

# POLICY AND PERMITTING RECOMMENDATIONS TO PROMOTE AND INCREASE THE EFFECTIVENESS OF SUBMERGED HABITAT RESTORATION EFFORTS IN SOUTHWEST FLORIDA

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# Seagrass is important

- Sediment stabilization
- Water filtration
- Protection from storms
- Habitat and nursery for commercial and recreational fish species

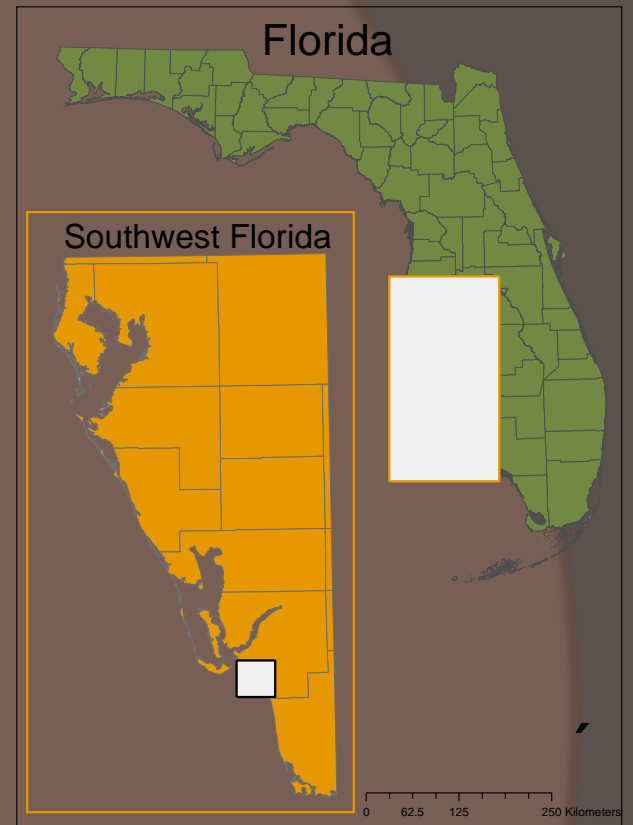
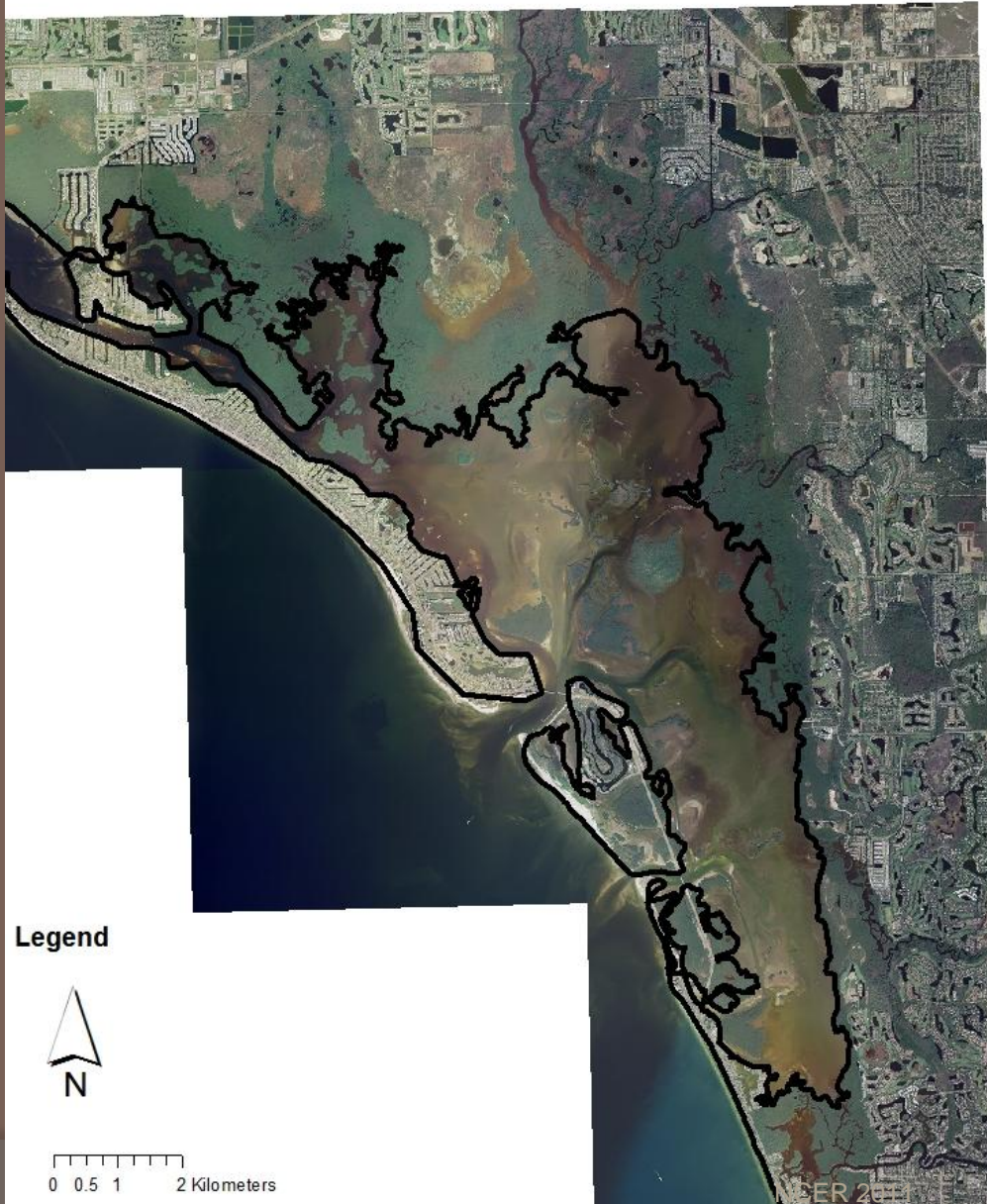


# Loss

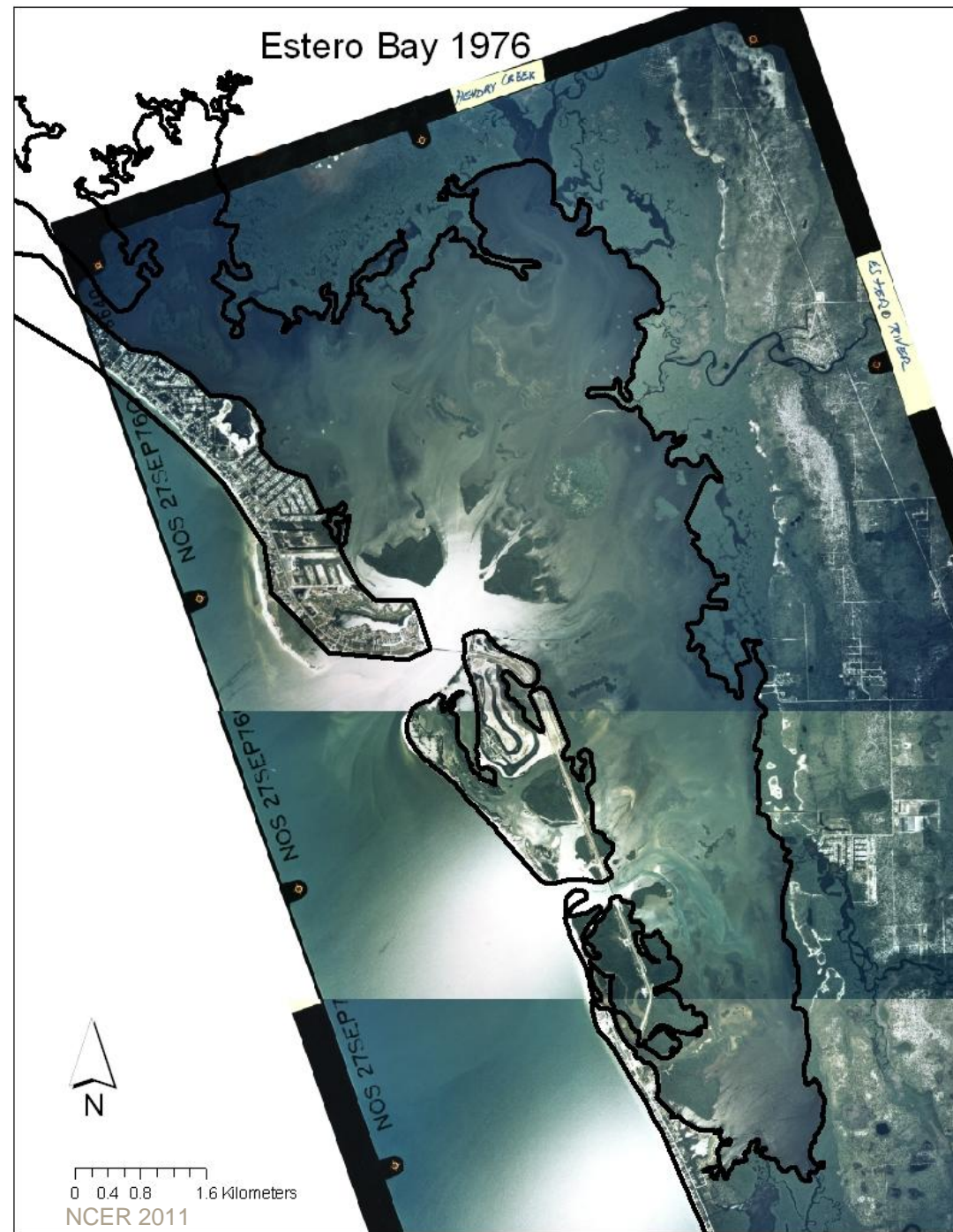
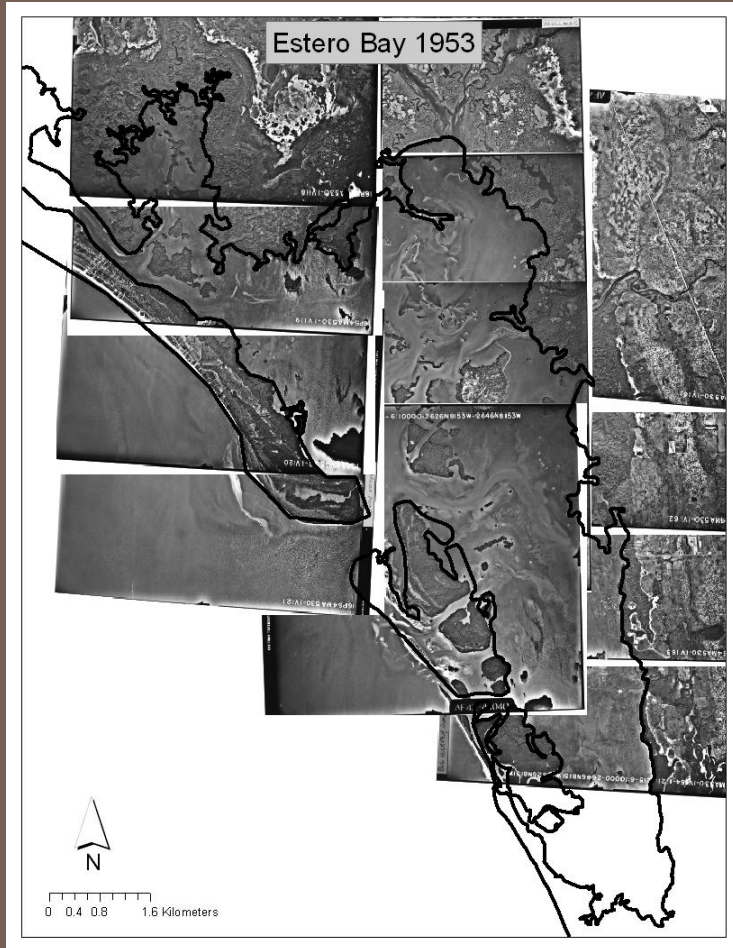
- In the last two decades the documented loss of seagrass has been 3.3 million hectares or 20% of total documented coverage in the world
- Estimated 1,600 hectares needs to be restored SW Florida



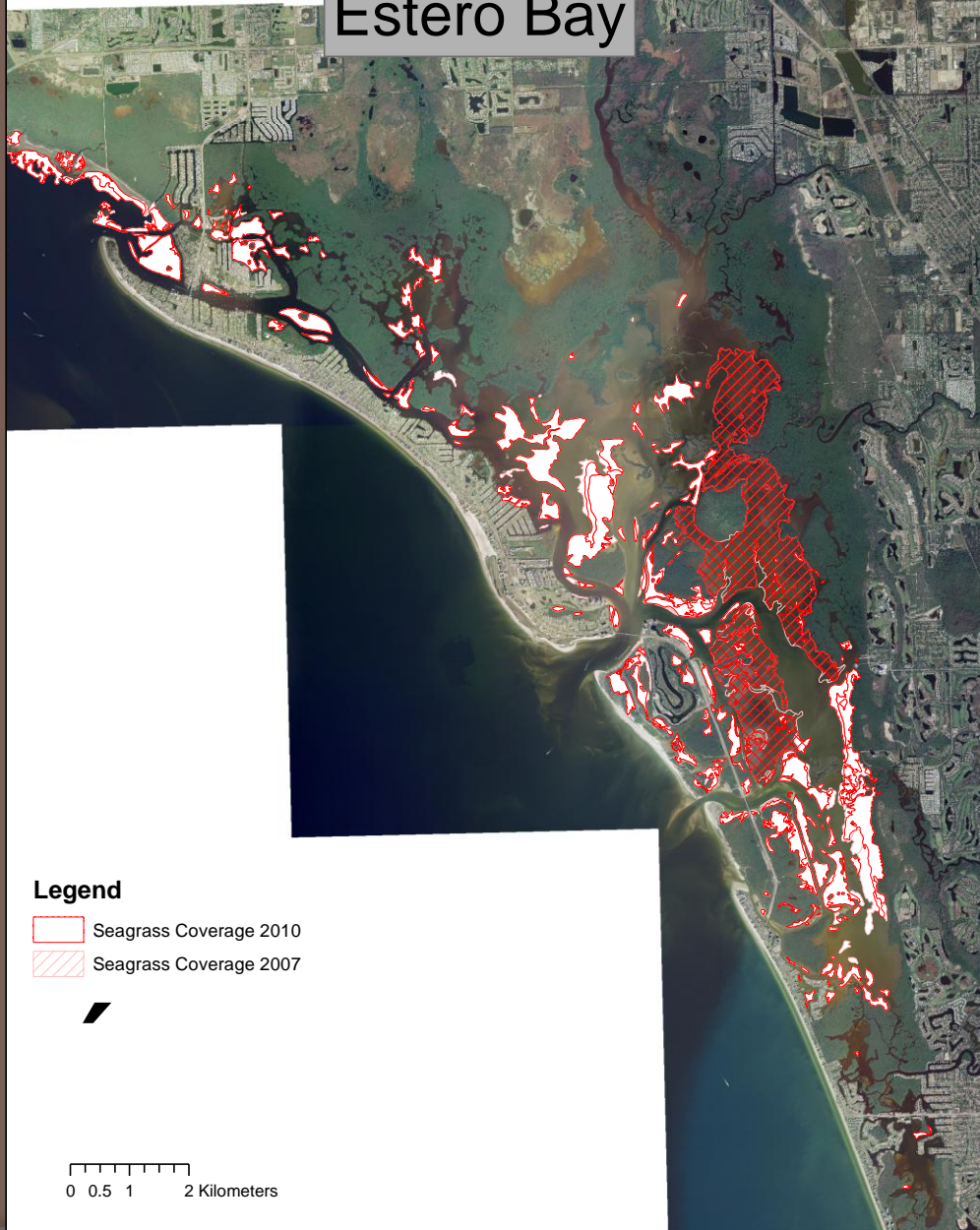
# Estero Bay Current



# Historical



# Estero Bay



## Legend

- Seagrass Coverage 2010
- Seagrass Coverage 2007



0 0.5 1 2 Kilometers

# Causes

- **Direct loss of seagrass due to Coastal Development**
  - Docks
  - Marinas
  - Navigation channels
  - Increase in boating (particularly by inexperienced boaters)
- **Indirect causes of loss**
  - Eutrophication
  - Sedimentation
  - Changing salt/freshwater flow patterns
  - Overfishing large fish
  - Climate change
  - Sea level rise



# Restoration

Why are permits for restoration so difficult to obtain?





# Federal Protection

- ⦿ River and Harbors Appropriation Acts of 1899
  - U.S. Army Corps of Engineers Regulates **fill**
- ⦿ Clean Water Act
  - Regulates dredge and **fill** in navigable waters
  - 404 Permit
- ⦿ Endangered Species Act
  - Can't harm endangered species while doing restoration
  - Johnson's Seagrass is threatened
  - Manatee habitat and food



# State Law

- ⦿ Sovereign submerged lands
  - Held in trust for the people of Florida
  - Case-by-case authorization to use
- ⦿ Environmental Resource Permits
  - Can't degrade water quality
  - Contravene public interest

Conflict arises from the fact that while development and navigation are often in the public interest, so is the protection of natural resources.

# Notice General Permits

- ⦿ Those activities that have been determined to have **minimal impacts** to the water resources of the District, both individually and cumulatively, when conducted in compliance with the terms and conditions of the general permit.
- ⦿ Many notice general permits for activities in coastal sovereign submerged lands require minimization of impacts to seagrass and **mitigation** for damages

# Uniform Mitigation Assessment Method (UMAM)

- ◉ Amount of mitigation necessary determined by UMAM
- ◉ Florida's exclusive process for establishing the acreage of mitigation needed to offset adverse impacts to the state's **wetlands and surface waters** and to award and deduct **mitigation bank credits**.
- ◉ considers the impacted water's current condition, location, use by wildlife, hydrologic condition, and uniqueness

# Seagrass Mitigation Banks

- In 2008, the Florida Legislature enacted a bill to amend Florida Statutes Chapter 253 to allow for the establishment of seagrass mitigation banks on sovereign submerged lands
- Vetoed
- seagrass mitigation banks could streamline projects that negatively impact seagrass beds

# Current Mitigation

- ⦿ Establish boating exclusion zones (FDEP)
  - Not favored by boating lobby
  - Can't put up regulatory signs (FWC)
  - Informational signs
  - Conflict between agencies
- ⦿ Fund runoff treatment plants
- ⦿ Transplant seagrass from project site



# Issues

- Amount and type of mitigation determined by UMAM
- Mitigation carried out by permittee that applies to create seagrass-impacting development
- Wetland mitigation is carried out by publicly or privately operated mitigation banks

# Suggestions

- Revise UMAM to include assessments related to the ecology of seagrass beds and their ecosystem services
- Allow the creation of mitigation banks on state land that can be used to offset impacts to seagrass that occur as a result of development or maintenance of coasts and waterways.

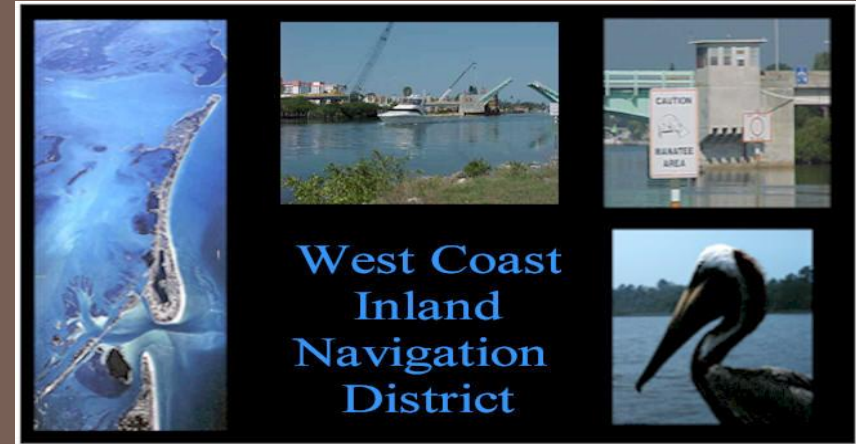


# Interesting Quotes

- If we think you have a good project we will push it through the permitting process
- I can't get a permit for anything because they don't like me
- Difficult to get a permit for researching new techniques because can't prove won't harm resource

# Acknowledgements

Coauthors: Tom Ankerson  
and Ben Lingle



# Questions?

- Althea S. Hotaling, R. Benjamin Lingle, and Thomas Ankersen (2011). **Comprehensive Seagrass Restoration Planning in Southwest Florida: Science, Law and Management**, *Sea Grant Law and Policy Journal*, Vol. 4, No. 1 (Summer 2011)