



# **BROKERING A BEACH MANAGEMENT PROGRAM IN ST. JOHNS COUNTY**

FLORIDA SHORE & BEACH PRESERVATION ASSOCIATION

32<sup>ND</sup> NATIONAL CONFERENCE ON BEACH PRESERVATION TECHNOLOGY

February 6, 2019

# Agenda



- Introductions
- Background
- Storm Impacts
- Project Overviews
  - ▣ Ongoing St. Augustine SPP and Summer Haven Efforts
  - ▣ South Ponte Vedra and Vilano Beaches
  - ▣ North Ponte Vedra Beach
  - ▣ FEMA
- Hurdles
- Questions

# Background



- St. Johns County manages 32 miles of beaches
- Historically, 4.5 miles needed County attention
- 2006 – 6 miles of critically eroded beaches (FDEP)
- 2012 – 8 miles of critically eroded beaches (FDEP)
- 2017 – over 16 miles of critically eroded beaches (FDEP)
- Plus 8 miles of threatened beaches in Ponte Vedra
- Over 24 miles of beaches now need assistance



# Background

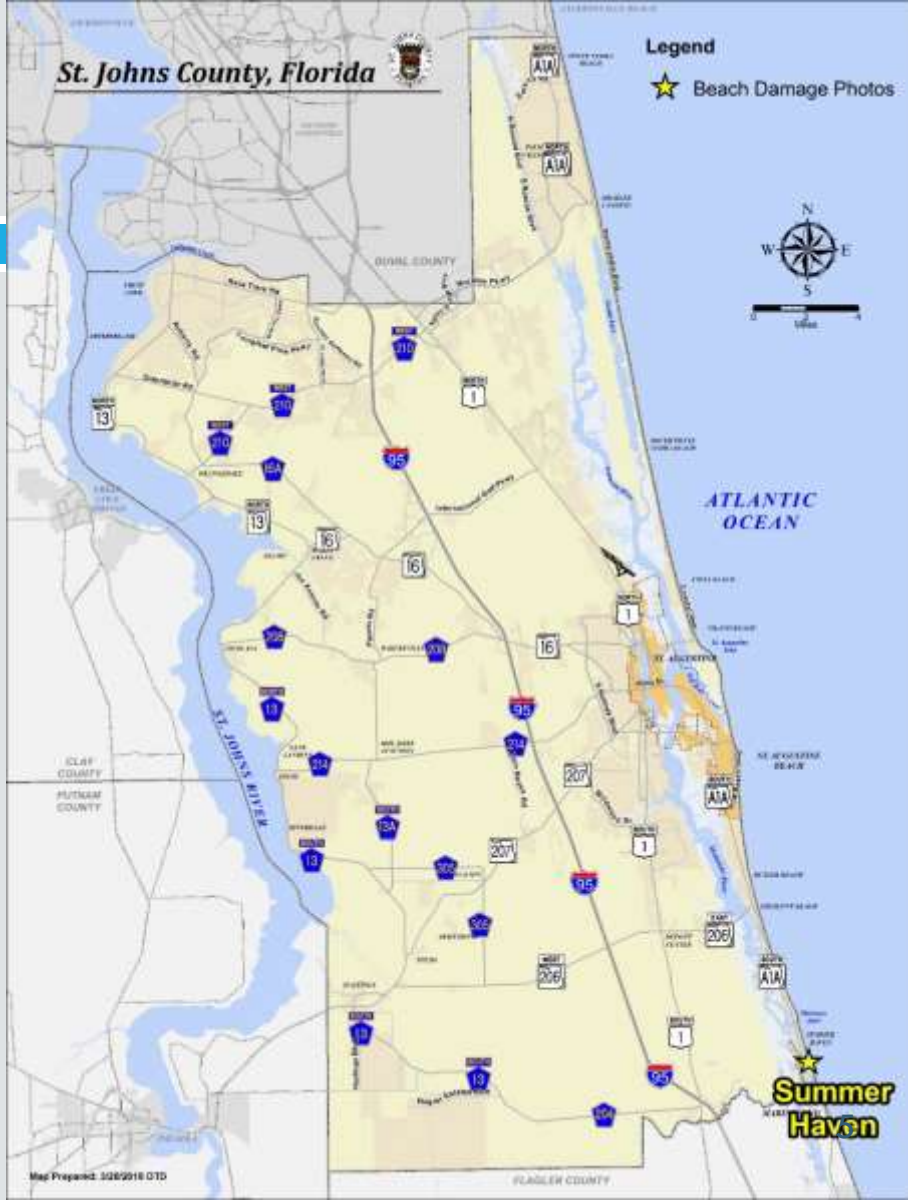
- The length of shoreline experiencing acute erosion increased by over five times in the past 20 years.
- Most new erosion north of the St. Augustine Inlet
- Eight mile hotspot in South Ponte Vedra and Vilano Beach
  - Erosional in the 1990s
  - 5cy/ft/yr (dry and wet beach) erosion in the 2000s
  - ~20cy/ft lost from dry beach in Matthew, Irma and January 2018 nor'easter

# St. Johns County, Florida



## Legend

★ Beach Damage Photos



Summer Haven







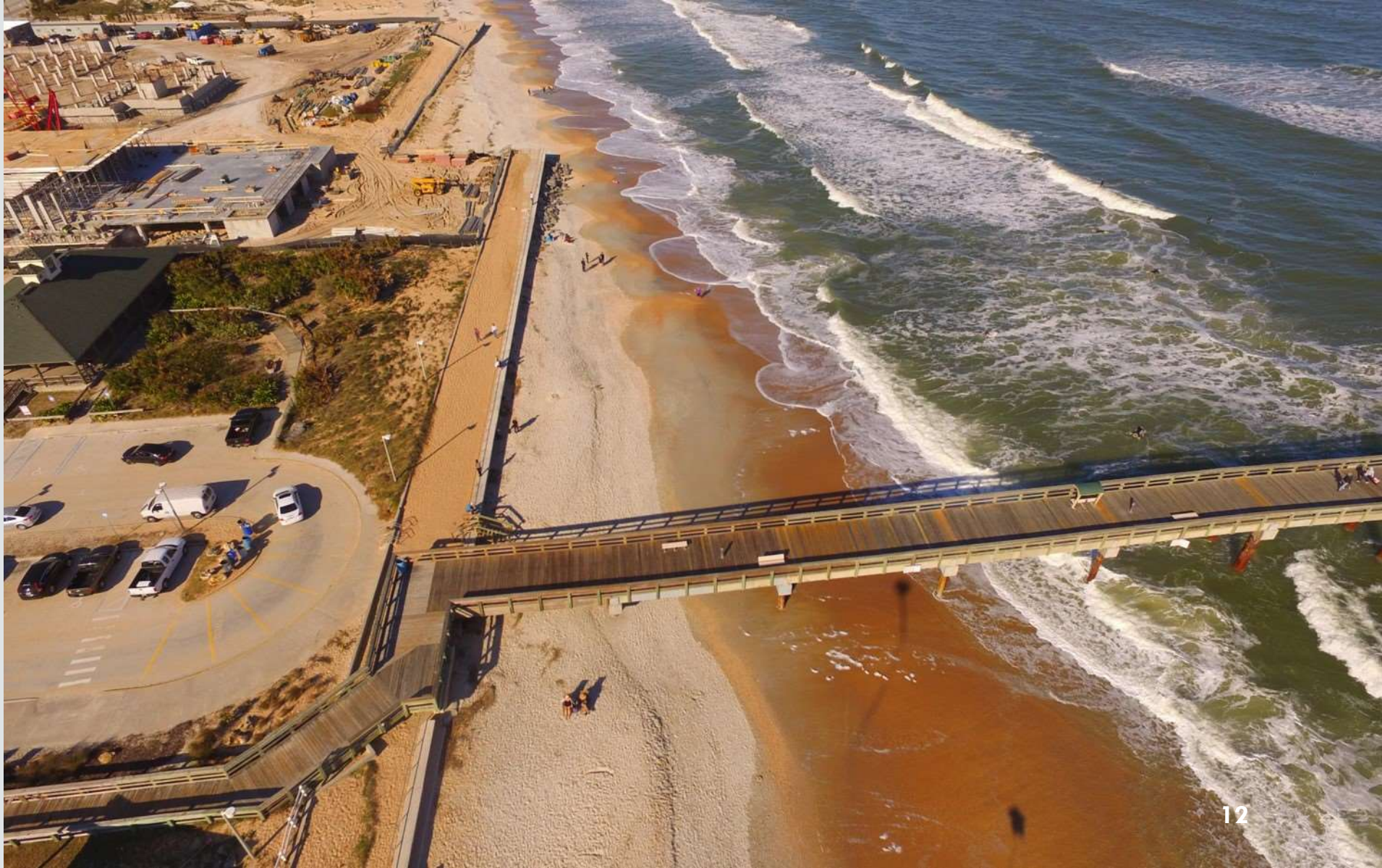




**St Augustine  
Beach Pier**































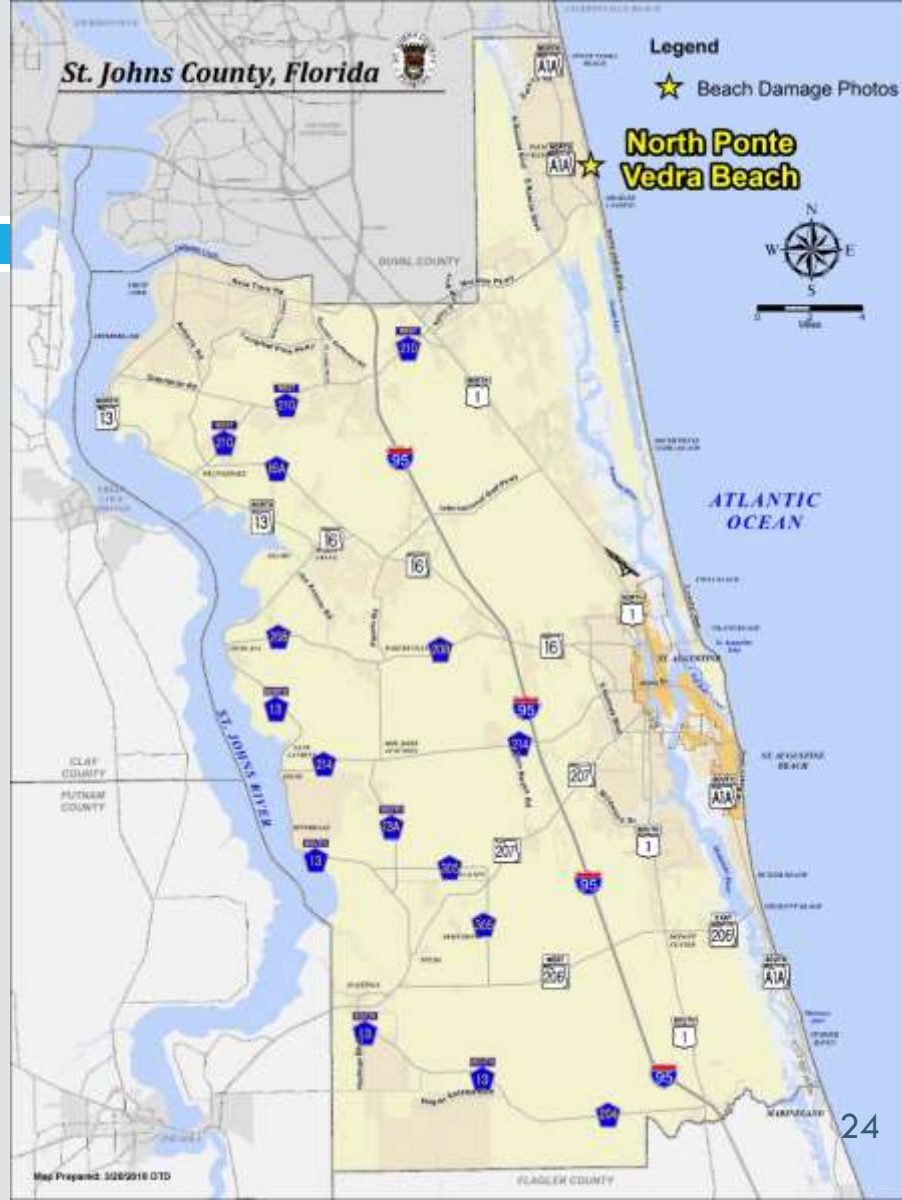
**St. Johns County, Florida**



**Legend**

★ Beach Damage Photos

**North Ponte  
Vedra Beach**

















# **STRATEGIES AND HURDLES**

# Ongoing Efforts



- **St. Augustine Beach Shore Protection Project**
  - **Only USACE SPP in the County**
  - **Established 2000, Initial construction 2002**
  - **Successfully protected over two miles of beach**
  - **80.5% federal cost share due to inlet mitigation component**
  
- **Summer Haven**
  - **FIND and USACE dredge spoils deposited on the beach**
  - **>2.7mcy of sand on 1.6 mile segment since 1992**
  - **Increasing vulnerability and loss of access**
  - **Reasonable efforts to maintain access and protection**

# South Ponte Vedra/Vilano Projects



## Dune Restoration Project

- Dune Restoration Only
- One-time project
- ~20 cubic yards of sand per linear foot
- \$13.3M Cost estimate
- 50% FDEP Hurricane Matthew funding
- MSTU: 4.0 mils / 10 years
- Over \$4M funding gap
- Possible 12-year lifespan



## USACE CSRSM Project

- Full Beach Restoration
- 50-year project
- 60' Berm extension and dune restoration
- \$26.5M Estimate - Initial Event
- Low Federal cost share
- Increasing parking and access
- Eligible for FDEP funding
- MSTU: 0.5 mils / 50-years
- \$9-15M funding gap
- Renourishments ~every 12yrs

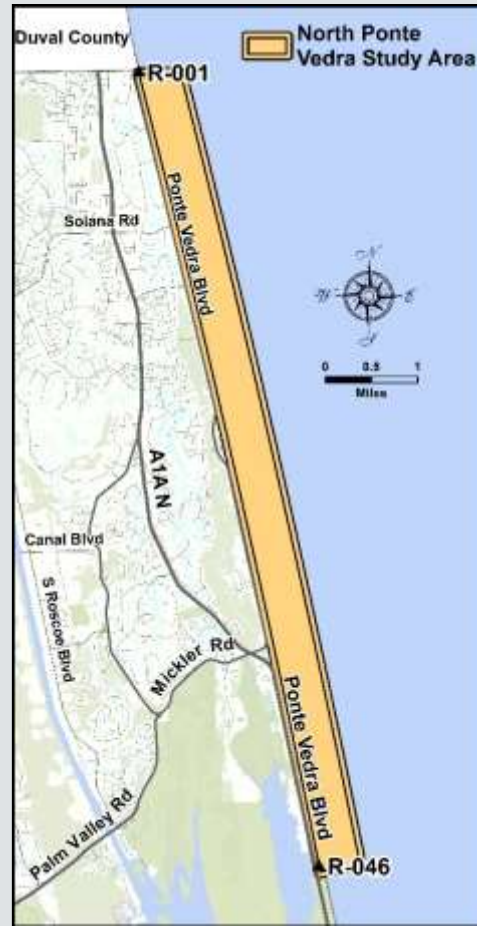




# North Ponte Vedra Beach

## Phase I

- Project Development
- Community Engagement
- Preliminary Design
- Permitting
- Continue funding search
- MSTU: 0.6 mils / 2 years
- 18 – 24 months



## Phase II

- Full Beach Restoration?
- Renourishment Schedule?
- 2.4mcy Sand lost since 1986
- \$40M Estimate - Initial Event
- Federal project?
- FDEP funding?
- MSTU?
- Unknown funding gap

# FEMA Emergency Berms



- **FEMA Project Worksheets for Category B Emergency Berms**
- **Both Matthew and Irma**
- **Over \$30M for all areas - ~\$4M County cost share**
- **In FEMA Environmental and Historic Preservation review**
- **Timing of FEMA obligations critical to integrate with proposed projects**



# Hurdles to Consider

- **FUNDING**
  - **\$80 Million contemplated north of the inlet in the next 2-3 years**
  - **FEMA Berms**
  - **Municipal Service Taxing Units**
  - **Discussions regarding Tourist Development Tax**
- **Complex Stakeholder Engagement**
- **New Reality of Vacation Rentals not Considered Public Access**
- **County Staffing and Decision Making**
- **Sand Sources**
- **Dynamic Coastal Environments**



The “No Action” Alternative



# QUESTIONS