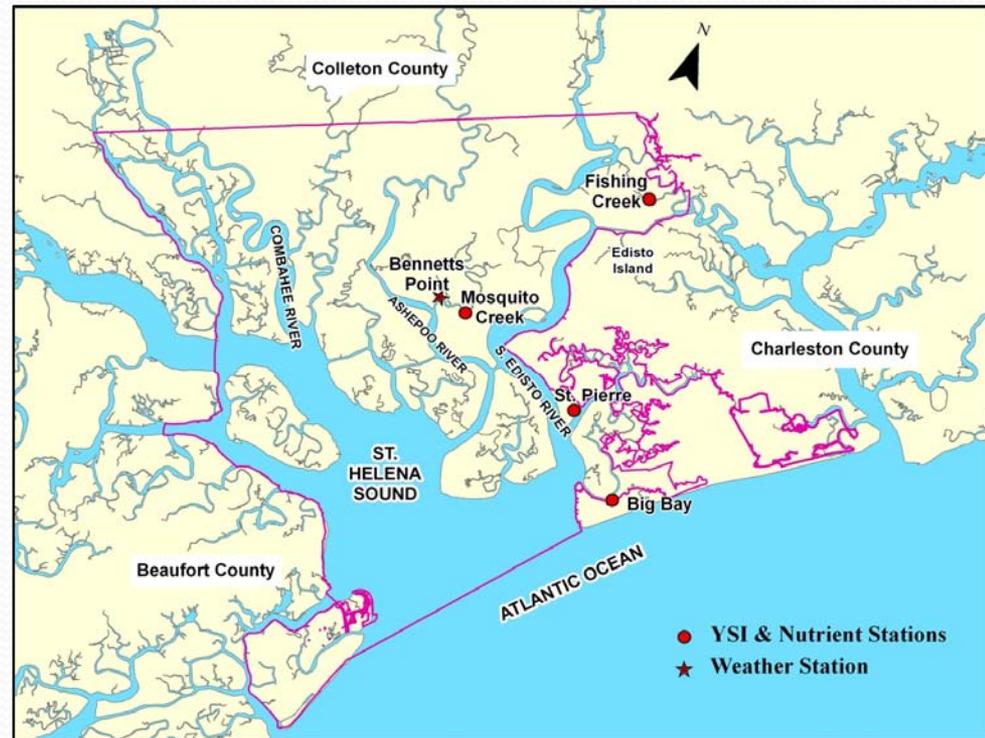




Named for the convergence of the **Ashepoo**, **Combahee** and **Edisto** rivers into St. Helena Sound.

At 99,308 acres, the reserve protects one of the largest relatively undisturbed estuaries on the East Coast.



The **ACE Basin National Estuarine Research Reserve (NERR)** was designated in 1992.



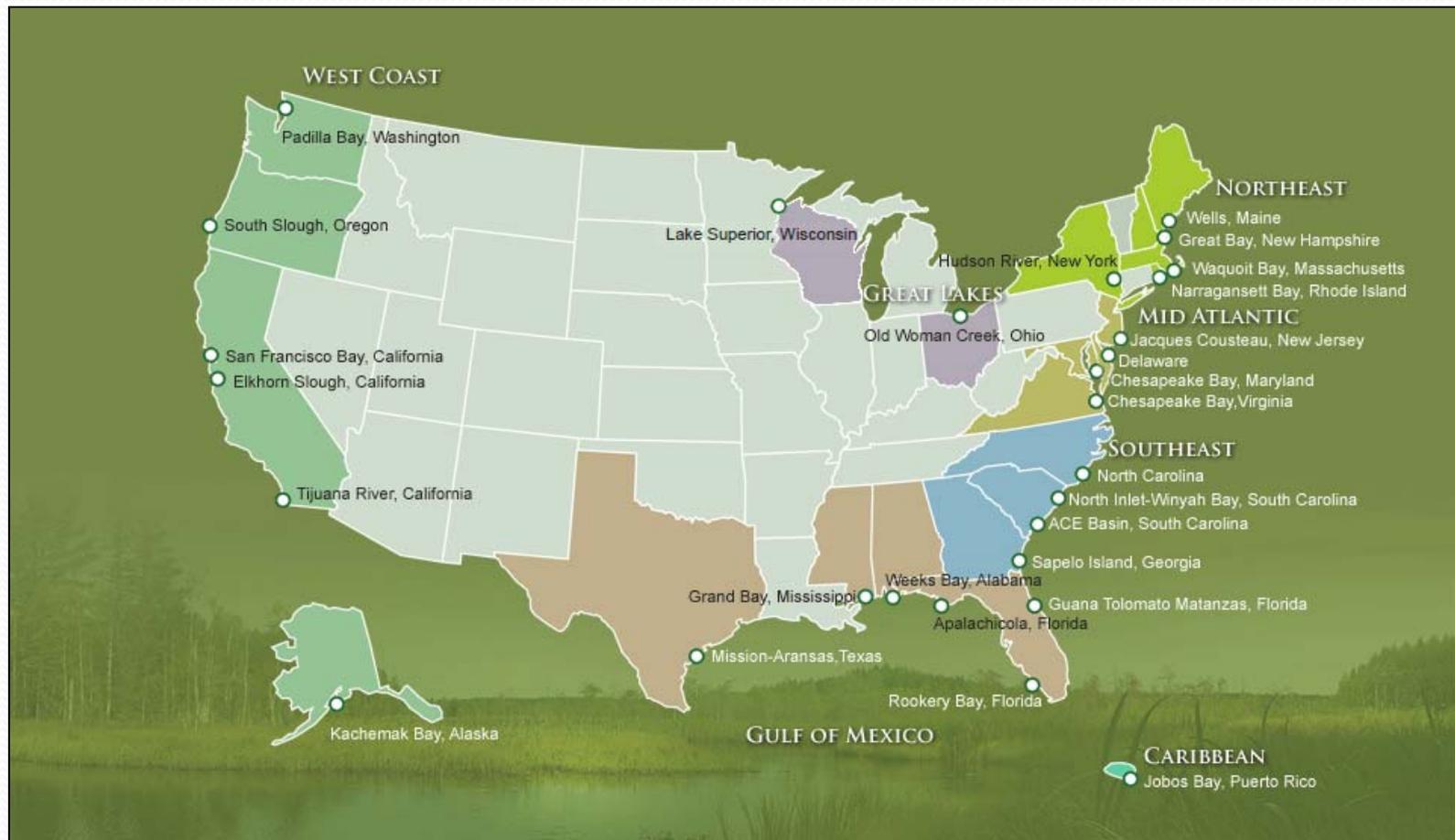
A partnership program between the **National Oceanic and Atmospheric Administration (NOAA)** and the **South Carolina Department of Natural Resources (SCDNR)**.



DNR

The National Estuarine Research Reserve System

is a network of
28 protected areas representing different biogeographic
regions of the United States.



- Reserves provide long-term water quality monitoring and support research opportunities in a "living laboratory".
- Reserve staff work with local communities and regional groups to address a variety of coastal natural resource management issues.



Research



Stewardship



K-12 Education



Coastal Training Program

ACE Basin NERR Mission:

To sustain the ecological health of estuaries entrusted to our care and provide natural areas for research, education, stewardship and compatible human uses.

Priority management issues for the ACE Basin NERR:

- Habitat Conservation
- Water Quality
- Public Access and Use of Reserve-Managed Resources
- Community Resilience



National Estuarine Research Reserve System Science Collaborative

“... puts Reserve-based **science to work for coastal communities** coping with the impacts of land use change, pollution, and habitat degradation in the context of a changing climate.”

“... brings the **intended users of science into the research process** so their perspective can inform problem definition, project implementation, and ultimately, the practical application of a project’s results to a particular problem.

Program Focus Areas:

- Impacts of land use change
- Habitat change and restoration
- Management of stormwater
- Nonpoint source pollution



The NERRS Science Collaborative requires a significant balance between Applied Research & Collaboration. Extensive collaboration between the Scientists and the Intended Users of the science.

Required Personnel:

- Project Coordinator/Fiscal Agent
- Collaboration Lead
- Applied Science lead

Four reviewers of each proposal:

- 2 Applied Science Specialists
- 2 Collaboration Specialists



Equal weight given to Science and to Intended User Collaboration!



Project Title:

“Expanding Living Shorelines within the ACE Basin NERR to Protect Habitat and to Reduce Climate Change Vulnerability through the Application of Collaborative Science-Based Habitat Restoration”

Coastal Management Problem:

“... the continued loss of shorelines through erosional processes and their exacerbated rates of loss anticipated under scenarios of future global climate change-driven sea level rise”

Strategy:

Work with local community leaders to identify areas of concern and to construct oyster reefs using the best scientific methods appropriate for those locations.

Roles and Responsibilities of the Community Leaders

- Establish criteria for selection of reef construction activities.
- Nominate and prioritize sites for reef construction.
- Assist with site evaluations.
- Through a Project Advisory Committee, assist in selection of sites.
- Support and participate in construction of selected reef sites.
- Assist in monitoring activities to evaluate success.
- Continue natural resource stewardship activities in the ACE Basin and other coastal areas.



Roles and Responsibilities of the Project Staff

- Organize and facilitate workshops, meetings, and trainings.
- Scientifically evaluate sites proposed for reef construction and recommend best construction methods for each site.
- Work with Project Advisory Committee to select sites.
- Organize logistics and direct construction of selected reef sites.
- Train and organize lay monitoring activities.
- Conduct quantitative monitoring to assess success of reefs.
- Continue engagement with community leaders to support stewardship activities in the ACE Basin and other coastal areas.





Project Staff

- **John Leffler**, ACE NERR Research Coordinator, Project Administrator
- **Blaik Keppler**, ACE NERR CTP Coordinator, Collaboration Leader
- **Peter Kingsley-Smith**, Manager-SCDNR Shellfish Research Section, Science Leader
- **Al Segars**, ACE NERR Stewardship Coordinator, Field Volunteer Coordination Leader
- **Susan Lovelace**, NOAA Environmental Social Scientist, Collaboration Facilitator
- **Michael Hodges**, Lead Biologist-SCDNR SCORE program, Reef Construction Coordinator
- **Nancy Hadley**, Manager-SCDNR Shellfish Management Section, Science Investigator
- **Kristen Schulte**, GIS Specialist-SCDNR Shellfish Sections, Science Investigator
- **Ben Stone**, Lead Biologist-SCDNR Shellfish Research Section, Science Investigator
- **Mark Rasmussen**, ACE NERR CTP Intern, Collaboration Logistical Support

Proposed Project Schedule

- **December 2012** – Community workshop establishes criteria, proposes sites
- **January 2013** – Staff and volunteers evaluate proposed sites
- **February 2013** – PAC and Staff select 2013 sites; organize volunteers
- **April & May 2013** – Construction of new oyster reefs in selected areas
- **June 2013** – Workshop to train lay monitors
- **September 2013** – Meet with PAC to review first year's work

- **November 2013** – Community workshop reviews work & identifies new sites
- **January 2014** – Staff and volunteers evaluate proposed sites
- **February 2014** – PAC and Staff select 2014 sites; organize volunteers
- **April & May 2014** – Construction of new oyster reefs in selected areas
- **June 2014** – Staff & volunteers evaluate last year's sites quantitatively; Lay monitoring continues
- **September 2014** – Meet with PAC to review and evaluate work
- **October 2014** – Community leaders' workshop to evaluate successes & discuss future collaborations