



**US Army Corps
of Engineers**®
Galveston District



Brazos River Floodgates Colorado River Locks Feasibility Study - July 2016 Briefing

The Texas Department of Transportation (TxDOT) is partnering with the U.S. Army Corps of Engineers (USACE), Galveston District, in the delivery of a feasibility Study to the Assistant Secretary of the Army for the Brazos River Floodgates (BRFG) and the Colorado River Locks (CRL), located along the Gulf Intracoastal Waterway (GIWW) in Texas. The study will determine solutions to improve safety and navigation efficiency on the GIWW at these two locations. The study will identify and evaluate possible structural and navigation alternatives to reduce traffic accidents and navigation delays.

The USACE will lead this study with TxDOT providing the engineering, environmental, and economics for the BRFG. The assessment of the BRFG and the CRL will be conducted as separate elements with the results combined into one integrated Feasibility Report and Environmental Impact Statement (EIS).

The Gulf Intracoastal Waterway (GIWW) in Texas, also registered as Marine Highway M-69, is an essential component of the state's and nation's transportation network. Cargo carried on the GIWW reduces congestion on the highway and rail systems. The GIWW is the nation's third busiest inland waterway, with the Texas portion handling 63% of its traffic. In Texas, 91% of its cargo is petroleum and chemical related products which keep hazardous cargos away from metropolitan areas.

About the Brazos River Floodgates

The Brazos River Floodgates are located where the GIWW intersects with the Brazos River southwest of the city of Freeport in Brazoria County, Texas.

- Constructed in September 1943
- Dimensions: 750 feet long by 75 feet wide
- Max Tow Length: 1,180 feet
Max Tow Width: 55 feet
- Prevent excessive tidal action and silting in the GIWW
- Average 38 tows/day transit

About the Colorado River Locks

The Colorado River Locks are located where the GIWW intersects with the Colorado River at the city of Matagorda in Matagorda County, Texas, 40 miles southwest of the Brazos River Floodgates

- 1st Operating Navigation Lock in Texas: 1951
- Dimensions: 1,200 feet long by 75 feet wide
- Max Tow Length: 1,180 feet
Max Tow Width: 55 feet
- Prevent excessive tidal action and silting in the GIWW
- Average 38 tows/day transit



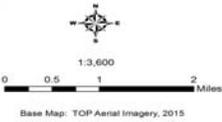


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BRAZOS RIVER FLOODGATES



"Activities that require USACE Regulatory authorization under Section 404 of the Clean Water Act are not part of this study."



----- GIWW Authorized Centerline
Brazos River Floodgate Dimensions
 750 feet long by 75 feet wide
 Maximum tow length: 1,180 feet
 Maximum tow width: 55 feet

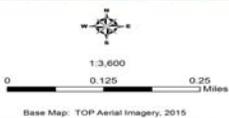


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COLORADO RIVER LOCKS



"Activities that require USACE Regulatory authorization under Section 404 of the Clean Water Act are not part of this study."



----- GIWW Authorized Centerline
Colorado River Locks Dimensions
 1,200 feet long by 75 feet wide
 Maximum tow length: 1,180 feet
 Maximum tow width: 55 feet



Potential Measures to Meet the Objectives

Brazos River Floodgates:

- Remove floodgates and dredge channel
- Relocate gates further from river
- Widen gates/structure lift
- Create guide wall on river side (lessen angle)
- Straighten crossings
- Construct lock system
- Assess effects of flows from San Bernard River (west of floodgates)
- Raise walls/gates/adjoining levee to match Colorado River Locks

Colorado River Locks:

- Relocate locks further from river
- Widen locks
- Move intersection of bypass channel east
- Build gate at the dam to serve as water control structure
- Modify operation at dam to allow for silt flow through old channels to Gulf
- Restore/replace southwest point
- Modify scheduled maintenance
- Create openings/outlets to reduce flow/currents through locks

Project History:

- The Transportation Commission, in June of 2014, set aside \$5 million in the Unified Transportation Program (UTP) for a feasibility study of both the BRFG and CRL.
- TxDOT and USACE worked to identify the best mechanism to partner on the study through the transition of WRRDA 2014 but in July of 2015 USACE informed TxDOT they were not able to formally partner.
- TxDOT would have to proceed independent of USACE and procured a team of highly qualified consultants to conduct a feasibility study of the BRFG without a formal partnership.
- In February of 2016, USACE appropriated funds for FY16 and FY17 to initiate a feasibility study on the BRFG and the CRL.

With these appropriated funds, USACE now has a mechanism to formally partner with TxDOT to conduct the feasibility studies. TxDOT funding and conducting the BRFG feasibility study allowed USACE to leverage their limited funding for the CRL feasibility study. USACE had not been successful in funding these two studies since the reconnaissance study in 2000. It was only after TxDOT committed funds and procured consultants that they were able to appropriate the funding.

Project Status:

- TxDOT to continue with the BRFG feasibility study and provide elements of the study to the USACE
- USACE to provide formal vertical team review of the BRFG study
- USACE to conduct the CRL feasibility study
- Once both studies are complete, USACE Galveston District will submit them (together as a system-wide approach) to the Assistant Secretary of the Army (ASA), Civil Works for approval.

This approach provides a better opportunity for TxDOT's BRFG study to receive approval from the ASA because it will be in formal partnership, including review, with USACE. Upon approval by the ASA, both the BRFG and the CRL will be eligible for federal construction funding to address the navigational inefficiencies and safety issues.

