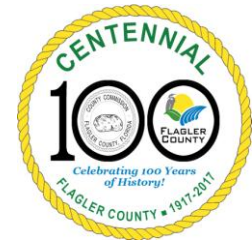




Administration
 1769 E. Moody Blvd Bldg 2
 Bunnell, FL 32110
 Phone: 386-313-4001



TO: Board of County Commissioners
 FROM: Craig M. Coffey, County Administrator
 SUBJECT: Beach/Dunes Update
 DATE: April 3, 2017

We are still working on the overall funding and engineering plans but believe we have a general framework for each area that we would ultimately pursue, tweak, and execute with the Board's concurrence. All are important, but all have different repair plans, funding needs, funding sources, and organizational differences that complicate the solutions and projects. My goal is to explain the plan for solving these issues.

All the projects are independent by design, funding and will have different implementation and timing issues with each. The first three projects are under the pre-construction phases of bidding, design, permitting, and/or authorization. The remaining three projects are in many of the same phases but on highly dependent funding commitments. The cumulative roll-up of all projects and anticipated funding sources are shown below:

DUNE/BEACH PROJECT SUMMARY ROLLUP						
Projects	<u>Est Cost</u>	<u>FEMA</u>	<u>FDOT</u>	<u>FDEP</u>	<u>COUNTY</u>	<u>OTHER</u>
FDEP Phase I	\$9,440,160	\$0	\$0	\$5,276,580	\$2,843,910	\$1,319,670
FEMA	\$4,169,880	\$3,127,410	\$0	\$ 521,235	\$ 521,235	\$0
Sea Wall	\$1,600,000	\$0	\$0	\$0	\$0	\$1,600,000
FDEP Phase II	\$9,826,620	\$0		\$4,913,310	\$ 2,108,640	\$2,804,670
Flagler Beach Option 2	\$22,000,000	\$0	\$16,850,000	\$3,100,000	\$ 2,050,000	\$0
Dune Breaches	<u>\$1,800,000</u>	<u>\$1,350,000</u>	<u>\$0</u>	<u>\$ 225,000</u>	<u>\$ 225,000</u>	<u>\$0</u>
Total	\$48,836,660	\$4,477,410	\$16,850,000	\$14,036,125	\$7,748,785	\$5,724,340

A detailed breakdown on these projects are listed on the following pages.

Charles Ericksen, Jr.
 District 1

Greg Hansen
 District 2

David Sullivan
 District 3

Nate McLaughlin
 District 4

Donald O'Brien Jr.
 District 5

CURRENT PROJECTS

Project 1# Phase I - Emergency Repairs Beverly Beach to the North County Line.
 (Funding: FDEP, County and Private)

This will be a \$10 million dollar project with over \$5,350,000 from the FDEP due to Washington Oaks (100% State Funding, \$1.1. million) being a part of it. The attachment will show you the areas which essentially include our most threatened properties to do a complete 10 CY per foot, dune restoration north of MalaCompra to the north Flagler County line, excluding Marineland the attraction and River to Sea Park. Additionally it will include an initial 6 CY per foot in Painters Hill and a 15.5 Cubic Yard per foot in Ocean Hammock HOA (1.1. miles) north of Jungle Hut Drive.

This project is currently bid out and should begin in April. Construction is expected to go through turtle season and last for 6-12 months. Protections for turtle protection will be in place per the biological opinion. Sand will come from upland sources. Upland sources are currently not fully permitted within or in close proximity to our County which will affect dune reconstruction costs and potential the schedule. Funding will come from FDEP with appropriate 50% match from the County with a combination of TDC funding and private funding. Private funding will come from an initial contribution followed by 5 years of assessments.

FDEP Phase 1								
Seg	Area	Mark	LF	YD/FT	Est. Cost	FDEP	COUNTY	OTHER
3	Painters Hill	R46-R65	13,174	6.0	\$1,976,100	\$988,050	\$988,050	\$0
4	Ocean Hammock	R23-R46	5,676	15.5	\$2,199,450	\$1,099,725		\$1,099,725
5	Sea Colony/Armand	R14-R23	1,500	10.0	\$375,000	\$187,500	\$187,500	\$0
5	Marineland Acres	R14-R23	2,450	10.0	\$612,500	\$306,250	\$306,250	\$0
5	Washington Oaks State Park		3,710	10.0	\$927,500	\$927,500	\$0	\$0
6	Matnazas Shores - Flood	R3-R14	4,305	10.0	\$1,076,250	\$538,125	\$538,125	\$0
6	North of Matnazas Shores	R3-R14	2,800	10.0	\$700,000	\$350,000	\$350,000	\$0
Subtotals					\$7,866,800	\$4,397,150	\$2,369,925	\$1,099,725
Totals with 20% for design, CEI, vegetation,					\$9,440,160	\$5,276,580	\$2,843,910	\$1,319,670

Project 2# FEMA Emergency Dune Repairs – City, Town, and County Public Facilities –

This would be over a \$3 million dollar project dollar project for all damaged dunes on public properties. This would be a 6 CY per foot project as an emergency repair while the County pursue funding for supplemental dune restoration. We are proposing to bid one dune project meeting FEMA standards for all public entities for emergency 6 cubic yards in front of all local government property that does not have a sea wall. We will have to keep them separate as each entity has to be a separate applicant per FEMA rules.

FEMA PROJECTS								
Seg	All	Market	LF	CY/ FT	Est Cost	FEMA	FDEP	County
1&2	Flagler Beach		15,000	6.0	\$2,250,000	\$1,687,500	\$281,250	\$281,250
3	Varn Park	Public	1,400	6.0	\$210,000	\$157,500	\$26,250	\$26,250
5	MalaCompra Pk	Public	3,960	6.0	\$594,000	\$445,500	\$74,250	\$74,250
5	Bay Dr Pk	Public	536	6.0	\$80,400	\$60,300	\$10,050	\$10,050
6	River 2 C Nat	Public	1500	6.0	\$225,000	\$168,750	\$28,125	\$28,125
6	River 2 Sea Buried	Public	770	6.0	\$115,500	\$86,625	\$14,438	\$14,438
					\$3,474,900	\$2,606,175	\$434,363	\$434,363
Totals with 20% for design, CEI, Vegetation, Cont					\$4,169,880	\$3,127,410	\$521,235	\$521,235

County staff is currently drafting interlocal agreements for Beverly Beach and Flagler Beach. The County would provide the local match 12.5% for all of these projects 12.5% from borrowed funds.

Project 3# - Project Sea Wall Project in Painters Hill in front of Threatened Properties -

This would be \$1.5-\$2 million dollar project depending on the final number of participating property owners (currently based on approximately 20+ owners) in Painters Hill. This would be a permanent wall, largely continuous for just a thousand feet in a concentrated area of Painters Hill that is most threatened.

The County would take the lead with design, permitting, construction, and financing for property owners who want the County’s assistance. The cost for construction will be borne by the property owners through direct payment or via a voluntary assessment for up to 15 years.

FUTURE PROJECTS

These projects are all being worked on and funding is currently not secured at this time.

Project 4# Phase II - Emergency Repairs Beverly Beach to the North County Line.

(Funding: FDEP, County and Private).

This will be up to a \$10 million dollar project with 50% from the FDEP ad 50% locally. This funding will come in as part of the legislative process. This will project will be in addition to and in some cases supplemental to Projects 1, 2, and 3. The areas extend from Beverly Beach northward and include some of our most threatened areas. Painters Hill will be supplemented with approximately 8 CY per foot and Hammock Dunes would be supplemented with approximately 10 CY per foot in addition to any earlier projects. County park facilities would all be supplemented with additional cubic yardage per foot to restore dunes to pre-storm conditions. Gaps such as the Hammock Dunes are also expected to be completed and other minor dune work and dune gaps may be supplemented.

FDEP PHASE II PROJECT								
Seg	All	Mark	LF	CY/ FT	Est Cost	FDEP	COUNTY	OTHER
3	Painters Hill		13,174	8.0	\$2,634,800	\$1,317,400	\$1,317,400	\$0
3	Varn Pk		1,400	8.0	\$280,000	\$140,000	\$140,000	\$0
4	S Hammock Dune		12,144	9.5	\$2,884,200	\$1,442,100	0	\$1,442,100
4	N Hammock Dune		4,620	15.5	\$1,790,250	\$895,125	0	\$895,125
5	MalaCompra Pk		3,960	4.0	\$396,000	\$198,000	\$198,000	\$0
5	Bay Dr Pk		536	4.0	\$53,600	\$26,800	\$26,800	\$0
6	River 2 C Pk Nat		1500	4.0	\$150,000	\$75,000	\$75,000	\$0
					\$8,188,850	\$4,094,425	\$1,757,200	\$2,337,225
Totals with 20% for design, CEI, Vegetation, Cont					\$9,826,620	\$4,913,310	\$2,108,640	\$2,804,670

Per the bid documents, it is anticipated that the successful Phase I bidder could complete this work through a contract addendum at the County's discretion. Construction for this phase is expected to last for 9-12 months. Funding will be know via the legislative budget process (by mid-May) and an amendment with the FDEP contract. Sand will come from upland sources. It is hoped that upland sources will be fully permitted within or in close proximity to our County by this project. Funding will come from FDEP with appropriate 50% match from the County with a combination of TDC funding and private funding. Private funding will come from a direct contribution or an initial contribution followed by 5 years of assessments. This project has the potential to pick up shortly after the phase I FDEP project.

Project 5# Flagler Beach and Beverly Beach - 6.25 mile Phase II Project

This is a longer range project that the County is working to undertake with assistance of the City of Flagler Beach, FDOT, FDEP, and potentially the Army Corps. This will be supplemental to Projects 2. This will be over a \$20 million dollar project with the final project amount varying slightly depending on which project option is pursued. This is planned to cover the entire area where SR A1A directly fronts on the ocean. With either option the project is expected to be an offshore dredge project, with a comprehensive bid applying to the area.

With either option the overall goal is to have a comprehensive engineered dune/beach system constructed with a similarly comprehensive ongoing dune/beach maintenance system. The ongoing dune/beach maintenance system will be handled by the City of Flagler Beach with funding and technical assistance from Flagler County, FDOT, and likely FDEP and/or the ACOE.

Project 5 Option 1 (3 sub-segments ACOE segment, Gamble Rogers, and FDOT other).

This would be a segmented project by funding source with the ACOE project acting as a backbone project for the some of the main overall costs such as mobilization, off shore sand source permitting, general environmental and permitting requirement for the segment and similar items.

a. Federal ACOE - Sub-segment 1 – 2.6 Miles (South of Pier) - This portion of the project has been extensively studied and reported on. A full report is available online. Overall the project will be not only a dune restoration project, but an enhancement project (24CY per foot +/-) as the pre-storm dunes in this area were severely depleted. This is a federally authorized project that is awaiting federal appropriation funding for design and construction with the cost estimated shown below:

As of the date of memo there is a good chance of federal funding for design, but the construction funding is uncertain and at it earliest could be 2019 or 2020 if ever. The concern is with federal changes in priority and other disasters our project could fall into a cost/benefit ratio situation with our disaster long forgotten. A positive effect could also happen with additional infrastructure funding which may clear the way for shovel ready type projects.

b. Gamble Roger FDEP - Sub-segment 2 – .5 miles

This is for the portion of the project that is directly in front of Gamble Roger State Park and is expected to be funded with FDEP funding through this year's legislative budget via the Governor's and Department budget request. This funding is for a pre-storm dune restoration project and is expected to be approximately \$1.1 million.

c. FDOT other - Sub-segment 3 3.15 miles

This is designed to fill in the areas not included in a and b so as to create a comprehensive dune/beach system. The primary area is north of the pier with specific fill-in areas south of the pier. The State is working on a request for \$12 million dollars for this area which provide dune restoration plus some enhancement as funding permits, but potentially not at the same fill level as the ACOE Project. As of last week this \$12 million dollars has been programed.

Project 5 Option 2 (Entire 6.25 mile area as a single project – non ACOE).

The City and County are currently awaiting word in April from the Jacksonville ACOE Commander (after a Washington D.C. conference) on the status of construction funding for the project above. If the construction funding is secured in a definitive manner it is likely staff will recommend pursuing Option 1 above. If not, which is more likely, an alternative plan needs to be implemented for the protection of the City of Flagler Beach, Beverly Beach, and SR A1A.

This alternative option (Option 2) would be a comprehensive State and Local project through the combination of funding sources (without federal funding). It would involve creating a detailed plan from R marker to R marker the entirety of the 6.25 miles. The County has already begun doing an RFP for the following: Design of the dune restoration, permitting offshore sand sources, and developing a bid packet for bidding. Design and permitting will be expedited as quickly as possible based on the extensive information already amassed by the ACOE and based on hurricane protection. Below is the tentative funding plan:

Proposed Project Funding Sources	Amounts
FDOT 5 YR Plan (Available)	\$4,850,000
FDOT Proposed Dune Allocation	\$12,000,000
FLAGLER Match 50/50	\$2,050,000
FDEP Match 50/50	\$2,000,000
FDEP Gamble Rogers State Park	<u>\$1,100,000</u>
Total	\$22,000,000

Proposed Project Costs	Amounts
Design	\$1,200,000
Sand Dune Restoration 18-24 Cubic Yds/ft	\$20,000,000
Vegetation, CEI, Other	<u>\$800,000</u>
Total	\$22,000,000

Project 6# Dune Breach Closures with retained vehicular access and ADA pedestrian crossovers (16th Road, Jungle Hut, and MalaCompra Road)

This is needed project that proved to be weak spot in the protective dune barrier. With a need to maintain vehicular access for ocean rescue, turtle patrol, dead whale remediation, vessel salvage, and dune reconstruction and maintenance it is important that these locations are well planned. Also important is public parking and pedestrian access. This project would seek to accomplish all three goals of closure, official vehicular access, and public access. It is estimated that each location will cost approximately \$600,000 each or \$1.8 million total. These are expected to be applied for under the FEMA 406 mitigation program.

Rough Cost Estimate		
Data Collection Services	Geotechnical Exploration and Land Surveying	\$25,000
Permitting	Both Structures	\$15,000
Engineering Design	Pedestrian Walkover	\$25,000
	Vehicular Access Ramp	\$75,000
Construction Costs	Pedestrian Walkover	\$125,000 - \$150,000
	Vehicular Access Ramp	\$350,000 - \$400,000
Total Cost for Each Site	\$615,000 - \$690,000	

Funding/Financing

In order to complete the six projects the County will be faced with a variety of funding challenges. Besides the \$7,750,000 the County will need to directly contribute, part of the other County matches/funding will rely on private contributions. Each of those private groups, have requested a financing schedule of at least 5 years, through a voluntary special assessment process. Along those same lines the seawall group has proposed to finance the sea wall improvements over a 15 year voluntary special assessment. In all, the amount necessary to be gather approximately \$13,500,000 in total funding of which \$11,500,000 will need to be financed.

As seen by the summary table on the first page, the \$13,500,000 will be part of larger total of almost \$49,000,000 worth of projects. As part of the receipt of outside dollars they typically rely on the local sponsor spending the funds first and seeking reimbursement. While it will be key for the County to turn reimbursement requests around quickly, no matter how efficient the County is in doing this, it will require a certain amount of County funding float. In the 111 Beach Restoration Fund we have a reserve balance of approximately \$1,500,000 and \$500,000 from the Fund 109 Capital Improvement Fund. The County will need to work to develop a single loan or multiple loans to fund the \$13.5 million needed. Preliminarily, it looks like it will take at least ten years to pay off this debt.