

Natural Resource Adaptation Action Areas: A Planning Framework for Restoration

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Planning for Sea Level Rise

Sea Level Rise (SLR) Impacts

- Increased flooding frequency, storm surge intensity, coastal erosion, saltwater intrusion

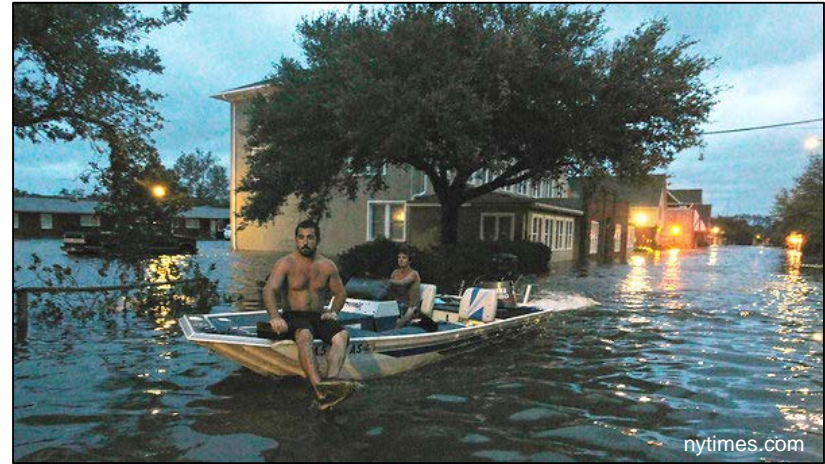
Community Planning Act (2011)

- Authorizes local FL governments to amend comprehensive plans to include adaptation action areas

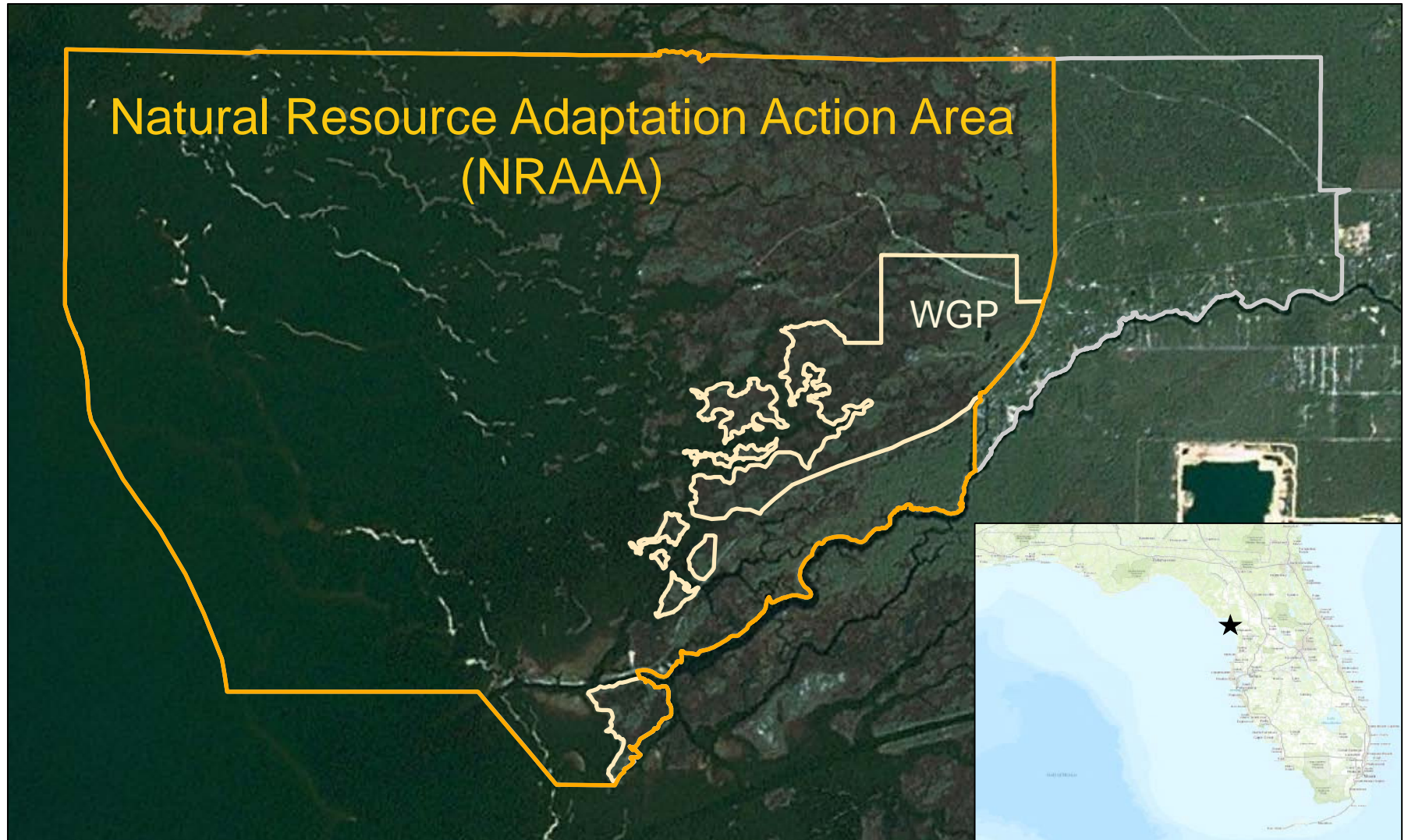
Adaptation Action Areas

- Vulnerable to SLR impacts
- Designated for purpose of prioritizing funding for infrastructure and adaptation planning

(Florida Statutes §163.3164(1), §163.3177(6)(g)(10), F.S.)

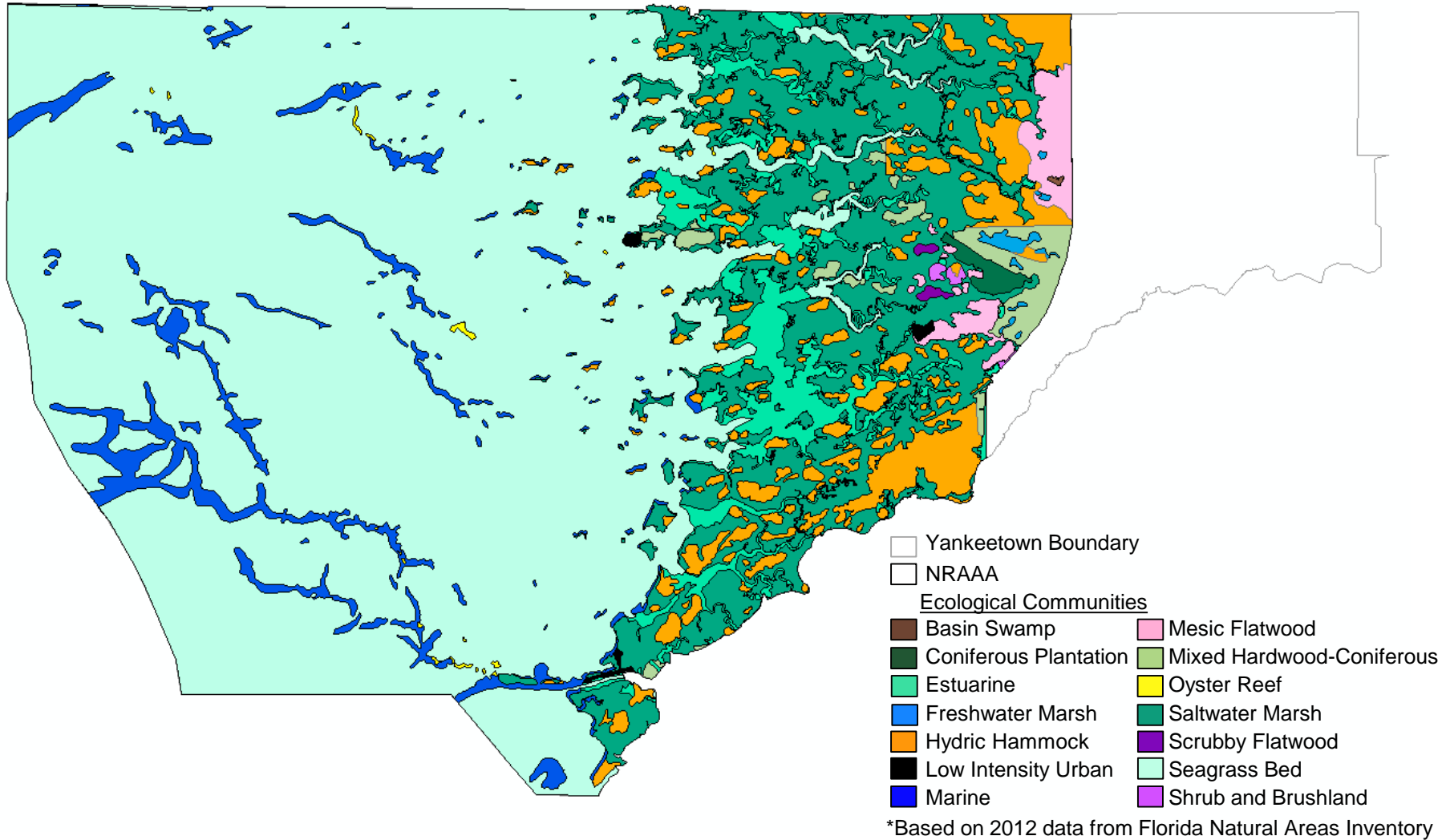


NRAAA in Yankeetown, FL



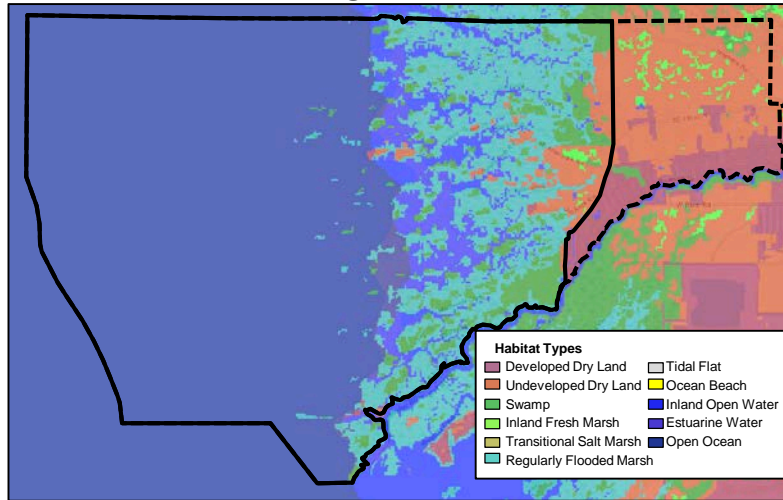
Ecological Coastal Communities

Yankeetown NRAAA

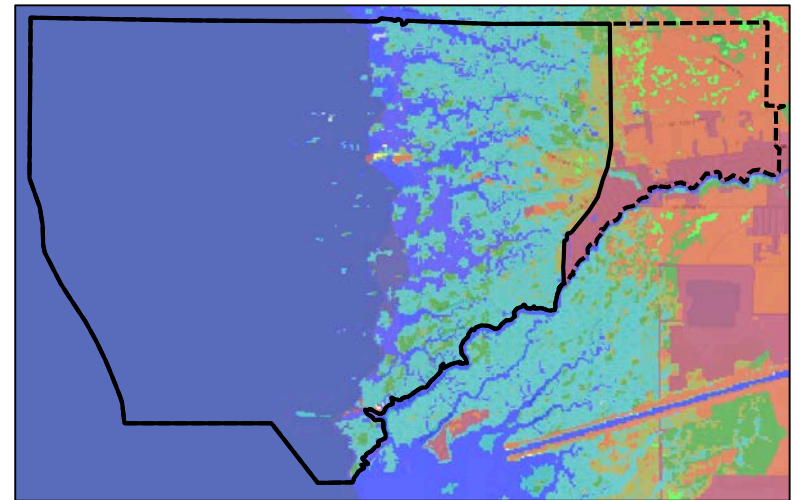


Sea Level Rise Scenarios

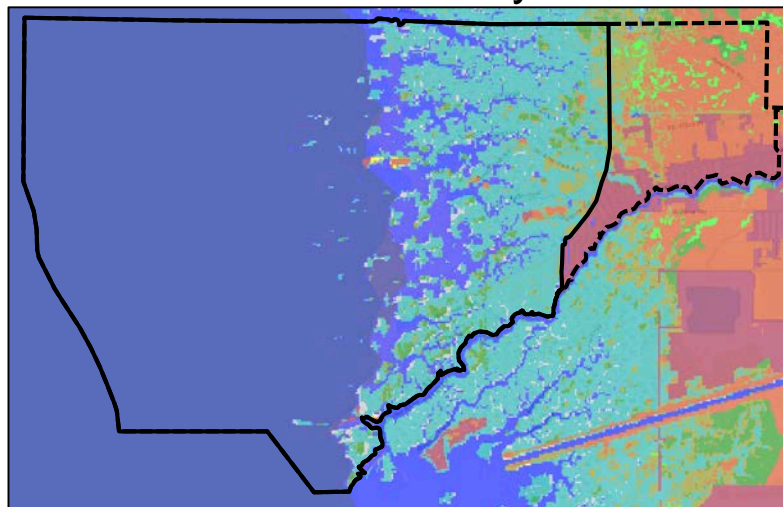
Existing Habitats



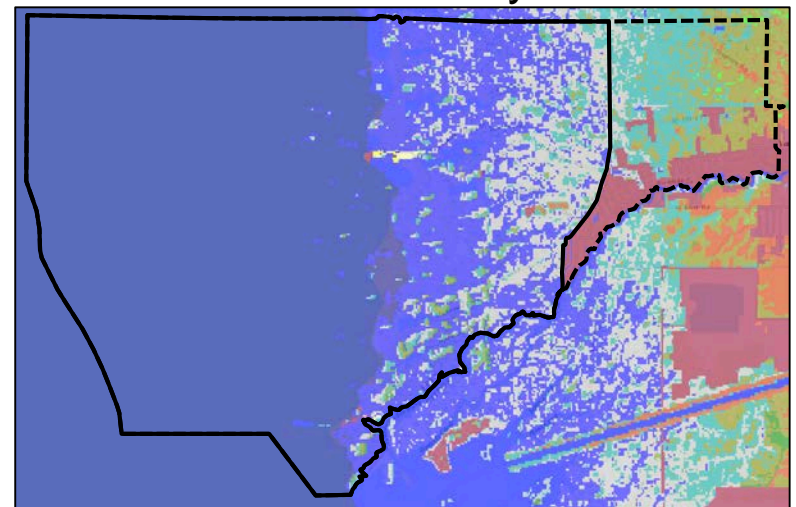
IPCC A1B Max Scenario in 2100



One-meter SLR by 2100



Two-meter SLR by 2100



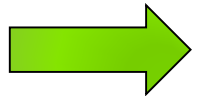
*The Nature Conservancy, Coastal Resilience 2.0; simulations use Sea Level Affecting Marshes Model (SLAMM)

NRAAA SLR Adaptation Strategy

Incorporates planning strategies for local governments identified by Florida DEO Community Resiliency Focus Group



Protection



Accommodation



Retreat



Adaptation Strategy: Protection

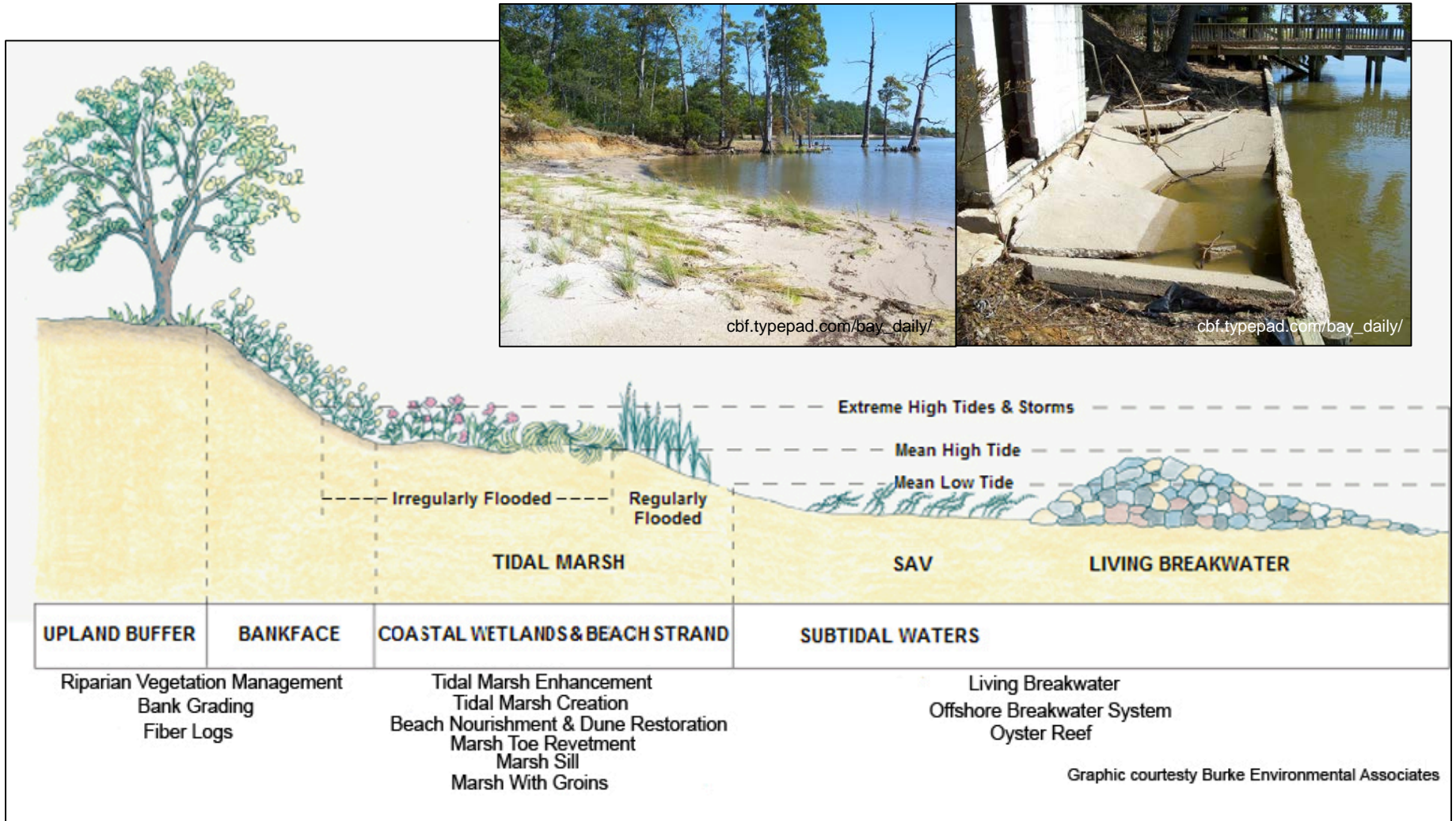
Oyster Reef Restoration



- Remnants of what was once a more extensive reef system
- Serve as a primary component of a living shoreline
- Protect coastline from impacts related to SLR and storm surges
- Benefit the health of many marine and tidal species

Adaptation Strategy: Protection

Living Shoreline



Adaptation Strategy: Accommodation

Salt Marsh and Seagrass Preservation



- Accommodate marine and intertidal ecosystems
- Contribute to living shoreline
- Stabilize shoreline

Adaptation Strategy: Accommodation

Species Habitat Creation

Example: Diamondback terrapin turtle

- Inventory existing habitat
- Collect local population data
- Restrict potentially harmful activities
- Create additional habitat



www.wlf.louisiana.gov/



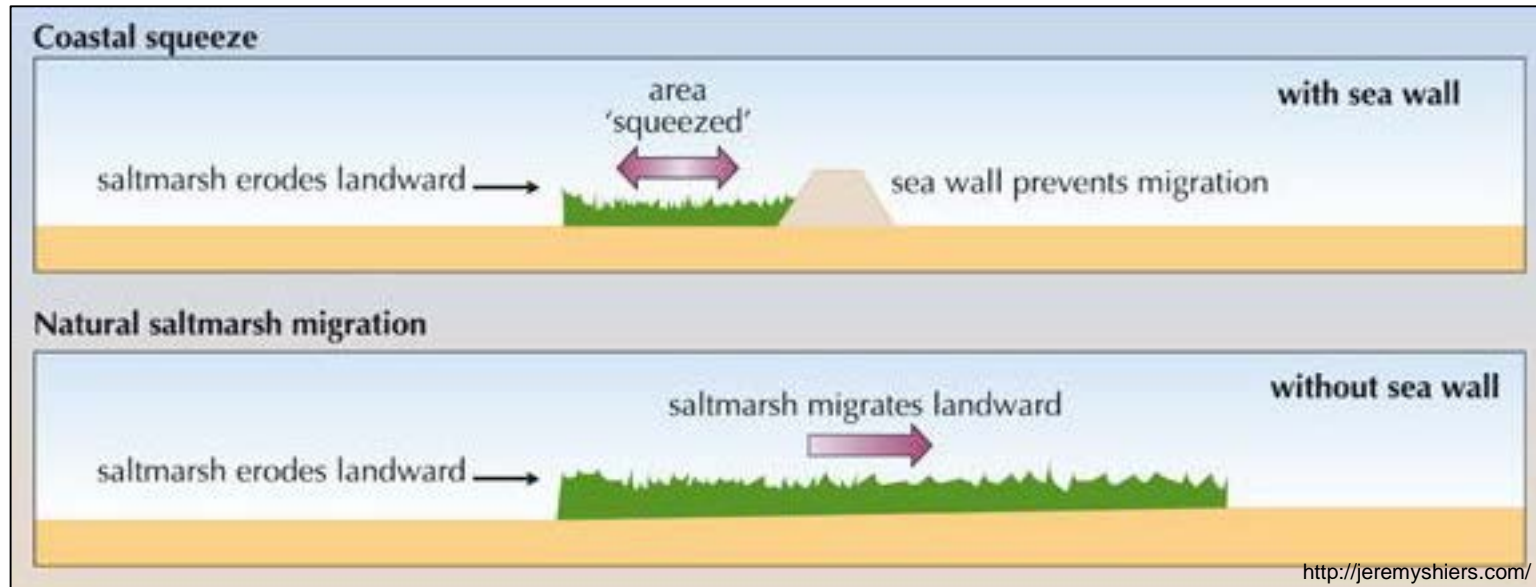
nwdistrict.ifas.ufl.edu



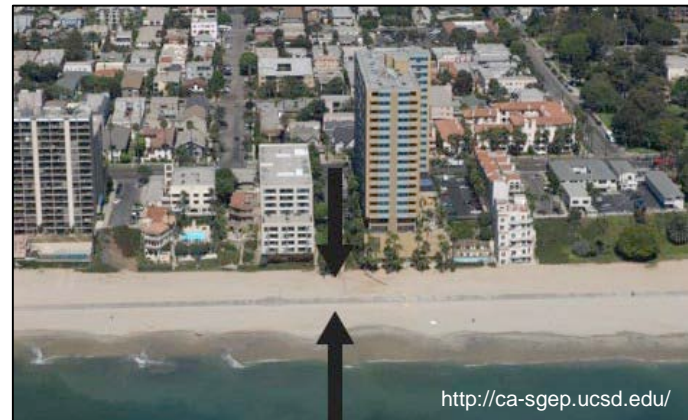
www.fondriest.com

Adaptation Strategy: Retreat

Buffer for Habitat Migration



- Reduce habitat loss
- Allow ecological communities to migrate landward



NRAAA: A Restoration Framework

- Integrate science into local government planning
- Multiple projects within a single NRAAA with shared objectives
- Expansion potential for larger-scale regional restoration and preservation along the Big Bend coast



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