

Water Quality Education in Rural Landscapes: the Coastal South Carolina Experience

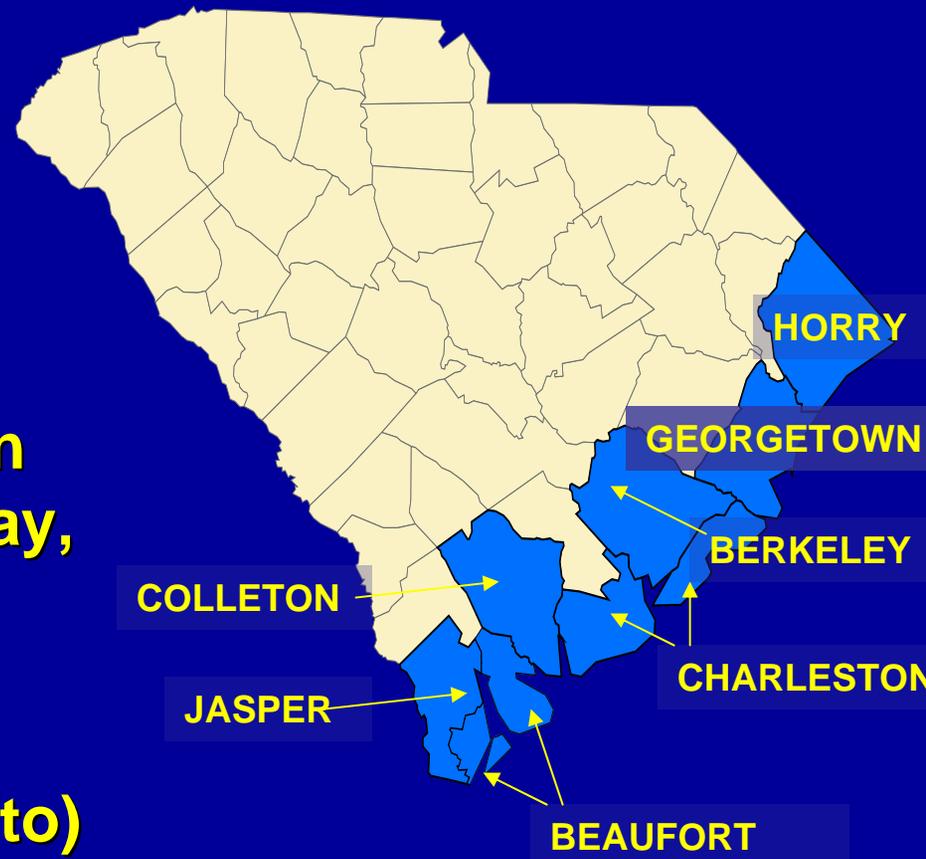


USDA CSREES Southern Region WQ Meeting
October 25, 2005
Lexington, KY



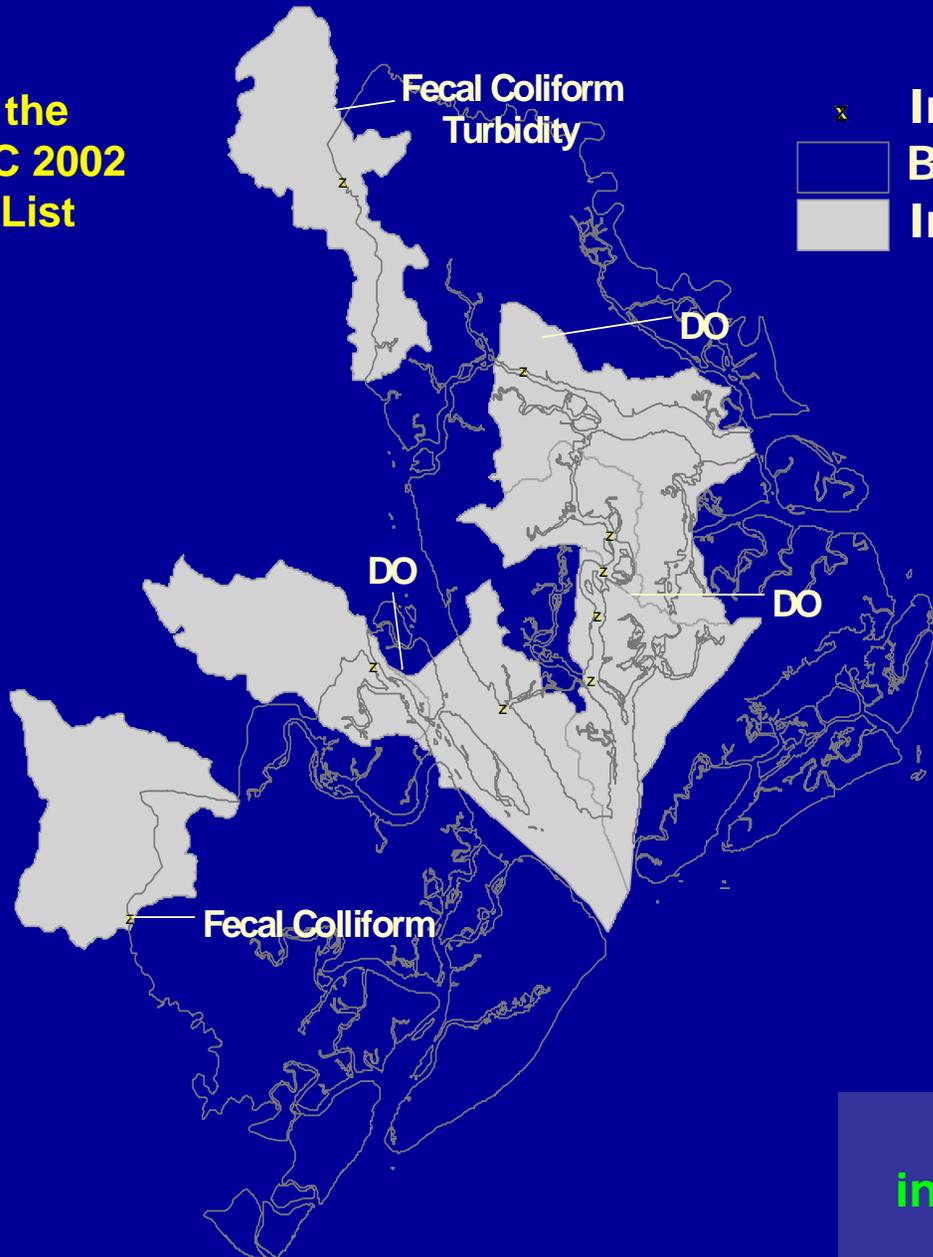
Coastal Geography and Coverage

- Eight (8) coastal counties
- North, Middle, and South regions of coastal counties
- North: Horry and Georgetown Counties (Myrtle Beach, Conway, Surfside Beach)
- Middle: BCD Counties (Charleston, Mt. Pleasant, Edisto)
- South: Beaufort, Colleton, and Jasper Counties (Beaufort, Bluffton, Hilton Head Island)



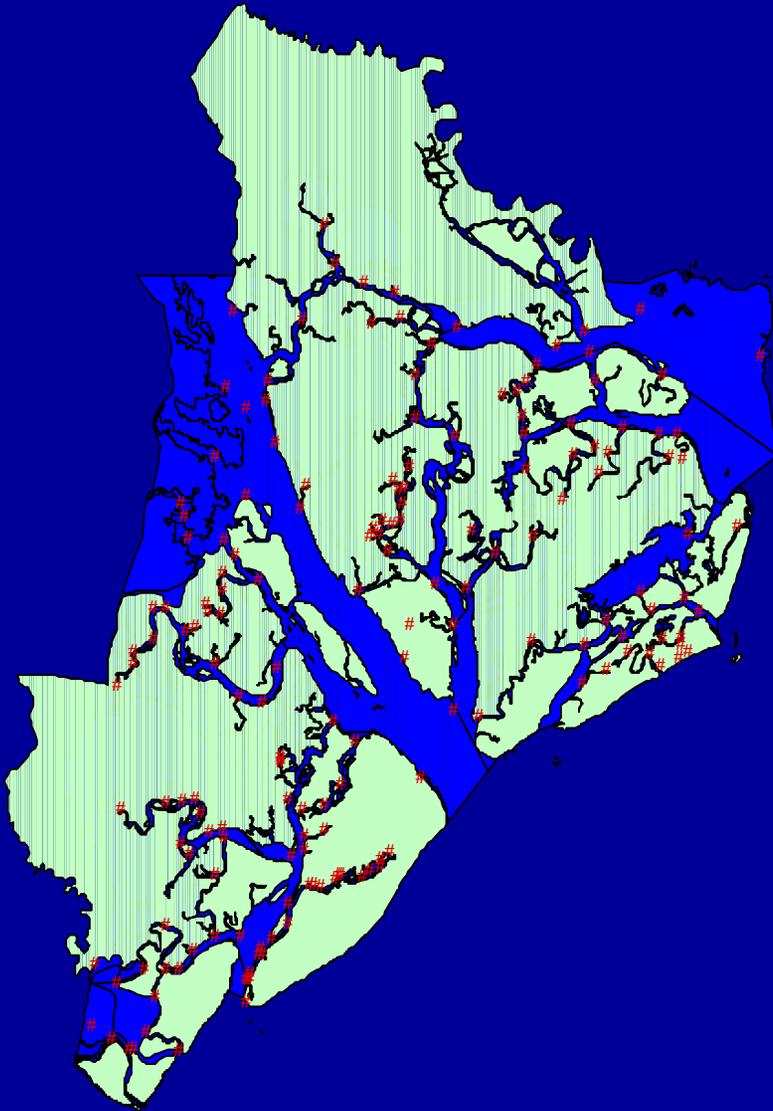
Impaired Sub-Watersheds in Beaufort County

From the
SC DHEC 2002
303d List

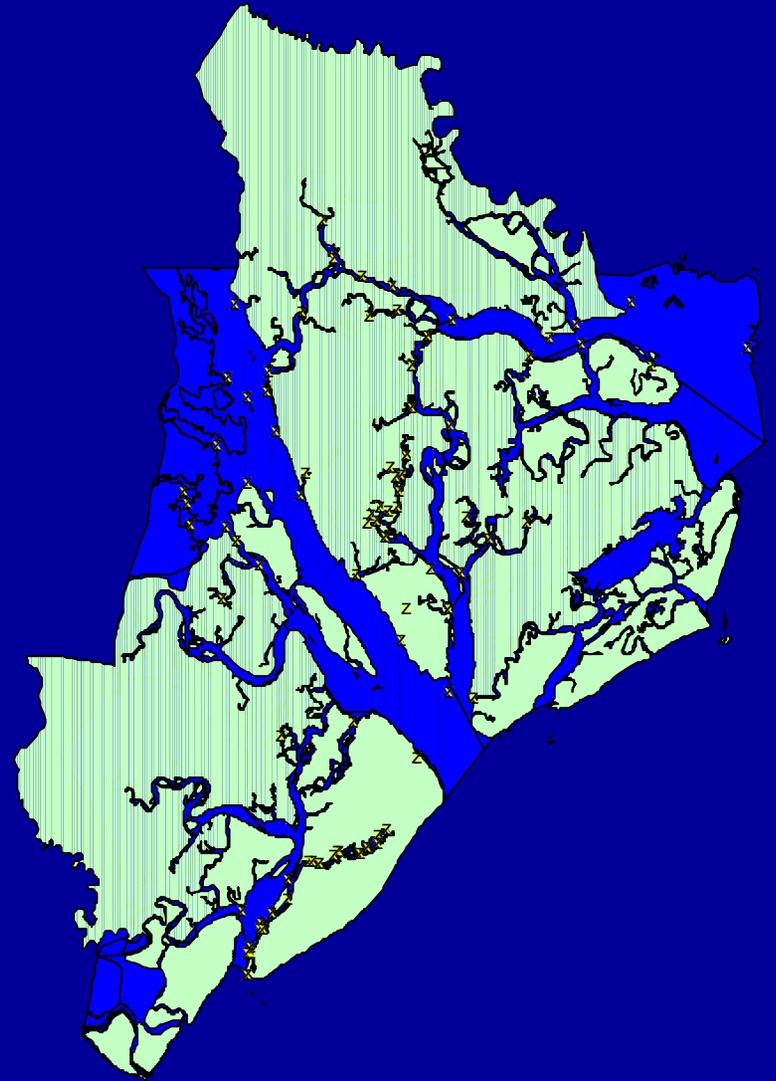


**** Only 1 water quality
impairment on the previous
(2000) 303d List ****

Shellfish Monitoring Stations



Impaired Shellfish Monitoring Stations



Partnerships – The Keys to Success

EPA NOAA USDA

**SC Sea Grant
Extension Program**



**Clemson
University
Extension**



**USC
Center for
Environmental
Policy**



**USC
Earth Science
and Resources
Institute**



**Waccamaw
Council of
Governments**



**BCD
Council of
Governments**



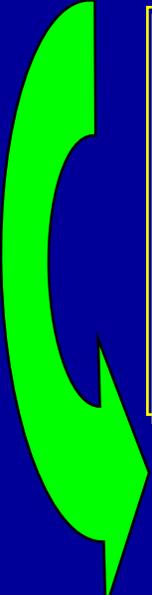
**Ocean and
Coastal
Resource
Management**



**Low Country
Institute –
Friends of the
Rivers**



Community Decision-Makers



The *Three-tiered Strategy* for Coping with Polluted Runoff

1st: Natural Resource Based Planning

2nd: Site Design

3rd: Stormwater BMPs



Strategy for coping with polluted runoff

→ **1st: Natural Resource Based Planning**

2nd: Site Design

3rd: Stormwater BMPs

- Comprehensive Plans (or)
- Conservation and Dev Plans
 - Open Space Plans
 - Economic Dev. Plans
- Regional Transportation Plans
- Watershed Management Plans



Strategy for coping with polluted runoff

1st: Natural Resource Based Planning

→ 2nd: Site Design

3rd: Stormwater BMPs

- Retain the natural landscape
- Reduce impervious surfaces
- Emphasize on-site drainage of stormwater
- Encourage natural vegetative buffers
- Improve stormwater management



Strategy for coping with polluted runoff

1st: Comprehensive Planning

2nd: Site Design

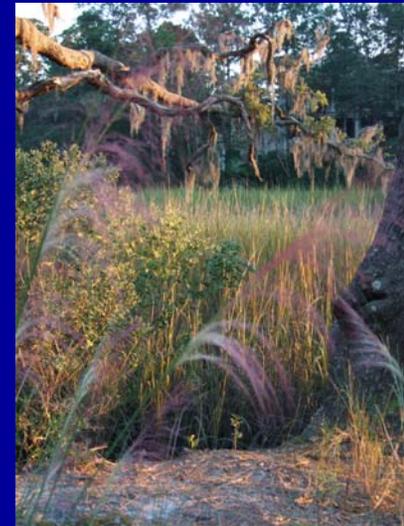
→ 3rd: Stormwater BMPs

- Encourage mostly natural & vegetated stormwater controls
- Ensure maintenance of roads, lots, and catch basins
- Support restoration where effective
- Encourage redevelopment and infilling to avoid further sprawl



SC Coastal Community Initiative (CCI) Grants Program – 1st Tier

- Initiated by SC Sea Grant to provide additional support to the SC NEMO program
- Four communities have been CCI award recipients since 2003



SC Coastal Community Initiative 2003 Grant Recipients

Town of Edisto Beach

- Incorporated NEMO recommendations into their comprehensive plan
- Working to adopt stormwater management related ordinances



Town of Bluffton

- Researched and developed a critical resources map
- Developed natural resource protection ordinances for wetlands, floodplains, trees, wildlife habitat, and stormwater



SC Coastal Community Initiative 2004 Grant Recipients

Colleton County

- Developing a trail plan, providing a low impact alternative transportation system connecting natural areas and open spaces for pedestrians and cyclists
- Initiating SC NEMO Program Workshops



Horry County

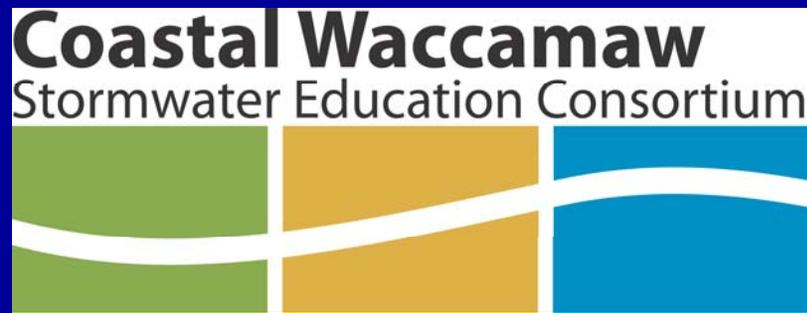
- Developing a county-wide open space inventory and open space plan for the county
- Open space plan will be included in the proposed Open Space Element for the communities' comprehensive plan



Guidance Available for Ordinance Development – 2nd Tier

- Critical Line Buffer Ordinance manual with SCDHEC-OCRM, the City of Charleston, the College of Charleston, and S.C. Sea Grant Extension
- Buffer and plant selection guidance, with Clemson University's Master Gardener program





www.northinlet.sc.edu/training/stormwater_education

Coastal Waccamaw Stormwater Education Consortium (CWSEC)

- A response to the public education/outreach component of NPDES Phase II Stormwater Regulations
- Core education providers and consortium members
- Education strategy and resolution ratification by councils

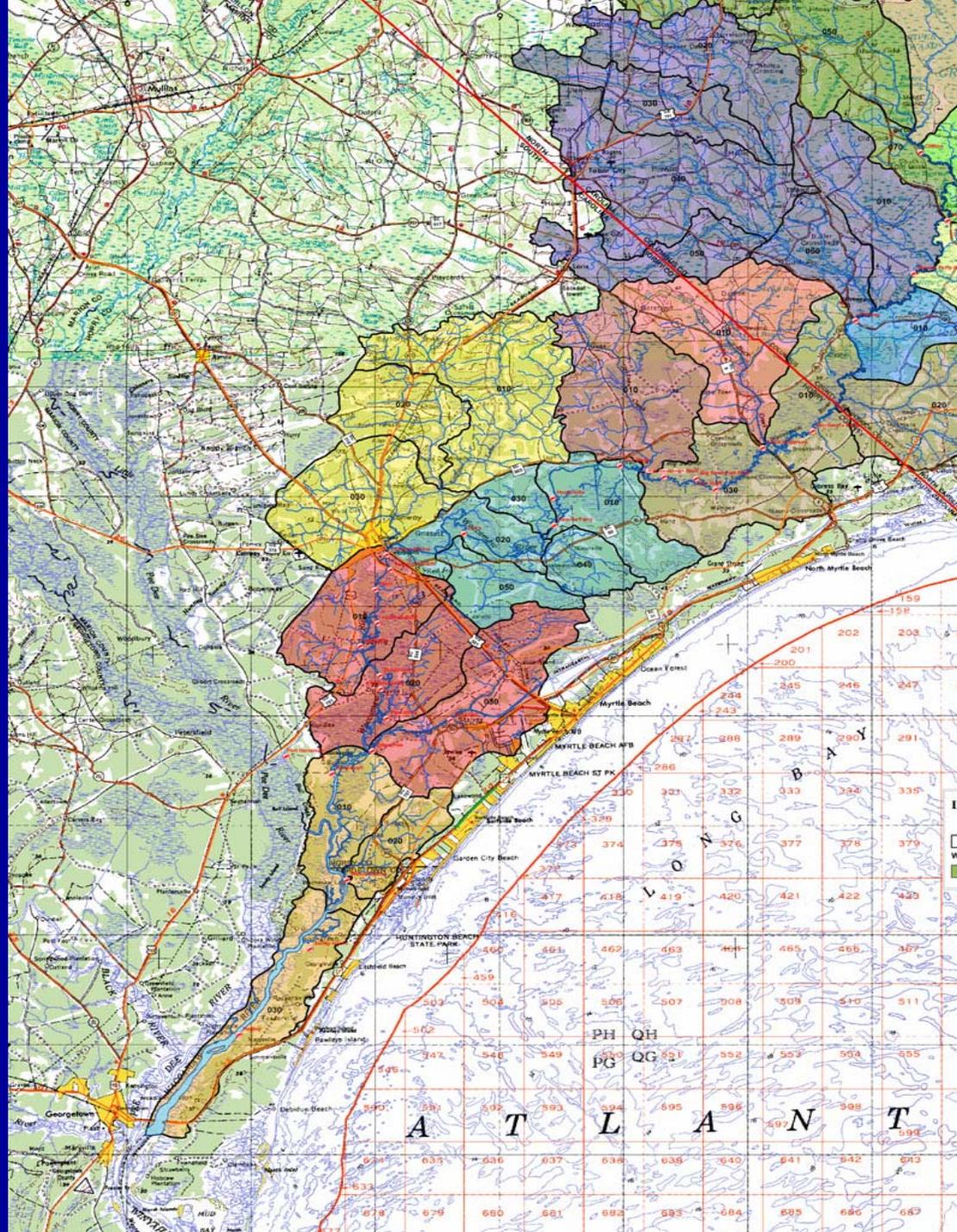


Regional Coordination for Stormwater Education 3rd Tier

Consortium Cooperators:

1. City of Conway
2. Georgetown County
3. Horry County
4. City of Myrtle Beach
5. City of North Myrtle Beach
6. City of Surfside Beach

Map courtesy of the
Waccamaw Watershed Academy
Coastal Carolina University



Dedicated CWSEC Activities

Clemson Extension	- Carolina Clear Program
Coastal Carolina University	- Waccamaw Watershed Academy - Degree programs - Continuing education programs
North Inlet – Winyah Bay NERR	- Coastal Training Program - Community Education Program
SC Sea Grant Extension Program	- NEMO - Coast-A-Syst

CWSEC Next Steps

- Planning activities
- Scheduling activities
- Implementation
- Evaluate successes and failures
- Continued outreach to other communities within and beyond CWSEC





Bob Paty



Use for



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www.scseagrant.org/extension/extension_coaenvqua.htm



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