

LFIR # 2171

Project Title	Florida Coastal Mapping Progr	am - Tampa Bay Area	A .	
Senate Sponsor	Ed Hooper			
Date of Request	12/17/2019			
Project/Program				
Develop a prioritizatio edge. The new, high-r storm surge and coas infrastructure and bea	n and strategy for providing new, high-re esolution data coverage of the seafloor tal flood inundation modeling, evacuatio	will support numerous appl n route planning, identifying	ications including u g coastal hazards, v	pdating coastal state r while documenting
State Agency to		cutive Office of the G	overnor	
	onrecurring Request for Fisca	l Year 2020-2021		
Type of Fundin	<u> </u>	Amount	1	
		9,836,000		
Operations		3,030,000		
Operations Fixed Capital Ou	utlay	9,830,000	_	
•	•			
Fixed Capital Ou Total State Fun Total Project Cos	ds Requested et for Fiscal Year 2020-2021 (in	9,836,000		for this project)
Fixed Capital Ou Total State Fun Total Project Cos Type of Funding	ds Requested et for Fiscal Year 2020-2021 (in	9,836,000 cluding matching fu	Percentage	for this project)
Fixed Capital Ou Total State Fun Total Project Cos Type of Funding Total State Fund	ds Requested It for Fiscal Year 2020-2021 (ir g s Requested (from question #6)	9,836,000		for this project)
Fixed Capital Ou Total State Fun Total Project Cos Type of Funding	ds Requested It for Fiscal Year 2020-2021 (ir g s Requested (from question #6)	9,836,000 cluding matching fu	Percentage	for this project)
Fixed Capital Ou Total State Fun Total Project Cos Type of Funding Total State Fund Matching Funds Federal	ds Requested It for Fiscal Year 2020-2021 (ir g s Requested (from question #6)	9,836,000 cluding matching fu Amount 9836000	Percentage 100.0 %	for this project)
Fixed Capital Ou Total State Fun Total Project Cos Type of Funding Total State Fund Matching Funds Federal	ds Requested It for Fiscal Year 2020-2021 (inguity) S Requested (from question #6)	9,836,000 cluding matching for Amount 9836000	Percentage 100.0 % 0 % 0 %	for this project)
Fixed Capital Ou Total State Fun Total Project Cos Type of Funding Total State Fund Matching Funds Federal State (excluding	ds Requested It for Fiscal Year 2020-2021 (inguity) S Requested (from question #6)	9,836,000 cluding matching fu Amount 9836000 00	Percentage 100.0 % 0 % 0 %	for this project)
Fixed Capital Ou Total State Fun Total Project Cos Type of Funding Total State Fund Matching Funds Federal State (excluding Local Other	ds Requested It for Fiscal Year 2020-2021 (inguity) S Requested (from question #6)	9,836,000 cluding matching fu Amount 9836000 00 00	Percentage 100.0 % 0 % 0 % 0 %	for this project)
Fixed Capital Outer Total State Funds Total Project Cost Type of Funding Total State Funds Matching Funds Federal State (excluding Local Other Total Project Cottle Has this project part of the part of the project part of the part of the project p	ds Requested It for Fiscal Year 2020-2021 (inguity) s Requested (from question #6) It the amount of this request) Dests for Fiscal Year 2020-2021 Description of the state fundamost recent instance:	9,836,000 cluding matching for Amount 9836000 00 00 00 9,836,000 ing? Yes	Percentage 100.0 % 0 % 0 % 0 % 100 %	for this project)
Fixed Capital Outer Total State Funds Total Project Cost Type of Funding Total State Funds Matching Funds Federal State (excluding Local Other Total Project Cotter Has this project product of the Total Project of Total Project (cotter Total Project project product of the Total Project (cotter Total Project project product project product project product product project product project product project product project product product project product project product project product product project product product project project product project pr	ds Requested et for Fiscal Year 2020-2021 (inguity) s Requested (from question #6) s the amount of this request) osts for Fiscal Year 2020-2021 oreviously received state fundmost recent instance: Amount	000 9,836,000 cluding matching for Amount 9836000 00 00 00 9,836,000 ing? Yes •	Percentage 100.0 % 0 % 0 % 0 % 0 % 100 %	

If yes, indicate nonrecurring amount per year.



LFIR # 2171

10. Details on how the requested state funds will be expended

Spending Category	Description	Amount
Administrative Costs:		
Executive Director/Project Head Salary and Benefits		
Other Salary and Benefits		
Expense/Equipment/ Travel/Supplies/Other		
Consultants/Contracted Services/Study	The initial project area for the Florida Coastal Mapping Program identified is 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	9,836,000
	followed by covering the remaining high priority area with a vessel and acoustic mulitbeam survey. Topobathy lidar may survey depths to approximately 30 meters given the average water clarity.	
Operational Costs: Oth	er	
Salary and Benefits		
Expense/Equipment/ Travel/Supplies/Other		
Consultants/Contracted Services/Study		
Fixed Capital Construc	tion/Major Renovation:	
Construction/Renovation/ Land/Planning Engineering		
Total State Funds Re	equested (must equal total from question #6)	9,836,000



LFIR # 2171

11	. Р	rogr	am F	erfo	rma	nce
----	-----	------	------	------	-----	-----

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 with other non-tropical weather events over the years, the shallow region of the coast has changed. Topo-bathy lidar data will be collected from Anclote Key to Sanibel Island using survey specifications used by the Joint Airborne Lidar Bathymetry Technical Center of Expertise.

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

Our 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, run off 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 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 identified 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. The National Oceanic and Atmospheric Administration 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: 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 and 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 navigation.

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 in the contract?

	•	•	
ull restitution of funds.			



LFIR # 2171

N/A				
Req	uestor Contact	Information		
a. F	First Name	Tom	Last Name	Murphy
o. (Organization	Woolpert, Inc.		
). E	E-mail Address	tom.murphy@woolpert.com		
d. F	Phone Number	(305)753-3834	Ext.	
Reci	ipient Contact	Information		
a. C	Organization	Division of Emergency Managem	nent	
o. N	/lunicipality and	County Statewide		
c. C	Organization Typ	pe		
	For-profit E	ntity		
	Non-Profit 5	•		
	Non-Profit 5	501(c) (4)		
	Local Entity	,		
	University of	or College		
	Other (plea	se specify) State agency		
d. F	rirst Name	Tom	Last Name	Murphy
e. E-mail Address To		Fom.Murphy@woolpert.com		
	Phone Number			
Lob	byist Contact I	nformation		
a. N	Name	Ronald L. Book		
o. F	Firm Name	Ronald L. Book, P.A.		
c. E	E-mail Address	ron@rlbookpa.com		
		(850)2243427	Ext.	