

Harris County

Galveston

County

Jefferson County Chambers County

S2G Project - Orange County Project S2G Project - Port Arthur Project Coastal Texas Project

## **About the District**

Along the Texas coast, vital resources critical to the social, economic, and environmental welfare of the nation are at risk. When coastal storms damage homes, businesses, industry, infrastructure, and the natural environments of the Texas coast, the immediate fallout and the continued aftermath affect not only the people who live in these coastal counties, but also the entire state of Texas and the nation as a whole.

The Gulf Coast Protection District (GCPD) was created in 2021 by the 87th regular Texas Legislature to oversee the implementation of an integrated and comprehensive coastal resilience strategy for the upper Texas coast. Specifically, this includes assuming the role of non-Federal sponsor for major portions of the Federally funded and U.S. Army Corps of Engineers (USACE) led Coastal Texas Project and Sabine Pass to Galveston Bay (S2G) Project, known together as the Coastal Barrier.

The Coastal Barrier represents a systemwide risk management strategy for the coastline of Texas, employing multiple lines of defense to reduce the risk of coastal storm surge to natural and man-made infrastructure and to restore degraded coastal ecosystems. Employing a combination of structural and nature-based solutions, the proposed system of improvements will increase the State's ability to withstand and recover from coastal storms, to adapt to rising sea levels, and to maintain the critical social, economic, and environmental systems which serve both Texas and the nation. This includes safeguarding the region's nationally significant energy, petro-chemical, national defense, and manufacturing facilities, and preventing significant and long-lasting disruptions to global supply chains.

## **GCPD** Timeline:

Gulf of Mexico

• **2018:** S2G Project authorized by the Water Resources Development Act of 2018 and funded by the Bipartisan Budget Act of 2018

Orange Countv

- June 16, 2021: SB 1160 effective, formally launching the GCPD
- August 18, 2021: First GCPD Board Meeting, GCPD signs letter of intent (LOI) with US Army Corps of Engineers for the Coastal Texas Project
- September 16, 2021: Coastal Texas Study completed, Chief's Report signed
- April 29, 2022: GCPD signed partnership agreement (PPA) with USACE for the Orange County Project, a component of the S2G Project
- December 23, 2022: Coastal Texas Project authorized by the Water Resources Development Act of 2022
- May 2023: Texas Legislature appropriates \$550M for GCPD and its programs
- July 12, 2023: GCPD signs Memorandum of Understanding (MOU) with USACE for the Coastal Texas Project

The GCPD contains approximately 5,220 square miles of land covering Chambers, Galveston, Harris, Jefferson, and Orange counties.

## GCPD's Role in the Coastal Texas and S2G Projects

Non-federal sponsor
Sponsored by others, supported by GCPD
GCPD not involved



Galveston Bay Storm Surge Barrier System Coastwide Ecosystem

Restoration Plan

South Padre Island Beach Nourishment Project





# **Project Spotlight: Coastal Texas Project**

The Galveston Bay Storm Surge Barrier System is comprised of eight unique projects, split into gulf defenses and bay defenses, as illustrated above. This includes the integration of structural and non-structural coastal storm risk management actions with ecosystem restoration actions to improve the resiliency of coastal communities and the living shoreline.

The gulf defenses separate Galveston Bay from the Gulf of Mexico to reduce storm surge volumes entering the bay and to provide direct protection against storm surge for communities on the barrier island. The largest single component of the Galveston Bay Storm Surge Barrier System and the gulf defenses is the Bolivar Roads Gate System, an approximately 2-mile-long closure structure between Galveston Island and Bolivar Peninsula. Critically, this multi-part gate system will remain open unless the region is threatened by a tropical storm event, maintaining both navigation and environmental flows.

The bay defenses enable the system to manage residual risks from the runup of water contained within the Galveston Bay system, plus any additional gulf surge that overtops the gulf line of defense. The bay defenses also provide further resiliency against variations in storm track and intensity and relative sea level change.

The Galveston Bay Storm Surge Barrier System also integrates with measures included in the Coastwide Ecosystem Restoration Plan to protect the shoreline from erosion and restore marshes and oyster reefs, which enhance the resiliency of the adjacent structural and natural and nature-based risk reduction measures. In addition, mitigation will be provided to offset the direct and indirect impacts of the Galveston Bay Storm Surge Barrier System. As currently formulated, more than 1,300 acres of habitat are proposed to be created or enhanced as mitigation.

#### **Gulf defense components:**

- The Bolivar Roads Gate System, across the entrance to the Houston Ship Channel, between Bolivar Peninsula and Galveston Island;
- 43 miles of beach and dune segments on Bolivar Peninsula and West Galveston Island that work with the Bolivar Roads Gate System to form a continuous line of defense against Gulf of Mexico surge, preventing or reducing storm surge volumes that would enter the bay system; and
- Improvements to the existing 10-mile Seawall on Galveston Island to complete the continuous line of defense against gulf surge.

#### **Bay defense components:**

- An 18-mile Galveston Ring Barrier System that impedes bay waters from flooding neighborhoods, businesses, and critical health facilities within the City of Galveston;
- 2 surge gates on the west perimeter of Galveston Bay (at Clear Lake and Dickinson Bay) to reduce surge volumes that push into neighborhoods around the critical industrial facilities that line Galveston Bay; and
- Complementary non-structural measures, such as home elevations or floodproofing, to further reduce bay-surge risks along the western perimeter of Galveston Bay.

## For more information about the GCPD and its projects:

#### **Gulf Coast Protection District**



www.gcpdtexas.com





www.coastaltexasproject.com

#### S2G Project



www.swg.usace.army.mil/S2G