

**PALM BEACH COUNTY
BOARD OF COUNTY COMMISSIONERS**

AGENDA ITEM SUMMARY

Meeting Date: November 21, 2006 ☒ 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 2007/2008 Beach Erosion Control Assistance Program.

Summary: The County is requesting that the State appropriate \$1,000,000 for the Ocean Ridge Shore Protection Project, \$5,222,000 for the Juno Beach Shore Protection Project, \$2,256,000 for the South Palm Beach Shore Protection Project, \$4,160,000 for the Singer Island Shore Protection Project, \$1,290,000 for the Jupiter/Carlin Shore Protection Project, and \$178,150 for all permit-required monitoring associated with eligible projects. If the State Legislature approves funding for the projects, the County's projected expenditures for the projects would be \$16,384,550. Districts 1, 4 (SF)

Background and Justification: The FDEP is accepting project funding applications for FY 2007/2008. 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.


Attachments:

1. Resolution
2. Applications, including Location Maps

Recommended by:

Richard E. Wenderly 10/17/06
Department Director Date

Approved by:



County Administrator

Date 10/30/06

II. FISCAL IMPACT ANALYSIS

A. Five Year Summary of Fiscal Impact:

Fiscal Years	2007	2008	2009	2010	2011
Capital Expenditures	_____	_____	_____	_____	_____
Operating Costs	_____	_____	_____	_____	_____
External Revenues	_____	_____	_____	_____	_____
Program Income (County)	_____	_____	_____	_____	_____
In-Kind Match (County)	_____	_____	_____	_____	_____
NET FISCAL IMPACT	_____	_____	_____	_____	_____
# ADDITIONAL FTE POSITIONS (Cumulative)	_____	_____	_____	_____	_____

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

B. Recommended Sources of Funds/Summary of Fiscal Impact

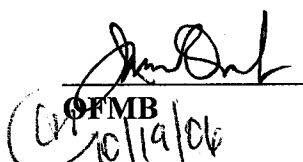
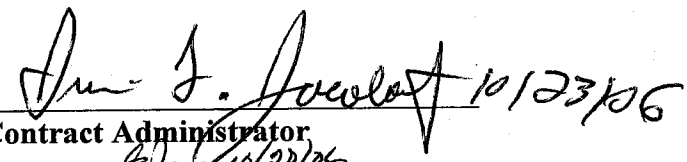
There is no fiscal impact until State funding is appropriated and a project agreement is executed. If State funds were to be appropriated for the projects and County funding is found to be insufficient to match the State-funded project, other funding sources could be considered, such as short-term borrowing, securing bonds, or delaying the design and construction of other projects already funded.

Potential fiscal impact to the County is 16,384,550. The State and Federal share would be allocated to the County on a reimbursement basis.

C. Department Fiscal Review:

III. REVIEW COMMENTS

A. OFMB Fiscal and /or Contract Administrator Comments:

 10-19-06
 OFMB
 10/19/06
 10/23/06
 Contract Administrator
 10/23/06

B. Legal Sufficiency:


 Assistant County Attorney

C. Other Department Review:

 Department Director

RESOLUTION NO. 2006-_____

**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 2007-08.**

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, the Bureau of Beaches and Coastal Systems is preparing their Beach Erosion Control Long-Range Budget Plan to develop the Fiscal Year 2007-08 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

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

Section 1: Palm Beach County is requesting that the State appropriate \$1,000,000 for the Ocean Ridge Shore Protection Project, \$5,222,000 for the Juno Beach Shore Protection Project, \$2,256,000 for the South Palm Beach Shore Protection Project, \$4,160,000 for the Singer Island Shore Protection Project, \$1,290,000 for the Jupiter/Carlin Shore Protection Project, and \$178,150 for all permit-required monitoring associated with eligible projects.

1

2 The foregoing Resolution was offered by Commissioner _____, who
3 moved its adoption. The motion was seconded by Commissioner _____,
4 and upon being put to a vote, the vote was as follows:

5	District 1:	Karen T. Marcus	_____
6	District 2:	Jeff Koons	_____
7	District 3:	Warren H. Newell	_____
8	District 4:	Mary McCarty	_____
9	District 5:	Burt Aaronson	_____
10	District 6:		_____
11	District 7:	Addie L. Green	_____

12 The Chairperson thereupon declared the Resolution duly passed and adopted this
13 _____ day of _____, 2006.

14

15 APPROVED AS TO FORM AND
16 LEGAL SUFFICIENCY

**PALM BEACH COUNTY, FLORIDA BY ITS
BOARD OF COUNTY COMMISSIONERS**

17

18

Sharon R. Bock, Clerk & Comptroller

19

20

21 By _____
22 Assistant County Attorney

By _____
Deputy Clerk

FY 07-08 LONG RANGE BUDGET PLAN UPDATE
LEGISLATIVE BUDGET REQUEST FOR PALM BEACH COUNTY

TOTAL COSTS

PROJECT	TASK										
	aerials	surveys	performance report	turtle/scarp/ lighting mon.	reef mon.	feasibility	fill	design permitting	structures	mitigation	total
Jupiter Carlin SPP	\$3,000	\$14,000	\$25,000	\$25,000	\$25,000	\$200,000		\$380,000	\$2,000,000		\$2,672,000
Juno Beach	\$7,500	\$18,000	\$25,000	\$60,000	\$50,000		\$12,000,000	\$350,000			\$12,510,500
Singer Island	\$6,000	\$14,000		\$24,000				\$400,000	\$10,000,000		\$10,444,000
SLWI		\$14,000	\$25,000	\$12,000							\$51,000
Ocean Ridge	\$9,000	\$14,000	\$25,000	\$38,000	\$50,000					\$2,000,000	\$2,136,000
South Palm Beach	\$3,000	\$12,000			\$25,000			\$700,000	\$4,000,000		\$4,740,000
	\$28,500	\$86,000	\$100,000	\$159,000	\$150,000	\$200,000	\$12,000,000	\$1,830,000	\$16,000,000	\$2,000,000	
										tti	\$32,553,500

LOCAL SHARE

PROJECT	TASK										
	aerials	surveys	performance report	turtle/scarp/ lighting mon.	reef mon.	feasibility	fill	design permitting	structures	mitigation	total (-monitoring)
Jupiter Carlin SPP	\$690	\$3,220	\$5,750	\$5,750	\$5,750	\$100,000		\$190,000	\$1,000,000		\$1,290,000
Juno Beach	\$3,750	\$1,000	\$12,500	\$30,000	\$25,000		\$5,047,000	\$175,000			\$5,222,000
Singer Island	\$3,600	\$8,400		\$14,400			\$0	\$240,000	\$6,000,000		\$6,240,000
SLWI		\$7,000	\$12,500	\$6,000							\$0
Ocean Ridge	\$1,485	\$2,310	\$4,125	\$6,270	\$8,250				\$0	\$1,000,000	\$1,000,000
South Palm Beach	\$1,560	\$6,240			\$13,000			\$364,000	\$2,080,000		\$2,444,000
	\$11,085	\$28,170	\$34,875	\$62,420	\$52,000	\$100,000	\$5,047,000	\$969,000	\$9,080,000	\$1,000,000	\$16,196,000
Total costs (local share) for Countywide monitoring:					\$188,550						

STATE SHARE

PROJECT	TASK										
	aerials	surveys	performance report	turtle/scarp/ lighting mon.	reef mon.	feasibility	fill	design permitting	structures	mitigation	total (-monitoring)
Jupiter Carlin SPP	\$690	\$3,220	\$5,750	\$5,750	\$5,750	\$100,000		\$190,000	\$1,000,000		\$1,290,000
Juno Beach	\$3,750	\$1,000	\$12,500	\$30,000	\$25,000		\$5,047,000	\$175,000			\$5,222,000
Singer Island	\$2,400	\$5,600		\$9,600			\$0	\$160,000	\$4,000,000		\$4,160,000
SLWI		\$7,000	\$12,500	\$6,000							\$0
Ocean Ridge	\$1,485	\$2,310	\$4,125	\$6,270	\$8,250				\$0	\$1,000,000	\$1,000,000
South Palm Beach	\$1,440	\$5,760			\$12,000			\$336,000	\$1,920,000		\$2,256,000
	\$9,765	\$24,890	\$34,875	\$57,620	\$51,000	\$100,000	\$5,047,000	\$861,000	\$6,920,000	\$1,000,000	\$13,928,000
Total costs (state share) for Countywide monitoring:					\$178,150						

FEDERAL SHARE

PROJECT	TASK										
	aerials	surveys	performance report	turtle/scarp/ lighting mon.	reef mon.	feasibility	fill	design permitting	structures	mitigation	total
Jupiter Carlin SPP*	\$1,620	\$7,560	\$13,500	\$13,500	\$13,500						\$49,680
Ocean Ridge	\$6,030	\$9,380	\$16,750	\$25,460	\$33,500						\$91,120
Juno Beach (FEMA)		\$16,000					\$1,906,000				\$1,922,000
	\$7,650	\$32,940	\$30,250	\$38,960	\$47,000	\$0	\$1,906,000	\$0	\$0	\$0	
Total costs (federal share) for Countywide monitoring:					\$156,800						\$2,062,800

LONG RANGE BUDGET PLAN

PROJECT	FY 2007-8				FY 2008-9				FY 2009-10				FY 2010-2011				FY 2011-2012			
	ttl	federal	state	local	ttl	federal	state	local	ttl	federal	state	local	ttl	federal	state	local	ttl	federal	state	local
Jupiter Carlin SPP*																				
feasibility	\$200,000		\$100,000	\$100,000																
design/permit	\$380,000		\$190,000	\$190,000					\$480,000	\$259,200	\$110,400	\$110,400								
construct	\$2,000,000	\$0	\$1,000,000	\$1,000,000									\$6,000,000	\$3,240,000	\$1,380,000	\$1,380,000				
Juno Beach																				
design/permit	\$350,000		\$175,000	\$175,000																
construct	\$12,000,000	\$1,906,000	\$5,047,000	\$5,047,000																
Singer Island																				
design/permit	\$400,000		\$160,000	\$240,000																
construct	\$10,000,000		\$4,000,000	\$6,000,000																
SLWI	(Monitoring costs included in Countywide monitoirng total)																			
Ocean Ridge																				
design/permit																				
construct	\$2,000,000		\$1,000,000	\$1,000,000																
South Palm Beach																				
design/permit	\$700,000		\$336,000	\$364,000																
construct	\$4,000,000		\$1,920,000	\$2,080,000																
CountyWide Monitoring	\$523,500	\$156,800	\$178,150	\$188,550	\$448,000	\$111,320	\$157,540	\$179,140	\$484,000	\$131,800	\$165,300	\$186,900	\$540,000	\$131,800	\$190,500	\$217,700	\$540,000	\$114,800	\$199,000	\$226,200
PROJECT	FY 2012-13				FY 2013-14				FY 2014-15				FY 2015-16				FY 2016-2017			
	ttl	federal	state	local	ttl	federal	state	local	ttl	federal	state	local	ttl	federal	state	local	ttl	federal	state	local
Jupiter Carlin SPP																				
design/permit																				
constuct																				
Juno Beach																				
design/permit	\$400,000		\$200,000	\$200,000																
construct					\$13,000,000		\$6,500,000	\$6,500,000												
Singer Island																				
design/permit																				
constuct																				
SLWI	(Monitoring costs included in Countywide monitoirng total)																			
Ocean Ridge																				
design/permit	\$150,000	\$75,000	\$37,500	\$37,500																
construct					\$6,000,000	\$3,000,000	\$1,500,000	\$1,500,000												
South Palm Beach																				
design/permit													\$150,000	\$75,000	\$37,500	\$37,500				
construct																	\$6,000,000	\$3,000,000	\$1,500,000	\$1,500,000
CountyWide Monitoring	\$546,000	\$131,800	\$196,100	\$212,655	\$546,000	\$131,800	\$196,100	\$212,655	\$574,000	\$131,800	\$210,100	\$226,655	\$574,000	\$131,800	\$210,100	\$226,655	\$584,000	\$120,200	\$220,900	\$242,900

9

SINGER ISLAND SHORE PROTECTION PROJECT

Project Description

This project consists of design, permitting, construction, and monitoring associated with the restoration of 1.8 miles of coastline on Singer Island. The restored dune will reduce the impact of storms, add a reservoir of sand and help dissipate wave energy. Structures will be used to stabilize the beach.

Location

Palm Beach County, R-60.5 to R-69 (See attached location map.)

Project Evaluation

Severity of Erosion: Rapid fluctuations in shoreline position threaten developed property along 76% of the project area. The project area is located within an area of critical erosion as designated by the Department; since 2001, erosion rates have been calculated up to -15 ft/yr. Recent hurricanes and storm activity have accelerated the beach erosion throughout the area. Dune restoration and plantings have been necessary to protect upland properties in 2004, 2005 and in 2006.

Benefits: Shoreline development within the project area consists of multifamily/hotel structures and public park land, 80% of which lies within ½ mile of the Riviera Beach Municipal Park, Ocean Reef Park or MacArthur State Park. Public beach access, as shown on the attached map, allows for public and tourism use throughout the project area. Hurricane evacuation routes in the project area include Route A1A which runs N-S along the entire project area.

Threatened and endangered marine turtles utilize the entire project area for nesting purposes and protected plant species are located in the dunes.

State Commitment: The feasibility studies for the project were funded by the state (01PB1) and the project is included in the Strategic Beach Management Plan. The initial phase of dune restoration was funded by the state (01PB1), as were subsequent restorations and design and initial permitting of erosion control structures (05PB2).

Local Commitment & Capability: The project is consistent with the local government comprehensive plan and the local sponsor supports the Department's beach management activities as set forth under Part 1, Chapter 161, Florida Statutes. A long-range budget plan and dedicated funding sources are in place. Funds for the local share of the project costs are budgeted through tourism bed tax and ad valorem funding. The degree of local funding proposed is detailed in the attached financial schedule. The administrative capability of the local sponsor has been demonstrated by the successful completion of the initial phase of this project as well as many others. County staff will provide administrative, contract development, legal, permitting, environmental monitoring and construction management services.

Project Performance: The project design is based on an updated feasibility study. The project is designed to enhance shore protection by the restoration of the native dunes and stabilization of the berm in an area where extensive near shore environmental resources would be impacted by beach nourishment. The structures will provide long term stabilization (>25 years) to the project area. The dune component of the project utilizes local sand resources to minimize cost. The proposed structures are based on the least-cost alternative suggested in the feasibility study but are designed to provide long-term stability.

Innovative Applications: The structural components are based on the use of innovative modeling technology to minimize the extent of construction necessary for shoreline stabilization. The combination of dune restoration and structural stabilization instead of conventional beach nourishment minimizes the potential impacts to nearshore hardbottom

Use of Program Funds

The requested funding will be used to finalize permit requirements and to build the structures. Monitoring for this project will be funded under Grant # 06PB3: Palm Beach Countywide Monitoring.

Singer Island
Shore Protection Project

Legend

- DEP Monument
- Beach Access
- Project Fill Boundaries
- Public Access Boundaries



OCEAN REEF PARK

8

OCEAN RIDGE SHORE PROTECTION PROJECT

Project Description

Mitigation associated with the nourishment of 1.42 miles of beach adjacent to the South Lake Worth Inlet 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.

Location

Between DEP range monuments 151 and R159 in Palm Beach County (location map attached).

Project Evaluation

Severity of Erosion: The historic erosion rate along the project shoreline was computed to be five cy/yr/lf (Aug 1996 GDM). Over the anticipated six year renourishment schedule, the erosion rate is anticipated to average 7.44 cy/yr/lf (including end losses).

Benefits: 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 (100% eligibility). Studies included in the GDM estimated beach usage in 2010 to be over 665,000 visits/year. 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. Hurricane evacuation routes in the project area include Route A1A which runs N-S along the entire project area.

Threatened and endangered marine turtles utilize the entire project area for nesting purposes and protected plant species are located in the dunes.

Federal Funding: The project was authorized on October 23, 1962 (87-874) & WRDA 1996. The recent work was completed as part of the US Army Corps of Engineers regional hurricane remediation efforts. The original PCA was signed on March 15, 1999.

State Commitment: The design & construction of both nourishment projects were funded by the state. The latest grant (06PB1) expires on October 1, 2007. Please include a new funding agreement for the costs of mitigation construction.

Local Commitment & Capability: The project is consistent with the local government comprehensive plan and the local sponsor supports the Department's beach management activities as set forth under Part 1, Chapter 161, Florida Statutes. A long-range budget plan and dedicated funding sources are in place. The degree of local funding proposed is detailed in the attached financial schedule. The administrative capability of the local sponsor has been demonstrated by the successful completion of the initial phase of this project as well as many others.

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 is expected to provide 100% of the sand needed to maintain the downdrift beaches in Gulfstream without impacting the extensive local nearshore habitat. The project is designed to improve cost effectiveness by using groins, a bypass plant, and spoil from periodic dredging of areas within Lake Worth.

Innovative Applications: The project demonstrates the combined successful use of periodic nourishment, groins and a sand transfer plant.

Use of Program Funds

The requested funding will be used for design and construction of project mitigation required by DEP permit. Monitoring associated with the project will be funded by DEP grant # 06PB3 - Palm Beach Countywide Monitoring.

Ocean Ridge Shore Protection Project

SL WID DISTRICT PARK

OCEAN INLET PARK

OCEAN RIDGE HAMMOCK

BOYNTON BCH OCEANFRONT PARK

EDITH ST. ACCESS

CORRINE ST. ACCESS

Legend

- DEP Monument
- Beach Access
- Project Fill Boundaries
- Public Access Boundaries



10

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. The original project was completed in 2001 and impacted by the hurricanes of 2004 and 2005.

Location

Palm Beach County, R-26 - R-38 (fill area), map attached.

Project Evaluation

Severity of Erosion: The area is designated critically eroded by the Florida State Department of Environmental Protection. The hurricanes of 2004 caused the loss of 251,000 cubic yards of material from the beach profile. Between 1990 and 1996, the beach and dune system out to -18 ft NGVD eroded 860,000 yds³, which is equivalent to an average erosion rate of -9.3 yds³/ft/yr.

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. 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 (Diamondhead/Radnor, Ocean Cay, Juno Beach Park, Juno Dunes, and Loggerhead Park). Juno Beach is one of the highest nesting density beaches for endangered sea turtles on the east coast. A total of 100 % of the project area consists of either habitable dwellings or hurricane evacuation routes. Shoreline development within the area of fill (R-26 through R-38) is approximately 40 % (5,250 ft) multifamily/ commercial structures. 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 running E-W and centrally located within the project area.

Local Commitment: The project is consistent with the local government comprehensive plan and the local sponsor supports the Department's beach management activities as set forth under Part 1, Chapter 161, Florida Statutes. A long-range budget plan and dedicated funding sources are in place. The degree of local funding proposed is detailed in the attached financial schedule. The administrative capability of the local sponsor has been demonstrated by the successful completion of the initial phase of this project as well as many others. .

State Commitment: Grant funding was provided for the initial nourishment of the beach. The project is included in the Florida DEP Beach Restoration Management Plan. The original grant for this project (98PB2) expires on September 30, 2006. Please include a new grant to fund the design and construction of this beach.

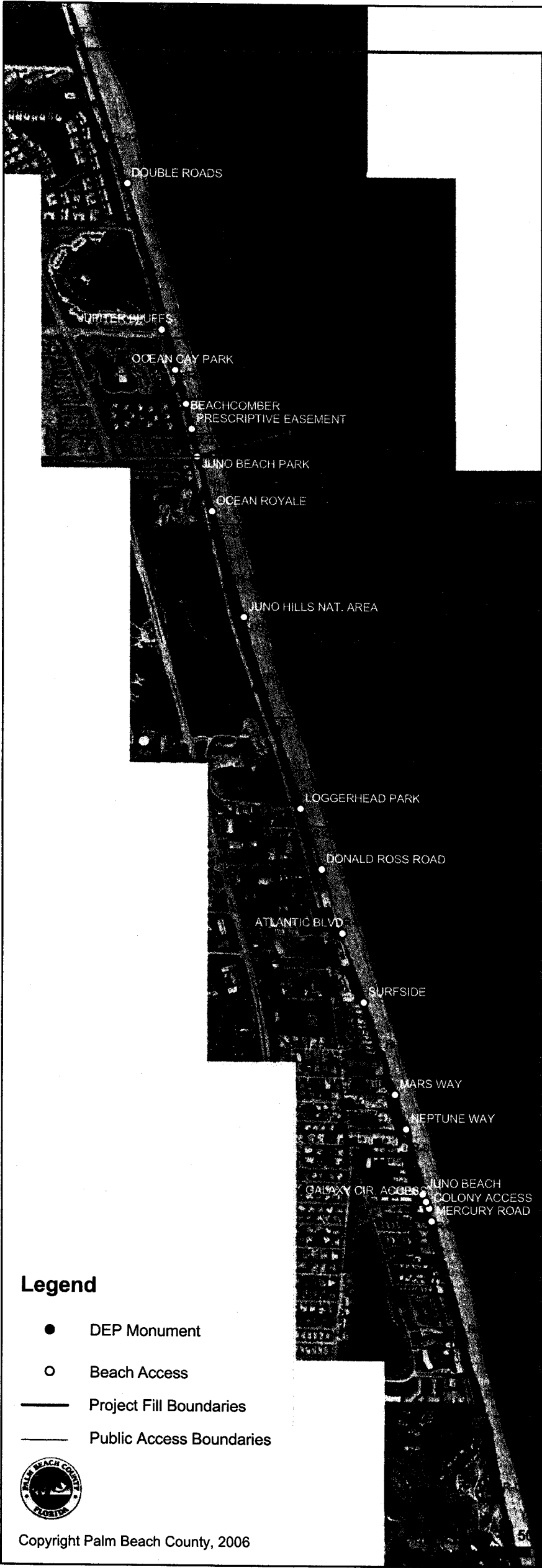
Performance of the Project: The project design was based on the GDM & EIS. and provides for greater than 15 year return interval storm protection. It has preformed as designed and is periodically supplemented by sand dredged from the ICW. The dune within the project limits is stabilized with vegetation 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 fill is expected to provide 100% of the sand needed to maintain the downdrift beaches without impacting the extensive local nearshore habitat.

Use of Innovative Technology: The County will be working with the DEP to modify the fill profile design with the intent of reducing the impact of the renourishment event on sea turtle nesting. It is the County's opinion that size of the fill and comparison areas and the fact that detailed sea turtle nesting and reproductive data is available for the past 10 years make this fill project the ideal location for an experimental fill template design.

Use of Program Funds

Funds requested for FY2007-8 will be used to support project construction, now scheduled to begin November 2007. Monitoring for this project will be funded under DEP grant # 06PB3: Palm Beach Countywide Monitoring. //

**Juno Beach
Shore Protection Project**



Width = 1.3 miles
Length = 2.4 miles

Legend

- DEP Monument
- Beach Access
- Project Fill Boundaries
- Public Access Boundaries



JUPITER/CARLIN SHORE PROTECTION PROJECT

Project Description

Shoreline protection for 1.08 miles of beach adjacent to the Jupiter Inlet in Palm Beach County. The beach was first nourished in 1995 and renourished in 2002. A primary dune was reestablished along the project area. Permit-required monitoring is ongoing. Structures are planned to address an erosive "hot spot" in the project.

Location

Between DEP range monuments R13.5 and R19 in Palm Beach County (location map attached).

Project Evaluation

Severity of Erosion: Over 30% of the project area includes habitable structures, including one hotel and one condominium. Another 65% of the project area is developed public park area. The historic erosion rate along the project shoreline was computed to be 1.9 ft/yr (Aug 1996 GDM).

Benefits: The beach is publicly accessible in an area heavily utilized by both the local population and visitors. Approximately 70% of the project area lies within two county parks (100% eligibility). The Jupiter Beach Resort 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 running E-W and centrally located within the project area. 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 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.

Federal Funding: The project was authorized in 1962, WRDA 1986 & WRDA 1996. A PCA for nourishment was signed on March 15, 1995. The sponsor is seeking approval for federal participation in design & construction.

State Commitment: Both phases of the project were funded by the state. The project is recommended in the Department's Beach Restoration Management Plan for Palm Beach County.

Local Commitment & Capability: The project is consistent with the local government comprehensive plan and the local sponsor supports the Department's beach management activities as set forth under Part 1, Chapter 161, Florida Statutes. A long-range budget plan and dedicated funding sources are in place. The degree of local funding proposed is detailed in the attached financial schedule. The administrative capability of the local sponsor has been demonstrated by the successful completion of the initial phase of this project as well as many others.

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 proposed project will extend the nourishment cycle. The project mitigates for adverse impacts of the inlet by providing 53% of the bypass quantity proposed in the inlet management plan. The project will improve cost effectiveness, project life and maximize the use of sediment resources by addressing an erosional hot spot.

Innovative Applications: The structures will provide options to extend the required nourishment intervals. Extending the nourishment interval will minimize the environmental impacts from maintaining the beach, especially in an area of high sea turtle nesting densities. The use of structures in this area should also reduce impact to nearshore reefs which exist within the vicinity of the project.

Use of Program Funds

The requested funding will be used for the design/permitting and construction of structures. Monitoring associated with this project will be funded under DEP grant # 06PB3 - Palm Beach Countywide Monitoring.

Jupiter/Carlin Shore Protection Project

JUPITER BEACH/DUBOIS PARK

CARLIN PARK

MAISON DE LA MER

Legend

- DEP Monument
- Beach Access
- Project Fill Boundaries
- Public Access Boundaries



Copyright Palm Beach County, 2006

14

SOUTH PALM BEACH SHORE PROTECTION PROJECT

Project Description

Restoration of approximately .7 miles of critically eroding shoreline along the entire length of the municipality and the public beach in Lantana. A feasibility study for the project is underway. Persistent dunes within the project area were restored in the winter of 2003, and in February and December of 2005. Sand lost from the berm during the 2004 hurricanes has not been fully restored, however, staff works to maintain the current level of the beach with dune stabilizing plantings.

Location

Palm Beach County, R-134 - R-137.5 (fill area), map attached.

Project Evaluation

Severity of Erosion: The area is designated critically eroded by the Florida State Department of Environmental Protection. The hurricanes of 2004 and 2005 destroyed the restored dunes and lowered the berm height. The beach has not recovered.

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. A total of 96% of the shoreline is available for public recreational use (within ½ mile of Lantana Public Beach). Approximately 22% of the project area is publicly owned parks and beach access ways. A total of 78% of the project area consists of a hotel and multifamily structures. Hurricane evacuation routes in the project area include Route A1A which runs N-S along the entire project area. Threatened and endangered marine turtles utilize the entire project area for nesting purposes and protected plant species are located in the dunes.

State Commitment: Grant funding was provided for the dune work and feasibility study. Additional grant funding is provided in the 2006/2007 fiscal year for design and permitting of erosion control technology. The project is included in the Florida DEP Beach Restoration Management Plan.

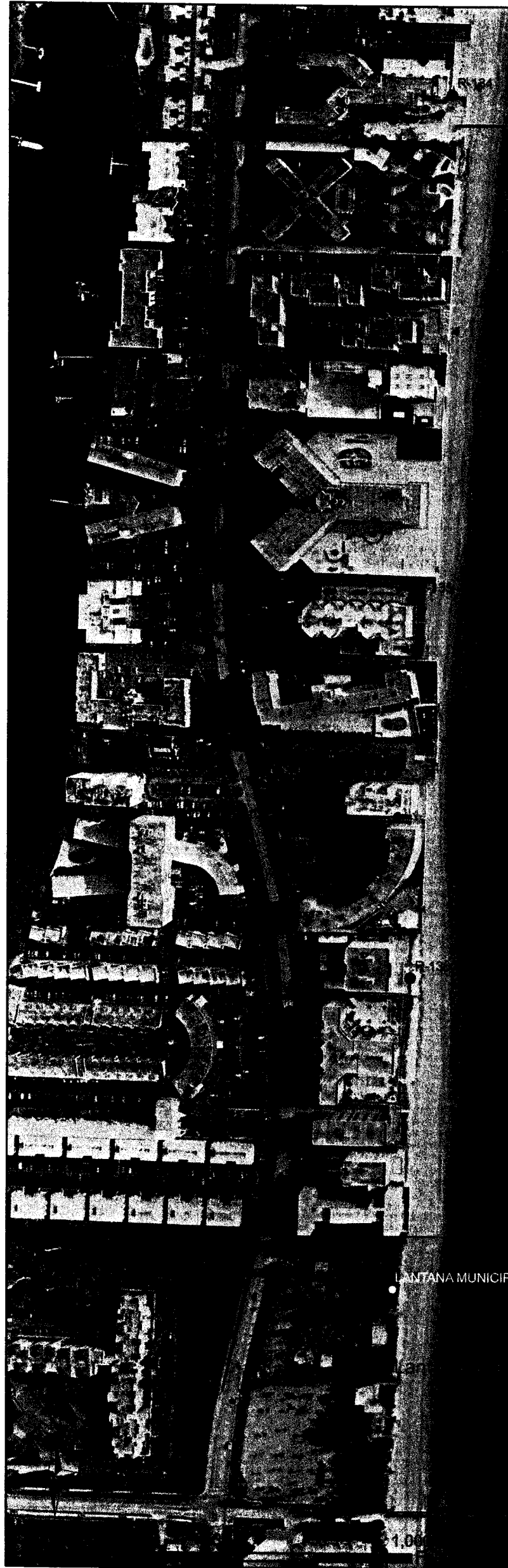
Local Commitment: The project is consistent with the local government comprehensive plan and the local sponsor supports the Department's beach management activities as set forth under Part 1, Chapter 161, Florida Statutes. A long-range budget plan and dedicated funding sources are in place. The degree of local funding proposed is detailed in the attached financial schedule. The administrative capability of the local sponsor has been demonstrated by the successful completion of the initial phase of this project as well as many others. County staff will provide administrative, contract development, legal, permitting, environmental monitoring and construction management services.

Innovative Applications: Innovative modeling technology is being used to minimize the extent of construction necessary for shoreline stabilization. Preliminary results show that a combination of dune restoration and structural stabilization instead of conventional beach nourishment will minimize the potential impacts to extensive nearshore hardbottom resources in the vicinity.

Use of Program Funds

Funds requested for FY2007-8 will be used to support project construction. All monitoring associated with this project will be funded through DEP grant # 06PB3: Palm Beach Countywide Monitoring.

South Palm Beach
Shore Protection Project



Legend

- DEP Monument
- Beach Access
- Project Fill Boundaries
- Public Access Boundaries



PALM BEACH COUNTYWIDE MONITORING

Project Description

This project consists of monitoring activities associated with eligible beach projects.

Location

Palm Beach County, R-001 to R-204 (Excluding all of the Town of Palm Beach). See attached project maps for detailed location information.

Eligible Projects to be Funded

- Ocean Ridge Shore Protection
 - The first renourishment of this project was completed in December of 2005.
 - Permit required post-construction monitoring is ongoing and will continue through 2009.
- Juno Beach Shore Protection Project
 - Design and permitting of this project is ongoing and will be complete by November of 2007.
 - Construction on this project is scheduled to begin in November of 2007 and will be complete before March 1, 2008.
 - Post-construction monitoring will begin upon project completion.
- South Palm Beach Shore Protection Project
 - The feasibility study and environmental monitoring for this project will be complete in December of 2006.
 - Design/Permitting and construction of this project is scheduled to begin in the 2007/2008 fiscal year.
- Singer Island Shore Protection Project
 - Permitting is ongoing and construction of the breakwaters for this project is expected to occur in the 2007/2008 fiscal year
- Jupiter Carlin Shore Protection Project
 - Design/permitting and construction of the structures associated with this project will occur in the 2007/2008 fiscal year.

Use of Program Funds

Activities to be funded under this include physical and biological monitoring required by permit. Physical monitoring which will be funded under this grant includes, but is not limited to: Sand compaction, location and height of escarpments, topographic/bathymetric surveys, and aerial photography. Biological monitoring which will be funded under this grant includes, but is not limited to: nearshore reefs, shorebird populations, and sea turtle nesting and reproductive success.