



Beach Management Funding Assistance Program
Local Government Funding Request
Fiscal Year 2023/2024
Inlet Projects Application

PART I: GENERAL INFORMATION

Local Sponsor	Martin County Board of County Commissioners		
Federal ID Number (FEID)	59-6000743		
Primary Contact Name	Jessica Garland	Title	Coastal Project Manager
Mailing Address Line 1	2401 SE Monterey Rd		
Mailing Address Line 2			
City	Stuart	Zip Code	34996
Telephone Number	772-288-5795		
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Additional Contact Information

PART II: CERTIFICATION

I hereby certify that all information provided with this application is true and complete to the best of my knowledge.

Signature of Local Sponsor

Electronic or scanned signatures accepted.

Printed Name

Date



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PART III: EVALUATION CRITERIA

1. Project Name: As listed in the Inlet Management Plan (IMP) or Strategic Beach Management Plan (SBMP)

St. Lucie Inlet Management Plan Implementation

2. Project Description: Include county, location with reference to DEP range monuments, brief project history, and description of proposed activities.

From the implementation of the first St. Lucie Inlet Management Plan in 1996 through 2015, a total of 3,287,000 CY of beach quality material was bypassed to the south. The updated St. Lucie Inlet Management Plan (1-11-2016) reported that bypass volumes of material excavated from the Impoundment Basin/Navigation Channel underestimate the actual volumes bypassed by 10% or more due to the rapid rate of infilling that occurs in the St. Lucie Inlet during winter months. This condition was recently documented by daily surveys conducted during the 2014 St. Lucie Inlet maintenance project and result in an increase in the annual average bypassing rate between 1996 that was calculated as 173,000 cy/yr. to an estimated 190,000 cy/yr during that time period.

The 1996 St. Lucie Inlet Management Plan (SLIMP-96) was issued by the State of Florida in 1995. Improved data collection and revised statute language resulted in an IMP update process that was initiated in 2014. The updated IMP was issued by the Florida Department of Environmental Protection in January 11, 2016 (SLIMP-16). This updated plan contains goals that present a major challenge to the County in that the total required bypass volume of 195,000 cy/yr (161,000 to the south and 34,000 to the north) exceeds the measured annual deposition in the impoundment basin and navigation channel by 40-50,000 cy/yr. Supplemental sand (upland or offshore) will be required for the County to reach the IMP bypass goal. One potential source for this supplementary sand is from the Town of Jupiter Island's Borrow Area B. The potential for economy of scale associated with this site could be achieved through joint projects between the Town of Jupiter Island (Town) and County.

The Town's concerns regarding accelerated depletion of Borrow Area B has been largely addressed by the execution of 2 agreements between the Town and the County: an Interlocal Agreement (attached) in October 2014 and a Memorandum of Agreement in July 2015 (attached). These agreements combine to outline a local St. Lucie Inlet management protocol within the guidelines of the updated IMP. These agreements recognize the County's need to obtain supplemental sand along with the Town's concern regarding depletion of Borrow Area B resources. In the initial action taken under this agreement, the County participated in the Town's routine beach maintenance project by purchasing an additional 500,000 cy of sand from Borrow Area B. This additional sand was placed on the Town's beaches as an enhancement to the routine beach project. To prolong the life of the Town's borrow site, the County committed to placing all sand removed during major maintenance dredging projects into Borrow Area B. This relationship will allow continued joint use of the offshore site for sand placement within the Town, and also prolong its usable life.

Updated IMP (January, 2016)

Activities to the south include

- 2016 bypass 500,000 cy from Borrow Area B to Town's beach
 - o Bypass ledger credit 3.1 yrs - June 2019
- 2018 transfer of sand 546,539 from St. Lucie Inlet to Borrow Area B
- 2019 transfer of 531,593 CY from Borrow Area B to Town's beach
 - Updated bypass ledger credit for additional 3.3 yrs, - October 2022
- 2022 bypass of 445,782 cy from Impoundment Basin and Navigation channel to St. Lucie Inlet State Park R44.5 to R50.7

Activities to the north

- 2016 BTB project transferred 325,000 cy. of sand to the beach immediately north.
- 2017 project transferred 72,106 cy from Borrow Area A (shoal inside St. Lucie Inlet)
- 2018 Total Project Volume: 142,843 cubic yards (pay volume)-February-April 2018
 - Sailfish Point Channel/Marina Basin volume: 14,520 cubic yards



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- Shoal Volume: 80,200 cubic yards (from Borrow Area "A")
 - Impoundment Basin/Federal Channel volume: 71,100 cubic yards
 - 2021 bypass 181,852cy from -April 2021
 - SFP Marina Channel (36,085cy)
 - Federal Channel & Transition Area (67,286cy)
 - Impoundment Basin (77,605cy)"
- Bypass ledger credit 3 yrs 102,000 (34,000 cy/yr 2020,2021,2022)

The subject of the FY23/24 funding request is

- o The north bypass requirements for 3 years of 34,000 cy per year (102,000cy 2023, 2024, 2025)
- o Permit required monitoring for Year 1 of the 2022 South bypassing project into the SLISP

In the future the St. Lucie Inlet bypass program will include a combination of :

- Transport of maintenance dredge material to the Town of Jupiter Island's Borrow Area B, and
- Joint projects with the Town to move material from Borrow Area B to the Town's beach.
- Projects addressing the Inlet impacts to the beaches south.
- Projects addressing the Inlet impacts to the beaches north.

3. Use of Requested Program Funds: Provide a brief description of tasks to be completed in each requested phase (Feasibility, Design, Construction, or Monitoring). Indicate which tasks are cost reimbursement from previous fiscal years.

Funds requested in FY 23/24 will be used for :

- o The north bypass requirements for 3 years of 34,000 cy per year (102,000cy 2023, 2024, 2025)
- o Permit required monitoring for Year 1 of the 2022 South bypassing project into the SLISP

4. Map: Provide as an attachment.

- **Format:** The project area must be formatted at a minimum of 1" = 200' scale and include a compass rose and legend.
- **Required elements:** Project boundary, DEP reference monuments, shoreline designated as critically eroded, area of inlet influence, and permitted sand bypassing placement area

5. Project length: Total restored project boundary (in feet) as listed in the IMP or SBMP.

The updated IMP does not specify a specific area of inlet influence.

6. Schedule and Budget: Provide as a separate attachment, if needed. Clearly indicate project phase: Feasibility (F), Design (D), Construction (C), or Monitoring (M). Include the year of post-construction monitoring in the description.

- **Cost Reimbursement:** Specify eligible costs incurred during the three years prior to the current application's fiscal year that are not in a current DEP agreement and have not been reimbursed (this includes fiscal years 20/21, 21/22, and 22/23). Eligible costs will be added to the current funding request.
- **Current and Future Costs:** Specify eligible costs for the current application's fiscal year that are not in a current DEP agreement and have not been reimbursed as well as the estimated costs for the next 4 years. Note: If Construction costs are requested in the



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current fiscal year, then the Year 1 Post-Construction Monitoring costs will be added to the current funding request.

Fiscal Year	Project Phase	Description	Federal Cost	State Cost	Local Cost	Total Cost
20/21						
20/21						
20/21						
21/22						
21/22						
21/22						
22/23						
22/23						
22/23						
23/24	Construction Bypass North to BTB 102,000 cu yd	Construct Winter 2023 Sand placement between R-34 to R-42 and Post Construction Monitoring		2,500,000	2,500,000	5,000,000
23/24	Monitoring SLISP Year 1 June/July 2023	Physical and biological monitoring, condition updates, reports		300,000	300,000	600,000
23/24						
24/25	Construction – Offshore Borrow Area B	Construct summer 2025 P&S, NTP, and post construction monitoring	5,750,000	2,725,000	2,725,000	11,200,000
24/25	Monitoring BTB Year 1 & SLISP Year 2 June/July	Physical and biological monitoring, condition updates, reports		425,000	425,000	850,000
24/25						
25/26	Monitoring BTB Year 2, Borrow Area B Year 1 &	Physical and biological monitoring, condition updates, reports		525,000	525,000	1,050,000
25/26						
25/26						



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Fiscal Year	Project Phase	Description	Federal Cost	State Cost	Local Cost	Total Cost
26/27	Construction Bypass North to BTB102,000cy	Construct Winter 2026and Post Construction Monitoring		2,500,000	2,500,000	5,000,000
26/27						
26/27						
27/28	Construction – Offshore Borrow Area B:	Construct Summer 2028 and Post Construction Monitoring		3,000,000	3,000,000	6,000,000
27/28	Construction SOUTH:– onshore from Borrow	Construct Winter 2027 and Post Construction Monitoring"		5,500,000	5,500,000	11,000,000
27/28	"Monitoring BTB Year 1	Physical and biological monitoring, condition updates, reports		300,000	300,000	600,000



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7. Sand reaching the inlet

Provide the estimated annual quantity (cubic yards) of beach quality sand reaching the updrift boundary of the improved jetty or inlet channel:

265,000

8. Severity of erosion

Provide the annual bypassing objective (cubic yards/year) adopted by the IMP or SBMP or as determined by a Department-approved study:

195,000

9. Balancing the sediment budget

Provide the current annual average of bypassed material (cubic yards) since the adoption of a bypass objective:

Provide a brief description of when the last sediment budget engineering analysis was completed for the inlet and area of inlet influence. Discuss any proposals to update the sediment budget.

The updated St. Lucie Inlet Management Plan, issued by the state, addresses these issues and is attached.

The following bypassing requirement summary is taken from the updated St. Lucie Inlet IMP 2016:

On an annual average basis:

- 161,000 cy bypassed to the south
- 34,000 cy bypassed to the north

The County has initiated data analysis and model update for the 5 year update in 2021.



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Historical bypassing volumes: In the table below, provide the annual bypassing volumes (cubic yards/year), for the previous ten years (from the last calendar year or the most recent calculation). Attach additional documentation as needed.

Year	Quantity Bypassed (cy) - Sand Transfer Plant	Quantity Bypassed (cy) - Dredging	Dredge Location	Placement or Disposal Area
2010				
2011				
2012				
2013				
2014				
2015		500,000	Town of Jupiter Island Borrow Area B	R-76 to R-84 & R-91 to R-112
2016		335,252	Impoundment Basin, Flood Shoals	R34.5 to R40
2017		72,106	Interior shoal, Sailfish Point channel	R34.5 to R38
2018		142,843	Interior shoal, Sailfish Point channel, Impoundment Basin Navigation Channel Cut 1	R34.5 to R38
2019		531,592	Borrow Area B	R-73.5 to R-84R-87.5 to R95 R-97 to R-106R-111 to R-115.5
2020				
2021		180,975	SFP Marina Channel, Federal Channel & Transition Area & Impoundment Basin	R-34.5 to R-38
Total per method				
Total bypass volume:	1,762,768			

Years since IMP adoption: 7

Annual average bypass: 251,824

Bypass objective: 195,000

Percentage of bypass objective: 129.14%



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10. Increased bypassing and cost-effectiveness

Provide the estimated increase in annual bypassing of sand (cubic yards/year) proposed for the project:

None

Provide the estimated shortfall of annual bypassing of sand (cubic yards/year) within the inlet system:

None

Is the proposed project requesting construction phase funds for a major inlet management project component? Yes

If yes, and for the award of points for the cost-effectiveness of using inlet sand criteria, provide an opinion of probable cost per unit volume of the inlet and all other sand sources, certified by a licensed professional engineer.

11. Inlet Management Plans

Select all that apply:

- ☒ **Existing IMP:** The proposed project has an existing IMP or completed Inlet Management Study that has been approved by the Department.
- ☒ **Updated IMP:** The Department has received and approved an update to an existing IMP in the form of a current Inlet Management Study/sediment budget analysis within the previous five years, or there is an update proposed to an existing IMP in the current application.
- ☐ **New IMP:** A new inlet management study is proposed for submission to the Department for an adoption in an IMP.

12. Enhanced longevity of proximate beach nourishment projects

Annualized beach nourishment volume of proximate beach nourishment project:

13. Active permits

Does the project have an active state permit? Yes

Permit number: 0269814-007-JC

Authorization date: 09-24-14

Expiration date: 09-24-29

Does the project have an active federal permit? Yes

Permit number: SAJ-1996-05620 I

Authorization date: 02-04-22

Expiration date: Feb 4, 2027



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14. Federal funds available

Does the proposed project have federal funds available? If so, provide supporting documentation.

Yes

15. Secured local funds

Has the necessary local funding been secured for the proposed project? If so, provide a copy of the draft Resolution. The signed Resolution is due by October 5, 2022.

Yes

Additional
comments