PRESENTATION OUTLINE

- Background
- Problems and Opportunities
- Objectives
- Future Without Project Conditions
- Plan Formulation

★ Tentatively Selected Plan (TSP)
  - Engineering Aspects
  - Cost Aspects
  - Environmental Aspects

- Schedule & Next Steps
STUDY BACKGROUND

2002
Study Authorized
(House Resolution 2676)

2004
Reconnaissance Report
Feasibility Cost-Sharing Agreement

2008
Feasibility Study Initiated

2011
Feasibility Scoping Meeting

2014
Draft Feasibility Study and Environmental Assessment
PROBLEMS AND OPPORTUNITIES

Problems:
- Erosion, storm surge (inundation), and wave attack
- Damage to coastal structures and infrastructure including A1A evacuation route
- Loss of natural beach habitat
- Threatened recreational and tourism opportunities

Opportunities:
- Reduce storm damage to coastal structures and infrastructure
- Restore dunes to function naturally
- Protect natural habitat
- Protect the current hurricane evacuation route capability
- Maintain recreation and tourism opportunities
1. Reduce storm damages to structures and infrastructure
2. Maintain environmental quality
3. Maintain recreational opportunities
4. Maintain a safe hurricane evacuation route
LONG TERM DAMAGES AND EROSION RATES

- FWOP Damages
- Historic Erosion Rates

EROSION RATE (FT/YEAR)

Design Reaches

BUILDING STRONG®
U.S. ARMY CORPS OF ENGINEERS | Jacksonville District
**PLAN FORMULATION**

**Reach A**
Federal participation is prohibited by Corps policy due to inadequate public parking and access.

**Reach B**
Project not economically justified (benefits do not exceed costs)

**Reach C**
TENTATIVELY SELECTED PLAN: Meets all study objectives and is consistent with Corps policy

**Reach D**
Project not economically justified (benefits do not exceed costs)
TENTATIVELY SELECTED PLAN (TSP)

- 2.6 Miles
- 10-foot dune and beach profile extension
- 11-year average nourishment interval
- Borrow Area 7 miles offshore
- 320,000 cubic yards per average nourishment
- 50-year period of Federal participation
ENGINEERING ASPECTS

10-foot seaward extension of the dune and beach profile in Reach C

TYPICAL PROFILE FOR TSP – REACH C, DUNE H

DISTANCE FROM R-MONUMENT (FT)

ELEVATION (FT-NAVD88)

Existing
Construction Template
10-Foot Dune Extension

HIGH TIDE
LOW TIDE
Restored dunes and equilibrated beach profile
COST ASPECTS

- Initial Construction: $14,127,000

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<th>Federal Cost (65%)</th>
<th>Non-Federal Cost (35%)</th>
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- Periodic Nourishments (4 events): $7,357,000

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- Total Project Cost: $43,465,000 over 50 years
ENVIRONMENTAL ASPECTS

- Dune extension will be vegetated with native plants to stabilize the dune and promote wildlife usage
  - Nesting habitat
  - Food source
  - Biodiversity

- Hardbottom resources are outside of borrow and sand placement areas—no impacts to occur

- No effect to cultural resources
TSP SUMMARY

The Tentatively Selected Plan (TSP) meets the objective to reduce damages caused by coastal erosion, is environmentally acceptable, and has been formulated according to Corps Policy:

- Benefit Cost Ratio: 1.83
- Maximizes net benefits for storm damage reduction
- Maintains environmental quality and is environmentally favorable compared to the FWOP condition
- Maintains recreational opportunities
- Maintains evacuation route
SC HEDULE AND NEXT STEPS

- Problem Identification: COMPLETED 2002
- Reconnaissance Study: COMPLETED 2004
- Feasibility Study: CURRENT STATUS 2014
- Pre-construction, Engineering, & Design: 2015*
- Project Authorization & Appropriations: 2016*
- Project Construction: 2017*

*Subject to Future Federal Funding
HOW TO PROVIDE COMMENTS

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ATTN: Kathleen McConnell (CESAJP-D-EC)
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E-mail to:
Flagler.HSDRCOMMENTS@usace.army.mil

Comment cards may be turned in tonight

Public comment period ends on February 18, 2014
POSTERS STATIONS

- Study Overview
- Environmental
- Economics
- Engineering
- Beach Basics
THANK YOU

2 Minute Timer

End