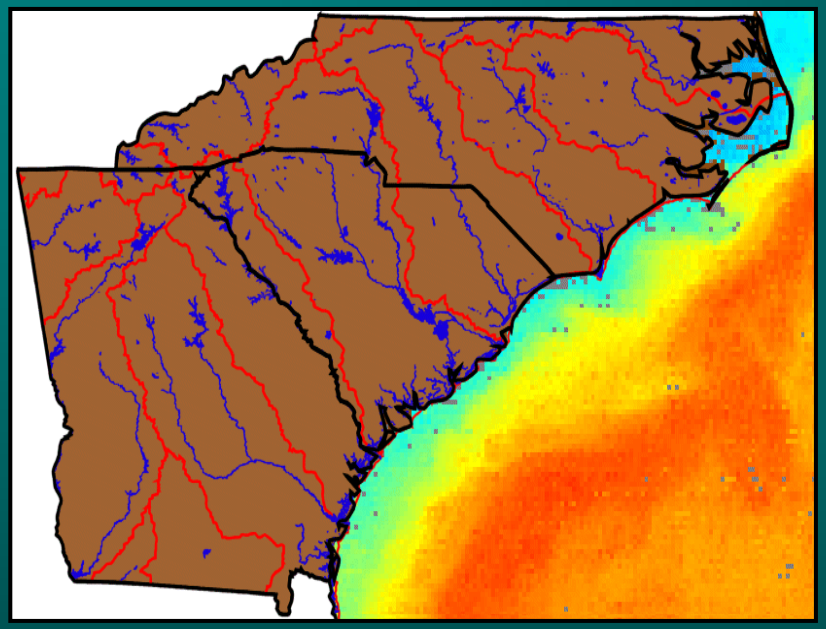
Ongoing Region-wide Efforts in the Southeastern U.S. Coastal Ocean: A Selected Review

M. Richard DeVoe
Executive Director
S.C. Sea Grant Consortium

Selected Efforts

1. SouthEast Center for Ocean Sciences Education Excellence (COSEE-SE) – NSF/NOAA
2. Marine Ecoregional Assessments – The Nature Conservancy
3. South Atlantic Regional Research Planning – Sea Grant
4. Coastal Ocean Observing – SECOORA
5. Regional Climate Extension – Sea Grant/NOAA Climate Office
6. South Atlantic Regional Alliance – States

COSEE SouthEast…
…serves NC, SC and GA



The South Atlantic Bight is our "Ocean Backyard"

National COSEE Mission

Scientists and educators working together to advance ocean discovery and make known the vital role of the ocean in our lives.

Central Gulf of Mexico COSEE/U.S. Navy

COSEE SouthEast Objectives

1. Increase interaction between ocean sciences and education communities
2. Increase access to underrepresented and underserved populations
3. Facilitate exchange and promotion of programs of excellence to the region

COSEE SouthEast
Science and Education Interactions 2003-2007

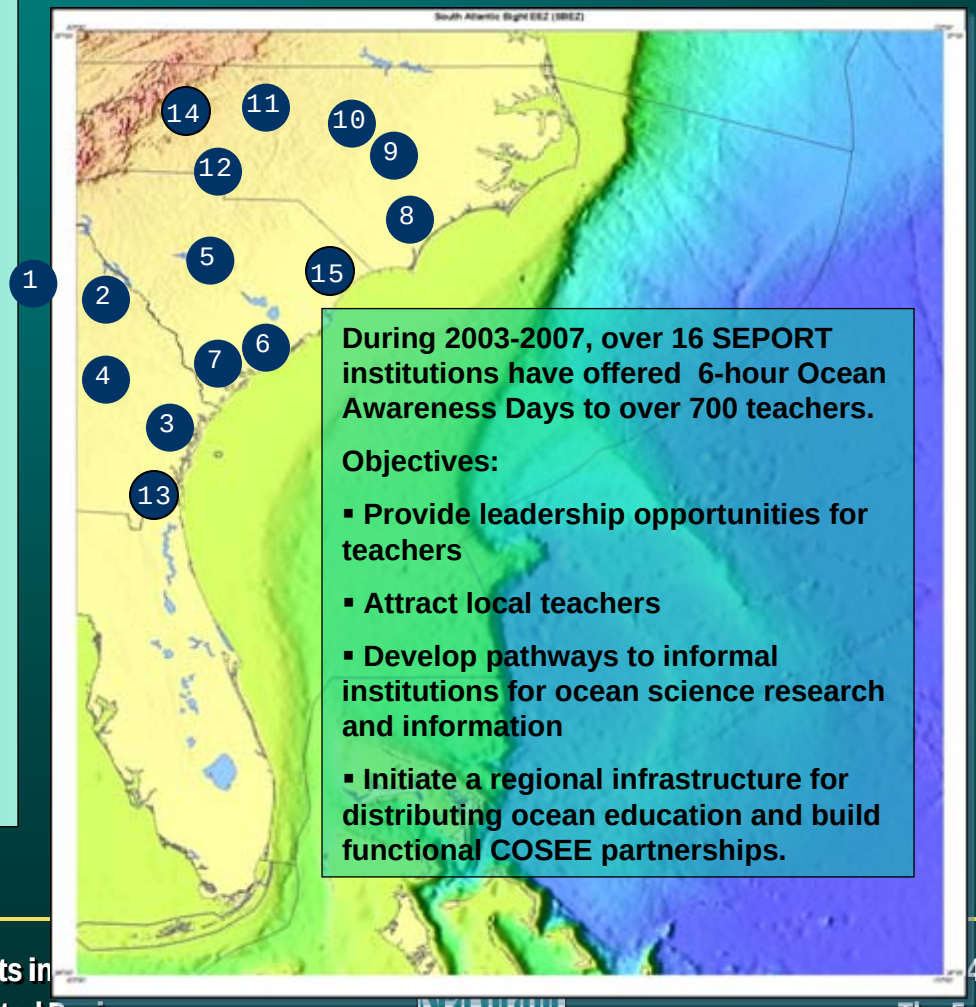
- Ocean Sciences Education Leadership Institutes
- Coastal Legacy
- SEPORTs
- Research Ship Experiences
- "Broader Impacts" outreach partnerships

SouthEast COSEE Program Highlight–SEPORT

Ocean Sciences Education Leadership Institute leads to "South East Portal to Ocean Research for Teachers"

SEPORT SITES

1. West GA University
2. Fernbank Science Center
3. MECA, Savannah
4. Aviation Museum
5. SC Museum
6. NOAA/Hollings Lab
7. ACE Basin
8. NC Aquarium/Ft. Fisher
9. East Carolina University
10. NC Museum of Natural History
11. Natural Science Center
12. Discovery Place
13. Crooked River St. Pk
14. Catawaba Sci Ctr
15. Coastal Carolina U
16. Roper Mt Sci. Center



During 2003-2007, over 16 SEPORT institutions have offered 6-hour Ocean Awareness Days to over 700 teachers.

Objectives:

- **Provide leadership opportunities for teachers**
- **Attract local teachers**
- **Develop pathways to informal institutions for ocean science research and information**
- **Initiate a regional infrastructure for distributing ocean education and build functional COSEE partnerships.**

CENTERS FOR OCEAN SCIENCES EDUCATION EXCELLENCE

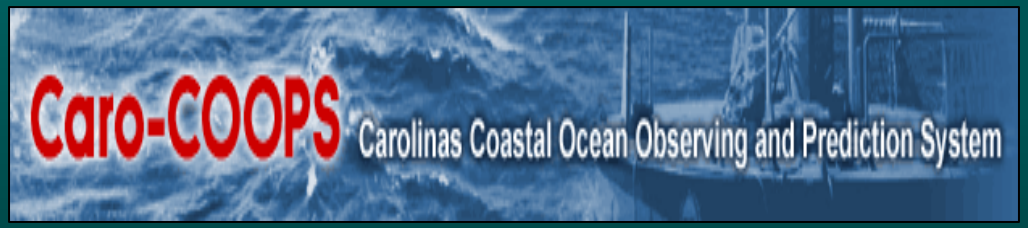
SOUTHEAST COSEE • SERVING SC NC GA

Institute Teachers Operate ROV

Institute Teachers Teach Teachers in a SEPORT

Funding Credit: NSF, NOAA and SEACOOS
Design Credit: Patty Snow, SCSGC

Coastal Ocean Observing Systems & COSEE-SE



COSEE-SE - IOOS Education

seacoos.org

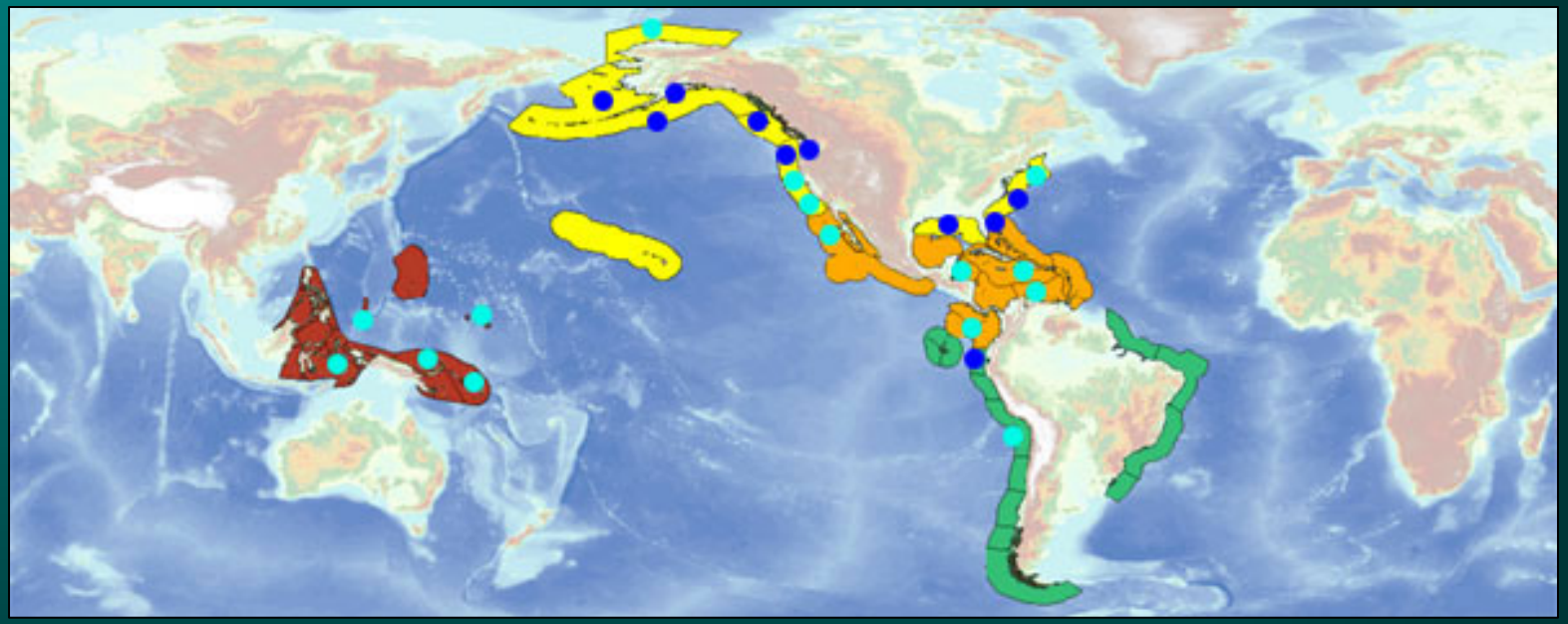
COSEE SouthEast Team

Lundie Spence, Ph.D. Director
843-953-2078; lundie.spence@scseagrant.org
Margaret Olsen, M.S. Specialist, UGA
Carrie Thomas, Ph.D. Specialist, NCSU
Elizabeth Vernon, M.S. Specialist, SC Sea Grant
Terri Hathaway, M.S. Associate, NC Sea Grant
Steve Fisher, Ph.D. Evaluator, USC

COSEE SE is administered through SC Sea Grant Consortium

The Nature Conservancy
Protecting nature. Preserving life.™

Priority Conservation Area Identification



Marine Ecoregional Assessments:
Identifying targets, analyzing threats, establishing goals, and setting priorities

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Carolinian Ecoregional Assessment

- Coastal waters of VA, NC, SC, GA, FL
- Tidal marshes to continental shelf (200 m)
- ~ 17.85 million hectares
- Contiguous with 5 other marine and terrestrial ecoregions

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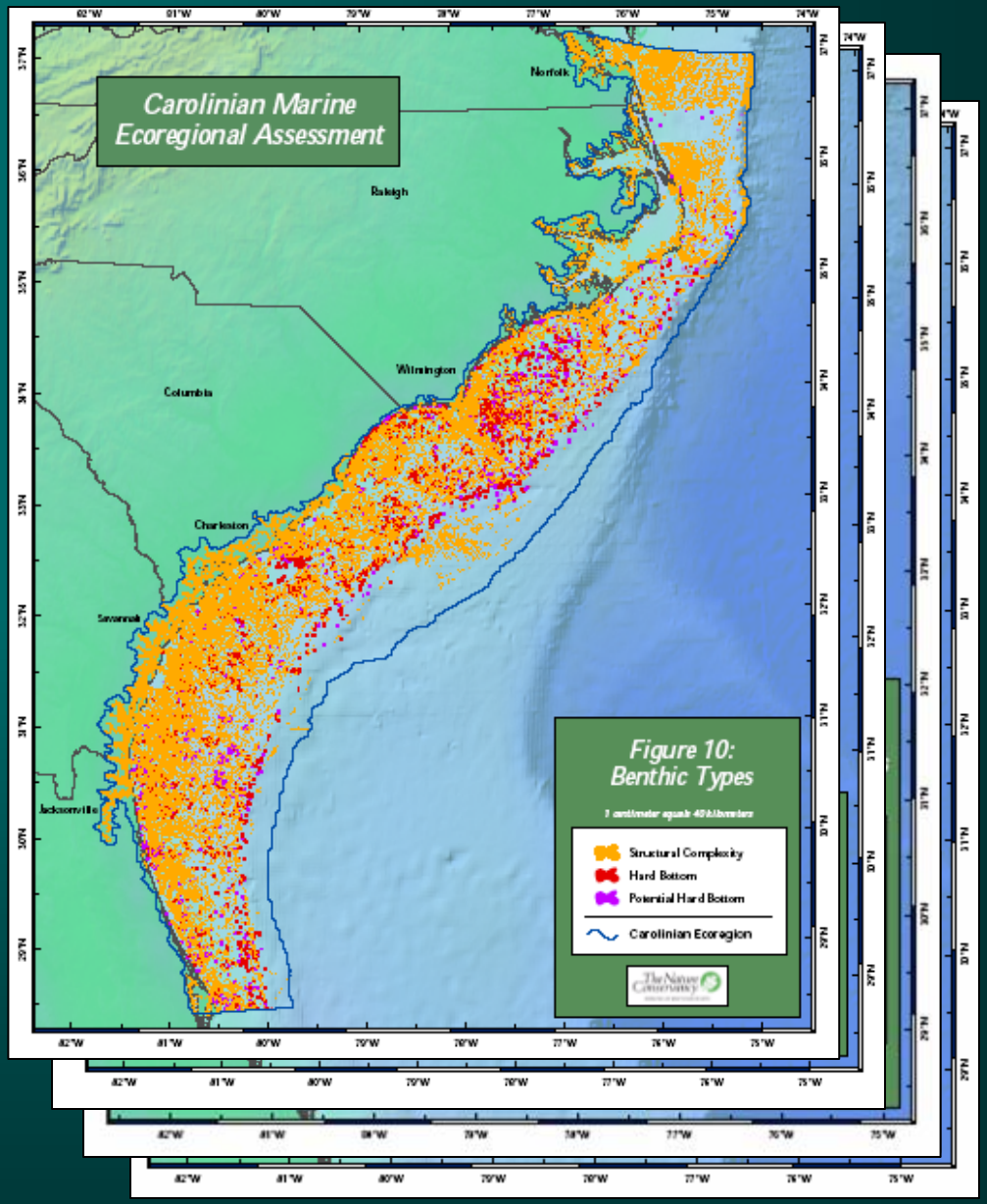
Targets

36 conservation targets:

- Salt and brackish marshes
- Oyster reefs
- Seagrasses
- Shoreline types
- Sea turtle nesting beaches
- Shorebird and water bird habitat
- Right whale calving grounds
- Short-nose sturgeon habitat
- Offshore hard-bottom areas
- Benthic habitat types



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Threats

Mapped data for 10 "cost factors" to develop a Suitability Index:

- population growth
- housing density
- road density
- major port facilities
- shipping lanes
- dredged channels
- hardened shorelines
- Superfund sites
- NPDES permits
- dredge disposal sites

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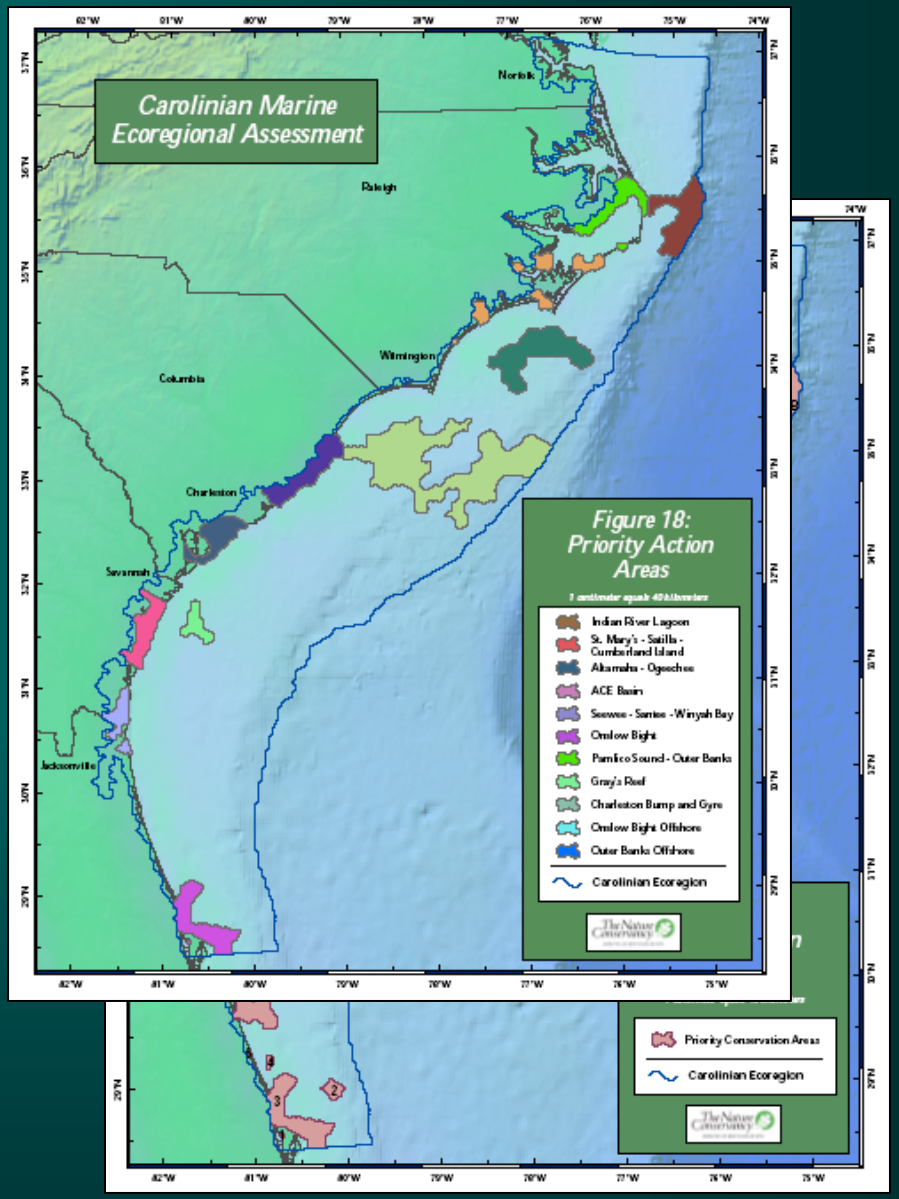
Goals and Priorities

- Models (MARXAN) used to identify conservation areas that would conserve targets.
- 41 areas, ~21 percent of the ecoregion (3.77 million hectares)
- 10 sites were identified as initial priorities
- Report can be found at: http://conserveonline.org/coldocs/2005/08/carolinian_era.pdf



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Initial Project Areas

- North Carolina Banks and Sounds
- Sewee-Santee-Winyah Estuarine Complex
- Altamaha-Ogeechee Estuarine Complex

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Conservation Planning

Each project has developed a site-specific Conservation Action Plan:

- Coordinated with with local partners
- Incorporated available science
- Evaluated targets and threats to arrive at high priority actions

Chapters are now implementing priority strategies:

- Oyster restoration
- Alternative shoreline erosion control options
- Adaptive management for sea level rise
- Prioritized land protection

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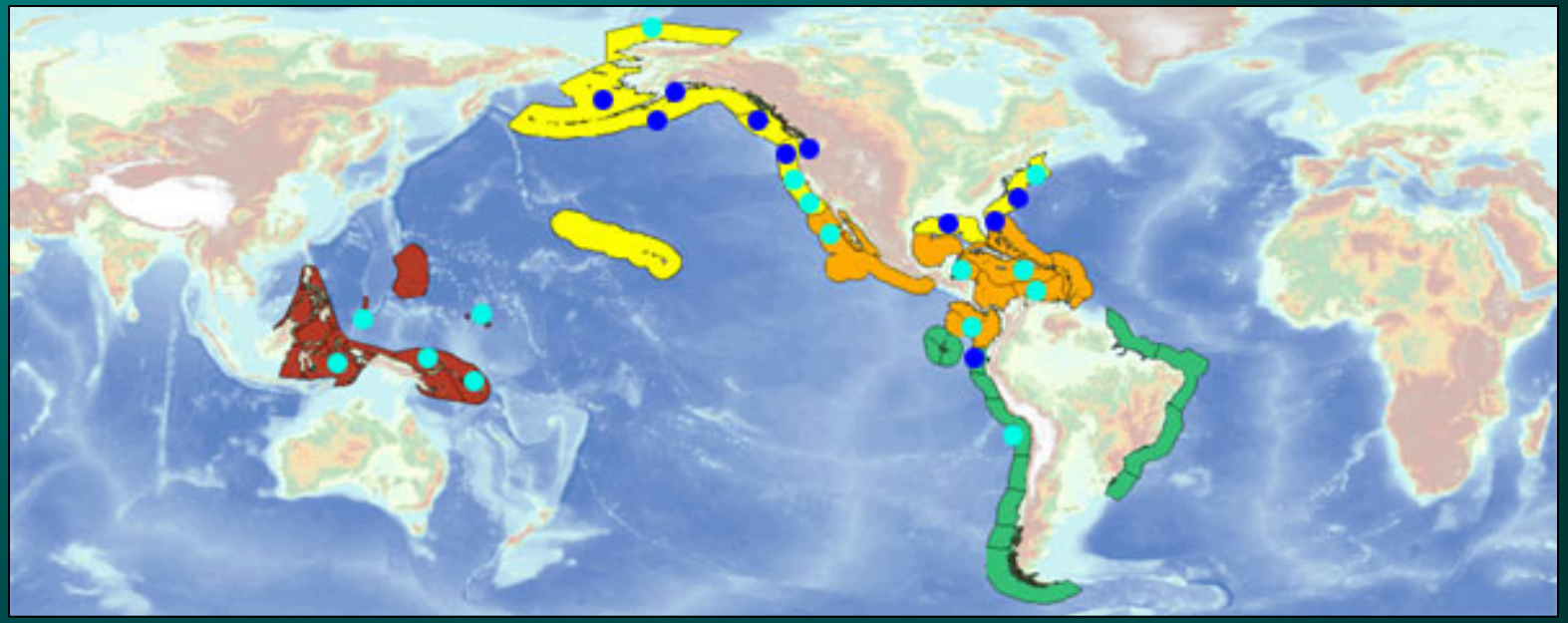
Priority Conservation Area Identification

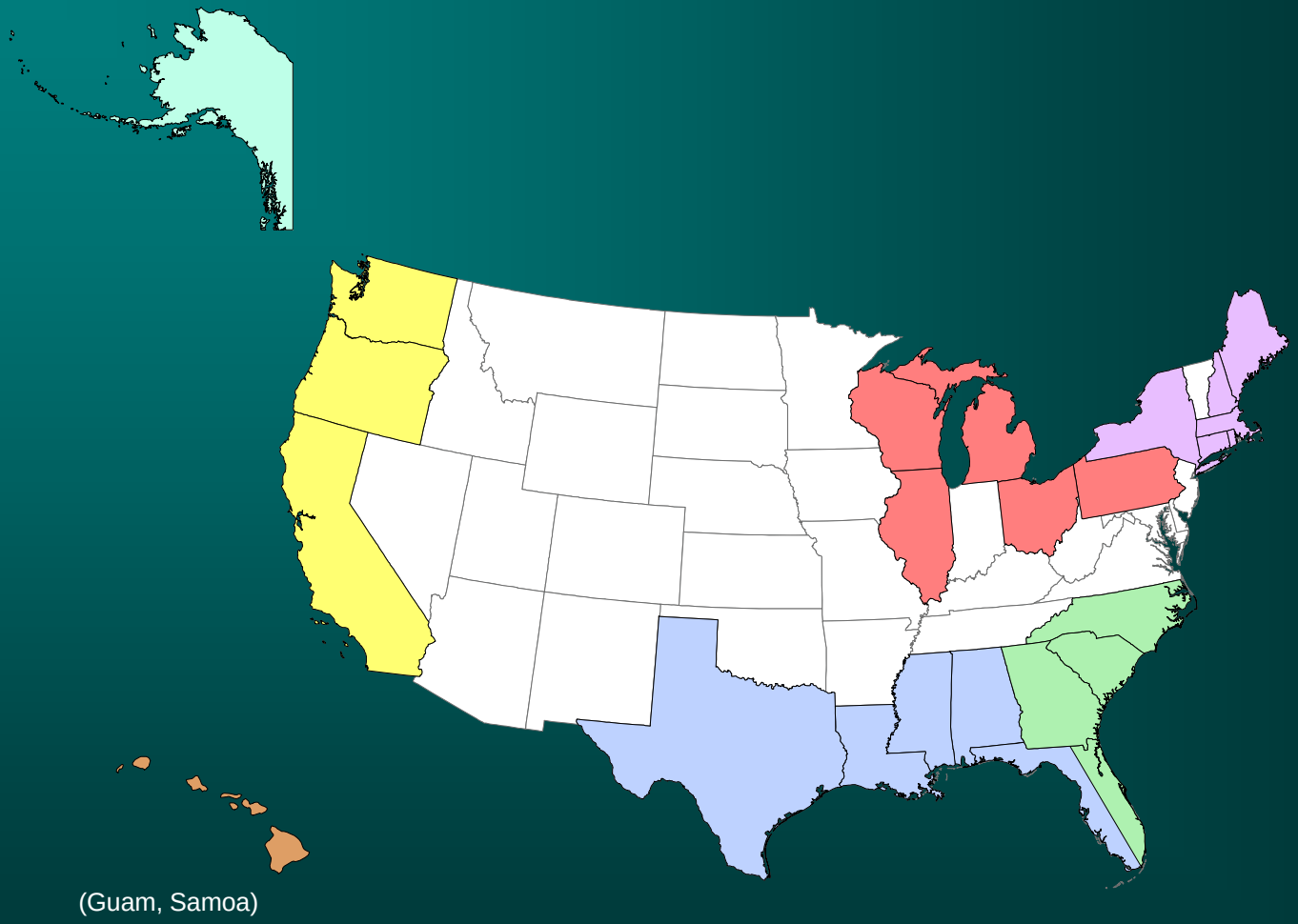


Mary Conley
Marine Conservation Coordinator (NC, SC, GA)
mconley@tnc.org
www.nature.org/initiatives/marine/

South Atlantic Regional Research Planning

The South Atlantic Regional Research Project (SARRP)

Sea Grant Planning Regions



(Guam, Samoa)

SARRP Process

Inventory existing research plans & document ***COMPLETED***

Over 160 documents examined, research needs data organized according to DPSIR (Driver-Pressure-State-Impact-Response) framework, and ORPP themes for stakeholder process.

Select priority issues ***UNDERWAY***

Regional Advisory Group input; Stakeholder Process (surveys and public meetings)

Develop action plan for Priorities selected by stakeholder process ***FALL 08***

Strategy Teams of Researchers and Management Practicioners, at SECOR-type workshop

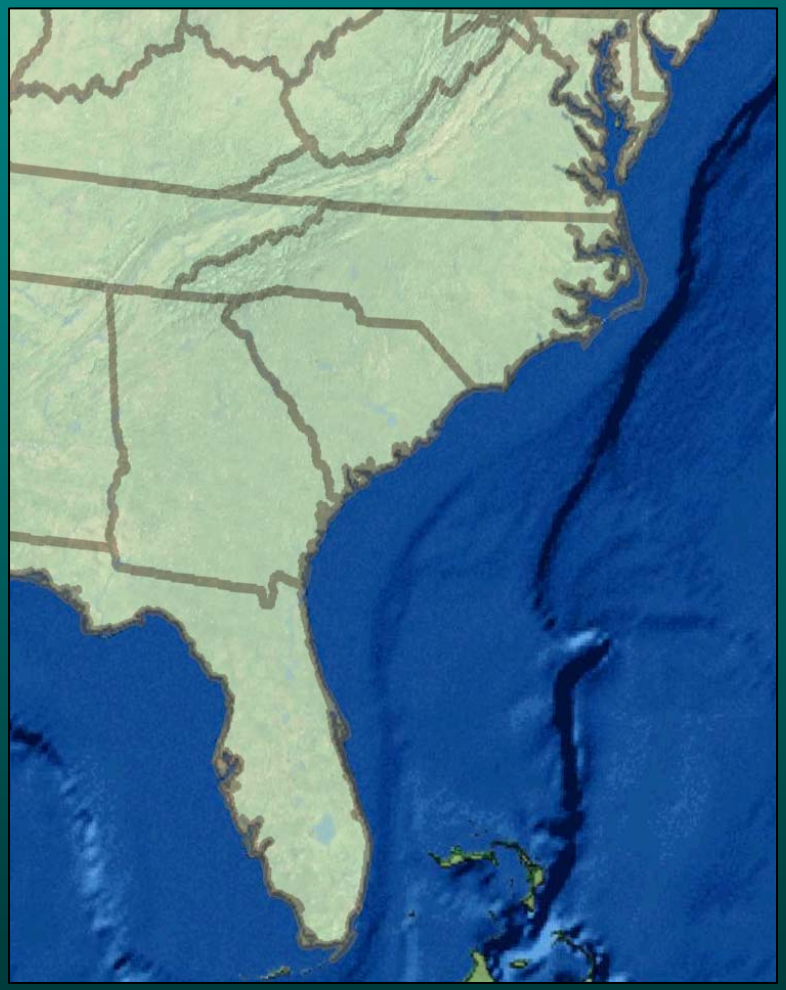
Promote coordination, collaboration and resource sharing ***ONGOING***

Entire Team

Ongoing education and outreach ***ONGOING***

Entire Team

South Atlantic Regional Research Plan (SARRP) Team



Sea Grant Directors

NC: Michael Voiland

SC: Rick DeVoe

GA: Chuck Hopkinson

FL: Karl Havens

Regional Advisory Group

Leading Natural Resource Professionals from Federal, Regional, State agencies, and Academic Institutions (25 members and alternates)

Project Team

GCRC: Merryl Alber, Christine Laporte

Sea Grant: Communication, Extension, and Education Directors

SARRP Information

South Atlantic Regional Research Project

http://www.gcrc.uga.edu/sarrp.htm

Christine Laporte - GCRC

claporte@uga.edu

706-542-1283

The SouthEast Coastal Ocean Observations Regional Association (SECOORA)

Building a Regional Association Framework for the
Coastal Ocean Observing System of the Southeastern United States

Overarching Goal – SECOORA

Develop a functional and cost-effective governance and operational mechanism to ensure that COOS activities in the southeast are:

- Integrated and well-coordinated
- Science-based
- Stakeholder-driven
- Linked to national "backbone"
- Sustainable for the foreseeable future
- Represented through the NFRA

SECOORA Planning Objectives

- Establish Policy and Program Committees and a regional SECOORA Stakeholder Council - done
- Complete business planning
- Certification and formal recognition of SECOORA as a Regional Association
- Strategies for providing user-defined products and applications
- Regional DMAC Plan (compliant with the IOOS DMAC Plan)
- Ocean Data Partnership (modeled after the GoMOOS Ocean Data Partnership Initiative) - done
- Pilot programs to integrate and enhance the efforts of existing regional and sub-regional coastal ocean observations programs

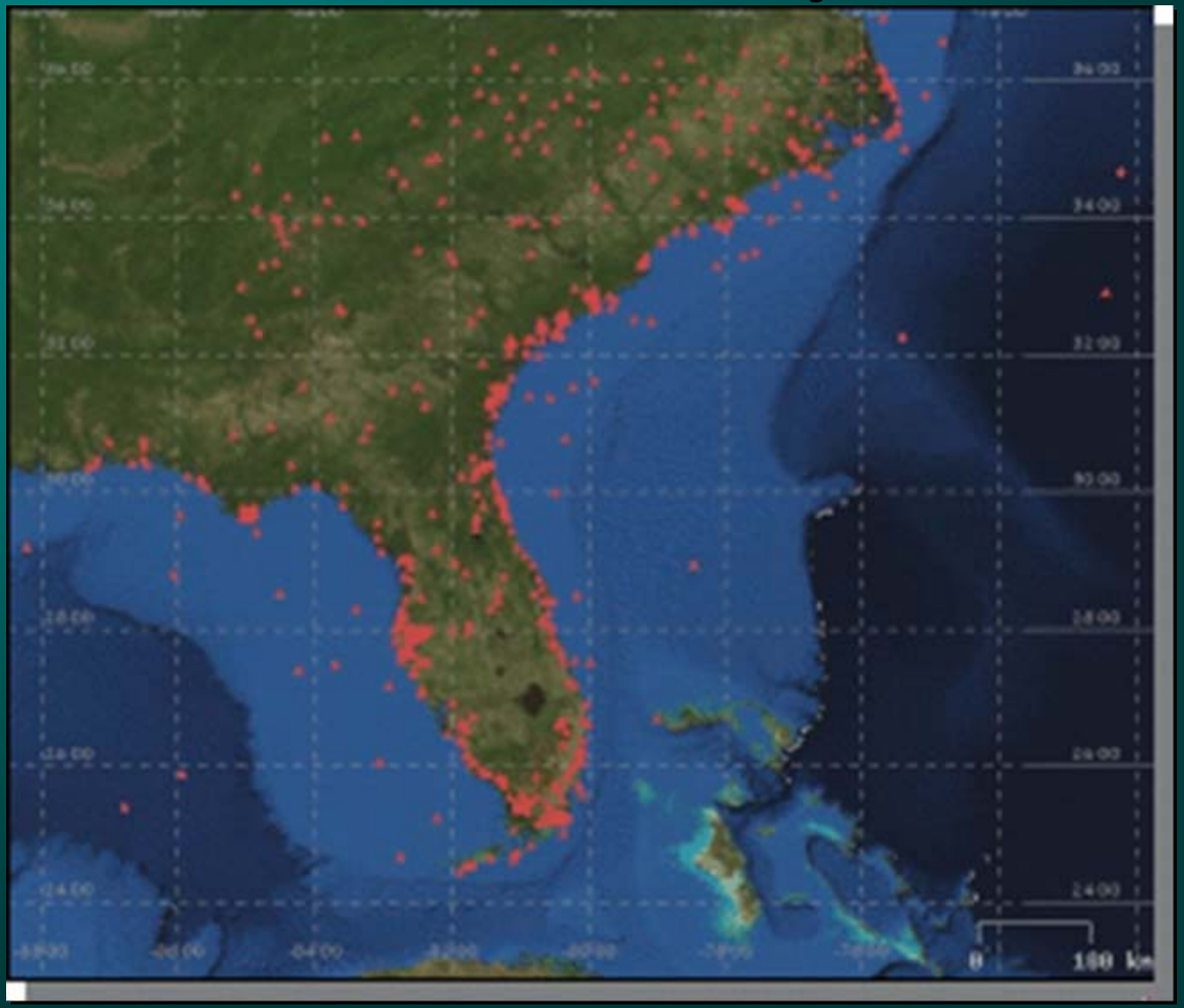
SECOORA Business Plan

- SECOORA Business Plan focuses on 3 of the 7 IOOS societal goals:
  - Facilitating safe and efficient marine operations
  - Preserving and restoring healthy marine ecosystems
  - Predicting and mitigating against coastal hazards
- These 3 IOOS goals were chosen due to:
  - Previous and current focus of regional/subregional efforts
  - Current infrastructure available to support goals
  - SECOORA's regional needs
  - Uncertainty of funding
    - (i.e., don't have funds to support all 7 IOOS goals)

RCOOS Development

- SECOORA RCOOS Design Plan
  - Initial version prepared by SEACOOS Team members
  - Incorporates existing observing activities
  - Preliminary RCOOS Design Plan developed
    - Coastal stations and offshore assets
    - HF radar
    - Satellite remote sensing
    - Profilers, gliders, and surface drifters
    - Ship transects and volunteer observing ships

Station and Variable Inventory ~546 stations



The SouthEast Coastal Ocean Observations Regional Association (SECOORA)

Capt. Parker Lumpkin (ret.)
Susannah Sheldon
843-727-6497
www.secoora.org

Carolinas Coastal Climate Outreach Initiative

Joint Program supported by the
NOAA Climate Program Office and
National Sea Grant College Program

Partners
SC Sea Grant Consortium, NC Sea Grant College Program,
Carolinas Integrated Sciences and Assessment Program
(a NOAA Climate Office RISA program), Existing providers
of climate information to the coastal Carolinas

Background

- Responding to a NSGO/NOAA Climate Office RFP - $100,000 yr./3-years
- Regional Focus in Coastal Carolinas
- Partnership Approach

Objectives - Carolinas Coastal Climate Outreach

- Develop the capacity of NC/SC Sea Grant to inform and educate coastal decision makers of the implications of climate variability and change for major coastal issues including erosion, invasive species, land use change, salt water intrusion, health of fisheries, agriculture, tourism, coastal community development, and natural hazards.

- Provide tailored, decision relevant information on the implications of climate variability and change to coastal decision makers from residents to government officials to business people.

- Increase the capacity of the Sea Grant network regionally and nationally to research and deliver outreach programs on the impacts of climate variability and change for coastal stakeholders.

- Evaluate and review increases in SG climate education and outreach capacity and approaches.

Approach

- Educate first about climate…
  - What is it?
  - What are its current impacts?
- Only then about climate change…
  - What are the implications of a changing climate?
- Avoid the politics of climate change
  - Focus on the science
  - Climate is changing…regardless of why, how, who
  - What are the implications?
  - What can we do to prepare and respond?

Audiences

- Sea Grant Extension Staff
  - NC/SC
  - Regional
  - National
- Existing SGE Audiences in…
  - E.g., seafood industry, community planners, hazard management and response officials, coastal managers, K-12 education, etc.
- Identify New SGE Audiences…..?

Climate Extension Follow-Up

- SGE follow-up Climate Extension meeting in Silver Spring with NOAA NSGO/ Climate Office staff and SG network SGE staff (October 23-26, 2007)
- Taking a leadership role in establishing and coordinating SG network
- Focusing SGE Climate Extension efforts
- In conjunction with a national workshop, "Climate Information: Responding to User Needs," bringing Observations, Data Management, Modeling, and Prediction into the Decision Process
  - Sponsored by the University of Maryland
  - In partnership with NOAA, NASA, and the American Meteorological Society

Carolinas Coastal Climate Outreach Initiative

Greg Zielinski, Ph.D.
Regional Coastal Climate Extension Specialist
c/o Coastal Carolina University
gzielins@coastal.edu

South Atlantic Alliance Overview

South Atlantic Alliance - Background

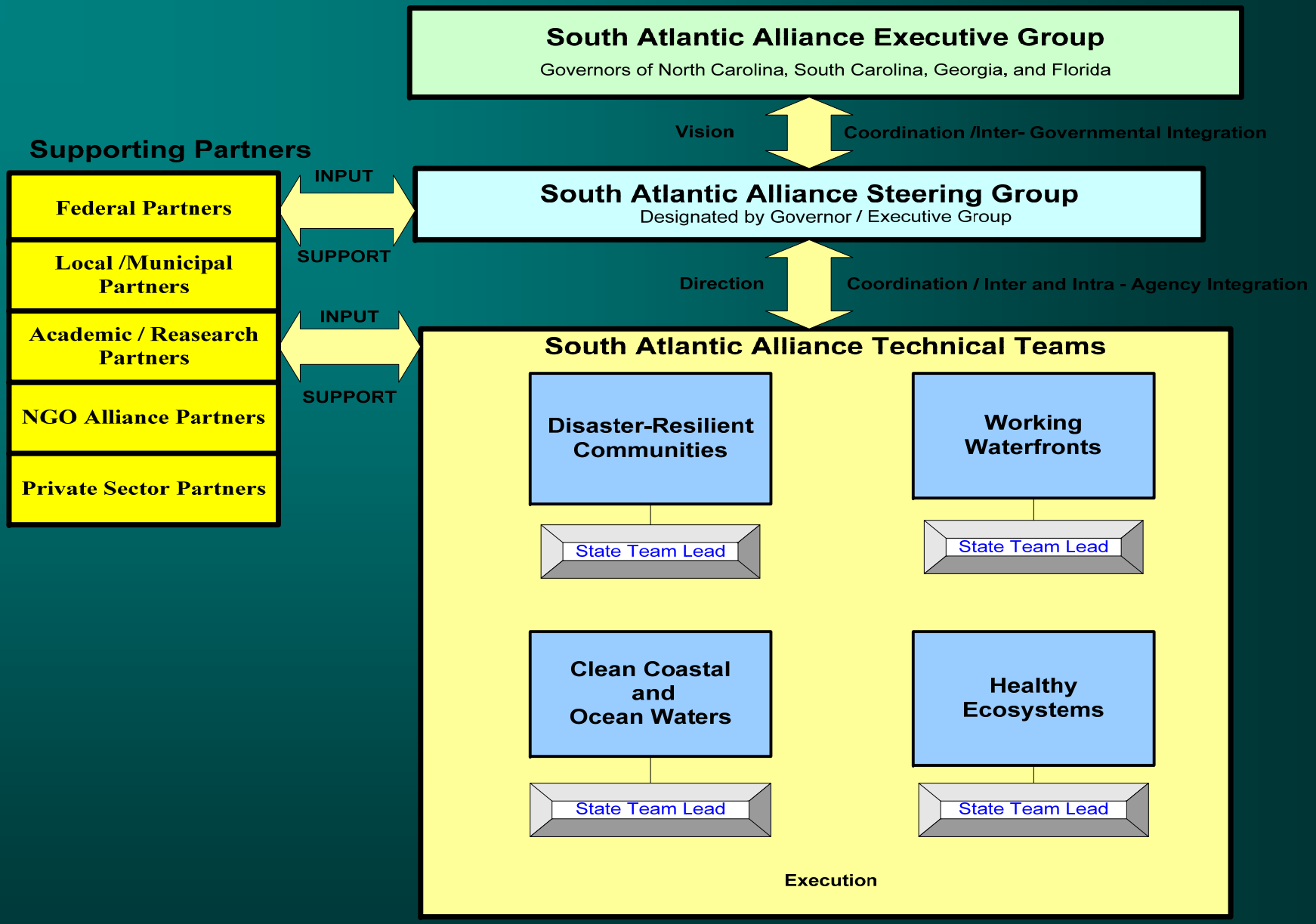
- National Reports and Plans
  - U.S. Commission on Ocean Policy
  - Pew Oceans Commission
  - U.S. Ocean Action Plan
- SAFMC EFH and FEP plans
- Coastal Conference on *Ecosystem-Based Approaches to Management in the Southeast Region* (Wilmington, NC)
- White Paper - *Regional Coastal/Ocean Resource Planning and Management In the Southeastern U.S. – A Call for Action* (Regional Sea Grant Programs/States)
- Creation of a South Atlantic Eco-Regional Compact (SAFMC)
- SERPPAS

Principles For Success

- State-led and Federally-supported
- Well-defined and focused issues
- Recognize state policy requirements
- Designed and resourced
- Complement on-going regional activities
- Link policy and science

Alliance Mission

In cooperation with existing regional arrangements, collectively find, act on, and regionally (within and across jurisdictional boundaries) implement science-based actions and policy solutions making the South Atlantic States and other regional stakeholders more efficient and effective in balancing and sustaining the coastal and marine environment (including associated inland waters), current and future ecological capacity, economic vitality, quality of life, public safety, and national security mission requirements for themselves and the region.


South Atlantic Alliance Executive Group
Governors of North Carolina, South Carolina, Georgia, and Florida
Vision
Coordination /Inter- Governmental Integration
Supporting Partners
Federal Partners
Local /Municipal Partners
Academic / Reasearch Partners
NGO Alliance Partners
Private Sector Partners
INPUT
SUPPORT
INPUT
SUPPORT
South Atlantic Alliance Steering Group
Designated by Governor / Executive Group
Direction
Coordination / Inter and Intra - Agency Integration
South Atlantic Alliance Technical Teams
Disaster-Resilient Communities
State Team Lead
Working Waterfronts
State Team Lead
Clean Coastal and Ocean Waters
State Team Lead
Healthy Ecosystems
State Team Lead
Execution

The Way Ahead

- Garner Governors' support and respective State agencies, boards, commissions, etc. (by March 08)
- Governor's endorsement with letter requesting Federal support (by March 08)
- Establish Steering Team; State representatives for Alliance identified (March - April 08)
- Public engagement process/conference on issue areas, priorities, and specific projects (April – June 08)
- Develop the South Atlantic Governors' Regional Strategic Plan (April - August 08)
- Conduct Strategic Plan signing event with the Governors (September – October 08)
- Alliance fully functioning November 2008

South Atlantic Alliance Overview

Chris Russo
NC Department of Environment and Natural Resources
chris.russo@ncmail.net

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