

# Appropriations Project Request - Fiscal Year 2018-19

## For projects meeting the Definition of House Rule 5.14

1. Title of Project: Florida State University - High Resolution Soil Moisture and Irrigation Monitoring
2. Date of Submission: 11/14/2017
3. House Member Sponsor: Matt Caldwell  
Members Copied:

### 4. DETAILS OF AMOUNT REQUESTED:

- a. Has funding been provided in a previous state budget for this activity? No  
***If answer to 4a is ?No? skip 4b and 4c and proceed to 4d, Col. E***
- b. What is the most recent fiscal year the project was funded?
- c. Were the funds provided in the most recent fiscal year subsequently vetoed?
- d. Complete the following Project Request Worksheet to develop your request:

FY:	Input Prior Year Appropriation for this project for FY 2017-18 <i>(If appropriated in 2017-18 enter the appropriated amount, even if vetoed.)</i>			Develop New Funds Request for FY 2018-19 <i>(Requests for additional RECURRING funds are prohibited.)</i>		
Column:	A	B	C	D	E	F
Funds Description:	Prior Year Recurring Funds	Prior Year Nonrecurring Funds	Total Funds Appropriated  <i>(Recurring plus Nonrecurring: column A + column B)</i>	Recurring Base Budget  <i>(Will equal non-vetoed amounts provided in Column A)</i>	<b>Additional Nonrecurring Request</b>	<b>TOTAL Nonrecurring plus Recurring Base Funds</b>  <i>(Will equal the amount from the Recurring base in Column D plus the Additional Nonrecurring Request in Column E.)</i>
Input Amounts:					1,000,000	1,000,000

5. Are funds for this issue requested in a state agency's Legislative Budget Request submitted for FY 2018-19? No
  - 5a. If yes, which state agency?
  - 5b. If no, which is the most appropriate state agency to place an appropriation for the issue being requested? Department of Education
  - 5c. Has the appropriate state agency for administering the funding, if the request were appropriated, been contacted? Yes
  - 5d. Describe penalties for failing to meet deliverables or performance measures which the agency should provide in its contract to administer the funding if appropriated.

If the Department determines that the performance is unsatisfactory, the Department shall send notification of the deficiency which correction shall be made within a reasonable time-frame. A corrective action will be provided to the Department. If the corrective plan is not met a non-performance retainage equivalent to 5% of the invoice amount will be initiated. The retainage will be held until the deficiency is resolved.

6. Requester:

- a. Name: Dr. Peter Ray
- b. Organization: Florida State University
- c. Email: pray@fsu.edu
- d. Phone #: (850)644-1894

7. Contact for questions about specific technical or financial details about the project:

- a. Name: Dr. Peter Ray
- b. Organization: Florida State University
- c. Email: pray@fsu.edu
- d. Phone #: (850)644-1894

8. Is there a registered lobbyist working to secure funding for this project?

- a. Name: Mr. Christopher
- b. Firm: Coker Consulting
- c. Email: chris@cokerconsultingfl.com
- d. Phone #: (850)570-5432

9. Organization or Name of entity receiving funds:

- a. Name: Florida State University
- b. County (County where funds are to be expended): Orange, Palm Beach
- c. Service Area (Counties being served by the service(s) provided with funding): Orange, Palm Beach

10. What type of organization is the entity that will receive the funds? (Select one)

- For Profit
- Non Profit 501(c) (3)
- Non Profit 501(c) (4)

- Local Government
- University or College
- Other (Please describe)

11. What is the specific purpose or goal that will be achieved by the funds being requested?

To provide highly accurate soil moisture information without the high-cost and maintenance of in-situ monitoring networks. In this way decision makers can share soil moisture data with users to reduce over-irrigation, save water and protect the environment.

12. Provide specific details on how funds will be spent. (Select all that apply)

Spending Category	Description	Nonrecurring (Should equal 4d, Col. E) Enter ?? if request is zero for the category
Administrative Costs:		
<input checked="" type="checkbox"/> a. Executive Director/Project Head Salary and Benefits	Manage and direct the program. Responsible for results in line with purpose and goals of project.	98,000
<input type="checkbox"/> b. Other Salary and Benefits		
<input type="checkbox"/> c. Expense/Equipment/Travel/Supplies/Other		
<input type="checkbox"/> d. Consultants/Contracted Services/Study		
Operational Costs:		
<input checked="" type="checkbox"/> e. Salaries and Benefits	Software professionals - enhancement of previously-developed models and algorithms; Meteorologists and hydrologists - radar reflectivity integration and interpolation, water levels, saturation; Engineers - system design and integration; Field technicians - implementation of hardware for validation; Researchers - radar	578,600

	reflectivity translation to localized rainfall, saturation and duration	
<input checked="" type="checkbox"/> f. Expenses/Equipment/Travel/Supplies/Other	Travel, expenses, O&M and misc. and data acquisition, calibration instrumentation, research/validation equipment	323,400
<input type="checkbox"/> g. Consultants/Contracted Services/Study		
Fixed Capital Construction/Major Renovation:		
<input type="checkbox"/> h. Construction/Renovation/Land/Planning Engineering		
TOTAL		1,000,000

13. For the Fixed Capital Costs requested with this issue (In Question 12, category ?h. Fixed Capital Outlay? was selected), what type of ownership will the facility be under when complete? (Select one correct option)

N/A

14. Is the project request an information technology project?

No

15. Is there any documented show of support for the requested project in the community including public hearings, letters of support, major organizational backing, or other expressions of support?

No

16. Has the need for the funds been documented by a study, completed by an independent 3rd party, for the area to be served?

No

17. Will the requested funds be used directly for services to citizens?

Yes

17a. What are the activities and services that will be provided to meet the purpose of the funds?

To use available radar data and modeling to derive highly-localized rainfall and soil moisture readings calibrated with field data to improve urban water management

17b. Describe the direct services to be provided to the citizens by the funding requested.

To share important soil moisture and rainfall information with users to reduce over-irrigation, save water and protect the environment.

17c. Describe the target population to be served (i.e., "the majority of the funds requested will serve these target populations or groups.").

Select all that apply to the target population:

- Elderly persons
- Persons with poor mental health
- Persons with poor physical health
- Jobless persons
- Economically disadvantaged persons
- At-risk youth
- Homeless
- Developmentally disabled
- Physically disabled
- Drug users (in health services)
- Preschool students
- Grade school students
- High school students
- University/college students
- Currently or formerly incarcerated persons
- Drug offenders (in criminal Justice)
- Victims of crime
- General (The majority of the funds will benefit no specific group)
- Other (Please describe)

17d. How many in the target population are expected to be served?

- < 25
- 25-50
- 51-100
- 101-200
- 201-400
- 401-800
- >800

18. What benefits or outcomes will be realized by the expenditure of funds requested? (Select each Benefit/Outcome that applies)

Benefit or Outcome	Provide a specific measure of the benefit or outcome	Describe the method for measuring level of benefit
<input type="checkbox"/> Improve physical health		
<input type="checkbox"/> Improve mental health		
<input type="checkbox"/> Enrich cultural experience		
<input type="checkbox"/> Improve agricultural production/promotion/education		
<input checked="" type="checkbox"/> Improve quality of education	Real-world experience in a multi-disciplinary environment where many skills are brought together in real world problem solving	Their findings in written and oral form
<input checked="" type="checkbox"/> Enhance/preserve/improve environmental or fish and wildlife quality	Less polluted runoff which decreases detrimental eutrophication of streams, rivers and lakes. Improving both sport fishing and the environment.	Sampling of plant and wildlife
<input type="checkbox"/> Protect the general public from harm (environmental, criminal, etc.)		
<input type="checkbox"/> Improve transportation conditions		
<input type="checkbox"/> Increase or improve economic activity		
<input type="checkbox"/> Increase tourism		
<input type="checkbox"/> Create specific immediate job opportunities		
<input type="checkbox"/> Enhance specific individual's economic self sufficiency		
<input type="checkbox"/> Reduce recidivism		
<input type="checkbox"/> Reduce substance abuse		

<input type="checkbox"/> Divert from Criminal/Juvenile justice system		
<input type="checkbox"/> Improve wastewater management		
<input checked="" type="checkbox"/> Improve stormwater management	Decreasing fertilizer application and reducing irrigation can greatly reduce surface runoff and improve water stormwater quality.	Routine sampling of water quality
<input checked="" type="checkbox"/> Improve groundwater quality	By decreasing excessive irrigation in residential and commercial applications groundwater quality can be improved.	Routine sampling of water quality
<input type="checkbox"/> Improve drinking water quality		
<input checked="" type="checkbox"/> Improve surface water quality	By making accurate soil moisture information available irrigation water use can be reduced resulting in a substantial decrease of nutrients through leaching and runoff.	Routine sampling of water quality
<input type="checkbox"/> Other (Please describe):		

19. Provide the total cost of the project for FY 2018-19 from all sources of funding (Enter ?0? if amount is zero):

Type of Funding	Amount	Percent of Total	Are the other sources of funds guaranteed in writing?
1. Amount Requested from the State in this Appropriations Project Request:	1,000,000	100.0%	N/A
2. Federal:	0	0.0%	No
3. State: (Excluding the requested Total Amount in #4d, Column F)	0	0.0%	No

4. Local:	0	0.0%	No
5. Other:	0	0.0%	No
TOTAL	1,000,000	100%	

20. Is this a multi-year project requiring funding from the state for more than one year?

No