

# PROJECT BRAZOS- ADDRESSING BRAZOS RIVER EROSION



KEN R.  
**DEMERCHANT**  
COMMISSIONER  
Fort Bend County - Precinct 4

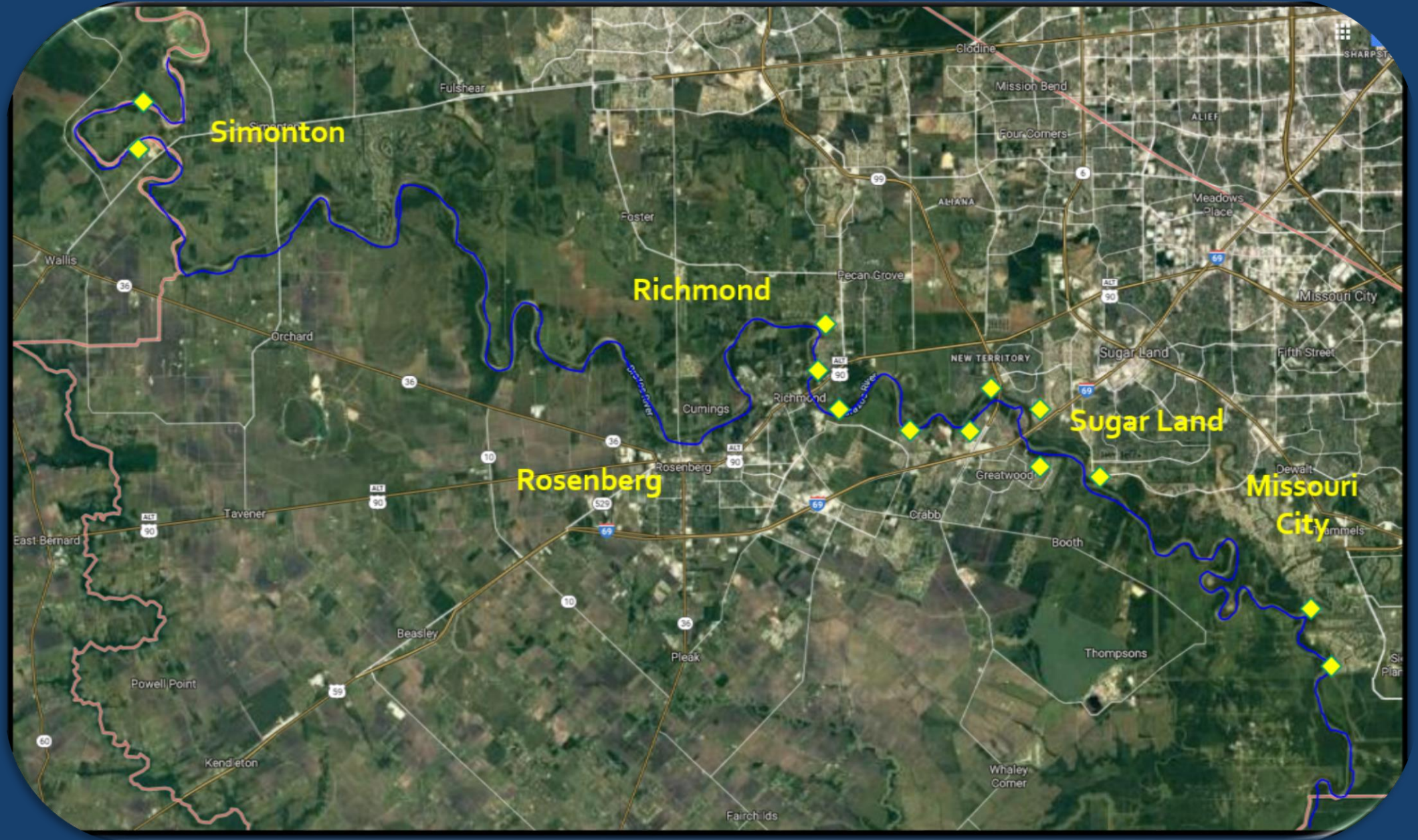
HUITT-ZOLLARS



# 13 CRITICAL EROSION AREAS ALONG 89 MILES OF RIVER COUNTY AND REGION WIDE IMPACT



13 Critical Erosion  
Areas



# PROJECT BRAZOS- STAKEHOLDERS\*

## ☐ County

- Fort Bend County
- FBC Drainage District
- FB Toll Road Authority
- Surrounding Counties

## ☐ City

- Sugar Land
- Simonton
- Richmond
- Rosenberg
- Missouri City

## ☐ Special Districts

- Levee Improvement Districts # 6,7, 10, 11, 17, Sienna Plantation
- Municipal Utility Districts # 121, 140

## ☐ Other

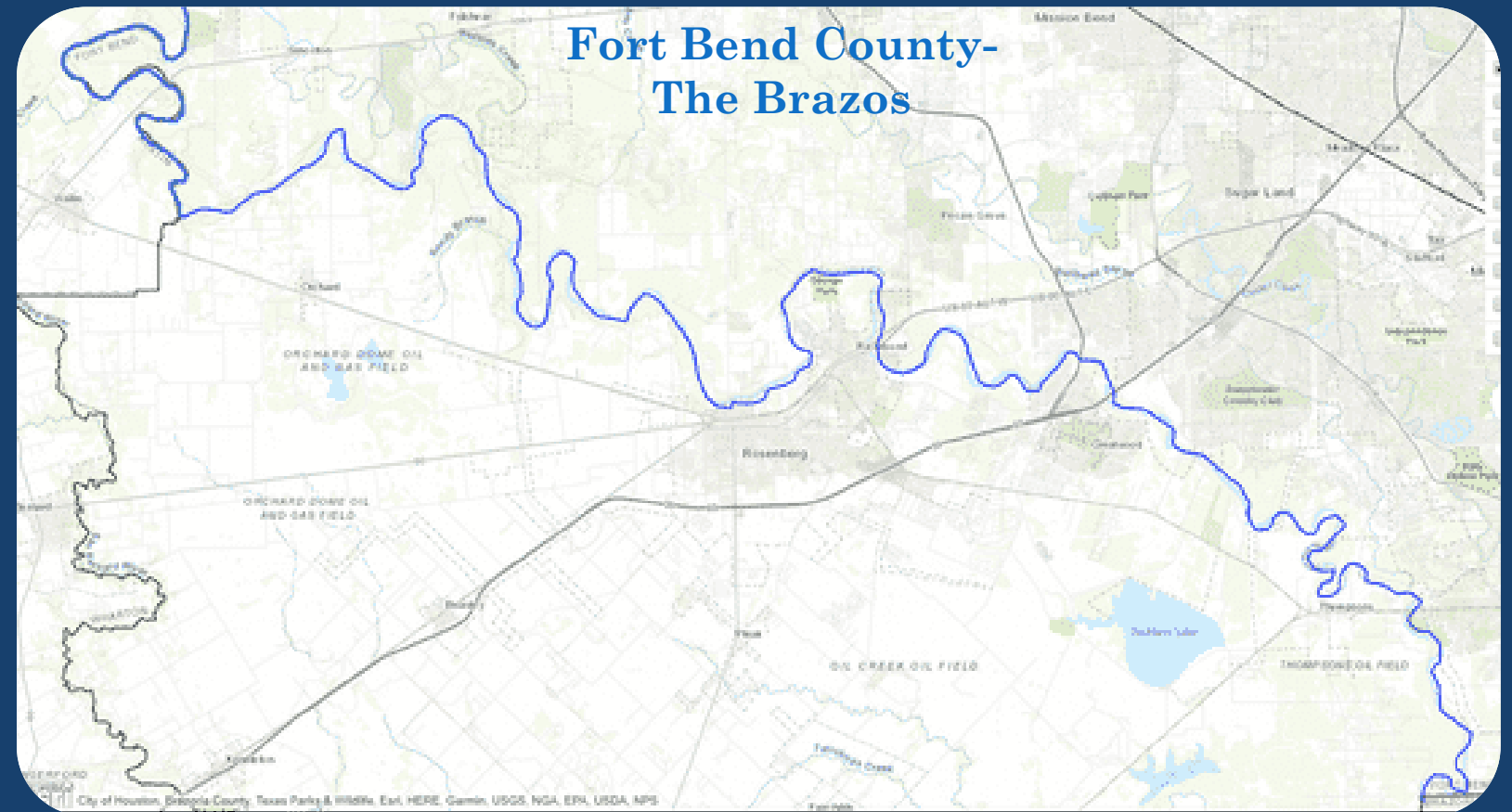
- Texas Dept. of Transportation
- Gulf Coast Water Authority
- Center Point Energy
- Union Pacific Rail Road
- US Army Corps of Engineers – ERDC and Galveston District
- Brazos River Authority





# AGENDA

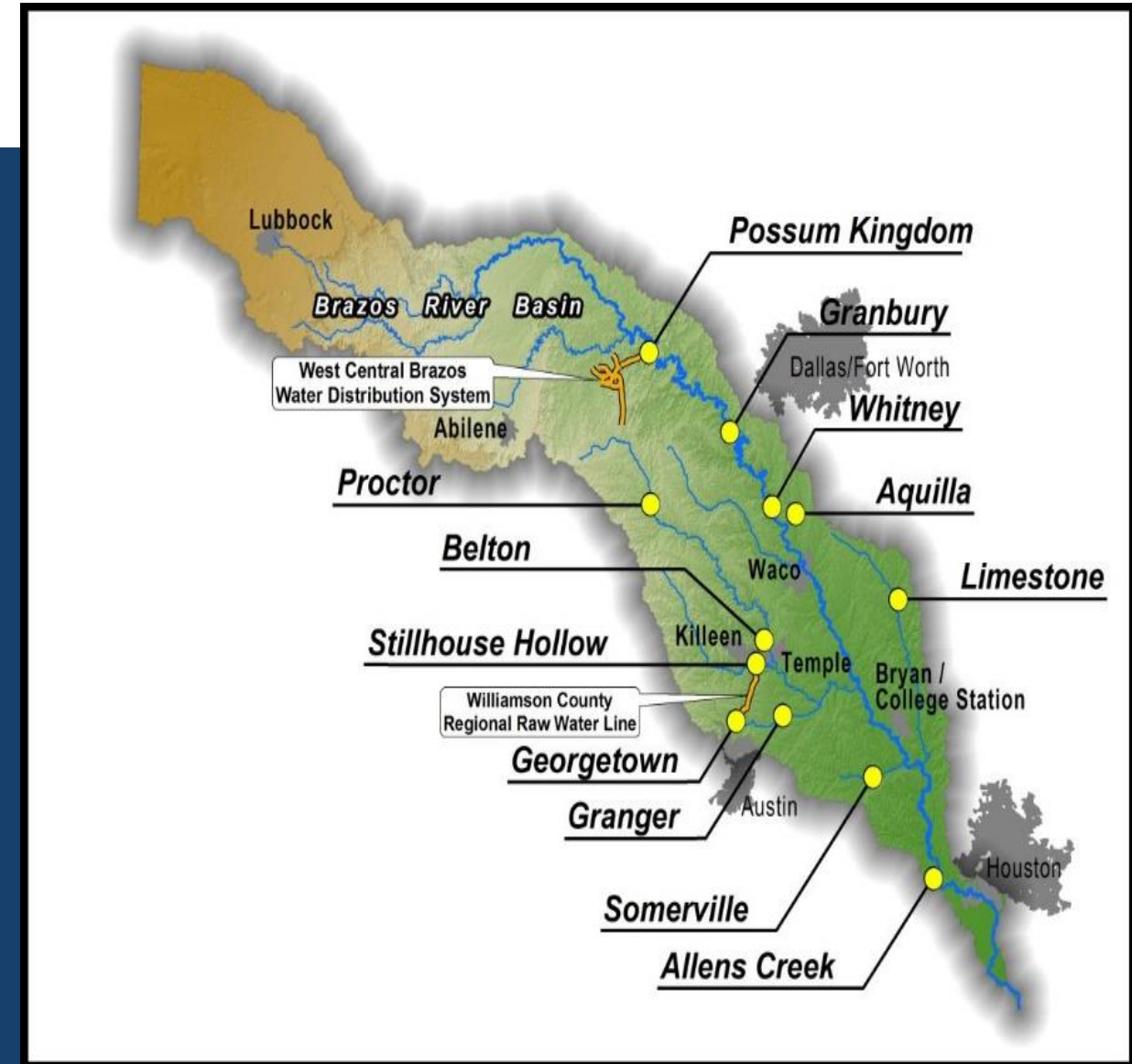
- ❑ Presentation
- ❑ Aerial View (Drone Video) of Erosion
- ❑ Questions and Answers
- ❑ Field Visit





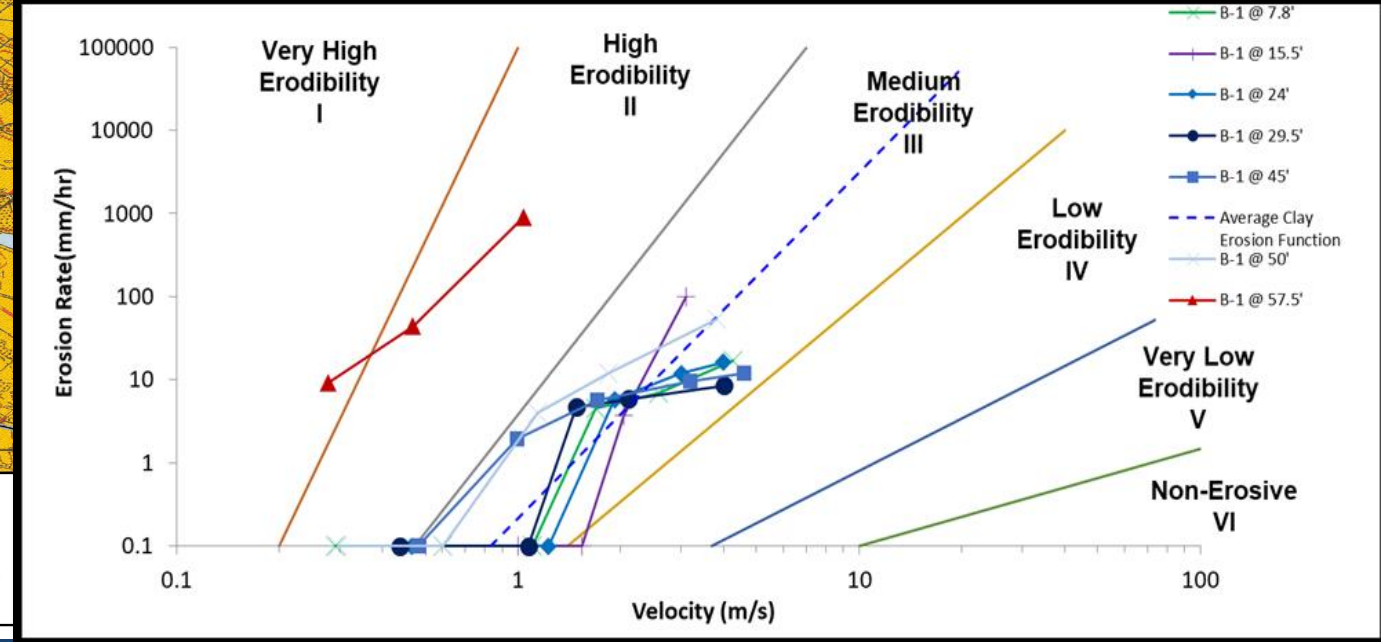
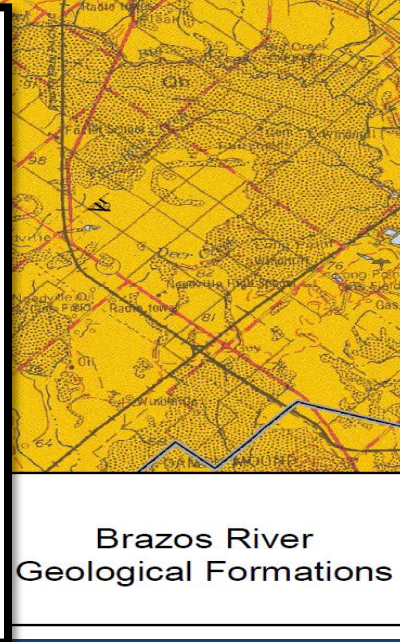
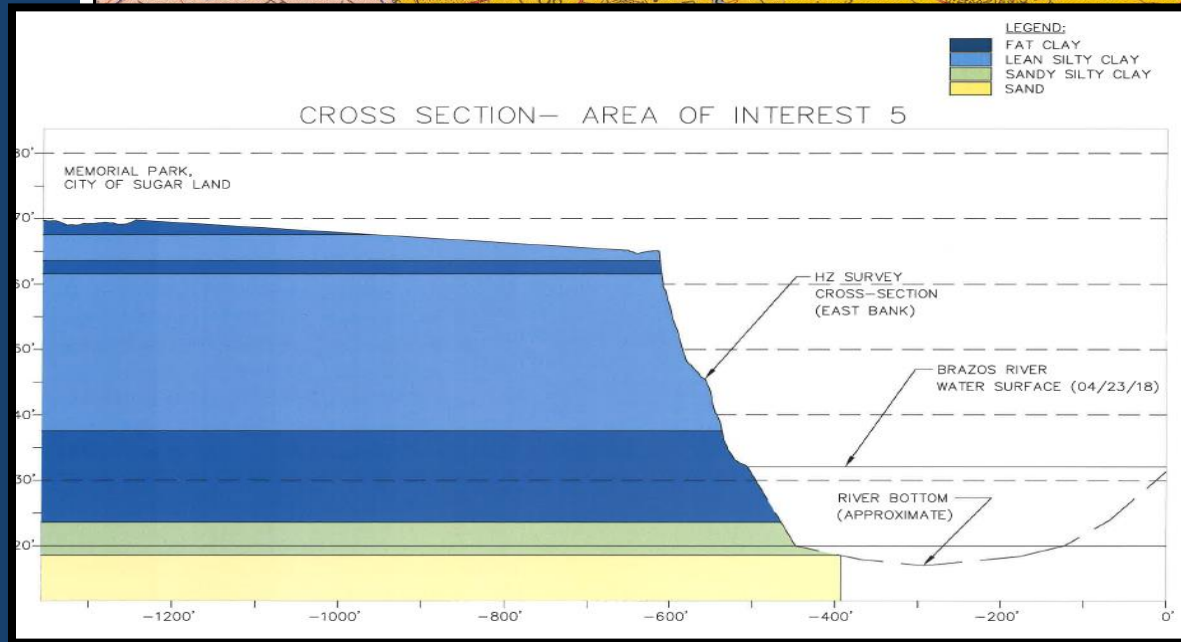
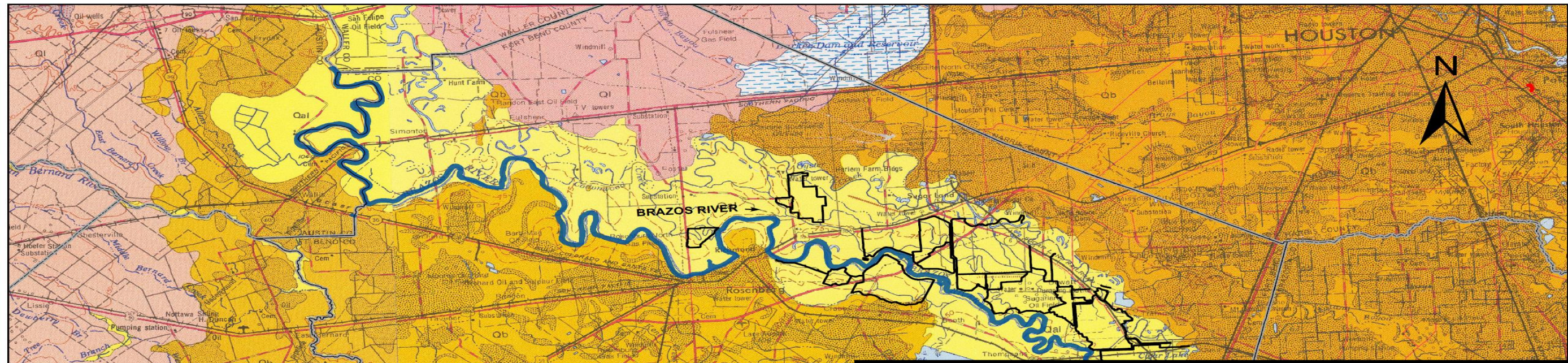
# THE BRAZOS RIVER – ONE OF TEXAS' LARGEST RIVERS

- Stretches more than 1,280 miles from the New Mexico to the Gulf of Mexico in Freeport
- 11<sup>th</sup> longest river in the US
- System includes
  - 11 reservoirs
  - 8 US Army Corps of Engineers (flood control)
  - 3 Brazos River Authority (water supply)
- Approximately 89 miles of the Brazos River runs through Fort Bend County



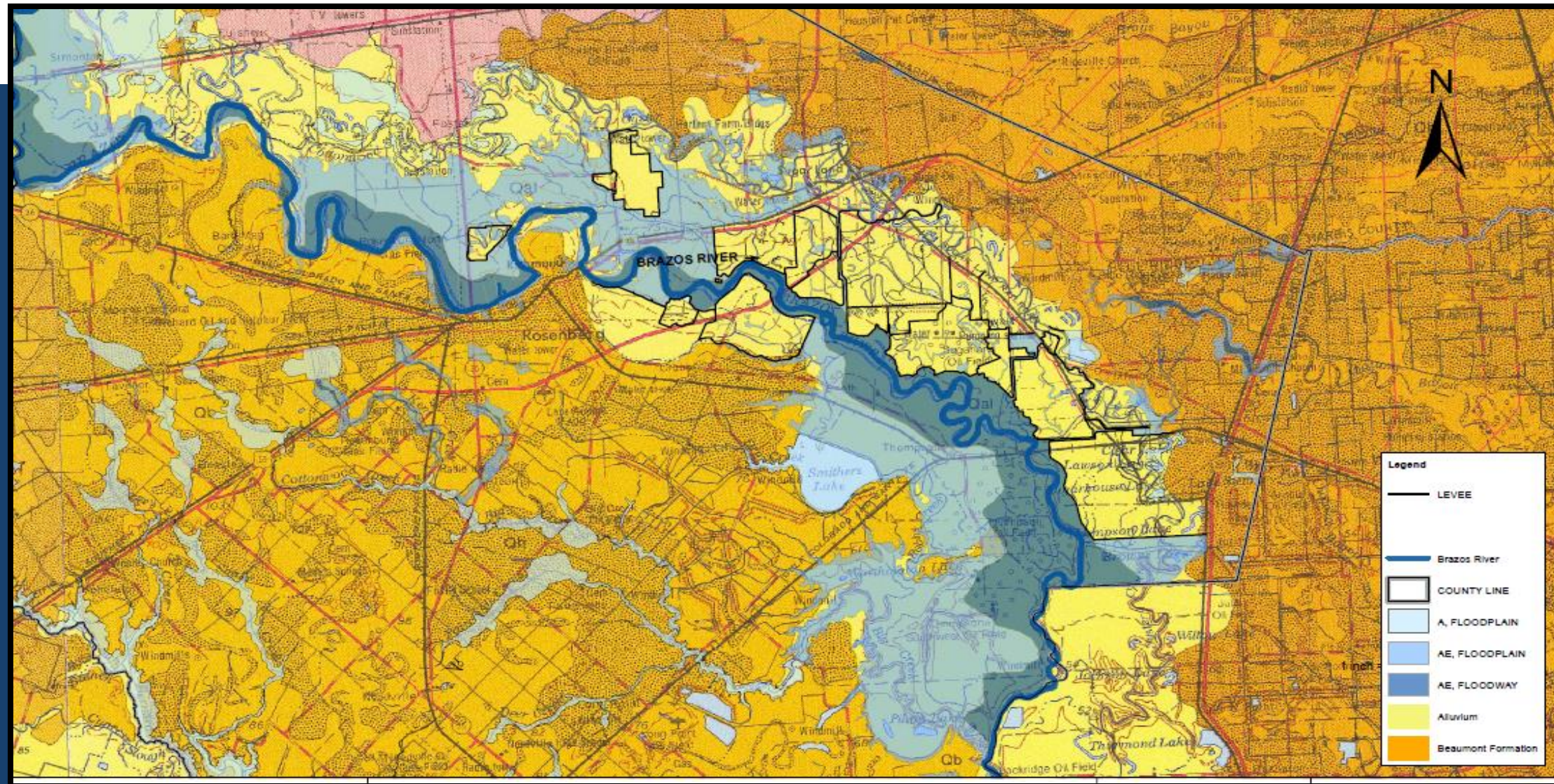


# GEOLOGIC FLOODPLAIN BOUNDARY



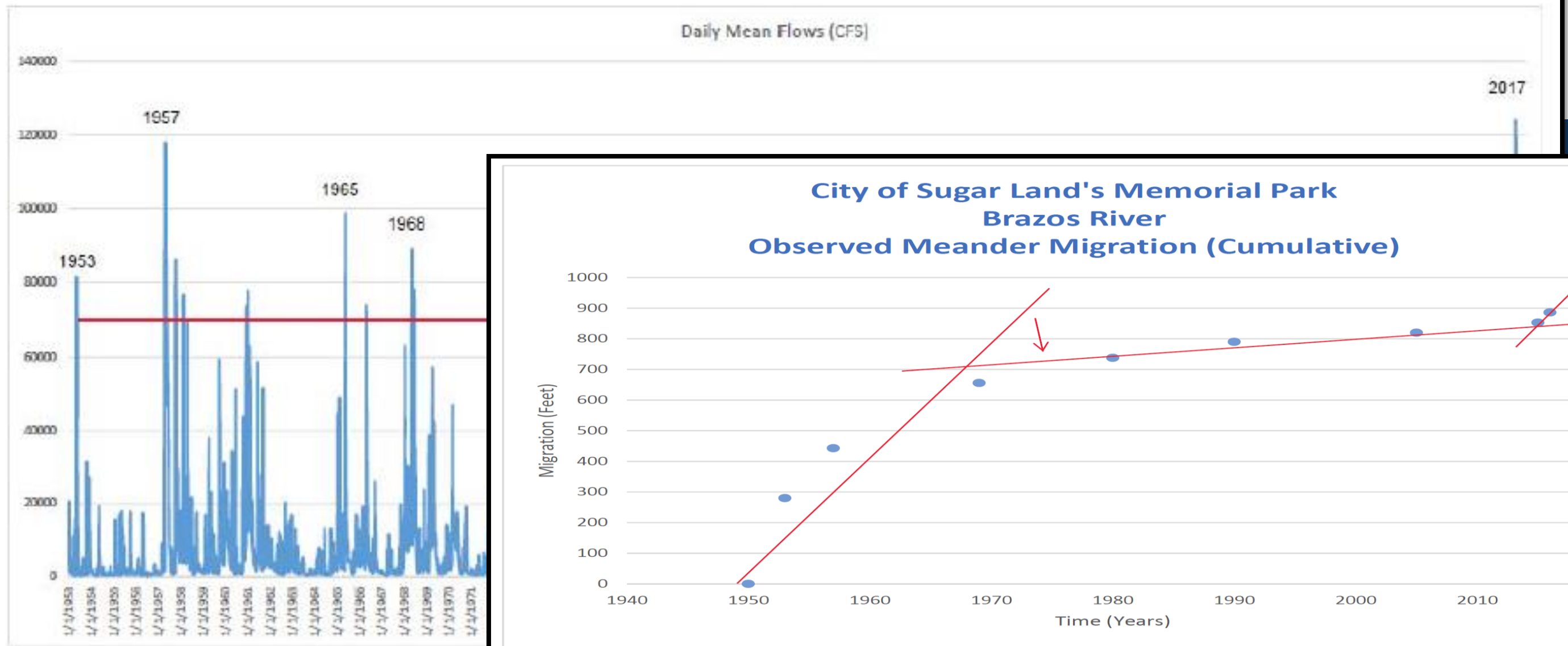


# CURRENT FLOODPLAIN BOUNDARY





# FLOW HISTORY OF THE BRAZOS RIVER







Grand Parkway SH 99



Simonton





IS 69/ SH 59- Hurricane Evacuation Route



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# ESTIMATED IMPACT ON FORT BEND COUNTY

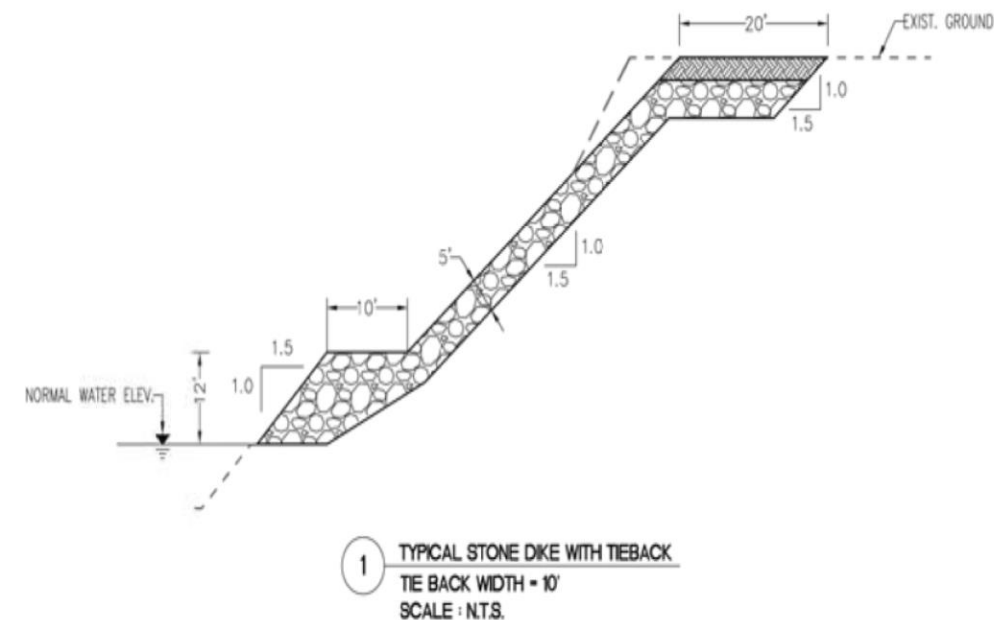
AREAS OF IMPACT	* IMPACT IN DOLLARS
State Highway 99 Bridge, US 90A, & New Territory Neighborhood	1.3 B
Interstate 69/SH 59, Brazos Turnaround, University of Houston Sugar Land, & Telfair Neighborhood	1.2 B
Interstate 69/SH 59, Brazos Turnaround & Great Wood Neighborhood	1.1 B
Sienna Planation Neighborhood - North	1.1 B
Sienna Planation Neighborhood - South	1.1 B
Memorial Park – Sugar Land	600 M
Memorial Hermann Hospital, River Park Neighborhood & River Park Shopping Center	300 M
Dell Webb Community & Veranda Neighborhood	250 M
River Park West Neighborhood	200 M
River's Edge Neighborhood - North	200 M
River's Edge Neighborhood - South	200 M
Union Pacific Rail Road Bridge	5.5 M
FM 1093 Bridge	2.5 M
<b>TOTAL</b>	<b>\$8 Billion</b>



# PROPOSED IMPROVEMENT – STONE TOE DIKE & TIE BACK

- ❑ Environmentally Friendly
- ❑ Economical
- ❑ Coordinated with the US Army Corps of Engineers

Total Estimated Project Cost \$360 M





# Homochitto, MS- River Repair



USACE-ERDC  
(2014)



USACE-ERDC  
(2018)



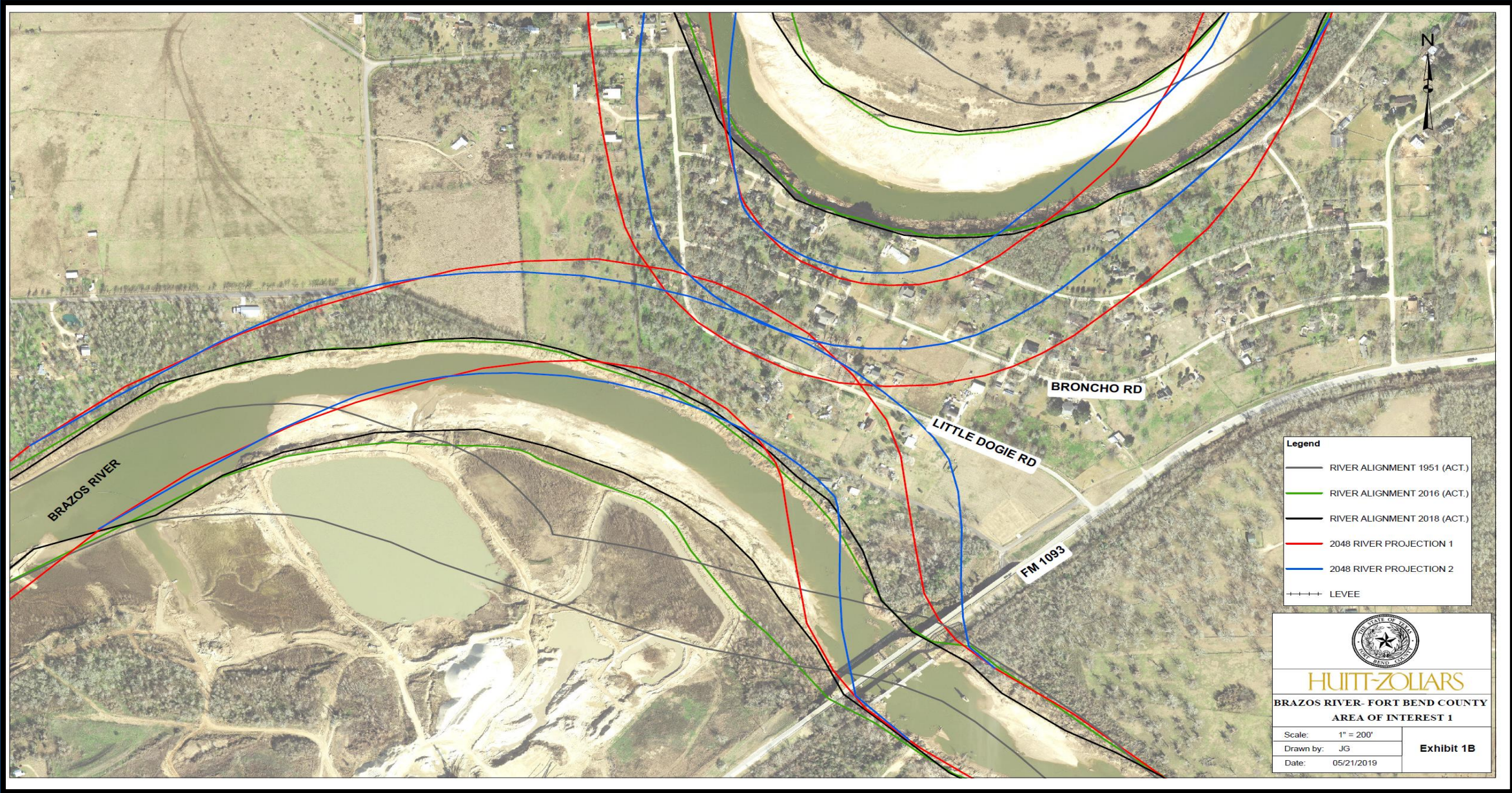
# Site Locations



<u>Site</u>	<u>Location (side of river is based on looking upstream)</u>
1	Meander Upstream of FM 1093 Bridge – right side
2	FM 1093 Bridge and UPRR Bridge – right side
3	Fort Bend County Municipal Utility District 140 North – right side
4	Fort Bend County Municipal Utility District 140 South – right side
5	Fort Bend County Levee Improvement District No. 6 – left side
6	Fort Bend County Municipal Utility District No. 121 – left side
7	Fort Bend County Levee Improvement District No. 10 – left side
8	Fort Bend County Levee Improvement District No. 7 – right side
9	Fort Bend County Levee Improvement District No. 17 – right side
10	Fort Bend County Levee Improvement District No. 11 – left side
11	City of Sugar Land Memorial Park – right side
12	Sienna Plantation Levee Improvement District North – right side
13	Sienna Plantation Levee Improvement District South – right side

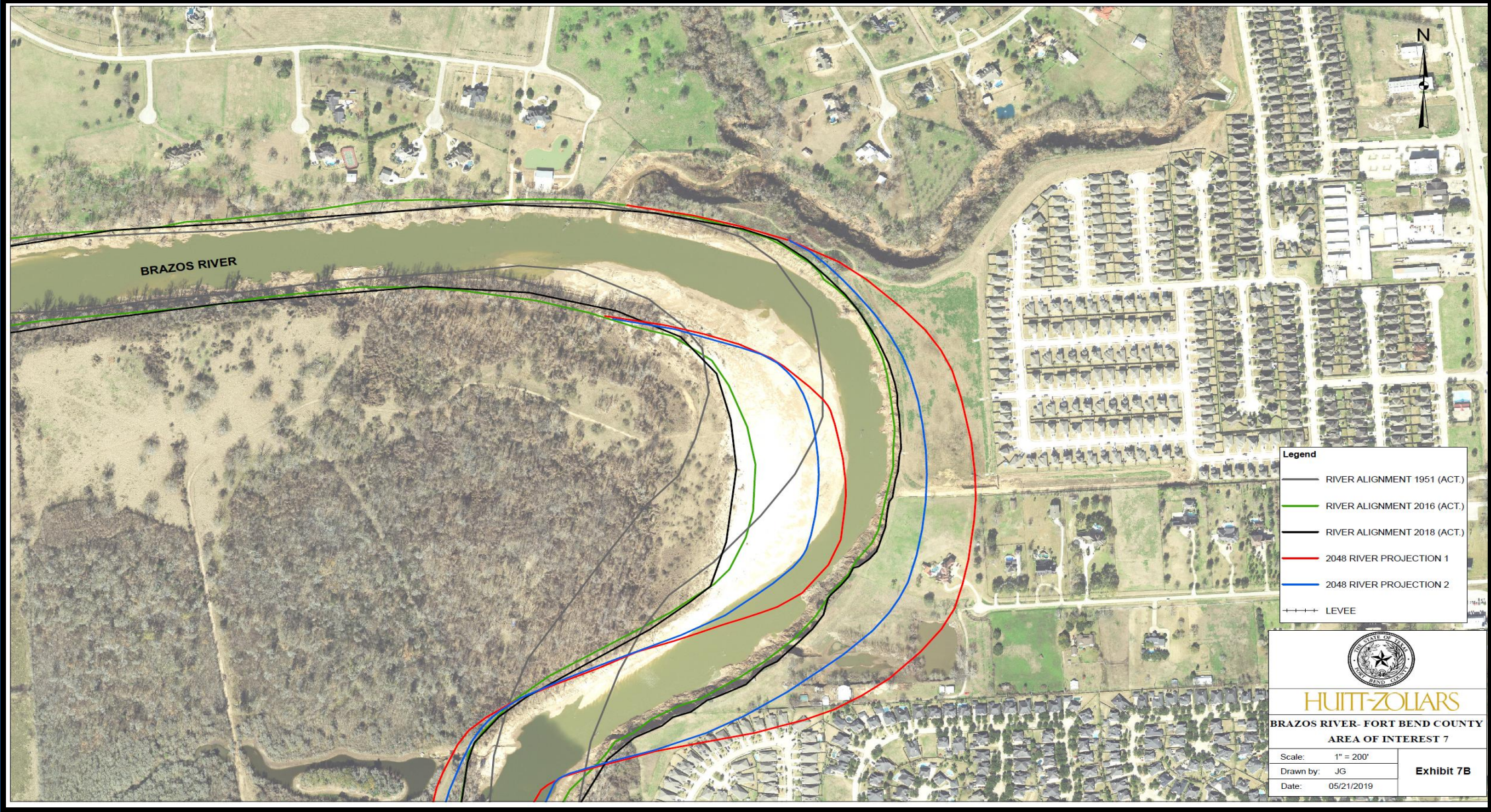


# Probable positions of the Brazos River bank in 2048 – Site 1 and 2





# Probable positions of the Brazos River bank in 2048 – Site 3





# Probable positions of the Brazos River bank in 2048 – Site 4





# Probable positions of the Brazos River bank in 2048 - 5



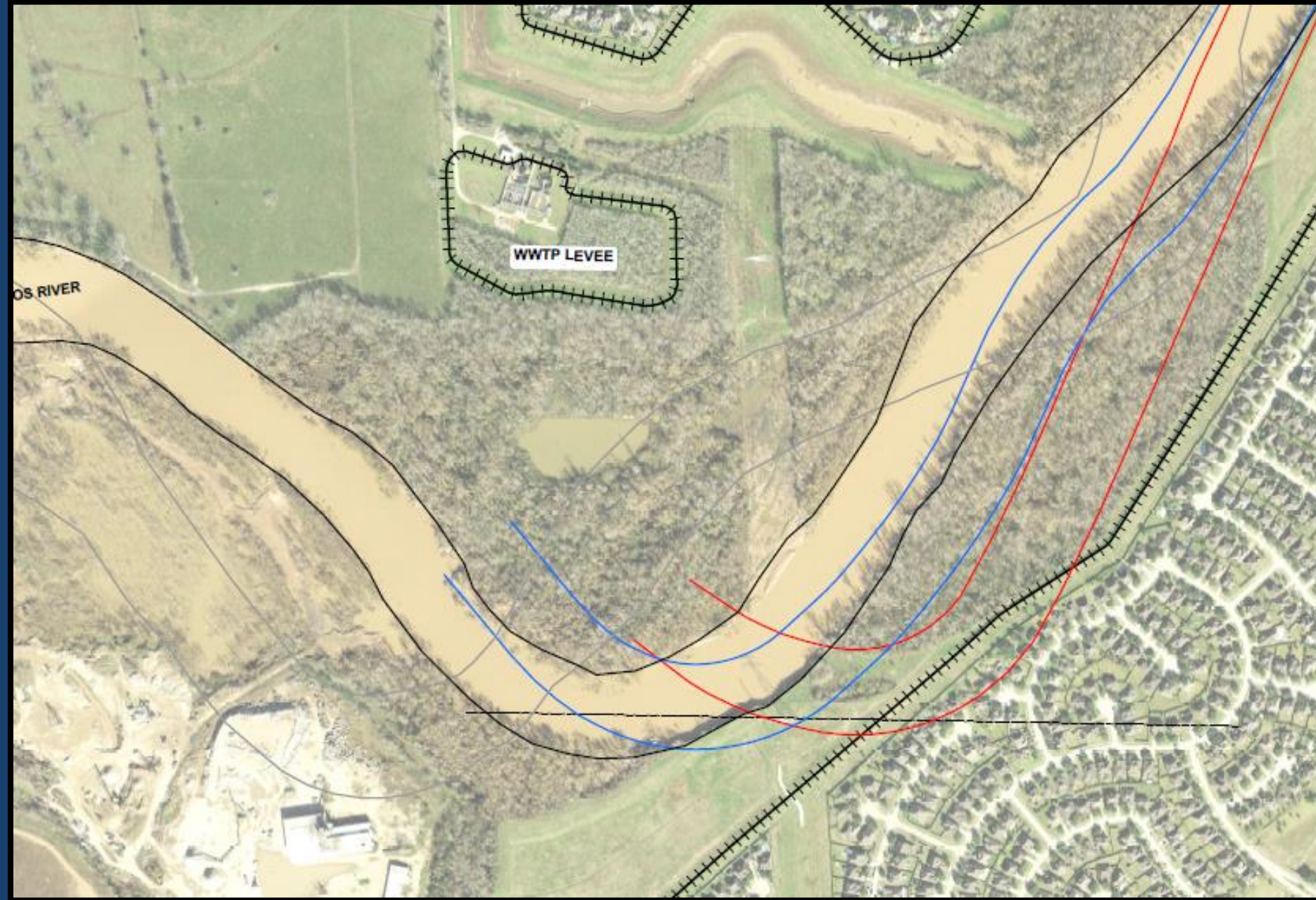


# Probable positions of the Brazos River bank in 2048 – Site 6



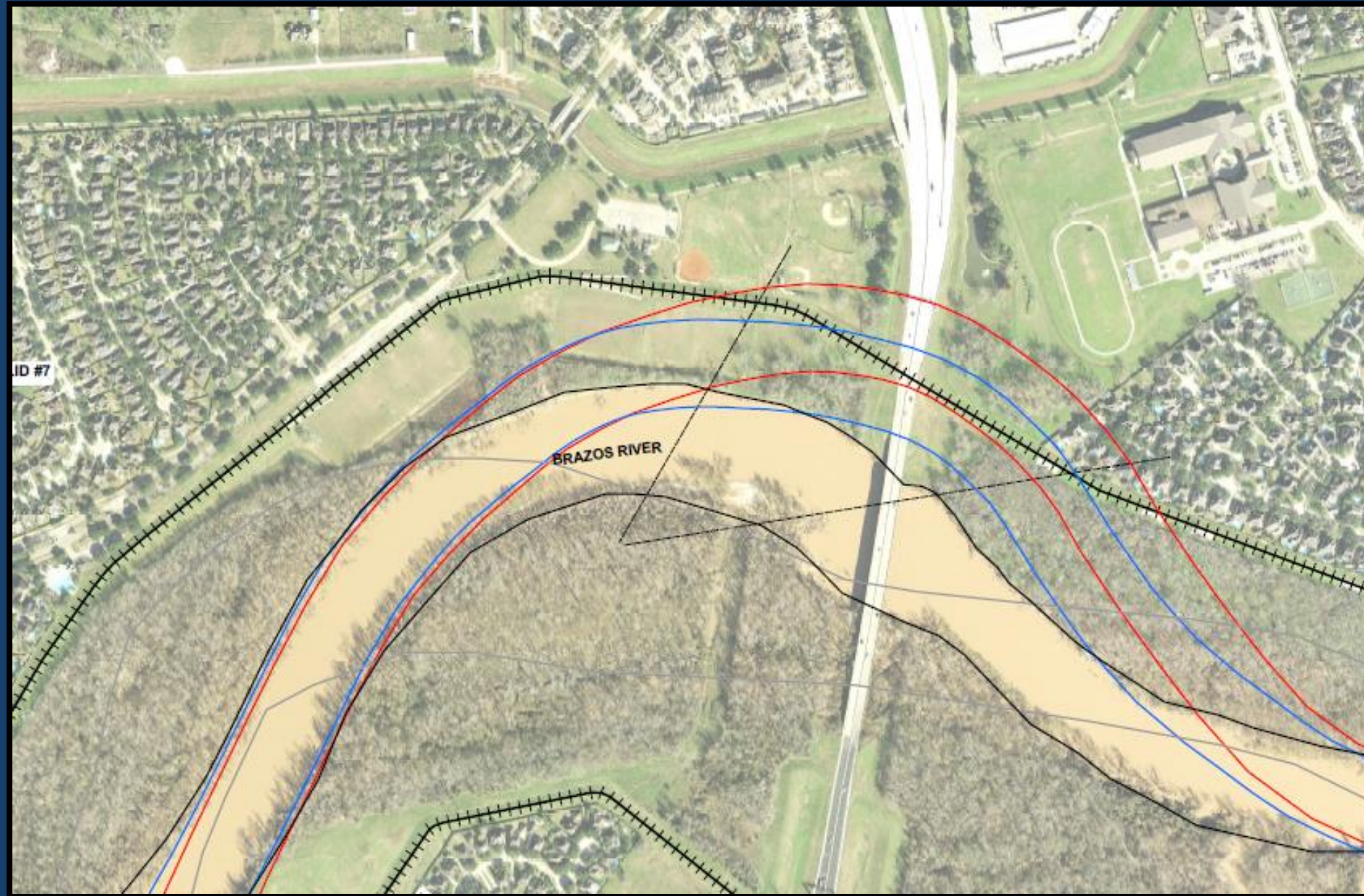


# Probable positions of the Brazos River bank in 2048 – Site 7



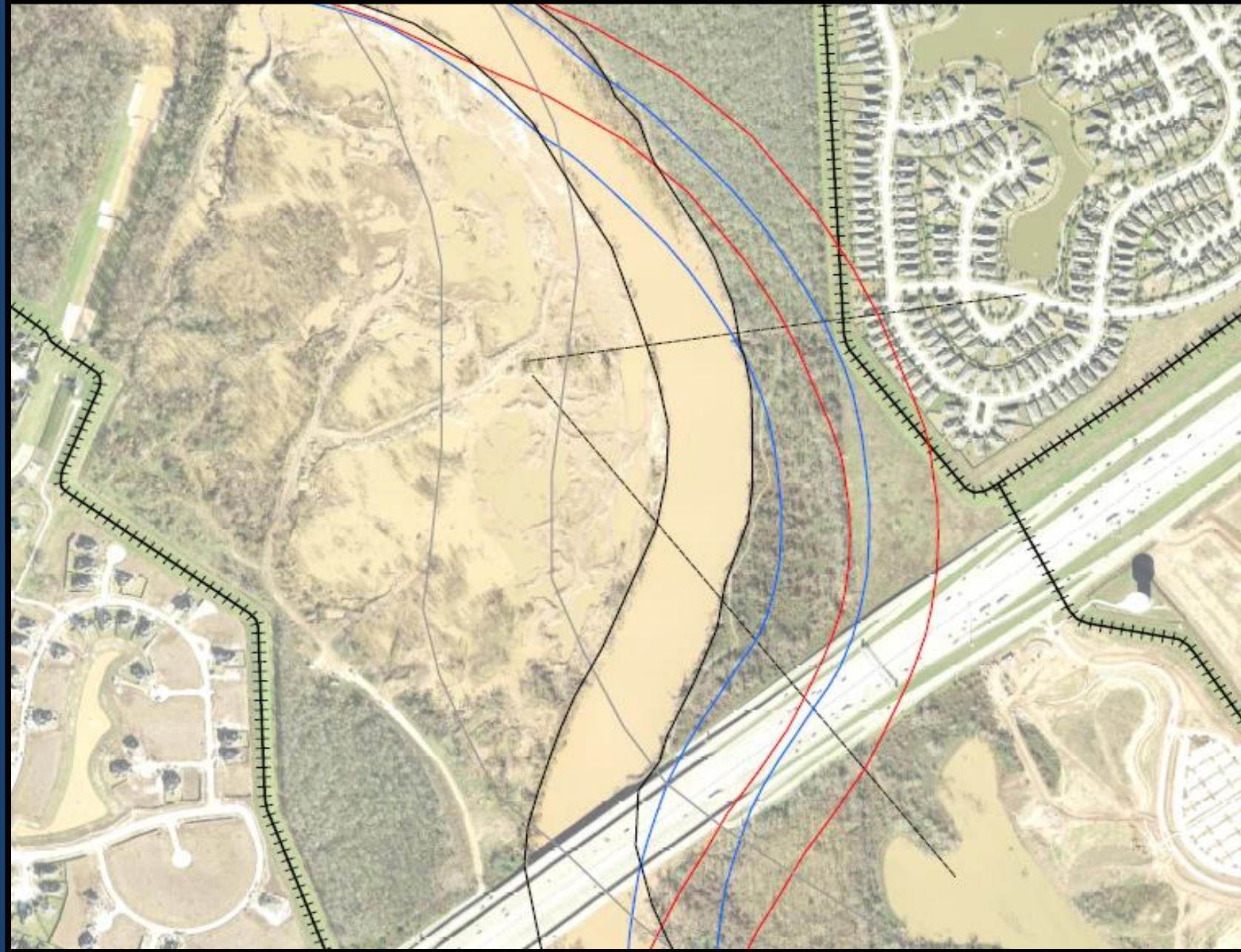


# Probable positions of the Brazos River bank in 2048 – Site 8



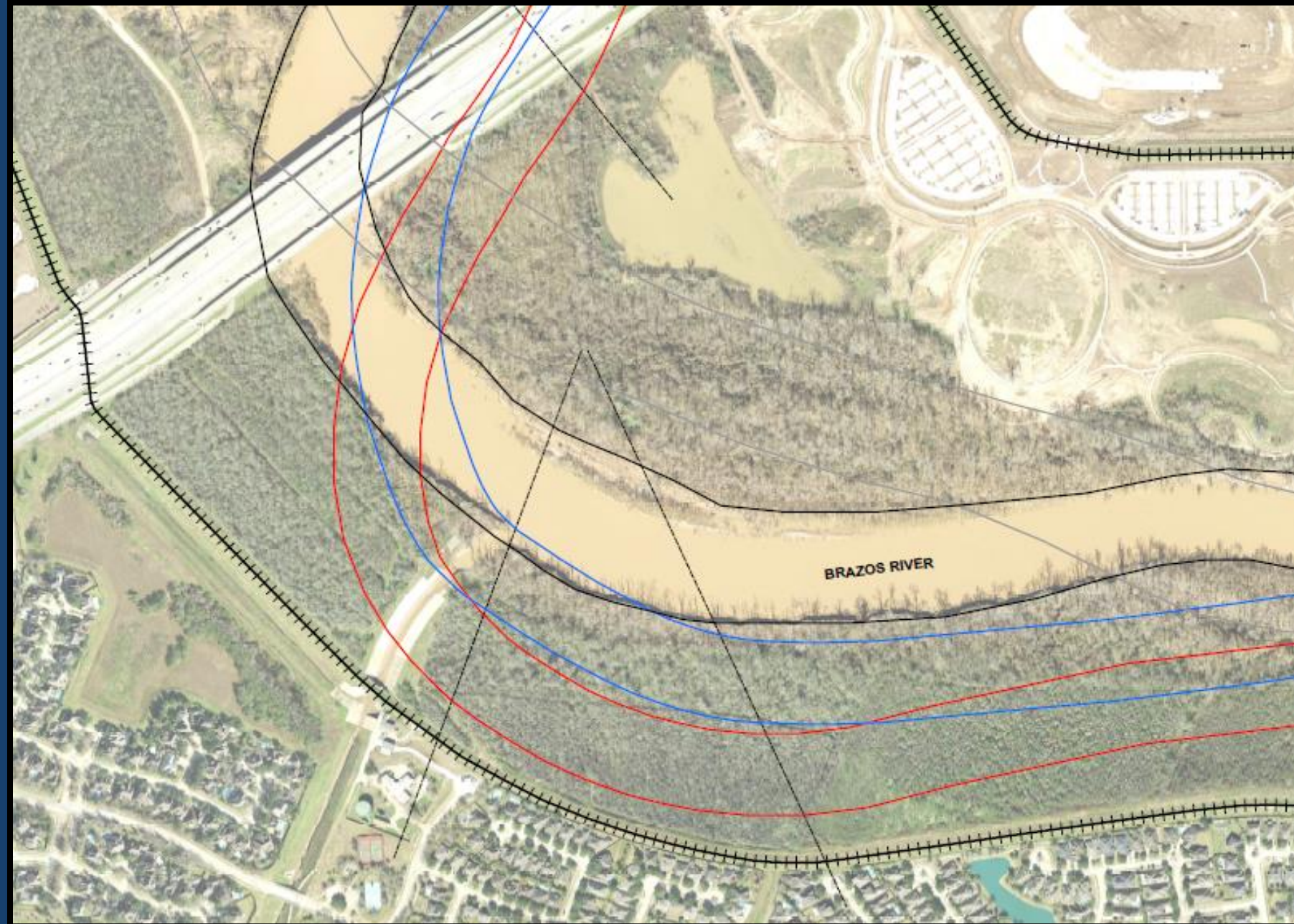


# Probable positions of the Brazos River bank in 2048 – Site 9



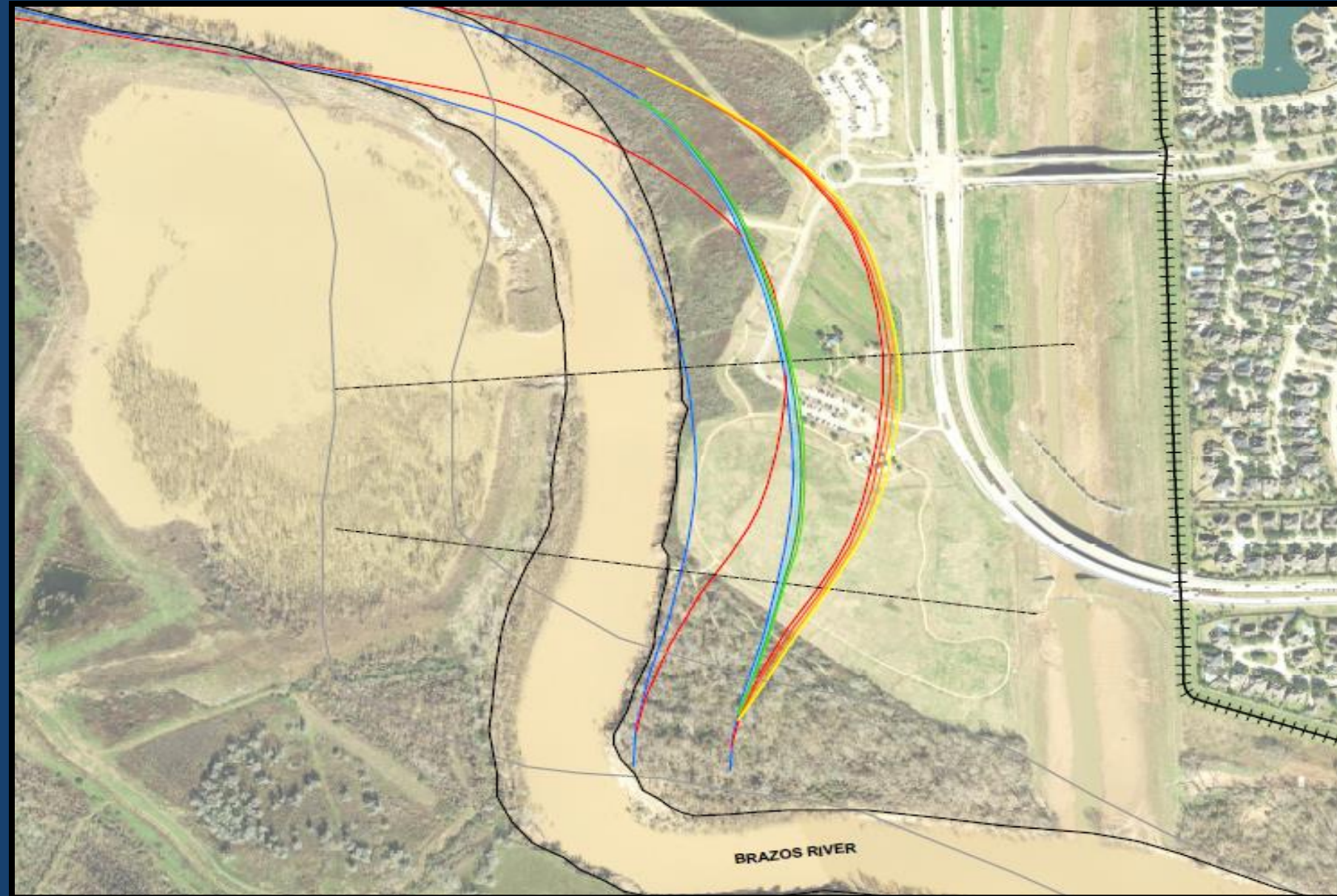


# Probable positions of the Brazos River bank in 2048 – Site 10



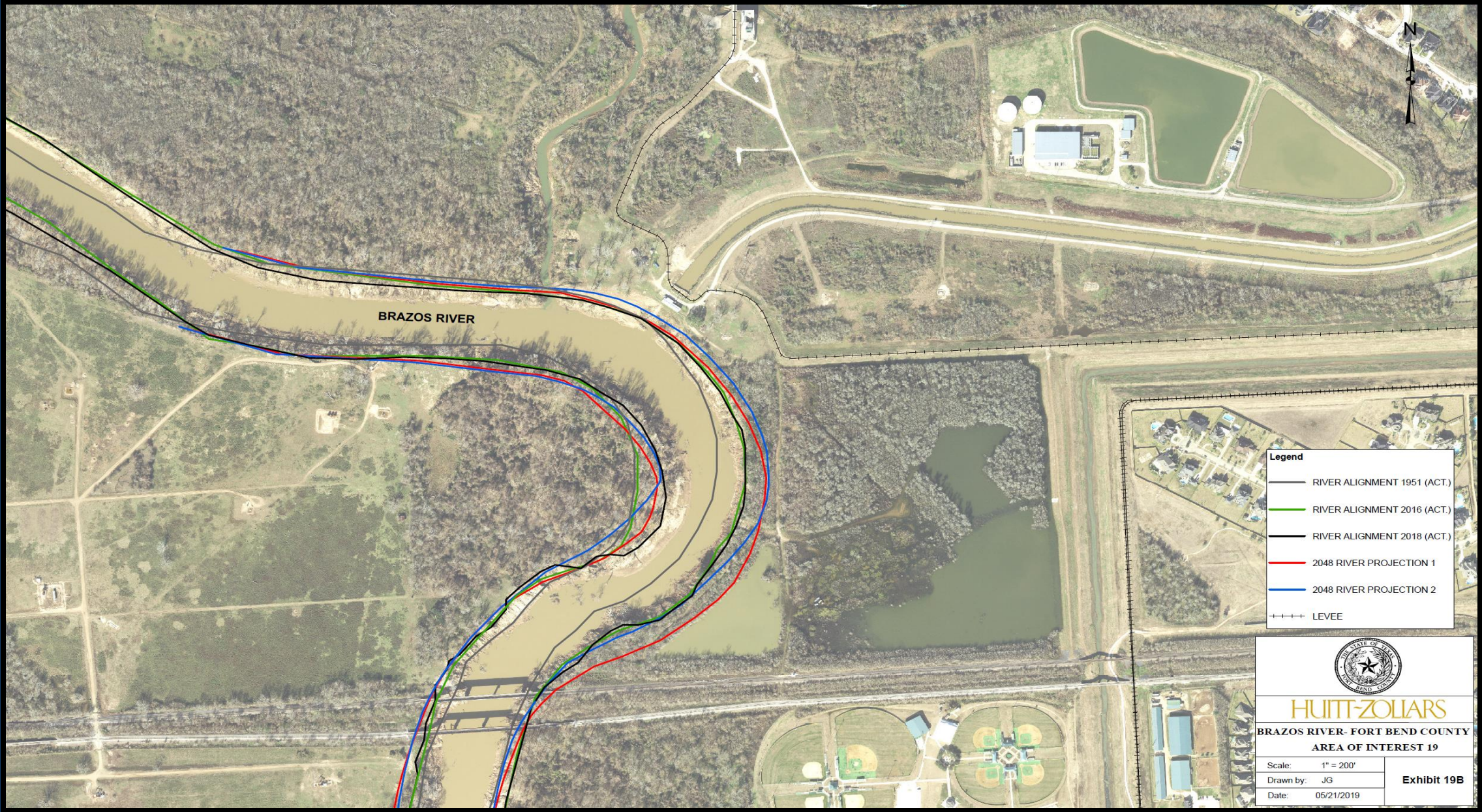


# Probable positions of the Brazos River bank in 2048 – Site 11



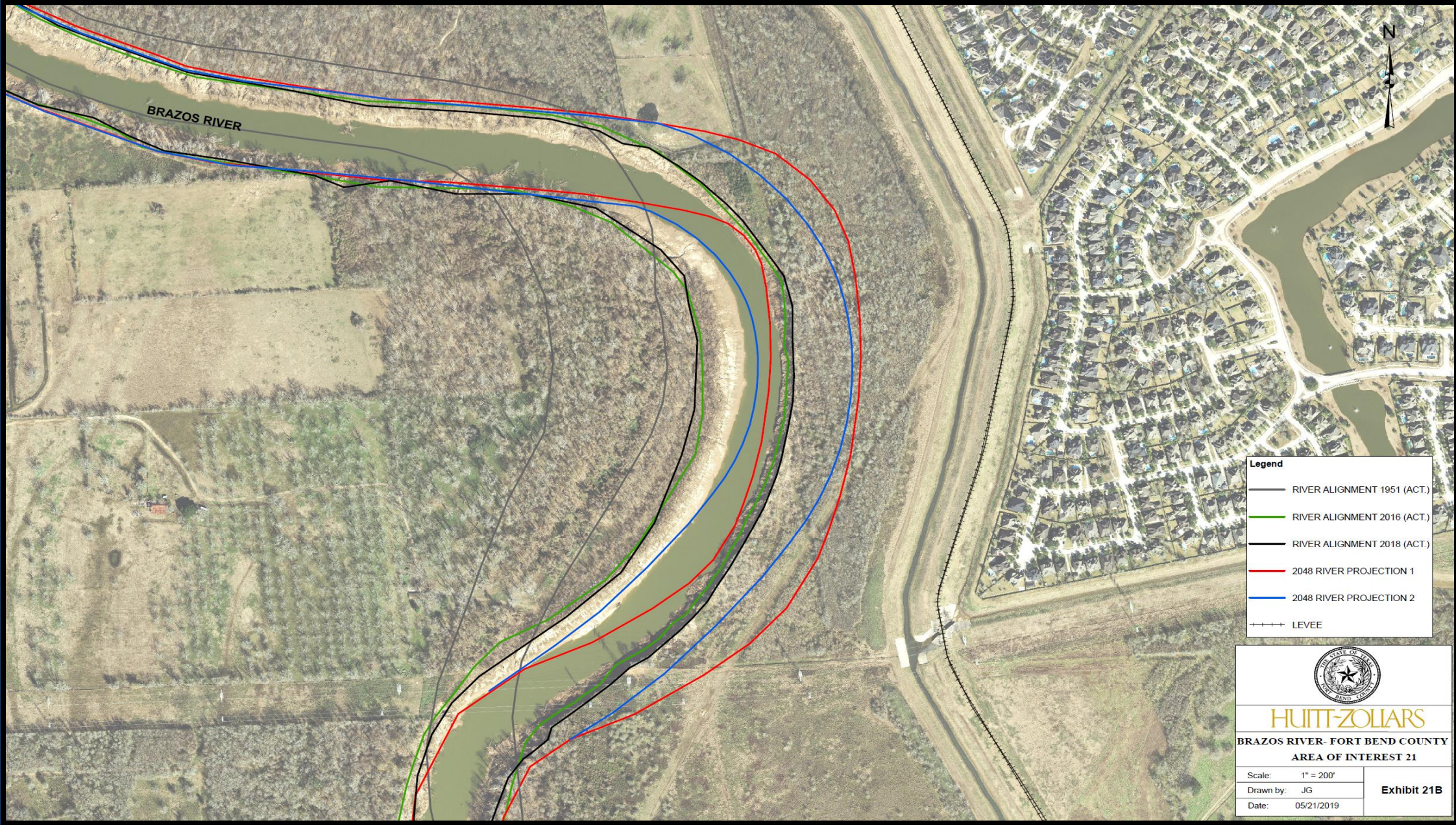


# Probable positions of the Brazos River bank in 2048 – Site 12





# Probable positions of the Brazos River bank in 2048 – Site 13





# YOUR ASSISTANCE IS VITAL

## Impact

- \$8 Billion in Infrastructure
- 700,000+ Residents

## Solution

\$360 Million

State

- Senate Bill 7
- Senate Bill 8
- Proposition 8

Federal

- General Land Office (GLO) Funding





# THANK YOU

## Next on the Agenda

- ☐ Questions and Answer
- ☐ Field Visit

