

LFIR # 2002

1. Project Title	Brevard County Eau Gallie NE Environmental Dredging and Interstitial Water Treatment
2. Senate Sponsor	Debbie Mayfield

3. Date of Request 12/12/2023

4. Project/Program Description

This project will remove accumulations of muck from 73 acres of the Indian River Lagoon in Area 1A, located northeast of the FL-518 (Eau Gallie) Causeway through environmental dredging plus treatment of interstitial water. The project location has approximately 376,600 cubic yards of decaying muck. Combined dredging and treatment of interstitial water is estimated to reduce the annual nitrogen flux by roughly 4,520 pounds/year and phosphorus flux by approximately 1,460 pounds/year. Return water will be tested daily for nutrient concentrations to document removal of an additional 36,600 pounds of nitrogen via treating the interstitial water. This will increase oxygen and reduce algae blooms, fish kills and the accumulation of toxic hydrogen sulfide as well as help preserve healthy, adjacent sediments that provide habitat for marine life and promote ecosystem services like coupled nitrification-denitrification to help mitigate excess nitrogen pollution.

5. State Agency to receive requested funds

Department of Environmental Protection

State Agency contacted? No

6. Amount of the Nonrecurring Request for Fiscal Year 2024-2025

Type of Funding	Amount
Operations	0
Fixed Capital Outlay	2,500,000
Total State Funds Requested	2,500,000

7. Total Project Cost for Fiscal Year 2024-2025 (including matching funds available for this project)

Type of Funding	Amount	Percentage	
Total State Funds Requested (from question #6)	2,500,000	50%	
Matching Funds			
Federal	0	0%	
State (excluding the amount of this request)	0	0%	
Local	2,500,000	50%	
Other	0	0%	
Total Project Costs for Fiscal Year 2024-2025	5,000,000	100%	

8. Has this project previously received state funding? Yes

Fiscal Year	Amount		Specific	Vetoed	
(уууу-уу)	Recurring	Nonrecurring	Appropriation #		
2022-23	0	5,010,244	0474	No	

9. Is future funding likely to be requested?

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No

a. If yes, indicate nonrecurring amount per year.

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



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.

ARPA: 1st tranche of \$58.5M went to Infrastructure, Revenue Replacement & Vaccine Incentive. 2nd tranche of \$58.5M went to qualified expenditures including Infrastructure, Negative Economic Impacts, Public Health & Revenue Replacement. CARES Act: \$105M for Public Safety Needs & Economic Support; \$20.4M for Transit, Housing, Fire Rescue, Valkaria Airport, & Sheriff's Community Programs: \$32.6M for Emergency Rental Assistance; \$6.6M for HUD Programs, \$4.2M for Housing Programs; \$3M for Transit.

Complete questions 11 and 12 for Fixed Capital Outlay Projects

11. 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)?		Yes	
c. What is the es	timated start da	te of construction?		3/1/2024	

- d. What is the estimated completion date of construction?
- 12. 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.

3/1/2027

N/A - Does not pertain to environmental demucking of state submerged lands.

13. 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: 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	Construction and construction oversight. Data collection, engineering and permitting are complete. Construction is scheduled to begin 03/01/2023 and is anticipated to take 3-4 years. The prior year request was only partially funded, so the funding requested is the balance of match to fund 1 year.	2,500,000
Total State Funds Requested (m	ust equal total from question #6)	2,500,000



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14. Program Performance

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

This project will remove accumulations of muck from a 73 acre area (Area 1A) of the Indian River Lagoon, just northeast of the FL-518 (Eau Gallie) Causeway by implementing environmental dredging plus interstitial treatment of the return water. The project location has approximately 376,600 cubic yards of decaying muck. Dredging is estimated to reduce the annual nitrogen flux by roughly 4,526 pounds/year and the phosphorus flux by approximately 1,460 pounds/year. Removal of muck solids and treatment of water will decrease nitrogen and phosphorus by an additional 1,700,000 pounds N and 370,000 pounds P, respectfully. This will increase oxygen and reduce algae blooms, fish kills and the accumulation of toxic hydrogen sulfide as well as help preserve healthy, adjacent sediments that provide habitat for marine life and promote ecosystem services like coupled nitrification-denitrification to help mitigate excess nitrogen pollution.

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

Environmental dredging of muck, dewatering of the dredged slurry and advanced treatment of the interstitial water (similar to advanced wastewater treatment) before it is discharged to the lagoon. Solids may be used as a soil amendment on agricultural lands distant from the Indian River Lagoon.

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

Restoration of healthy sediments for seagrass, marine habitat and to promote ecosystem services like coupled nitrification-denitrification; reduced turbidity, total suspended solids, nutrient release, sulfuric acid and sediment oxygen demand; improved water clarity, water quality, light penetration, and dissolved oxygen levels; decreased potential and severity for algal blooms and fish kills.

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

The entire population of Brevard County (~660,000), plus tourists engaging in lagoon-dependent activities, as well as local and state economic sectors tied to the health of the Indian River Lagoon.

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

The expected benefit of this project is the reduction of nutrient input, turbidity, and total suspended solids from muck in the Indian River Lagoon as well as preventing degradation of nearby healthy, sandy sediments. Muck area, volume and associated nutrient content removed from the lagoon will be measured in acres, cubic yards and tons. Dredging the entire Eau Gallie area is estimated to reduce annual nitrogen and phosphorous flux by approximately 4,520 pounds and approximately 1,460 lbs/yr, respectively. Water quality improvements (nutrient concentrations, water clarity, turbidity, total suspended solids, light penetration, dissolved oxygen, and bloom levels) will be recorded using pre- and post-project monitoring data from stations located near the project and operated by SJRWMD or Florida Tech. Return water will be tested daily for nutrient concentrations to document removal of an additional 36,600 pounds of nitrogen via treating the interstitial water.

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?

Past performance should be taken into account by bill sponsors. Brevard County continues to meet its deliverables, however there could be a penalty of non-payment until contractual obligations are met.

15. Requester Contact Information

a. First Name	Virginia	Last Name	Barker
b. Organization	Brevard County Natural R	esources Ma	nagement Department
c. E-mail Address	virginia.barker@brevardfl	gov	
d. Phone Number	(321)633-2016	Ext.	
d. Phone Number	(321)633-2016	Ext.	

16. Recipient Contact Information



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a. Organization	Brevard County Natural R Management Department	esources		
b. Municipality and	d County Brevard]
c. Organization Ty	ре			
□For Profit Entity				
□Non Profit 501(c	c)(3)			
□Non Profit 501(c	5)(4)			
☑Local Entity				
□University or Co	llege			
□Other (please sp	pecify)			
d. First Name	Jeanne	Last Name	Allen	
e. E-mail Address	jeanne.allen@brevardfl.go	DV		
f. Phone Number	(321)633-2016			
17. Lobbyist Contact I	nformation			
a. Name	Ronald L. Book]
b. Firm Name	Ronald L. Book PA]
c. E-mail Address	ron@rlbookpa.com]

d. Phone Number (305)935-1866

Please complete the questions below for Water Projects only.

18. Have you applied for alternative state funding?

- □ Waste Water Revolving Loan
- Drinking Water Revolving Loan
- □ Small Community Wastewater Treatment Grant
- ☑ Other (please specify) FDEP IRL WQ Grants and FDEP WQ Grants
- D N/A

19. 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

20. What is the status of construction?

Permitting and design complete

21. What percentage of the construction has been completed?

~1%

22. What is the estimated completion date of construction?

3/1/2027