SOUTH PONTE VEDRA AND VILANO BEACH RESTORATION PROJECTS
KICKOFF MEETING

May 22, 2019
Beach Projects Approved

- ~2,000,000 cubic yards of sand on your beaches
- A 50-year U.S. Army Corps project south of Serenata with federal replacement of sand lost in major storms
- A one-time dune restoration project north of Serenata to replace sand lost in Matthew and Irma
- St. Johns County Board of County Commissioners authorized both projects and identified a funding source in a new Tourist Development Tax category
- State and Federal representatives and senators pushed for state and federal funding
Agenda

- Projects
- MSTUs
- Erosion Control Lines
- Easements
- Questions
Separate Beach Projects

Dune Restoration Project
- Dune Restoration Only
- One-time project
- ~20 cubic yards of sand per linear foot
- 50% FDEP Hurricane Matthew funding
- MSTU: 4.0 mils / 10 years
- County funds remainder

USACE Project
- Full Beach Restoration
- 50-year project
- 60’ Berm extension and dune restoration
- Federal cost share
- Eligible for FDEP funding
- MSTU: 0.5 mils / 50-years
- County funds remainder
Dune Restoration Project

- Approximately 2539 South Ponte Vedra Boulevard to the northern boundary of Serenata – 5 miles
- FDEP Critically Eroded designation
- One-time dune restoration to place ~20 cubic yards of sand per linear foot
  - Similar to losses from Matthew and Irma
  - Estimated project life of 12 years
- This project will require an Erosion Control Line (permanent location of the seaward property line at the current location of the Mean High Water Line)
## Dune Restoration Cost

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total Project Estimate</strong></td>
<td>$13.3M</td>
</tr>
<tr>
<td><strong>Financed Cost</strong></td>
<td>$16.3M</td>
</tr>
<tr>
<td>Matthew Funding – State Property (100%)</td>
<td>$1.3M</td>
</tr>
<tr>
<td>Matthew Funding – Non-state Property (50%)</td>
<td>$6.0M</td>
</tr>
<tr>
<td>MSTU Funds – 4.0 mils for ten years</td>
<td>$4.5M</td>
</tr>
<tr>
<td>County Funding – Tourist Development Tax</td>
<td>$4.5M</td>
</tr>
</tbody>
</table>

All figures are estimates. Actual values may change with future costs, lending rates, and property values.
Conceptual Example of Fill Developed Lot With No Seawall

Note: Dune crest elevation generally expected to range between 15 and 20 ft NAVD

Actual construction templates will depend on the existing beach and seawall conditions at the time of construction, and state permit requirements.
Conceptual Example of Fill Developed Lot With Seawall

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Conceptual Example of Fill Developed Lot With Seawall

Note: Dune crest elevation generally expected to range between 15 and 20 ft NAVD

Actual construction templates will depend on the existing beach and seawall conditions at the time of construction, and state permit requirements.
Conceptual Example of Fill Undeveloped Lot With No Seawall

Note: Dune crest elevation generally expected to range between 15 and 20 ft NAVD.

Actual construction templates will depend on the existing beach and seawall conditions at the time of construction, and state permit requirements.
Estimated Milestones

<table>
<thead>
<tr>
<th>Permit level design</th>
<th>Summer 2019 – Winter 2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fill and borrow permits</td>
<td>Spring 2019 – Winter 2020</td>
</tr>
<tr>
<td>Construction easements</td>
<td>Summer 2019 – Winter 2020</td>
</tr>
<tr>
<td>Construction documents</td>
<td>Summer 2020 – Winter 2020</td>
</tr>
<tr>
<td>Construction</td>
<td>Winter 2020 – Summer 2021</td>
</tr>
</tbody>
</table>
USACE PROJECT
ST JOHNS COUNTY, FLORIDA

COASTAL STORM RISK MANAGEMENT (CSRM) PROJECT
VILANO AND SOUTH PONTE VEDRA BEACH

Community Meeting Presentation

Presented by:
Jason Harrah, Project Manager
William Reilly, PE Lead Engineer

U.S. Army Corps of Engineers
Jacksonville District

May 22, 2019
Project Overview

Authorization: Beach nourishment and periodic renourishment of ~3 miles of Vilano Beach and South Ponte Vedra Beach shoreline

Federal participation: 50-year period after initial construction

Location: FDEP R-monuments R-102.5 to R-117.5 (includes 1,000’ tapers)

Design Berm: 60 ft seaward extension of the berm and lower profile

Dune: Restore 2015 dune condition; dune crest elevations 14’ to 20’ NAVD88

Initial sand volume: 1.3 million cubic yards (approx.)

Renourishment volume: 900k cubic yards (approx.)

Renourishment interval: 12-year avg. (3 total over 50-year life)

Borrow Source: St. Augustine Inlet flood shoal and ICWW channel

Average Future Without Project Damages
Average Future With Project Damages
Benefits

71% REDUCTION IN DAMAGES
(50-year period of analysis)

YEAR 2021 (WHEN BENEFITS START)
Environmental Benefits

**BENEFITS TO FEDERALLY-LISTED SPECIES**
- Threatened Species: Loggerhead Turtle, Red Knot, Piping Plover
- Endangered Species: Leatherback Turtle, Green Turtle
- Minimum of 3.15 acres of continuous nesting habitat (sea turtles & shorebirds) will be maintained over 50 years

**CONSTRUCTION**
- Sand source compatible with native beach sand
- Dune will be vegetated with native plants to stabilize the dune & promote wildlife usage (shelter; food; slope change signaling turtles to nest; etc.)
- No hardbottom or coral resources located in the sand source or placement areas
- Standard manatee, sea turtle & shorebird protective measures will be employed during construction

**CULTURAL RESOURCES**
- Reduce potential damages to Scenic & Historic Coastal Byway SR A1A
- No impacts to cultural resources
## Current Cost

<table>
<thead>
<tr>
<th></th>
<th>Federal Share</th>
<th>Non-Federal Share</th>
<th>Non-Fed Credit for Lands, Easements, ROW</th>
<th>Non-Federal Cash Required</th>
<th>Total Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial Construction</td>
<td>23%</td>
<td>$6,084,000</td>
<td>17.7% ($1,028,280)</td>
<td>$19,339,720</td>
<td>$26,452,000</td>
</tr>
<tr>
<td>3 Periodic Renourishments</td>
<td>$20,929,000</td>
<td>$97,314,000</td>
<td>$0</td>
<td>$97,314,000</td>
<td>$118,243,000</td>
</tr>
<tr>
<td>Total Cost</td>
<td>77%</td>
<td>$27,013,000</td>
<td>82.3% ($1,028,280)</td>
<td>$116,653,720</td>
<td>$144,695,000</td>
</tr>
</tbody>
</table>

**Notes:**
- After initial construction, erosion from major storm events is eligible for repair with 100% federal cost share (FCCE funding).
- Federal cost share percentages shown above may increase if additional parking and access improvements are completed.
Staging and Access

- St. Augustine Inlet Borrow Area (Inlet Shoals & ICWW)
- South Ponte Vedra
- Vilano Beach
- Surfside Park
- The Reef
- North Beach Park

Staging and Vehicle Access:
- Surfside Park
- North Beach Park
- The Reef

Vehicle Access, No Staging:
- South Ponte Vedra

Construction Access:
- Surfside Park
- The Reef

Public Parking:
- Surfside Park
- North Beach Park
- The Reef

Pedestrian Access:
- Surfside Park
- North Beach Park
- The Reef

St. Augustine Inlet

Atlantic Ocean

[Map and diagram of coastal areas with marked access points and staging areas]
Sand Sources

Vilano Beach

Beach Fill

ICWW Borrow Area

R-117.5 Southern Limit

Vilano Groin

Pipeline Corridor on Beach

Atlantic Ocean

Flood Shoal

North Lobe Borrow Area

Submerged Pipeline

St. Augustine Inlet

Davis Shoal

Borrow Area

Ebb Shoal

Borrow Area (IF NEEDED)

Davis Shores

Anastasia State Park
Beach Fill

Feasibility Study

2015 Condition

Post-Matthew/Irma
Beach Fill

Feasibility Study

2015 Dune Condition

60 ft Berm Extension

Post-Matthew/Irma

Elevation (ft-NAVD88)

Aligned Distance from R-monument (ft)
Beach Fill

Feasibility Study

- 2015 Dune Condition
- 60 ft Berm Extension
- Equilibrated
- Post-Matthew/Irma

Elevation (ft-NAVD88)

Aligned Distance from R-monument (ft)
Typical Construction Template

TOTAL PLACEMENT = 1.3 M cy
FILL DENSITY = 75 to 95 cy/ft
Dune Planting

Typical Dune Planting
Cross Section

Typical Dune Planting
Staggered Layout
Landward Limit of Fill
Landward Limit of Fill
Landward Limit of Fill
Landward Limit of Fill
Conceptual Design

1. FILL INTERSECTS SEAWALL
   SEAWALL TALLER THAN DUNE CREST

NOT TO SCALE
Landward Limit of Fill

Conceptual Design

FILL INTERSECTS EXISTING GRADE
SEAWALL LOWER THAN DUNE CREST
Landward Limit of Fill

*Conceptual Design*

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**FILL INTERSECTS UPLAND STRUCTURE**

Seawall and grade lower than dune crest

NOT TO SCALE
Landward Limit of Fill

Conceptual Design

4 FILL INTERSECTS UPLAND STRUCTURE
NOT TO SCALE
NO SEAWALL AND GRADE LOWER THAN DUNE CREST
Fill Around Walkovers

Before Construction

After Construction
<table>
<thead>
<tr>
<th>Schedule</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Completion of Plans &amp; Specifications</strong></td>
</tr>
<tr>
<td>- Draft Plans &amp; Specifications Complete</td>
</tr>
<tr>
<td>- Quality Control Reviews</td>
</tr>
<tr>
<td>- Plans &amp; Specifications Certified</td>
</tr>
<tr>
<td><strong>FDEP Water Quality Certification</strong></td>
</tr>
<tr>
<td>- Submit Application</td>
</tr>
<tr>
<td>- Request for Additional Received</td>
</tr>
<tr>
<td>- RAI Responses Submitted</td>
</tr>
<tr>
<td>- Notice of Intent to Issue Permit</td>
</tr>
<tr>
<td>- Final Permit Received</td>
</tr>
<tr>
<td><strong>Establishment of Erosion Control Line (ECL)</strong></td>
</tr>
<tr>
<td>- Survey Completed</td>
</tr>
<tr>
<td>- Survey Submitted to FDEP</td>
</tr>
<tr>
<td>- Hearing and Public Workshop</td>
</tr>
<tr>
<td>- ECL Complete</td>
</tr>
<tr>
<td><strong>Perpetual Storm Damage Easements (~155 parcels)</strong></td>
</tr>
<tr>
<td><strong>Contract Advertisement and Award</strong></td>
</tr>
<tr>
<td>- Prepare Acquisition Paperwork</td>
</tr>
<tr>
<td>- Advertisement Contract</td>
</tr>
<tr>
<td>- Bid Opening</td>
</tr>
<tr>
<td>- Award Period</td>
</tr>
<tr>
<td>- Notice to Proceed Issued</td>
</tr>
<tr>
<td>- Construction Timeline (weather dependent)</td>
</tr>
<tr>
<td>- Construction Complete</td>
</tr>
</tbody>
</table>
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BCC enacted Ordinance 2019-25: South Ponte Vedra Boulevard and Coastal Highway Dune and Beach Restoration Municipal Service Taxing Units

Two separate assessment areas:

- South Ponte Vedra Boulevard Dune and Beach Restoration MSTU
  - 4.0 Mils for 10 years
- Coastal Highway Dune and Beach Restoration MSTU
  - 0.5 Mils for the life of the project (50-year initial federal authorization)

Separate fund accounting

Millage levied each year as part of the County budgeting process beginning with the property tax bills to be delivered November 2020
An Erosion Control Line (ECL) must be established to legally document and fix the boundary between upland property ownership and submerged lands of the state prior to the construction of the beach projects.

The current property line is the Mean High Water Line (MHWL). Mean High Water is an established elevation and the MHWL moves with the changes in the contour of the beach.

The establishment of an ECL will not take any property from upland owners, but it will prevent future movement of the property line seaward of the ECL.

Property seaward of the ECL will be public beach, and upland owners access will not be impaired.

The MHWL is surveyed, and a workshop and public hearing are held before the establishment of the ECL.

The Dune Restoration project and the USACE project will have separate ECLs, with MHWL surveys completed on different dates.
Easements – Dune Project

- **Temporary Construction Easements (TCEs)** will be required to construct the dune on the private property.

- In summary, the TCEs allow the County and contractors to “place and/or rework sand, plant dune vegetation, install signage and temporary fencing, and use as a work area, including the right to move, store and remove equipment and supplies, and erect and remove temporary structures on the land and to perform any other work necessary and incident to the construction of the South Ponte Vedra Dune Restoration Project” on land seaward of non-bulkhead structures.

- Effective for up to 48 months.
Perpetual Beach Storm Damage Reduction Easements (Perpetual Easements) will be required for beach restoration on the property.

In summary, the Perpetual Easements allow the County, USACE and contractors to “construct; preserve; patrol; operate; maintain; repair; rehabilitate; and replace; a public beach a dune system and other erosion control and storm damage reduction measures together with appurtenances thereto, including the right to deposit sand; to accomplish any alterations of contours on said land; to construct berms and dunes; to nourish and renourish periodically; to move, store and remove equipment and supplies; to erect and remove temporary structures; and to perform any other work necessary and incident to the construction, periodic renourishment and maintenance of the Project, together with the right of public use and access; to plant vegetation on said dunes and berms; to erect, maintain and remove silt screens and sand fences; to facilitate preservation of dunes and vegetation through the limitation of access to dune areas; to trim, cut, fell, and remove from said land all trees, underbrush, debris, obstructions, and any other vegetation, structures and obstacles within the limits of the easement.”
The easement area will be defined by the USACE and will encompass only the property where sand is to be placed.

Most, if not all, of the property that would be included in the easement area is already subject to customary use by County ordinance.

The Perpetual Easements are permanent to allow future nourishments and repairs, and to ensure the sand placement area remains public (no expenditure of federal funds on exclusively private property).

Temporary Pipeline Easements (TPEs) will be needed to run the pipe from the inlet to the construction area.

In summary, the TPEs allow the County, USACE and contractors “to locate, construct, operate, maintain, repair, replace and/or remove…pipeline(s)” seaward of any structures and/or dunes.

The TPEs will be effective for 36 months.
QUESTIONS AND ADJOURN KICKOFF MEETING

Please give us your contact information on the sign in sheets to receive updates.