Virtual Public Meeting

February 27, 2024, from 6:30 to 7:30 p.m.

HARRIS COUNTY FLOOD CONTROL DISTRICT

HARRIS COUNTY 2018 BOND PROGRAM FLOOD CONTROL DISTRICT

Grand Parkway at Clay Stormwater Detention Basin

Project ID: U501-07-00-E001

Lesley Briones

Commissioner, Harris County Precinct 4

Meeting Overview / How to Participate

Introduction	**6:30 to 6:35 p.m.**
Project Presentation, including: • Project Overview • Timeline • Next steps	**6:35 to 6:50 p.m.**
Virtual Q&A Session	**6:50 to 7:30 p.m.**
Meeting Concludes	**7:30 p.m.**

Joining the Meeting

Presentation Date
6:30 to 7:30 p.m.

Join online at:
PublicInput.com/GPClay2
Join by phone at **855-925-2801**
(Meeting Code:2397)

Melissa Meyer

Engineering Division Manager

Harris County Flood Control District

Harris County Flood Control District

- Special purpose district created in 1937 by the Texas Legislature in response to floods that devastated the Houston-area in 1929 and 1935
- Governed by the Harris County Commissioners Court
- Works closely with other regional entities
- Serves as a local partner to leverage federal dollars for flood damage reduction efforts

Our Mission

Provide flood damage reduction projects that work, with appropriate regard for community and natural values.

Cypress Park in the Cypress Creek watershed

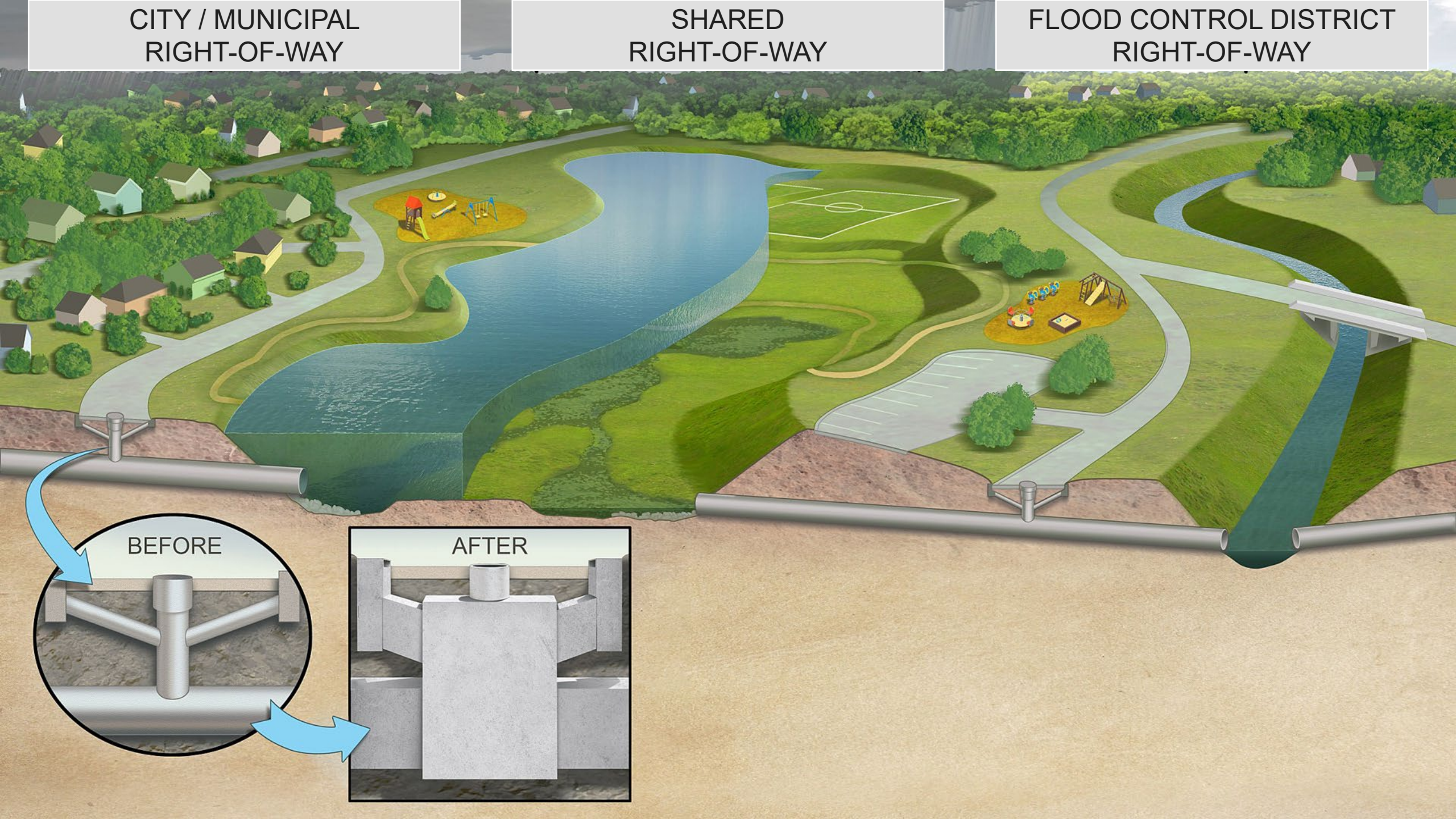
Harris County Watersheds

What is a watershed?

A geographical region of land or "drainage area" that drains to a common channel or outlet, mostly creeks and bayous in Harris County. Drainage of the land can occur directly into a bayou or creek, or through a series of systems that may include storm sewers, roadside ditches, and/or tributary channels.

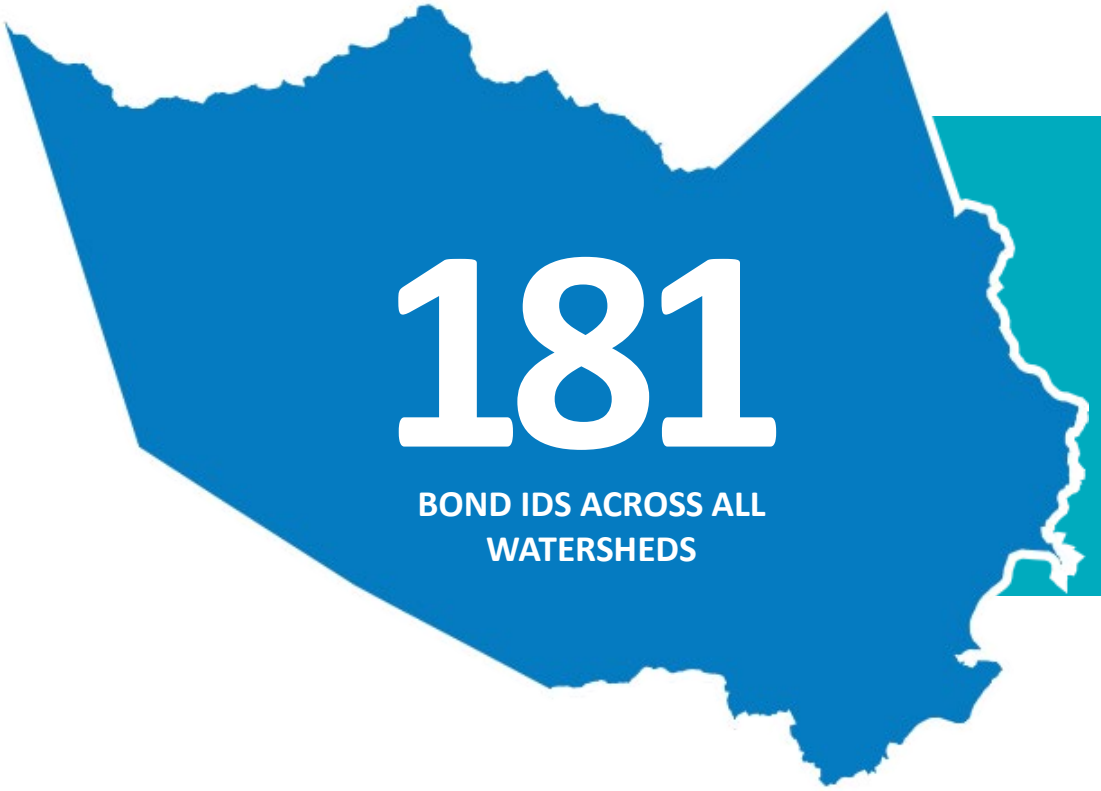
Why is Harris County Flood Prone?

- Subject to extreme rainfall, including tropical storms and hurricanes
- Flat, slow-draining landscape
- Clay soils that do not soak up excess rainfall quickly


CITY / MUNICIPAL
RIGHT-OF-WAY
SHARED
RIGHT-OF-WAY
FLOOD CONTROL DISTRICT
RIGHT-OF-WAY
BEFORE
AFTER

2018 Bond Program Overview

www.hcfcd.org/2018bondprogram



181

BOND IDS ACROSS ALL WATERSHEDS

$2.5B

IN BOND FUNDS APPROVED ON AUGUST 25, 2018

38

PROJECTS ADDED BASED ON COMMUNITY INPUT ($400M)

HARRIS COUNTY FLOOD CONTROL DISTRICT

Grand Parkway at Clay Stormwater Detention Basin

U501-07-00-E001

HARRIS COUNTY 2018 BOND PROGRAM FLOOD CONTROL DISTRICT

Progress Toward Resilience

Data from the October 2023 Update to Harris County Commissioners Court

29

PROJECTS COMPLETED OR CLOSED
SINCE 2018

$1.7B

PARTNER FUNDING SECURED
GRANTS AND LOCAL PARTNERSHIPS

195

COMMUNITY ENGAGEMENT MEETINGS
15,000 ATTENDEES & 9,000 COMMENTS

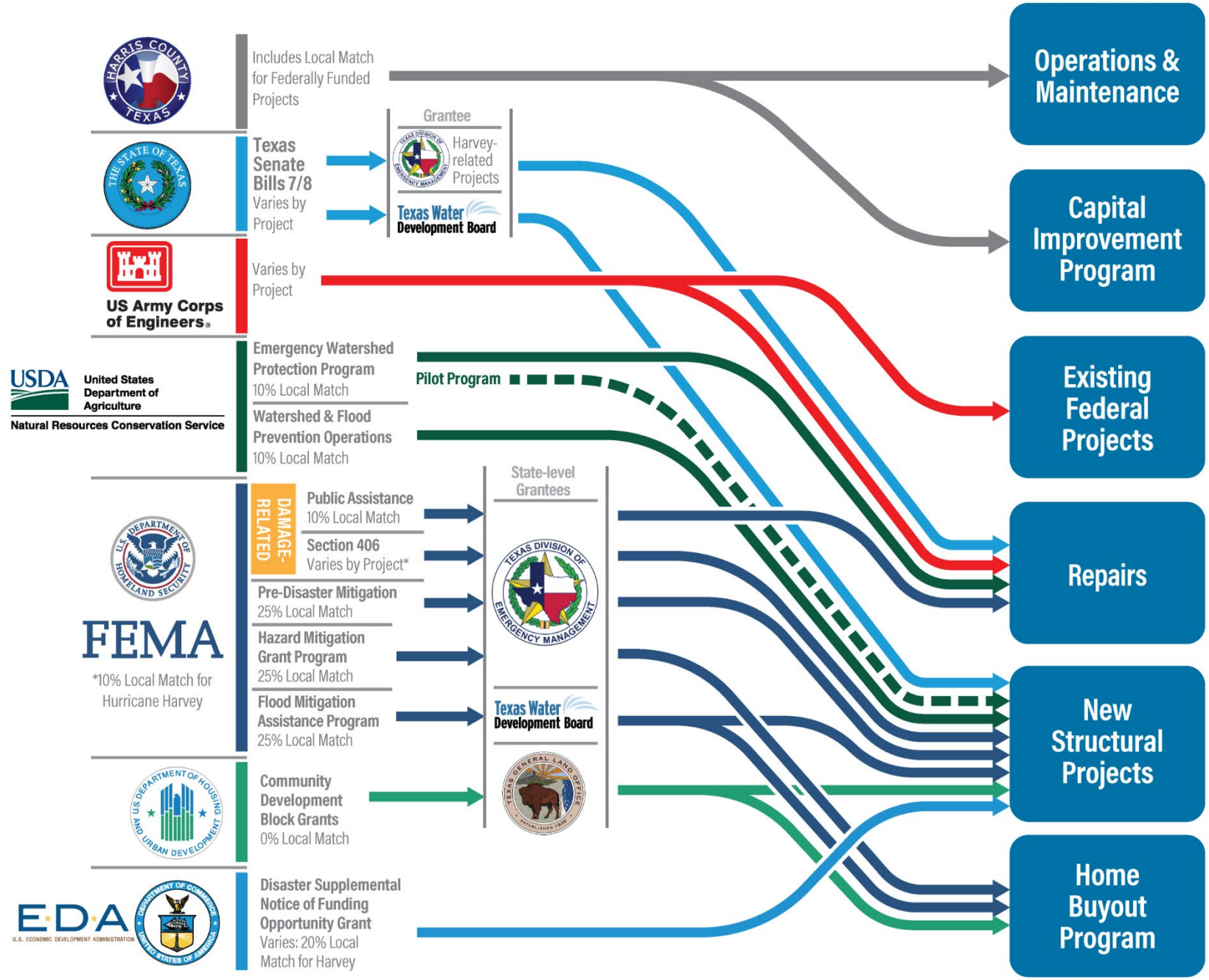
Project Hunting Channel Segments
Hunting Bayou

Hopper Stormwater Detention Basin
Halls Bayou

Pillot Gully Erosion Repair
Cypress Creek

Bauer Hockley Stormwater Detention Basin Little Cypress Creek

How is HARRIS COUNTY FLOOD CONTROL DISTRICT funded for disaster recovery & resiliency?



Grand Parkway at Clay Stormwater Detention Basin

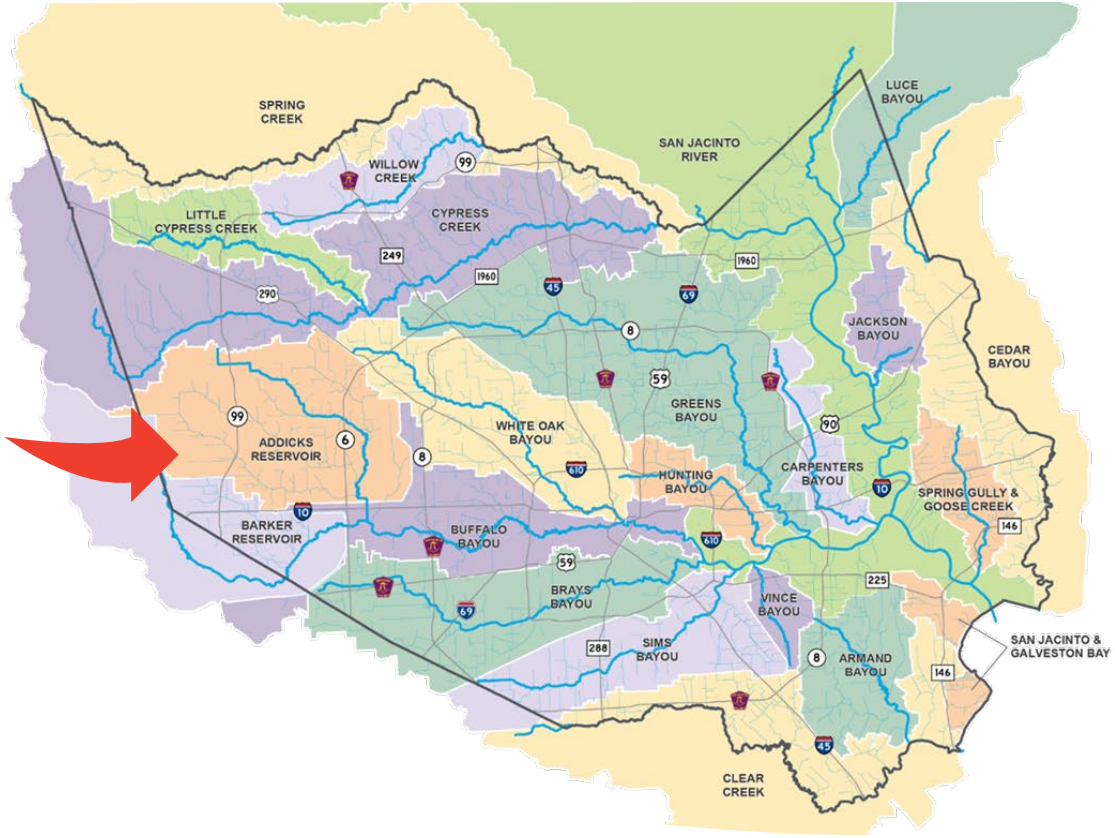
HCFCD Project ID: **U501-07-00-E001**

Bond ID: **C-48**

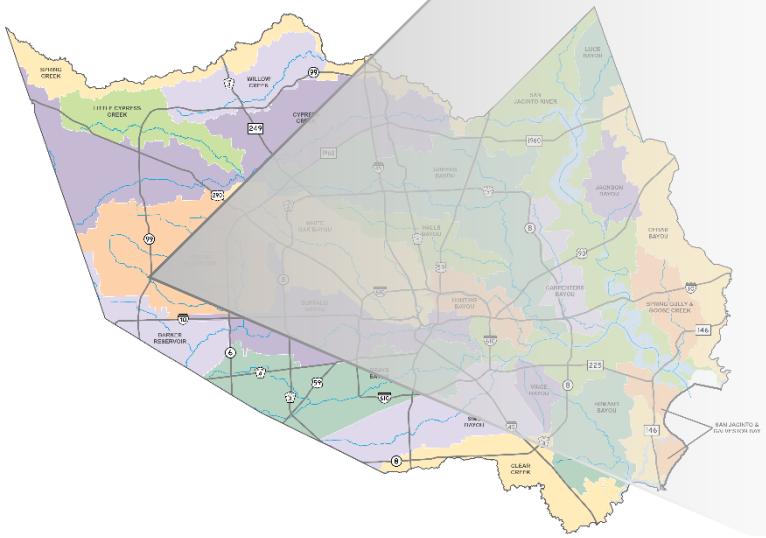
Addicks Reservoir Watershed

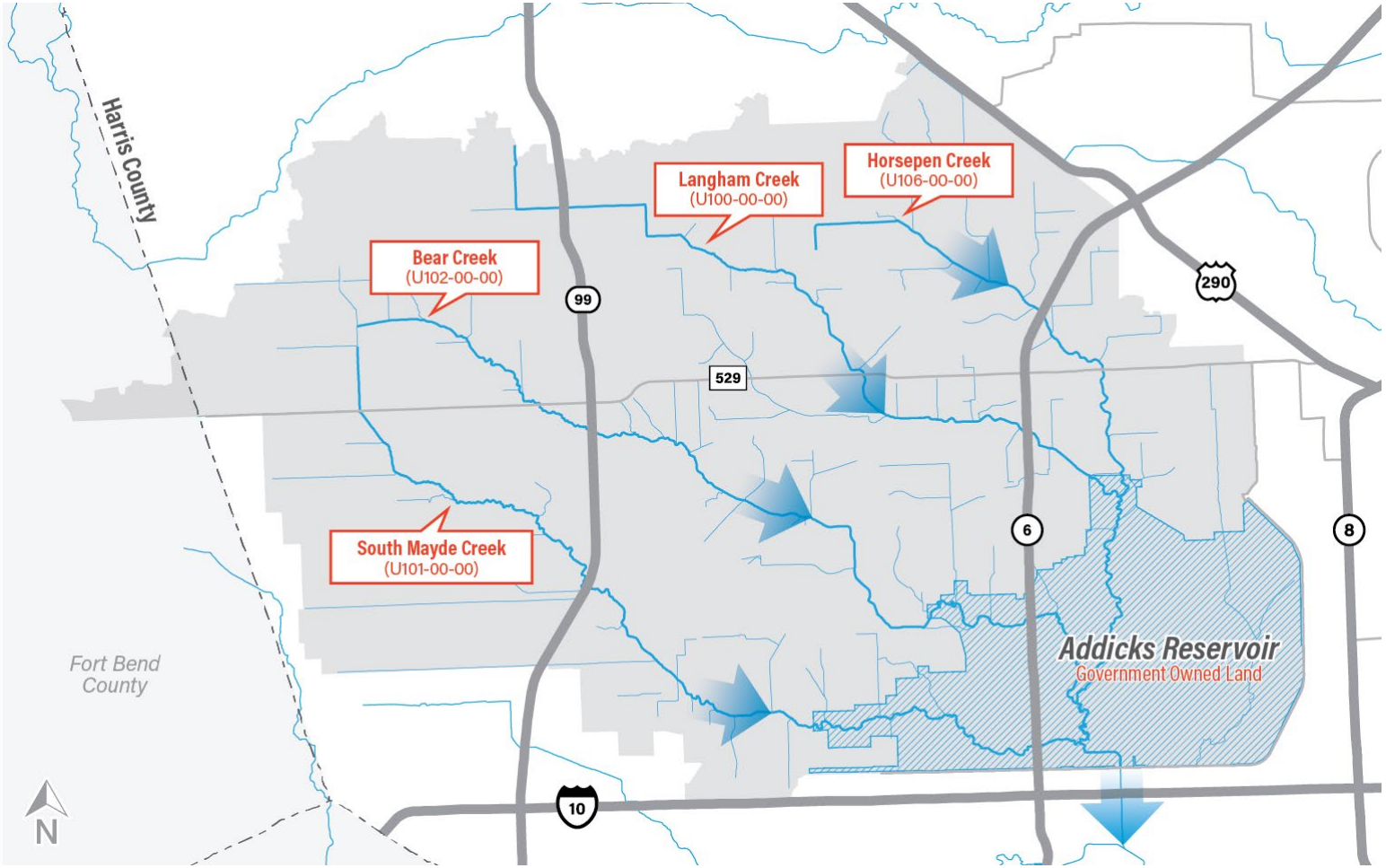
Key characteristics:

- 138 square miles of the watershed drains into Langham Creek
- Receives natural stormwater overflow from Cypress Creek
- Watershed eventually drains into Buffalo Bayou
- 2020 Census estimates population of 390,402
- Includes Addicks Reservoir (built in 1940 to reduce flooding along Buffalo Bayou)
    - Operated by U.S. Army Corps of Engineers



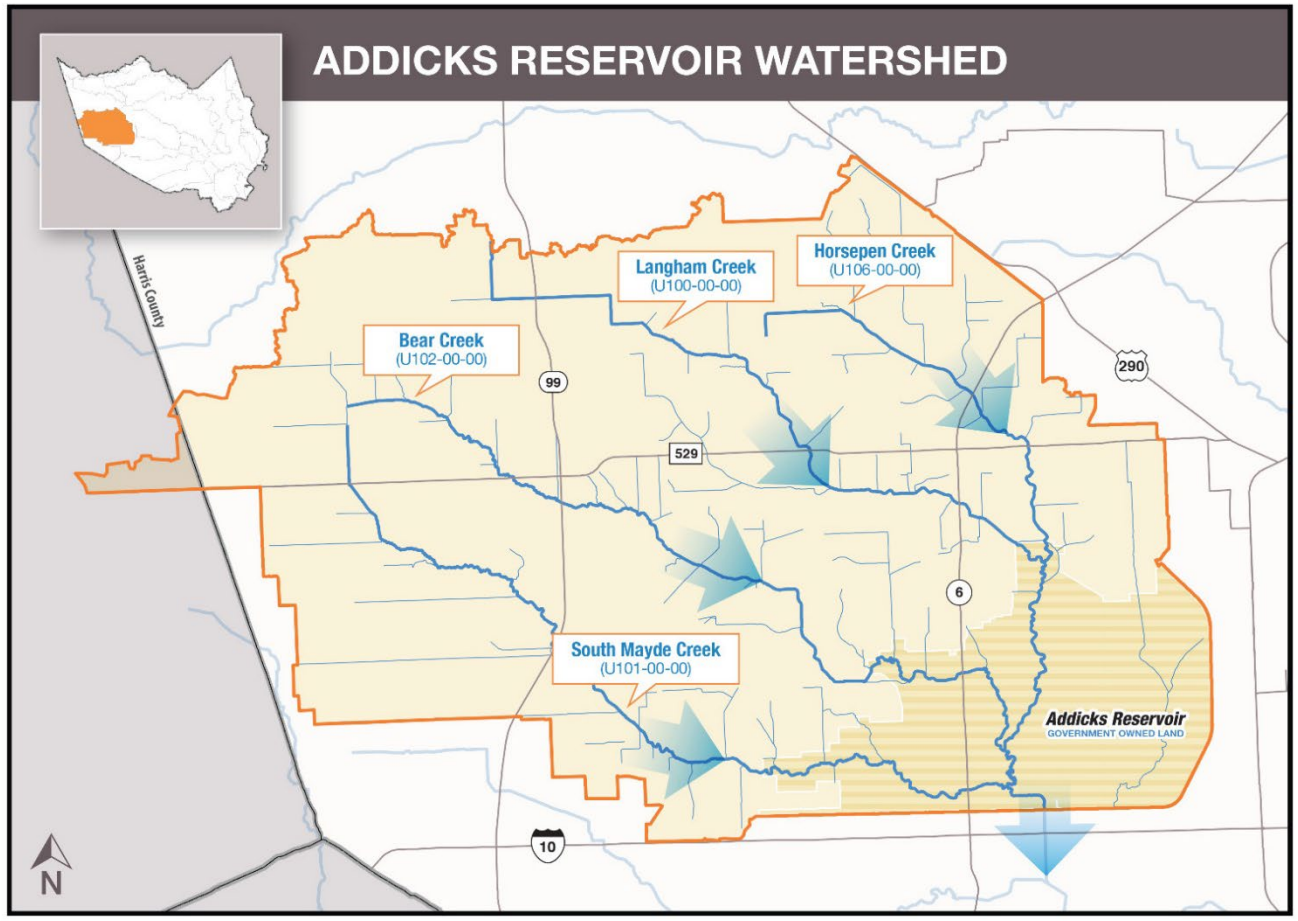
Addicks Reservoir Watershed





Addicks Reservoir Watershed

- Located in western Harris County with a small portion in Waller County
- There are 159 miles of open waterways, including Langham Creek and its major tributaries:
  - South Mayde Creek
  - Bear Creek
  - Horsepen Creek



Project Overview

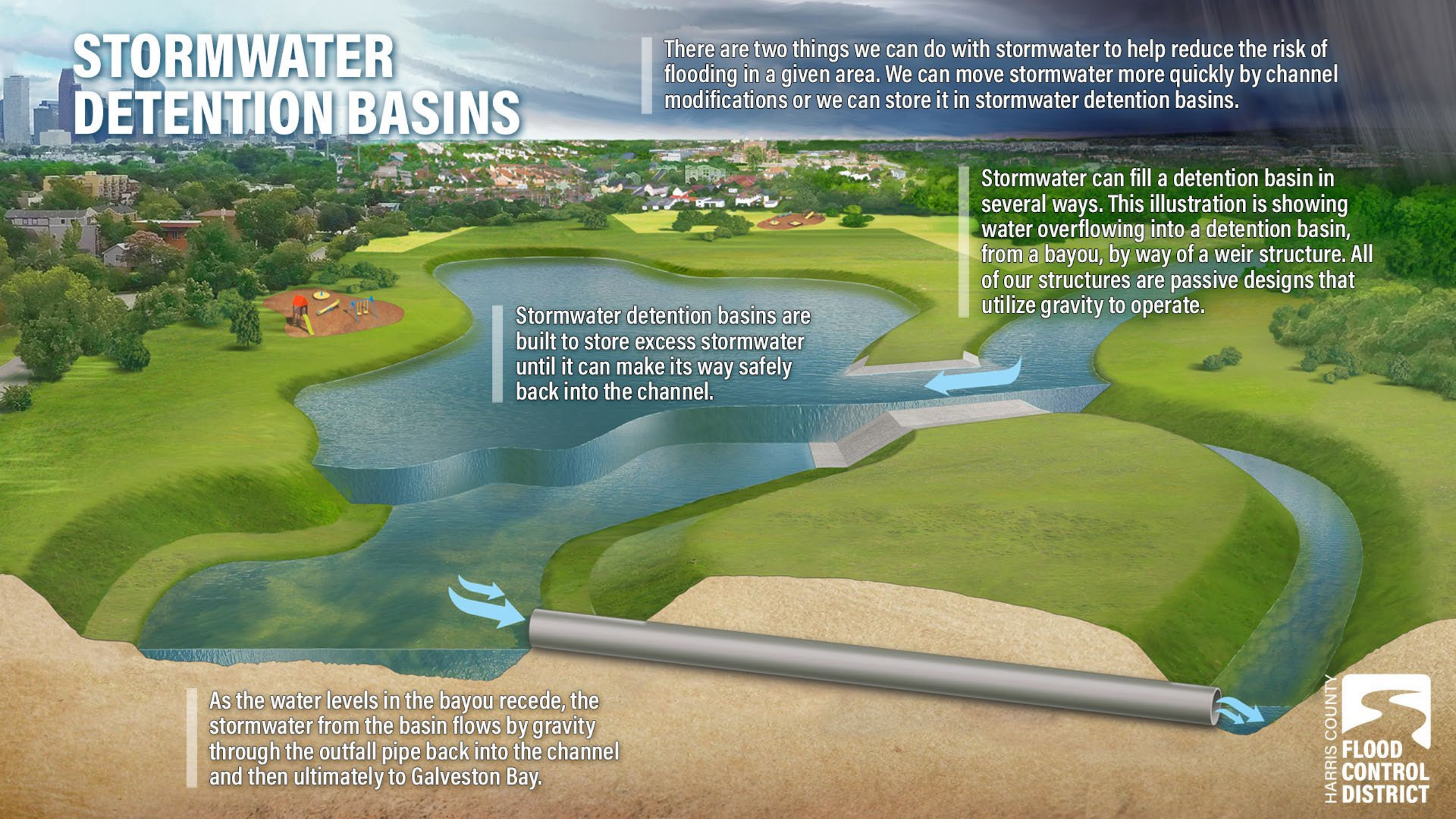
- Purpose: reduce flooding risk in this segment of South Mayde Creek and surrounding area
- The project area is located along South Mayde Creek and bordered by Peek Road on the west, Grand Parkway on the east, Clay Road on the south and Stockdick School Road on the north
- Creation of regional detention basin that includes four compartments W2, W3 (North and South), W4

Project Overview, contd.

- Feasibility Study in 2017 recommended stormwater detention basin for South Mayde Creek sub-watershed
- June 24, 2021: the Flood Control District held a community engagement meeting
- October 26, 2021: a Preliminary Engineering Report (PER) was presented to and approved by Harris County Commissioner's Court
  - Included an alternative for a basin that will maintain permanent pool of water for maximum detention

STORMWATER DETENTION BASINS

There are two things we can do with stormwater to help reduce the risk of flooding in a given area. We can move stormwater more quickly by channel modifications or we can store it in stormwater detention basins.



Stormwater can fill a detention basin in several ways. This illustration is showing water overflowing into a detention basin, from a bayou, by way of a weir structure. All of our structures are passive designs that utilize gravity to operate.

Stormwater detention basins are built to store excess stormwater until it can make its way safely back into the channel.

As the water levels in the bayou recede, the stormwater from the basin flows by gravity through the outfall pipe back into the channel and then ultimately to Galveston Bay.

HARRIS COUNTY FLOOD CONTROL DISTRICT

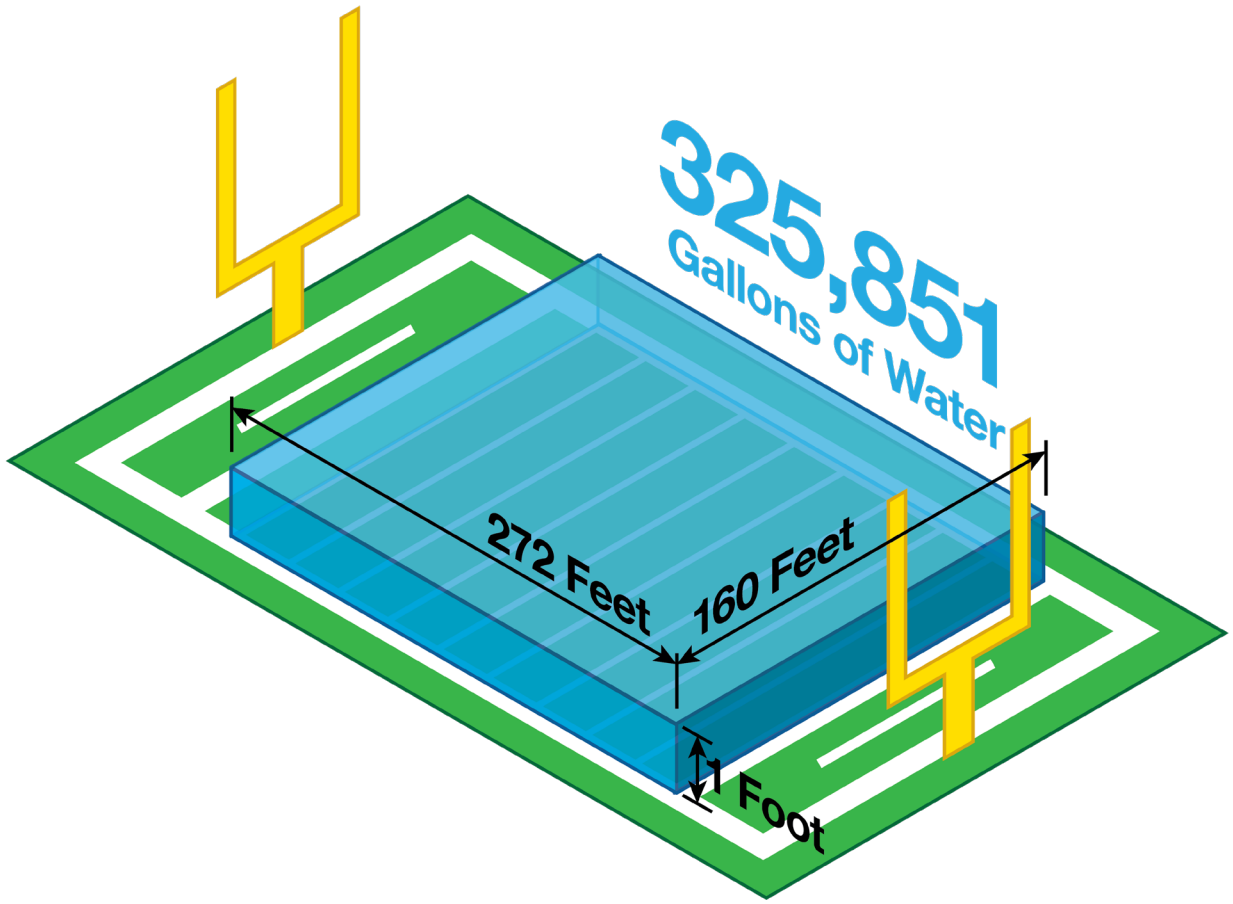
Types of Stormwater Detention Basins

Wet-Bottom Basin: Can include a permanent water pool, a vegetated shelf, and a bottom shelf.

Dry-Bottom Basin: Includes pilot channels and cross slopes to facilitate mowing and complete drainage of a basin following a storm event.

Storage Capacity

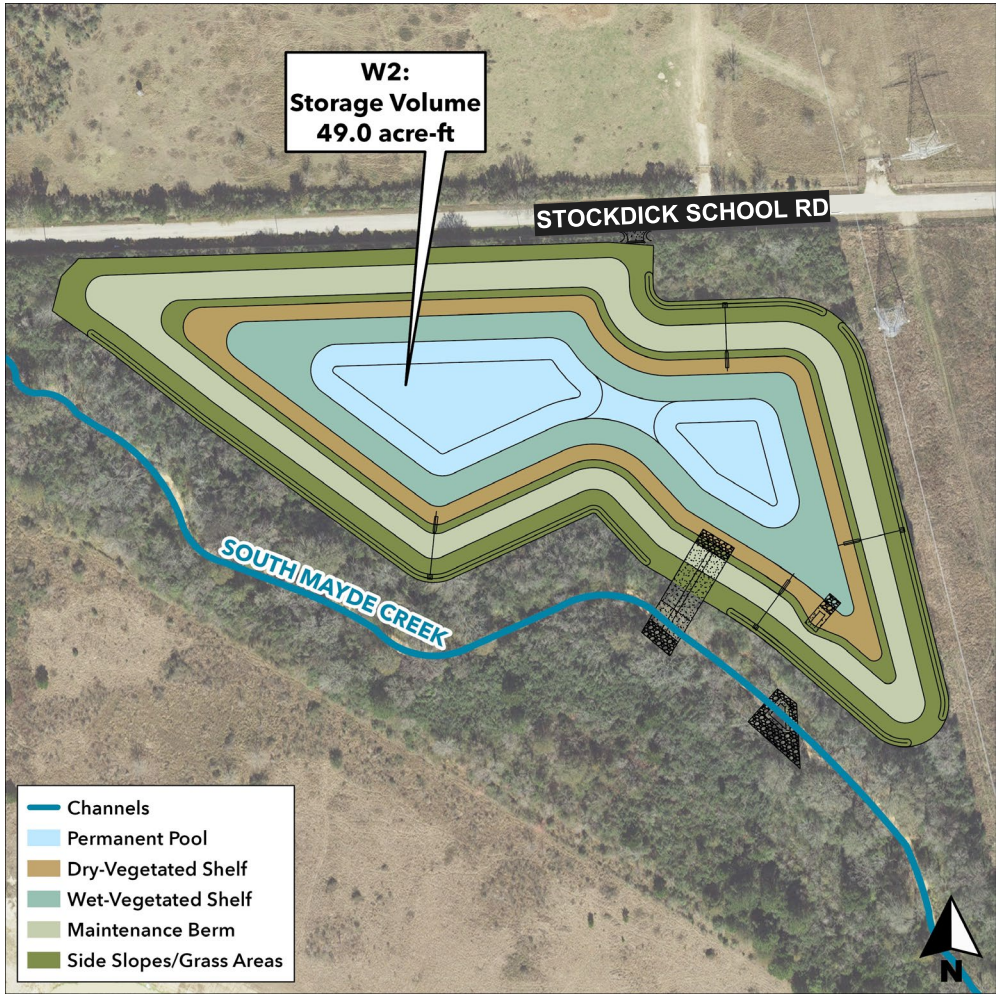
- Measured in acre-feet
- 1 acre-foot = 325,851 gallons



Basin W2

Stormwater Storage

- One of four compartments
- 49 acre-feet storage capacity



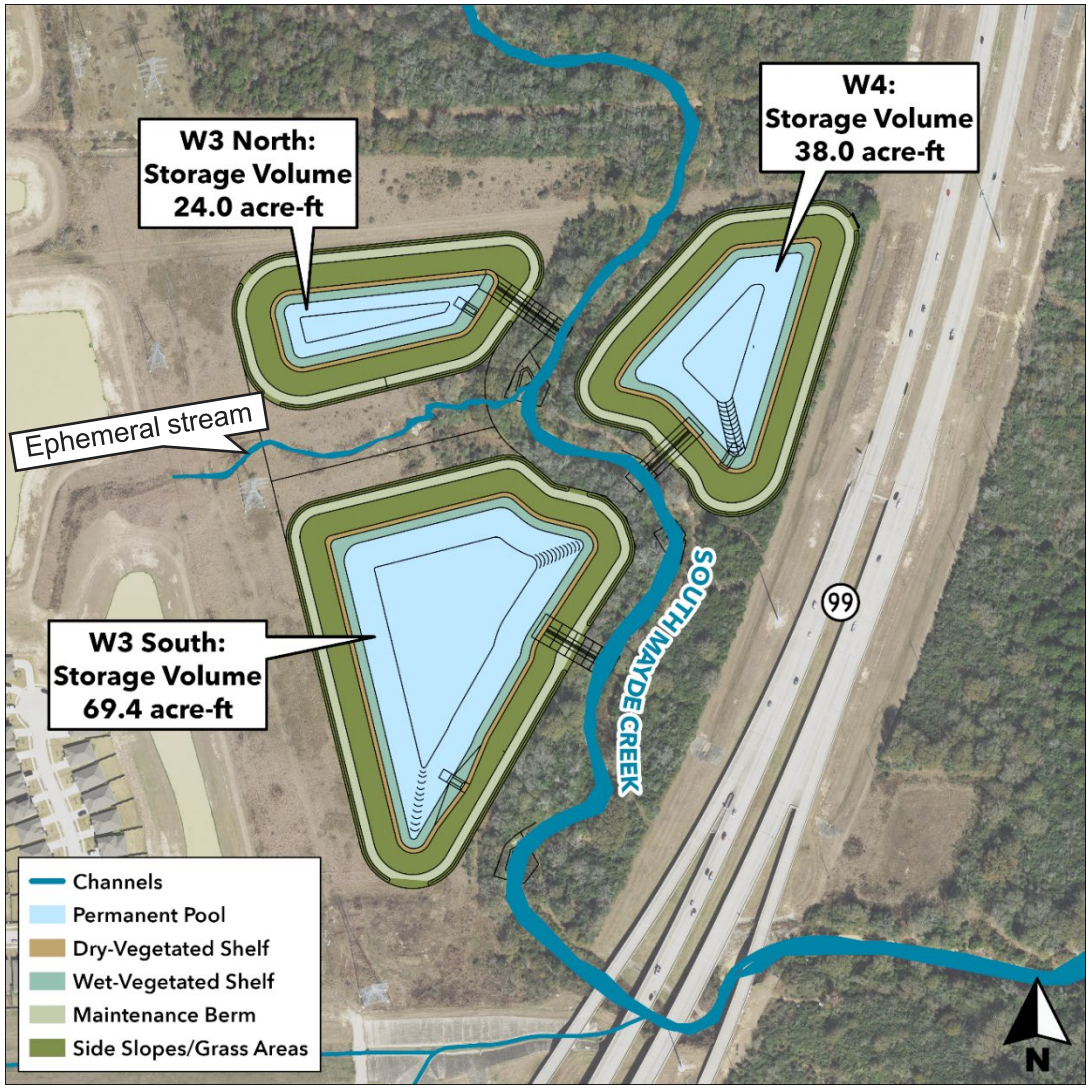
The above data is for a 100-year event.

Basins W3 (North and South) & W4

Stormwater Storage

- Three of four compartments:
  1. W3 North: 24 acre-feet storage capacity
  2. W3 South: 69.4 acre-feet storage capacity
  3. W4: 38 acre-feet storage capacity
- Total 131.4 acre-feet capacity for three of four compartments

The above data is for a 100-year event.



Basins W2, W3 (North and South) & W4

Total Stormwater Storage

- Total 181 acre-feet storage capacity for all four basin compartments

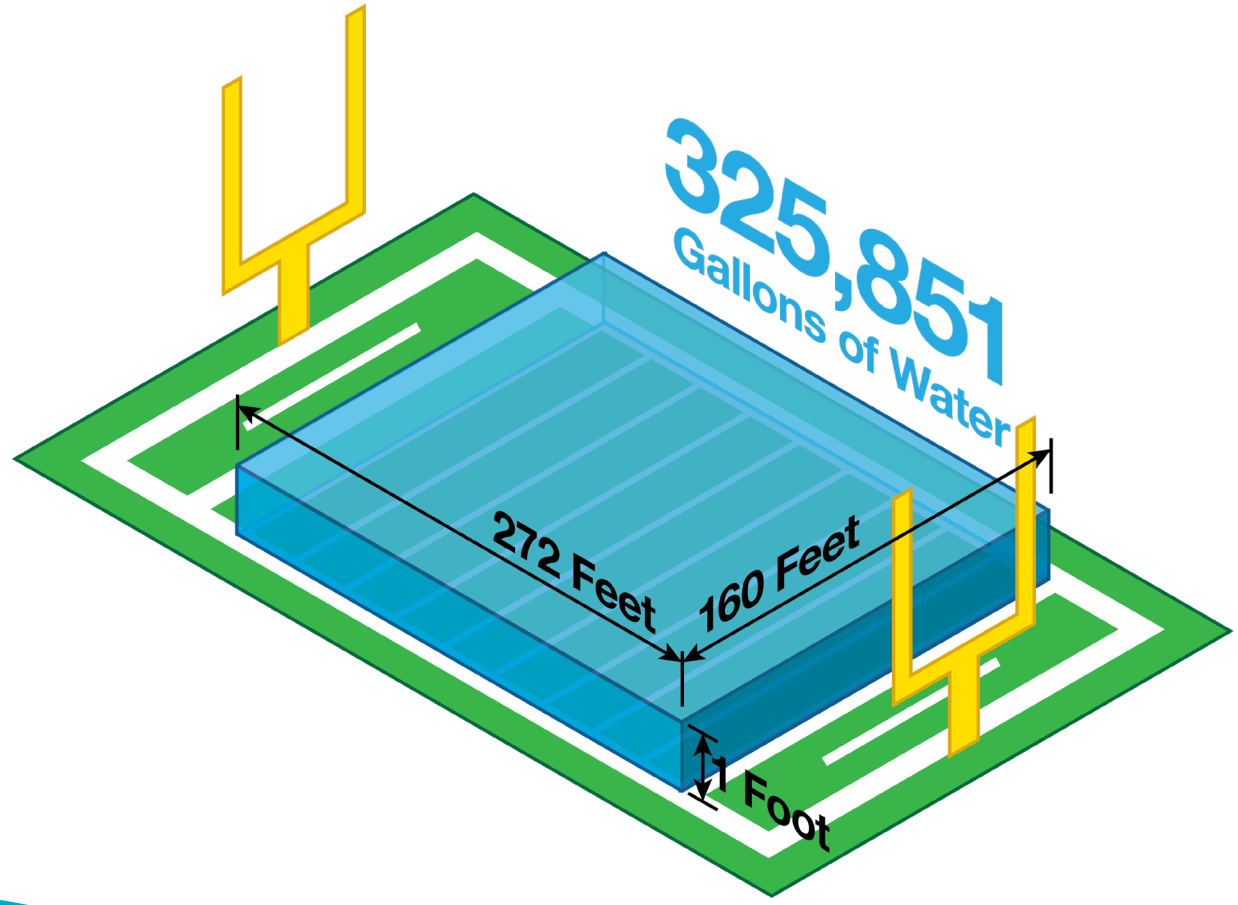
Flood Risk Reduction

- Flood reduction benefit to approximately 75 structures
- Reduction in area of inundation of approximately 44 acres

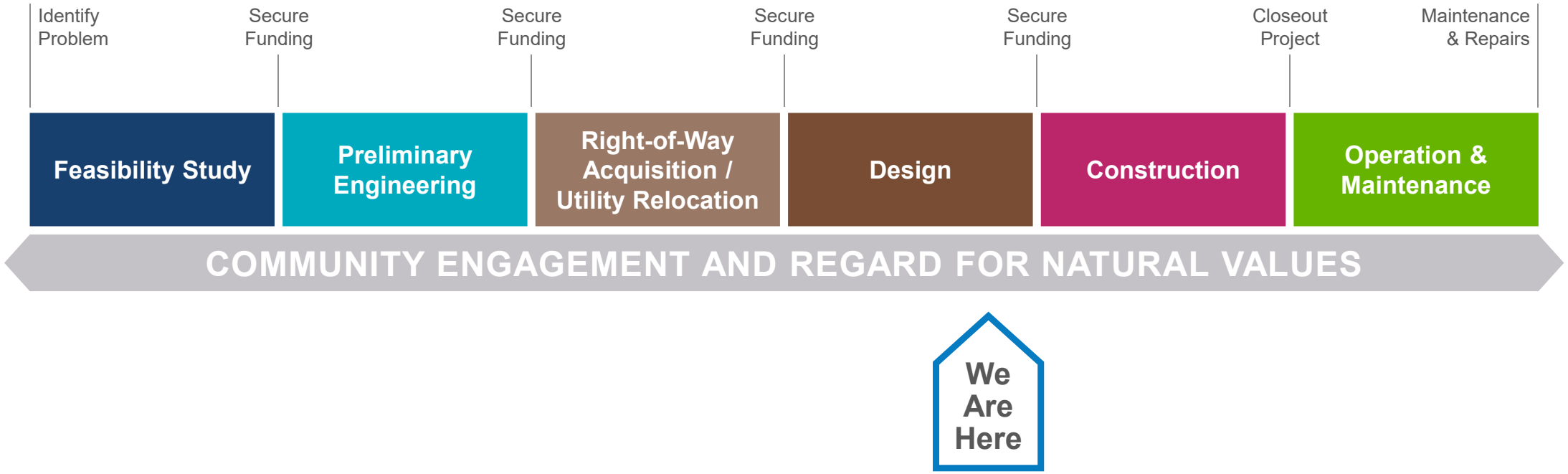
The above data is for a 100-year event.

Storage Capacity

- Measured in acre-feet
- 1 acre-foot = 325,851 gallons
- **181 acre-feet = approx. 59 million gallons**

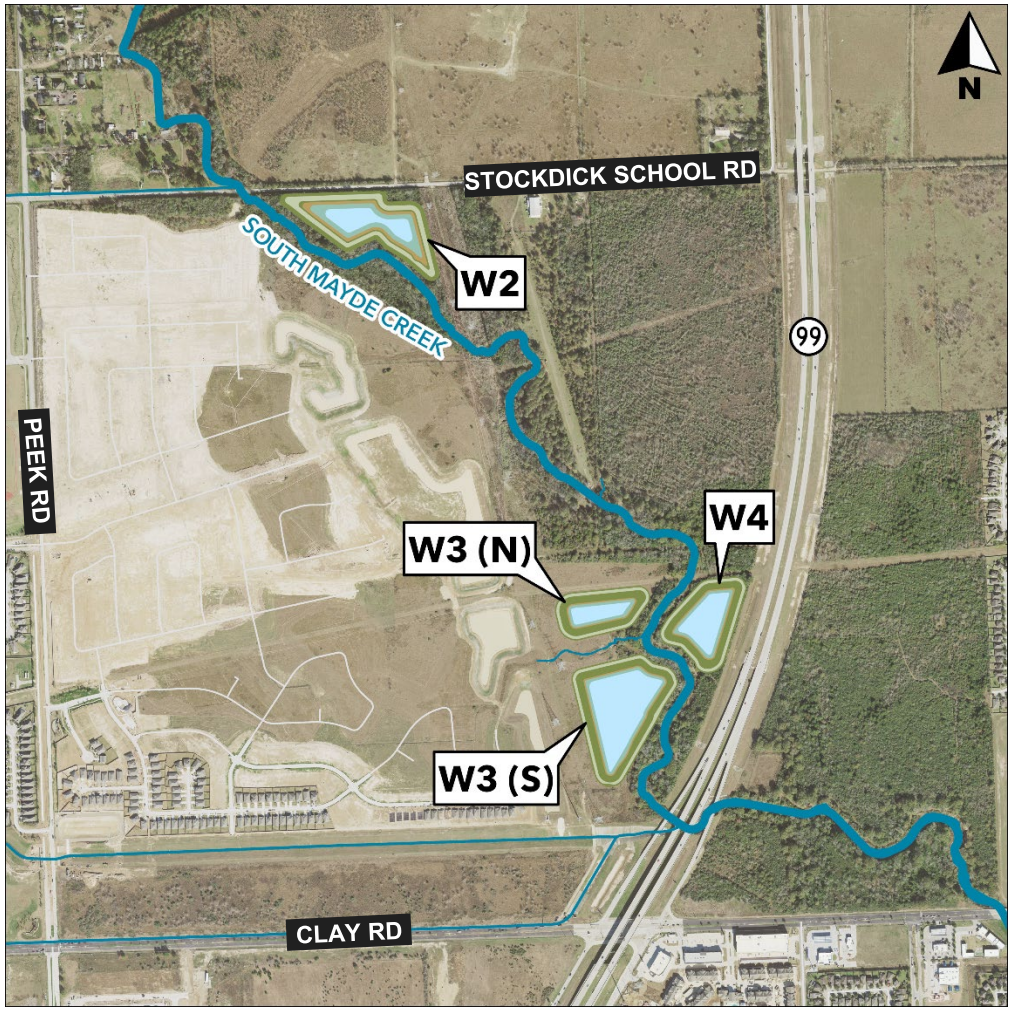


Project Lifecycle



Construction: Overview

- Anticipate construction to start in Q3 2024, pending CDBG-MIT funding
- Four basin compartments expected to be part of one construction contract
- Anticipate construction to take approximately one year



Next Steps

- Finalize the Environmental Assessment (EA) report
- General Land Office (GLO) approves the EA report to release the CDBG-MIT grant funds
- Advertise the project for bids and start the construction process
- Provide updates to the community through webpage updates and notices as construction gets underway to keep the public informed about the project
- Construction is anticipated to begin the third quarter of 2024 and anticipated to be complete by the third quarter of 2025

We want to hear from you!

Your input is critical to our efforts across Harris County.

Please visit **hcfcd.org/C48** to learn more about the **Grand Parkway at Clay Stormwater Detention Basin project**, ask questions and sign up for our mailing list.

Virtual Public Meeting Instructions

There are three ways to leave a comment about this project during tonight's session or during the comment period from February 27, through March 12:

- Submit a comment at **PublicInput.com/GPClay2**
- On the Flood Control District's website at **hcfcd.org/C48**, or
- Via phone at **855-925-2801** with Meeting Code: 2397

Any questions not addressed during tonight's Q&A will receive a response from the Flood Control District after the event. Meeting information and video will be available on:

- **hcfcd.org/C48**
- The Flood Control District's YouTube channel

GET FLOOD INSURANCE

EVERYONE NEEDS IT

Flooding conditions can occur year-round, and you do not have to live in the 100-year floodplain to be at risk.

Flood loss claims as a result of Hurricane Harvey

- Approximately 68% were outside of the FEMA mapped 100-year floodplain.

Hurricane Season: June-Nov

Flood Season: Year-round