The Florida Senate
Local Funding Initiative Request
Fiscal Year 2022-2023

LFIR # 2252

1. Project Title UF/IFAS Quantifying Ecosystems Services with Artificial Intelligence

2. Senate Sponsor Jennifer Bradley

3. Date of Request 01/12/2022

4. Project/Program Description

The program will develop an artificial intelligence (AI) tool through the formation of a statewide ecosystem services (ES) monitoring network to quantify, validate, and develop ecosystem services delivered by agricultural and natural systems in Florida. The AI tool and monitoring network will provide guidance to policy makers, decision-support tools to agricultural producers and land managers, and opportunities to market “climate-smart” products. An ES monitoring system will also allow the quantification of services that are provided by unmanaged lands encompassed in the Florida Wildlife Corridor.

5. State Agency to receive requested funds Board of Governors

State Agency contacted? Yes

6. Amount of the Nonrecurring Request for Fiscal Year 2022-2023

Type of Funding	Amount
Operations	2,017,876
Fixed Capital Outlay	0
Total State Funds Requested	**2,017,876**

7. Total Project Cost for Fiscal Year 2022-2023 (including matching funds available for this project)

Type of Funding	Amount	Percentage
Total State Funds Requested (from question #6)	2,017,876	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 2022-2023	**2,017,876**	**100%**

8. Has this project previously received state funding? No

Fiscal Year (yyyy-yy)	Amount		Specific Appropriation #	Vetoed
	Recurring	Nonrecurring		

9. Is future funding likely to be requested? Yes

a. If yes, indicate nonrecurring amount per year. 2,017,876

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

None

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

Yes

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

University of Florida received federal stimulus funds. Fund spent supporting students financial needs & other COVID related expenses such as PPE. UF/IFAS received funding to reimburse purchase of 4 quarantine quarters for off-campus graduate students at $78,395.

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

Spending Category	Description	Amount
Administrative Costs:		
Executive Director/Project Head Salary and Benefits	Postdoctoral associate (55,000) to serve as project lead and Associate Director (141,100) at Center for Landscape Conservation and Planning	199,000
Other Salary and Benefits		0
Expense/Equipment/Travel/Supplies/ Other		0
Consultants/Contracted Services/Study		0
Operational Costs: Other		
Salary and Benefits	Six-month stipends for 20 students working on the project with each stakeholder within the AI network. at 440,000. Center for Landscape Conservation Planning will use $528,776 for OPS hires inwater infrastructure coordinator, conservation policy coordinator, GIS and coding support position, research associate and program manager, a postdoctoral assistant, and a Ph.D. assistant	968,876
Expense/Equipment/Travel/Supplies/ Other	Formation of the AI-MESH network, including travel, computing time, data storage. Environmental monitoring equipment, satellite imaging, etc.	550,000
Consultants/Contracted Services/Study	Development of the ES tool platform and Knowledge sharing and partner engagement	300,000
Fixed Capital Construction/Major Renovation:		
Construction/Renovation/Land/ Planning Engineering		0
Total State Funds Requested (must equal total from question #6)		**2,017,876**

12. Program Performance

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

Develop an artificial intelligence (AI) tool through the formation of a statewide ecosystem services (ES) monitoring network to quantify, validate, and develop ecosystem services delivered by agricultural and natural systems in Florida. The AI tool and monitoring network will provide guidance to policy makers, decision-support tools to to agricultural producers and land managers, and opportunities to market "climate-smart" products.

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

Research staff (salary) and students (stipend and tuition) will be supported to build the ES monitoring network and develop the ES quantification tool. Computing time on UF's NVIDIA supercomputer will be required.

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

A permanent state-wide ES network established and utilized through time for the continued monitoring of ES delivered by Florida agriculture and natural systems This digital tool will quantify the delivery of ES across multiple systems and their connection points. Provide education state/nationwide on the productivity and protection of ranchlands, timberlands, and the Florida Wildlife Corridor

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

Over 47,000 farms in Florida that would be served by this project, impacting nearly 1.5M jobs. Greater than 800,000 people.

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

Improve agricultural production/ promotion Permanent and continuously updated data network of ES that can be used to update an ES quantification tool digital tool able to measure ES in Florida and identify areas that are operating effectively at delivering ES. Improve quality of education by providing direct interaction with UF students to help educate and prepare the next generation of agricultural, natural resources, and AI industry professionals and provide advanced technology such that the AI tools. Enhance/preserve/improve environmental or fish and wildlife quality by identifying both natural and working lands (silviculture, grazing, and agriculture) that are adjacent or near the Florida Wildlife Corridor for provisions of ES and support the protection of the Corridor through buffering, watershed protection, storm protection, and providing additional ecological connectivity.

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?

Standard penalties for the state university system

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.

Not Applicable

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Fiscal Year 2022-2023

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14. Requestor Contact Information

a. First Name Scott **Last Name** Angle

b. Organization University of Florida Institute of Food and Agricultural Sciences

c. E-mail Address jangle@ufl.edu

d. Phone Number (850)270-4010 **Ext.**

15. Recipient Contact Information

a. Organization University of Florida Institute of Food and Agricultural UF/IFAS

b. Municipality and County Statewide

c. Organization Type

❑For Profit Entity

❑Non Profit 501(c)(3)

❑Non Profit 501(c)(4)

❑Local Entity

☑University or College

❑Other (please specify)

d. First Name Scott **Last Name** Angle

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f. Phone Number

16. Lobbyist Contact Information

a. Name Samantha Sexton Greer

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