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AGENDA ITEM MEMO

BOARD MEETING DATE: August 21, 2025

TO: Board Members

THROUGH: Bryan McMath, Executive Administrator
Ashley Harden, General Counsel
Georgia Sanchez, Chief Financial Officer
John T. Dupnik, P.G., Deputy Executive Administrator, Water Science
and Conservation

FROM: Amin Kiaghadi, Ph.D., P.E., Manager, Coastal Science
Carla G. Guthrie, Ph.D., Director, Surface Water

SUBJECT: Coastal monitoring with the U.S. Geological Survey

ACTION REQUESTED

Consider authorizing the Executive Administrator to execute a contract with the U.S. Geological Survey in an amount not to exceed \$745,000 (including \$475,000 from the Texas Water Development Board) for coastal monitoring in fiscal years 2026 and 2027.

BACKGROUND

In response to legislative directives dating back to 1975 to support water planning and environmental flows, the Texas Water Development Board (TWDB) initiated and continues to maintain a data collection, modeling, and analytical study program to evaluate the freshwater inflow requirements necessary to maintain the health of the state's bays and estuaries. Healthy estuaries provide critical habitat for fish and wildlife; generate significant economic value through commercial and recreational fishing and tourism activities; and deliver ecological services such as water filtration, nutrient cycling, shoreline stabilization, and storm surge protection.

Since 1986, the TWDB along with partner agencies has supported a coastwide network of monitoring stations to measure basic water quality parameters (e.g., salinity and temperature) at strategic locations within the state's estuaries. Through a joint funding agreement with the U.S. Geological Survey (USGS) initiated in 2009, the TWDB expanded the network to monitor sediment loading into Texas bays from the lower reaches of major river systems. In 2022, the General Land Office (GLO) began contributing to the monitoring network to support its coastal management and resiliency objectives. By leveraging funding

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L'Oreal Stepney, P.E., Chairwoman | Tonya R. Miller, Board Member
Bryan McMath, Executive Administrator

from cooperators, the TWDB has maintained a robust monitoring network, providing long-term datasets informative to a variety of coastal management, water planning, and flood preparedness and planning objectives.

KEY ISSUES

To continue support for the coastal monitoring network, the Executive Administrator proposes to execute a contract with the USGS to operate and maintain a total of 18 monitoring stations:

- 14 water quality stations, 6 of which will also be equipped with meteorological sensors
- 3 suspended sediment monitoring stations
- 1 suspended sediment, water quality, and streamflow monitoring station

The total cost for the coastal monitoring network in fiscal years 2026 and 2027 will be \$745,000. The TWDB will provide up to \$475,000 from general revenue and the Texas Infrastructure Resiliency Fund to support the network, while the USGS and TGLO will provide \$150,000 and \$120,000, respectively. An allocation of costs is presented in the attachment.

RECOMMENDATION

The Executive Administrator concludes that support of the coastwide monitoring network furthers the objectives of collecting and reporting environmental impact information, aiding both water planning and flood planning efforts, and recommends approval of this request.

Attachment: Summary of coastal monitoring activities for fiscal years 2026 – 2027.

Summary of coastal monitoring activities for fiscal years 2026 – 2027

Fiscal Year	Service	Data type and number of stations				Funding				
		Estuarine water quality	Estuarine water quality and meteorology	Suspended sediment	Suspended sediment, water quality, and streamflow	USGS cost share	TWDB general revenue	TWDB Texas Infrastructure Resiliency Fund	TGLO share	Total costs
2026	Operation & maintenance	8	6	3	1	\$75,000	\$213,500	\$24,000	\$60,000	\$372,500
2027	Operation & maintenance	8	6	3	1	\$75,000	\$213,500	\$24,000	\$60,000	\$372,500
Subtotal by funding source						\$150,000	\$427,000	\$48,000	\$120,000	
									Total	\$745,000