

ST. LUCIE COUNTY, FLORIDA

COASTAL STORM RISK MANAGEMENT PROJECT
FINAL INTEGRATED FEASIBILITY STUDY AND ENVIRONMENTAL
ASSESSMENT

APPENDIX F

Public Access and Cost Sharing



**US Army Corps
of Engineers**
Jacksonville District

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I. Overview

This appendix outlines cost sharing for the Recommended Plan as determined by shoreline ownership and use. The plan spans from the Florida Department of Environmental Protection’s (FDEP) reference monuments R98.5 to R115 + 1000 feet, to the Martin County line (approximately R001) and consists of initial and periodic nourishments of the existing¹ dune profile and an additional 20-foot berm extension.

The current cost share estimates are based on policy guidance provided by Engineer Regulations (ER) 1105-2-100, Appendix E and ER 1165-2-130. The Water Resources Development Act (WRDA) of 1999 changed the cost sharing policy, previously provided by WRDA 1986, by setting a federal share of periodic nourishment, carried out after 1 January 2003, to 50% for projects authorized for construction after 31 December 1999. Therefore, costs assigned to developed lands (publicly or privately owned) are cost shared 65% federal and 35% non-federal for initial construction and 50% federal / 50% non-federal for periodic nourishment. Benefits from prevention of damages to transportation facilities are considered storm damage reduction benefits according to ER 1165-2-130 and are cost shared 65% federal and 35% non-federal for initial construction. “Transportation facilities” in the project area include street ends. Costs assigned to undeveloped, publicly owned lands are cost shared 65% federal and 35% non-federal. Costs assigned to undeveloped, privately owned lands, even publicly accessible, are not federally cost shared (100% non-federal). Note that, for the purposes of this report, “developed” indicates the presence of buildings and/or other infrastructure such as roadways. Parks, parking lots, and vacant lots are not considered to be “developed” lands. If lands are not within ¼ mile north or ¼ mile south of public access and public parking, then the associated costs will be 100% non-federal. The cost sharing for the project is determined to be 35% federal, 65% non-federal for initial construction. **Table 1** shows the cost sharing estimates for initial construction and subsequent periodic nourishments.

Table 1: General Cost Sharing Summary for Initial Construction

	Initial Construction Federal Participation	Initial Construction Non-Federal Participation	Periodic Nourishment Federal Participation	Periodic Nourishment Federal Participation
R98.5 feet to Martin County line	35%	65%	27%	73%

II. Segment Description

The total shoreline length for the recommended plan, based on shorefront length information provided by the St. Lucie County Property Appraiser’s office (verified using Google Earth), is estimated to be about 17,299 feet (or 3.3 miles) long. Federal cost-sharing is calculated for all parcels within ¼ mile north and ¼ mile south of public access points with parking throughout the segment. **Figure 1** includes public access and parking for the recommended plan area. There are currently 4 public access and parking sites within the recommended plan area, plus three additional access points created by St. Lucie County as of June 2017. From north to south: Walton Rocks, Ocean Bay, Herman’s Bay Beach, Normandy Beach, Dollman Park (which now includes not only the previous access point in the central portion of the park but also two new access points on the northern and southern boundary), Waveland Beach (which now includes not only the previous access point but also one on the northern boundary) and Glascock Beach, which is located on the Martin County line (approximately R-001).

¹ “Existing” in this reference is defined as the 2008 shoreline profile.

Figure 1: Shoreline image for subject area depicting FDEP R-monuments and public access points.



There are no federally owned lands in the subject segment. Coastal Barrier Resource System (CBRS) unit P-11 is within the recommended plan area. CRBS units were developed as part of the Coastal Barrier Resources Act of 1982 along the Atlantic and Gulf coasts to encourage the conservation of hurricane prone, biologically rich coastal barriers by restricting federal expenditures that encourage development, such as federal flood insurance.

CBRS unit P-11 (described further in the Key Social and Environmental Factors section, as well as coordination with USFWS to support this discussion) has been taken into account for cost sharing purposes. There are two portions of P-11 in the recommended plan area, and one portion in the associated taper area.

Taper: The northern taper, at a maximum, will be from 97.5 to R98.5. If the taper extends beyond 200 feet north of R98.5, the cost sharing for this length would be allocated 100% non-federal sponsor cost due to the a. CBRS unit and b. privately developed parcel. This is noted in **Table 4-6** of the main report and if the taper extends into the CBRA, the cost sharing will be refined during Pre-construction, Engineering and Design (PED).

Recommended Plan: Unit P-11 is just north of Dollman Park for a length of approximately 150 feet. This portion has been allocated will be allocated 100% non-federal for that portion due to the presence of the CBRS unit. The third portion of P-11 is within Dollman Park (for a length of approximately 1800 feet), which is publically owned by St. Lucie County. Coordination with USFWS indicates that this portion is “exempt” from the CBRA under Section 6, and therefore Federal cost-sharing in this portion could occur. Therefore, this length has been allocated 65% Federal cost sharing and 35% non-federal cost sharing. More information on cost sharing can be found in the Public Access and Cost Sharing Appendix.

There are several parcels that are privately owned and not publicly accessible, i.e., they are not located within ¼ mile of public access and public parking. The combined shorefront length of these properties is 7,196 feet. These properties are not cost-shared, and therefore the costs associated with these areas are covered 100% by the non-federal sponsor. The costs associated with these areas are covered 100% by the non-federal sponsor. Per 1165-2-130, “all costs assigned to the prevention of losses of undeveloped private lands are non-federal, even though the beach may be public.”

There are approximately 2130 feet of the shoreline composed of undeveloped public lands, which are cost-shared at 65% federal, 35% non-federal. Approximately 626 feet of shoreline is privately owned and undeveloped, which is not cost shared. The rest of the properties in the segment, totaling an estimated 7,196 feet are publicly accessible, developed private lands. Appendix E from ER 1105-2-100 and ER 1165-2-130 were used as references to determine these shares.

Overall, the cost share for the subject segment is estimated to be 35% Federal, 65% non-federal for initial construction and 27% Federal, 73% non-federal for periodic nourishment. As seen in **Table 2**, the cost share for periodic nourishment is lower than initial construction as a result of the WRDA 1999 that set a maximum Federal share of periodic nourishment, carried out after 1 January 2003, to 50% for projects authorized for construction after 31 December 1999. A detailed parcel-by-parcel list of shoreline ownership, used, and associated cost sharing is given in **Table 3**.

Table 2: Detailed Cost Sharing Summary for Initial Construction and Periodic Nourishment in the Recommended Plan

Shore Ownership and Project Purpose (as defined in EC 1105-2-100)	INITIAL CONSTRUCTION			PERIODIC NOURISHMENT			
	Maximum Level of Federal Participation in Construction Costs	Shoreline Length (feet)	Length of Federal Participation (feet)	Length of non-Federal Participation (feet)	% of Federal Participation for Periodic Nourishment	Length of Federal Participation (feet)	Length of non-Federal Participation (feet)
I. Federally Owned	100%	0	0	0	100%	0	0
II. Publically and Privately Owned, Protection Results in Public Benefits							
A. Coastal Storm Risk Management (CSRM) on Developed Lands	65%	7,196	4,678	2,519	50%	3,598	3,598
B. CSRM on Undeveloped Public Lands	65%	2130	1,385	746	50%	1,065	1,065
III. Privately Owned, Use Limited to Private Interests (No public access within 1/4 mile)	0%	7,196	0	7,196	0%	0	7,196
IV. Privately owned, undeveloped	0%	626	0	626	0%	0	626
V. CBRA	0%	150	0	150	0%	0	150
	Total Distance:	17,299	6,062	11,237	Total Distance:	4,663	12,636
	Cost Shares:		35.0%	65.0%	Cost Shares:	27.0%	73.0%

*Periodic nourishment is considered “construction.”

**Non-Federal public shores dedicated to recreation or fish and wildlife purposes.

Table 3: Shoreline ownership, use, and associated cost sharing for parcels within the Recommended Plan area.

R-Monument (approximations for Ref only)	PARCEL NO	SHORELINE LENGTH (IN FEET)	DESCRIPTION	OWNERSHIP	WITHIN 1/4 MILE OF ACCESS WITH PARKING	SHORELINE OWNERSHIP & PROJECT PURPOSE	INITIAL CONSTRUCTION LEVEL OF FEDERAL PARTICIPATION (%)	PERIODIC NOURISHMENT LEVEL OF FEDERAL PARTICIPATION (%)	LENGTH ELIGIBLE FOR FEDERAL PARTICIPATION (IN FEET)	LENGTH NOT ELIGIBLE FOR FEDERAL PARTICIPATION (IN FEET)	INITIAL CONSTRUCTION % FEDERAL PARTICIPATION x SHORELINE LENGTH (IN FEET)	PERIODIC NOURISHMENT % FEDERAL PARTICIPATION x SHORELINE LENGTH (IN FEET)	Notes
	3527-441-0001-000-9	0	undeveloped	private	Y	V	0%	0%	0	0	0	0	CBRA and private undeveloped
	3527-441-0001-000-9	0	undeveloped	private	Y	V	0%	0%	0	0	0	0	CBRA and private undeveloped
R98 + 210 feet	3527-441-0001-000-9	0	undeveloped	private	Y	IV	0%	0%	0	0	0	0	private undeveloped
R98 + 285 feet	3534-111-0001-000-7	0	undeveloped	Public	Y	IB	65%	50%	0	0	0	0	Normandy Beach Access
	3534-111-0002-000-4	100	undeveloped	Private	Y	IV	0%	0%	0	0	0	0	
R98 + 500 feet	3534-111-0008-000-6	96	undeveloped	Private	Y	IV	0%	0%	0	96	0	0	Project Northern Boundary
	3534-502-0050-000-5	331	Developed	Private	Y	IIA	65%	50%	331	0	215	165	
R99	3534-111-0009-000-3	179	Developed	Private	Y	IIA	65%	50%	179	0	116	89	
	3534-901-0000-000-7	383	Developed	Private	Y	IIA	65%	50%	383	0	249	192	
	3534-114-0002-000-3	101	Developed	Private	Y	IIA	65%	50%	101	0	66	51	only 101 feet is eligible due to access/parking
	3534-114-0002-000-3	338	Developed	Private	N	III	0%	0%	0	338	0	0	only 101 feet is eligible due to access/parking
R100	3535-322-0001-000-8	155	Developed	Private	N	III	0%	0%	0	155	0	0	only 393 feet is eligible due to access/parking
	3535-322-0001-000-8	393	Developed	Private	Y	IIA	65%	50%	393	0	255	197	only 393 feet is eligible due to access/parking
R101	3535-322-0001-000-8	582	Developed	Private	Y	IIA	65%	50%	582	0	378	291	
	3535-322-0001-100-9	115	Developed	Private	Y	IIA	65%	50%	115	0	75	58	
	3535-322-0001-000-8	75	Developed	Private	Y	IIA	65%	50%	75	0	49	38	
	3535-322-0001-000-8	150	Developed	Private	Y	V	0%	0%	0	150	0	0	CBRA
R102, R103	3534-411-0001-000-8	1863	undeveloped	Public	Y	IB	65%	50%	1863	0	1211	931	Dollman Park
	3535-702-0000-000-7	392	Developed	Private	Y	IIA	65%	50%	392	0	242	186	
R104	3535-701-0000-000-4	357	Developed	Private	Y	IIA	65%	50%	357	0	252	194	
	4502-211-0001-000-8	532	Developed	Private	Y	IIA	65%	50%	532	0	346	266	only 532 feet is eligible due to access/aprking
	4502-211-0001-000-8	345	Developed	Private	N	III	0%	0%	0	345	0	0	only 532 feet is eligible due to access/aprking
R105	4502-620-0000-000-7	504	Developed	Private	N	III	0%	0%	0	504	0	0	
	4502-610-0000-000-4	508	Developed	Private	N	III	0%	0%	0	508	0	0	
R106	4502-241-0002-000-8/C66-000-848-5030-4	99	undeveloped	private	N	IV	0%	0%	0	99	0	0	
	4502-504-0000-000-0	341	developed	private	N	III	0%	0%	0	341	0	0	
	4502-501-1598-000-6	150	developed	private	N	III	0%	0%	0	150	0	0	
	4502-501-1598-200-8	23	developed	private	N	III	0%	0%	0	23	0	0	
R107	4502-244-0001-010-3	1006	developed	private	N	III	0%	0%	0	1006	0	0	
	4502-703-0000-000-1	347	developed	private	N	III	0%	0%	0	347	0	0	
R108	4502-702-0000-000-8/C66-001-074-3626-3	360	developed	private	N	III	0%	0%	0	360	0	0	
	4502-701-0000-000-5/C66-001-074-3625-5	10	developed	private	N	III	0%	0%	0	10	0	0	
	4502-701-0000-000-5/C66-001-074-3625-5	356	Developed	Private	N	III	0%	0%	0	356	0	0	
R109	4502-804-0000-000-1	509	Developed	Private	N	III	0%	0%	0	509	0	0	
	4502-805-0000-000-4/C66-001-072-0385-3	249	Developed	Private	N	III	0%	0%	0	249	0	0	
	4502-802-0000-000-5/C66-001-074-3628-9	80	Developed	Private	N	III	0%	0%	0	80	0	0	231 feet is eligible due to access/parking
	4502-802-0000-000-5/C66-001-074-3628-9	231	Developed	Private	Y	IIA	65%	50%	231	0	150	116	231 feet is eligible due to access/parking
	4502-803-0000-000-8/C66-001-074-3629-7	395	Developed	Private	Y	IIA	65%	50%	395	0	257	197	
R110	4511-518-0000-000-1/C66-001-072-0427-3	323	Developed	Private	Y	IIA	65%	50%	323	0	210	161	
	4511-515-0000-000-2/C66-001-072-0424-0	344	Developed	Private	Y	IIA	65%	50%	344	0	223	172	
R111	4511-110-0003-000-0/C66-000-848-8992-2	53	undeveloped	public	Y	IB	65%	50%	53	0	34	26	
	4511-110-0001-000-6/C66-000-848-8991-4	56	Developed	Private	Y	IIA	65%	50%	56	0	36	28	
	4511-110-0003-000-0/C66-000-848-8992-2	215	undeveloped	Public	Y	IB	65%	50%	215	0	140	107	Wavelands Beach Access
	4511-110-0005-700-1/C66-000-848-8999-7	54	undeveloped	private	N	IV	0%	0%	0	54	0	0	
The Island Club	4511-514-0000-000-9/C66-001-072-0423-2	430	Developed	private	Y	IIA	65%	50%	430	0	279	215	
	4511-517-0000-000-8/C66-001-072-0426-5	457	Developed	private	Y	IIA	65%	50%	457	0	297	229	
R112	4511-140-0001-060-7	215	Developed	private	Y	IIA	65%	50%	215	0	140	108	only 215 feet is eligible due to access/parking
	4511-140-0001-060-7	18	Developed	private	N	III	0%	0%	0	18	0	0	only 215 feet is eligible due to access/parking
R112	4511-516-0000-000-5/C66-001-072-0425-7	524	Developed	private	N	III	0%	0%	0	524	0	0	
	4511-521-0000-000-1	280	Developed	private	N	III	0%	0%	0	280	0	0	
R113	4511-411-0002-000-7	423	Developed	private	N	III	0%	0%	0	423	0	0	
	4511-140-0004-000-0/C66-000-848-9000-3	112	undeveloped	private	N	IV	0%	0%	0	112	0	0	
	4511-411-0015-000-1	62	undeveloped	private	N	IV	0%	0%	0	62	0	0	
R114	4511-501-0090-000-6/C66-000-848-9273-6	591	Developed	Private	N	III	0%	0%	0	591	0	0	
	4512-313-0001-000-2/C66-000-849-0971-2	102	undeveloped	private	N	IV	0%	0%	0	102	0	0	
	4511-809-0002-000-8	80	Developed	Private	N	III	0%	0%	0	80	0	0	only 112.55 feet is eligible due to access/parking
	4511-809-0002-000-8	113	Developed	Private	Y	IIA	65%	50%	113	0	73	57	only 112.55 feet is eligible due to access/parking
R115	4512-331-0002-000-5	192	Developed	Private	Y	IIA	65%	50%	192	0	125	96	
	4512-331-0002-020-1	277	Developed	Private	Y	IIA	65%	50%	277	0	180	139	
	4512-702-0000-000-9	201	Developed	Private	Y	IIA	65%	50%	201	0	130	100	
	4512-331-0004-010-2	7	Developed	Private	Y	IIA	65%	50%	7	0	4	3	
	4512-701-0000-000-6/C66-001-072-0412-2	506	Developed	Private	Y	IIA	65%	50%	506	0	329	253	
R001	Project End												Glascocock Beach Access
	Total Linear Feet	17299			3.3			Total Participation	9,327	7,973	6,062	4,663	