

LFIR # 1882

Project Title	Florida Coastal Mapping Program - Tampa Bay Area
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2. Senate Sponsor Ed Hooper

**3. Date of Request** 02/24/2021

#### 4. Project/Program Description

Develop a prioritization and strategy for providing new, high resolution elevation data for all of Florida's coastal waters from the shore to the shelf edge. The new, high resolution elevation data coverage of the seafloor will support numerous applications including updating coastal state maps, storm surge and coastal flood inundation modeling, evacuation route planning, and identifying coastal hazards while documenting infrastructure and beach conditions.

#### 5. State Agency to receive requested funds

Division of Emergency Management

State Agency contacted? Yes

#### 6. Amount of the Nonrecurring Request for Fiscal Year 2021-2022

Type of Funding	Amount
Operations	9,836,000
Fixed Capital Outlay	0
Total State Funds Requested	9,836,000

#### 7. Total Project Cost for Fiscal Year 2021-2022 (including matching funds available for this project)

Type of Funding	Amount	Percentage
Total State Funds Requested (from question #6)	9,836,000	100%
Matching Funds		
Federal	0	0%
State (excluding the amount of this request)	0	0%
Local	0	0%
Other	0	0%
Total Project Costs for Fiscal Year 2021-2022	9,836,000	100%

8. Has this project previously received state funding? No

Fiscal Year	Amount		Specific	Vetoed	
(уууу-уу)	Recurring	Nonrecurring	Appropriation #		

#### 9. Is future funding likely to be requested?

a. If yes, indicate nonrecurring amount per year.

#### b. Describe the source of funding that can be used in lieu of state funding.

There is no source to provide funding in lieu of state funding, but there it is likely that federal funds could be obtained in addition to state funds to assist with this effort.

#### 10. Has the entity requesting this project received any federal assistance related to the COVID-19 pandemic?

No

No



#### If yes, indicate the amount of funds received and what the funds were used for.

#### 11. Details on how the requested state funds will be expended

Spending Category	Description	Amount
Administrative Costs:		
Executive Director/Project Head Salary and Benefits		0
Other Salary and Benefits		0
Expense/Equipment/Travel/Supplies/ Other		0
Consultants/Contracted Services/Study	The initial project area has been identified along a portion of the southwest coast, centered on the Tampa Bay area. The project will be acquired and completed within one year. The approach taken for the proposal is to maximize survey coverage with the topo-bathy lidar followed by covering the remaining high priority area with a vessel and acoustic mulitbeam survey. Topo-bathy lidar may survey depths to approximately 30 meters given the average water clarity.	9,836,000
Operational Costs: Other		
Salary and Benefits		0
Expense/Equipment/Travel/Supplies/ Other		0
Consultants/Contracted Services/Study		0
Fixed Capital Construction/Majo	r Renovation:	
Construction/Renovation/Land/ Planning Engineering		0
Total State Funds Requested (m	ust equal total from question #6)	9,836,000

#### 12. Program Performance

#### a. What specific purpose or goal will be achieved by the funds requested?

The new, high resolution data coverage of the seafloor will support numerous applications including infrastructure, navigation, benthic habitat mapping, restoration projects, resource management, emergency response, and coastal resiliency and hazards. Rather than multiple data collections performed by various agencies, a comprehensive and coordinated approach for Florida will increase efficiency, reduce costs, and benefit multiple stakeholders.

#### b. What activities and services will be provided to meet the intended purpose of these funds?

The survey consists of three sections: 1) topo-bathy lidar from Anclote Key to Sanibel Island, extending 1,500 feet over the beach to 3,000 feet offshore; 2) bathymetry collected with airborne lidar in the vicinity of Tampa Bay, extending offshore to a depth of 30 meters; and 3) bathymetry collected with a survey boat and multibeam fathometer in the vicinity of Tampa Bay.

The coastline in this area has not been surveyed with topo-bathy lidar since early 2016, which is pre-Hurricanes Irma and Michael. While these storms did not directly strike the area, they passed by, and along with other non-tropical weather events over the years, the shallow region of the coast has changed. The topo-bathy lidar data will be collected from Anclote Key to Sanibel Island utilizing survey specifications utilized by the Joint Airborne Lidar Bathymetry Technical Center of Expertise (JALBTCX), established in 1998 by the US Army Corps of Engineers (USACE) to support the National Coastal Mapping Program.

#### c. What direct services will be provided to citizens by the appropriation project?



The abilities and reliance upon regional scale computer models to accurately predict future conditions based on natural and man-made changes has advanced significantly. Examples of model uses and predictions include storm-based coastal erosion and structure damage, impacts to submerged vegetation and established wetlands, runoff and flooding, longer term geomorphic change, loss/gain of critical fish habitat, navigation channel shoaling, and many others. Results of these predictions are used daily across many of state agencies to inform critical decisions ranging from developing future budget needs to taking specific actions to protect the public.

Without these models risks and costs would significantly increase. Based on results of the 2017 Florida Lidar Assessment this proposal supports four major state business uses with many mission critical activities through the primary survey products and secondary derived products. The assessment also identifies an ROI of 6.10:1.

#### d. Who is the target population served by this project? How many individuals are expected to be served?

The target population will be those living on the coastline and the near shore environment. NOAA estimates that 40% of the US population lives in coastal shoreline counties, with over 14 million coastal residents in Florida. This data can be used as the basis to improve disaster preparation, by predicting the severity of coastal flooding during storm events.

# e. What is the expected benefit or outcome of this project? What is the methodology by which this outcome will be measured?

The project will provide multiple benefits to the State of Florida.

Coastal zone management – beach and dune erosion modeling, hurricane storm surge modeling leading to evacuation zone planning, coastal hazard modeling and mapping, coastal hazard mitigation, tsunami modeling, oil spill modeling, and coastal resiliency.

Natural resource conservation - engineering and modeling of biological and ecological systems, quantification of critical habitat and ecosystem change.

Wildlife and habitat management - conservation planning for marine sanctuaries, conservation of critical habitats, and management of diverse coral reef and coral communities, marine mammals, protected fish species, and trust resources. Marine navigation and safety - bathymetric measurements of near-shore submerged coastal topography, identification of hazards to navigation in ports, navigable waterways including submerged derelict vessels, sediment management at coastal navigation projects, and precision marine naviga

f. What are the suggested penalties that the contracting agency may consider in addition to its standard penalties for failing to meet deliverables or performance measures provided for the contract?

Full restitution of funds. The state agency will receive the funds and competitively procure services to the most technically qualified firm.

## 13. The owners of the facility to receive, directly or indirectly, any fixed capital outlay funding. Include the relationship between the owners of the facility and the entity.

N/A



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### 14. Requestor Contact Information

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15.	Recipient Contact	pient Contact Information   rganization Division of Emergency Management   unicipality and County Statewide				
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	b. Municipality and					
	c. Organization Type					
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	□Non Profit 501(c	(c)(3)				
	□Non Profit 501(c	c)(4)				
	□Local Entity					
	□University or Co	ollege				
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