



Peninsular Florida Landscape Conservation Cooperative

Priority Resources
Marine/Estuarine



Draft Priority Resources

“Sub” Resources

- Salt Marsh
- Mangrove
- Coral
- Seagrass

Selected Classification systems

- Cooperative Land Cover Map (CLC)
- Coastal & Marine Ecological Classification Standard (CMECS)

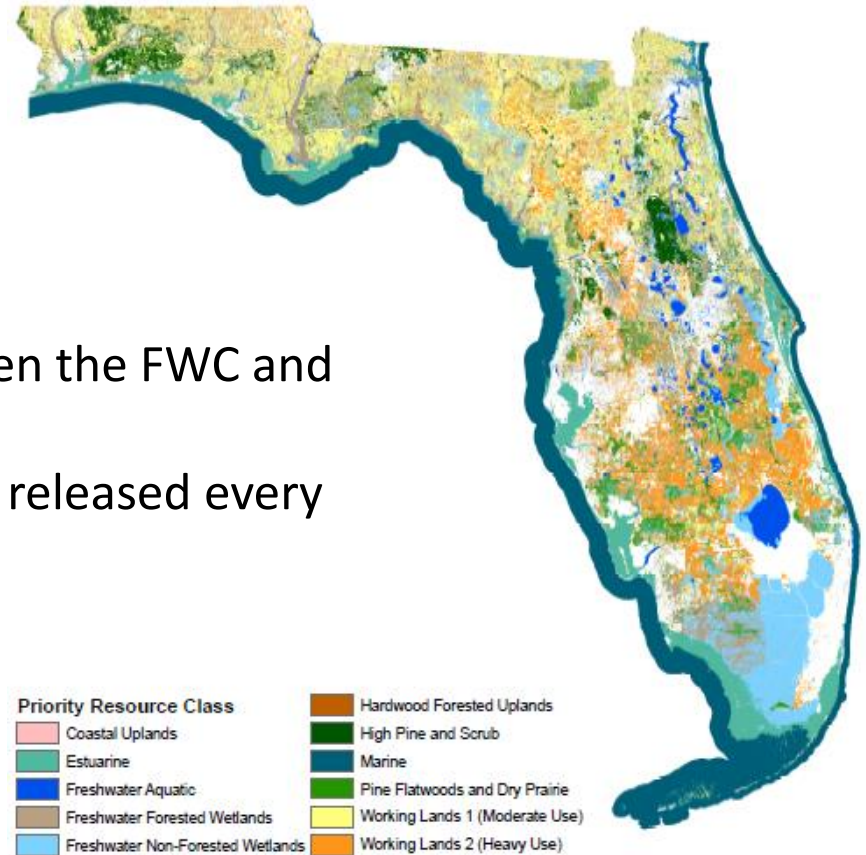
Extent

- 200m bathymetric line

Cooperative Land Cover V. 3.0+

- 10m Raster
- Vector

- Statewide Update in 2014
- Moving forward - Partnership between the FWC and FNAI to maintain/update
- Continuously updated: New versions released every 6 – 12 months





Marine/Estuarine Classification - CLC



CLC Estuarine Classifications

Estuarine (5000)

Subtidal (5100)

Intertidal (5200)

Exposed Limestone (5210 - 5212)

Tidal Flat (5220 - 5222)

Oyster Bar (5230)

Salt Marsh (5240)

Mangrove (5250 - 5252)

CLC Marine Classification

Extends only to state waters

No distinct classifications

Includes only:

Marine (6000)

Surf Zone (6100)

Mangrove – CLC Classification

5250 – Mangrove Swamp

5251 – Buttonwood Forest

5252 – Scrub Mangrove

Mangrove Swamp:

- Estuarine wetland on muck/sand or limestone substrate
- Inundated with saltwater by daily tides
- Central peninsula and Keys
- No fire
- Dominated by mangrove and mangrove associated species
- Red, black, white mangrove, buttonwood (FNAI)

Buttonwood Forest:

- Upper tidal area dominated by buttonwood
- Often transitional to rockland hammock (FNAI)

Scrub Mangrove:

- Areas sparsely vegetated with small, stunted mangroves. Found in extreme south Florida only. (FWC)

CMECS Classification System

Estuarine System:

- Tidally influenced waters
- Open-surface connection to the sea
- Regularly diluted by freshwater runoff from land
- Have some degree of land enclosure

Subsystem: Estuarine Coastal

Zones: Estuarine Coastal Subtidal, Estuarine Coastal Intertidal, Estuarine Coastal Supratidal

Subsystem: Estuarine Open Water

Zone: Estuarine Open Water Subtidal

Subsystem: *Estuarine Tidal Riverine Coastal*

Zones: Estuarine Tidal Riverine Coastal Subtidal, Estuarine Tidal Riverine Coastal Intertidal

Subsystem: Estuarine Tidal Riverine Open Water

Zone: Estuarine Tidal Riverine Open Water Subtidal

CMECS Classification System

Marine System

- 35 ppt
- All non-estuarine waters
- Coastal indentations/bays with little freshwater input
- River plumes that discharge into marine waters (e.g., Mississippi River plume, Chesapeake Bay plume)

Subsystem: Marine Nearshore (→ 30m depth contour)

Zones: Marine Nearshore Subtidal, Marine Nearshore Intertidal,
Marine Nearshore Supratidal

Subsystem: Marine Offshore (30m → continental shelf break, 100-200m)

Zone: Marine Offshore Subtidal

Subsystem: Marine Oceanic (continental shelf break → deep ocean)

Zone: Marine Oceanic Subtidal

Aquatic Setting

Biogeographic Setting

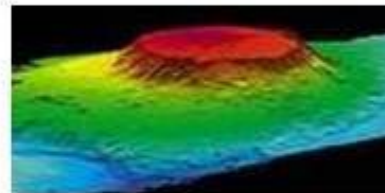
Components

**Water Column
Component
(WC)**



Structure and features of water column

**Geoform
Component
(GC)**



Geomorphic and structural character of coast or seafloor

**Substrate
Component
(SC)**



Character and composition of surface and near-surface substrates

**Biotic
Component
(BC)**



Assemblages of benthic and suspended/floating organisms

Mangrove – Biotic Component

Biotic Setting: Benthic/Attached Biota

Biotic Class: Scrub-Shrub Wetland

Biotic Subclass: Tidal Scrub-Shrub Wetland

Biotic Group: Tidal Mangrove Shrubland

Biotic Class: Forested Wetland

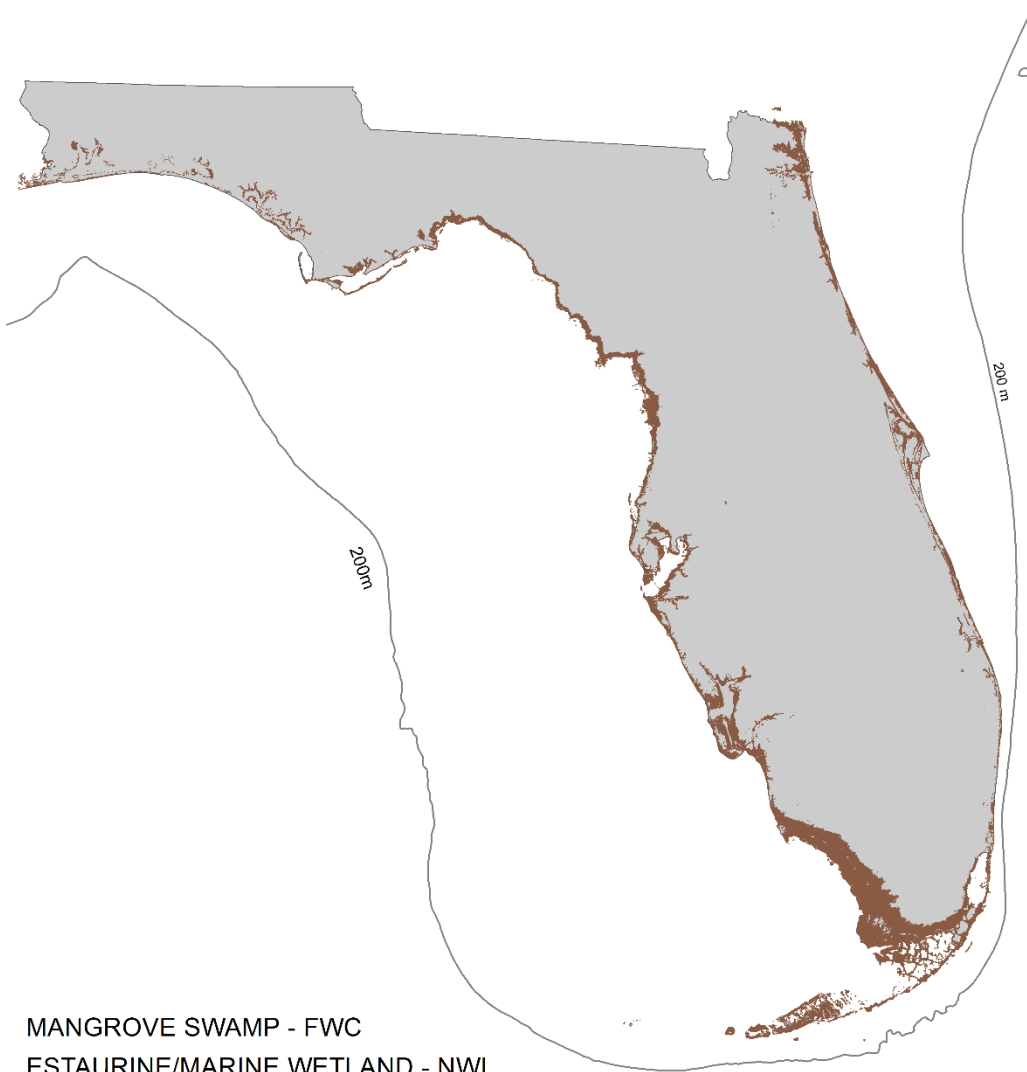
Biotic Subclass: Tidal Forest/Woodland

Biotic Group: Tidal Mangrove Forest



Biotic Setting	Biotic Class	Biotic Subclass	Biotic Group	Biotic Community
Benthic/Attached Biota	Scrub-Shrub Wetland	Tidal Scrub-Shrub Wetland	Tidal Mangrove Shrubland	<i>Rhizophora mangle</i> Shrubland
				<i>Rhizophora mangle</i> - <i>Avicennia germinans</i> - <i>Laguncularia racemosa</i> / <i>Batis maritima</i> Shrubland
				<i>Rhizophora mangle</i> - <i>Avicennia germinans</i> - <i>Laguncularia racemosa</i> Shrubland
				<i>Rhizophora mangle</i> - <i>Avicennia germinans</i> Shrubland
				<i>Avicennia germinans</i> / <i>Batis maritima</i> Shrubland
				<i>Avicennia germinans</i> / <i>Sarcocornia pacifica</i> ShrublandForested
	Forested Wetland	Tidal Forest/Woodland	Tidal Mangrove Forest	<i>Avicennia germinans</i> Forest
				<i>Conocarpus erectus</i> Forest
				<i>Rhizophora mangle</i> Basin Forest
				<i>Rhizophora mangle</i> Fringe Forest
				<i>Rhizophora mangle</i> Medium Island Forest
				<i>Rhizophora mangle</i> Overwash Island Forest
				<i>Rhizophora mangle</i> Tall Fringing Forest
				<i>Rhizophora mangle</i> - (<i>Avicennia germinans</i> , <i>Laguncularia racemosa</i>) Riverine Forest
				<i>Rhizophora mangle</i> - <i>Dalbergia ecastaphyllum</i> - <i>Pavonia paludicola</i> Forest

Mangrove



MANGROVE SWAMP - FWC
ESTUARINE/MARINE WETLAND - NWI
MANGROVES - CLC V 3.2
COASTAL ESI - FWC

0 25 50 100
Miles

Sources:

- Mangrove Swamp – FWC
- Estuarine/Marine Wetland – NWI
- Mangroves – CLC V 3.2
- Coastal ESI - FWC

Potential Indicators – Mangrove

- Water quality
- Spatial coverage (acreage)
- Change of acreage over time
- Specialist birds
- Macroinvertebrates