

Governors' South Atlantic Alliance

Coastal Wetlands Monitoring Workgroup

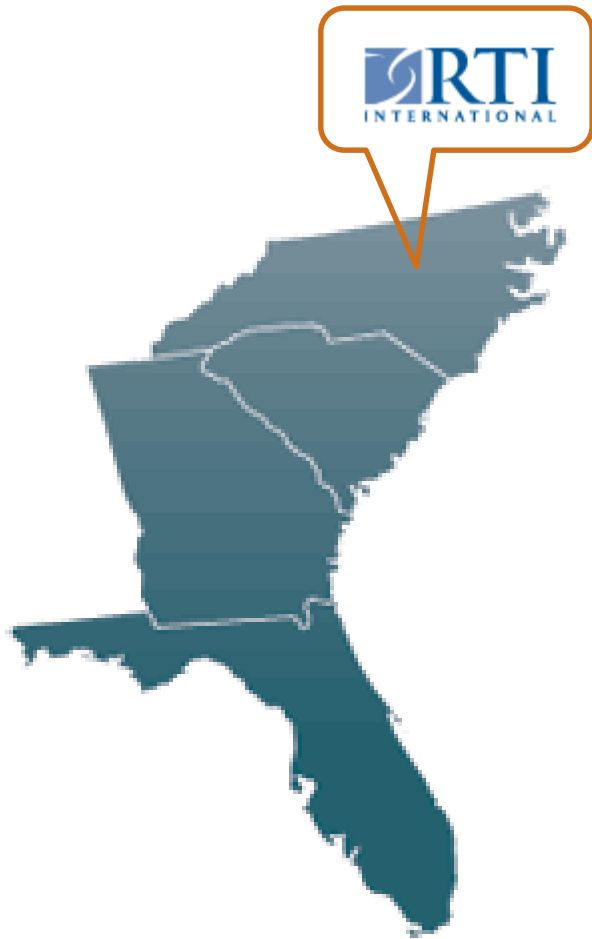
November 19, 2015



Agenda

- 1. Welcome**
- 2. Project Description and Purposes**
- 3. Members of the Workgroup**
- 4. How should “coastal wetlands” be defined?**
- 5. Catalog of Coastal Wetland monitoring data**
- 6. In-person Meeting**
- 7. Next Steps**

Introductions



- Research Triangle Park
- Independent, nonprofit research institute
- 3,700 employees working in 75 countries



Kim Matthews

*BA. Wittenberg University
MS. North Carolina State University*

- 20 years of wetland experience
- facilitates Southeast Wetlands Workgroup and NC Monitoring Workgroup



Liz Sullivan

*BA. Cornell University
MS. UNC Chapel Hill*

- 10+ years of water quality data management
- Data analysis for coastal eutrophication indicators

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Governors' South Atlantic Alliance

- Regional collaboration to sustain environmental, natural resources, economic, public safety, social and national defense missions of the South Atlantic Region
- Kristine Cherry, Regional Alliance Coordinator

GSAA has four technical teams:

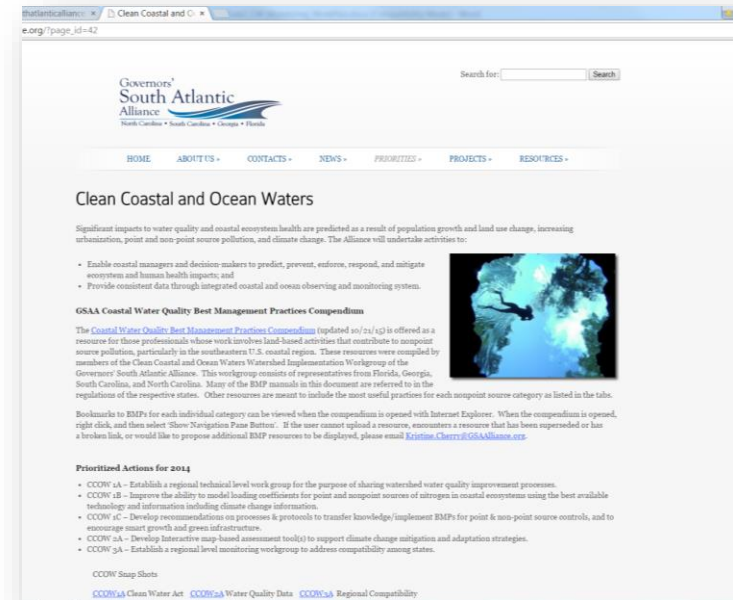
- Healthy Ecosystems
- Working Waterfronts
- Clean Coastal and Ocean Waters
- Disaster Resilient Communities

<http://southatlanticalliance.org/>



Clean Coastal and Ocean Waters

- Enable coastal managers and decision-makers to predict, prevent, enforce, respond, and mitigate ecosystem and human health impacts; and
- Provide consistent data through integrated coastal and ocean observing and monitoring system.



STATE REPRESENTATIVES

Cyndi Karoly – NC Dept. of Environment and Natural Resources

David Wilson – SC Department of Health & Environmental Control

Kelly Hill – GA Dept. of Natural Resource

Gary Raulerson (Team Lead) – FL Department of Environmental Protection

FEDERAL REPRESENTATIVES

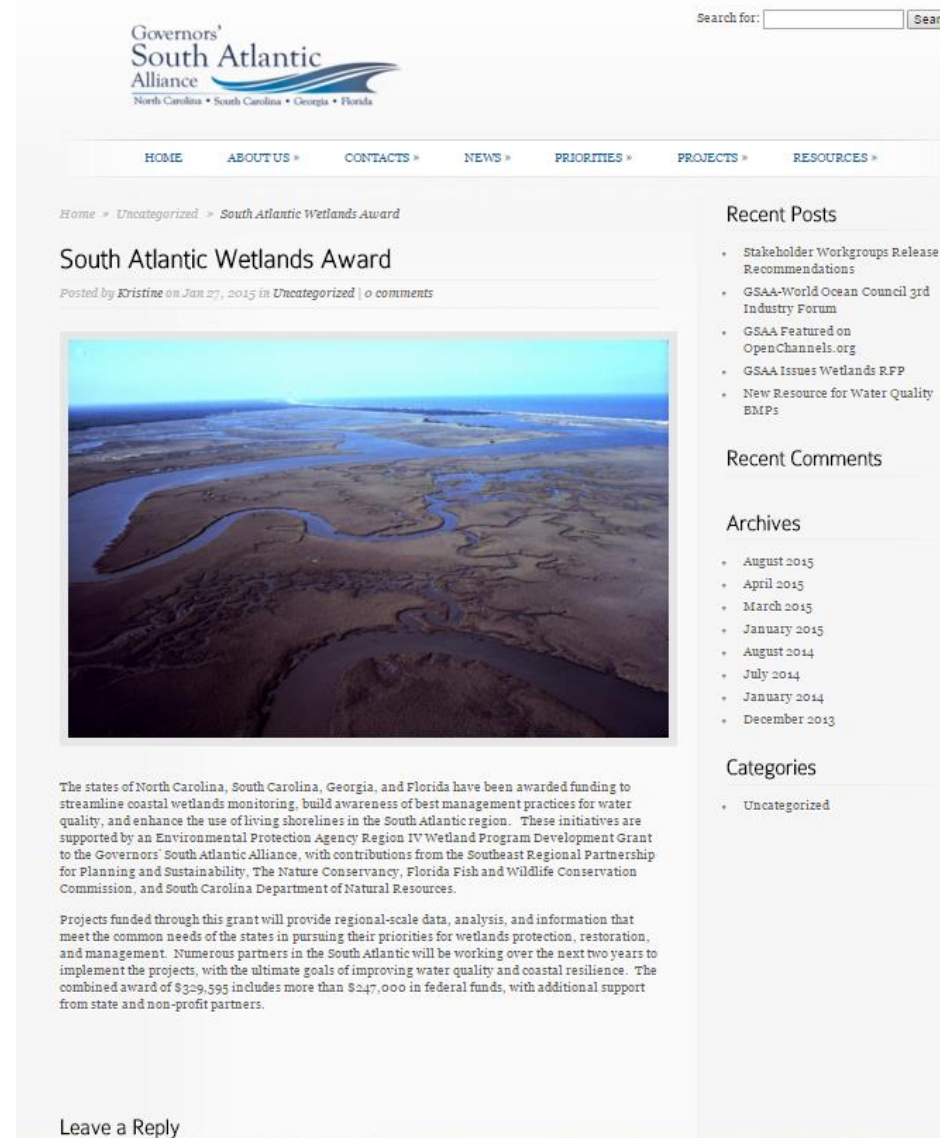
Drew Kendall – Environmental Protection Agency

C. Anna Toline – Dept. of the Interior/U.S. National Park Service

Elden Gatwood – U.S. Dept. of Defense/U.S. Army Corps of Engineers

Background

- GSAA received EPA Region 4 Wetland Program Development Grant
- Three Tasks:
 - Establish a regional monitoring workgroup focused on coastal wetlands monitoring efforts
 - Conduct outreach and training on BMPs
 - Build strategy for a regional approach to living shorelines
- All work must be completed by December 2016



Coastal Wetlands Monitoring Workgroup

Goal

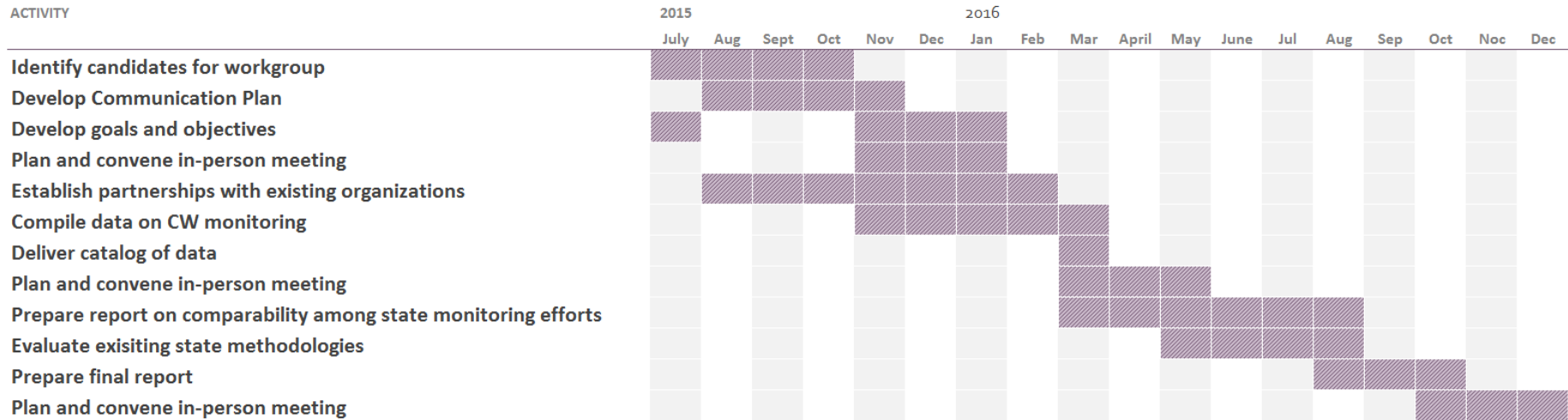
- To identify opportunities to increase comparability among state monitoring efforts



Project Tasks

1. Establish a Regional Monitoring Workgroup reflecting the expertise in the region on coastal wetlands monitoring
2. Establish partnerships to collaborate on similar projects to eliminate duplication
3. Generate a database or catalog of wetland monitoring data
4. Assess the comparability of state monitoring efforts (identify critical gaps in knowledge, techniques, or resources)
5. Identify enhancements to state methodologies and develop suggested recommendations to improve consistency of state coastal wetlands monitoring

Schedule



In-person meetings: February, May, October

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Workgroup members

- Includes collectors and users of monitoring data
- Representation from state and federal governments, universities, non-profits, and others
- 3-5 members per state
- Currently 35 members
- Workgroup Chair needed
- Never too late to join – new member are always welcome

Member commitments

- Provide timely responses to e-mails
- Participate in monthly teleconferences
- Attend/participate in at least 2 in-person meetings
- Provide information for data inventory
- Test data inventory and provide feedback
- Contribute to discussion and review documents summarizing findings



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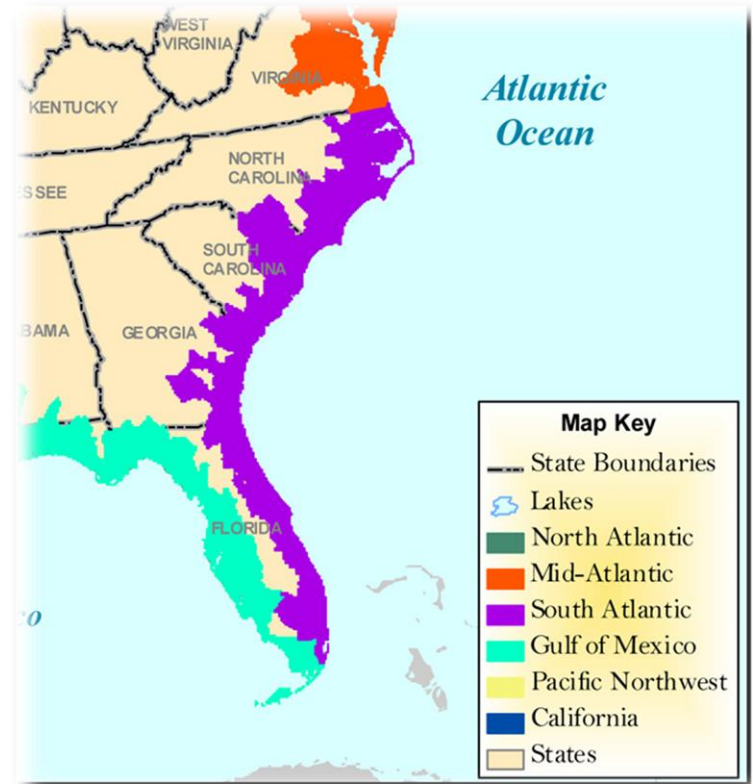
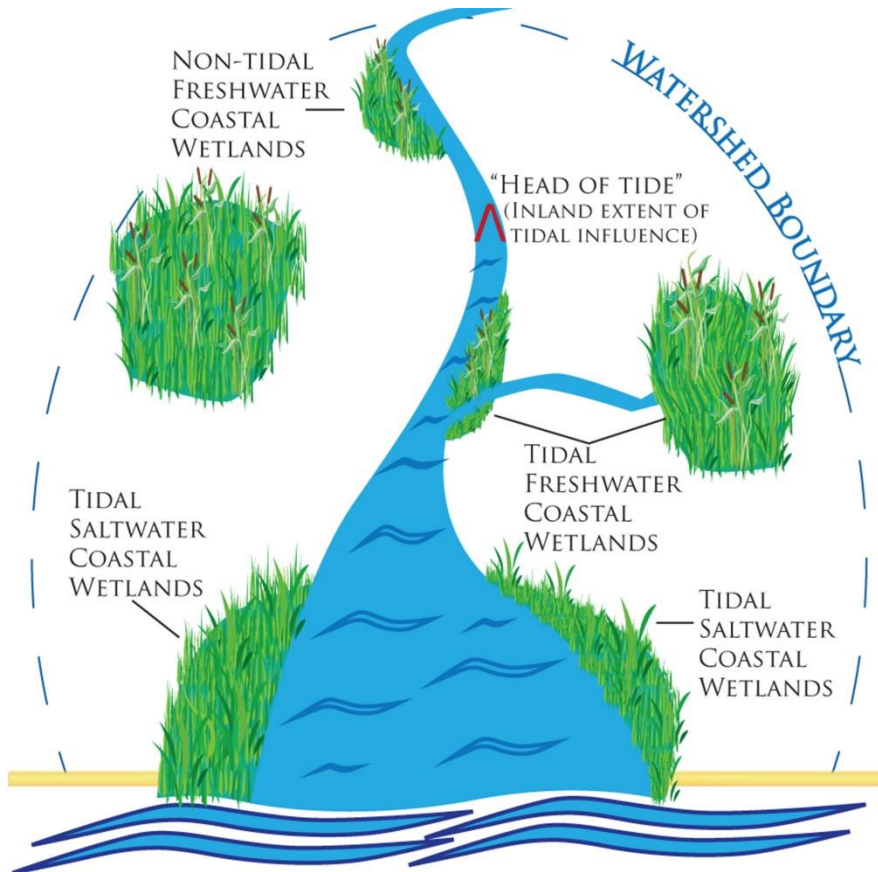
Coastal Wetlands

- Definition provides a scope for the project
 - Limits the data to be included in the data inventory
 - Limits the focus of the monitoring and assessment method
- Limit based on geography, landscape position, or wetland type
- Other considerations:
 - SAV
 - Oyster reefs
 - Impoundments
 - Mitigation sites
- Review federal and state definitions

Note: Summary of state wetland programs compiled by Association of State Wetlands Managers (ASWM) - <http://www.aswm.org/state-summaries>

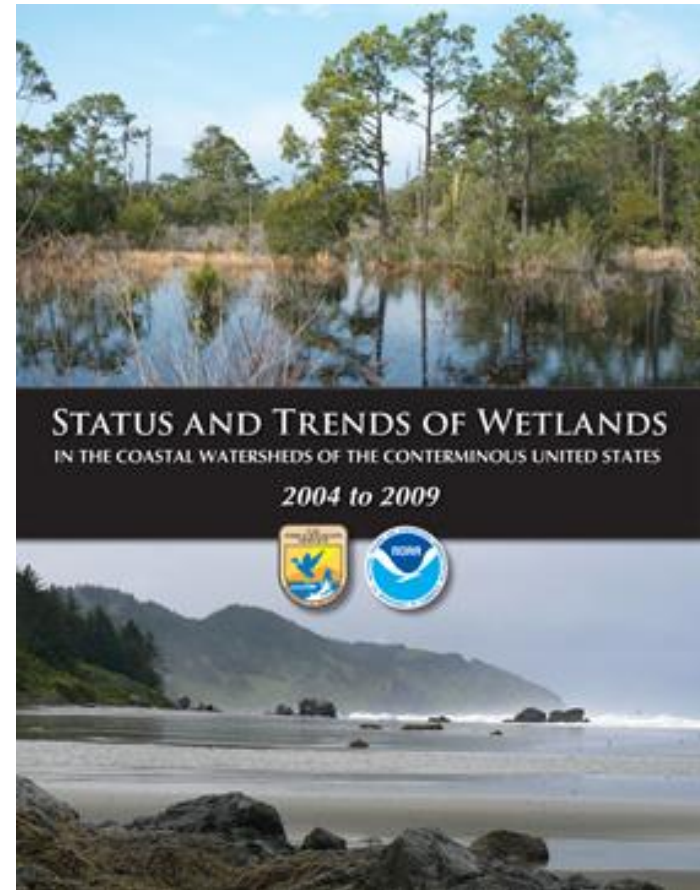
EPA – Coastal Wetlands

- Saltwater and freshwater wetlands located within USGS 8-digit hydrologic unit watersheds



NOAA's Status and Trends of Wetlands in Coastal Watersheds

- **Same as EPA**
- **Saltwater wetlands** that occur along the coastal shorelines and **freshwater wetlands** that extend inland within the coastal drainages.
- **Coastal wetlands** include:
 - Bottomland hardwood swamps
 - Fresh marshes
 - Seagrass beds
 - Mangrove swamps
 - Shrubby depressions known in the southeastern United States as "pocosins"



North Carolina

- **Definition:** Coastal Area Management Act: A coastal wetland is **any marsh subject to regular or occasional flooding by wind or lunar tides**. They generally are located adjacent to salty water, such as a sound or other brackish water body. **One of ten specific plants required to be present.**
- **State wetland monitoring program:** No
- **Monitoring and Assessment Plan:** Yes
- **Mapping:** Developed NC-CREWS that determined function of wetlands in 20 coastal counties
- **Other:** NC Wetlands Assessment Method (NCWAM)



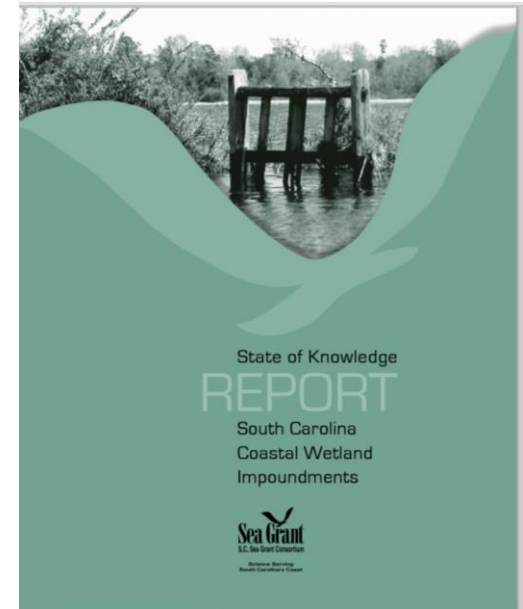
- I. Wetland affected by lunar or wind tide, may include woody areas contiguous with tidal marsh
 - A. Wetland affected, at least occasionally, by brackish or salt water
 - i. Dominated by herbaceous vegetation – **Salt/Brackish Marsh** (p. 12)
 - ii. Dominated by woody vegetation – **Estuarine Woody Wetland** (p. 15)
 - B. Wetland primarily affected by freshwater
 - i. Dominated by herbaceous vegetation – **Tidal Freshwater Marsh** (p. 17)
 - ii. Dominated by woody vegetation – **Riverine Swamp Forest** (p. 19)

- II. Wetland not affected by tides

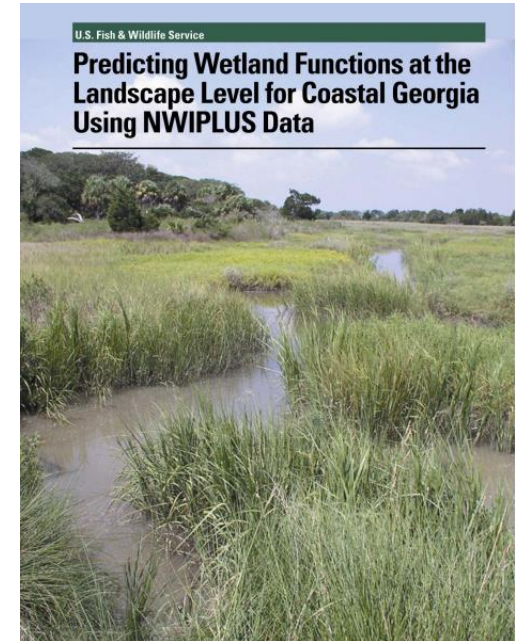
A. Not in a geomorphic floodplain or a natural topographic crepulation and not contiguous with an

South Carolina

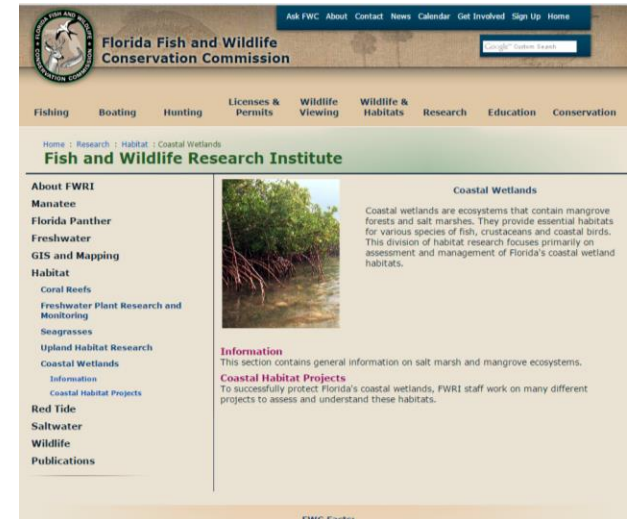
- **Definition:** SC Code, Title 48, Chapter 39, Section 10: Coastal wetlands include marshes, mudflats, and shallows and means those areas **periodically inundated by saline waters** whether or not the saline waters reach the area naturally or through artificial water courses and those areas that are **normally characterized by the prevalence of saline water vegetation** capable of growth and reproduction. Provided, however, nothing in this definition shall apply to wetland areas that are not an integral part of an estuarine system. Further, until such time as the exact geographic extent of this definition can be scientifically determined, the department shall have the authority to designate its approximate geographic extent.
- **State wetland monitoring program:** No
- **Monitoring and Assessment Plan:** No
- **Mapping:** Limited



- **Definition: Coastal Marshland Protection Act:** Coastal marshlands include “[a]ny intertidal marshland area, mud flat, tidal water bottom, or salt marsh” in the state of Georgia within the estuarine areas of the state.”
- **State wetland monitoring program:** Yes (Environmental Protection Division)
- **Monitoring and Assessment Plan:** No
- **Mapping:** NWI for six coastal counties; in development for rest of the state
- **Other:** Coastal Resources Division has completed wetland functional assessment and estuarine wetland condition assessments.



- **Definition: Fish and Wildlife Conservation Commission:** Coastal wetlands are ecosystems that contain mangrove forests and salt marshes.
- **State wetland monitoring program:** No
- **Monitoring and Assessment Plan:** Yes
- **Mapping:** Working on Florida Wetlands Integrity Dataset (FWID) that approximates the location, extent, and condition of wetlands. (Map Direct 5.0)
- **Other:** Coastal Habitats Independent Mapping and Monitoring Program (CHIMMP). This project will complete a data gap analysis for mangrove and salt marsh habitats and begin to compile all existing mapping and monitoring data sets for mangrove and salt marsh habitats within Florida.



Discussion: Definition of Coastal Wetlands

- Geographic definition
 - All wetlands within Coastal Plains ecoregion
 - All wetlands with 8-digit HUCs draining to the Atlantic Ocean (EPA and NOAA)
 - Distance from coast line
- Estuarine vs. Freshwater
- Wetland Type
 - Cowardin
 - HGM
- Should project include:
 - SAV
 - Oyster beds/reefs
 - Impoundments
 - Mitigation sites
- Other considerations



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Data Catalog or Inventory

- Develop a catalog of stations and available monitoring data for coastal wetlands in South Atlantic states
- Create using MS Excel or Access
- Needs to have an easy-to-use interface to query data
- Accessible through GSAA Web site



Data Catalog or Inventory – Possible variables

Variable	Description
Station Name	Unique identification code for monitoring station
Type of Monitoring Station	Long term, short term, reference site
Owner Information	Agency that collected the data
Contact Person and Information	Name of individual to contact for more information
Wetland Type	Saltwater marsh, freshwater tidal marsh, etc.
Purpose of Monitoring Station	One- to two-sentence description of the station purpose
Data Types	General description of data collected such as vegetation, fauna, hydrology, water quality, biological, soils, surrounding land cover, landscape position, or stressors
Parameters Monitored	Specific list of parameters monitored such as species abundance and composition, pH, temperature, North Carolina Wetland Assessment Manual scores, etc.
Period of Record	Period that data are available for a site
Hyperlink to Data and/or Owner	Web site where the data are available and/or information about the owner

Discussion: Data Inventory

- Comments on the structure or purpose of the data inventory
- Suggestions for information to capture in the Inventory
- List sources of coastal wetlands monitoring data
 - National Wetlands Condition Assessment, EPA STORET, National Park Service, etc.



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In-Person Meeting (February)

- Goals of first in-person meeting
 - Review coastal wetlands monitoring data in South Atlantic
 - Determine the structure and format of the data catalog
 - Determine how to query and access the data catalog
 - Discuss current monitoring and assessment methods
- When: February
- Location
 - Suggestions
- Travel assistance needed

Next Steps

- Distribute definition of coastal wetlands to workgroup. Provide comments by December 12.
- Distribute template of data inventory template.
- Participate in conference call the week of December 14 to review data template and discuss logistics for in-person meeting.
- Following the December teleconference, distribute data inventory template to workgroup members and others.
- Participate in January teleconference call to summarize responses from data inventory and finalize logistics for in-person meeting
- Attend February meeting

Contact Information



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