

**FY 2015/16 Local Government Funding Request
Beach Management Projects**

Project Name: Bonita Beach Nourishment

Project Description:

The project consists of a cooperative effort between the City of Bonita Springs and Lee County to complete design, permitting, preparation of plans, specifications and contract documents, and nourishment of the northernmost 4,100 feet of Little Hickory Island (Bonita Beach). The shoreline is located immediately south of Big Hickory Pass on the southernmost barrier island in Lee County. The Bonita Beach Restoration Project, comprised of two terminal groins and 217,000 cubic yards of beach fill, was completed in November 1995. The first nourishment, consisting of placing an estimated 150,000 cubic yards, was completed in June 2004. The entire project area, R-226 to R-230, has been designated as critically eroded by the Florida Department of Environmental Protection (DEP). The 2014 nourishment is anticipated to cover approximately 0.8 miles of shoreline with 130,000 cubic yards of fill from a borrow source located near Big Carlos Pass. Cost savings were achieved by coordination of the project with Lovers Key Nourishment. The project will enhance and protect nesting beach for the loggerhead sea turtle within Critical Habitat Unit LOGG-T-FL-25 as designated by the US Fish and Wildlife Service.

Use of Requested Program Funds: Funds requested for FY15/16 are for reimbursement of design, permitting, construction, and permit required physical and biological monitoring tasks. Final permits were issued in September 2013 and construction started in July 2014 with completion anticipated for August 2014.

Local Government Contact

Name	Title	Email
Justin McBride	Coastal Project Manager	jmcbride@leegov.com
Address 1:	1500 Monroe St.	Phone: 239.533.8130
Address 2:	Ft. Myers, FL 33901	Fax: 239.485.8408

Mapping- Maps should be provided as attachments.

Maps should be to scale at a minimum of 1"=200'

Mapping elements include:

- Project Boundary with Critically Eroded Shoreline
- Range Monuments
- Beach Access and Parking- Primary and Secondary, including access widths.
- Public Lodging Establishments- locations and length of property boundaries along project shoreline or street frontage.
- Comprehensive Plan/Current Land Use designations of Commercial and Recreational Facilities and associated property boundaries along the project shoreline.

Length of Project Boundary in Feet (total restored length)

3,900 feet

Eligibility: Access Points and Public Lodging Establishments:

Location/Name	Address	R- Mon	Type of Access	Width of Access/ Frontage	Total units or parking spaces	No. units available to Public	Eligible shoreline
Access 10		R228.5	Secondary	247	85	85	2887
Access 9		R229.5	Secondary	50	4	4	19.3
Access 8		R230.5	Secondary	0	5	5	0

Provide Public Lodging Establishment documentation including proof of licensure. N/A

Schedule and Budget:

(Include estimated phases for 10 years and estimated project costs for 5 years.)

Year	Proposed Method	Description	Total Estimated Cost	Federal Cost Share	Third Party Cost Share	State Cost Share	Local Cost Share
2015/ 2016	Reimbursement	Design, Permitting, Construction, Monitoring	2,136,822	0	627,005	724,490	785,328
2016/ 2017	Monitoring; Tilling	Physical; Biological	35,200	0	10,329	11,935	12,937
2017/ 2018	Monitoring; Tilling	Physical; Biological	57,200	0	16,784	19,394	21,022
2018/ 2019	Monitoring	Physical	0	0	0	0	0
2019/ 2020	Monitoring	Physical	49,500	0	14,525	16,783	18,192
2020/ 2021	Monitoring	Physical					
2021/ 2022	Monitoring; Design	Sand Source Update					
2022/ 2023	Monitoring; Permitting	Physical; JPC Update					
2023/ 2024	Construction	Nourishment					
2024/ 2025	Monitoring; Tilling	Physical; Biological					

Severity of erosion: Criterion will be calculated by the Department. Please provide narrative and any data that should be considered in addition to the Department's database.

The entire project area has been designated as critically eroded by FDEP. Pre-project erosion rates were measured at up to 2.5 feet per year. The most recent monitoring report calculated annual erosion rates post-construction to year 5 of 14.9 feet/year.

The project area was impacted by hurricanes immediately after construction in 2004 and recently impacted by Tropical Storm Debby and Tropical Storm Isaac (both 2012).

Threat to Upland Structures

Criterion will be calculated by the Department. Please provide narrative and any data that should be considered in addition to the Department's database.

Shoreline development within the project area consists of multifamily development and recreational facilities including a public park which provides public rest rooms, dune walkovers, and parking for 85 standard automobiles including spaces provided to comply with ADA requirements. Within the project limits, approximately 3,150 feet of Hickory Boulevard (County Road 865) lies seaward of the Coastal Construction Control Line. This road serves as the hurricane evacuation route for Little Hickory Island.

Recreational and Economic Benefit: The percentage of linear footage of properties within the project boundaries zoned commercial, recreational, or Public Lodging Establishment, or the equivalent, in the current local government land use map **18.5% - 721 feet**

Availability of Federal Funds:

Is the project Federally authorized by WRDA?	No
Provide date of authorization expiration.	N/A
Does this project phase have a Federal Project Cooperative Agreement, or similar for the current phase? Provide a copy of the document.	No
Federal cost share percentage available for this project:	N/A
Is this project funded through FEMA for storm repairs? Provide a copy of the signed Project Worksheet.	No

Local Sponsor Financial and Administrative Commitment

Is funding for the project in the local sponsor's 10-year comprehensive financial plan? **Yes**
Please provide copy or web link to the plan.

<http://www.lee.gov/gov/dept/budgetservices/book/Budget%20Books/FY%202013-14%20Annual%20Operating%20and%20Capital%20Budget%20Book.pdf> SEE PAGE 61

Is funding provided through a source established by referendum? **Ordinance 13-14**
Please provide a copy or web link to the referendum.

<http://www.lee-county.com/gov/BoardofCountyCommissioners/ordinances/Ordinances/13-14.pdf>

Is funding provided by a third party? **Yes, but does not reduce the State share**
What is the percentage of total project costs provide by the third party? **29.343%**
Please provide a copy of the cost sharing agreement.

<http://minutes.leeclerk.org/Minutes/Mins2010-PDF/Documents-2010/110910R/110910R-C8B-ILA.pdf>

Quarterly Report Compliance:

FY2013/2014	End Date	Report Remitted	Compliant (yes/no)
Qtr 1 (Sept)	10/31/2013	10/31/2013	Yes
Qtr 2 (Dec)	01/31/2014	1/29/2014	Yes
Qtr 3 (Mar)	04/30/2014	4/28/2014	Yes
Qtr4 (June)	7/31/2014	7/29/2014	Yes

Are there active federal and state permits for the project? **Yes**
 Federal permit #: SAJ-2012-00198(IP-MJD) Expiration date: Sept 3, 2028
 State permit #: 0311811-001-JC Expiration date: June 24, 2028

Have local funds been secured for the project? **Yes**
 Explain: Local funding for the project was and will be obtained from the Lee County Tourist Development Council (TDC). The TDC provides a dedicated long term funding source through a 'bed tax'. In accordance with Lee County Ordinance 13-14, the tax allocates 26.4% of all revenue generated from short term or seasonal rentals (less than 6 months) for beach and shoreline improvements.

In order to acquire state funding, a resolution from the local sponsor must be provided by the application deadline which declares:

- Support from the Sponsor for the Proposed Project
- Willingness to serve as the Local Sponsor
- Ability to provide the full Local Cost Share
- And the source of the funding

Resolution has been routed to BOCC for approval and will be sent to DEP Pending BOCC Action. Draft attached for reference.

Previous State Commitment:

Has the Department previously cost shared, reviewed, and approved a feasibility or design phase for this project?

The Department previously entered into a cost-share agreement for funding of the initial restoration in 1994/96 and subsequent nourishment in 2004 as well as post-construction monitoring. The project is recommended in the Strategic Beach Management Plan and located in an area that has been designated as critically eroded shoreline by the Department.

Previous State Cost Share percentage **33.905 %**

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

Will this project nourish a previously restored shoreline? (Full beach nourishment. Dune-only projects do not qualify.) **Yes**

Project Performance:

Nourishment Interval (Years):

10

Mitigation of Inlet Effects:

Criterion is calculated by the Department. Please provide any supplemental information that may assist in determining if the project is located with the area of inlet influence and provides supplemental nourishment for an inlet that is not balancing its sediment budget as defined by the Inlet Management Plan or Strategic Beach Management Plan.

N/A

Use of Innovative Applications of existing technologies:

Does the project address erosion in a method that is economically competitive with nourishment, that will not adversely affect the conservation of fish and wildlife, including endangered or threatened species, or their habitats, and that is designed to demonstrate an innovative application of existing technologies?

N/A

Has the project been documented to be effective and demonstrated technologies previously untried in the state?

N/A

Regionalization:

Is this project being planned or constructed in cooperation with another local government to reduce contracting costs? Explain and attach a signed copy of the interlocal agreement between the two local sponsors.

The Bonita Beach project has been within the jurisdiction of the City of Bonita Springs since their incorporation on December 31, 1999. Lee County has worked with the FDEP Division of Recreation and Parks and the City of Bonita Springs to couple the Bonita Beach Nourishment (described separately) with the Lovers Key Nourishment Project under a unified procurement structure intended to increase efficiencies and reduce costs in the design, permitting, construction and monitoring phases of both projects.

<http://minutes.leeclerk.org/Minutes/Mins2010-PDF/Documents-2010/110910R/110910R-C8B-ILA.pdf>

<http://minutes.leeclerk.org/Minutes/Mins2013-PDF/Documents-2013/061813R/061813R-C8a-Use%20Agreement.pdf>

Significance:

What is the volume of advanced nourishment lost since the last sand placement event of a beach restoration or nourishment project as measured landward of the Mean High Water Line?

Post-construction monitoring from 2004 to 2010 showed 156,364 cubic yards of material had eroded from the project area through the 5th year of monitoring. This indicates that all material which was placed in 2004 (115,000 cubic yards) has been eroded.

Has the project eroded into the design template?
If so, please list those R-monuments.

Yes
R226A – R229.5

What is the proposed placement volume?

130,00CY

Bonita Beach, Lee County



- Beach Fill
- ECL
- Critical
- Critical Inlet
- Noncritical
- Loggerhead Critical Habitat
- Hotel/Motel
- Commercial
- Recreation
- Parking
- Walkway
- Blocked

0 100 200 300 400 Feet

Bonita Beach, Lee County



Bonita Beach, Lee County



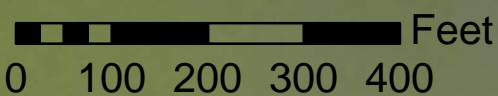
NN, Secondary
4 spaces, width = 50

R-230

OO, Secondary
5 spaces, width = 50

R-231

- Beach Fill
- ECL
- Critical
- Critical Inlet
- Noncritical
- Loggerhead Critical Habitat
- Hotel/Motel
- Commercial
- Recreation
- Parking
- Walkway
- Blocked



RESOLUTION NO. _____

A RESOLUTION OF THE BOARD OF COUNTY COMMISSIONERS OF LEE COUNTY, FLORIDA, APPROVING AND SUPPORTING THE PROPOSED ACTIVITIES AS OUTLINED IN THE 2015/2016 LOCAL GOVERNMENT FUNDING REQUEST TO THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION AND AFFIRMING THE COUNTY'S COMMITMENT TO PROVIDE LOCAL FUNDING

WHEREAS, beaches provide vital economic, recreational, storm damage reduction, and environmental benefits, and

WHEREAS, Lee County has supported previous federal, state and local initiatives in correcting beach erosion problems throughout the County, and

WHEREAS, Lee County prepared and submitted a Long Range Beach Erosion Control Budget Plan (Budget Plan) in March 1997, and has annually submitted updated information in accordance with guidelines developed by the Florida Department of Environmental Protection, and

WHEREAS, Lee County seeks to update the Budget Plan for the next Florida Department of Environmental Protection Fixed Capital Outlay Legislative Budget Request, and

WHEREAS, Lee County supports the Florida Department of Environmental Protection's beach and coastal management programs in accordance with Section 161.101 and 161.161, Florida Statutes, and

WHEREAS, Lee County supports all components of the Budget Plan consistent with the Lee County Comprehensive Plan and agrees to fund the local government share of all County projects approved for funding by the Florida Legislature in Fiscal Year 2015-2016, through the existing dedicated bed tax revenues, special taxing units, or other funding resources as applicable, and

WHEREAS, Lee County agrees to serve as the local sponsor for all County projects identified in the Budget Plan.

NOW, THEREFORE, BE IT RESOLVED by the Board of County Commissioners, Lee County, Florida, that Lee County is requesting state funding and providing its support for the Bonita Beach Nourishment, Estero Island Nourishment, and Blind Pass Ecozone Projects, and affirms its ability to provide the local match as necessary to implement state-funded beach erosion control projects as requested.

PASSED AND DULY ADOPTED by the Board of County Commissioners of Lee County, Florida this _____ day of August, 2014 by a vote of ___ to ___; the motion was made by _____, seconded by _____ and upon being put to a vote, the vote was as follows:

JOHN MANNING	_____
CECIL PENDERGRASS	_____
LARRY KIKER	_____
BRIAN HAMMAN	_____
FRANK MANN	_____

ATTEST:
LINDA DOGGETT, CLERK

BOARD OF COUNTY COMMISSIONERS
LEE COUNTY,

BY: _____
DEPUTY CLERK

CHAIR

APPROVED AS TO FORM

BY: _____
ASST. COUNTY ATTORNEY

FY2015/16 Local Government Funding Requests Project Assessment

Project Name: Bonita Beach Nourishment

Initial Assessment: 9/10/2014

Group Assessment 1: George, Dow, Reed 9/19/2014

CE updates to form: 10/9/2014

Final Review: George, Dow, Reed 10/9/2014

Lee County comments: Boutelle, McBride 10/27/14

Severity of Erosion

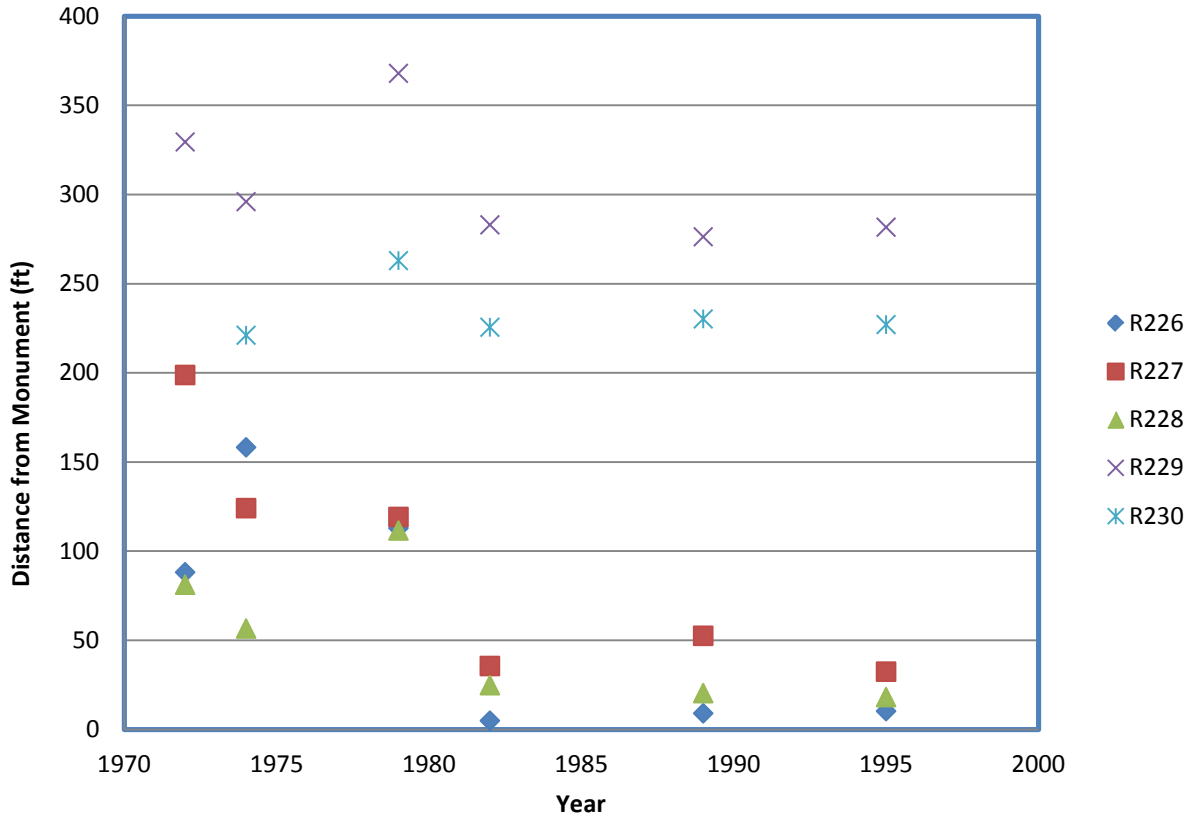
We believe the historic erosion rate is higher than -2.6 ft/yr.

Using DEP data from 1972 to 6/1995 (pre-construction), monuments R-226 to R-230, we calculate an effective average erosion rate of -5.83 ft/yr. Data were plotted and linear regression was used to calculate the change in feet per year at each monument. Rates were weighted by the effective distance of each monument to calculate the average over the project area.

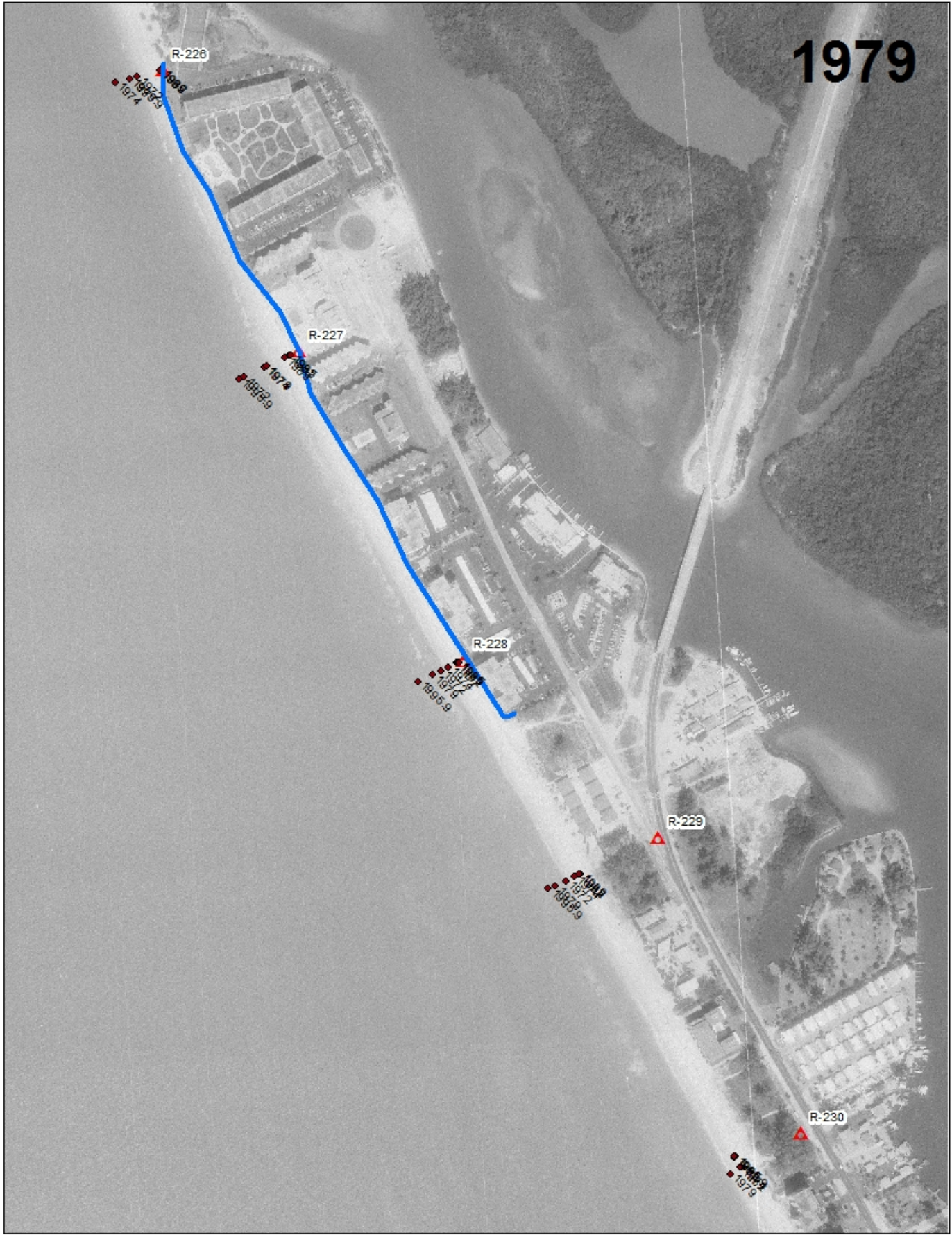
Note that R-226, R-227 and R-228 rates were calculated only through 1982. At that point, as reflected in the data graph and aerial depiction, the shoreline had eroded to its functional limit constrained by the seawalls as highlighted in the 1979 aerial. This masks the potential losses that could persist in volume but would not be measurable using MHWL. Note that even if the constraint is discounted, we calculate a rate of -3.67 ft/yr.

R-mon	Distance	Effective distance	Erosion rate	Effective erosion rate	Constrained rate	Effective constrained rate
R-226		502.5	-5.69	-2859.225	-9.15	-4597.875
	1005					
R-227		1065.5	-6.28	-6691.34	-13.24	-14107.22
	1126					
R-228		985.0	-2.99	-2945.15	-2.55	-2511.75
	844					
R-229		949.5	-2.21	-2098.395	-2.21	-2098.395
	1055					
R-230		527.5	-0.34	-179.35	-0.34	-179.35
Total		4030.0		-14773.46		-23494.59
Average				-3.67		-5.83

Bonita Beach



1979



1979

R-226
1982
1989

1972

1985.9

1974

1979

R-227

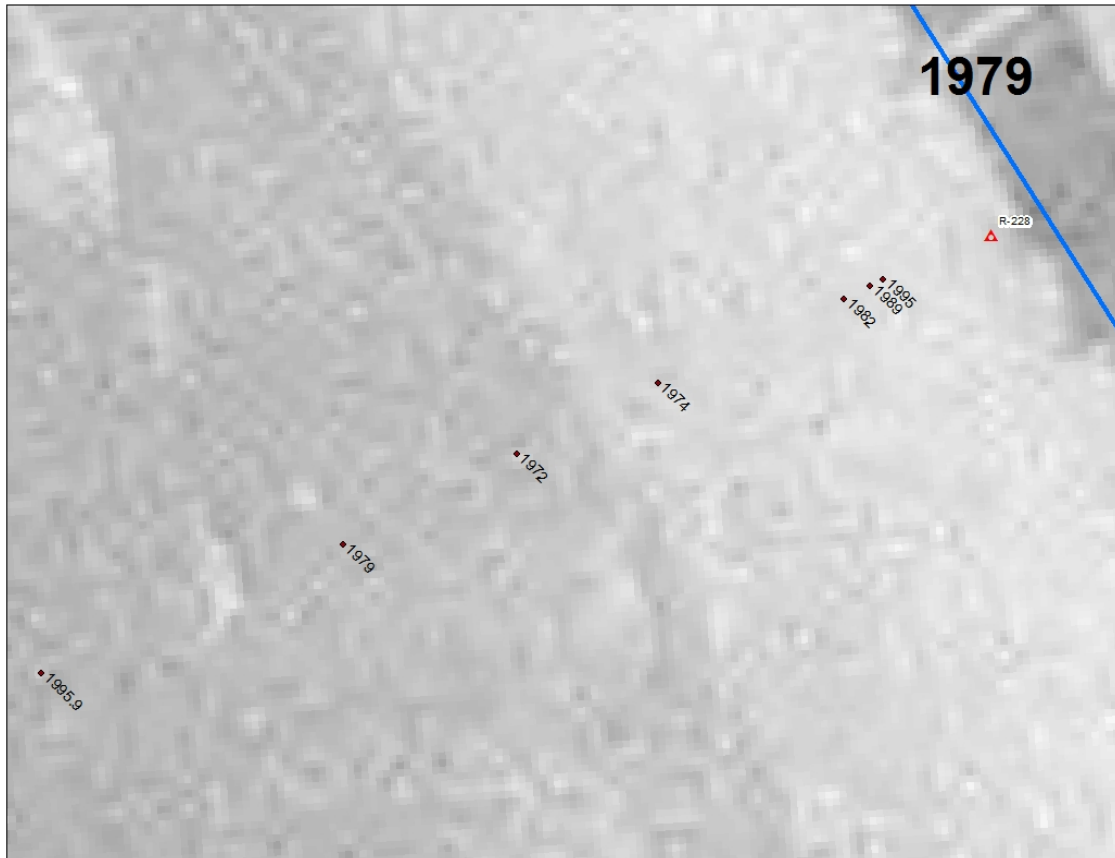
1985
1982

1989

1978
1974

1972

1985.9



Recreation and Economic Benefits

We inadvertently omitted parcel 254724B2001K00130 (zoned C-1, land use code = recreational areas) from our map. See corrected map attached.
20.5% = 800/3900 feet.

Regionalization

As previously argued, we believe that Lovers Key and Bonita Beach represent a clear example of the intent of the regionalization component. While Lee County may have been the historic sponsor of the Bonita Beach project, history functionally changed when the City of Bonita Springs incorporated and the local jurisdiction transitioned to the City. Lee County is only the current sponsor because we were requested to do so by the City and agreed to do so via the previously supplied Interlocal Agreement.

Significance – Placement Volumes

Note that since submittal, Bonita Beach has been completed with a final volume of 134,484 cy.