

# Virtual Public Meeting

Thursday, October 15, 2020



**Brookglen Stormwater Detention Basin**

Project ID: B512-02-00-E001

# Meeting Overview

## Introduction

6:30 – 6:35 pm

## Project Presentation, including:

- Project Overview
- Existing Conditions
- Design Considerations
- Recommendation

6:35 – 6:50 pm

## Virtual Q&A Session

6:50 – 7:30 pm

## Meeting Concludes

7:30 pm

# How to Participate

To ask a questions during the meeting presentation, please use the chat feature at the bottom of your screen

- 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: <https://www.hcfcfd.org/B512> or the Flood Control District YouTube Channel
- Residents are also encouraged to submit comments/questions during the public comment period from October 15 – 31, 2020 at <https://www.hcfcfd.org/B512>

## Joining the Meeting

October 15, 2020  
6:30 p.m. to 7:30 p.m.

Join online at:  
[PublicInput.com/Brookglen](https://PublicInput.com/Brookglen)

Join by phone at 855-925-2801  
(Meeting Code: 9595)

# Brookglen Stormwater Detention Analysis

Marcus Stuckett, P.E.

Engineering Division Director  
Harris County Flood Control District



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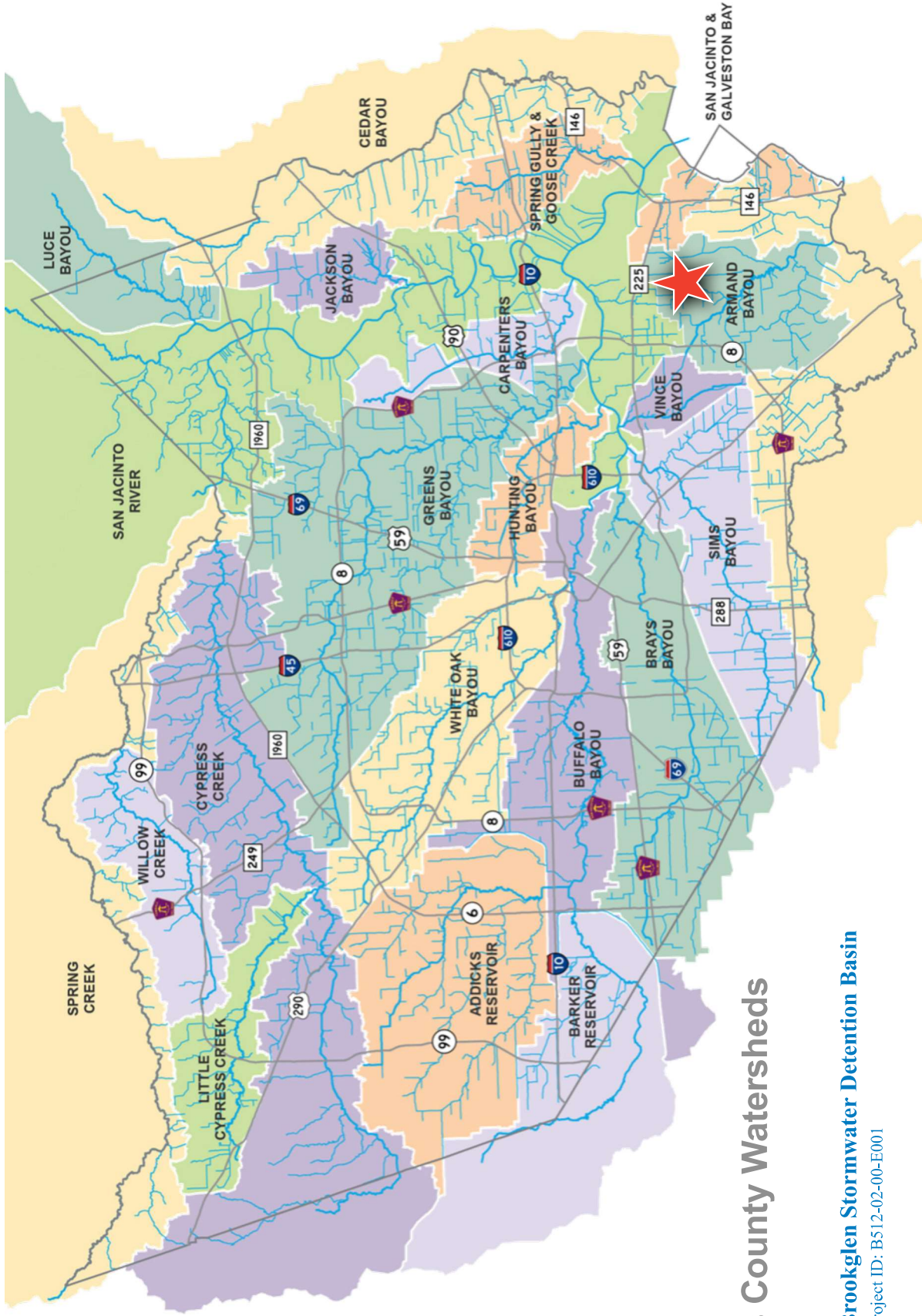


# Harris County Flood Control District

- A special purpose district created in 1937 by the Texas Legislature
- In response to floods that devastated the Houston-area in 1929 and 1935
- Serves as a local partner to leverage federal dollars for flood damage reduction
- Harris County Commissioners Court serves as our board of directors or governing body

# Our Mission

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



# Harris County Watersheds



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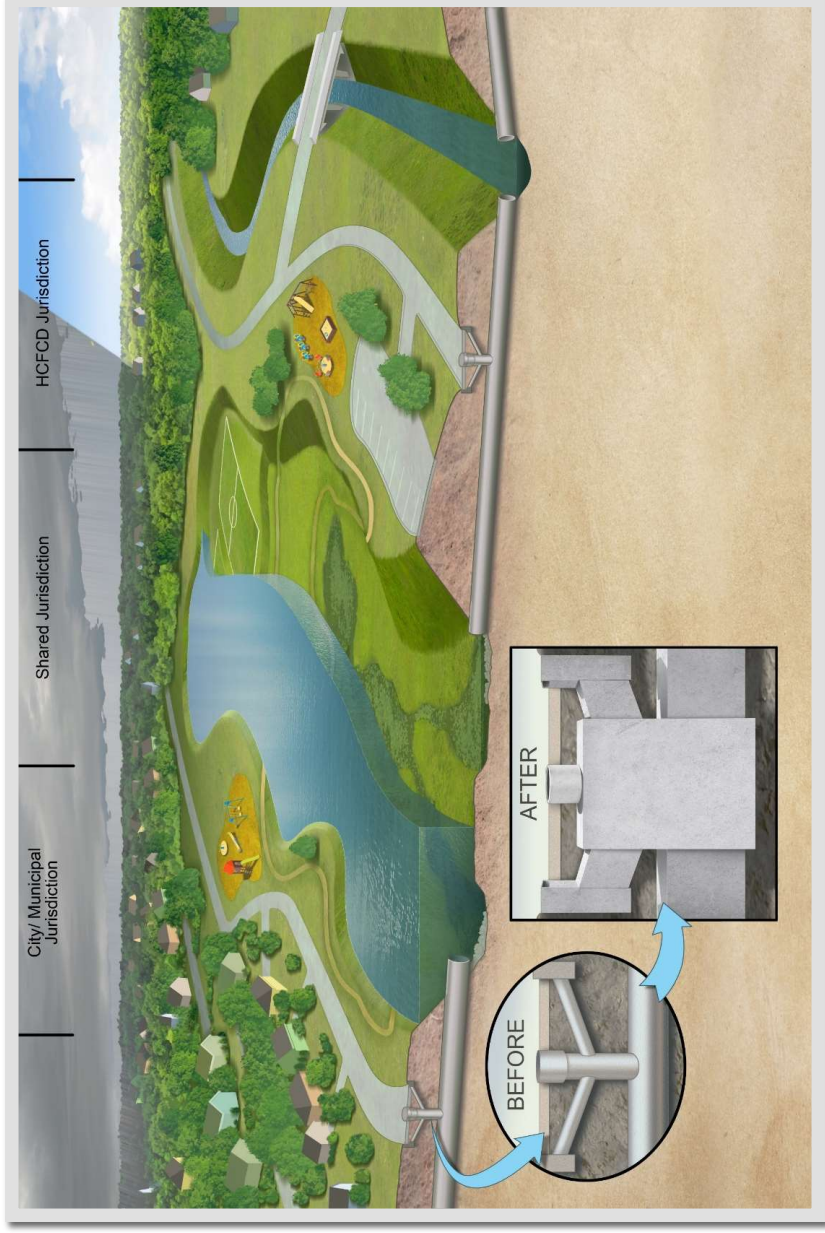
# Why Our Area Floods

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



# Jurisdiction

The Flood Control District works with other agencies, and shares jurisdiction over flooding issues in Harris County.



# Bond Approved on August 25, 2018

## As updated May 2020

- 181 projects across all watersheds (144 initiated – second quarter 2020)
- 38 projects added based on community input (\$400M+)

\$2.5B Bond funds  
+ ~\$2.4B Partner funds (\$680M received)  
= **~\$4.9B Total anticipated**



Channel  
Modification



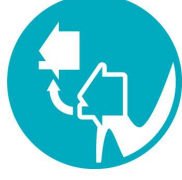
Stormwater  
Detention



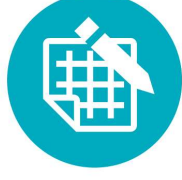
Channel  
Maintenance



Storm  
Repair



Home  
Buyouts

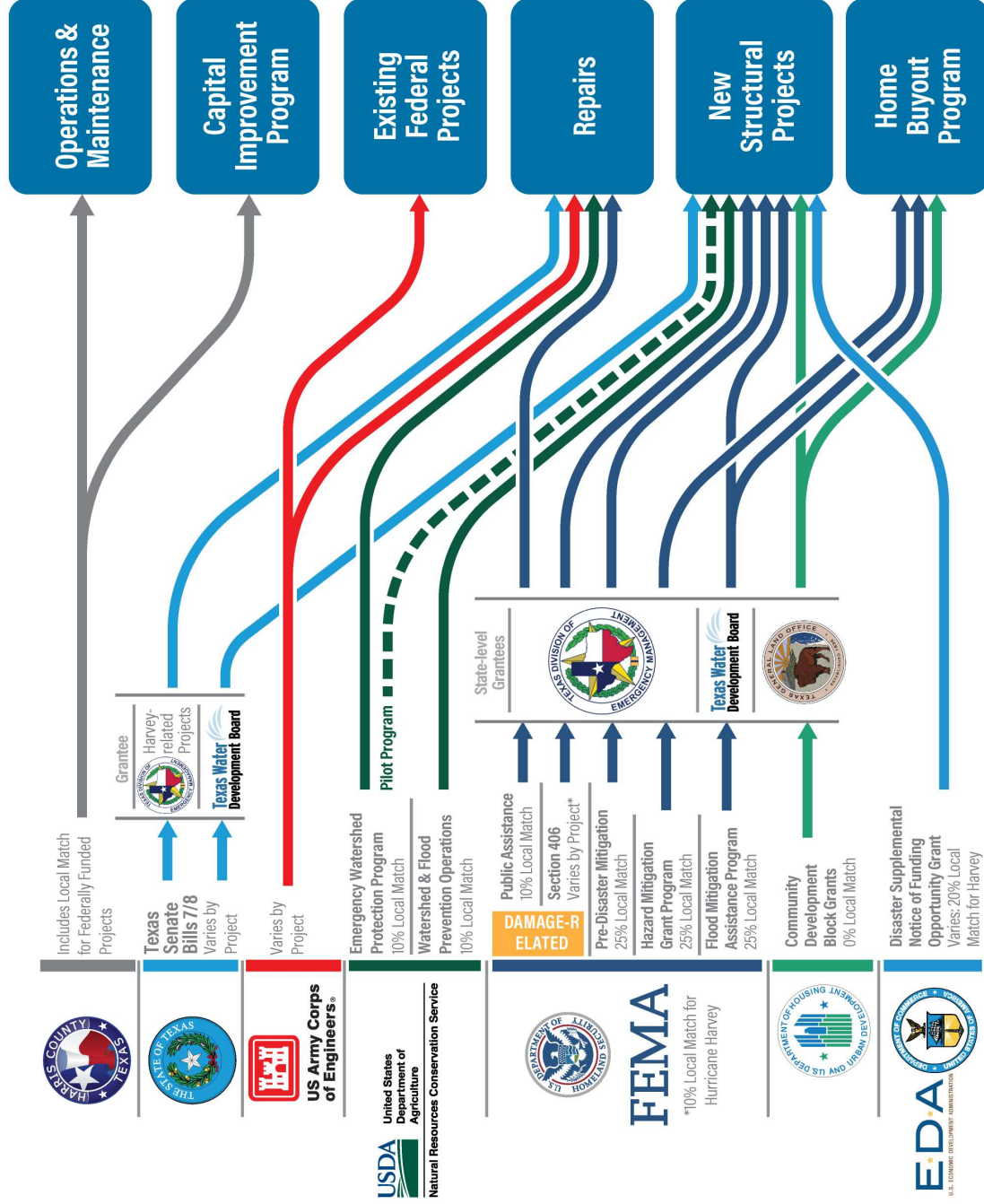


Engineering  
Study



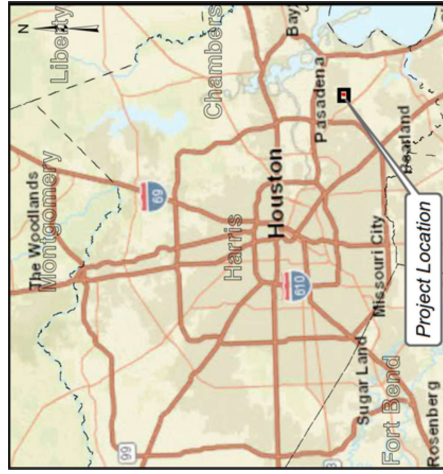
Other  
Jurisdiction

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





# Project Overview



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# Project Timeline



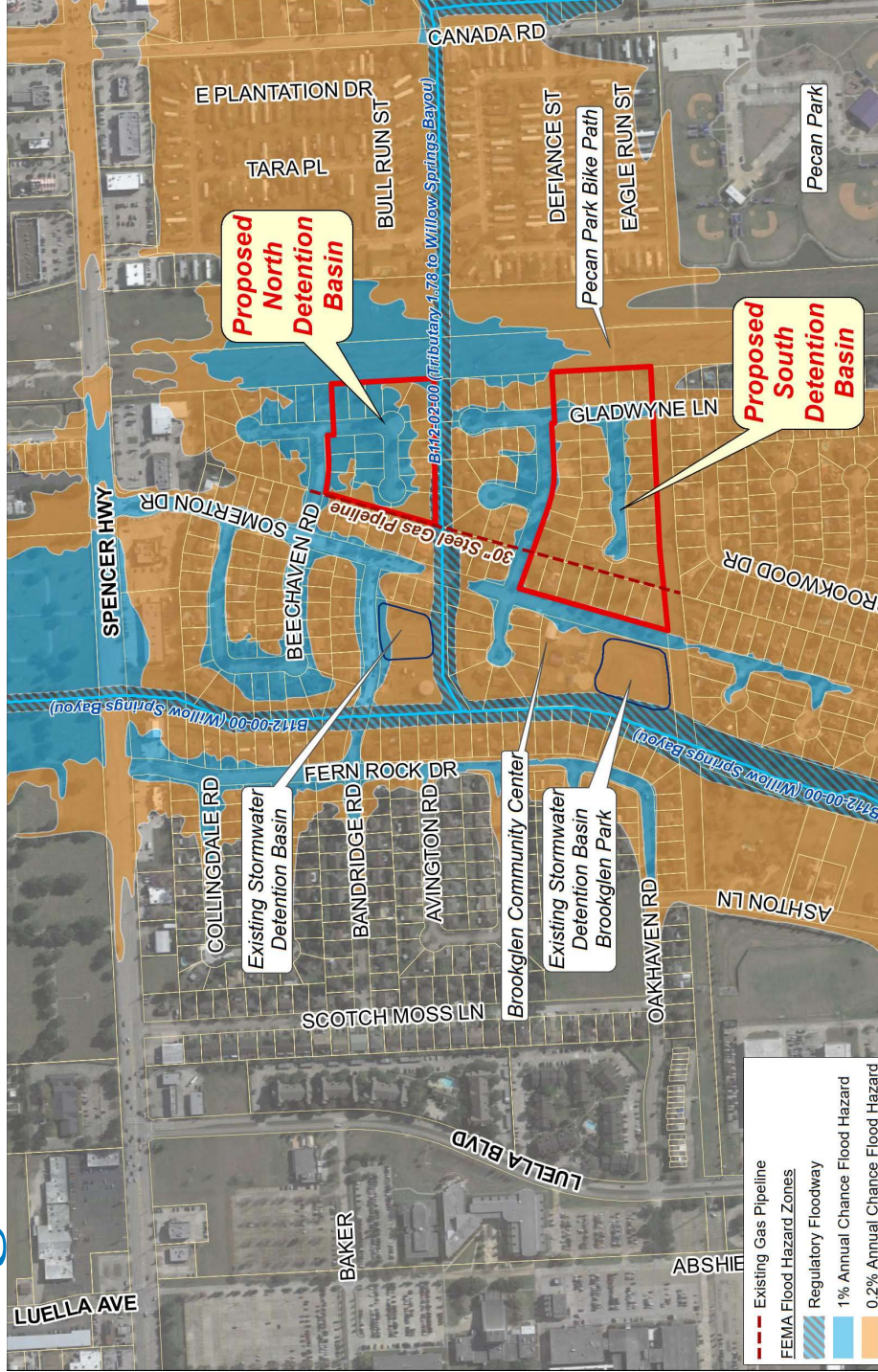
# Primary Objective

- Reduce flooding
- Part of larger plan
- Federal grant funded





# Existing Conditions



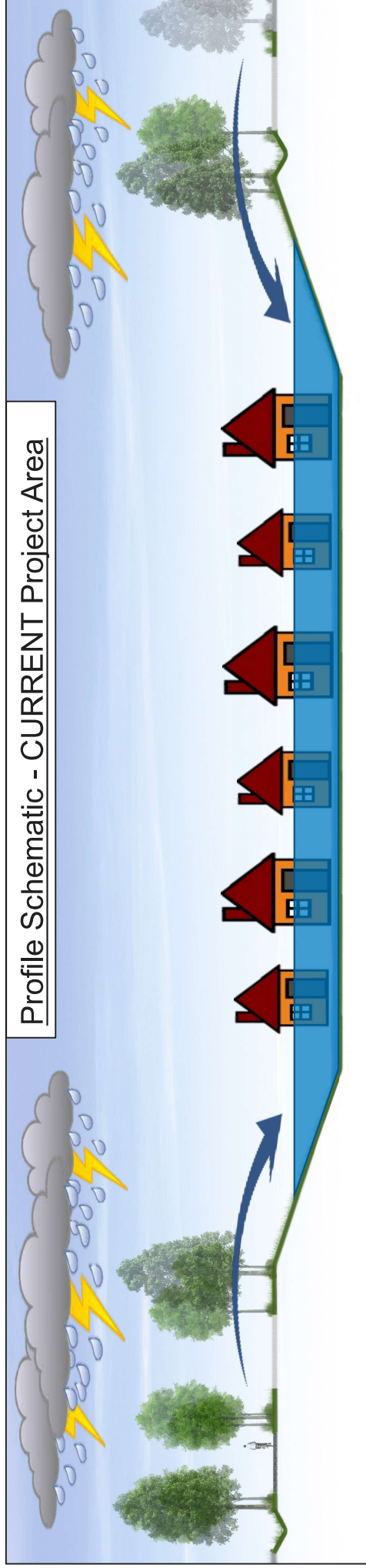
- Existing Gas Pipeline
- FEMA Flood Hazard Zones
- Regulatory Floodway
- 1% Annual Chance Flood Hazard
- 0.2% Annual Chance Flood Hazard

## Brookglen Stormwater Detention Basin

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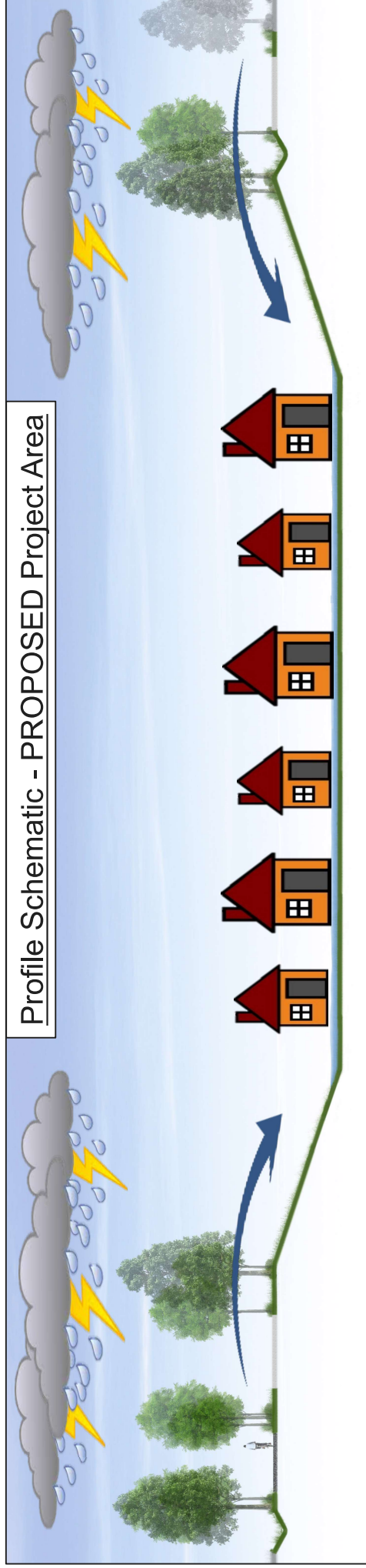


# Existing Conditions

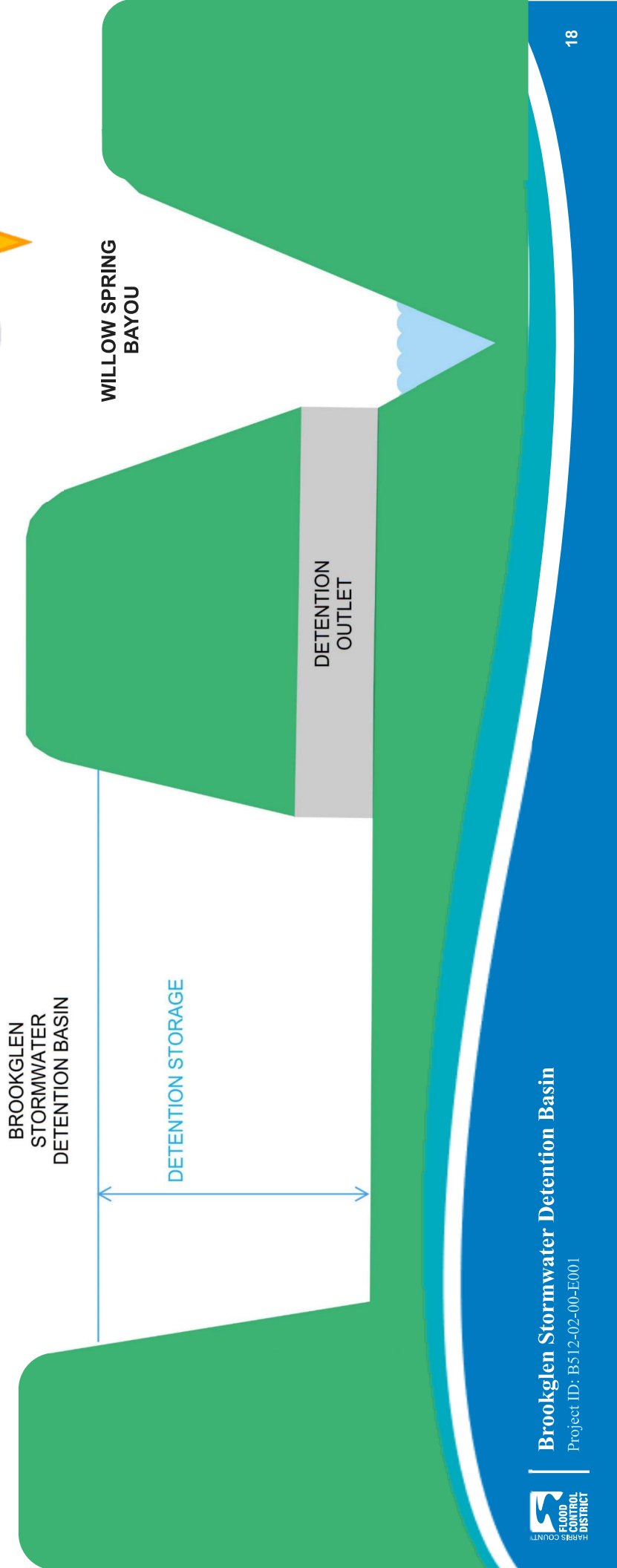




# Proposed Conditions



# Stormwater Detention Basin Function



# Stormwater Detention Basin Function



BROOKGLEN  
STORMWATER  
DETENTION BASIN

DETENTION STORAGE

WILLOW SPRING  
BAYOU

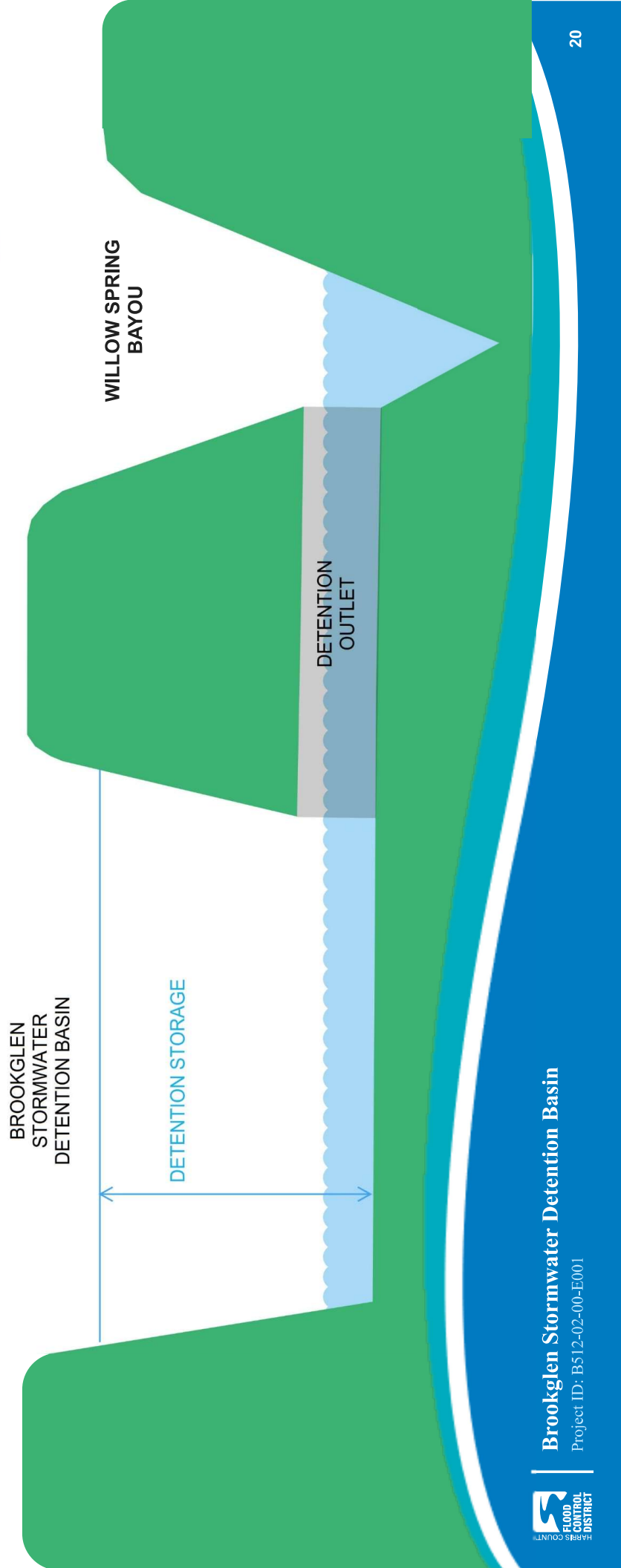
DETENTION  
OUTLET



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# Stormwater Detention Basin Function

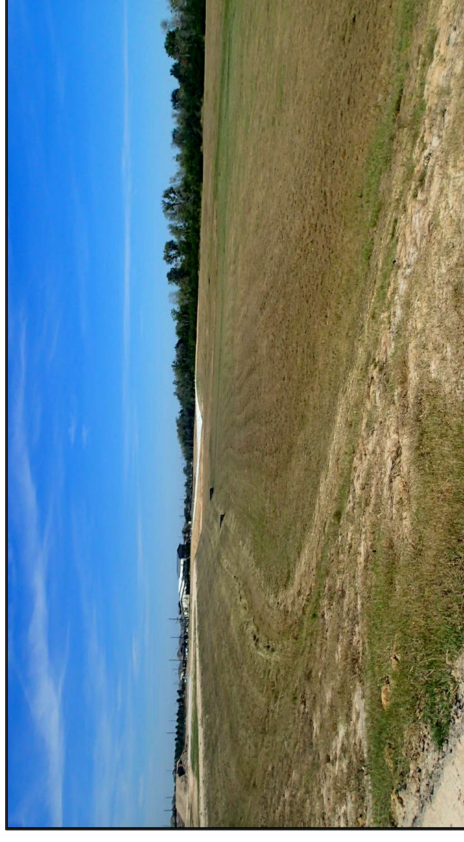


# Detention Basin Function



## 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.

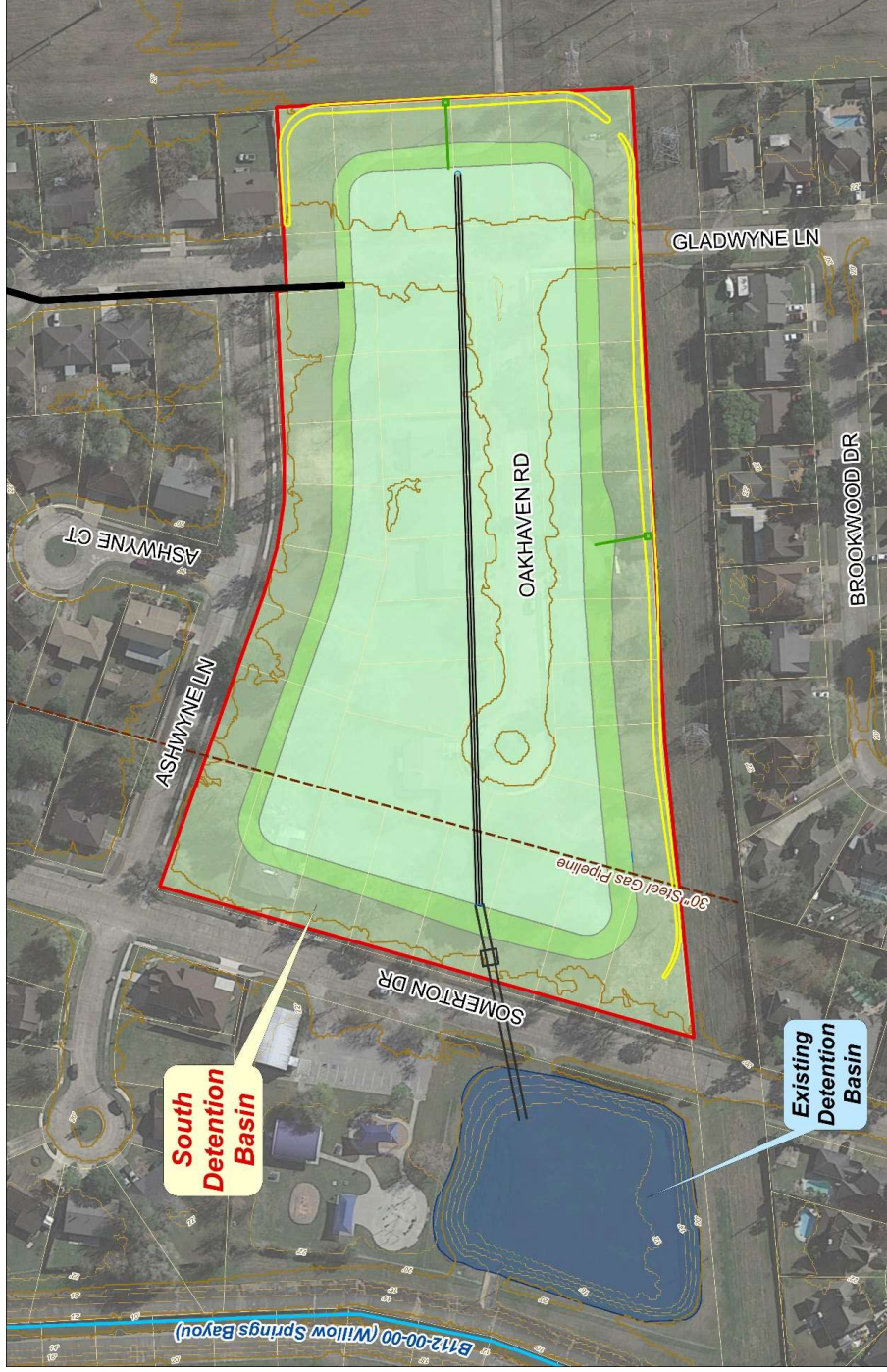
# Summary of Alternatives

Scenarios	100-Year Storage Volume	Storage Capacity Increase	Construction Cost (Millions)	Total Cost per Storage Capacity
Existing Conditions	~2.6 MG	-	-	-
Alternative 1 – 30” Gas Line Relocation	~13.0 MG	~400%	~\$11.2	~\$0.86/Gallon
Alternative 2 – New Outfall into Channel 	~14.9 MG	~473%	~\$6.6	~\$0.44/Gallon
Alternative 3 – Basin Drainage through Existing Drainage Facilities	~11.2 MG	~331%	~\$6.0	~\$0.53/Gallon

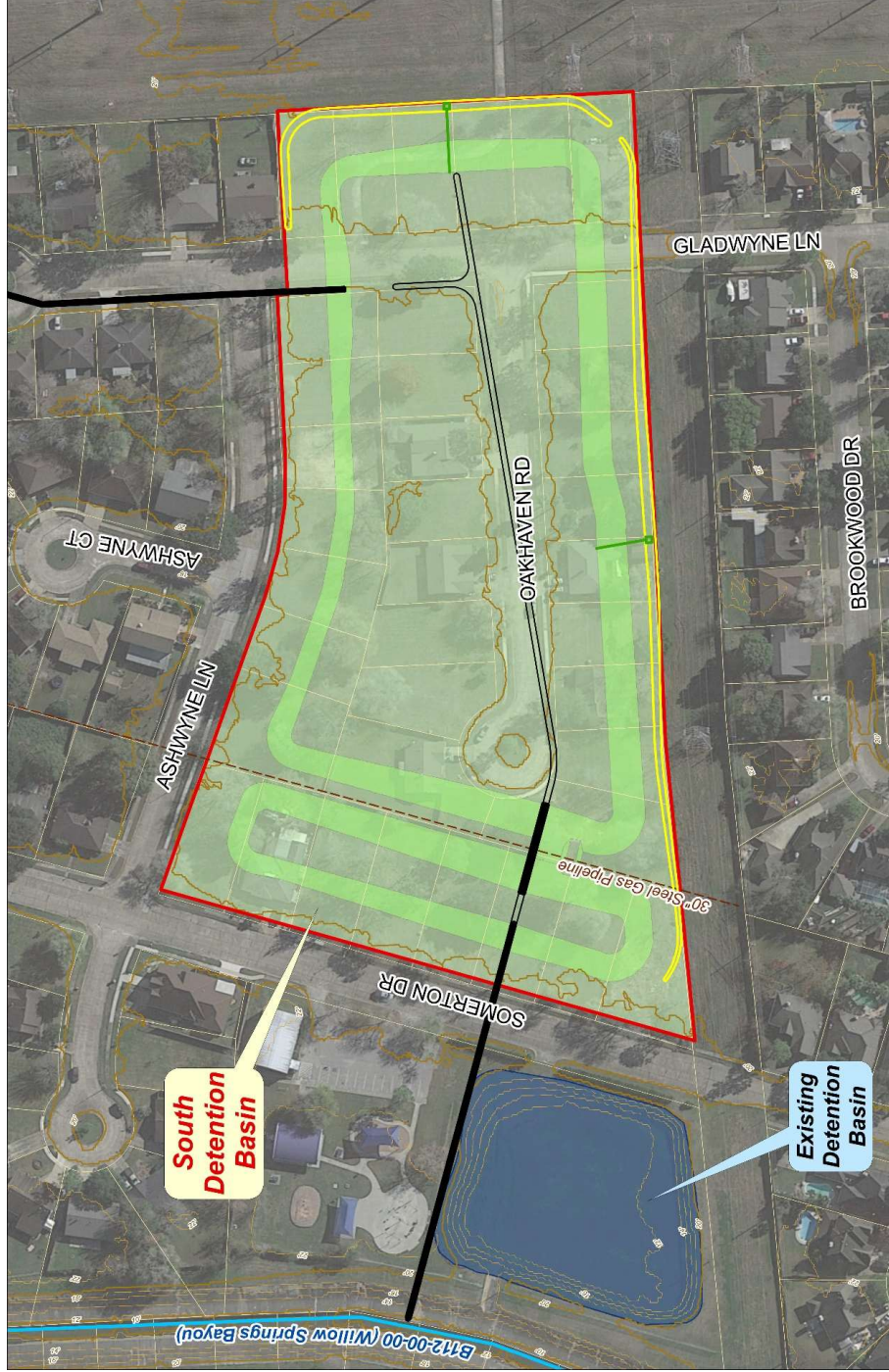
 Recommended Alternative



# Proposed Alternative 1

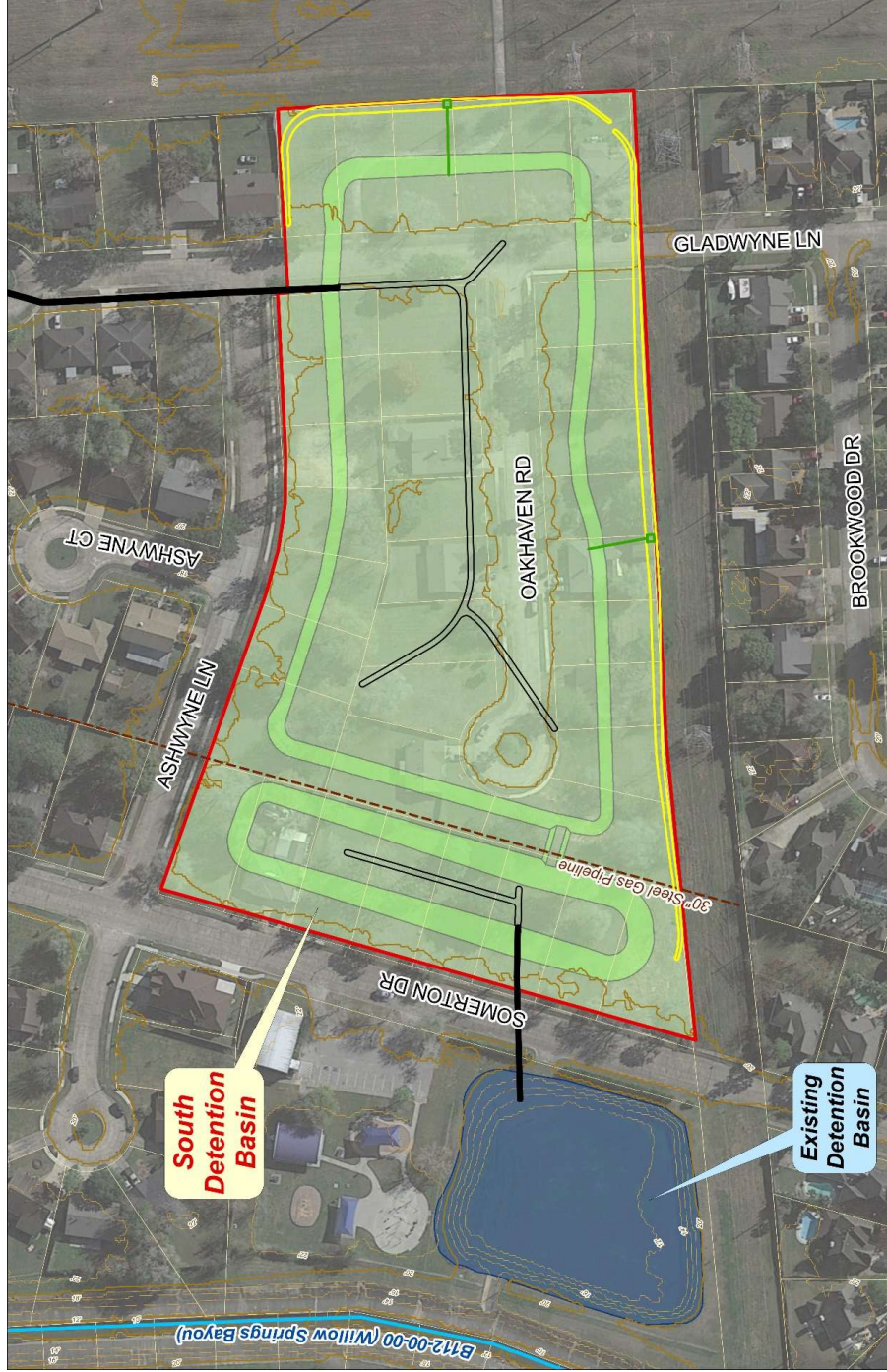


# Proposed Alternative 2





# Proposed Alternative 3



# Recommended Alternative 2



# Next Steps



- Construction Start
  - Fall 2021 (North Basin)
  - Summer 2022 (South Basin)

# Brookglen Area: Future Plans

- Armand Bayou Watershed Planning Project
- B509-04-00 Stormwater Detention Basin Project (to the southeast)
- Proposed bridge modifications to improve stormwater conveyance
- Proposed channel modification to Willow Springs Bayou Tributary B112-02-00



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# We want to hear from you!

Please visit [HCFCD.org/B512](https://HCFCD.org/B512) to learn more about this project, ask questions, and sign up for our mailing list.



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