



Renewable Energy Mapping and Planning Activities in the South Atlantic

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South Atlantic Fisheries Management Council
St. Simons Island, Georgia

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Bureau of Ocean Energy Management



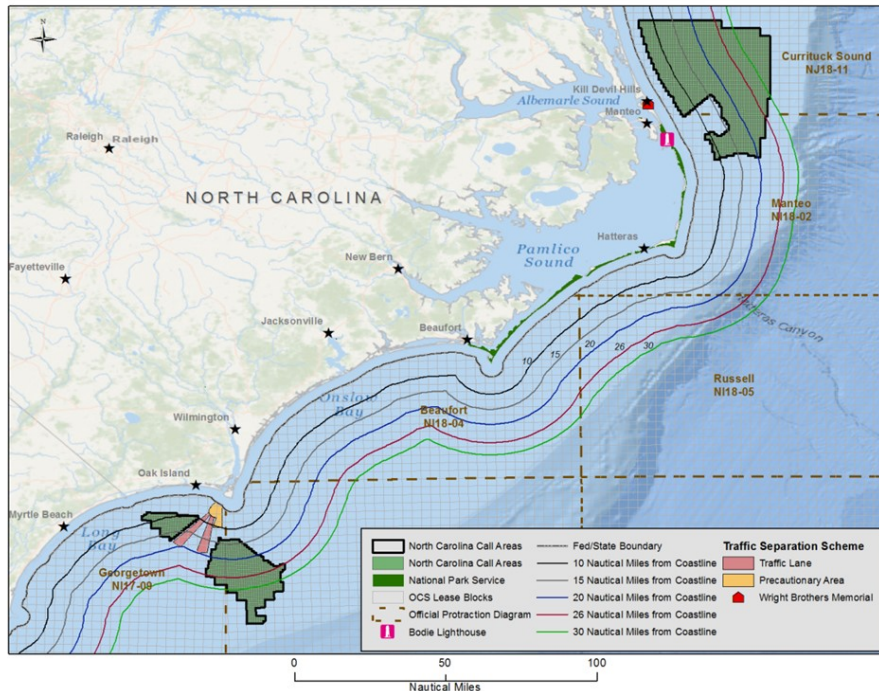
Outline

- South Atlantic Overview
- North Carolina
 - Planning Process
 - NEPA Process
- South Carolina Planning Efforts
- BOEM Studies Efforts

South Atlantic Overview

State	Milestones
North Carolina	<ul style="list-style-type: none">• WEAs Announced – August 11, 2014• EA Published – January 22, 2015 Next Steps: Finalize Environmental Review, Lease Sale
South Carolina	<ul style="list-style-type: none">• Third Task Force Meeting – September 23, 2014 Next Steps: Publish Call for Information and Nominations
Georgia	<ul style="list-style-type: none">• EA for Interim Policy Lease – April 1, 2014 Next Steps: Finalize Environmental Review, Issue Interim Policy Lease
Florida	<ul style="list-style-type: none">• Interim Policy Lease Issued to FAU – June 1, 2014• First Task Force Meeting – December 11, 2014

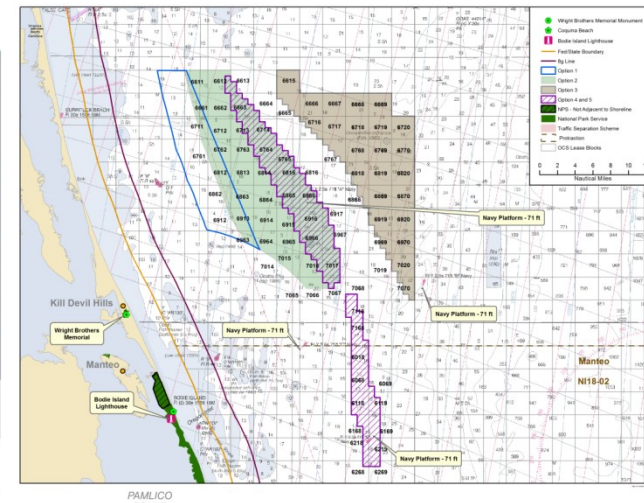
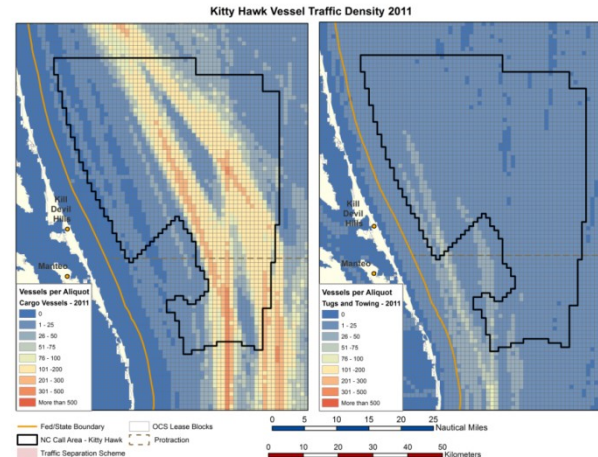
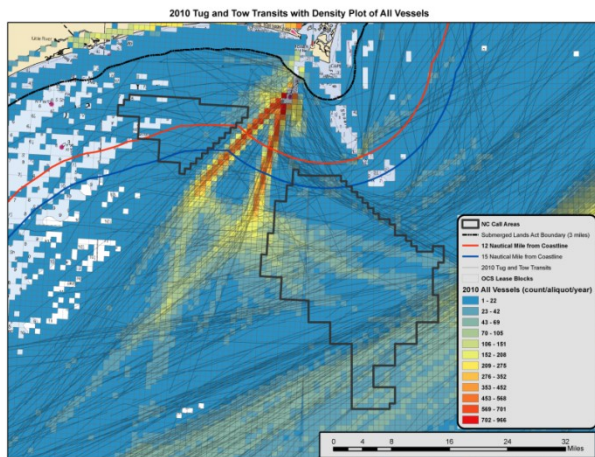
North Carolina Planning Efforts



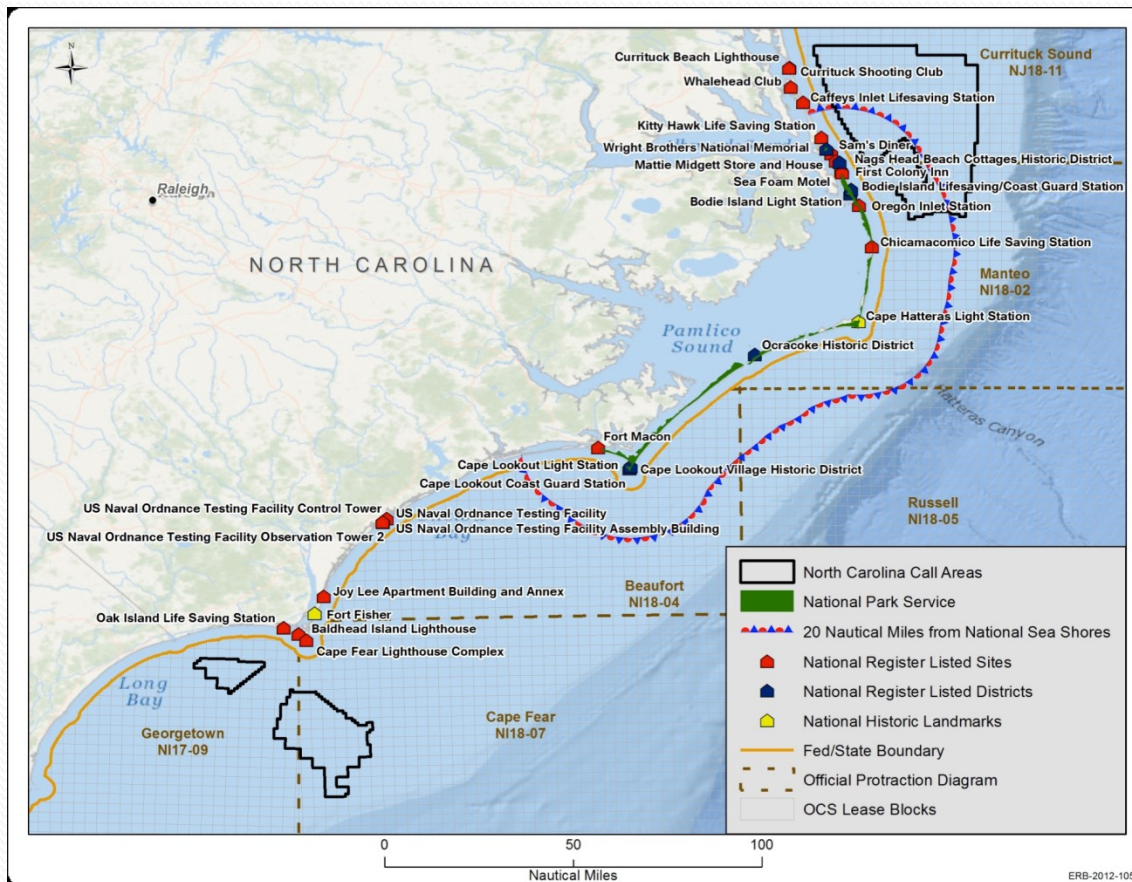
- Call published in December 2013
- Key issues to resolve:
 - Visual impacts from NPS lands
 - Vessel traffic/navigational safety

North Carolina Planning Efforts: Maritime Concerns

- Maritime stakeholder meetings held:
 - December 2012 Norfolk, VA
 - June 2013 Norfolk and Arlington, VA
- September 2013 questionnaire/survey effort lead by the USCG
 - 100 members

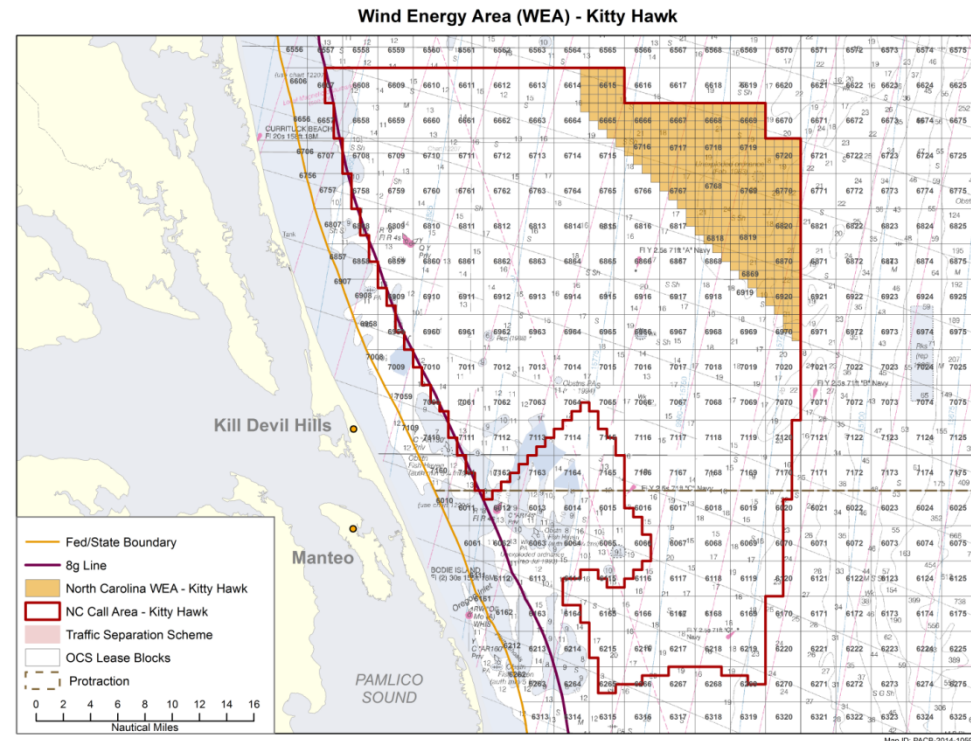
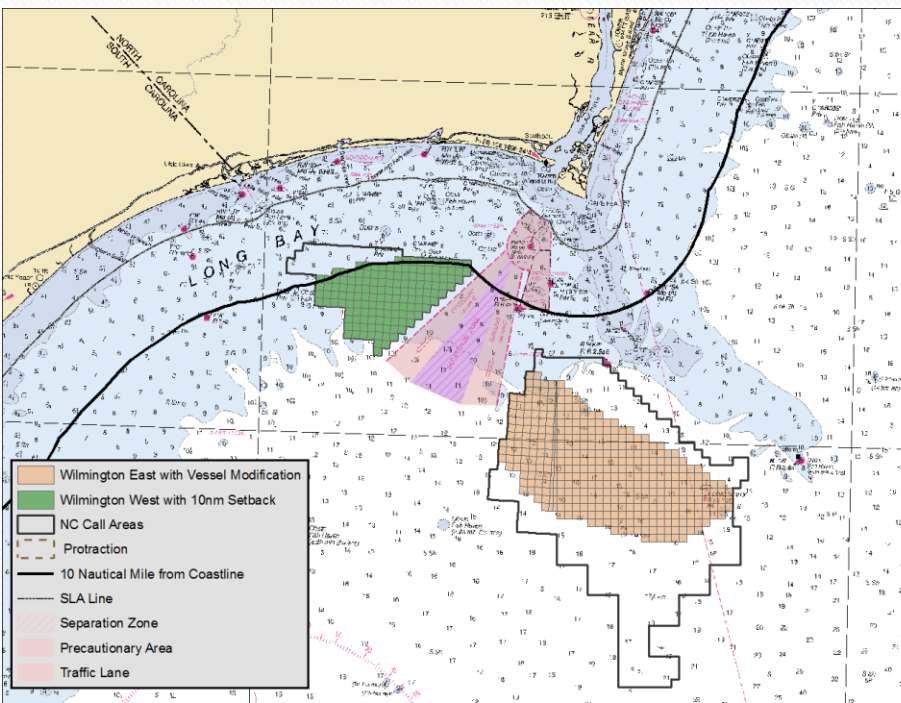


North Carolina Planning Efforts



- North Carolina Visual Simulation Study
- Public open houses
- Meetings with NPS

North Carolina Planning Efforts: Wind Energy Areas

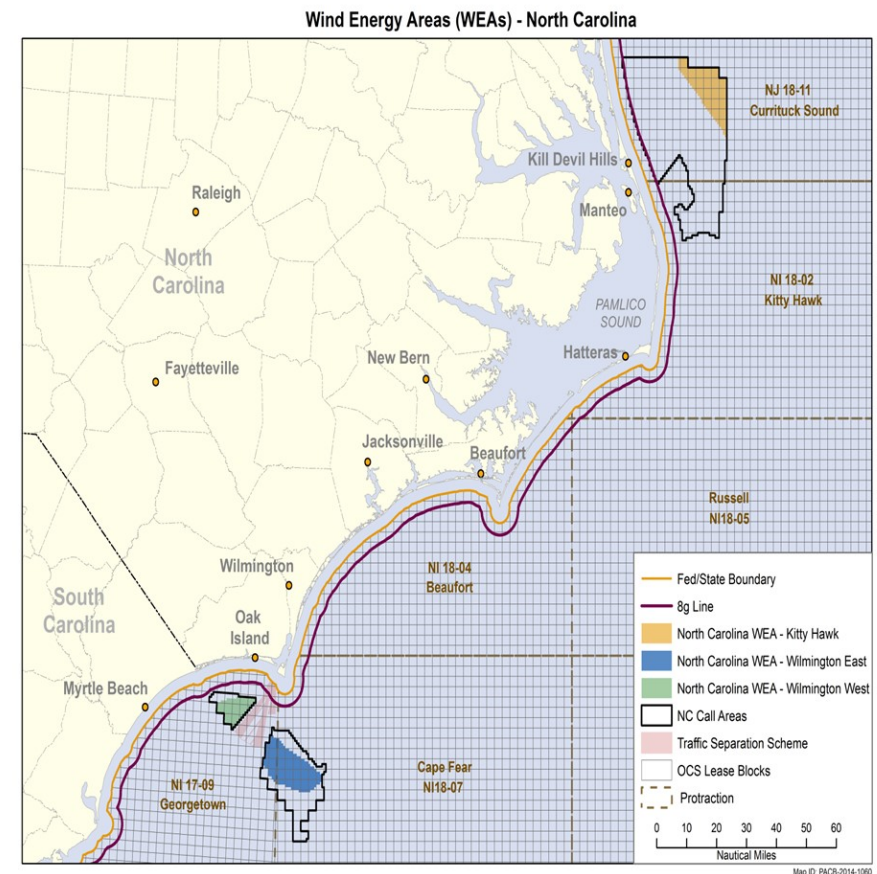


North Carolina Environmental Assessment (EA)

- The National Environmental Policy Act (NEPA) was established by Congress in 1969.
- Two primary purposes of NEPA:
 - Informed decisions
 - Public involvement
- North Carolina EA published January 22, 2015
 - Public meetings held in Kitty Hawk, Wilmington, and Carolina Shores, NC
 - 30-day public comment period ended on February 23, 2015

North Carolina EA: Proposed Action (Alternative A)

- Lease issuance of all three Wind Energy Areas (WEAs)
- Associated site characterization surveys (e.g., shallow hazards, geological, geotechnical, archaeological, and biological surveys)
- Subsequent site assessment activities (e.g., construction and operation of meteorological towers and/or buoys)



North Carolina EA: Alternatives Considered

Alternative B	Removal of Wilmington West WEA due to migrating North Atlantic right whales
Alternative C	Prohibits high resolution geological and geophysical survey activities from November 1 - April 30 due to migration patterns of North Atlantic right whales
Alternative D	No action

Impact Producing Factors

- Vessel Traffic
- Noise (Pile Driving, Surveys)
- Vessel Collisions/Allisions
- Bottom Disturbance
- Emissions and Discharges
- Lighting
- Severe Storms
- Visual and Aesthetic Interference



Environmental and Socioeconomic Resources Considered

- Physical

- Air Quality
- Water Quality

- Biological

- Marine Mammals
- Sea Turtles
- Fish and Essential Fish Habitat (EFH)
- Coastal Habitats
- Benthic Resources
- Avian and Bat Species

- Socioeconomic

- Aesthetics and Visual Resources
- Commercial and Recreational Fishing
- Cultural Resources
- Military Uses
- Environmental Justice
- Land Use and Coastal Infrastructure
- Tourism and Recreation
- Demographics and Employment

North Carolina EA: Standard Operating Conditions

- Appendix B of the EA
- Based on previous and ongoing consultations with NOAA NMFS and FWS
- Part of the proposed action or “in place”
- Developed to reduce or eliminate the potential for environmental risks
- Enforced through lease stipulations or terms and conditions of plan approval
- Include vessel strike avoidance measures, protected species observers (PSO), exclusion zones, and ramp up requirements

North Carolina EA: Next Steps

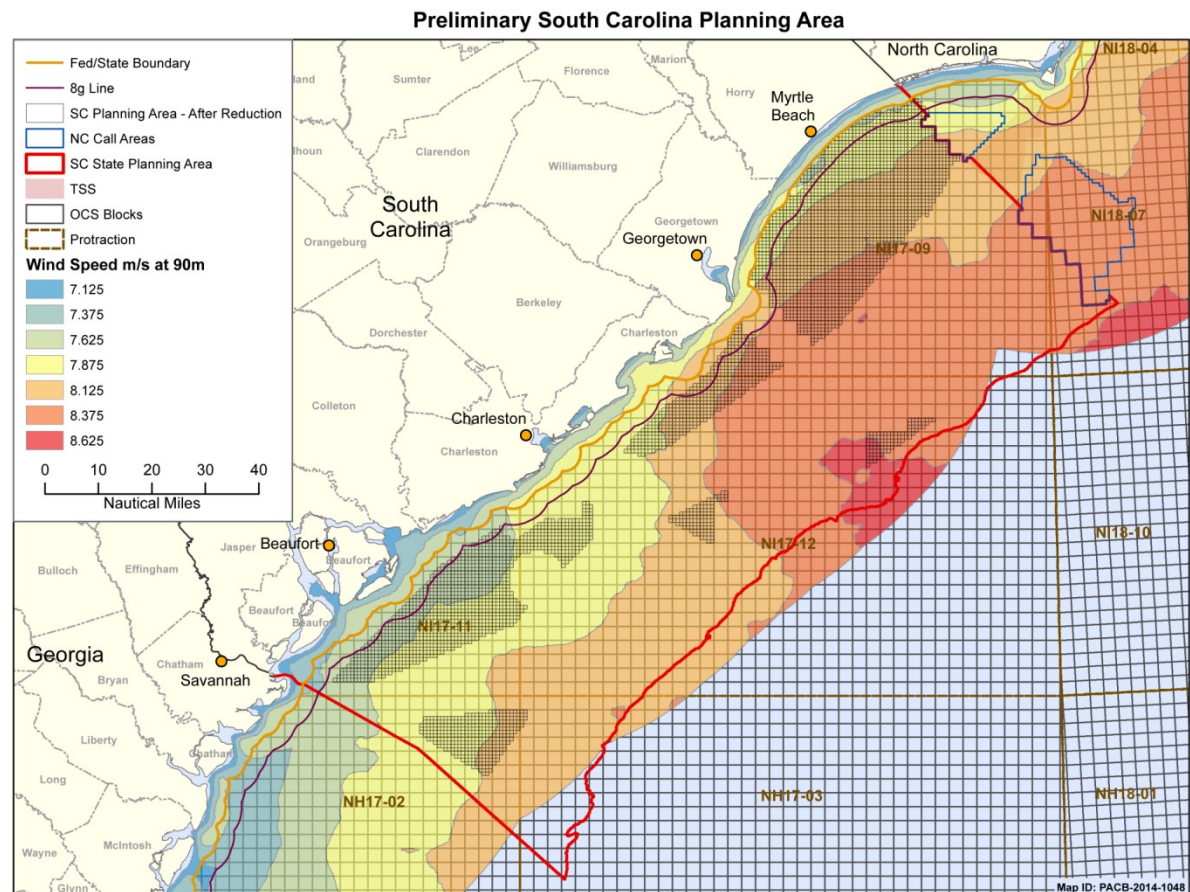
Based on the nature and extent of comments received, we may:

- Publish a Finding No Significant Impacts (FONSI);
- Revise the EA; or
- Determine that an Environmental Impact Statement (EIS) is required.

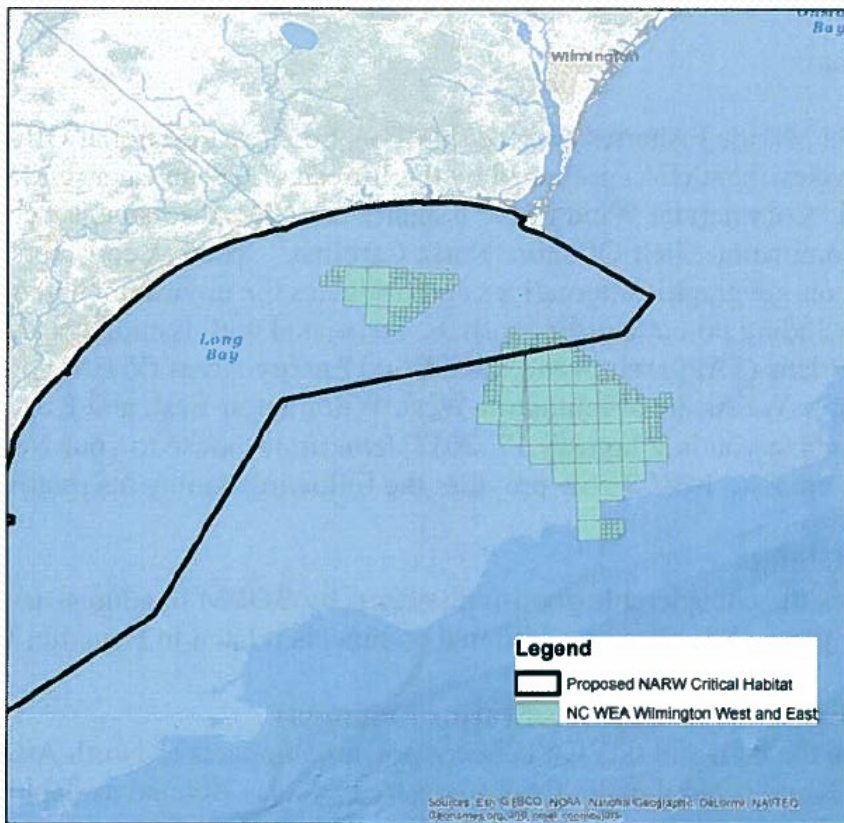


South Carolina Planning Efforts

- Three task force meetings held
- Areas removed for conflicts with military uses and navigational safety



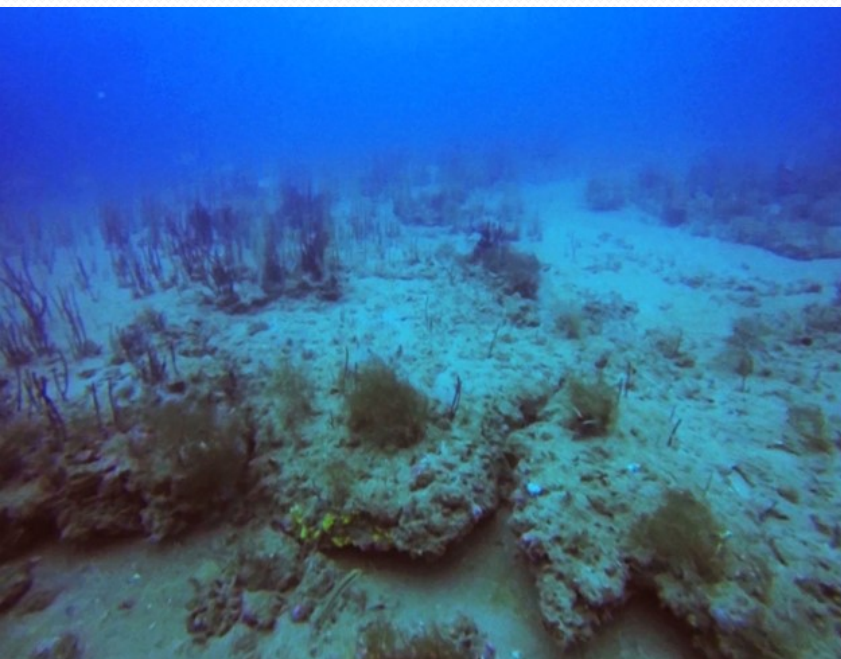
Proposed North Atlantic Right Whale Critical Habitat



- On February 20, 2015, NOAA NMFS proposed the expansion of critical habitat for North Atlantic right whales
- 60-day public comment period
- Proposed Southeastern U.S. Calving Critical Habitat

Recent Study Highlights

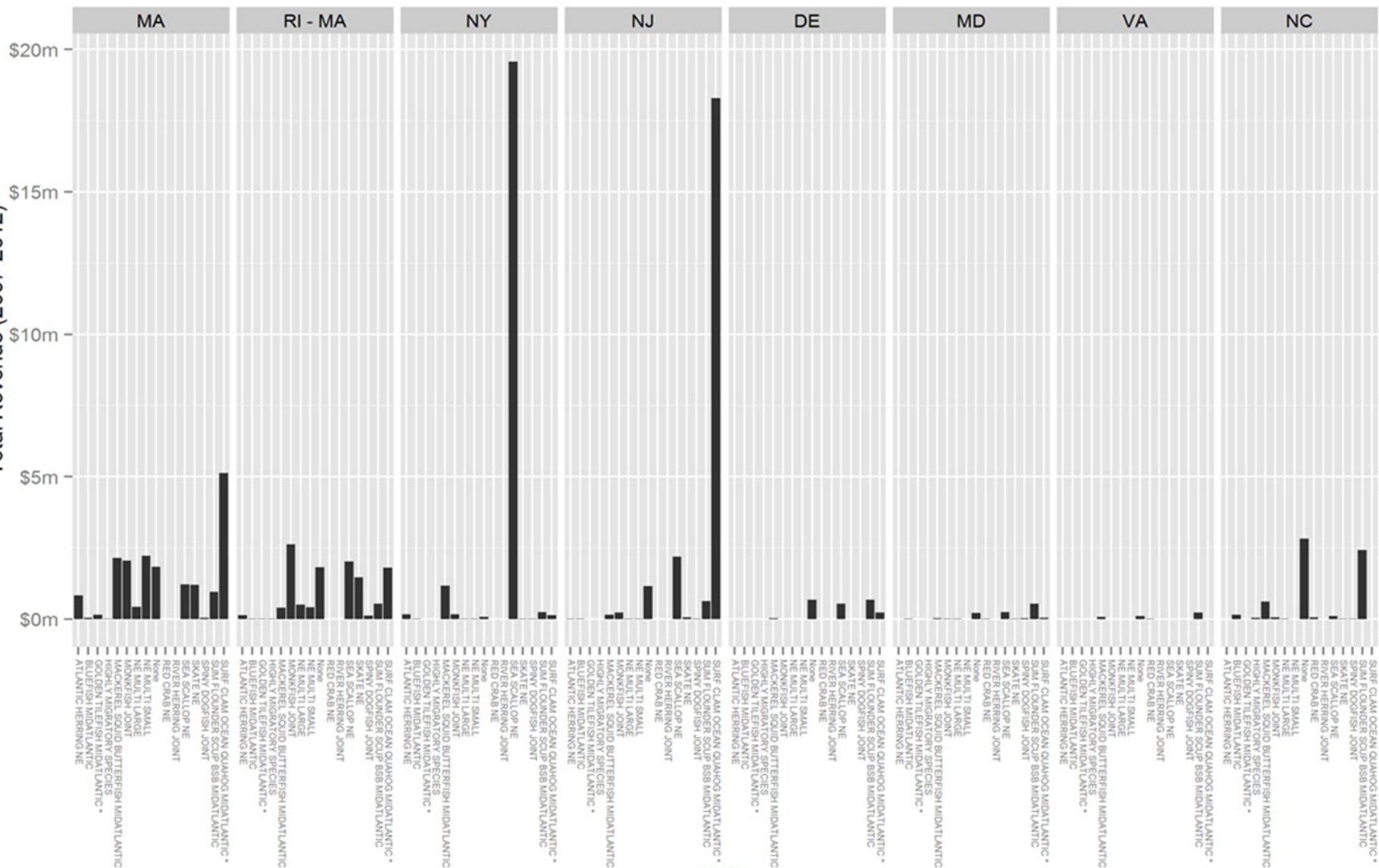
- Collaboration in Wilmington-East Call Area
 - UNC Institute of Marine Sciences
 - Geodynamics
 - NOAA's Center for Coastal Habitat & Fisheries Research
 - BOEM
- Main Objectives:
 - To obtain spatially explicit information on where wind energy development can avoid known stakeholder conflicts (fishing, diving, and ecotourism)
 - To obtain spatially explicit information about the seafloor in Wilmington-East
 - To better understand the ecology of these benthic habitats and value to fishes for marine spatial planning



Recent Study Highlights

- Socio-Economic Impact of OCS Wind Development on Fishing
 - An inter-agency agreement with NEFSC Woods Hole.
 - Uses combination of dealer and VTR reports to obtain a spatially-explicit revenue model.
 - Provides detailed “exposure” of revenue obtained from wind energy areas.
 - Covers Massachusetts to North Carolina.

Total Revenue (2007-2012)



FMP

Other Studies: Biological

- Use of Northeast Coastal Ocean Forecast System in Offshore Wind Energy Resource Planning (Southern New England/Mid-Atlantic) - UMass
- EMF impact studies are continuing:
 - EMF model-based assessment and literature review is completed.
 - Atlantic EMF study (Long Island Sound) on elasmobranch (sharks, rays and skates) and American lobster movement and migration. – URI/Cranfield University
- Effects of Pile Driving Sounds on Auditory and Non-Auditory Tissues of Fish.
- Assessing Potential Impacts of Offshore Wind Farm Development on Fisheries Resources(Southern New England)- Commercial Fisheries Research Foundation
- Benthic Habitat Assessment (Southern New England/Mid-Atlantic) – NEFSC Sandy Hook
- Lobster Cooperative Ventless Trap Study (Southern New England) - URI

Other Studies: Socioeconomic

- Development of Mitigation Measures to Address Potential Use Conflicts Between the Wind and Commercial Fishing Industries (nine workshops from Maine to NC)
- Collaborative Fisheries Planning for Virginia's Offshore Wind Energy Area - Virginia Department of Environmental Quality
- Digitization of 1976 Anglers Guide to the United States Coast



Questions?

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