Texas Water Development Board

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AGENDA ITEM MEMO

BOARD MEETING DATE: September 1, 2022

TO: Board Members

THROUGH: Jeff Walker, Executive Administrator
Ashley Harden, General Counsel
Rebecca Trevino, Chief Financial Officer

FROM: Richard A. Wade, Deputy Executive Administrator,
Texas Natural Resources Information System

SUBJECT: Contract for Acquiring Lidar Data in the El Paso Region and Upper Clear Fork Brazos Subbasins, Texas

ACTION REQUESTED

Consider authorizing the Executive Administrator to execute multiple contracts in a total amount not to exceed $1,250,000 for lidar data collection and quality control in Texas, using the Strategic Mapping Program and their associated contracts at the Texas Department of Information Resources.

BACKGROUND

Lidar is a remote sensing technology that uses aircraft to collect three-dimensional (3D) data of the earth's surface. Lidar data provides an engineering grade level of accuracy and serves the needs of most economic development and emergency planning activities.

Example uses include:

- Coastal area flood and hurricane storm surge modeling
- Flood inundation modeling
- Pipeline, transmission, and transportation corridor planning
- Urban and regional economic development
- Watershed modeling
- Facility siting

The Texas Natural Resources Information System (TNRIS), a division of the Texas Water Development Board (TWDB), is managing this project to collect new lidar data.

El Paso Region and Upper Clear Fork Brazos Subbasins, Texas Lidar Project:
This project will potentially capture over 4,680 square miles of watersheds in west and west-central Texas. Coverage extends mainly across El Paso-Las Cruces, Rio Grande-Fort Quitman, and Upper Clear Fork Brazos subbasins in Texas where existing data collections are eight years old. The existing data in this area will not meet current federal quality specifications with regard to date and accuracy by 2023.

Additional parties (state, regional and local agencies) are still interested in participating. We are currently awaiting final decision regarding additional partners' capacity and intent to contribute to the project.

Participating partner:	Texas Water Development Board
Total cost for TWDB:	Not to exceed $1,250,000
Total project cost:	Pending competetive bids; estimated not to exceed $1,250,000

Lidar processed from this project will be used to further support floodplain management and planning, feature extraction, water quality modeling, stream restoration potential analysis, change detection, Next Generation 9-1-1, wildfire mitigation, vegetation and forest analysis, hurricane recovery and planning efforts, and habitat identification/modeling for endangered species.

KEY ISSUES
TNRIS/TWDB is currently awaiting final decisions from state and local partners on their ability to participate on this project.

RECOMMENDATION
The Executive Administrator recommends authorizing the execution of multiple contracts in a total amount not to exceed $1,250,000 for lidar data collection and quality assurance and quality control in Texas, using the Strategic Mapping Program and their associated contracts at the Texas Department of Information Resources.