

**PALM BEACH COUNTY
BOARD OF COUNTY COMMISSIONERS**

AGENDA ITEM SUMMARY

Meeting Date: July 19, 2011 (X) Consent () Regular
() Ordinance () Public Hearing

Department

Submitted By: Environmental Resources Management
Submitted For: Environmental Resources Management

I. EXECUTIVE BRIEF

Motion and Title: Staff recommends motion to adopt: a Resolution requesting that the Florida Department of Environmental Protection (FDEP) review a funding application and support funding for shoreline protection projects within its Fiscal Year 2012/2013 Beach Erosion Control Assistance Program.

Summary: The County is requesting that the State appropriate \$1,894,707 for the Jupiter/Carlin Shore Protection Project, \$150,000 for the Juno Beach Shore Protection Project, \$1,192,500 for the South Lake Worth Inlet Management Plan, and \$164,703 for the Ocean Ridge Shore Protection Project. If the State Legislature approves funding for all of the projects, the County's matching share would be \$2,606,910. Districts 1, 4, 7 (SF)

Background and Justification: The FDEP is accepting project funding applications for FY 2012/2013. If the projects are found to be eligible, the FDEP will include them as part of its submittal to the Governor and Cabinet for approval and then forward it as part of the FDEP's Fixed Capital Outlay Budget Request to the State Legislature. The County's matching share is calculated for each project depending on Federal funding eligibility and any existing municipal (interlocal) funding agreements. The County's share of these projects is funded by the Tourist Development Bed Tax and interest earned.

Attachments:

1. Resolution
2. Project Budgets and Timelines

Recommended by: Bolt 7-1-11
Department Director **Date**

Approved by: [Signature] 7-12-11
County Administrator **Date**

II. FISCAL IMPACT ANALYSIS

A. Five Year Summary of Fiscal Impact:

Fiscal Years	2011	2012	2013	2014	2015
Capital Expenditures	_____	_____	_____	_____	_____
Operating Costs	_____	_____	_____	_____	_____
External Revenues	_____	_____	_____	_____	_____
Program Income (County)	_____	_____	_____	_____	_____
In-Kind Match (County)	_____	_____	_____	_____	_____
NET FISCAL IMPACT	<u>*</u>	_____	_____	_____	_____
# ADDITIONAL FTE POSITIONS (Cumulative)	_____	_____	_____	_____	_____

Is Item Included in Current Budget? Yes _____ No X _____
Budget Account No.: Fund _____ Department _____ Unit _____ Object _____
Program _____

B. Recommended Sources of Funds/Summary of Fiscal Impact

* There is no fiscal impact until State funding is appropriated and a project agreement is executed. Potential fiscal impact to the County is \$2,606,910 over approximately three years. The Municipal, State, and Federal share of each project's costs would be allocated to the County on a reimbursement basis. If State funds were to be appropriated for the projects and County funding is found to be insufficient to match the State-funded project, other funding sources could be considered, such as short-term borrowing, securing bonds, or delaying the design and construction of other projects already funded.

C. Department Fiscal Review:

HP

III. REVIEW COMMENTS

A. OFMB Fiscal and /or Contract Administrator Comments:

[Signature] 7/5/11 *[Signature]* 7/18/11
OFMB *JD* 7/5/11 Contract Administrator

B. Legal Sufficiency:

[Signature] 7/8/11
Assistant County Attorney

C. Other Department Review:

Department Director

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36

RESOLUTION NO. 2011-_____

**A RESOLUTION OF THE BOARD OF COUNTY
COMMISSIONERS OF PALM BEACH COUNTY,
FLORIDA, REQUESTING THE STATE OF FLORIDA DEPARTMENT OF
ENVIRONMENTAL PROTECTION TO SUPPORT APPROPRIATION OF
FUNDS WITHIN THE BEACH EROSION CONTROL ASSISTANCE
PROGRAM FOR FISCAL YEAR 2012-13.**

WHEREAS, the Board of County Commissioners of Palm Beach County, Florida, is
committed to a program of coastal restoration and preservation; and

WHEREAS, Palm Beach County wishes to effectively address beach erosion by
construction of shore protection projects and restoration of its dunes; and

WHEREAS, Palm Beach County has a need to perform engineering design,
environmental studies and monitoring of shore protection projects; and

WHEREAS, Palm Beach County has developed and funded a Shore Protection
Program to act as the local sponsor for coastal projects; and

WHEREAS, the projects listed below are consistent with the coastal element of the
Palm Beach County's Comprehensive Plan; and

WHEREAS, Palm Beach County has the ability and intention of providing the local
cost share of eligible coastal projects using a combination of tourist development taxes,
interest and reserve funds; and

WHEREAS, the Bureau of Beaches and Coastal Systems is preparing their Beach
Erosion Control Long-Range Budget Plan to develop the Fiscal Year 2012-13 prioritized list
of beach erosion control projects; and

WHEREAS, the public work projects listed below are eligible within the State of
Florida's Beach Erosion Control Assistance Program under the provisions of Section
161.101, Florida Statutes; and

WHEREAS, Palm Beach County is requesting that the State appropriate \$1,894,707
for the Jupiter/Carlin Shore Protection Project, \$150,000 for the Juno Beach Shore Protection
Project, \$1,192,500 for the South Lake Worth Inlet Management Plan, and \$164,703 for the
Ocean Ridge Shore Protection Project.

1 NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF COUNTY
2 COMMISSIONERS OF PALM BEACH COUNTY, FLORIDA, THAT:

3 Section 1: The foregoing recitals are hereby adopted and ratified.

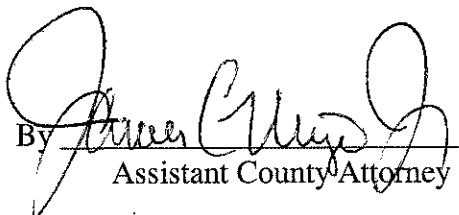
4 Section 2: The Board of County Commissioners hereby authorizes support for the
5 request for State appropriation of funds.

6
7 The foregoing Resolution was offered by Commissioner _____, who
8 moved its adoption. The motion was seconded by Commissioner _____,
9 and upon being put to a vote, the vote was as follows:

- 10 Commissioner Karen T. Marcus Chair _____
11 Commissioner Shelley Vana, Vice Chair _____
12 Commissioner Paulette Burdick _____
13 Commissioner Steven L. Abrams _____
14 Commissioner Burt Aaronson _____
15 Commissioner Jess R. Santamaria _____
16 Commissioner Priscilla A. Taylor _____

17 The Chairman thereupon declared the Resolution duly passed and adopted this
18 _____ day of _____, 20____.

19
20 APPROVED AS TO FORM AND
21 LEGAL SUFFICIENCY

22
23
24
25
26 By  _____
27 Assistant County Attorney
28

PALM BEACH COUNTY, FLORIDA BY ITS
BOARD OF COUNTY COMMISSIONERS

Sharon R. Bock, Clerk & Comptroller

By _____
Deputy Clerk

FY 2012-13 Local Government Funding Request

Project Name: Jupiter/Carlin Shore Protection Project

Project Description:

Shoreline protection for 1.08 miles of beach adjacent to the Jupiter Inlet in Palm Beach County (R13.5 - R19 (fill area) location map attached). The beach was first nourished in 1995 and renourished in 2002. A primary dune was reestablished along the project area. Permit-required post-construction monitoring is ongoing. A second renourishment was planned for winter 2010/2011, however budgetary constraints and Federal reporting requirements have pushed this back to November 2012. Design and permitting work for this renourishment is underway.

There are several borrow areas being considered for this project. The primary borrow area is located approximately 8 miles to the south, offshore of Singer Island, FL. This borrow area was used for the Juno Beach shore protection project, which was completed in March, 2010. Additional geotechnical work is planned for this borrow area to better define the amount of beach-quality sand remaining, and to make most efficient use of remaining resources. An investigation of sand sources located in the northern part of Palm Beach County will help with the selection of additional borrow areas, should the Singer Island site prove to be inadequate, or not have enough sand to complete the project.

Use of Requested Program Funds:

Funds requested for FY 2012-13 will be used to complete project permitting (including the additional borrow area investigation), and for construction of the beach fill. Eligible aerial surveys and regional (profiles and hydrographic) monitoring will also be funded. Because of the importance of this beach as sea turtle nesting habitat, it is expected that one year of pre-construction surveys will be required to document sea turtle and shorebird activity on this beach and funding is requested for these activities as well.

Local Government Support

Does this sponsor have dedicated support staff whose sole priority is to manage beach erosion control activities?

YES

Name	Title	Email	% Commitment
Kimberly Miranda	Sr. Env. Analyst	KMiranda@Pbcgov.org	100%
Address:	2300 N. Jog Rd, 4 th Fl	Phone:	561-233-2465
	West Palm Beach, FL 33411	Fax:	561-233-2414

Quarterly Report Compliance:

2010-2011	Due Date	Report Sent	Compliant?
Qtr 1 (Jul-Sept)	Oct 30, 2010	Oct 29, 2010	Yes
Qtr 2 (Oct-Dec)	Jan 30, 2011	Jan 28, 2011	Yes
Qtr 3 (Jan-Mar)	April 30, 2011	April 29, 2011	Yes
Qtr 4 (Apr-Jun)	July 30, 2011	N/A	Yes

How will revenue for the local funding cost share be established?

A long-range budget plan and dedicated funding sources are in place. Shoreline protection activities are funded by Tourist Development Taxes as mandated by County ordinance.

Is the funding from a dedicated long-term source for this project?

Chapter 17 of the Palm Beach County Code defines the tourist development plan (Ord. No. 95-30, § 7, 8-15-95), which identifies specific projects/special uses of tourist development tax revenue in accordance with Florida Statutes, § 125.0104(5).

This chapter further specifies how the tax revenues shall be allocated to each category of use. A percentage of the 2nd and 3rd cent collected shall be used to fund *Category C*: "Provide for beach improvement, maintenance, renourishment, restoration, and erosion control with an emphasis on dune restoration where possible."

Has the local sponsor resolution been attached to the application fulfilling these requirements?

- Support from the sponsor for the proposed project(s)
- Willingness to serve as the local sponsor
- Ability to provide the full local cost share
- Funding source

Yes

Has the State cost-shared in a feasibility or design phase of this project?

Yes

Both previous nourishments of this project and the 2007 emergency dune restoration were funded by the state. The project is recommended in the Department's Strategic Beach Management Plan and is located in an area designated as critically eroded in this Plan. Emergency dune restoration as a result of impacts due to Sub-Tropical Storm Andrea was cost-shared through DEP funding agreement #07PB2. DEP grant agreement #09PB1 currently provides funding for Design and Permitting on the renourishment of this project, however the funds encumbered for this agreement have been exhausted.

Previous State Cost Share Percentage:

50% of non-federal costs

10-Year Project Schedule and 5-year Estimated Budget

Does this project have Congressional Authorization? Yes

The project was authorized in 1962, WRDA 1986 & WRDA 1996. A PCA for nourishment was signed on March 15, 1995. The project currently has a Federal cost share of 54%. The sponsor is seeking approval for federal participation in design & construction of the next scheduled renourishment, and a Section 934 report is being prepared to this effect.

Does this project have a Federal Project Cooperative Agreement? Yes
The current PCA is expired.

What is the end date of the Federal Authorization? 2039

What is the Federal cost share available for this erosion control project? 54.71%
(prev)

Schedule and Budget (includes estimates phases for 10 years and estimated project costs for 5 years):

Year	Phase	Description	Total Cost	Federal	State	Local
2012-2013	Construction	dredge and fill	\$8,000,000	\$4,376,800	\$1,811,600	\$1,811,600
	Monitoring	pre/post const physical, reef, sea turtle, shorebird	\$367,000	\$200,786	\$83,107	\$83,107
2013-2014	Monitoring	post construction physical, reef, sea turtle, shorebird	\$215,000	\$117,627	\$48,687	\$48,687
2014-2015	Monitoring	post construction physical, reef, sea turtle, shorebird	\$215,000	\$117,627	\$48,687	\$48,687
2015-2016	Monitoring	post construction physical, reef, sea turtle, shorebird	\$215,000	\$117,627	\$48,687	\$48,687
2016-2017	Monitoring	post construction physical, reef, sea turtle, shorebird	\$215,000	\$117,627	\$48,687	\$48,687
2017-2018	Monitoring	post construction physical, reef, sea turtle, shorebird				
2018-2019	PED	sand search, Federal coordination				
	Monitoring	post construction physical, reef, sea turtle, shorebird				
2019-2020	PED	permitting, PCA				
	Monitoring	post construction physical, reef, sea turtle, shorebird				
2020-2021	Monitoring	pre construction physical, reef, sea turtle, shorebird				
	Construction	dredge and fill				
2021-2022	Monitoring	post construction physical, reef, sea turtle, shorebird				

Mapping: Maps are provided as attachments.

What is the length of the project boundary in feet? 5560'

Project length within ½ mile of primary public beach access 5560'

Length of Project Shoreline zoned commercial/recreational 4009'

What is the percentage of project shoreline designated as commercial or recreational property? 72%

Current contract eligibility: 100%

Eligibility: Access points and public lodging establishments:

Location	Address	R-mon	Type	Width	Units/spaces	Public spaces	Eligible Shoreline
Jupiter Beach Park	—	12.5 – 14.5	Primary	1736'	169 parking spaces	169	4376'
Jupiter Beach Resort	5 N. A1A Jupiter, FL 33477	16.5-17	Motel	415'	159 guest rooms	159	415'
Carlin Park	—	17-19.75	Primary	2502'	532 parking spaces	532	7782'

Public lodging license documentation as provided by the FL Department of Business and Professional Regulation is attached.

Additional Ranking Criteria

Will this project enhance or increase the longevity of a previously constructed project?
No
How?

Will this project nourish a previously restored shoreline? Yes

What is the rate of erosion as determined by the Bureau (ft/yr)? 1.9

Severity of Erosion: The entire project area is designated as critically eroded by the Department of Environmental Protection. The historic 30-year erosion rate along the project shoreline was computed to be 1.9 ft/yr (Aug 1996 GDM). However, based on increasing erosional trends and the development of a “hot spot” in Jupiter Beach Park, this will be recalculated as part of the 934 economic feasibility study. Over 30% of the project area includes habitable structures, including one hotel and one condominium. There is one bathroom building in Jupiter Beach Park which was closed for nearly a year following Sub-Tropical Storm Andrea due to building damage and dune collapse. This building is now protected by a sea wall.

Project Benefits: The project is designed to provide long-term storm protection, retain sand within the coastal system, aesthetically enhance the area, and provide habitat for endangered plant and animal species. The beach is publicly accessible in an area heavily utilized by both the local population and visitors. Approximately 65% of the project area lies within two county parks. The Jupiter Beach Resort, with 159 guest rooms, fronts 8% of the project length. Hurricane evacuation routes in the project area include Route A1A which runs N-S along the entire project area and is less than 20' from the dune crest in some sections, and Indiantown Road which runs E-W and is centrally located within the project area. Threatened and endangered marine turtles utilize the entire project area for nesting, however this beach is not a designated marine turtle refuge. The dune in Carlin Park provides habitat for one of the few remaining

colonies of endangered Beach Jacquemontia (*Jacquemontia reclinata*) in Palm Beach County. The attached map identifies public beach access points with associated parking spaces, as well as the location of the Beach Jacquemontia colony.

Innovative Applications: A feasibility study is underway to provide options to extend the required nourishment intervals and address a “hot spot” in the north end of the project area. Extending the nourishment interval will minimize the environmental impacts from maintaining the beach, especially in an area of high sea turtle nesting densities.

Nourishment Interval (years):

6-8

Project Performance: The original project design was based on the GDM & EIS. The project provides for greater than 15 year return interval storm protection. The dune within the project limits is stabilized with vegetation and walkovers and provides enhanced shore protection consistent with the natural system.

The majority of the project area is holding up beyond the estimated seven-year lifespan, and will not be renourished until at least 2012 (ten years after 1st renourishment).

Is this project being planned or constructed in cooperation with another local government?

Yes

Explain.

The Jupiter Inlet District and the Florida Inland Navigation District utilize this project's beach fill template for disposal of beach quality fill dredged from sand traps located within the Jupiter Inlet and AICW. Palm Beach County has agreements in place with both of these agencies to work together to fulfill monitoring requirements for all of the area projects including sea turtle, shorebird, and fill performance monitoring.

Attachments:

1. Project map, including project boundaries, public beach access and parking, and public lodging establishments
2. FL-DBPR documentation
3. MPP timeline

FY 2012-13 Local Government Funding Request

Project Name: Juno Beach Shore Protection Project

Project Description:

Renourishment of approximately 2.4 miles of critically eroding shoreline beginning 2.2 miles downdrift of Jupiter Inlet (R-26 - R-38 (fill area), map attached). The original project was completed in 2001 and impacted by the hurricanes of 2004 and 2005 and by T.S. Fay in 2008. The first Renourishment of this beach was completed in March 2010. Post renourishment testing of the fill sand is ongoing.

The borrow area for this project was located approximately 5 miles to the South, offshore of Singer Island, FL in approximately 70 fsw.

Use of Requested Program Funds:

Funds requested for FY2012 - 13 will be used to support project-specific monitoring required by permit (currently aerial photography, regional (profiles and hydrographic), beach compaction, sea turtle, shorebird, and nearshore reef).

Local Government Support

Does this sponsor have dedicated support staff whose sole priority is to manage beach erosion control activities? YES

Name	Title	Email	% Commitment
Reubin Bishop	Env. Analyst	RBishop@Pbcgov.org	100%
Address:	2300 N. Jog Rd, 4 th Fl	Phone:	561-233-2519
	West Palm Beach, FL 33411	Fax:	561-233-2414

Quarterly Report Compliance:

2010-2011	Due Date	Report Sent	Compliant?
Qtr 1 (Jul-Sept)	Oct 30, 2010	Oct 29, 2009	Yes
Qtr 2 (Oct-Dec)	Jan 30, 2011	Jan 28, 2010	Yes
Qtr 3 (Jan-Mar)	April 30, 2011	April 29, 2010	Yes
Qtr 4 (Apr-Jun)	July 30, 2011	N/A	Yes

How will revenue for the local funding cost share be established?

A long-range budget plan and dedicated funding sources are in place. Shoreline protection activities are funded by Tourist Development Taxes as mandated by County ordinance.

Is the funding from a dedicated long-term source for this project?

Chapter 17 of the Palm Beach County Code defines the tourist development plan (Ord. No. 95-30, § 7, 8-15-95), which identifies specific projects/special uses of tourist development tax revenue in accordance with Florida Statutes, § 125.0104(5).

This chapter further specifies how the tax revenues shall be allocated to each category of use. A percentage of the 2nd and 3rd cent collected shall be use to fund *Category C*: "Provide for beach improvement, maintenance, renourishment, restoration, and erosion control with an emphasis on dune restoration where possible."

Has the local sponsor resolution been attached to the application fulfilling these requirements?

- Support from the sponsor for the proposed project(s)
- Willingness to serve as the local sponsor
- Ability to provide the full local cost share
- Funding source

Yes

Has the State cost-shared in a feasibility or design phase of this project?

Yes

The previous nourishment and mitigation of this project was funded by the state. The project is recommended in the Department's Strategic Beach Management Plan and is located in an area designated as critically eroded in this Plan. This project has been determined to be 100% eligible for State funding. DEP grant agreement #08PB3 currently provides funding for construction,

mitigation and monitoring of the renourishment project, however this grant is expired. Progress reports have been sent each quarter. DEP grant agreement #08PB4 is expected to be executed in August, 2011.

Previous State Cost Share Percentage:

50%

10-Year Project Schedule and 5-year Estimated Budget

Does this project have Congressional Authorization?

No

Does this project have a Federal Project Cooperative Agreement?

No

What is the end date of the Federal Authorization?

N/A

What is the Federal cost share available for this erosion control project?

0%

Schedule and Budget (includes estimates phases for 10 years and estimated project costs for 5 years):

Year	Phase	Description	Total Cost	Federal	State	Local
2012-2013	Monitoring	post construction physical, reef, sea turtle, shorebird	\$300,000	\$0	\$150,000	\$150,000
2013-2014	Monitoring	post construction physical, reef, sea turtle, shorebird	\$250,000	\$0	\$125,000	\$125,000
2014-2015	PED	Sand search, permitting	\$500,000	\$0	\$250,000	\$250,000
2015-2016	Monitoring	post construction physical, reef, sea turtle, shorebird	\$250,000	\$0	\$125,000	\$125,000
	PED	permitting, contracting	\$500,000	\$0	\$250,000	\$250,000
2016-2017	Monitoring	pre/post construction physical, reef, sea turtle, shorebird	\$300,000	\$0	\$150,000	\$150,000
	Construction	dredge and fill	\$12,000,000	\$0	\$6,000,000	\$6,000,000
2017-2018	Monitoring	construction physical, reef, sea turtle, shorebird				
	Monitoring	post construction physical, reef, sea turtle, shorebird				
2018-2019	Monitoring	post construction physical, reef, sea turtle, shorebird				
2019-2020	Monitoring	post construction physical, reef, sea turtle, shorebird				
2020-2021	Monitoring	post construction physical, reef, sea turtle, shorebird				
2021-2022	PED	Sand search, permitting				

Mapping: Maps are provided as attachments.

What is the length of the project boundary in feet? 12,818'

Project length within ½ mile of primary public beach access 12,818'

Length of Project Shoreline zoned commercial/recreational 6918'

What is the percentage of project shoreline designated as commercial or recreational property? 54%

Current contract eligibility: 100%

Eligibility: Access points and public lodging establishments:

Location	Address	R-mon	Type	Width	Units/spaces	Public spaces	Eligible Shoreline
Radnor Park	—	R26 - 27	Primary	1285' in project	165	165 parking spaces	3925'
Double Roads Access	—	R28.5	Secondary	1262'	106	106 parking spaces	1262'
Ocean Cay Park	—	30.5	Primary	686'	220	220 parking spaces	5966'
Juno Beach Park	—	R31	Primary	300'	318	318 parking spaces	5580'
Juno Dunes Natural Area	—	R32 - 34	Secondary	2100'	0	no parking	2100'
Loggerhead Park	—	R34 - 35	Primary	1125'	218	218 parking spaces	6405'
Mercury Road Access	—	R39	Secondary	160'	97	97 parking spaces	160'

Additional Ranking Criteria

Will this project enhance or increase the longevity of a previously constructed project?

No

How?

Will this project nourish a previously restored shoreline? Yes

What is the rate of erosion as determined by the Bureau (ft/yr)? 1.9

Severity of Erosion: The entire project area is designated as critically eroded by the Department of Environmental Protection. The historic 30-year erosion rate along the project shoreline was computed to be 1.9 ft/yr (Aug 1996 GDM). Since the 2001 project construction, the recession rate has averaged 17.8 feet per year, though this recession is largely attributable to profile adjustment and diffusion loss to adjacent shorelines. The impact from the 04/05 hurricanes however is clearly notable and significant within the data. During this timeframe the shoreline eroded an average of 43 feet within the project area based on the monitoring data.

Project Benefits: The project is designed to provide long-term storm protection, mitigate for inlet effects, retain sand within the coastal system, aesthetically enhance the area, and provide habitat for endangered plant and animal species. A total of 100% of the shoreline is available for public recreational use. Approximately 60% of the project area (7,820 ft) is publicly owned land, parks, and public beach access ways (Radnor, Ocean Cay, Juno Beach Park, Juno Dunes, and Loggerhead Park). Juno Beach is one of the highest nesting density beaches for threatened and endangered sea turtles in the United States. Shorebirds (including piping plovers) utilize this beach extensively for foraging purposes and a pair of nesting killdeer has fledged chicks on this beach each summer since 2005. Hurricane evacuation routes in the project area include Route A1A which runs N-S along the entire project area and is less than 20' from the dune crest in some sections, and Donald Ross Road which runs E-W and is centrally located within the project area.

Nourishment Interval (years):

6-8

Project Performance: The project design was based on the GDM & EIS and provides for greater than 15 year return interval storm protection. The dune within the project limits is stabilized with vegetation and walkovers and provides enhanced shore protection consistent with the natural system. Hot spot erosion areas at R-26 through R-29 and R-30 through R-33 are included in the area of fill. The project area is 2.2 miles downdrift of Jupiter Inlet. Jupiter Inlet is estimated to have a volumetric impact on downdrift beaches of 1.65 million cy/yr (Bodge, 1994) and, based on beach profile surveys, this volume of cumulative total sediment loss affects the Juno Beach project area and well south of it as specified in the 1998 Feasibility Study. The project is expected to provide 100% of the sand needed to maintain the downdrift beaches with minimal impacts to the local nearshore habitat. The majority of the project area held up well beyond the estimated six-year lifespan, with a few exceptions in the referenced hot spots.

Is this project being planned or constructed in cooperation with another local government?

No

Explain.

Attachments:

1. Project map, including project boundaries, public beach access and parking, and public lodging establishments
2. MPP timeline

FY 2012-13 Local Government Funding Request

Project Name: South Lake Worth Inlet Management

Project Description:

The project consists of design, permitting, construction, and monitoring associated with the implementation of the South Lake Worth Inlet Management Plan (Palm Beach County, R-151 – R-152 (monitoring from R137-R164)). Activities occurring under this project include the periodic dredging of the sand trap and navigational channel located inside the inlet and the reconstruction of the sand transfer plant. The reconstruction of the plant was completed in 2011. Design and permitting for the next dredging of the sand trap is ongoing and construction is scheduled for winter of 2012-2013.

Use of Requested Program Funds:

The requested funding will be used for ongoing biological and physical monitoring, as well as design, permitting and dredging of the sand trap associated with the implementation of the South Lake Worth Inlet Management Plan.

Local Government Support

Does this sponsor have dedicated support staff whose sole priority is to manage beach erosion control activities? YES

Name	Title	Email	% Commitment
Tracy Logue	Coastal Geologist	TLogue@Pbcgov.org	100%
Address:	2300 N. Jog Rd, 4 th Fl	Phone:	561-233-2491
	West Palm Beach, FL 33411	Fax:	561-233-2414

Quarterly Report Compliance:

2010-2011	Due Date	Report Sent	Compliant?
Qtr 1 (Jul-Sept)	Oct 30, 2010	Oct 29, 2009	Yes
Qtr 2 (Oct-Dec)	Jan 30, 2011	Jan 28, 2010	Yes
Qtr 3 (Jan-Mar)	April 30, 2011	April 29, 2010	Yes
Qtr 4 (Apr-Jun)	July 30, 2011	N/A	Yes

How will revenue for the local funding cost share be established?

A long-range budget plan and dedicated funding sources are in place. Shoreline protection activities are funded by Tourist Development Taxes as mandated by County ordinance.

Is the funding from a dedicated long-term source for this project?

Chapter 17 of the Palm Beach County Code defines the tourist development plan (Ord. No. 95-30, § 7, 8-15-95), which identifies specific projects/special uses of tourist development tax revenue in accordance with Florida Statutes, § 125.0104(5).

This chapter further specifies how the tax revenues shall be allocated to each category of use. A percentage of the 2nd and 3rd collected shall be use to fund *Category C*: "Provide for beach improvement, maintenance, renourishment, restoration, and erosion control with an emphasis on dune restoration where possible."

Has the local sponsor resolution been attached to the application fulfilling these requirements?

- Support from the sponsor for the proposed project(s)
- Willingness to serve as the local sponsor
- Ability to provide the full local cost share
- Funding source

YES

Has the State cost-shared in a feasibility or design phase of this project?

The management plan for the project and annual monitoring was funded by the state and the project is included in the Strategic Beach Management Plan. The initial phase of sand trap development & restoration of the sand transfer plant was funded by the state. The funding appropriation for the SLWI jetty restoration was confirmed by the legislature on July 17, 2007. The original grant for this project

(99PB1) has been extended several times and expired on December 31, 2010. Funding agreement #11PB1 was signed by the Palm Beach County Board of County Commissioners on June 21, 2011 and executed by the Bureau of Beaches and Coastal Systems on June 27, 2011.

Previous State Cost Share Percentage:

75%

10-Year Project Schedule and 5-year Estimated Budget

Does this project have Congressional Authorization?

No

Does this project have a Federal Project Cooperative Agreement?

No

What is the end date of the Federal Authorization?

N/A

What is the Federal cost share available for this erosion control project?

N/A

Schedule and Budget (includes estimates phases for 10 years and estimated project costs for 5 years):

Year	Phase	Description	Federal	Total Cost	State	Local
2012-2013	PED	Design and permitting of sand trap dredging	\$0	\$150,000	\$112,500	\$37,500
	monitoring	sand trap, physical profiles, sea turtle, SAV	\$0	\$215,000	\$161,250	\$53,750
	Construction	dredging of sand trap, placement on beach	\$0	\$1,225,000	\$918,750	\$306,250
2013-2014	monitoring	sand trap, physical profiles, sea turtle, SAV	\$0	\$175,000	\$131,250	\$43,750
2014-2015	monitoring	sand trap, physical profiles, sea turtle, SAV	\$0	\$150,000	\$112,500	\$37,500
2015-2016	monitoring	sand trap, physical profiles, sea turtle, SAV	\$0	\$110,000	\$82,500	\$27,500
2016-2017	monitoring	sand trap, physical profiles, sea turtle, SAV	\$0	\$110,000	\$82,500	\$27,500
2017-2018	monitoring	sand trap, physical profiles, sea turtle, SAV				
2018-2019	monitoring	sand trap, physical profiles, sea turtle, SAV				
2019-2020	monitoring	sand trap, physical profiles, sea turtle, SAV				
2020-2021	monitoring	sand trap, physical profiles, sea turtle, SAV				
2021-2022	monitoring	sand trap, physical profiles, sea turtle, SAV				
	Construction	dredging of sand trap, placement on beach				

Mapping: Maps are provided as attachments.

What is the length of the project boundary in feet? 5000'

Project length within ½ mile of primary public beach access 5000'

Length of Project Shoreline zoned commercial/recreational 2144'

Percentage of project shoreline designated as commercial or recreational property 40%

Current contract eligibility: 100%

Eligibility: Access points and public lodging establishments:

Location	Address	R-mon	Type	Width	Units/spaces	Public spaces	Eligible Shoreline
SLWI Park	—	151	Secondary	91'	26 parking spaces	26	2731'
Ocean Inlet Park	—	152	Primary	725'	126 parking spaces	126	3365'
Ocean Hammock Park	—	155-156	Secondary	1110'	33 parking spaces	33	1110'
Oceanfront Park	—	156-157	Primary	1034	247 parking spaces	247	6314

Additional Ranking Criteria

Will this project enhance or increase the longevity of a previously constructed project? Yes

How? Sand trap and navigational channel dredging maximize the use of sediment sources in maintaining the beach. The performance of sand bypass into the groin field is such that the area maintained its width throughout the project interval and did not require any fill during the most recent downdrift beach nourishment (Ocean Ridge shore protection project, completed Dec 2005), resulting in a cost savings through the reduction in the amount of fill necessary.

Will this project nourish a previously restored shoreline? Yes

What is the rate of erosion as determined by the Bureau (ft/yr)? 5

Severity of Erosion: The entire project area is designated as critically eroded by the Department of Environmental Protection. The historic erosion rate along the project shoreline was computed to be 5 ft/yr (Aug 1996 GDM). Over the anticipated six year renourishment schedule of the Ocean Ridge Shore Protection Project, the erosion rate is anticipated to average 7.44 cy/lf/yr (including end losses).

Project Benefits: The project is designed to provide long-term storm protection, retain sand within the coastal system, aesthetically enhance the area, and provide habitat for endangered plant and animal species. The beach is publicly accessible in an area heavily utilized by both the local population and visitors. Shoreline development within the project area consists of developed property and public park land, 100% of which lies within ½ mile of adequate public access facilities. Public beach access allows for public and tourism use throughout the project area. Threatened and endangered marine turtles utilize the entire project area for nesting purposes and protected plant species are located in the dunes.

Innovative Applications: The plant is a component of an innovative approach to maintain the downdrift beaches using inlet sand bypass discharge into a groin field. The bypassed sand is native beach material, with color, fine fraction and compaction characteristics which has been shown to not impact sea turtle nesting success. The steady rate of transfer eliminates the need for advanced fill and the related impacts to nearshore hardbottom.

Nourishment Interval (years): 6-8

Project Performance: The project mitigates for adverse impacts associated with the inlet, providing 100% of the bypass quantity required by the approved management plan. The project area acts as a

feeder beach to maintain down drift areas which contain nearshore hardbottom habitat. The transfer plant continues to provide a cost effective and environmentally sound method of bypassing sand over an extended time period. The latest data show the sand transfer plant bypasses approximately 80,000 CY annually to down drift beaches.

Sediment Bypassing Quantities for Inlets: The volume of sand bypassed by the sand transfer plant varies by year, and weather conditions. However, for the five years between 2004 and 2008, the average annual bypass volume was 88,390 yd³/year. The old plant was demolished in 2009, and a new plant was completed in 2010. Sand bypassing quantities for the new plant are estimated to be slightly higher than the old, however production surveys are still being finalized. The sand trap is dredged on an as-needed basis, currently once every seven years concurrently with maintenance dredging of the ICWW and adjacent municipal boat channel. The last maintenance dredging project (completed in spring of 2008) placed 52,468 yds³ on the downdrift beach. In 2001 69,905 yds³ were placed on the downdrift beach during the maintenance dredging project.

Is this project being planned or constructed in cooperation with another local government?

Yes During the dredging of the SLWI sand trap, Palm Beach County will once again combine projects with the City of Boynton Beach (for the dredging of the boat club channel) and the Florida Inland Navigation District (for the dredging of the AICW) to bid three individual projects as one to save on mobilization costs for each project. Permit required sea grass monitoring for three projects will be combined as well.

Attachments:

1. Project map, including project boundaries, public beach access and parking, and public lodging establishments
2. MPP timeline

FY 2012-13 Local Government Funding Request

Project Name: Ocean Ridge Shore Protection Project

Project Description:

Shoreline protection and monitoring of 1.42 miles of beach adjacent to the South Lake Worth Inlet (Between DEP reference monuments R-151 and R-159) in Palm Beach County. The beach was first nourished in 1998. A series of eight T-head groins was also constructed and a primary dune was reestablished along a majority of the project area. In November of 2005, 1.1 miles of this beach was renourished. The next scheduled renourishment of this beach is planned for Nov 2013. A Limited Re-evaluation Report (LRR) will be required by the US Army Corps of Engineers for Federal participation on the next renourishment. County staff is beginning to plan and schedule this process.

The borrow area for this project is located just offshore of the fill area. This allows the project to be constructed with a hydraulic dredge and shortens the construction time. This borrow area has been used twice before and additional investigations of new segments of this borrow area will be required as part of the planning, engineering and design of the next nourishment.

Use of Requested Program Funds:

The requested funding will be used for the permitting and design of the next renourishment including the LRR and the JCP permitting process, as well as any continued post-construction monitoring (aerial surveys and regional (profiles and hydrographic) monitoring) required by DEP permit.

Local Government Support

Does this sponsor have dedicated support staff whose sole priority is to manage beach erosion control activities?

YES

Name	Title	Email	% Commitment
Tracy Logue	Coastal Geologist	TLogue@Pbcgov.org	100%
Address:	2300 N. Jog Rd, 4 th Fl	Phone:	561-233-2491
	West Palm Beach, FL 33411	Fax:	561-233-2414

Quarterly Report Compliance:

2010-2011	Due Date	Report Sent	Compliant?
Qtr 1 (Jul-Sept)	Oct 30, 2010	Oct 29, 2010	Yes
Qtr 2 (Oct-Dec)	Jan 30, 2011	Jan 28, 2011	Yes
Qtr 3 (Jan-Mar)	April 30, 2011	April 29, 2011	Yes
Qtr 4 (Apr-Jun)	July 30, 2011	N/A	Yes

How will revenue for the local funding cost share be established?

A long-range budget plan and dedicated funding sources are in place. Shoreline protection activities are funded by Tourist Development Taxes as mandated by County ordinance.

Is the funding from a dedicated long-term source for this project?

Chapter 17 of the Palm Beach County Code defines the tourist development plan (Ord. No. 95-30, § 7, 8-15-95), which identifies specific projects/special uses of tourist development tax revenue in accordance with Florida Statutes, § 125.0104(5).

This chapter further specifies how the tax revenues shall be allocated to each category of use. A percentage of the 2nd and 3rd cent collected shall be used to fund *Category C*: "Provide for beach improvement, maintenance, renourishment, restoration, and erosion control with an emphasis on dune restoration where possible."

Has the local sponsor resolution been attached to the application fulfilling these requirements?

- Support from the sponsor for the proposed project(s)
- Willingness to serve as the local sponsor

- Ability to provide the full local cost share
- Funding source

YES

Has the State cost-shared in a feasibility or design phase of this project?

The design & construction of both nourishment projects were funded by the state. The project is recommended in the Department's Strategic Beach Management Plan and is located in an area designated as critically eroded in this Plan. This project has been determined to be 100% eligible for State funding.

The original grant for this project (06PB1) expired on June 1, 2009. Additional funds for mitigation of this project were awarded in the 2007/2008 funding cycle, and funds for monitoring were awarded in the 2008/2009 funding year. Funding agreement 08PB3 encumbered these funds for mitigation and monitoring.

Previous State Cost Share Percentage:

50% of the non-Federal costs

10-Year Project Schedule and 5-year Estimated Budget

Does this project have Congressional Authorization? Yes

The project was authorized on October 23, 1962 (87-874) & WRDA 1996.

Does this project have a Federal Project Cooperative Agreement? Yes

The original PCA was signed on March 15, 1999, and updated and signed on February 15, 2005. The 2005 renourishment was completed as part of the US Army Corps of Engineers regional hurricane remediation efforts.

What is the end date of the Federal Authorization? 2046

What is the Federal cost share available for this erosion control project? 54%

Schedule and Budget (includes estimates phases for 10 years and estimated project costs for 5 years):

Year	Phase	Description	Total Cost	Federal	State	Local
2012-2013	PED	LRR, permitting (JCP/COE)	\$500,000	\$269,000	\$115,500	\$115,500
	Monitoring	pre const physical, reef, sea turtle, shorebird	\$213,000	\$114,594	\$49,203	\$49,203
2013-2014	Construction	dredge and fill	\$10,000,000	\$5,380,000	\$2,310,000	\$2,310,000
	Monitoring	post const physical, reef, sea turtle, shorebird	\$200,000	\$107,600	\$46,200	\$46,200
2014-2015	Monitoring	post const physical, reef, sea turtle, shorebird	\$300,000	\$161,400	\$69,300	\$69,300
2015-2016	Monitoring	post construction physical, reef, sea turtle, shorebird	\$300,000	\$161,400	\$69,300	\$69,300
2016-2017	Monitoring	post construction physical, reef, sea turtle, shorebird	\$300,000	\$161,400	\$69,300	\$69,300
2017-2018	Monitoring	post construction physical, reef, sea turtle, shorebird				
	PED	sand search, LRR				
2018-2019	Monitoring	post construction physical, reef, sea turtle, shorebird				
	PED	LRR, permitting (JCP/COE)				
2019-2020	Monitoring	pre construction physical, reef, sea turtle, shorebird				
	PED	Permitting (JCP.COE)				
2020-2021	Monitoring	pre construction physical, reef, sea turtle, shorebird				
	Construction	dredge and fill				
2021-2022	Monitoring	post construction physical, reef, sea turtle, shorebird				

Mapping: Maps are provided as attachments.

What is the length of the project boundary in feet? 7350'

Project length within ½ mile of primary public beach access 7350'

Length of Project Shoreline zoned commercial/recreational 2144'

What is the percentage of project shoreline designated as commercial or recreational property? 29%

Current contract eligibility: 100%

Eligibility: Access points and public lodging establishments:

Location	Address	R-mon	Type	Width	Units/spaces	Public spaces	Eligible Shoreline
SLWI Park	—	R-151	Secondary	91'	26 parking spaces	26	2731'
Ocean Inlet Park	—	R-152	Primary	725'	126 parking spaces	126	3365'
Ocean Hammock Park	—	R155-156	Secondary	1110'	33 parking spaces	33	1110'
Oceanfront Park	—	R156-157	Primary	1034'	247 parking spaces	247	6314'
Edith Street Access		R-159	Secondary	20'	0	0	20'

Additional Ranking Criteria

Will this project enhance or increase the longevity of a previously constructed project?
Yes

How? The dune located in Gulfstream Park (approximately 1.3 miles south of the project) was restored in the winter of 2001/2002. This dune has held up surprisingly well throughout the numerous hurricanes and Nor'easter storms since then. It is likely that this can be attributed to the continued downdrift movement of sand from both the renourishment project in 2005, and the regular bypassing at the South Lake Worth Inlet.

Will this project nourish a previously restored shoreline? Yes

What is the rate of erosion as determined by the Bureau (ft/yr)? 5

Severity of Erosion: The entire project area is designated as critically eroded by the Department of Environmental Protection. The historic erosion rate along the project shoreline was computed to be five ft/yr (Aug 1996 GDM). Over the anticipated six year renourishment schedule, the volume loss is anticipated to average 7.44 cy/yr/lf (including end losses). Erosion immediately down drift of the southernmost groin continues to be problematic. Approximately 60% of the project area includes habitable structures, including single and multi-family homes. According to the FDEP MapDirect Web Mapping site, all of these properties are seaward of the Coastal Construction Control Line. Coastal armoring exists in front of some of the structures, but the majority of these homes are unprotected by armoring.

Project Benefits: The project is designed to provide long-term storm protection, mitigate for inlet effects, retain sand within the coastal system, aesthetically enhance the area, and provide habitat for endangered plant and animal species. The beach is publicly accessible in an area heavily utilized by both the local population and visitors. Approximately 40% of the project area

lies within two county parks and one municipal park. Studies included in the GDM estimated beach usage in 2010 to be over 665,000 visits/year. Hurricane evacuation routes in the project area include Route A1A which runs N-S along the entire project area and is less than 20' from the dune crest in some sections. Threatened and endangered marine turtles utilize the entire project area for nesting, however this beach is not a designated marine turtle refuge.

Innovative Applications: The original project was constructed using conventional beach fill methods and design. It is anticipated that the upcoming renourishment will utilize similar technology; however, the project demonstrates the combined successful use of periodic nourishment, groins and a sand transfer plant.

Nourishment Interval (years):

6-8

Project Performance: The project design was based on the GDM (NED included) & EIS. It has performed as designed and is optimized with the addition of sand dredged from the ICW, the inlet sand trap, the boat club channel and the sand bypass plant. The project mitigates for adverse impacts of the inlet by providing 100% of the bypass quantity proposed in the inlet management plan. The fill provides the sand needed to maintain the downdrift beaches in Gulfstream with minimal impacts to local nearshore habitat. The project is designed to improve cost effectiveness by using groins, a bypass plant, and periodic dredging of areas within Lake Worth Lagoon.

The project is expected to be stable beyond the estimated seven-year lifespan, and will not be renourished until at least 2013 (eight years post-construction).

Is this project being planned or constructed in cooperation with another local government?

No

Explain.

Attachments:

1. Project map, including project boundaries, public beach access and parking, and public lodging establishments
2. MPP timeline