



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

PART I: GENERAL INFORMATION

Local Sponsor	Lee County		
Federal ID Number (FEID)	59-6000702		
Primary Contact Name	Steve Boutelle	Title	Marine Operations Manager
Mailing Address Line 1	Natural Resources Division		
Mailing Address Line 2	1500 Monroe St		
City	Fort Myers	Zip Code	33901
Telephone Number	239-533-8128		
Email Address	sboutelle@leegov.com		

Additional Contact Information

Alternate Contacts:
Marie Thevenin, Fiscal Manager
Mike Campbell, Project Manager
239-533-8109

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

Steve Boutelle

Date

Jul 28, 2022



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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)

Blind Pass IMP Feasibility

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

Blind Pass is located between Sanibel and Captiva Islands. The project site includes the Gulf of Mexico shoreline between R-110 and R-118 on Sanibel Island. The project site is located in Sections 2, 11, 13, and 14, Township 46 South, Range 21 East in Lee County, Florida.

Blind Pass is a natural tidal inlet and has migrated and closed at various times throughout history. A detailed account of early history can be found in the Blind Pass Inlet Management Plan (FDEP, August 2019). Prior to the opening of Redfish Pass in 1921, Blind Pass was a more substantial inlet with a larger tidal prism. The Blind Pass ebb shoal associated with the larger tidal prism (pre-Redfish Pass) most likely helped maintain the seaward position of the south end of Captiva Island and the north end of Sanibel Island. In December 2008, Lee County began dredging to re-open Blind Pass, which was completed on July 31, 2009. The project was accomplished pursuant to the original inlet management plan (CPE, 1993) and interlocal agreement joined by the CEPD, Lee County and City of Sanibel with the state contributing financial support. With ongoing maintenance dredging, the pass has remained open and the dredge material has been placed downdrift on Sanibel Island. Lee County and DEP sponsored an inlet management study of Blind Pass, which compiled new and historical data and information regarding its coastal processes and inlet and shoreline dynamics, updated its sediment budget, and developed feasible alternatives for the mechanical transfer of sand from the inlet to the beaches south of the inlet.

Proposed activities include:

- Detailed topographic and bathymetric surveys of the inlet system
- Detailed biological surveys of inlet system
- Sediment Budget update based on Captiva's recent nourishment project, upcoming inlet dredging, and subsequent inlet system adjustments to these two projects
- Channel design, geotechnical testing, seagrass impact assessment, and development of mitigation plan specific to "extending the current dredge template landward through Wulfert Channel to Pine Island Sound"
- Channel design, geotechnical testing, mangrove impact assessment, and development of mitigation plan specific to "reestablishing the connection to Sunset Bay, and continue the connection landward to Pine Island Sound"
- Additional modeling

These activities are consistent with strategies 1 and 5 of the adopted Blind Pass Inlet Management Plan (August 2019).

1) A comprehensive beach and inlet hydrographic monitoring program shall be conducted to evaluate the performance and impact of existing sand bypassing and nourishment projects and to periodically update the inlet sediment budget. Along with topographic and hydrographic surveys of the inlet system and adjoining beaches, hydraulic monitoring may be conducted to enhance future modeling input data for investigations of inlet management alternatives.

5) Tidal connections to Pine Island Sound through a Wulfert Channel extension and a Sunset Bay connection have been shown to improve inlet stability and natural sand bypassing. Engineering design and permitting will be required to develop an environmentally acceptable project. Physical monitoring shall include hydraulic data acquisition to evaluate project performance.



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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.

Feasibility:

- Detailed hydraulic, topographic and bathymetric surveys of the inlet system
- Detailed biological surveys of inlet system
- Sediment Budget update based on Captiva's recent nourishment project, upcoming inlet dredging, and subsequent inlet system adjustments to these two projects
- Channel design, geotechnical testing, seagrass impact assessment, and development of mitigation plan specific to "extending the current dredge template landward through Wulfert Channel to Pine Island Sound"
- Channel design, geotechnical testing, mangrove impact assessment, and development of mitigation plan specific to "reestablishing the connection to Sunset Bay, and continue the connection landward to Pine Island Sound"
- Additional design level modeling

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. 5668 (R110.5-R116)

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 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						



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Fiscal Year	Project Phase	Description	Federal Cost	State Cost	Local Cost	Total Cost
22/23						
22/23						
22/23						
23/24	F	hydraulic, topographic and bathymetric surveys	0	60,000	60,000	120,000
23/24	F	biological surveys	0	30,000	30,000	60,000
23/24	F	update sediment budget	0	12,500	12,500	25,000
24/25	F	channel design for Wulfert Channel to Pine Island Sound	0	10,000	10,000	20,000
24/25	F	channel design for reestablishing the connection to Sunset Bay	0	10,000	10,000	20,000
24/25	F	Design level modeling	0	75,000	75,000	150,000
25/26	F	geotechnical testing	0	25,000	25,000	50,000
25/26	F	biological impact assessments and mitigation plan	0	7,500	7,500	15,000
25/26						
26/27						
26/27						
26/27						
27/28						
27/28						
27/28						



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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:

51,000

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:

21,000

9. Balancing the sediment budget

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

N/A, IMP 2019

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.

In 2017-18, the Department of Environmental Protection (Department) and Lee County sponsored an inlet management study of Blind Pass performed by Aptim Environmental and Infrastructure, Inc. (APTIM), which compiled new and historical data and information regarding its coastal processes and inlet and shoreline dynamics, updated its sediment budget, and developed feasible alternatives for the mechanical transfer of sand from the inlet to the beaches south of the inlet.



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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		63,300	exterior inlet channel	R116-R118
2013		37,600	inner inlet channel	R112-R113.5
2014				
2015				
2016				
2017		89,700	exterior and interior inlet channel	R112-R114.2; R116-R118
2018				
2019				
2020				
2021				
Total per method		190,600		

Total bypass volume:

Years since IMP adoption:

Annual average bypass:

Bypass objective:

Percentage of bypass objective:



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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:

N/A, status quo

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

0

Is the proposed project requesting construction phase funds for a major inlet management project component? No

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:

Bypassing only

13. Active permits

Does the project have an active state permit? Yes

Permit number: 0265943-008-JN

Authorization date: Dec 9, 2011

Expiration date: Dec 9, 2026

Does the project have an active federal permit? No

Permit number: SAJ-2006-03865(RWR-MOD)

Authorization date: Jan 8, 2016

Expiration date: Jan 8, 2019



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14. Federal funds available

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

No

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

4. Maps attached.
15. Draft resolution attached.