



P.O. Box 13231, 1700 N. Congress Ave.  
Austin, TX 78711-3231, [www.twdb.texas.gov](http://www.twdb.texas.gov)  
Phone (512) 463-7847, Fax (512) 475-2053

## AGENDA ITEM MEMO

**BOARD MEETING DATE:** December 16, 2025

**THROUGH:** Bryan McMath, Executive Administrator  
Ashley Harden, General Counsel  
Georgia Sanchez, Chief Financial Officer

**FROM:** Richard A. Wade, Deputy Executive Administrator,  
Texas Geographic Information Office

**DATE:** December 16, 2025

**SUBJECT:** Bathymetry Acquisition for Sabine Lake and East Bay

### ACTION REQUESTED

Consider authorizing the Executive Administrator to execute in a total amount not to exceed \$300,000 for bathymetry acquisition for Sabine Lake and East Bay through the Texas Strategic Mapping Program.

### BACKGROUND

Bathymetry is the measure of bed elevation in rivers, lakes, bays, and oceans. As the underwater equivalent of topography, bathymetry represents the three-dimensional features of underwater terrain. Bathymetry can be measured using boat-based sonar technology or remote sensing technology through specialized airborne lidar systems. Coastal bathymetric data has a range of uses for navigation, coastal and ocean science, and hydrodynamic modeling. More specifically, bathymetric data is essential for creating high-resolution grids of hydrodynamic models for a variety of different applications, such as

- coastal flood inundation and hurricane storm surge modeling,
- water planning and floodplain management and planning,
- predicting tides and currents for oil spill response, and
- environmental flow and coastal resiliency studies.

The Texas Geographic Information Office (TxGIO) and the office of Water Science and Conservation (WSC) have coordinated to acquire this project of coastal bathymetric data for Texas.

#### Our Mission

Leading the state's efforts  
in ensuring a secure  
water future for Texas

#### Board Members

L'Oreal Stepney, P.E., Chairwoman | W. Brady Franks, Board Member | Ashley Morgan, Board Member  
Bryan McMath, Executive Administrator

TxGIO will procure services through the Texas Strategic Mapping Program and their associated contracts at the Texas Department of Information Resources. As an end user of the bathymetric data, WSC will provide technical and administrative support throughout the life of the project.

**KEY ISSUES**

Contract services will support a coastal bathymetry project that will target data collection for an area of approximately 73 nautical square miles in Sabine Lake and East Bay along the Texas Coast. Bathymetric data acquired through this project will be used to improve the accuracy of new, three-dimensional coastal hydrodynamic models for East Bay and Sabine Lake. These models will be used in coastal inundation and hurricane storm surge simulations, regional flood planning, and coastal resiliency studies. Further, this project will inform how models can be developed and improved in other areas of the Texas coast.

The total project cost will be determined through competitive bids and will not exceed \$300,000.

**RECOMMENDATION**

The Executive Administrator recommends the execution of multiple contracts in a total amount not to exceed \$300,000 for bathymetry acquisition for Sabine Lake and East Bay through the Texas Strategic Mapping Program.