Texas Water Development Board

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AGENDA ITEM MEMO

BOARD MEETING DATE: July 7, 2021

TO: Board Members

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

FROM: Richard A. Wade, Deputy Executive Administrator, TNRIS

SUBJECT: Budget approval for the National Oceanic and Atmospheric Administration, Office for Coastal Management Coastal Change Analysis Regional Land Cover Program Project

ACTION REQUESTED

Consider authorizing the Executive Administrator to execute a contract with the National Oceanic and Atmospheric Administration in a total amount not to exceed $300,000 using the Texas Strategic Mapping Program funds.

BACKGROUND

Nationally standardized, raster-based inventories of land cover for the coastal areas of the United States are derived through the National Oceanic and Atmospheric Administration's (NOAA) Coastal Change Analysis Program (C-CAP) from the analysis of multiple dates of remotely sensed imagery and other source Geographic Information Systems datasets.

The use of standardized data and procedures ensures consistency through time and across geographies. C-CAP data forms the coastal expression of the National Land Cover Database (NLCD). Texas Natural Resources Information System (TNRIS) has partnered with the Houston Advanced Research Center to define the specific area of interest, an 11-county area in the Houston-Galveston region, and define the data classifications available from NOAA to acquire coastal land cover. Through the collaboration the data deliverables will meet the specific needs of Texas for coastal flood models, habitat mapping, and many other applications.

KEY ISSUES

The NOAA program is national in scope to acquire regional datasets that may be used as a screening tool for local or site-specific management decisions. The exceptional value of these data resides in the high resolution at 1 meter versus the traditional 30-meter or 10-meter datasets collected in the past. Note: the 1-meter product will eventually become the standard for high-resolution land cover data. It is important for environmental conservation as well as natural disaster resilience research taking place throughout Texas. The following state agencies have identified a need for high resolution land cover in Texas: Texas Water Development Board, General Land Office, Texas Commission on Environmental Quality, and Texas Parks and Wildlife Department.

The Houston-Galveston dataset will serve as a proof of concept for extending high resolution land cover into other parts of Texas and will also serve as a base dataset for future land cover projects in the same areas in order to assess and measure change on a five-year cycle.

RECOMMENDATION

The Executive Administrator recommends approving the execution of a contract with NOAA in a total amount not to exceed $300,000 using the Texas Strategic Mapping Program funds.