



The Florida Senate

Local Funding Initiative Request

Fiscal Year 2026-2027

LFIR # 1394

1. Project Title University of Miami Hybrid Reefs and Coral Restoration for Coastal Resilience

2. Senate Sponsor Ileana Garcia

3. Date of Request 11/19/2025

4. Project/Program Description

The shoreline of SE Florida, from Miami-Dade to Broward County, has been one of the most valuable and susceptible in the US to the growing impacts of extreme weather and sea level rise. Validated by research, this project will implement a hybrid reef restoration project that combines ("grey") infrastructure (cement wave attenuation reefs) with nature-based ("green") solutions (corals) to create a cost-effective coastal protection reef project that will buffer coastal threats and provide significant ecological and economic co-benefits.

5. State Agency to receive requested funds Department of Environmental Protection

State Agency contacted? Yes

6. Amount of the Nonrecurring Request for Fiscal Year 2026-2027

Type of Funding	Amount
Operating	1,200,000
Fixed Capital Outlay	0
Total State Funds Requested	1,200,000

7. Total Project Cost for Fiscal Year 2026-2027 (including matching funds available for this project)

Type of Funding	Amount	Percentage
Total State Funds Requested (from question #6)	1,200,000	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 2026-2027	1,200,000	100%

8. Has this project previously received state funding? No

If yes, provide the most recent instance:

Fiscal Year (YYYY-YY)	Amount		Specific Appropriation #	Vetoed
	Recurring	Nonrecurring		

9. Is future-year funding likely to be requested? Yes

a. If yes, indicate nonrecurring amount per year. 2,000,000

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

To date, project leverages \$30M in funding from DARPA, NOAA, and additional sources. Project stakeholders will also seek legislative appropriations, state and local grants, and contributions from environmental NGO organizations.



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Complete questions 10 and 11 for Fixed Capital Outlay Projects

10. Status of Construction

a. What is the current phase of the project?

☐ Planning ☐ Design ☐ Construction ☐ N/A

b. Is the project "shovel ready" (i.e permitted)?

c. What is the estimated start date of construction?

d. What is the estimated completion date of construction?

e. What funding stream will be used for ongoing operations and maintenance of the project?

11. List 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.

12. 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		0
Operational Costs		
Salary and Benefits	Oversight of project, engineering, design, permitting, construction, contractors, and coral production. Communication of project updates to stakeholders and local communities.	110,000
Expense/Equipment/Travel/Supplies/Other	Project-related travel and supplies for deployment at specified site.	10,000
Consultants/Contracted Services/Study	Manufacturing of 3D-printed reef units and production of corals. Wave study, benthic/bathymetric surveys, engineering, design, and permitting. Engineer validation of work completed.	1,080,000
Fixed Capital Construction/Major Renovation:		
Construction/Renovation/Land/Planning Engineering		0
Total State Funds Requested (must equal total from question #6)		1,200,000

13. Program Performance

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



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Project will (1) Reduce shoreline erosion naturally by protecting the coastline from high-energy waves using installed hybrid reefs, (2) enhance coral populations through direct out planting of heat-resistant, laboratory-grown corals, (3) improve water quality through enhanced seagrass recruitment shoreward of reef devices, (4) enhance biodiversity and essential fish habitat surrounding the reefs, (5) improve resiliency of south Florida communities by mitigating the effects of severe weather events and flooding.

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

Funds will be used to survey bottom conditions, benthic ecosystems, existing beach condition and local needs in intended project areas in SE Florida to determine optimal location for project. We will assess the wave and current conditions in these areas. Funds will also be used to engineer, design, and permit the project, as well as manage the grant and manufacture hybrid reefs and heat-resistant lab-grown corals for outplanting on the reefs.

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

The hybrid structures will dissipate wave energy and outplanted corals produce significant additional drag and make the structure self-building and self-repairing. This will improve the resilience of nearby communities by reducing the risk of flooding and infrastructure damage while protecting beaches. Upon completion of construction, the program will offer citizen science boat- and shore-based expeditions as well as land-based activities that will allow community members to participate in reef restoration projects.

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

The intended target population that will be served by this project includes the general population (including those immediately protected by the project, but also the wider community due to the dispersed cost of disasters on insurance premiums), local municipalities, tourists seeking eco-experiences, the state, restoration practitioners and South Florida's expanding green economy, and researchers measuring the impact of hybrid reefs on economic and environmental co-benefits.

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

Project will (1) reduce shoreline erosion naturally by protecting the coastline from high energy waves using installed hybrid reefs, (2) enhance coral populations through direct out planting of heat-resistant, laboratory-grown corals, (3) improve water quality through enhanced seagrass recruitment shoreward of reef devices, (4) enhance biodiversity and essential fish habitat surrounding the reefs, (5) improve resilience of south Florida communities by mitigating the effects of severe weather events and flooding. Researchers at the University of Miami will assess the outcomes of the project by 1) Regular diver surveys monitoring the growth of outplanted corals, observing fish present and assessing the stability of the base structure. 2) directly measuring its impact on local wave heights and currents offshore and inshore of the structure over a multi-month duration using satellite reporting mooring systems.

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?

Subject to the penalties put forth by the Department of Environmental Protection.

14. Is this project related to mitigation, response, or recovery from a natural disaster? ☐ No ☒ Yes

a. If Yes, what phase best describes the project?

- ☒ Mitigation (reducing or eliminating potential loss of life or property)
- ☐ Response (addressing the immediate and short-term effects of a natural disaster)
- ☐ Recovery (assisting communities return to normal operations, including rebuilding damaged infrastructure)

b. Name of the natural disaster (or Executive Order # for events not under a federal declaration):

Includes various hurricanes and other extreme weather events

15. Has the entity applied for or received federal assistance for this project?



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- ☐ Yes, Applied
- ☐ Yes, Received
- ☒ No
- ☐ No, but intends to apply

a. If yes, provide the FEMA project worksheet ID#:

b. Provide the total project cost listed on the FEMA project worksheet:

16. Has the entity applied for or received state assistance for this project (other than this request)?

- ☐ Yes, Applied
- ☐ Yes, Received
- ☒ No
- ☐ No, but intends to apply

a. If yes, specify the program and state agency (ex. Local Government Emergency Bridge Loan, Department of Commerce):

Please complete questions 17 through 21 for Water Projects only.

17. Have you been awarded or applied for alternative state funding for this project?

- ☐ Water Quality Improvement Grant Program
- ☐ Resilient Florida Grant Program
- ☐ Wastewater Revolving Loan
- ☐ Drinking Water Revolving Loan
- ☐ Small Community Wastewater Treatment Grant
- ☐ Other (please specify, ex. Alternative Water Supply Grants)
- ☒ N/A

18. What is the population economic status?

- ☐ Financially Disadvantaged Community (ch. 62-552, F.A.C)
- ☐ Financially Disadvantaged Municipality (ch. 62-552, F.A.C)



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- ☐ Rural Area of Economic Concern
- ☐ Rural Area of Opportunity (s. 288.0656, Florida Statutes)
- ☒ N/A

19. What is the status of construction?

Project is entering engineering, design and permitting

20. What percentage of the construction has been completed?

0

21. What is the estimated completion date of construction?

10/31/2027

22. Requester Contact Information

a. First Name Last Name

b. Organization

c. E-mail Address

d. Phone Number Ext.

23. Recipient Contact Information

a. Organization

b. Municipality and County

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 Last Name

e. E-mail Address

f. Phone Number Ext.

24. Lobbyist Contact Information

a. Name



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b. Firm Name

c. E-mail Address

d. Phone Number

The information provided will be posted to the Florida Senate website for public viewing if sponsored by a Senator.