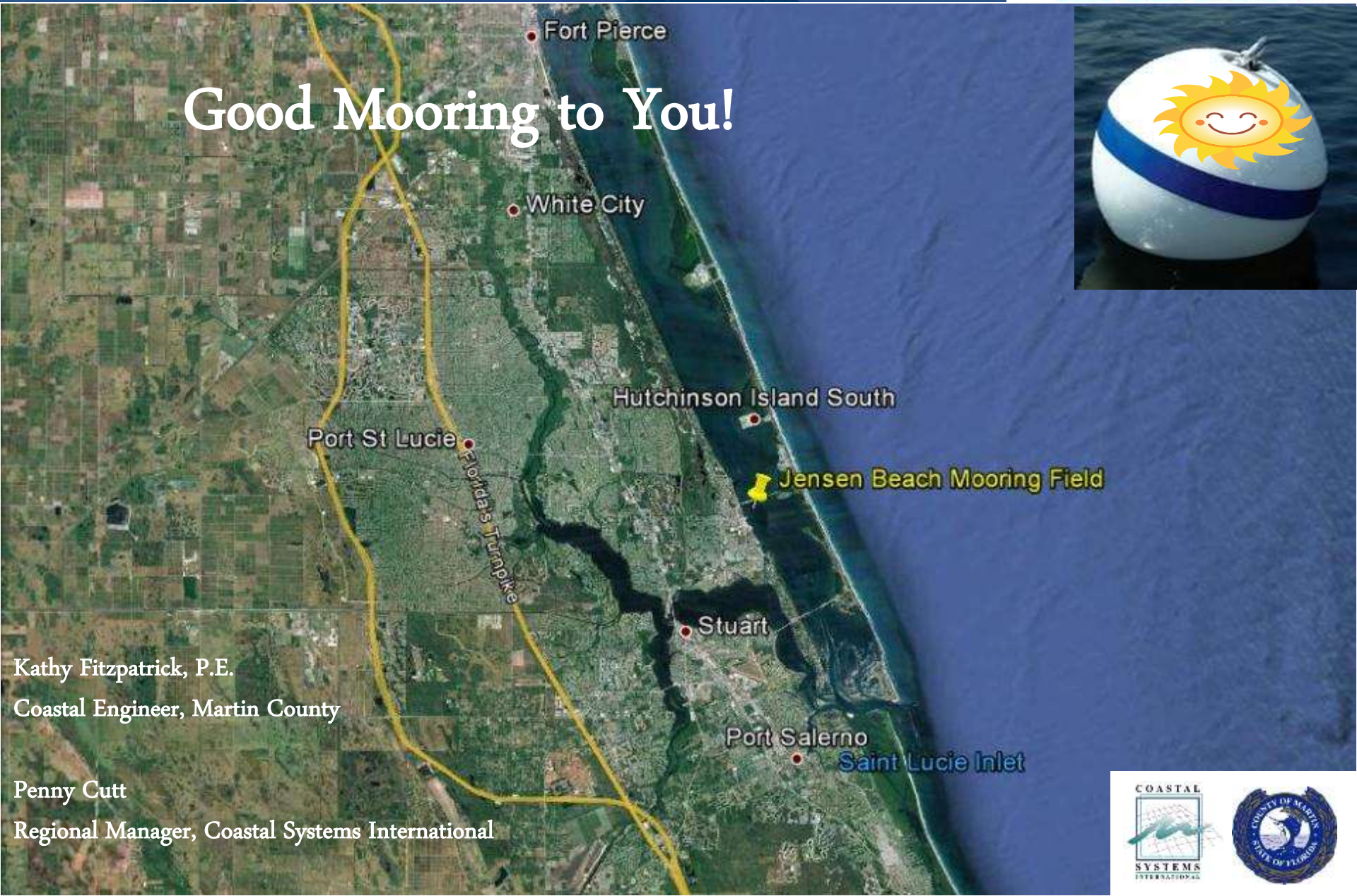




Good Mooring to You!



Port St Lucie

Florida's Turnpike

Hutchinson Island South

Jensen Beach Mooring Field

Stuart

Port Salerno

Saint Lucie Inlet

Kathy Fitzpatrick, P.E.
Coastal Engineer, Martin County

Penny Cutt
Regional Manager, Coastal Systems International



Mooring Field Advantages

- Provide a safe and secure anchorage at a reasonable cost
- Enhance seagrass protection through reduction of shading
- Eliminate anchor drag, propeller dredging and sediment scouring
- Protect seagrass by removing derelict vessels and preventing future abandoned vessels
- Improve water quality through managed pump out and prevention of dumping
- Provide navigational markings to keep vessels outside of shallow seagrass beds



Lack of Management



- Derelict vessels
- Seagrass damage
- Water quality impacts



Jensen Beach Permitted Managed Mooring Field

- 51 Mooring Buoys – vessels 20 to 60 feet
- 18 slip dinghy dock
- Restroom/shower and laundry facilities



Current Condition

- Naturally protected area
- Ad hoc, unregulated anchoring
- Few designated mooring fields in IRL

© 2012 Google

Imagery Date: 12/14/2010

27°14'57.28" N 80°13'13.73" W elev 0 ft



Facility Siting Criteria

- Bathymetry
- Ecological resources
- Upland amenities
- Current use by boaters

Moorings Sited to Minimize Impacts

- Less than 1% seagrass coverage
- Field located by divers

Dinghy Dock Impact Minimization

- Relocated
 - Avoid seagrasses
 - Existing bathymetry > 8 feet
- Light transmitting deck material
- Elevated 6 feet above MHW



Pre-application Meetings

- Florida Department of Environmental Protection (DEP)
- U.S. Army Corps of Engineers (Corps)

Public Relations & Outreach

- The Firefly Group
- Concurrent with Permitting



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DEP Permitting

- Environmental Resource Permit (ERP)
 - Application submitted 12/24/09
 - 3 Requests for Additional Information (RAIs)
 - 120 Administrative Hearing
 - Petition filed 4/14/11
 - Administrative Law Judge Decision 11/7/11
 - Permit issued 12/22/11
- Sovereign Submerged Lands Lease
 - Pending
 - USCG PATON Permit
 - FWC Uniform Waterway Marker Permit

Corps Permitting

- Individual Permit
 - Application submitted 12/24/09
 - 4 RAIs
 - Permit issued 4/5/12



Federal Commenting Agencies

- National Marine Fisheries Service (NMFS)
 - Habitat Conservation Division (HCD)
 - Protected Resources Division (PRD)
- U.S. Fish & Wildlife Service (FWS)
- U.S. Environmental Protection Agency (EPA)



Additional Permits

Florida Fish & Wildlife Conservation Commission (FWC)

Uniform Waterway Marker Permit (UWM)

- Pending Martin County adoption of ordinance to prohibit anchoring within the Mooring Field
- adopted 4/30/12

U.S. Coast Guard (USCG)

Private Aids to Navigation Permit (PATON)

- Pending USCG review of Corps Permit



Soft Costs

- Bathymetric & biological surveys
- Design & engineering
- Wave study
- Environmental permitting
- Administrative hearing
- Grant applications

Total Soft Costs \$324,417



Construction Costs

- \$ 83,000 Construction inspections & administration
- \$646,140 Mooring field construction
- \$275,000 Upland facility construction

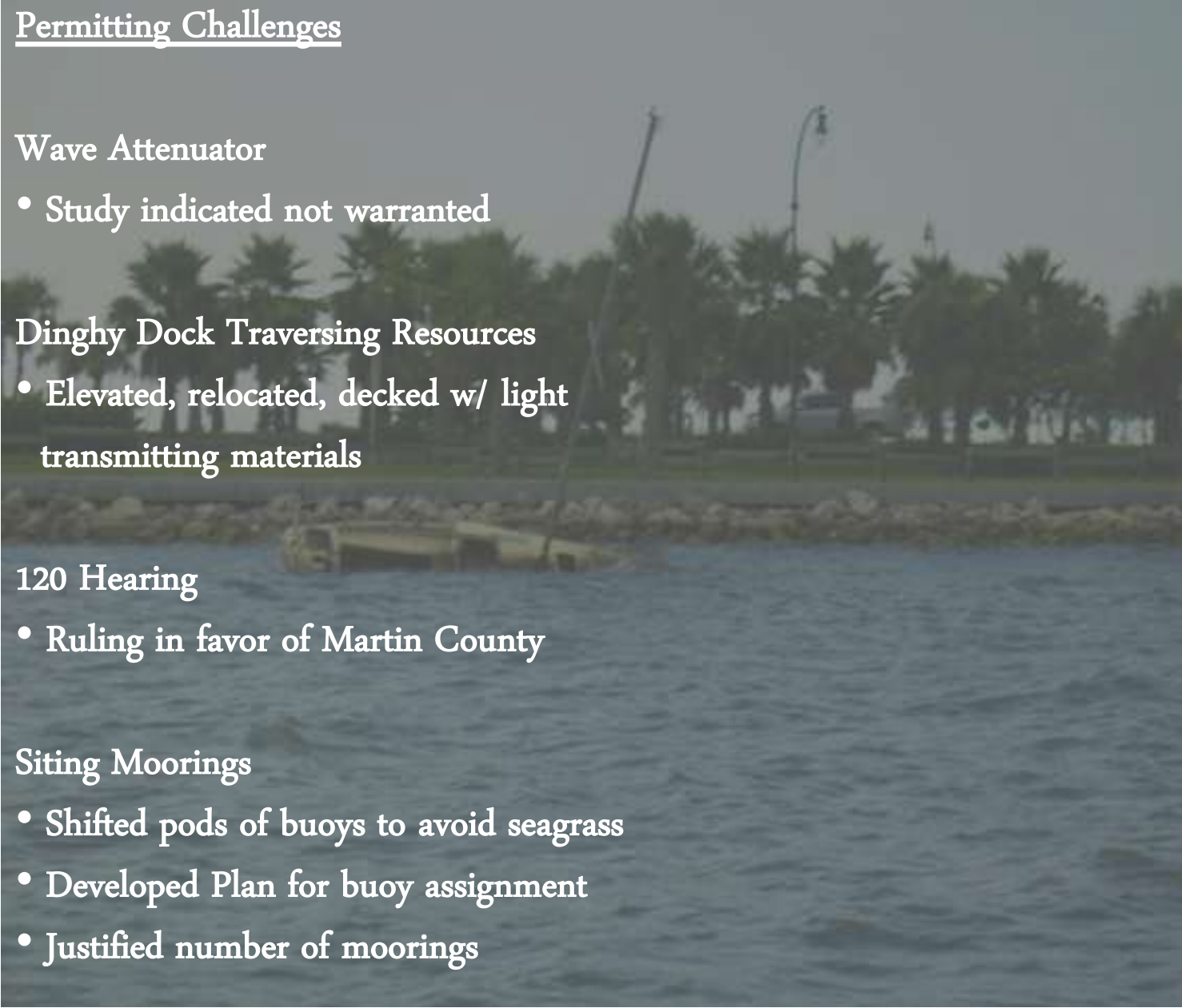
Total Estimated Construction Costs \$1,004,140

Grant Applications

- Florida Inland Navigation District (FIND)
Waterways Assistance Program (WAP)
\$502,070 Requested April 2012
- Florida Fish & Wildlife Conservation Commission (FWC)
Florida Boating Improvement Program (FBIP)
\$487,070 Requested May 2012
- Indian River Lagoon National Estuary Program (IRLNEP)
\$15,000 Requested January 2012

Grant Funds Requested \$1,004,140

- *Note: Grants cannot be used to fund permitting or other soft costs that were incurred prior to grant issuance*



Permitting Challenges

Wave Attenuator

- Study indicated not warranted

Dinghy Dock Traversing Resources

- Elevated, relocated, decked w/ light transmitting materials

120 Hearing

- Ruling in favor of Martin County

Siting Moorings

- Shifted pods of buoys to avoid seagrass
- Developed Plan for buoy assignment
- Justified number of moorings



Permitted Managed Mooring Field

- 51 Mooring buoys for vessels 20 to 60 feet
- 18 Slip dinghy dock
- Restroom/shower & laundry facilities
- Construction Commencement February 2013
- Construction Duration 6 months



Questions ???



Want to know moor?

Visit us at www.jbmoorings.org