

The background of the slide is a solid blue color. Overlaid on this background is a faint, light blue outline of the state of Texas. In the center of the Texas map is a circular logo with the letters 'CWA' in a stylized, bold font. The logo has a blue border and a lighter blue interior.

LUCE BAYOU INTERBASIN TRANSFER PROJECT

Presentation for
Galveston Bay Estuary Program

April 19, 2023

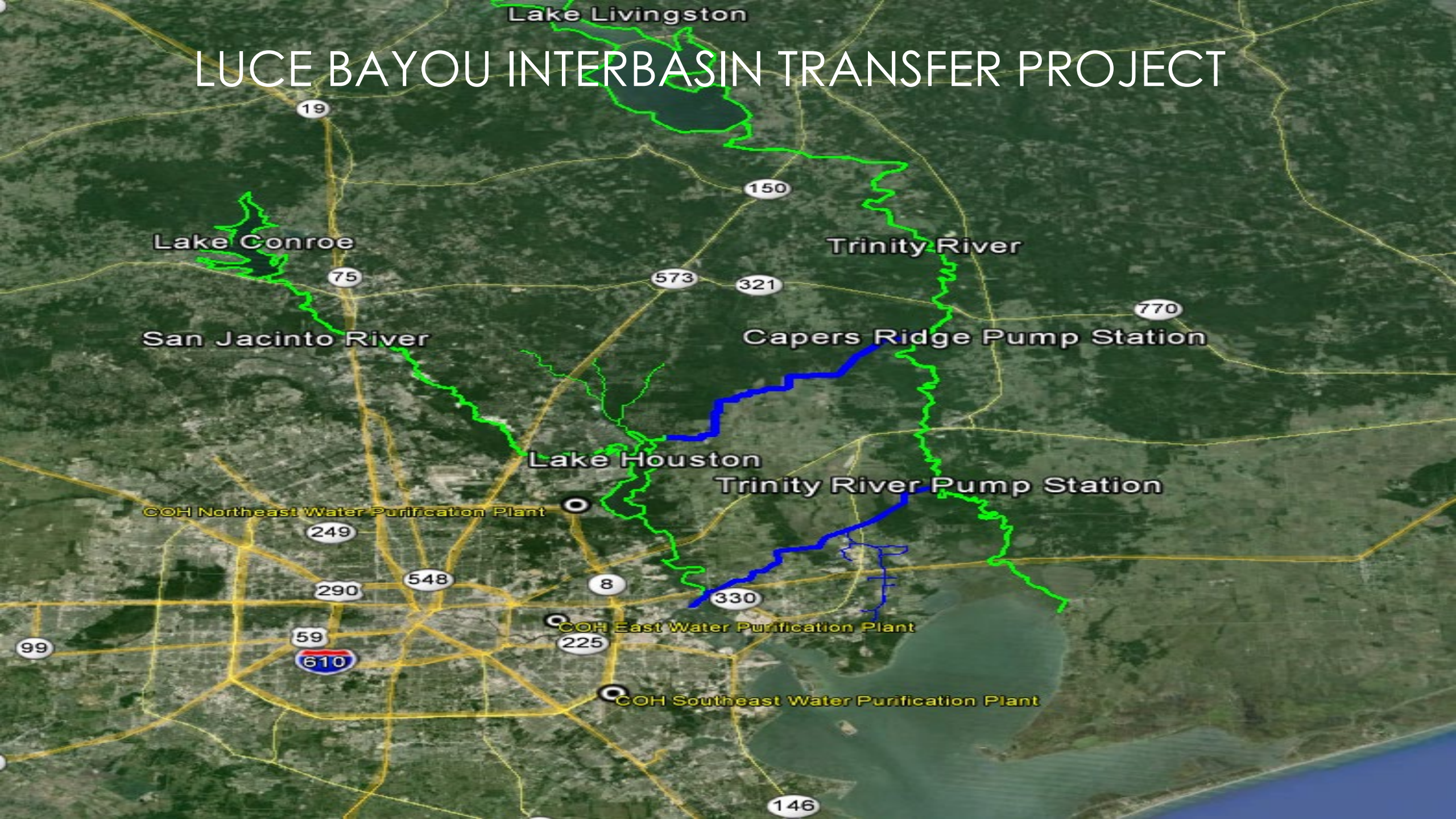
Three white lines of varying lengths and angles are positioned in the bottom right corner of the slide, creating a dynamic, modern feel.

COASTAL WATER AUTHORITY



- ▶ A Conservation and Reclamation District of the State of Texas Created by Special Act of the Texas Legislature in 1967.
- ▶ Located in Harris, Chambers, and Liberty Counties.
- ▶ Transport and deliver water to Houston, Deer Park and Baytown plus 100 industries along the Houston Ship Channel.
- ▶ Acquire properties and construct facilities necessary for these purposes.

LUCE BAYOU INTERBASIN TRANSFER PROJECT



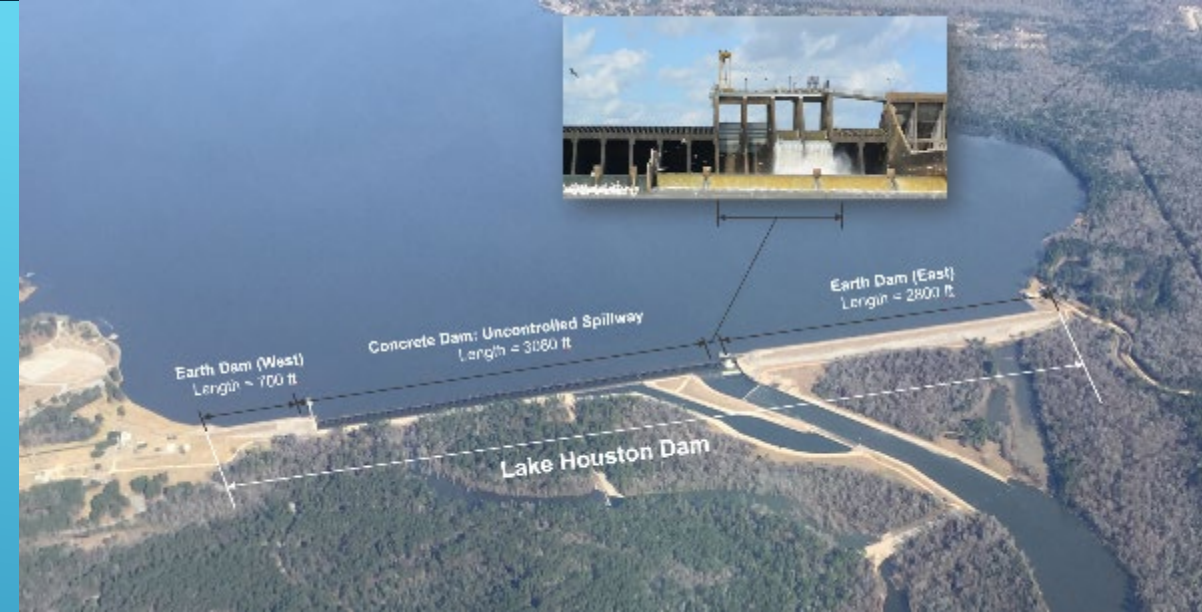
TRINITY RIVER SYSTEM

- ▶ 1969 – Coastal Water Authority begins construction of the Trinity Water Conveyance System
- ▶ Trinity River Pump Station - 1 Billion Gallons per Day Capacity
- ▶ 22 Miles Earthen Canal
- ▶ Lynchburg Reservoir – 1.5 Billion Gallons
- ▶ Lynchburg Pump Station – 1 Billion Gallons per Day Capacity
 - ▶ A System – 5 Pumps
 - ▶ B System – 5 Pumps
 - ▶ C System – 6 Pumps
- ▶ Pipelines
 - ▶ A System – 60-108 inch Diameter (COH SEWPP)
 - ▶ B System – 60-108 inch Diameter (Industry)
 - ▶ C System – 96-108 inch Diameter (COH EWPP)



OTHER CWA FACILITIES

- ▶ Bayport Reservoir and Pump Station
- ▶ Red Bluff Water Treatment Plant
- ▶ Lake Houston Facilities
 - ▶ Lake Houston Dam
 - ▶ Lake Houston Pump Station
 - ▶ West Canal (Supply to COH EWPP and Industry)



LUCE BAYOU INTERBASIN TRANSFER PROJECT



- ▶ Present Day, Additional Surface Water Supplies - Reduction of Groundwater Use and Increase in Population
- ▶ Supply from Trinity River needed at Lake Houston for NEWPP Expansion
- ▶ The City of Houston approved the Luce Bayou Contract on 28 January 2009, authorizing CWA to Design and Construct Infrastructure to Transfer the City's permitted water (500 MGD) from Trinity River to Lake Houston

LUCE BAYOU INTERBASIN TRANSFER PROJECT

City of Houston Expanding NEWPP to meet the demands of the City of Houston and four Regional Water Authorities

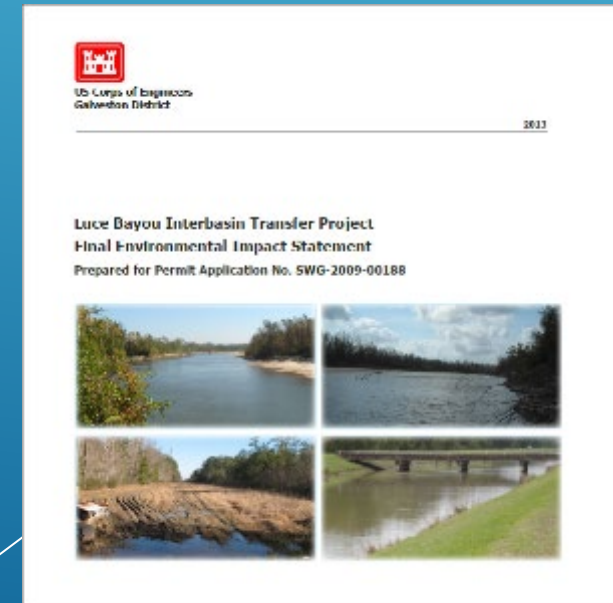


CENTRAL HARRIS COUNTY
REGIONAL WATER AUTHORITY

LUCE BAYOU INTERBASIN TRANSFER PROJECT

Permitting

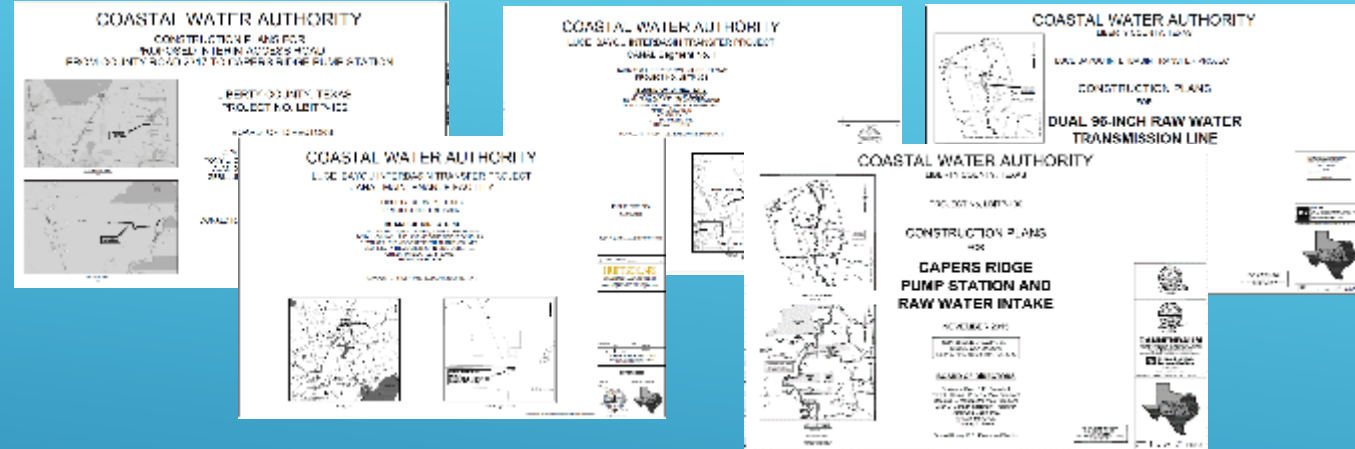
- ▶ Preliminary Planning and Permitting – 2005-2014
- ▶ Environmental Impact Statement – Section 404 of Clean Water Act
- ▶ Environmental Studies and Evaluation of Alternative Routes
- ▶ Unavoidable Impacts - Wetlands – 364 acres, Farmlands – 746 acres
- ▶ Compensatory Mitigation – CWA Donated 2,979 acres of property surrounding Capers Ridge to USFWS
- ▶ Native American Indian Cultural Mitigation – Data Recovery Excavations, Special Design Consideration in Routing Pipelines, and alternative mitigation
- ▶ Other Permits: TPWD – Sand and Gravel; Native Mussel Relocation, TCEQ – Public Water Supply Plans and Specs Review and Approval, THC – Antiquities Permits, PUCT – CCN, City and County Permits




LUCE BAYOU INTERBASIN TRANSFER PROJECT

Project Information

- ▶ Cost: ~\$381 Million
- ▶ Access Road – 5.5 Miles
- ▶ Capers Ridge Pump Station – 500 MGD
- ▶ Earthen Canal – 23.5 Miles
- ▶ Dual 96-inch Dia. Pipelines – 3 miles
- ▶ Canal Maintenance Station
- ▶ 138 kV Electrical Service





MAYOR SYLVESTER TURNER
CHRIS BROWN, CONTROLLER
CITY COUNCIL

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**NORTH HARRIS COUNTY
REGIONAL WATER AUTHORITY**
**NORTH FORT BEND
WATER AUTHORITY**


**WEST HARRIS COUNTY
REGIONAL WATER AUTHORITY**
**CENTRAL HARRIS COUNTY
REGIONAL WATER AUTHORITY**

**LUCE BAYOU INTERBASIN
TRANSFER PROJECT**

\$381,869,000

FOR INFORMATION: CALL 713-658-9020
WWW.COASTALWATERAUTHORITY.ORG

FINANCIAL SUPPORT
TEXAS WATER DEVELOPMENT BOARD
BECH BRUUN, KATHLEEN JACKSON, PETER M. LAKE



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LUCE BAYOU INTERBASIN TRANSFER PROJECT

Capers Ridge Pump Station

- ▶ Initial Capacity – 4 Pumps - 240 MGD;
Expandable – 8 Pumps - 500MGD
- ▶ Pumps – Vertical Turbine 60,000 GPM
- ▶ Motors – 2,200 HP Synchronous Motors
- ▶ Dual Feed 138 kV Electrical Service
and Substation
- ▶ Construction Start – 2016
- ▶ Construction Complete – 2021
- ▶ \$52 Million



LUCE BAYOU INTERBASIN TRANSFER PROJECT

Dual 96-Inch Diameter Pipelines

- ▶ 3 Miles across Capers Ridge
- ▶ Spiral Welded Steel Pipe with Cement Mortar Lining
- ▶ Pigging Facilities
- ▶ Construction Start – 2017
- ▶ Construction Complete – 2021
- ▶ \$42 Million



LUCE BAYOU INTERBASIN TRANSFER PROJECT

Canal System

- ▶ 23.5 Miles of Earthen Canal
- ▶ Sedimentation Basin
- ▶ Water Level Control Gates
- ▶ 12 Bridges
- ▶ 22 Invert Siphons
- ▶ Baffled Apron Drop Structure
- ▶ \$115 Million



