



# Peninsular Florida Landscape Conservation Cooperative

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Priority Resources  
*Marine/Estuarine*



# Draft Priority Resources

## “Sub” Resources

- Salt Marsh
- Mangrove
- Coral
- Seagrass

## Selected Classification systems

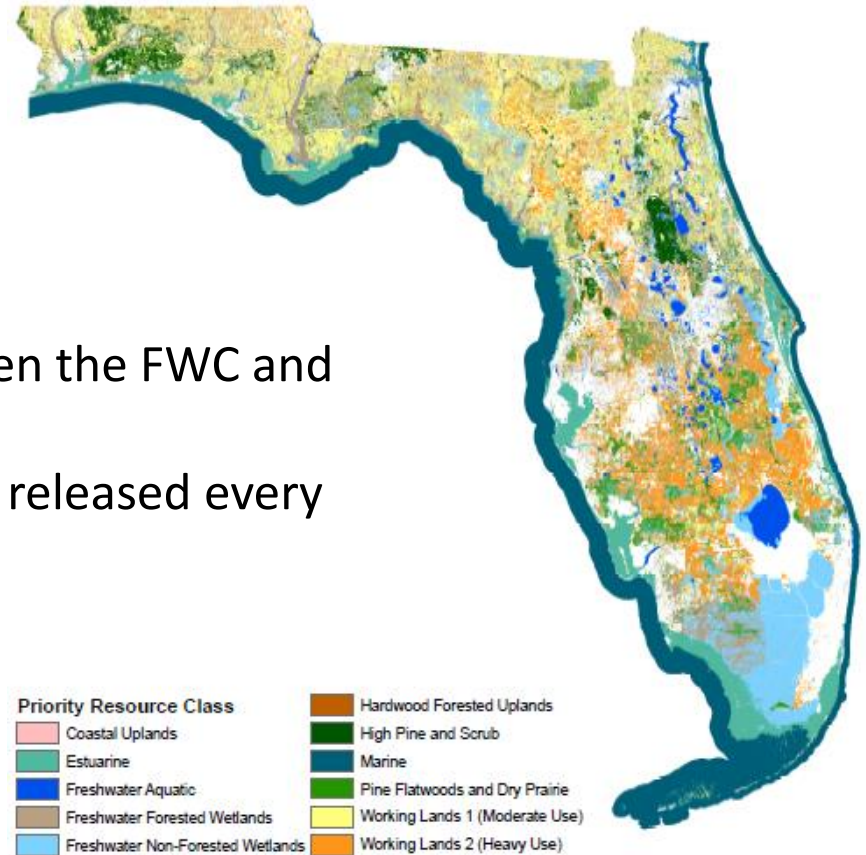
- Cooperative Land Cover Map (CLC)
- Coastal & Marine Ecological Classification Standard (CMECS)

## 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

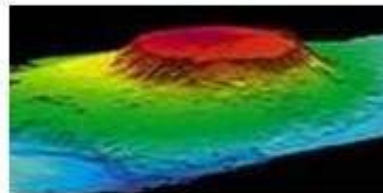
### Components

**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



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