

SEAGRASS RESTORATION AND MITIGATION: POLICY CHANGE RECOMMENDATIONS

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Seagrass is important

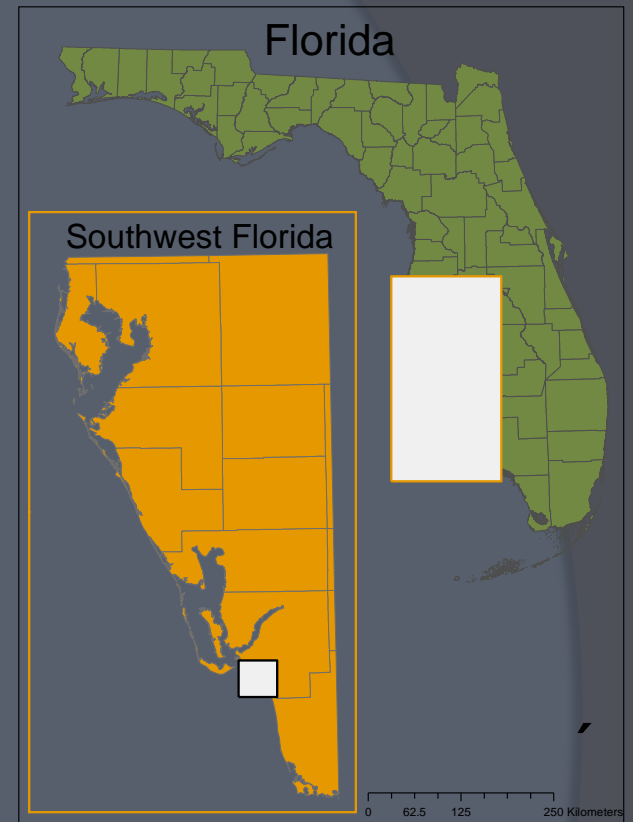
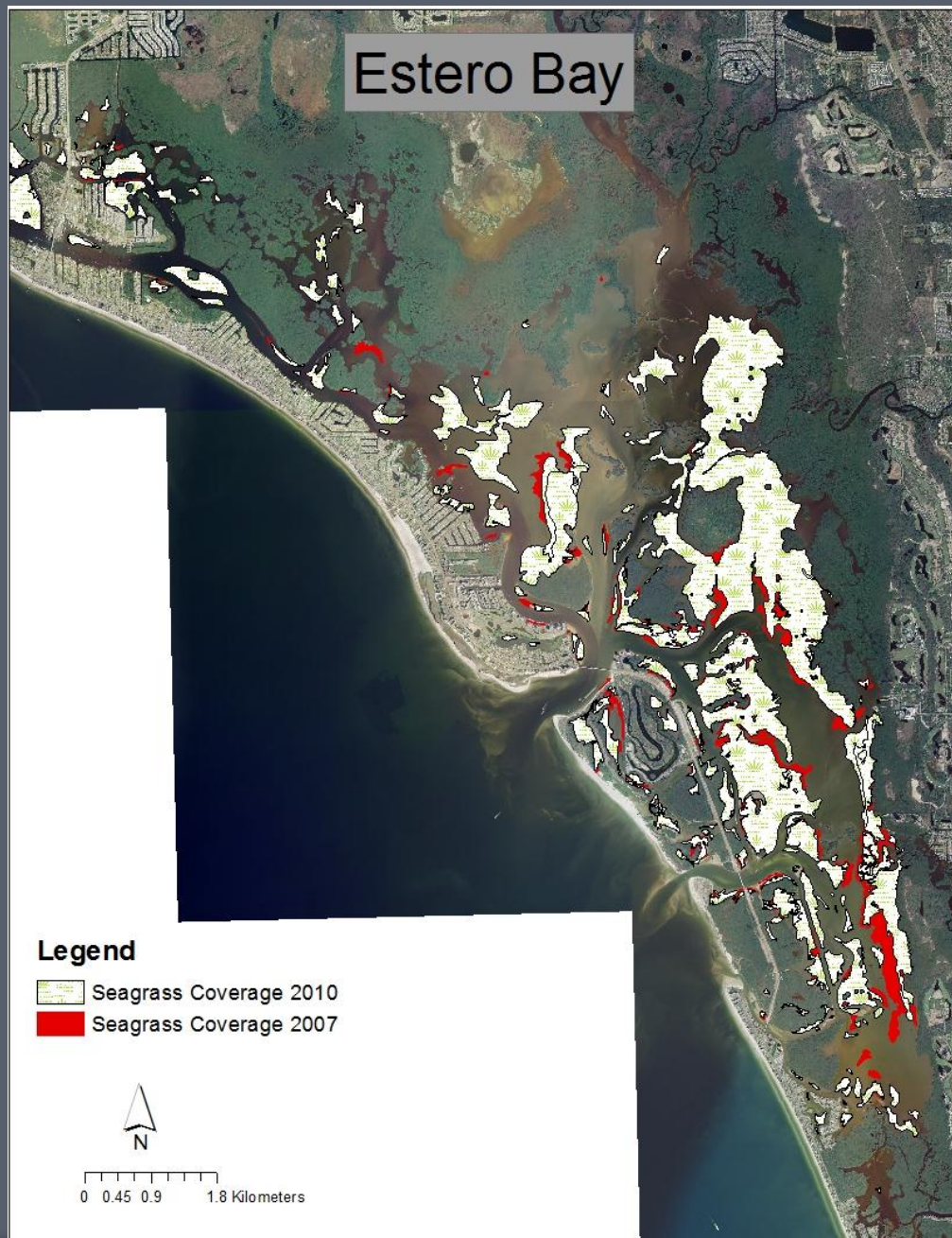
- Sediment stabilization
- Water filtration
- Protection from storms
- Habitat and nursery for commercial and recreational fish species



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





- Ft. Myers to the North and Naples to the south
- 4,452 hectares
- 1966 it was designated Florida's first aquatic preserve

Causes

○ Direct loss of seagrass

- Docks
- Marinas
- Navigation channels
- Increase in boating (particularly by inexperienced boaters)



▶ Indirect causes of loss

- Eutrophication
- Sedimentation
- Changing salt/freshwater flow patterns
- Climate change
- Sea level rise

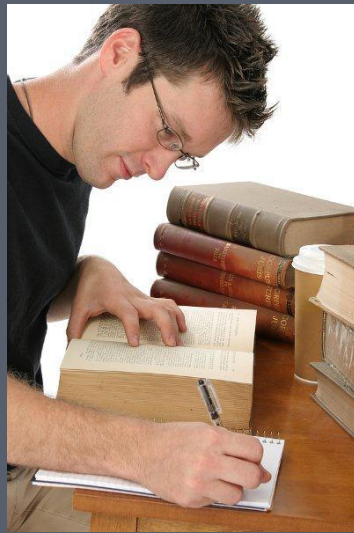
Restoration

- Most restoration is done as mitigation
- Why are permits for restoration so difficult to obtain?



Methods

- Review of all Federal and State Acts, Laws, Policies, and Permitting Processes
- Interviewed agency personnel, Consulting firm employees, professors, etc.



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
 - 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.



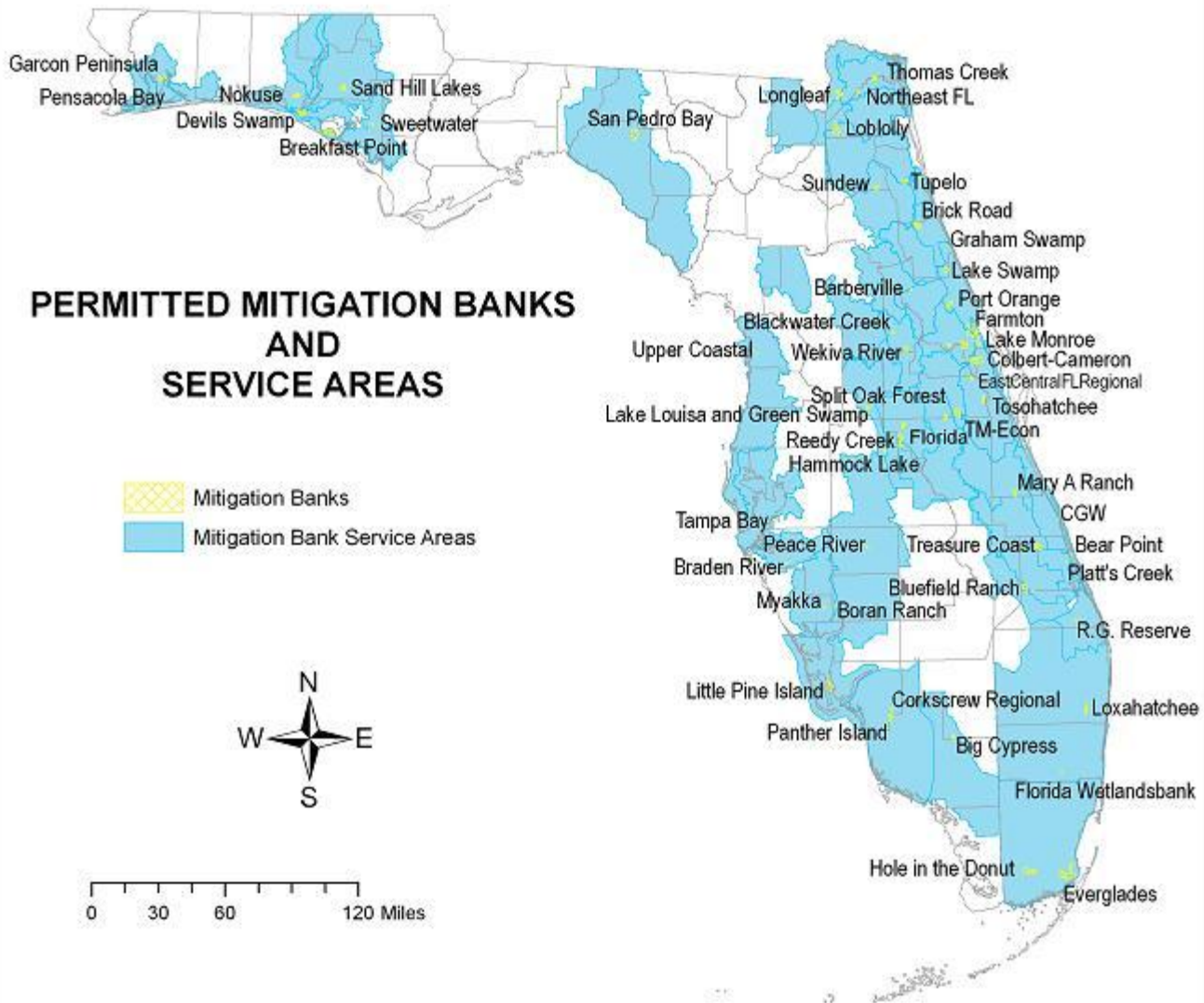
Uniform Mitigation Assessment Method (UMAM)

- ◉ 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

Problem

- Seagrass ecology is very different from wetland ecology
- Rating criteria were written for freshwater wetlands
- There are no SEAGRASS mitigation banks in Florida
 - In part because seagrass occurs on public land and there is no mechanism to establish banks on public land





Map prepared March 4, 2010 by the Office of Submerged Lands and Environmental Resources, Division of Water Resource Management. This map is a representation of ground conditions and is not intended for delineations or analysis of the features shown. For more information or copies, contact Vicki Tauxe at (850) 245-8492 or vicki.tauxe@dep.state.fl.us



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, which was written for wetlands
- Mitigation must be identified on a case by case basis as there are no mitigation banks to purchase credits from.



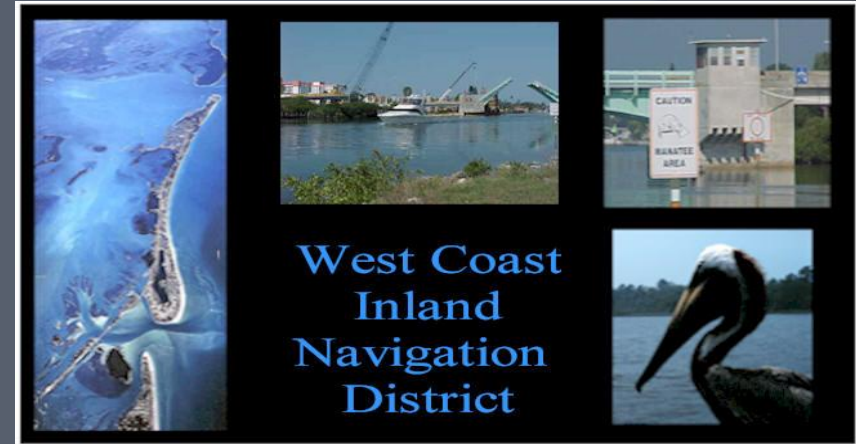
Suggestions

- 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.



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UF

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Questions?

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