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TO: Board Members

THROUGH: Bryan McMath, Executive Administrator
Ashley Harden, General Counsel
Rebecca Trevino, Chief Financial Officer

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

DATE: December 17, 2024

SUBJECT: Texas Statewide High Resolution Land Cover Data Project

ACTION REQUESTED

Consider authorizing the Executive Administrator to execute a contract in a total amount not to exceed \$3,900,000 for high resolution land cover data through the Texas Strategic Mapping Program.

BACKGROUND

Land cover data is a geospatial dataset representing the physical and biological cover over the land surface, including water, vegetation, bare soil, and artificial structures. This dataset will be derived from the new statewide 6-inch imagery collected in 2024 for the Texas Imagery Service. This project would be an expansion of efforts in land cover data development for Texas after a successful pilot project in coordination with the National Oceanic and Atmospheric Administration which began in 2020 and covered 11 coastal counties. High resolution land cover is an extremely valuable resource for a wide array of applications.

Examples uses include:

- Improved flood modeling and forecasting
- Assessing stormwater management
- Identification of vulnerable areas
- Water quality impacts
- Broadband infrastructure mapping
- Urban and land use planning
- Environmental impact assessments
- Urban heat islands and tree equity analysis
- Climate resilience
- Wildlife habitat delineation
- Urban growth studies

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| Our Mission | : | Board Members |
| Leading the state's efforts | : | Brooke T. Paup, Chairwoman L'Oreal Stepney, P.E., Board Member Tonya Miller, Board Member |
| in ensuring a secure | : | |
| water future for Texas | : | Bryan McMath, Executive Administrator |

The Texas Geographic Information Office (TxGIO) will procure services through the Texas Strategic Mapping Program and their associated contracts at the Texas Department of Information Resources.

KEY ISSUES

Contract services will support statewide processing and creation of a 1-meter land cover dataset for the entire state of Texas. This dataset will be slightly different from the original pilot and will focus more on classifications of developed infrastructure (bridges, buildings, roads, etc.) to support a wider application for stakeholder needs. TxGIO is actively engaging other state agencies regarding assistance in expanding the land cover classifications and will endeavor to add partners and additional classifications to the project prior to the competitive bid release. TxGIO is allocating additional available budget to the project to enable the option to have a fully public dataset. Existing industry research reveals a lower cost with a licensed product is available; however, TxGIO anticipates making this data publicly available will ensure wide adoption and increased interest from stakeholders to participate in future land cover acquisitions to refresh the state.

TxGIO will leverage the Texas Strategic Mapping Program funds and additional FY25 Texas Infrastructure Resiliency Funds. The total project cost will be determined through competitive bids, and the TWDB contribution to the project will not exceed \$3,900,000.

RECOMMENDATION

The Executive Administrator recommends the execution of this contract with TWDB contributions not to exceed \$3,900,000 for high resolution land cover data through the Texas Strategic Mapping Program.