

Coastal Policy and Sea Turtles in an Era of Rising Seas

Adaptation policy Recommendations



"It is the policy of USACE to integrate climate change adaptation planning and actions into our Agency's missions, operations, programs, and projects." (Policy Statement, USACE Climate Change Adaptation Plan and Report 2011)

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Authors of the IPCC's *Climate Change 2007: Impacts, Adaptation, and Vulnerability* (Parry et al., 2007) argue that "the long timescales of sea-level rise suggest that coastal management, including spatial planning, needs to take a long-term view on adaptation to sea-level rise and climate change, especially with long-life structures and infrastructure . . .

Florida?

Why A Sea Turtle Group Focuses on Beach Policy and SLR

The beach is nesting habitat!

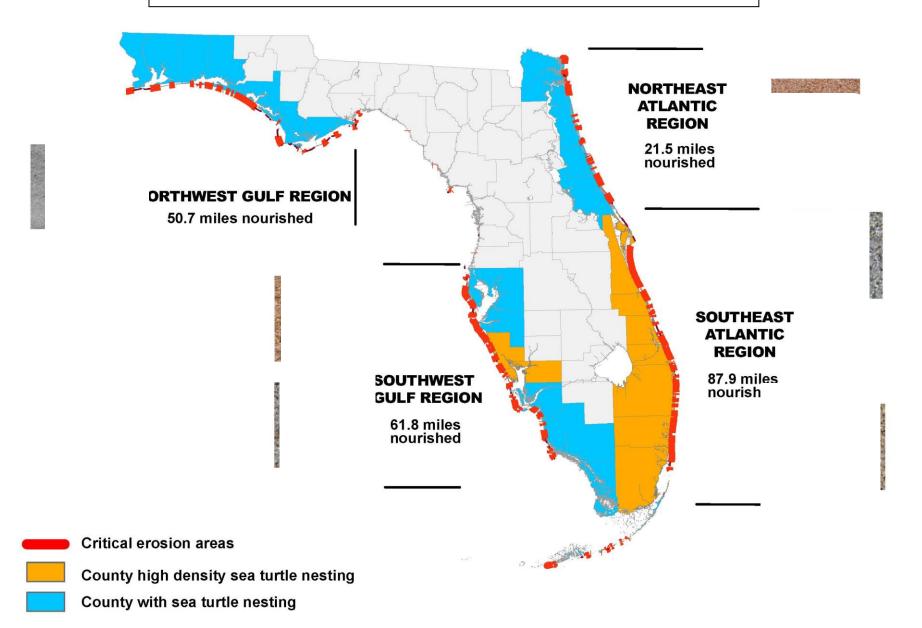
- Coastal development policies impact beaches.
- Coastal erosion can degrade habitat.
- Dune and beach restoration can have many impacts (pro and con).
- Beaches and nesting habitat will be significantly impacted by sea level rise.
- Sea walls are a major threat to sea turtles and the beach, especially in an era of SLR.





Critical erosion and turtle nesting beaches





What might Adaptation planning for a changing climate look like in beach management?





Engineered inlets account for +/- 75% of the historical erosion along Florida's east coast!





Inlet Management as Adaptation Strategy?

 Inlet management was not funded in the legislature's 2015 budget!

- Currently 17 IMPs statewide (15-20 years old).
- 3 of the 17 have updated IMPs.
- Many inlets are being managed without an IMP.
- Most IMPs need an updated sediment budget.

Adaptation Planning: Would prioritize improved and aggressive inlet management and sand bypassing.

Beach renourishment is the primary means of protecting upland structures from continual coastal erosion and storms





Adaptation Planning: Model and plan for long-term sand source availability, need and cost under differing SLR scenarios. (Local government project preparedness.). We may need to take a fresh look at how we design a beach.

Is hardening a viable adaptation strategy to combat beach recession?

Not if you are trying to protect beaches and sea turtle nesting habitat!











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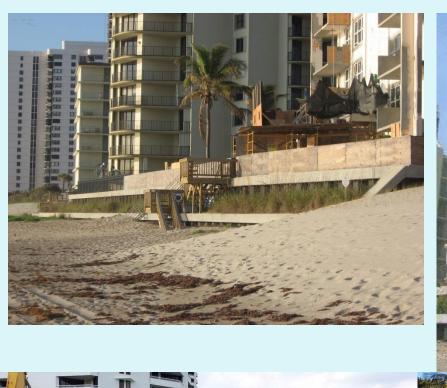










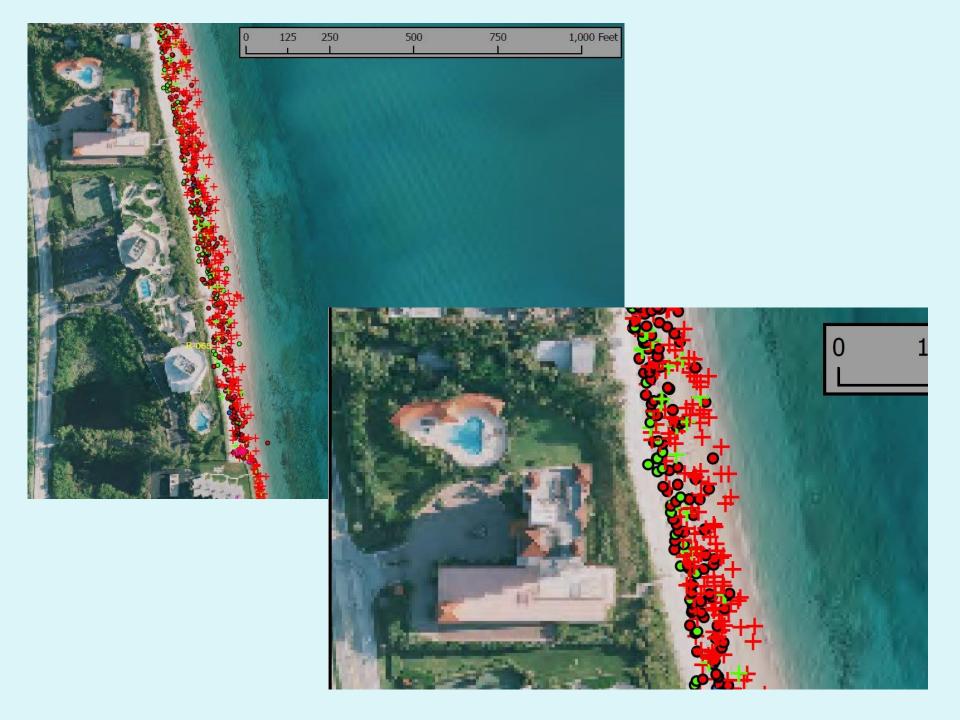












Lawsuit Launched in Florida to Protect Endangered Sea Turtles From Singer Island Seawalls

DEP faces future legal battle over seawalls that interfere with turtle nesting



Thursday, August 6, 2015 10:55am

Four conservation groups notified the state Department of Environmental Protection Thursday that they intend to sue over its permitting of seawalls that block sea turtles from nesting on Florida beaches.

The agency has already been under fire from the U.S. Fish and Wildlife Service over its permitting because all sea turtles are legally protected species.

The notice, filed by the Center for Biological Diversity, Sierra Club, Florida Wildlife Foundation and the Surfrider Foundation, contends the state agency is violating federal law by handing out seawall permits in nesting territory with no regard for the turtles.

"The state of Florida is recklessly permitting seawalls that destroy Florida's beautiful beaches, harm sea turtles and do nothing to protect Florida from rising seas," said Jaclyn Lopez of the Center for Biological Diversity.

Tampa Bay Times

Adaptation Recommendations:

- Establishment of Coastal Management review commission.
- Include consideration of SLR in all relevant beach management policies.
- Improve and adequately fund inlet management and bypassing.
- Consider changes in ranking criteria for beach projects (additional points for locally established setbacks and for reducing armoring pressure on beaches.)
- Develop policy initiatives and secure land acquisition funds to incentivize landward siting of new construction and to purchase coastal lands (Save Our Coasts program).
- Develop a meaningful coastal hazard notification law.

Adaptation Recommendations:

- CCCL reform (Program was established 25 years ago!).
 - Eliminate or revise the "line of construction" policy.
 - Revise modeling procedures for 30-year (50?) erosion projection to include SLR and storm predictions.
 - Eliminate loopholes allowing development seaward of the 30-year erosion projection (single-family homes through the beach nourishment credit).
 - Develop dune protection policies.

If we include beach/dune protection within Climate Change adaptation planning we...

- Would encourage long-term planning and preparedness at the local level for sand source identification, funding needs, and regulatory permitting of beach and dune restoration.
- Encourage improved shoreline protection and resiliency strategies at the local level (beach access, reduced reliance on armoring, improved inlet management, new creative policy initiatives...).
- Would encourage the coordination of beach and dune protection and resiliency policies within local community planning and in the Post-Disaster Redevelopment Planning process. (smart redevelopment policies).





Thank You



Coastal Policy, Sea Walls and Adaptation Planning



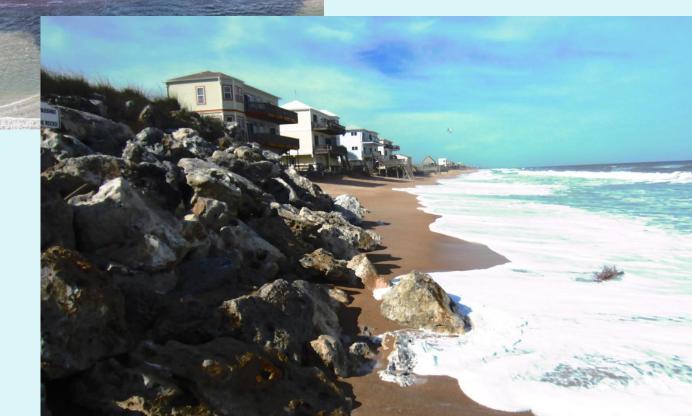




Need policy changes and adaptation strategies that reduce the need for shoreline armoring.

Vilano Beach

What about beach dynamics, shoreline history, and SLR?



There is no mention of Sea Level Rise, Climate Change or Adaptation planning in any of the state's beach management or coastal construction laws or rules.

Even at the local level in Florida long-term beach and dune protection is often not addressed in Sea Level Rise and Climate Change planning initiatives!

