



North Carolina
Coastal Federation
Working Together for a Healthy Coast



Working Together for a Healthy Coast

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North Carolina Coastal Federation Conservation and Restoration Projects

As of March 1, 2011



CONSERVATION PROJECTS

- 1 Chowan
- 2 Scuppernon River (2 sites)
- 3 Cabin Creek
- 4 Gum Thicket
- 5 Open Grounds Farm
- 6 North River Farm
- 7 Sugarloaf Island
- 8 Hoop Pole Creek
- 9 Emerald Isle
- 10 Quaternary Tract
- 11 Peeler Tract
- 12 Thompson Tract
- 13 Intance Farm
- 14 Higgins Farm
- 15 Jones Island
- 16 Higgins Island
- 17 Queen's Creek
- 18 Morris Landing
- 19 Holly Ridge
- 20 Eagle Point
- 21 Bird Island

RESTORATION PROJECTS

- 1 Edenton
- 2 Columbia
- 3 Manteo (3 sites)
- 4 Jockey's Ridge
- 5 Stumpy Point
- 6 Hatteras
- 7 Hyde County
- 8 Ocracoke
- 9 Oriental
- 10 New Bern
- 11 Marshallberg
- 12 Harbors Island (3 sites)
- 13 Beaufort
- 14 Morehead City (3 sites)
- 15 Pine Knoll Shores (2 sites)
- 16 Satter Path
- 17 Jones Island
- 18 Hammonds Beach SP (2 sites)
- 19 White Oak Quaternary
- 20 Stump Swamp/New River
- 21 Morris Landing
- 22 Dick's Bay
- 23 Wilmington (3 sites)
- 24 Long Beach
- 25 Brunswick County



North Carolina Coastal Federation

WE'VE BEEN WORKING TOGETHER FOR A HEALTHY COAST

NORTHEAST REGIONAL OFFICE, Manteo, NC

CENTRAL REGIONAL OFFICE & HEADQUARTERS, Ocean, NC

SOUTHEAST REGIONAL OFFICE, Wilmington, NC

For more information visit www.nccoast.com or call 252.393.8185



Our Programs

Education



Our Programs

Advocacy



Our Programs

Restoration





Oyster Benefits



Water Quality

Protect
Shorelines



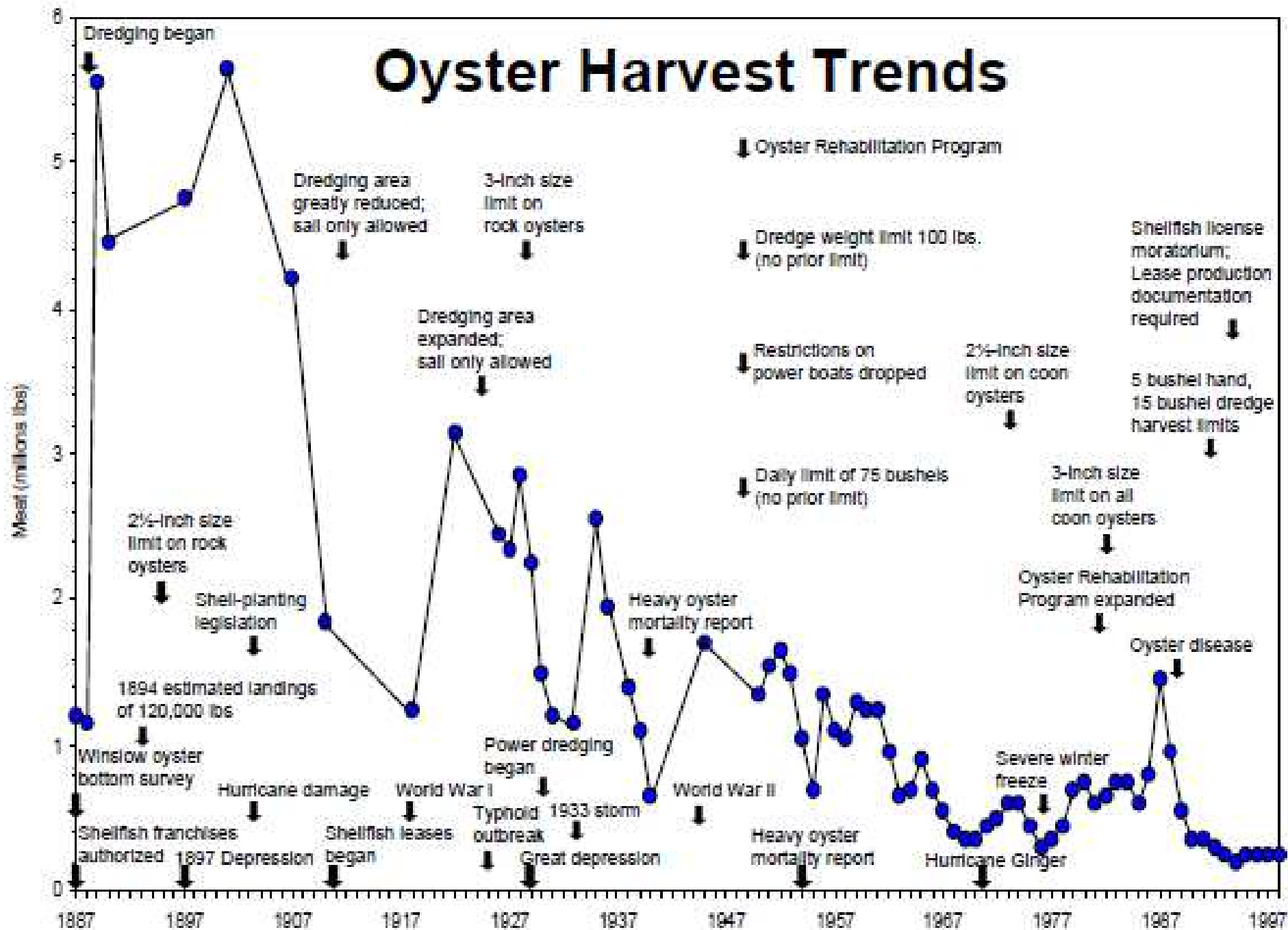
Economy and
Culture



Habitat



Oyster Harvest Trends



Oyster Cultch Plantings



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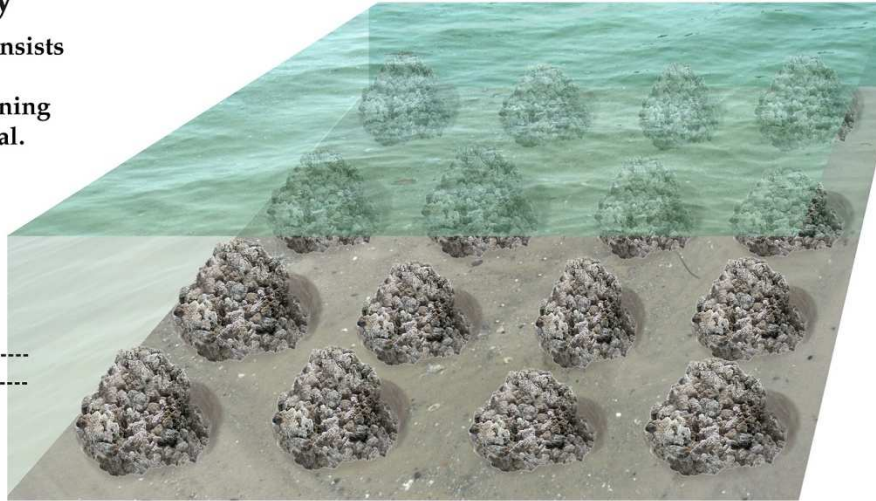
Oyster Sanctuaries

Oyster Sanctuary

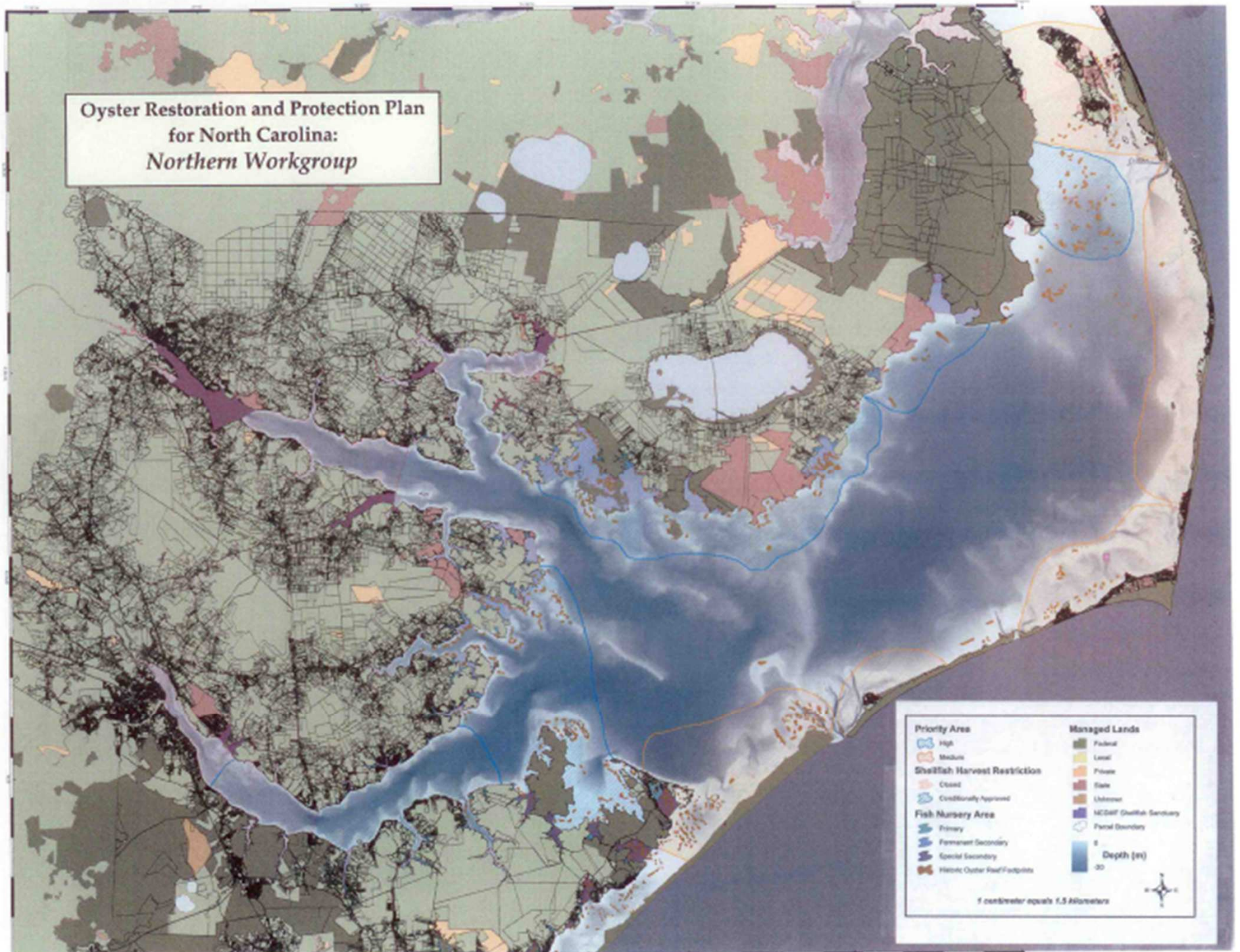
The typical sanctuary consists of mounds of rip rap, with each mound containing about 150 tons of material.

7-foot
clearance

6-foot
mounds
of rip rap



**Oyster Restoration and Protection Plan
for North Carolina:
Northern Workgroup**



Pocosin Swamp

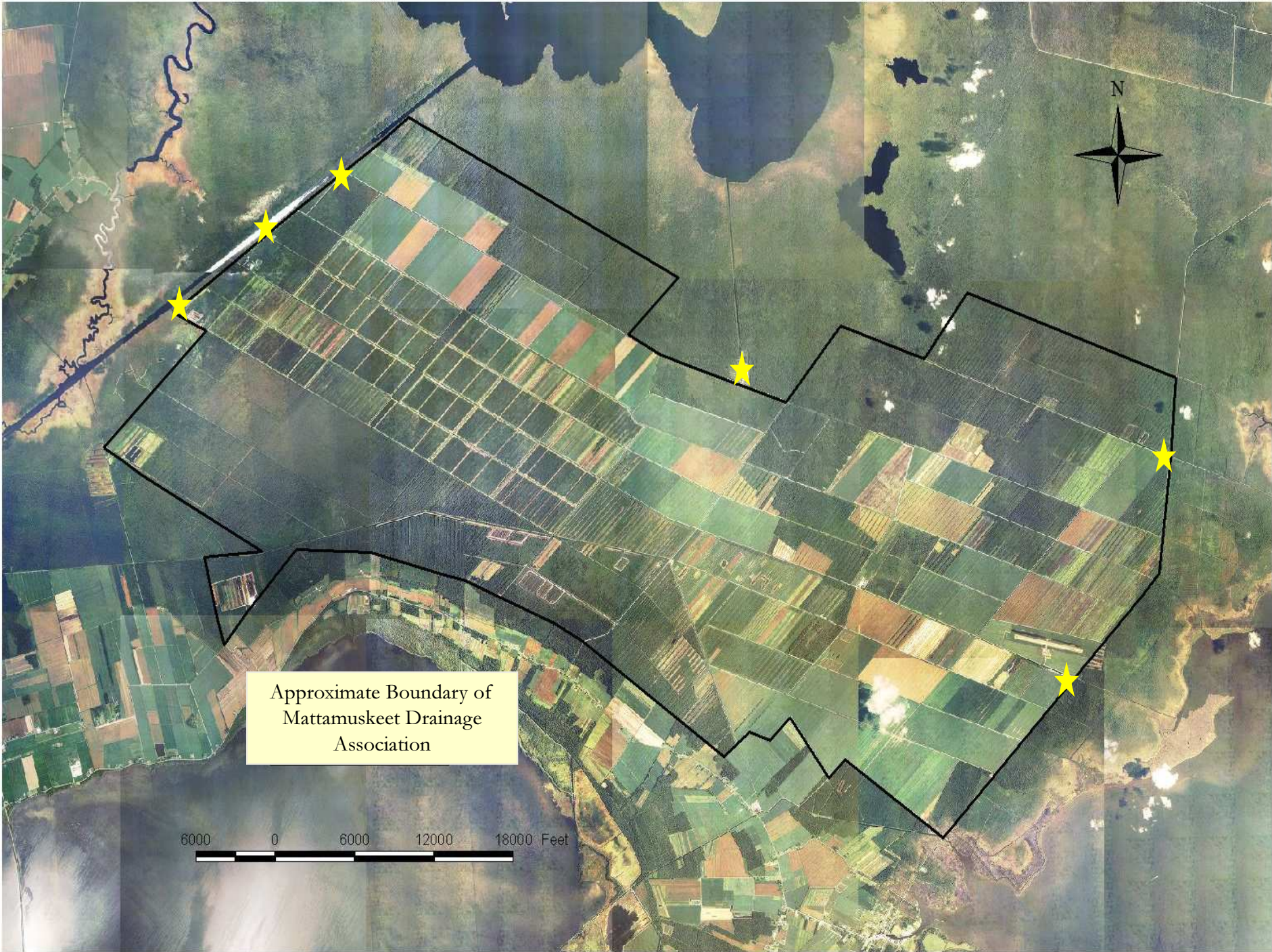












Approximate Boundary of
Mattamuskeet Drainage
Association

6000 0 6000 12000 18000 Feet



Farm boundaries and current flow patterns



Estimated Historic Drainage Area

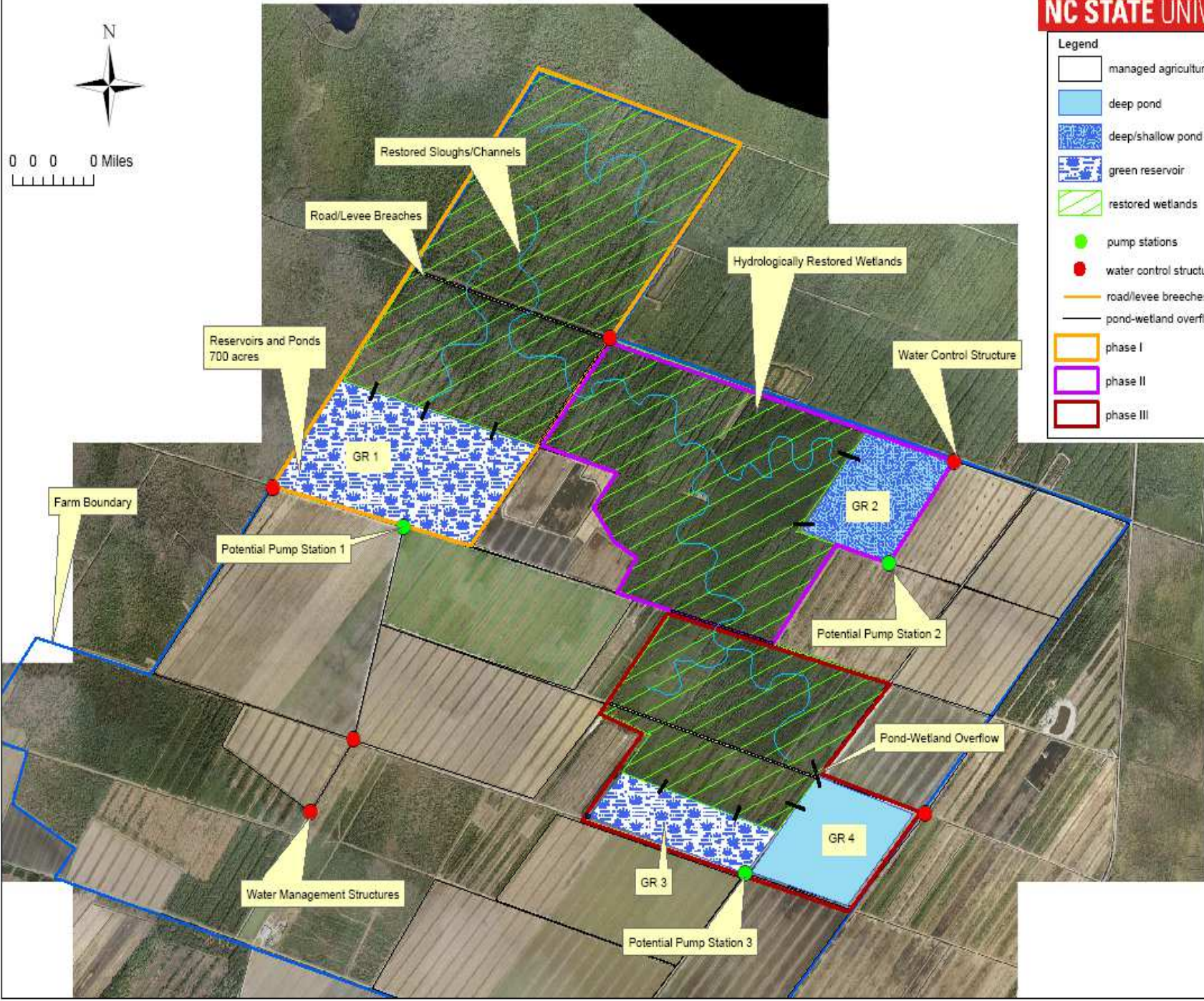
Historic Flow Directions





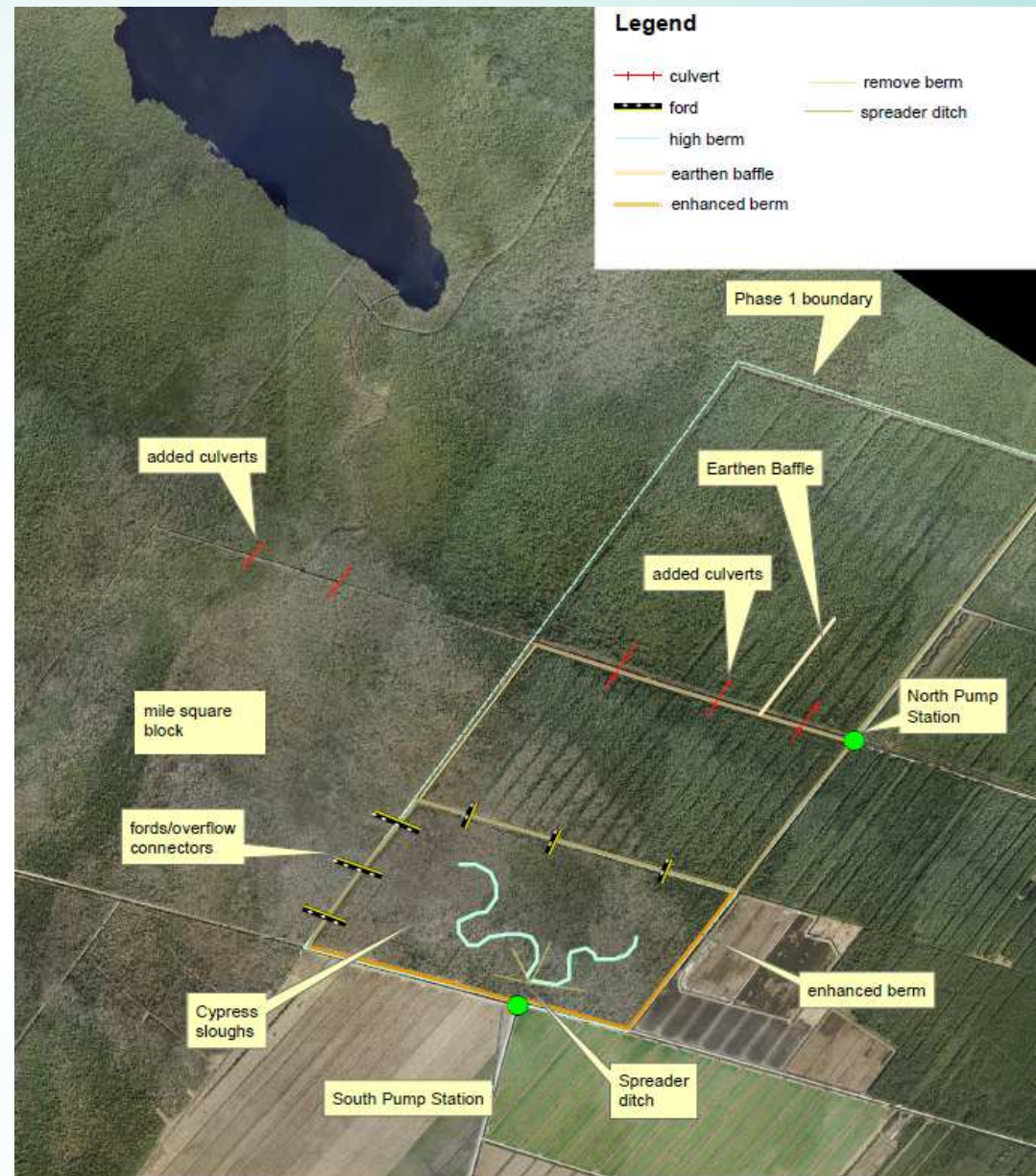
Legend

- managed agriculture
- deep pond
- deep/shallow pond mix
- green reservoir
- restored wetlands
- pump stations
- water control structures
- road/levee breaches
- pond-wetland overflows
- phase I
- phase II
- phase III



L1: Lux Phase 1

- 1,400 Acres
- Restoring Historic Sloughs and Flow Patterns
- Funded by CWMTF



Lux Farms Hydrologic Restoration
Phase 1
Alternate Concept Plan
November 2011

0 1,000 2,000 4,000 Feet





Alligator River

Swan Lake

Intercoastal Waterway

Long Shoal River

5th Avenue Pump Station

Mattamuskeet Ventures, LLC

Alligator River Growers/
Lux Farm

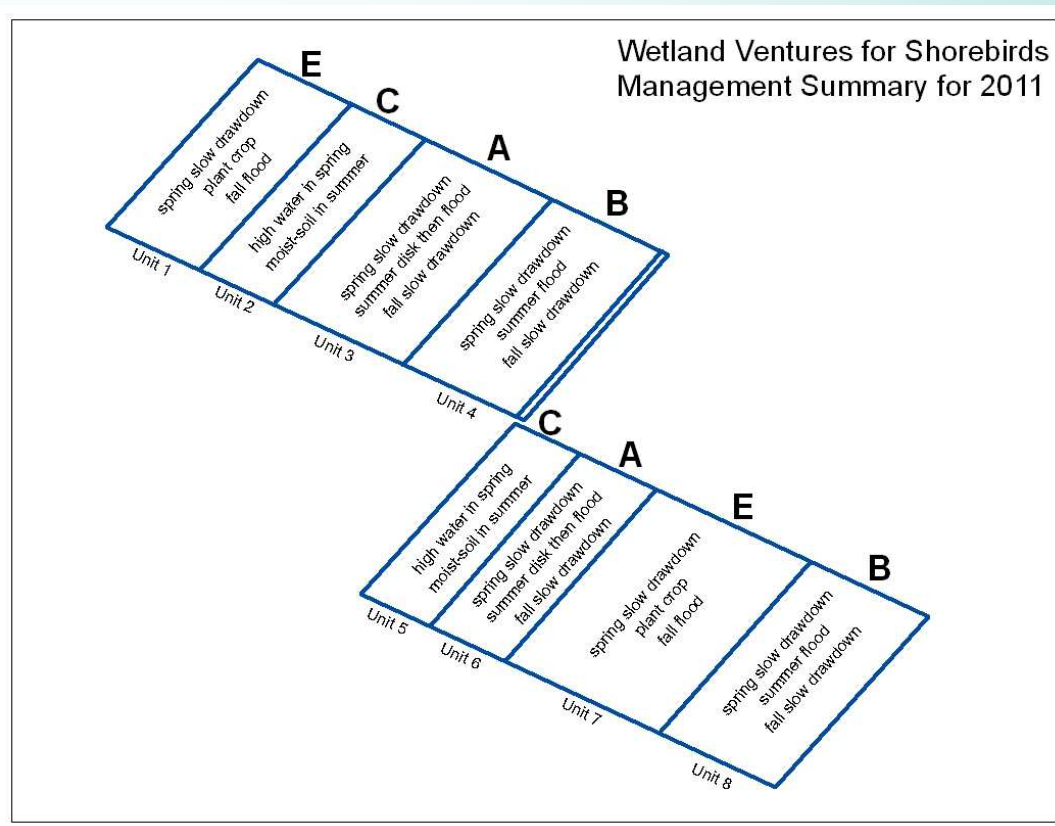
Otter Creek

2nd Avenue Pump Station

Pamlico Sound

MV0: Shorebird Project

- 600 acres
- Shorebird Habitat Creation
- Funded by USFWS/APNEP and Implemented



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09/23/2009

YEAR 1
"A"



Drawdown* April - May → Disk mid June → Re-flood immediately → Drawdown* mid July – mid Sept.

Alternate management approaches each year.

YEAR 1
"B"



Drawdown* April - May → Re-flood June-July → Drawdown* mid July – mid Sept.

Alternate management approaches each year.

YEAR 2
"C"



Maintain max pool thru June → Drawdown* to ditch-top level in July → Maintain ditch-top level for moist-soil plant production

* Drawdowns should be slow and gradual and can often be accomplished through evaporation/transpiration (i.e. not pulling any boards).

YEAR 2
"E"



Drawdown* April - May → Plant hot foods → Flood

* Drawdowns should be slow and gradual and can often be accomplished through evaporation/transpiration (i.e. not pulling any boards).

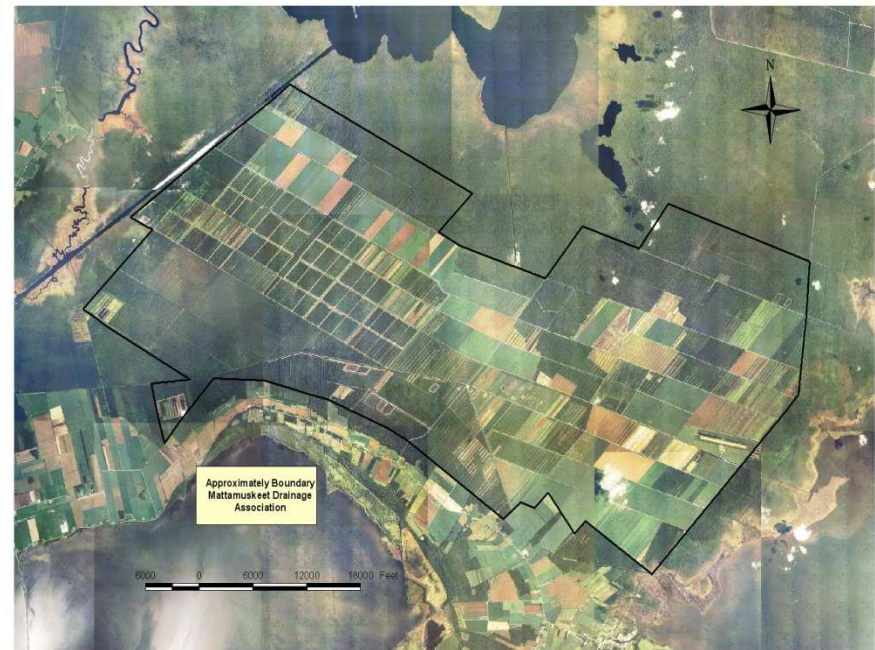
Next Steps- Drainage Association

Develop a Watershed Restoration Plan for entire Drainage Association

Convene a stakeholder group

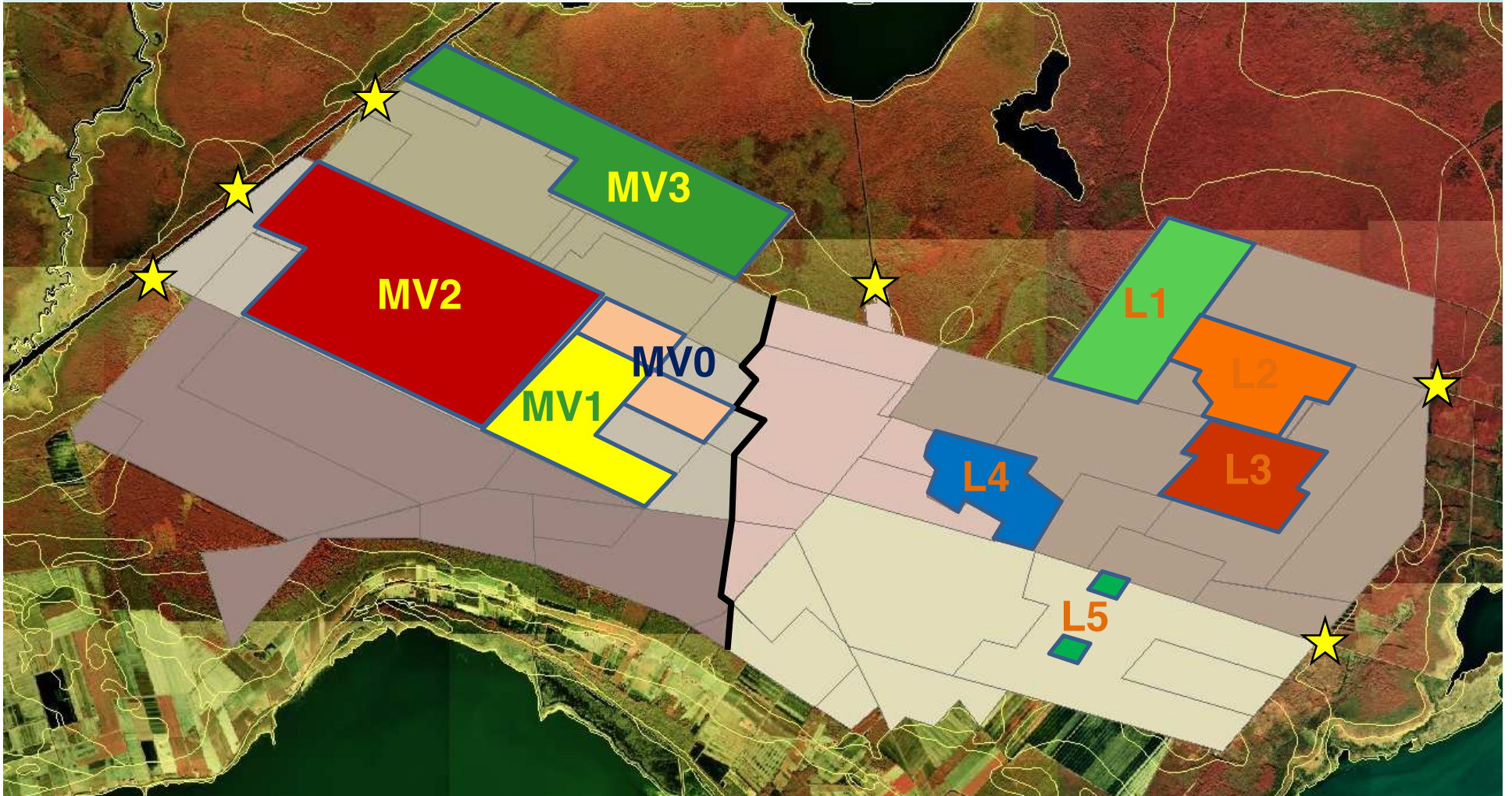
Identify and rank wetland restoration projects

Plan that meets needs/goals of the drainage association, NCCF, USFWS, EPA, NRCS and others



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Proposed Projects



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Next Steps- Oyster Restoration

Maintain Oyster Workgroup

Model Oyster Larvae Transport and Settling

Develop a plan and rank future sanctuaries

Identify Funding for Plan Implementation



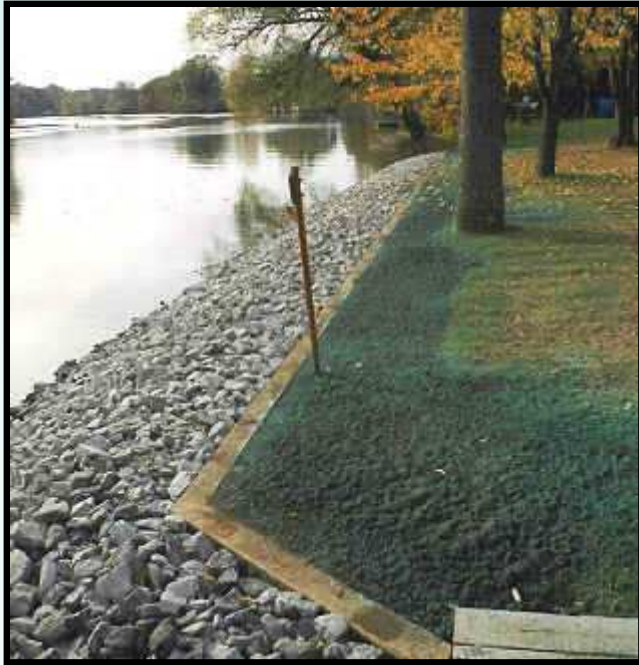
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North Carolina has more than 320 miles of ocean beaches and 12,000 miles of shoreline around our coastal sounds, rivers and creeks making it one of the largest, most productive estuarine environments.



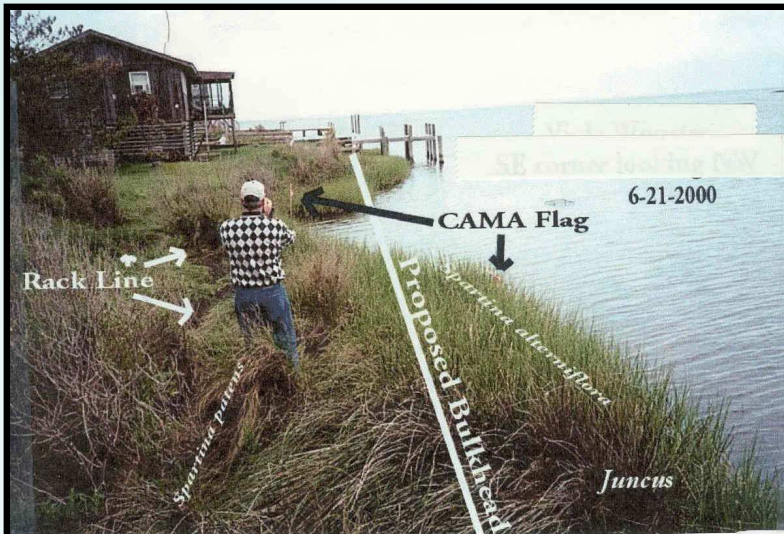
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Traditional Methods of Erosion Control



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Potential Effects of Bulkheads/Revetments



- Wave reflection/increased erosion
- Loss of water quality protection/improvements
- Interruption of sediment budget
- Loss of public trust lands
- Loss of intertidal/riparian habitat



Living Shorelines are a creative approach to maintain, restore, or enhance the shoreline's natural habitats while providing stabilization.



Functions and Values of the Living Shoreline



Shoreline
Stabilization

Water Quality



Productivity

Habitat
Enhancement



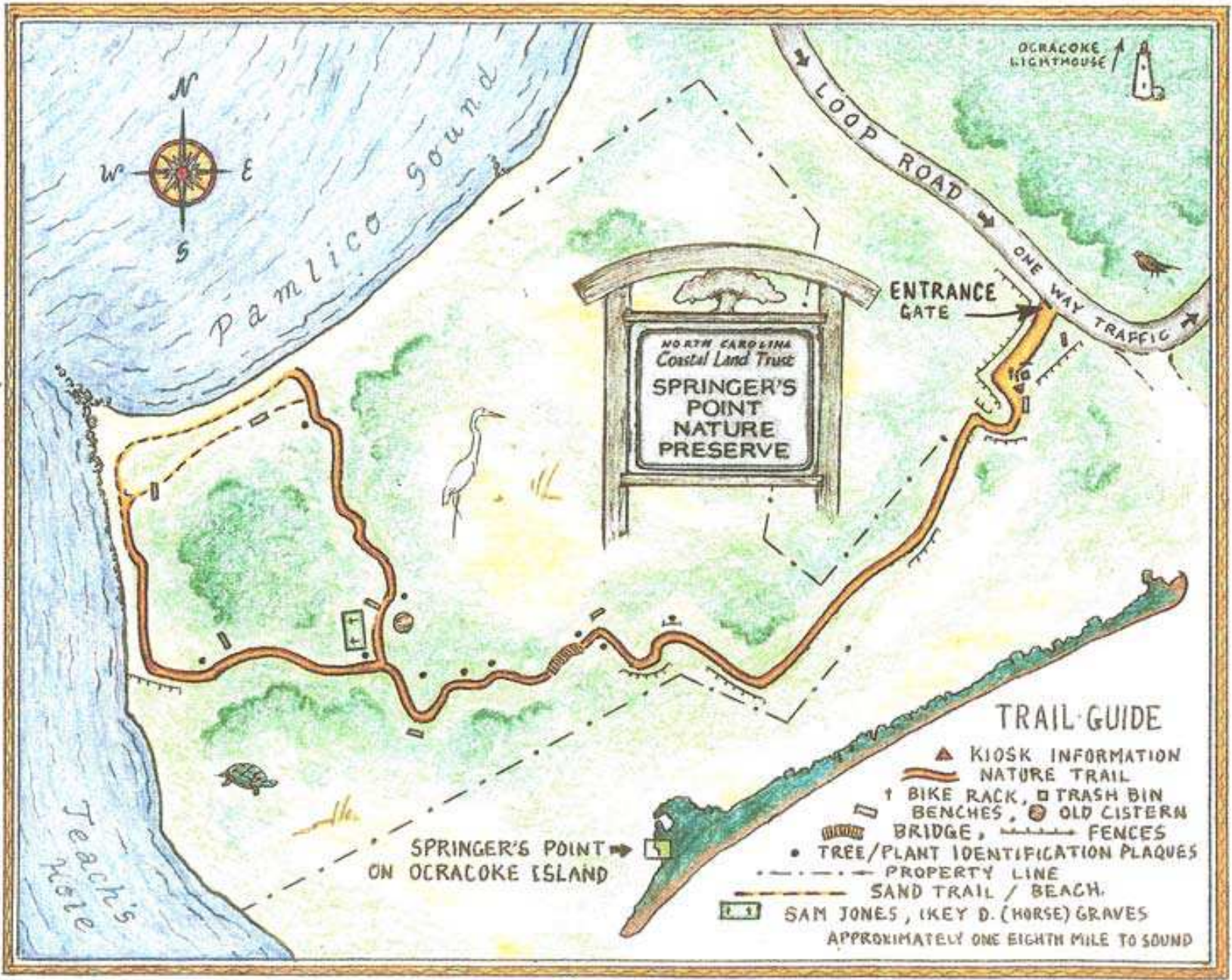
Jockey's Ridge State Park



Linking Education and Restoration



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Shoreline Concerns & Partnership Opportunities



Site Assessment



Springer's Point Preserve
Hyde County, NC
Aerial 2010

 Springer's Point Preserve
 Outparcel



Design Elements to Consider

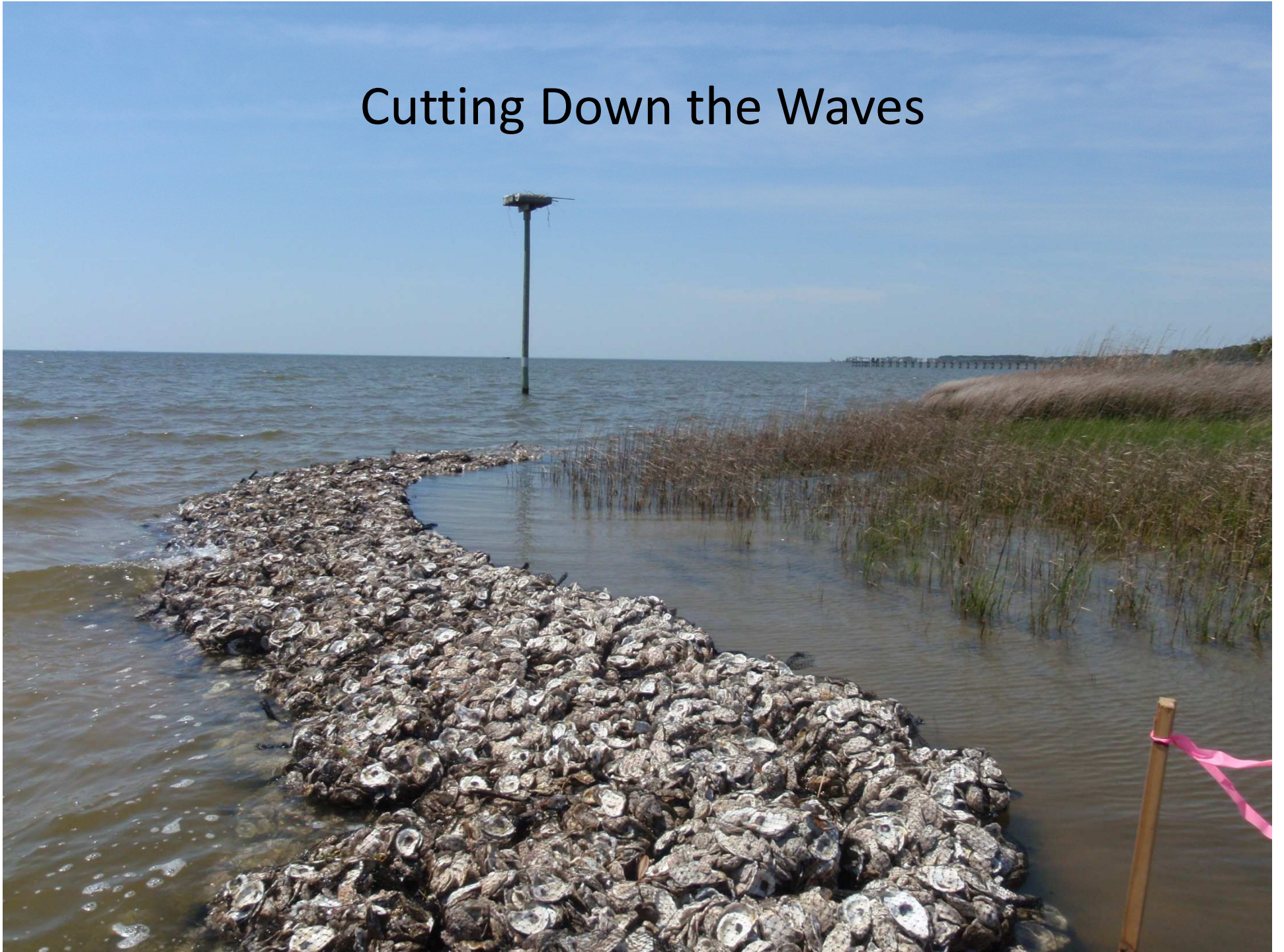
- Foot Traffic
- Daily waves and storm events
- Remote Location
- Long Fetch
- Existing Structure



Moving the Trail



Cutting Down the Waves





Volunteers construct a sill at Jockey's Ridge State Park

Engaging Local Fishermen



Working with the existing structure















NCCAT



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