

COASTAL TEXAS STUDY

NOTHING BUT THE FACTS



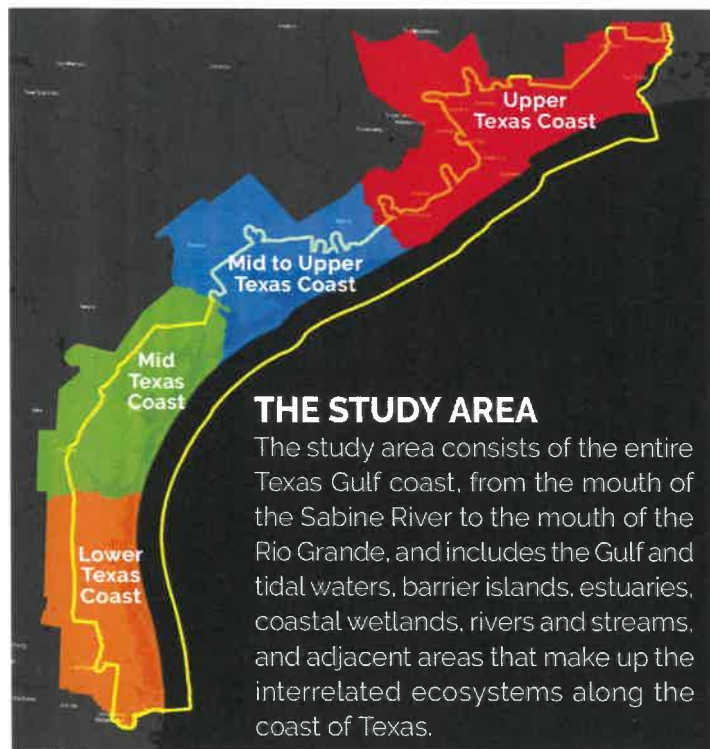
US Army Corps
of Engineers®
Galveston District



Large, long-term studies like the Coastal Texas Study often face misconceptions. The purpose of this document is to clear up some of these misconceptions and provide you with “Nothing But the Facts.”

Misconception: The proposed plan would protect only highly populated areas and not all parts of the Texas coastline that have been impacted by past weather events.

The Coastal Texas Study includes a combination of ecosystem restoration (ER) and coastal storm risk management (CSR) measures located throughout the 18 coastal counties of the Texas Gulf Coast.



Misconception: The Coastal Texas Study is only being proposed to protect the industrial facilities in the Houston-Galveston area.

The proposed features reduce risk to the community at large, not just the concentration of industrial facilities in Houston. Surrounding areas are filled with residences, as well as railways and port facilities that serve Houston, Galveston,

and the nation. Comprehensive risk reduction in the region requires a combined effort of federal, state, and private agencies increasing the area's ability to prepare for, withstand, respond, and adapt to coastal risk. Industries in the Houston area will contribute to risk reduction through investments in their own facilities that contribute to the success of the larger features.

Misconception: The study would use eminent domain to acquire and demolish any property along the proposed barrier alignment.

The non-federal sponsor will have the responsibility of acquiring all necessary real estate interests for the project and ensuring that relocation of utilities and facilities is accomplished. Where necessary, voluntary relocations and acquisitions will be pursued, and eminent domain would only be imposed by a local sponsor as a last resort.

Misconception: The Coastal Texas Study is only considering past, historical flood events

Over 600 storms that could potentially impact the Texas coast were modeled and analyzed. These possible tropical storms include the entire range of storm factors, such as storm intensity, storm size, forward speed and angle of approach on top of the landfall locations along the entire Texas coast. The storms range from very weak and small tropical storm events all the way to catastrophically strong and large Category 5 storms and beyond.

Based on this data, a sample of 170 storms was taken through the Advanced Circulation model (ADCIRC - Certified by the Federal Emergency Management Agency (FEMA) for use in performing storm surge analyses) to determine storm surge heights with and without the barrier systems. The storms that were selected were the most destructive scenarios for storm surge and wave conditions. Additional storm modeling is currently being conducted to optimize the plan.

More information is available online at: coastalstudy.texas.gov.

Misconception: Storm modeling was not analyzed, and protection features were not considered for San Luis Pass.

The anticipated risk reduction benefits for protective features at San Luis Pass do not outweigh the potential negative environmental impacts of closing off the last remaining natural pass along the Texas coast. Many of the structures and assets that would be protected as a result of the closure are already elevated above surge heights or are at a ground elevation that limits surge impact.

There is also limited surge risk when factoring in the full probability of potential storm directions. The pass and the adjoining West Bay are very shallow and constitute only to 10 to 12 percent of the water exchange between West Bay and the larger area of Galveston Bay. This condition minimizes the risk of surge being transmitted to the large area of Galveston Bay where there is a greater number of structures and assets at risk from storm surge.

Misconception: Simply building a wall or barrier is not going to help protect the Texas coast.

The Coastal Texas Study utilizes a “multiple lines of defense” approach/strategy that includes a combination of other structural and non-structural measures, as well as natural and nature-based features to form resilient, redundant, robust, and adaptable strategies that promote life safety. The specific measures proposed through the Study will be based on local site conditions and societal values.

Misconception: The proposed gate structures at Galveston Bay would severely impact the water quality and ecosystem in the bay.

The U.S. Army Corps of Engineers (USACE) Engineer Research and Development Center (ERDC) conducted quantitative analyses using 3D Adaptive Hydraulics (AdH) model to simulate hydrodynamics, salinity, and sediment transport to understand potential environmental impacts. This modeling characterized the changes to the Galveston Bay System with the storm surge gates across Bolivar Roads in the open condition (which represents the non-storm condition or “everyday” operations of the gate structures) to compare to the without barrier condition (present). All modeling was conducted using a tentative gate configuration across Bolivar inlet that would reduce the flow conveyance by less than ten percent.

This would change the height of tides as Gulf water inflow is somewhat restricted by the structure, and freshwater exit from the bay to the Gulf is similarly affected. The modeling so far indicates that the height of tides in the bay would not be at levels that endanger fish and oyster populations.

Misconception: The proposed levee barrier along Bolivar Peninsula and Galveston Island will require the acquisition and demolition of property, as well as cause obstruction to

beach access and viewing for those that live, work, and play along Galveston Island and Bolivar Peninsula.

The levee barrier solution along Galveston Island and Bolivar Peninsula has been dropped completely. The Study team is investigating a dune-and-beach system along the front of Bolivar Peninsula and west of the Galveston seawall.

Misconception: The proposed beach and dune systems along Bolivar Peninsula and the west end of Galveston Island would severely restrict both pedestrian and vehicular beach access.

The proposed beach and dune systems will attempt to maintain the same level of both pedestrian and vehicular beach access by incorporating walk and drive over infrastructure at locations designated in each local government’s Beach Access and Dune Protection Plan. Beach access will be in compliance with the Texas Open Beaches Act and any federal access requirements.



Misconception: The ecosystem restoration (ER) and coastal storm risk management (CSR) features proposed by the study will never meet an acceptable benefit-to-cost ratio to receive funding.

Only projects where direct economic benefits exceed the direct economic costs of building and maintaining those projects are recommended for authorization. The project with the highest net benefits becomes the recommended or tentatively selected plan.

WE WANT YOUR FEEDBACK!

The Study Team encourages public feedback and participation. A second public review and comment period is anticipated to be held during late summer 2020. Comments will be accepted throughout the life of the study and can be directed to USACE, Galveston District, Attn: Ms. Jennifer Morgan, Environmental Compliance Branch, Regional Planning and Environmental Center, P.O. Box 1229, Galveston, TX 77553-1229, or via email to: CoastalTexas@usace.army.mil.

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