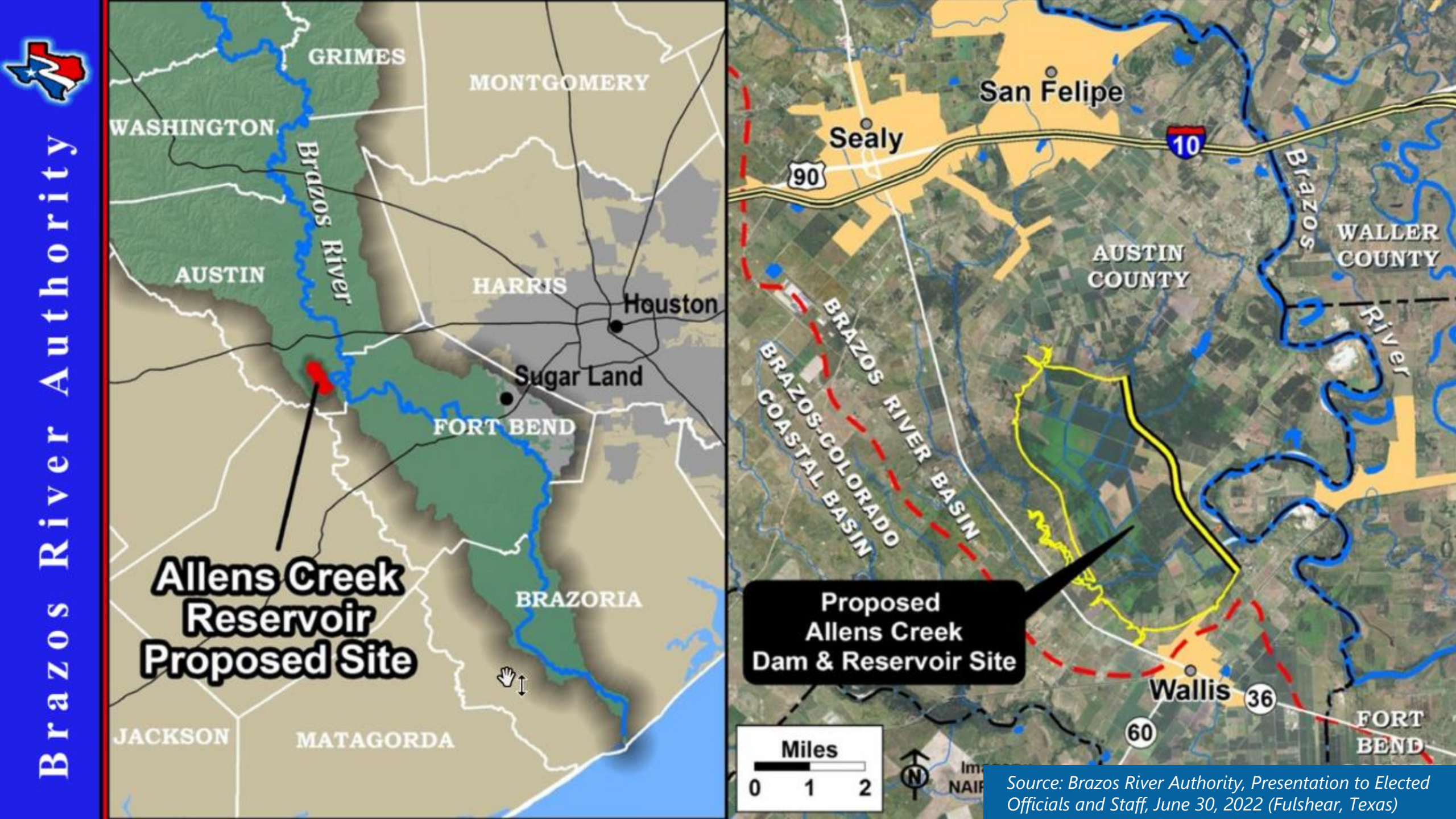
Allens Creek Reservoir Updates
Council Presentation

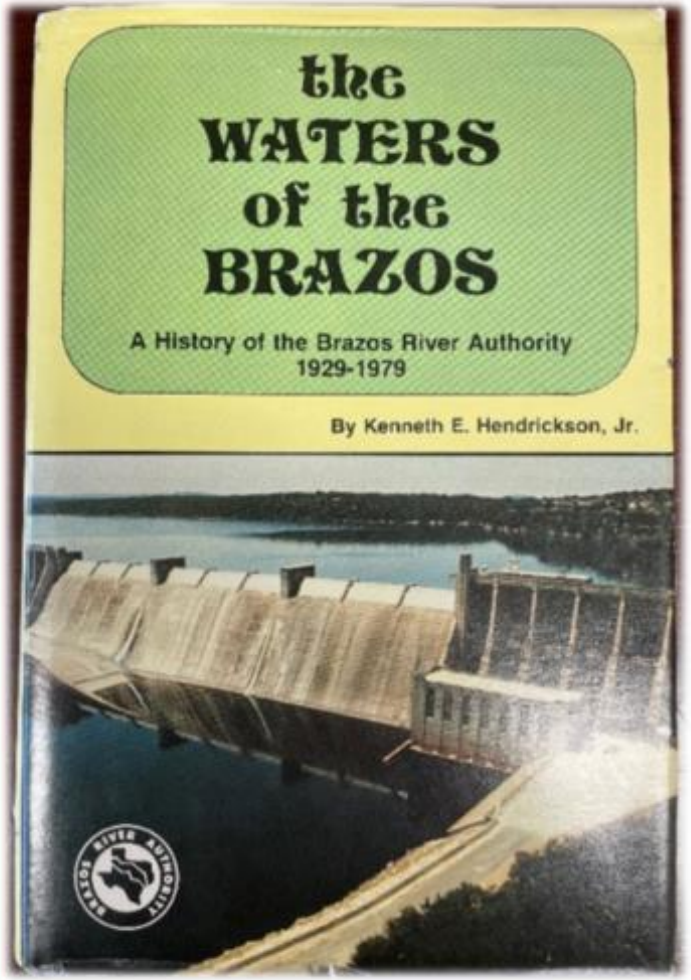
July 19, 2022



Source: Brazos River Authority, Presentation to Elected Officials and Staff, June 30, 2022 (Fulshear, Texas)

Brazos River Authority

Background



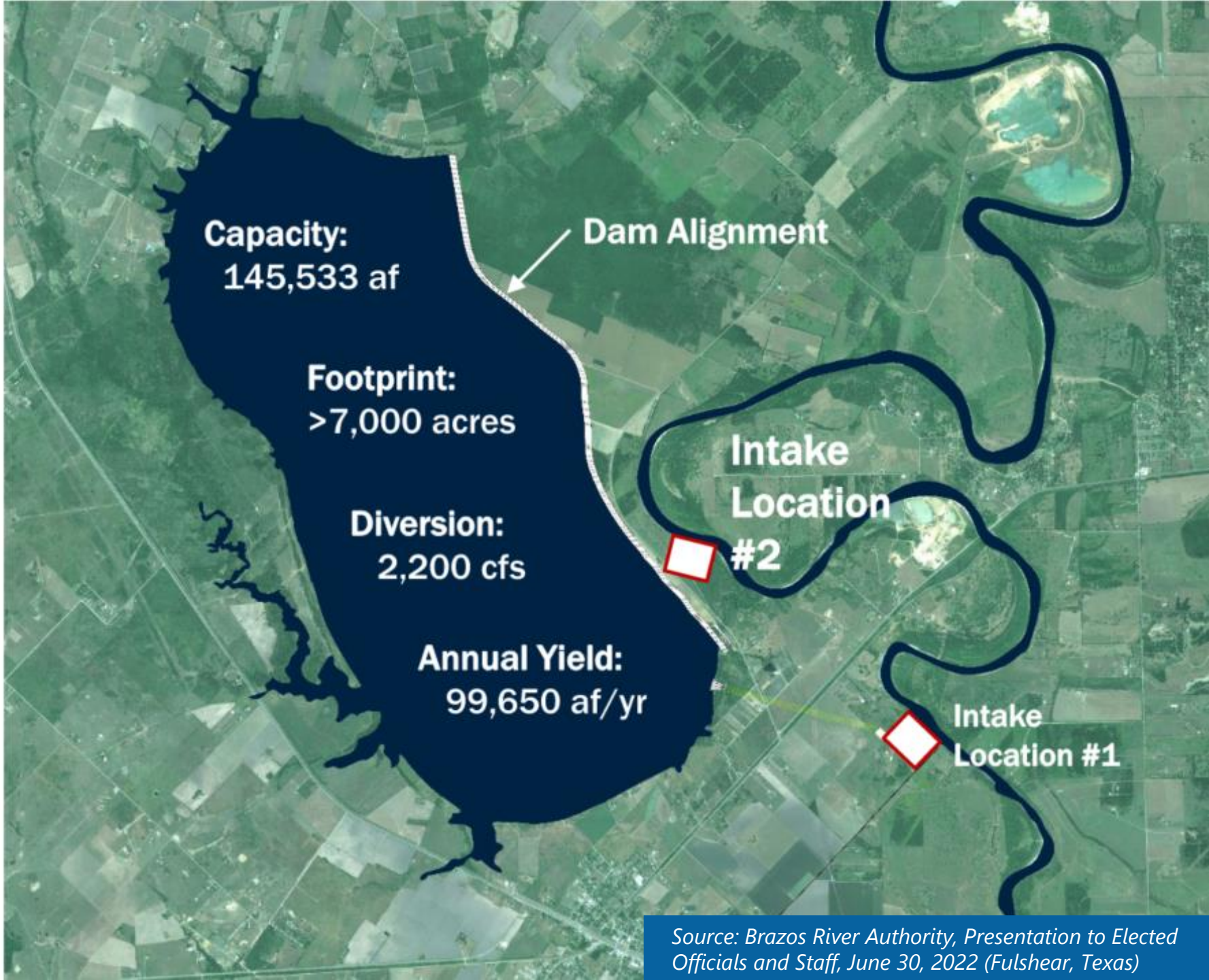
- Part of BRA 1950s "Six Dam Program"
- State Water Right Permit issued to HL&P in 1974
- HL&P purchased property but never pursued construction; Permit expired
- SB 1593 passed by Legislature in 1999 resulted in Permit being reissued to TWDB, BRA, and City of Houston; construction required by Sep 1, 2018
- BRA and Houston purchased Allens Creek property from HL&P in 2000 and obtained TWDB loan
- SB 1132 passed by Legislature in 2011 moved construction start date to no later than Sep 1, 2025
- HB 2846 passed by Legislature in 2019 required Houston to transfer its interest in the Project to BRA for $23 million
- BRA and Houston reached a settlement in May 2022 for BRA to become the sole owner/developer of the project

Source: Brazos River Authority, Presentation to Elected Officials and Staff, June 30, 2022 (Fulshear, Texas)

Brazos River Authority

Details Specified in the Allens Creek Reservoir Water Right

- Reservoir capacity
- Water surface elevation
- Diversion locations
- Total diversion rate
- Annual project yield
- Maximum outlet rate



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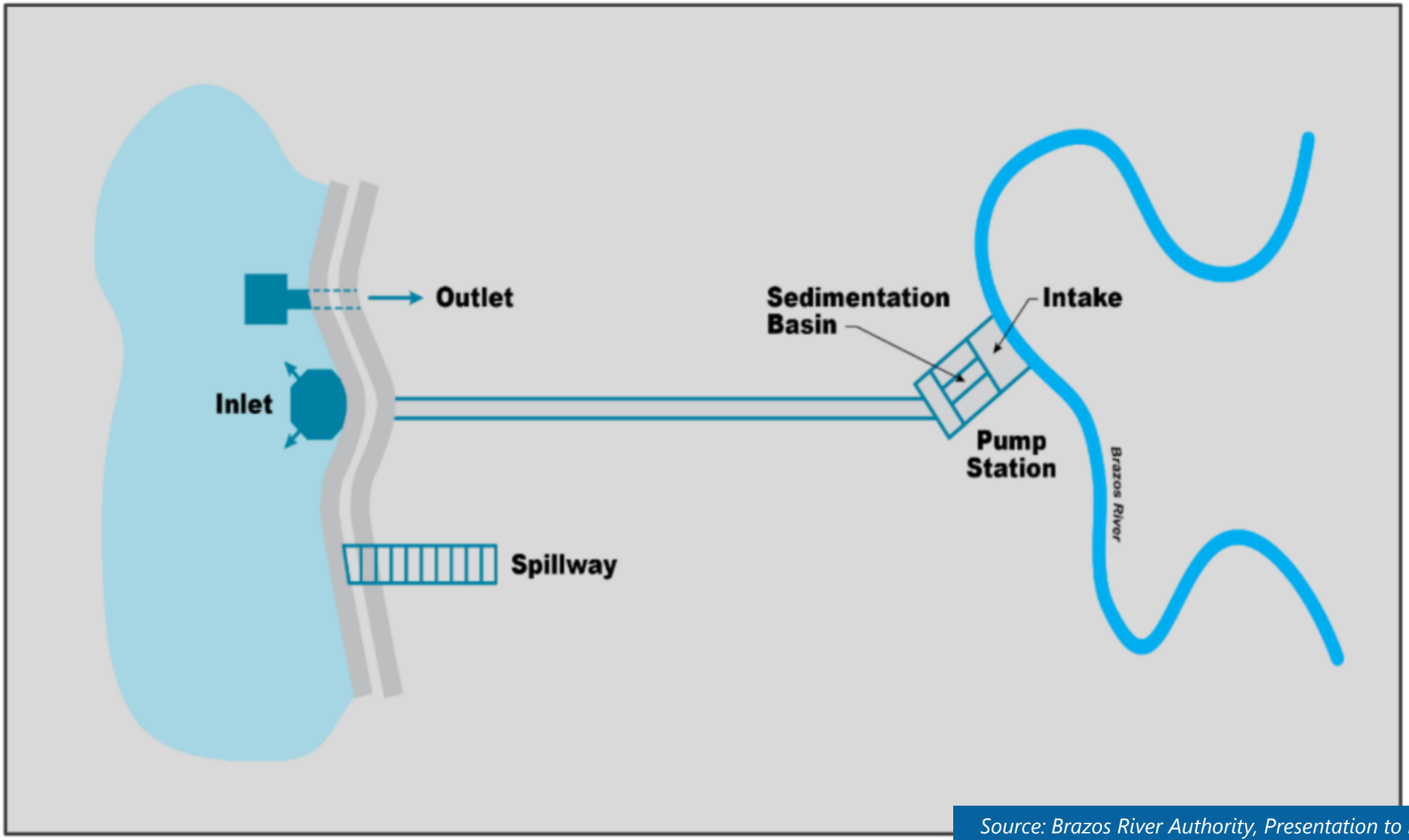
Brazos River Authority

Project Features



Source: Brazos River Authority, Presentation to Elected Officials and Staff, June 30, 2022 (Fulshear, Texas)

Brazos River Authority

What is a 404 Permit and Why is it Needed?

Projects that dredge (excavate) or fill (construct) in wetlands or Waters of the US (WOTUS) require a permit under Section 404 of the Clean Water Act

- The US Army Corps of Engineers (USACE) issues 404 permits.

USACE can only issue a permit for the Least Environmentally Damaging Practicable Alternative (LEDPA)

- The application must demonstrate the proposed project is the LEDPA

The USACE must comply with the National Environmental Policy Act (NEPA)

- NEPA is designed to protect public interest resources.
- NEPA includes agency, tribal and public participation.

NEPA documents can be prepared at varying levels of detail, depending on project complexity and effects

- An Environmental Impact Statement (EIS) – the most comprehensive NEPA document – will be required.

The US EPA reviews USACE NEPA documents for 404 permit approvals.

Source: Brazos River Authority, Presentation to Elected Officials and Staff, June 30, 2022 (Fulshear, Texas)

Brazos River Authority

Federal and State Agency Engagement

US Army Corps of Engineers (USACE)	• Review applications and issues 404 permits • Prepare NEPA documents for 404 permits
US Fish and Wildlife Service (USFWS)	• Recommend actions to minimize impacts on fish and wildlife • Section 7 of the Endangered Species Act
US National Marine Fisheries Service (NMFS)	• Similar to USFWS, but for estuarine and marine waters
US Environmental Protection Agency (EPA)	• Review proposed federal actions that affect air quality • Enforces provisions of 404
Other Federal Agencies	• Natural Resources Conservation Service - farmland • FEMA - flood hazard zones
Texas Commission on Environmental Quality (TCEQ)	• Certify that state water quality is not degraded or adversely impacted
Texas Parks and Wildlife (TPW)	• Ensure state fish and wildlife resources are not adversely affected
Texas Historical Commission	• Compliance with Section 106 of the National Historic Preservation Act
Texas General Land Office (GLO)	• Compliance with Texas Coastal Zone Management Program

Source: Brazos River Authority, Presentation to Elected Officials and Staff, June 30, 2022 (Fulshear, Texas)

Brazos River Authority

Moving forward

- Initiate Communications with USACE
- Develop Project Description
  - Substantiate Purpose and Need
- Develop Conceptual Project Layout
  - Embankment and Spillway
  - River Diversion and Sediment Management System
  - Pump Station and Conveyance System Evaluation
- Define Field Studies for Engineering, Species and Habitat

Projected Timeline

Permitting and Design Phase ~ (5 – 10 years)

- *Preliminary Engineering*
- *Inform Stakeholders/Public*
- *Conduct extensive analyses and study work*
- *Apply for and obtain required permits*
- *Complete final engineering design after the 404 permit is issued*

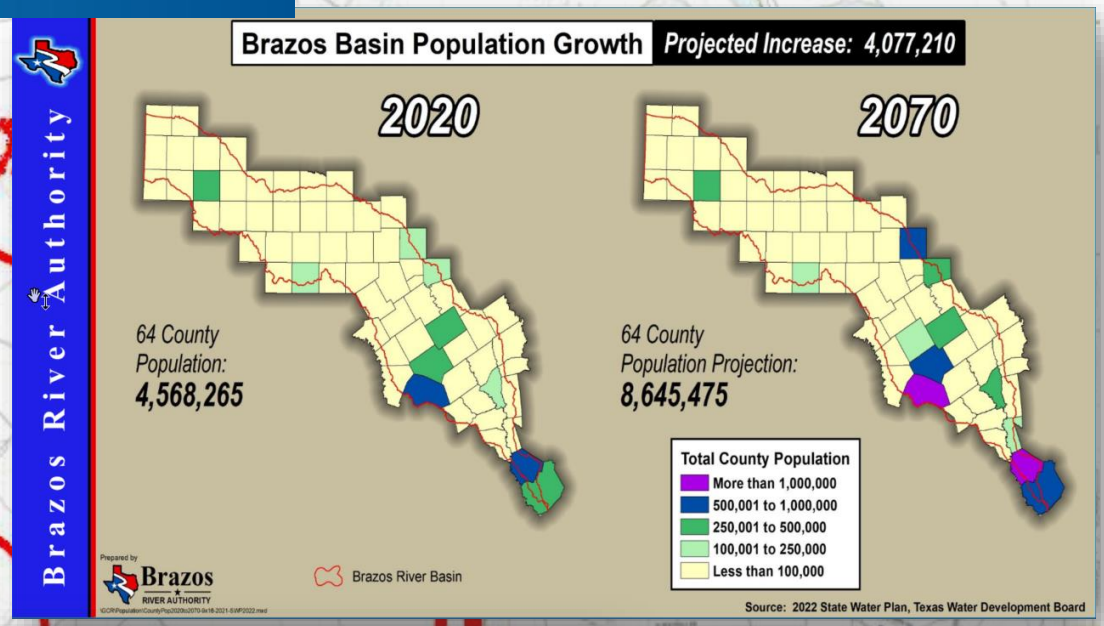
Construction Phase ~ (4 - 7 years)

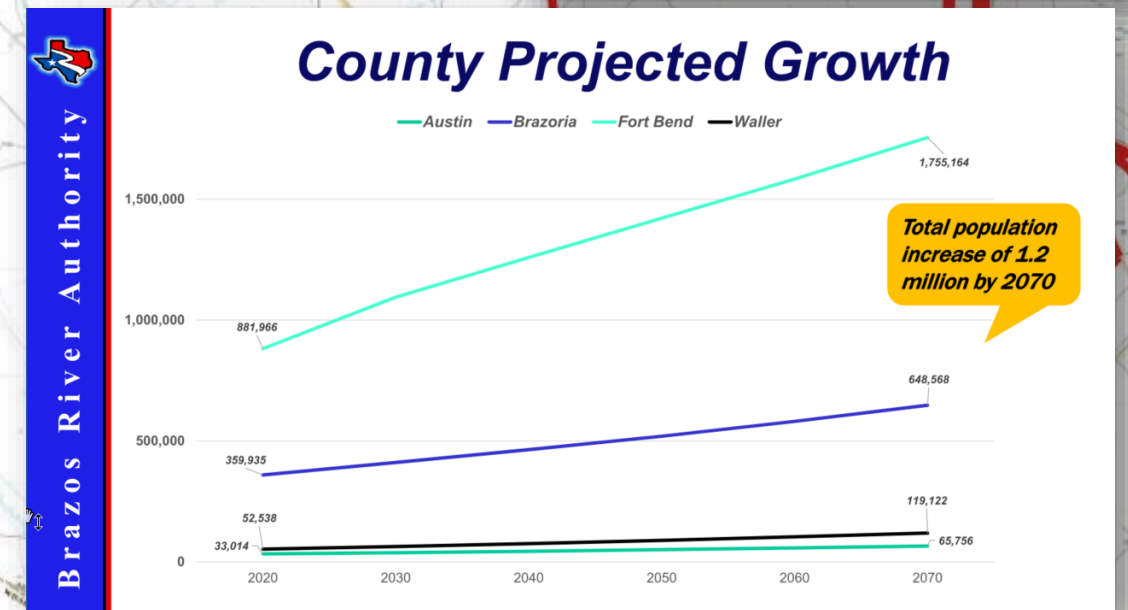
Source: Brazos River Authority, Presentation to Elected Officials and Staff, June 30, 2022 (Fulshear, Texas)

BENEFITS TO CONSIDER

Projected (*Potential Benefits*)

- Water Supply
  - Downstream of Reservoir (Droughts)
  - *Western FBC Water Supply*
- Economic Development
  - Recreational Usage (Drought Dependent)
  - Development Opportunities
- BRA Partnership on Erosion Projects

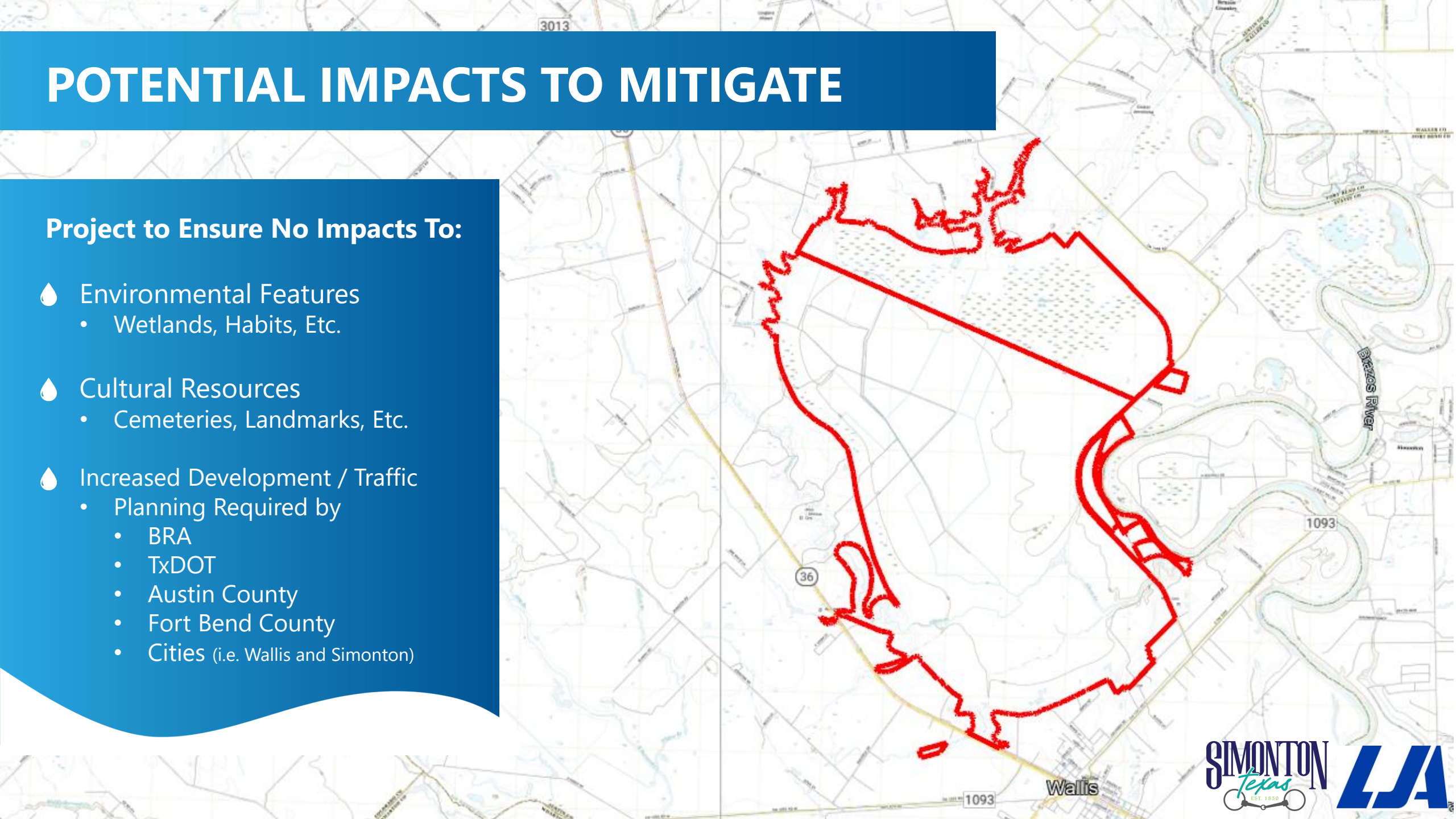




POTENTIAL IMPACTS TO MITIGATE

Project to Ensure No Impacts To:

- Environmental Features
  - Wetlands, Habits, Etc.
- Cultural Resources
  - Cemeteries, Landmarks, Etc.
- Increased Development / Traffic
  - Planning Required by
    - BRA
    - TxDOT
    - Austin County
    - Fort Bend County
    - Cities (i.e. Wallis and Simonton)



POTENTIAL IMPACTS TO MITIGATE

Project does not include a Flood Benefit in its Current

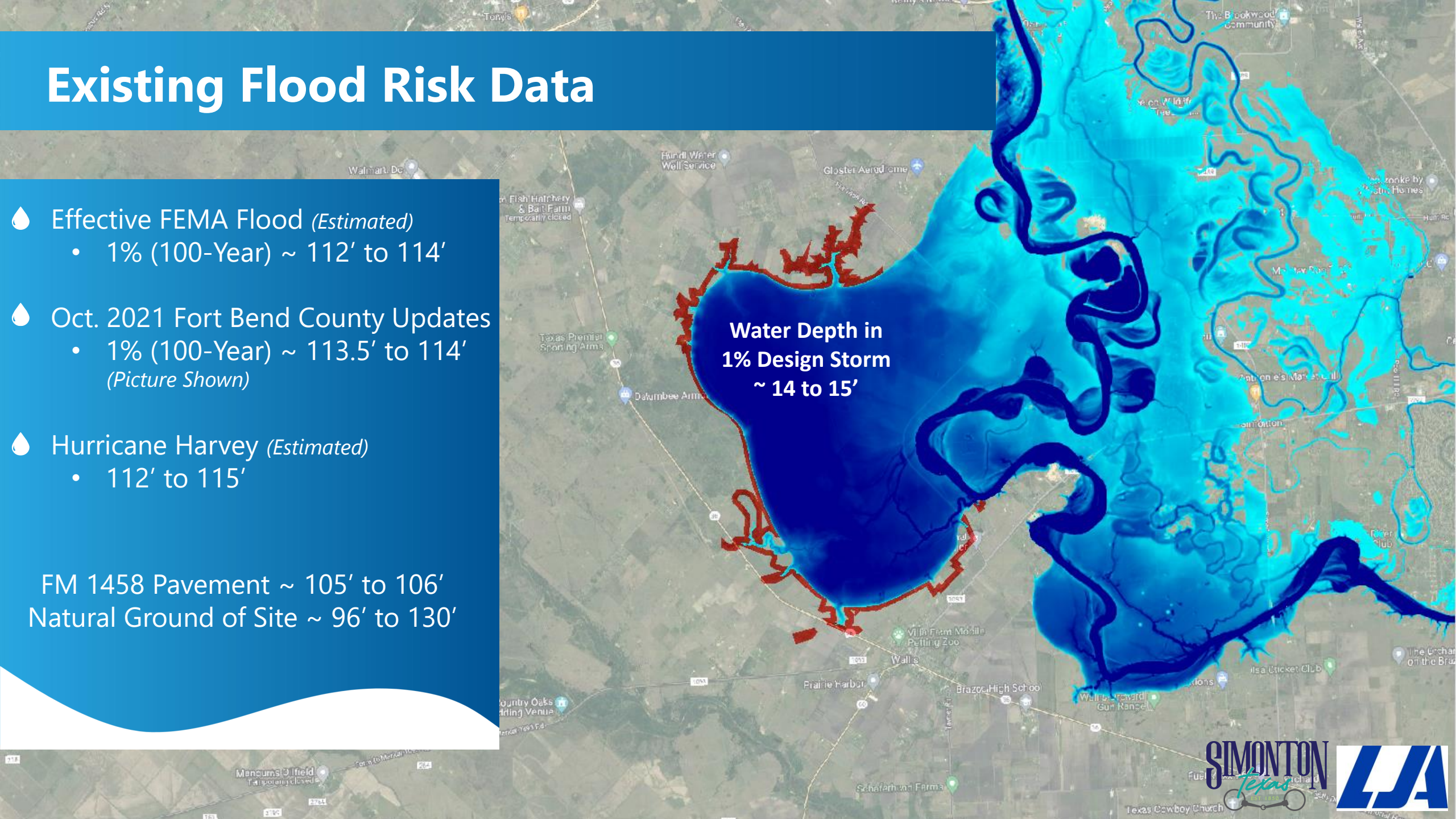
- **Loss of Existing Flood Storage**
- **Increased Water Levels**
- **Increased Erosion Potential**

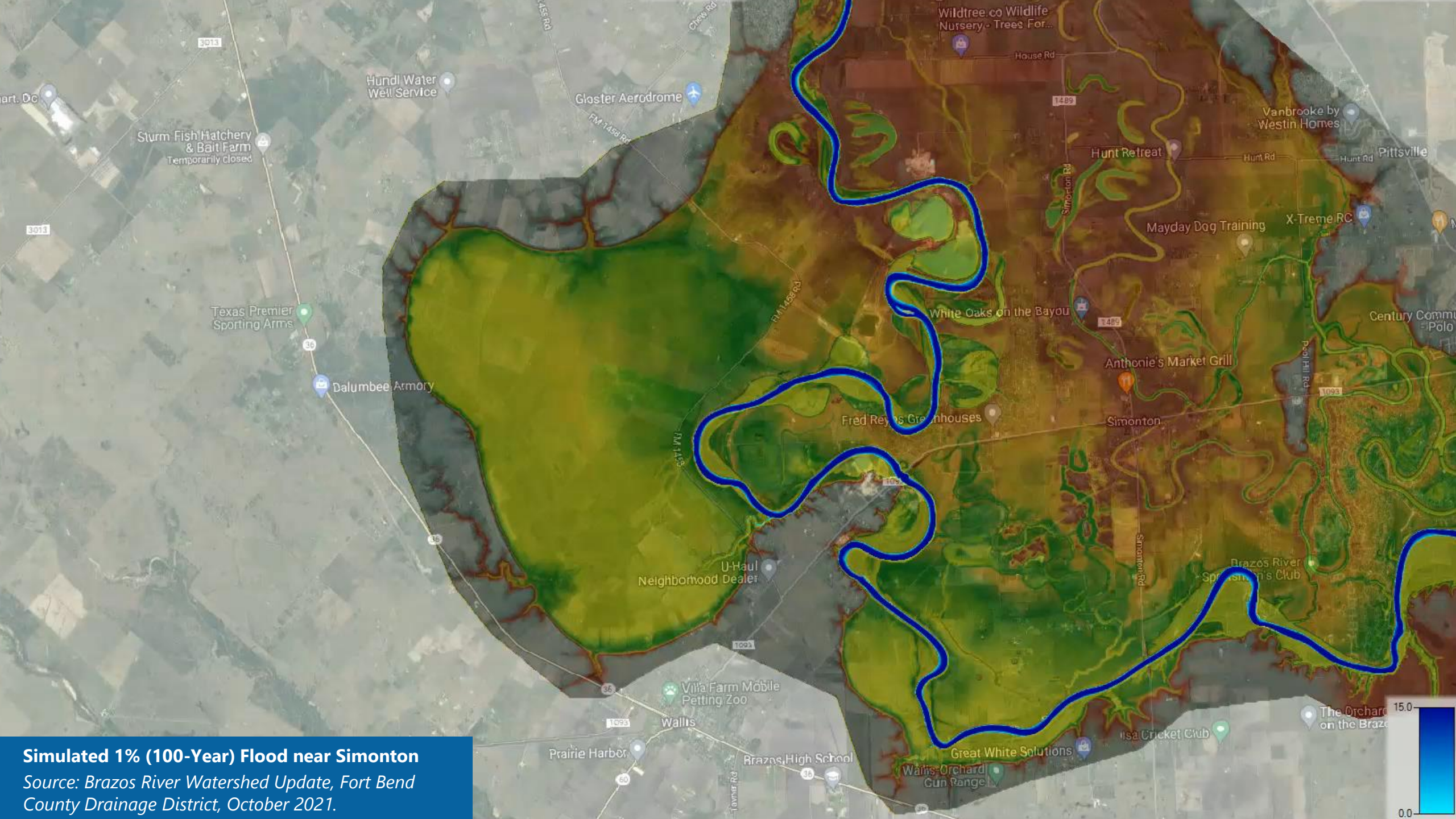
Traditional Flood Events should be evaluated along with Historical Events.

Existing Flood Risk Data

- Effective FEMA Flood *(Estimated)*
  - 1% (100-Year) ~ 112’ to 114’
- Oct. 2021 Fort Bend County Updates
  - 1% (100-Year) ~ 113.5’ to 114’ *(Picture Shown)*
- Hurricane Harvey *(Estimated)*
  - 112’ to 115’

FM 1458 Pavement ~ 105’ to 106’
Natural Ground of Site ~ 96’ to 130’





Simulated 1% (100-Year) Flood near Simonton

Source: Brazos River Watershed Update, Fort Bend County Drainage District, October 2021.

NEXT STEPS

- **SHORT TERM (NEXT 30 TO 60 DAYS)**
  - Identify Partners / Stakeholders with Similar Concerns
    - Austin, Waller, Fort Bend Counties
    - Cities
    - Developers (Twinwood)
  - Authorize Engineer and Staff to Coordinate with BRA
  - Develop Critical Information / Questions for BRA
- **LONG TERM (60+ DAYS)**
  - Review Information from BRA (Availability)
  - Authorize Engineer to Review Data (Availability)

Long term project/permitting will result in slow data sharing and delivery.

More Project Information

https://brazos.org/AllensCreek

https://brazos.org/About-Us/Reservoirs/Allens-Creek-Reservoir-proposed/Frequently-Asked-Questions