Bridge
- West Houston Center Boulevard to State Highway 6

Mike Driscoll Park (Old Westheimer) Stormwater Detention Basin (HCFCD Unit D500-01-00) – Completed in March 2007, the 47-acre Mike Driscoll Park Stormwater Detention Basin is located at West Houston Center Boulevard and the Westpark Tollway and can hold approximately 200 million gallons of stormwater during heavy rain events. Harris County Precinct 3's Mike Driscoll Park was named in honor of Mike Driscoll, who served as Harris County Attorney from 1981 through 1996. The park features a playground, picnic area and a 1.13-mile walking trail around the basin.

Arthur Storey Park Stormwater Detention Basin (HCFCD Unit D500-06-00) – Completed in 2008, the 211-acre Arthur Storey Park Stormwater Detention Basin is located west of the West Sam Houston Tollway between Bellaire and Beechnut Street in southwest Houston. The basin can store 1.1 billion gallons of stormwater during heavy rains and is located next to Harris County Precinct 3's Arthur Storey Park, which was named in honor of Arthur L. Storey, Jr., P.E., executive director of the Harris County Public Infrastructure Department. The park includes a gazebo, walking/running trails, playground equipment, picnic tables, a Tai Chi court and a meeting room/learning center. The basin is also popular with bird watchers, who have spotted nearly 40 species at the basin.

Bridges – Of the 32 bridges on Brays Bayou that are scheduled to be replaced or modified to accommodate channel modifications, nine are completed:

- Fannin Street (*roadway bridge*)
- Old Spanish Trail (*roadway bridge*)
- Holcombe Boulevard (*pedestrian bridge*)

- Holcombe Boulevard (*roadway bridge*)
- State Highway 288 (*roadway bridge*)
- South McGregor Way (*roadway bridge*)
- South Braeswood Boulevard (*roadway bridge*)
- Atwell Street (*pedestrian bridge*)
- Bob White Street (*pedestrian bridge*)

Routine and Completed Maintenance Projects

The Harris County Flood Control District oversees more than 2,500 miles (about the distance from Los Angeles to New York City) of bayous and creeks and routinely performs maintenance projects to repair bayous and stormwater detention basins that have experienced erosion, slope failure and sediment buildup. The Flood Control District also plants native grasses, wildflowers and trees to help reduce erosion, and mows approximately 51,600 acres of Flood Control District right-of-way along bayous, creeks and stormwater detention basins.

Mowing and vegetation maintenance – The Flood Control District performs routine cyclical maintenance, including mowing right-of-way along bayous, creeks and stormwater detention basins in the Brays Bayou watershed. The Flood Control District also performs selective clearing of invasive trees and vegetation.

Tree and wildflower plantings – In the 2011-12 planting season, the Flood Control District planted more than 1,100 trees in the Brays Bayou watershed. Loblolly pine, bald cypress and laurel oak are just a few of the tree species planted along the tributary formally identified as HCFCD Unit D129-04-00; and green ash, river birch and southern magnolia trees were planted along HCFCD Unit D129-03-00. In addition to previous plantings, the Flood Control District planted more than 200 trees, including the cherry laurel, redbud and yaupon species, at the Eldridge Stormwater Detention Basin and nearly 750 trees, including the arrowwood, cedar elm and red maple species, at the Willow Waterhole Stormwater Detention Basin in the 2010-11 planting season. In 2010 and 2011, the Flood Control District seeded more than 26 acres along Brays Bayou with several species of wildflowers, including showy primrose, Texas bluebonnet and bird's eyes.

Project Brays tree rescue and relocation – As part of Project Brays, the Flood Control District had to remove 154 trees from the banks of Brays Bayou to make way for a wider channel between Fannin and Calhoun. The District utilized special techniques to uproot, transport and replant the trees in the City of Houston's Hermann Park as well as other areas along Brays Bayou.

Brays Bayou Channel Repair – In early 2010, the Flood Control District completed construction of a maintenance project, formally identified as D100-00-00-X049, to repair severe erosion and slope failures and to remove sediment along Brays Bayou from Beechnut Street to Country Creek Drive. The project cost approximately \$1.2 million and included the replacement of failed stormwater outfall pipes and installation of steel sheet pile walls and backslope interceptor structures and swales.

What We Do

The Harris County Flood Control District was initially created in 1937 to serve as a local partner to the U.S. Army Corps of Engineers to build projects that reduce flooding risks and damages from major bayous and creeks in Harris County. While the District still fulfills that role, its responsibilities and capabilities have expanded over the years. The mission of the Flood Control District is to provide flood damage reduction projects that work, with appropriate regard for community and natural values. The Flood Control District accomplishes its mission by devising flood damage reduction plans, implementing the plans and maintaining the infrastructure.

For more information about the Brays Bayou watershed, its studies and projects, or the Flood Control District, please visit our website at www.hcfcd.org. For more information on a particular study or project, please call the Harris County Flood Control District's Project and Study Information Line at (713) 684-4040.