BOEM Bureau of Ocean Energy Management

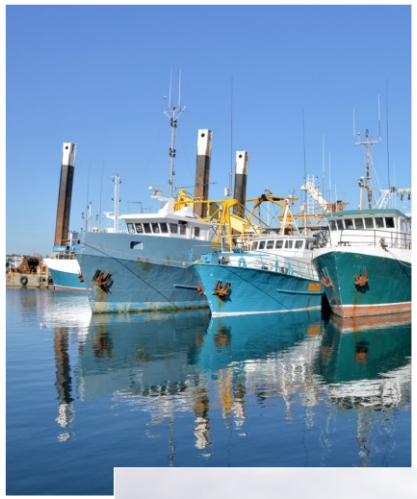
Central Atlantic Renewable Energy

Draft Wind Energy Area Development
Fisheries and Related Industries
Feedback Meeting

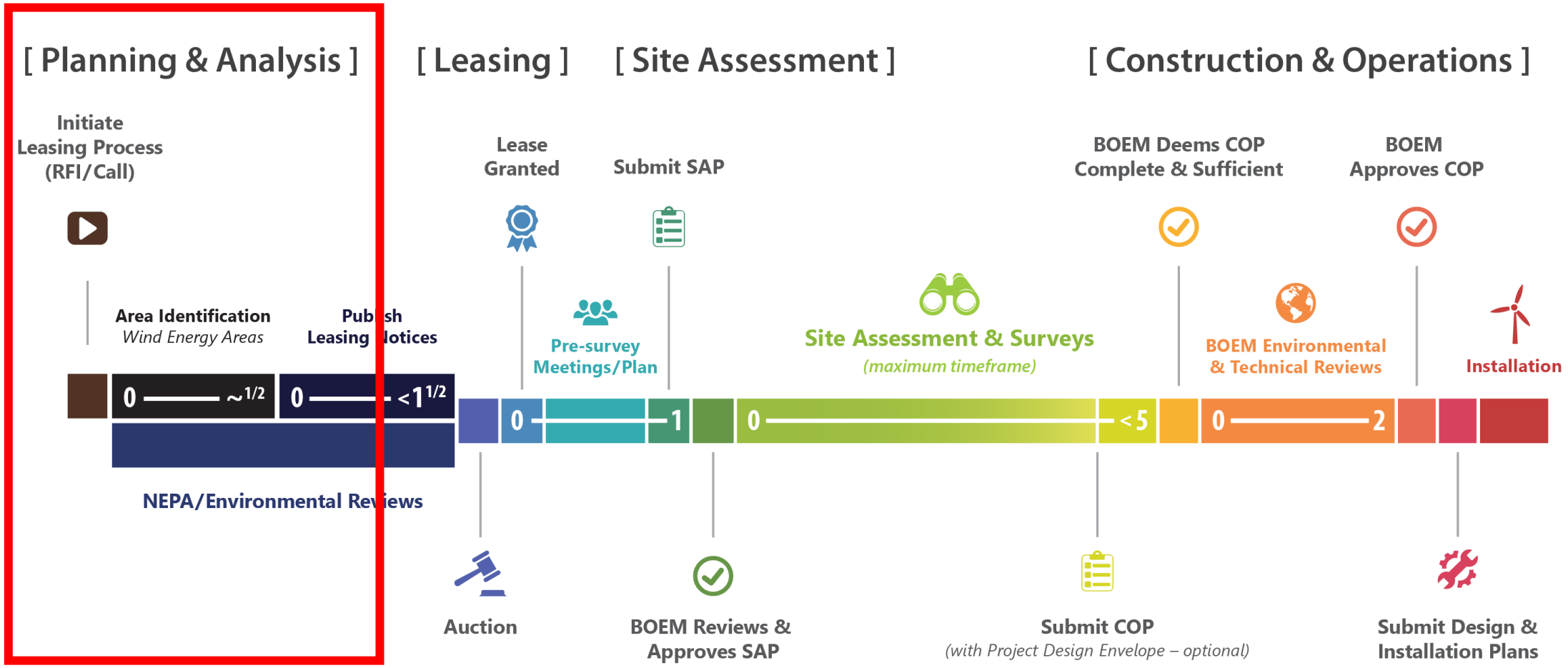
Bridgette Duplantis, November 30, 2022

Objectives

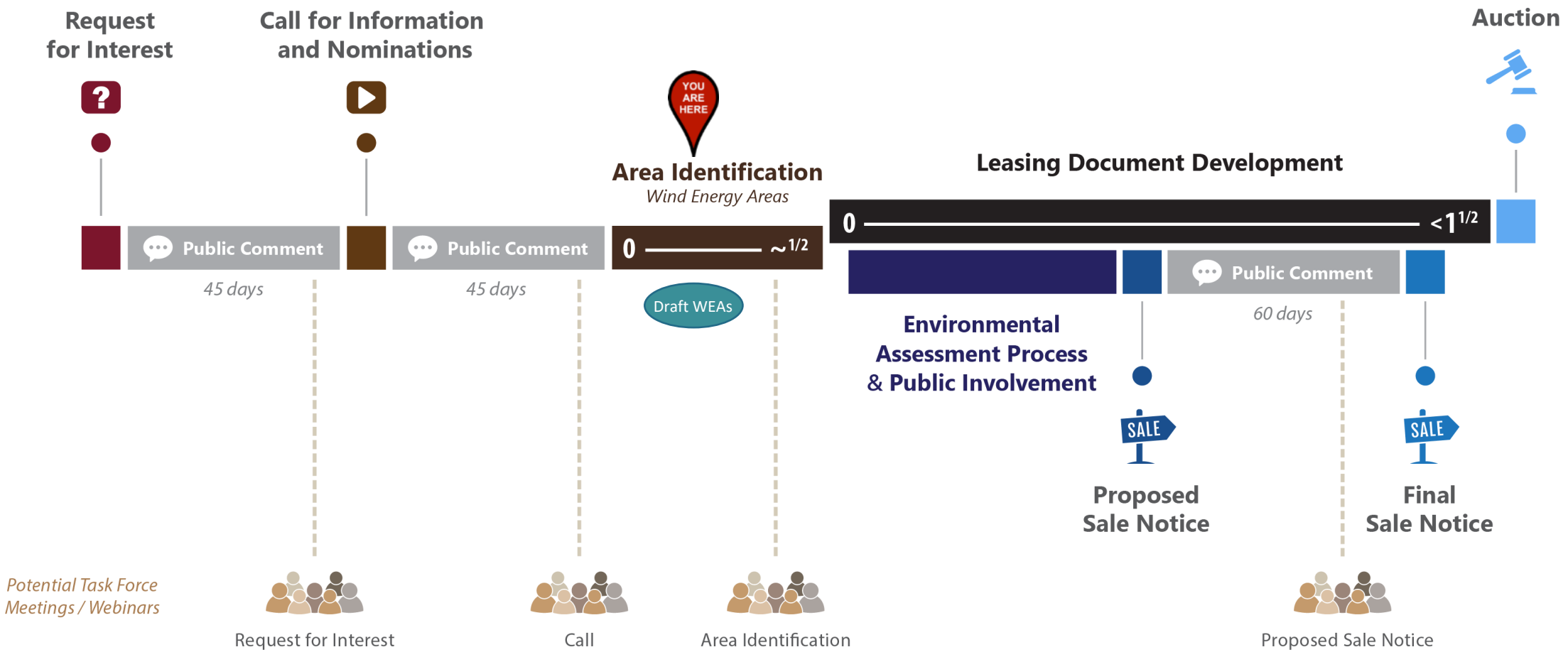
- Overview of BOEM Leasing Process
- Summary of completed steps
- Responses to the Call for Information and Nominations
- Path forward



Renewable Energy Leasing Process: From RFI/Call to Operation

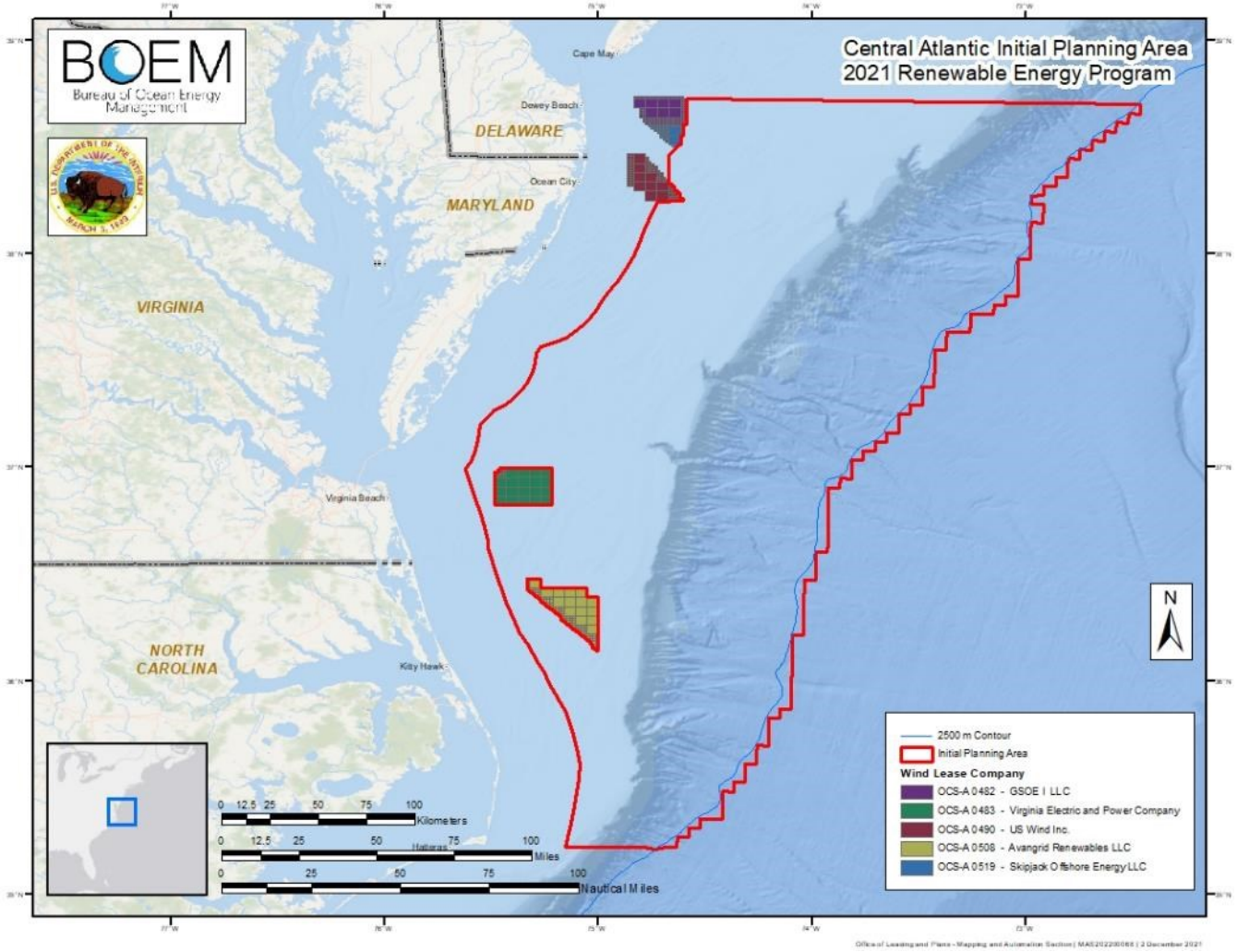


Renewable Energy Leasing Process: From RFI/Call to Lease Sale



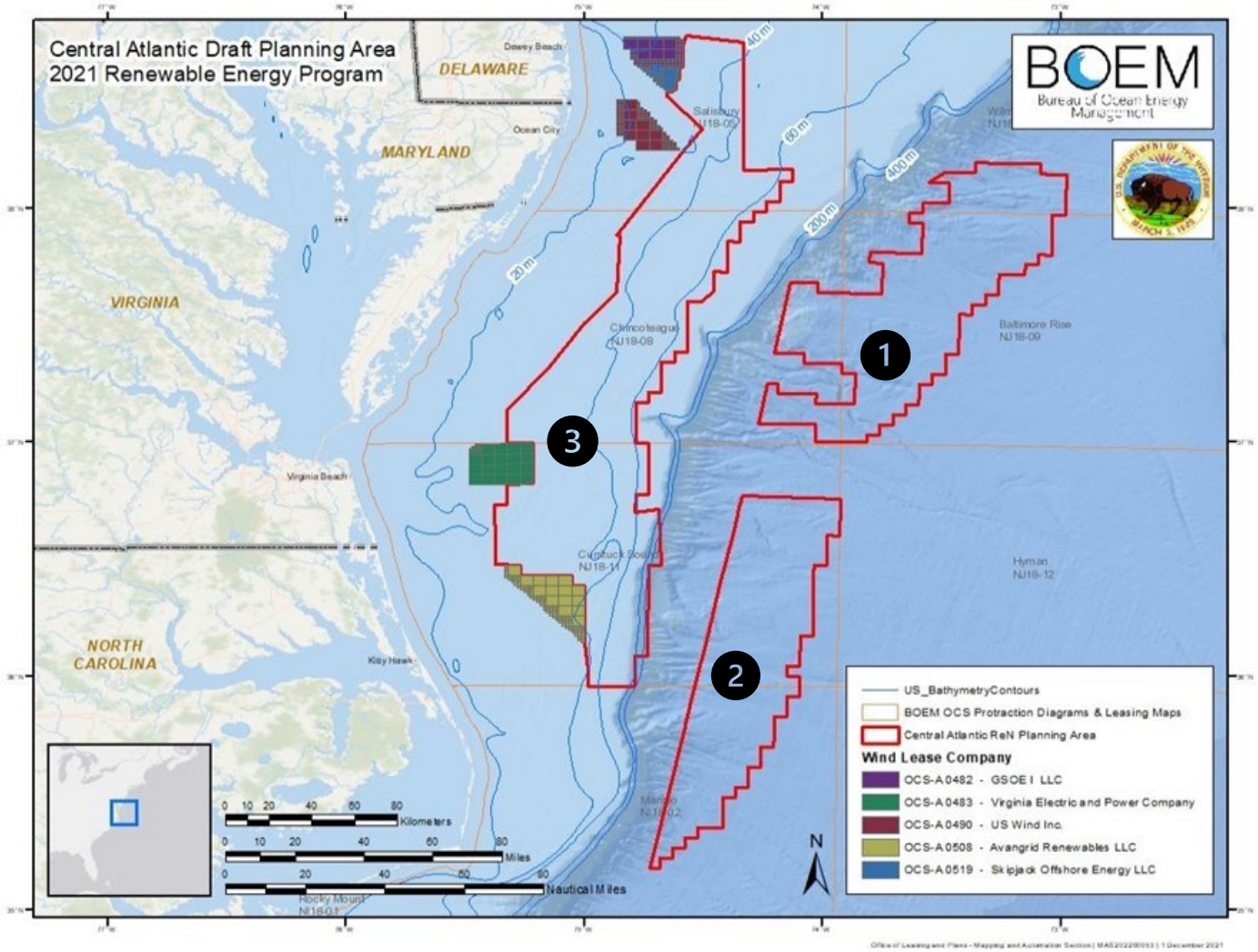
Central Atlantic

- Central Atlantic
  - Encompasses area offshore Delaware south to Cape Hatteras, North Carolina



Central Atlantic Planning Area

- Active wind energy leases
- Bathymetry
  - 60 meters
  - 2500 meters
- 5.8 million acres
  - 54.3% reduction from Region

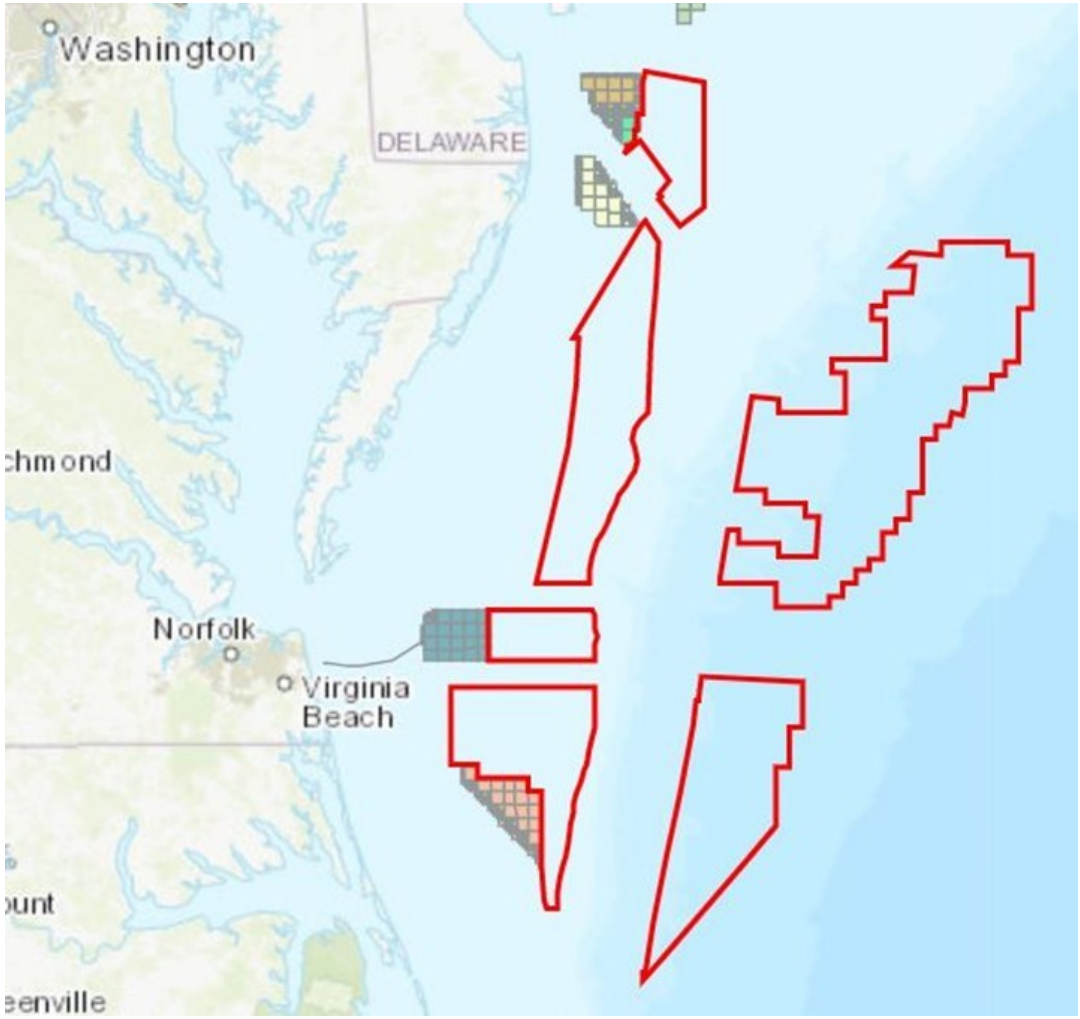


Recent Engagement Activities

- **Held virtual meetings with each affected State (VA, MD, NC and DE)**
  - Discussed state wind energy goals, progress, concerns and data availability
- **Coordinated with Federal Partners (USCG, NOAA, NASA, USFWS and DoD)**
- **Solicited feedback at informational meetings on the Planning Areas**
  - Maritime Industry (December 8, 2021); 36 participants
  - Tribal Governments (December 9, 2021); 10 Tribes participated
  - Environmental Non-Governmental Organizations (December 15, 2021); 47 participants
  - Four sector-based Fishery Meetings (January 5-6, 2022); 230 participants
  - Offshore Wind Energy Developers (January 19, 2022); 66 participants

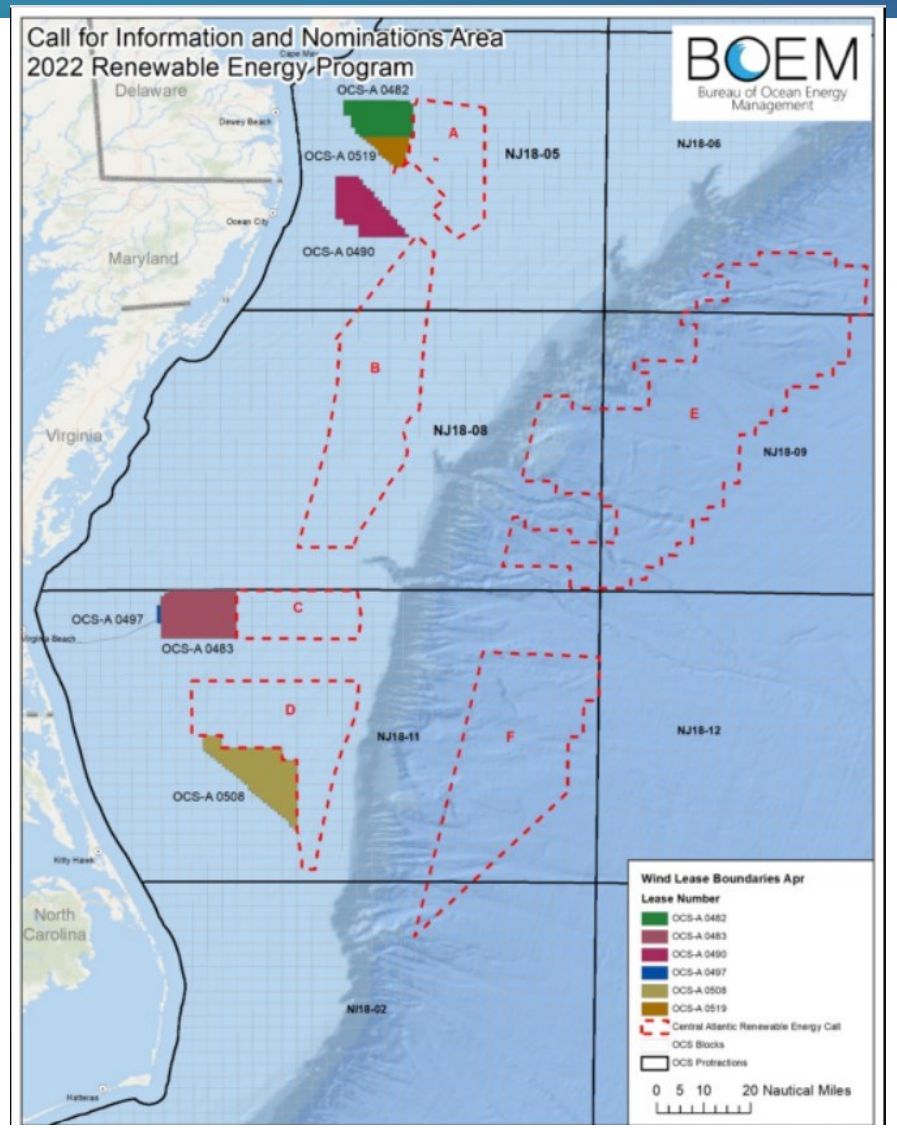
Draft Call for Information and Nominations Area

- 4.0 million acres
  - 68.5% reduction from Region
  - 31.0% reduction from Planning Area
- Central Atlantic Intergovernmental Renewable Energy Task Force Meeting
  - Held virtually on February 16, 2022
  - 250 Attendees



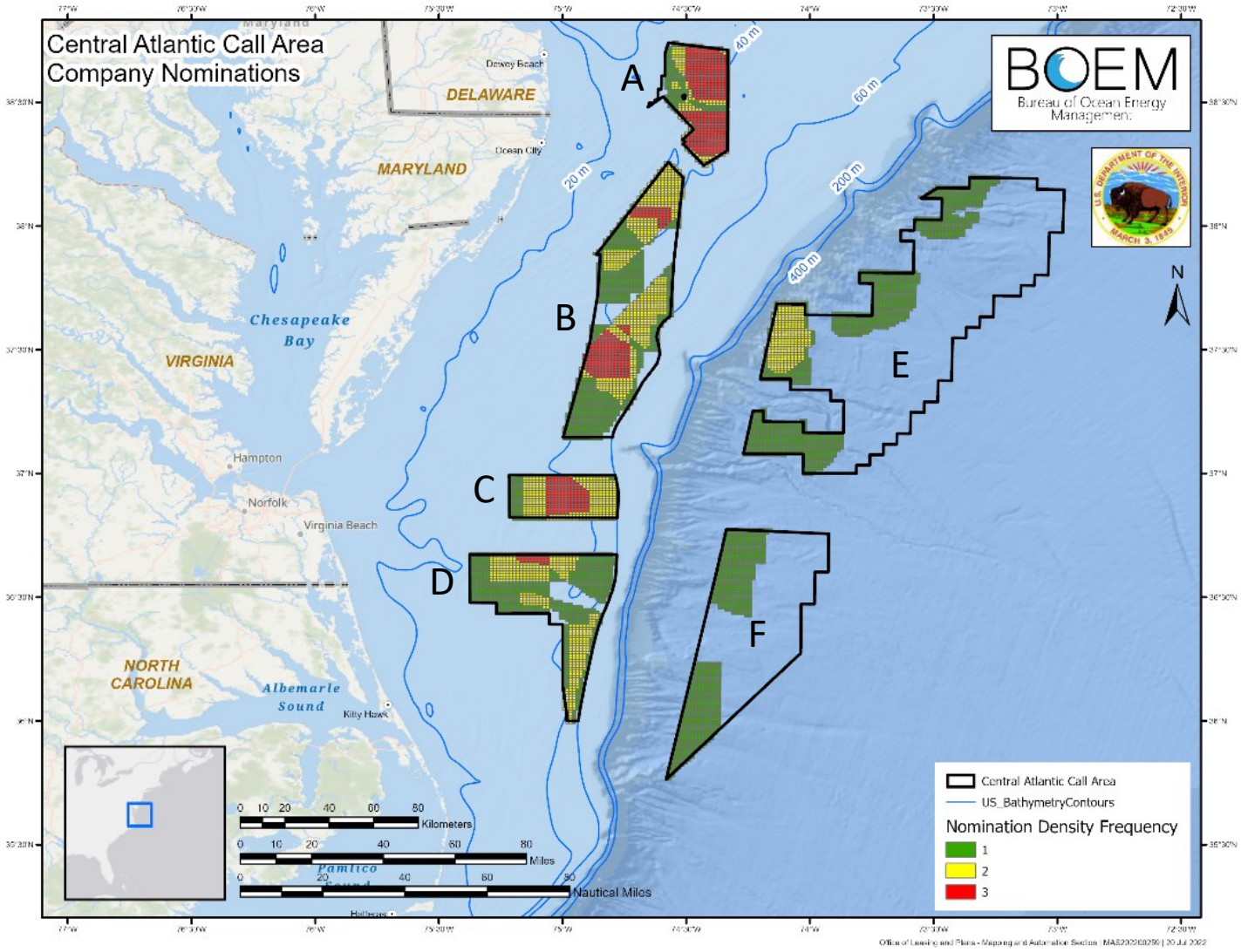
Call for Information and Nominations Area

- Six Call Areas (A-F)
  - Total 3.9 million acres
  - 496 whole blocks
  - 298 partial blocks
- Published in *Federal Register* on April 29, 2022
  - Comment period closed June 28, 2022
  - 66 comments received
  - 3 companies submitted nominations



Nominations

- 3 companies submitted nominations
  - Avangrid
  - US Mainstream
  - Ocean Winds
- 33 nominated areas
  - 7 in deepwater areas



Call Comment Summary

- Remove Call Area A from consideration
  - to protect the endangered rufa red knot
  - due to fishing productivity and overlap of sea scallop fishing areas
  - high levels of vessel traffic
- Eliminate portions of Call Area D to minimize migration conflicts
- Eliminate portions of Call Areas E and F
  - to protect endangered black capped petrels
  - to protect coral and offshore canyons
  - to avoid interference with pelagic long line fishing areas
- Call Areas E and F may require a different timeline and could cost more because of the floating wind technology.
- BOEM should provide transparency in WEA Identification process
- BOEM should coordinate with USCG, NOAA, and NASA to minimize conflicts of use and share data

Spatial Modeling to Inform Wind Energy Areas for the Central Atlantic Call Area

NCCOS | NATIONAL CENTERS FOR COASTAL OCEAN SCIENCE

BOEM
Bureau of Ocean Energy Management

NOAA Office for Coastal Management
NOAA National Centers for Coastal and Ocean Science
Bureau of Ocean Energy Management

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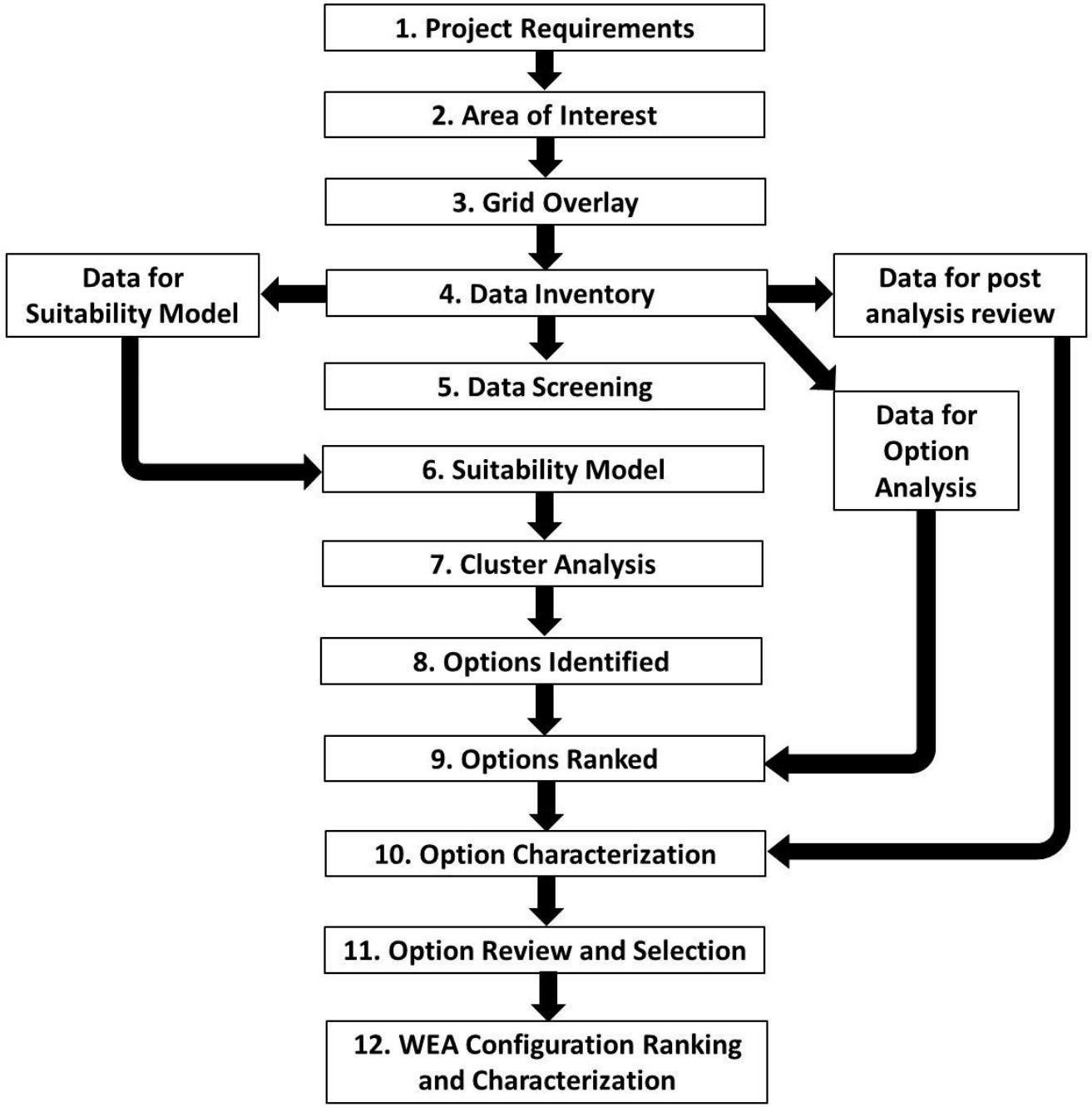
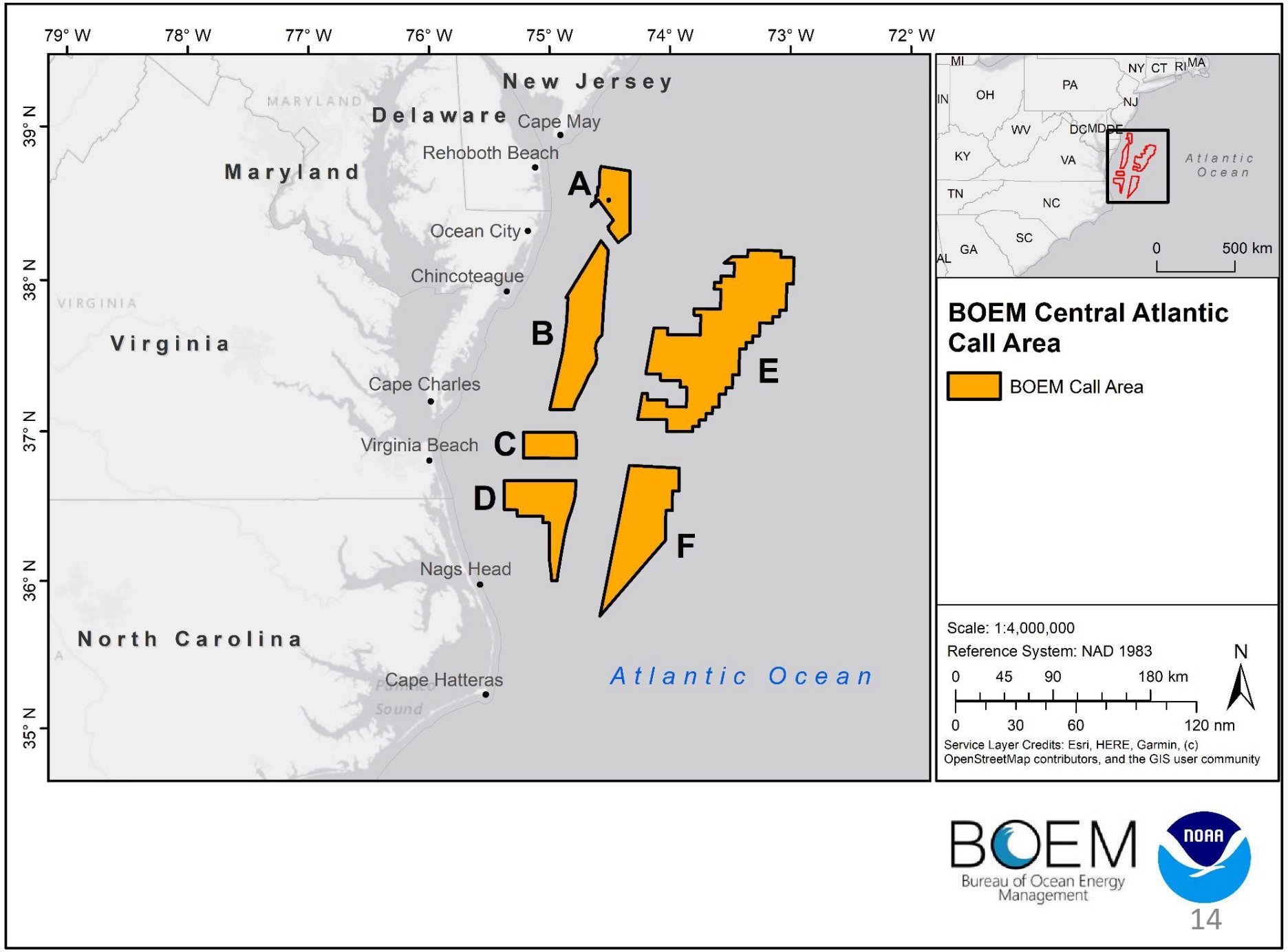

1. Project Requirements
2. Area of Interest
3. Grid Overlay
4. Data Inventory
Data for Suitability Model
Data for post analysis review
5. Data Screening
Data for Option Analysis
6. Suitability Model
7. Cluster Analysis
8. Options Identified
9. Options Ranked
10. Option Characterization
11. Option Review and Selection
12. WEA Configuration Ranking and Characterization

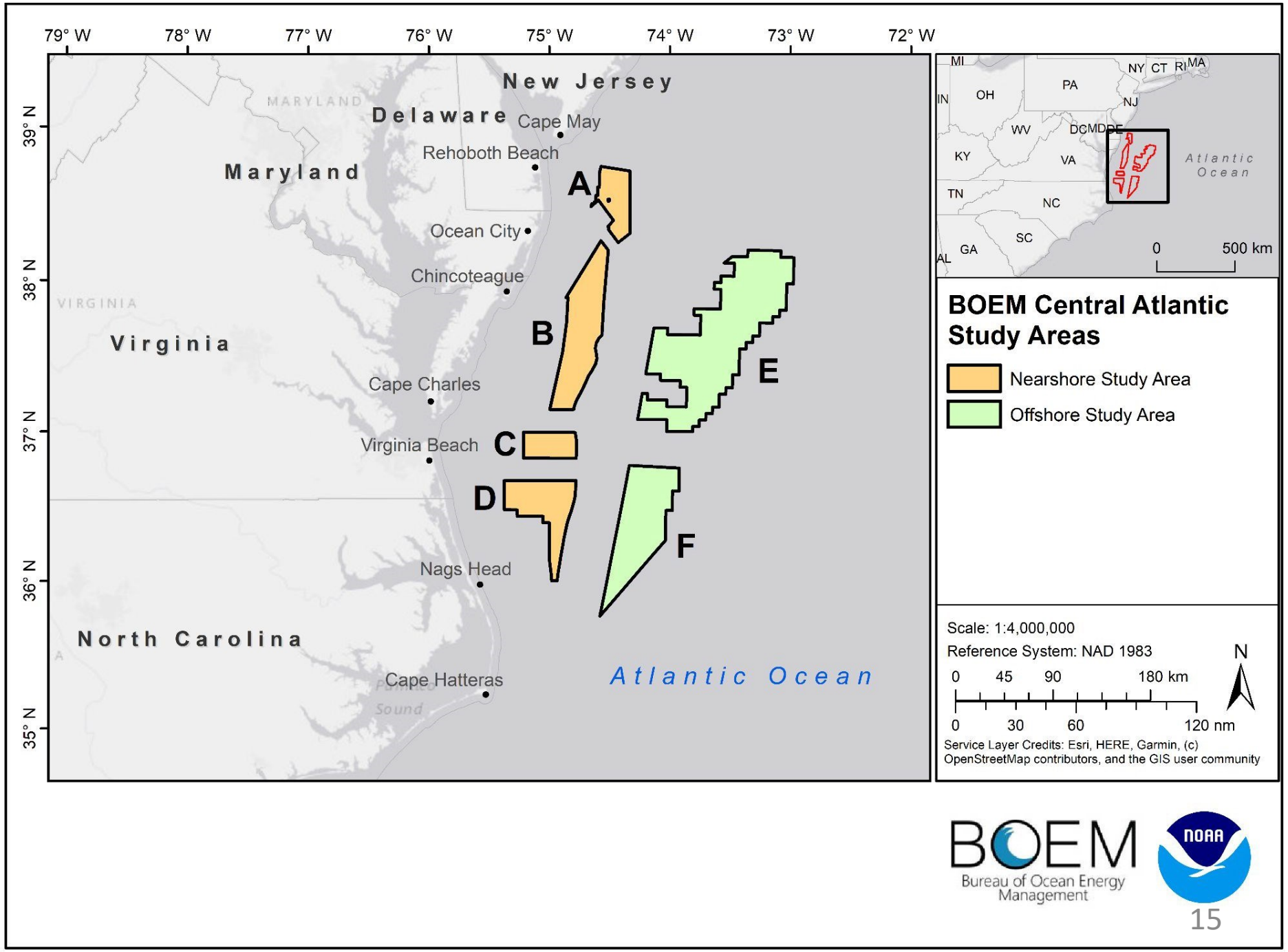
Central Atlantic Call Area



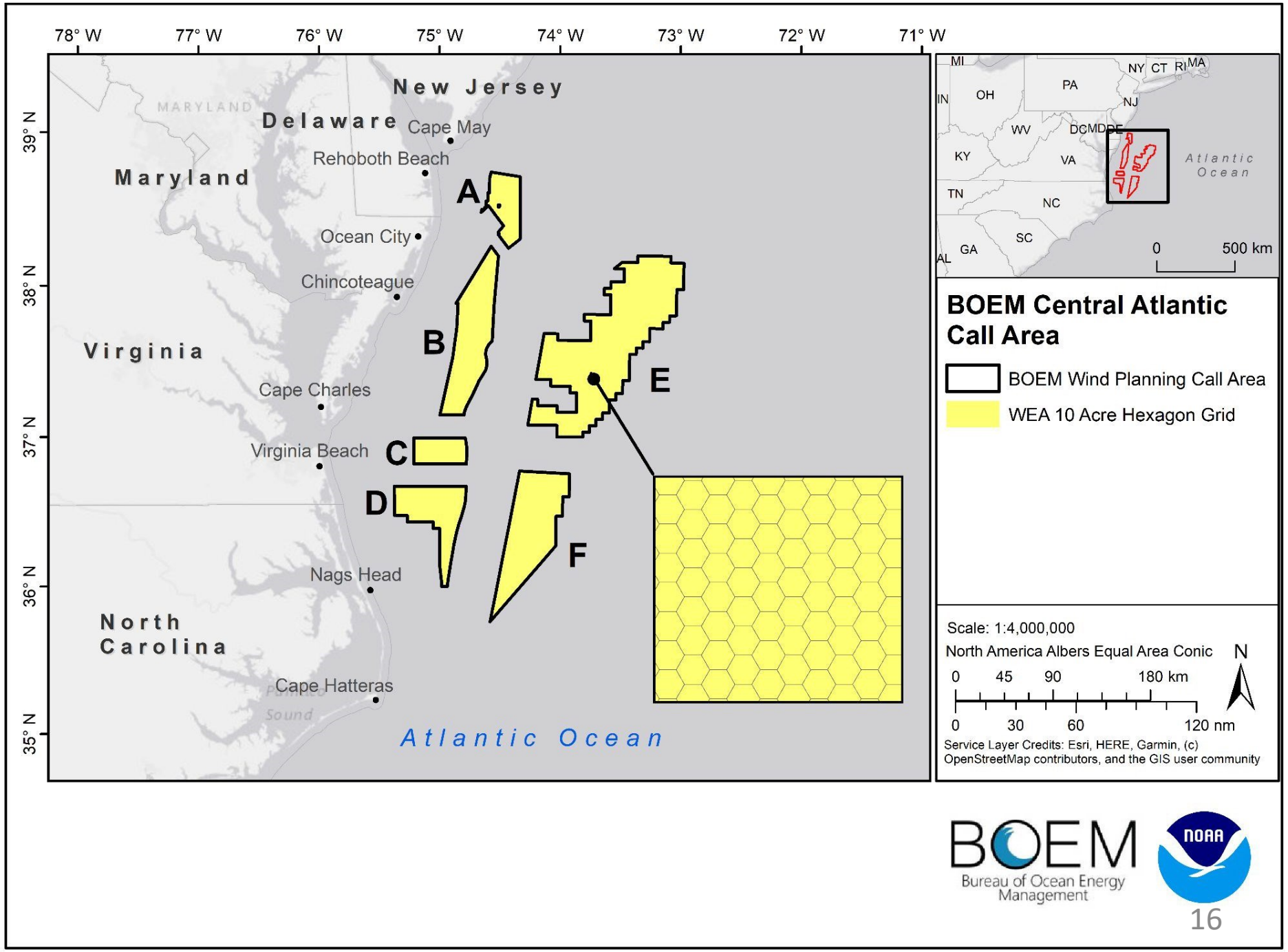
BOEM Bureau of Ocean Energy Management

NOAA

Central Atlantic Study Areas

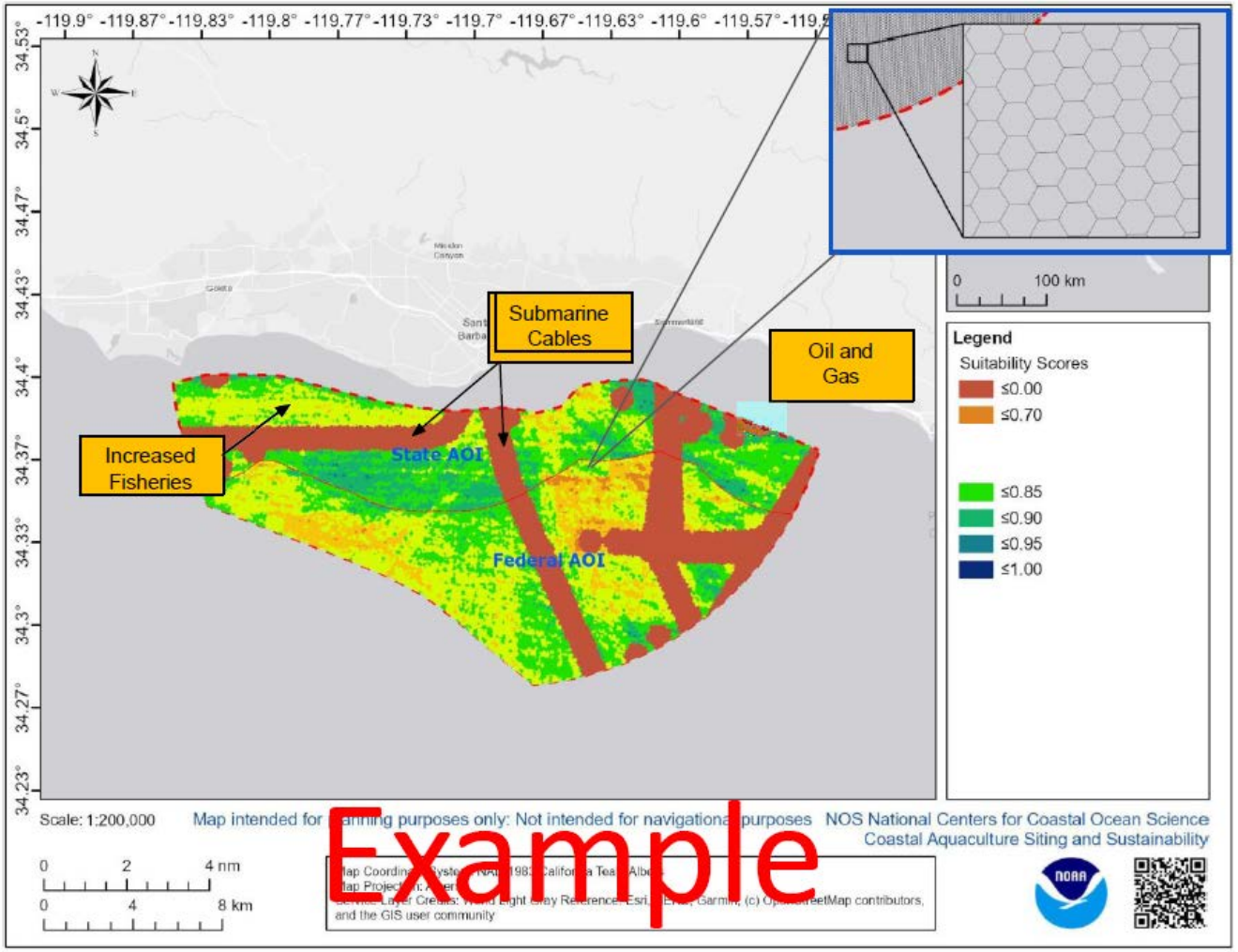


Grid Overlay



Suitability modeling

Identifies ocean areas with the lowest potential for use conflict and environmental impact

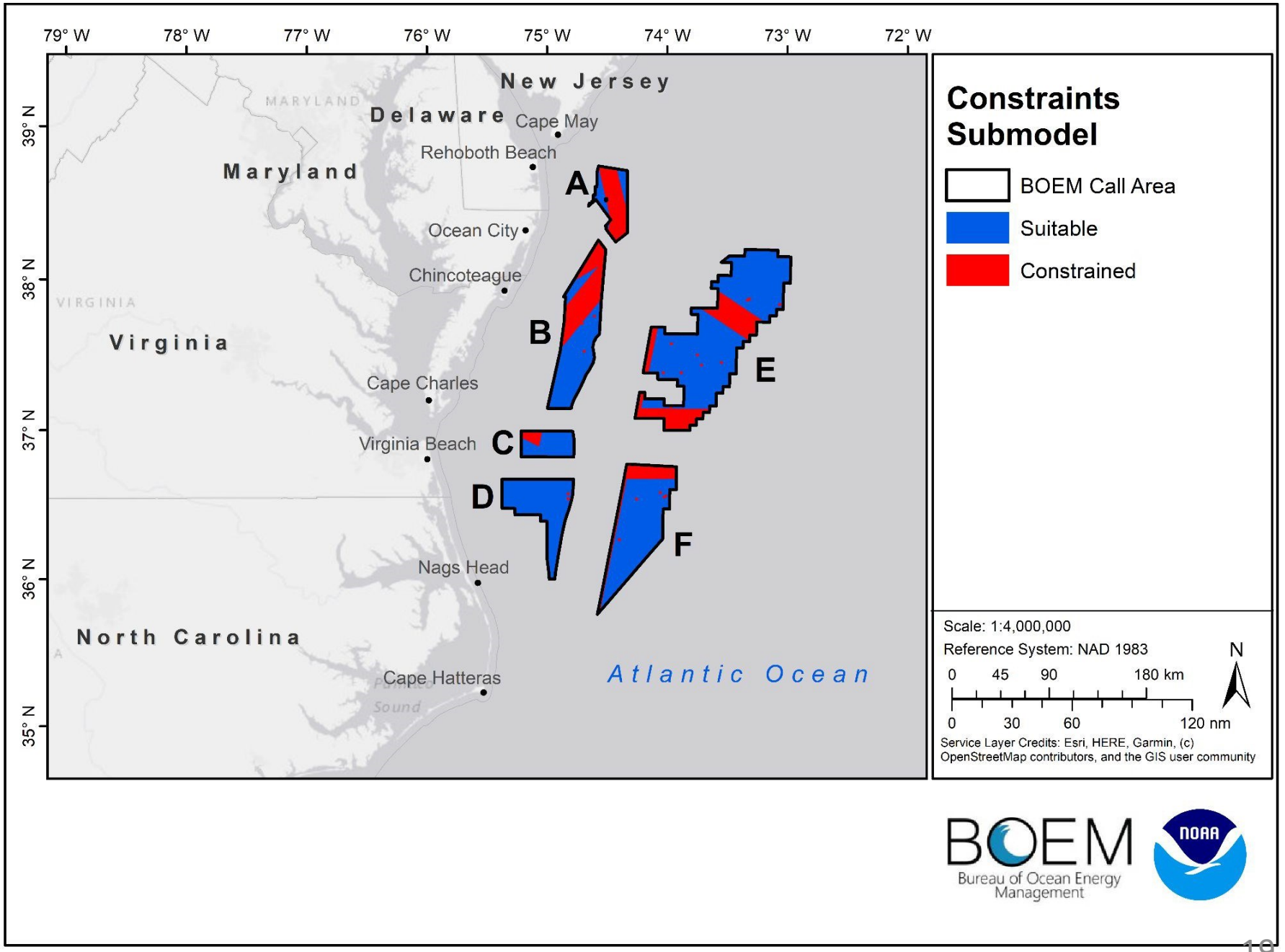


A **suitability model** is a **model** that weights locations relative to each other based on given criteria. A **common scale** allows for meaningful values to be produced when the criteria are combined. **Data** must be **transformed** into a common scale so the criteria can be compared. We are using a 0 to 1 scale.

Constraints Submodel

Data Layer	Setback Distances	Score	Cells Impacted	Percent Area Constrained
Deep Sea Coral and Sponge Observations	1000 m	0	2536	0.64%
Danger Zones and Restricted Areas	-	0	263	0.07%
NASA Wallops Flight Facility Exclusion Area	-	0	3,730	0.94%
Shipping Safety Fairways	-	0	93,161	23.59%
	All Constraints		**98,375**	**24.91%**

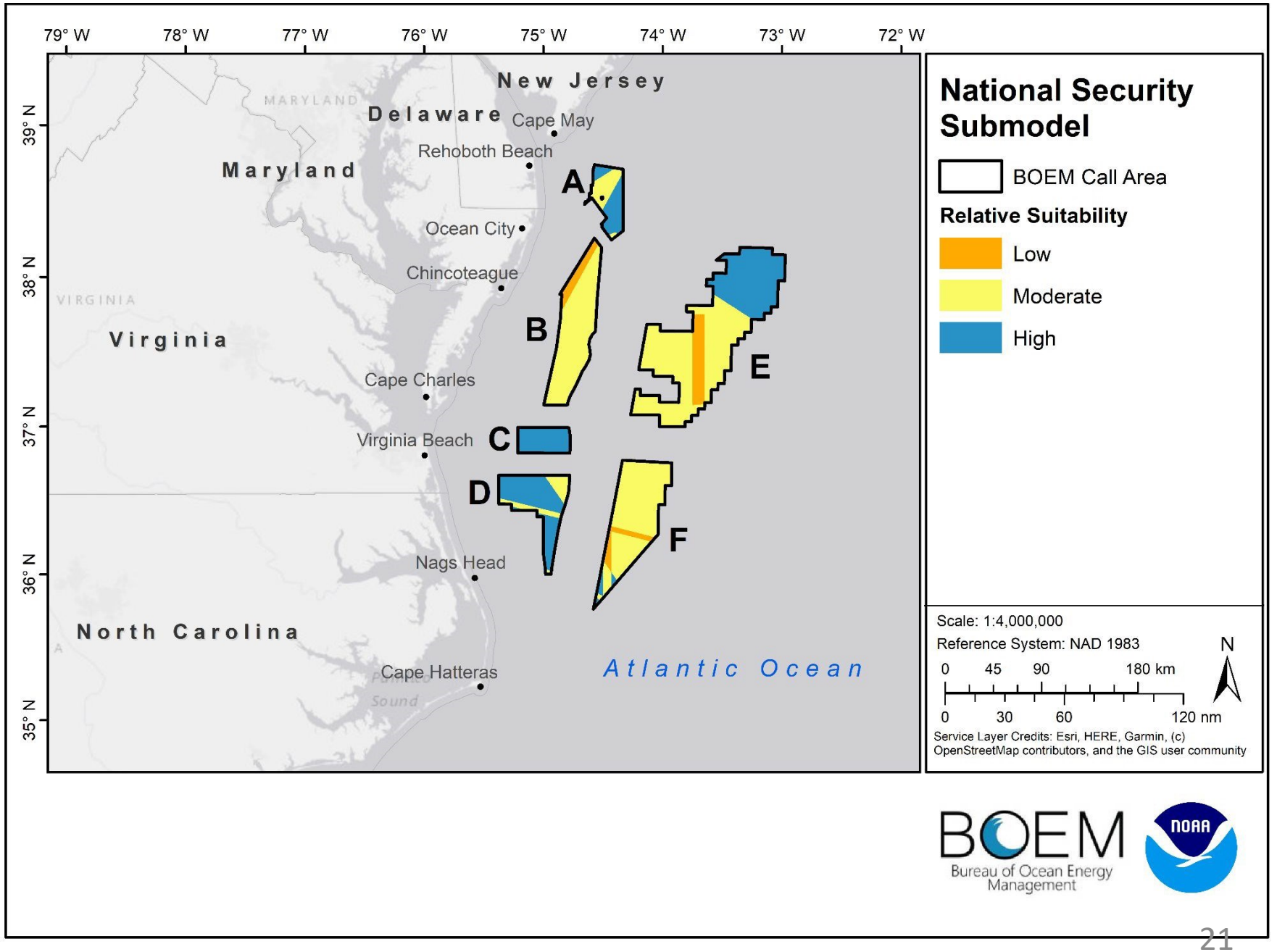
Constraints Submodel



National Security Submodel

Data Layer	Score
Military Operating Area (MOA)- Virginia Capes	0.5
Special Use Airspace (SUA) - W386, W72	0.5
NASA Hazard Area	0.5
Regulated Airspace - ASC Test Track (A, B, C, D), Langley, Victor, ASC Central, North, South	0.5

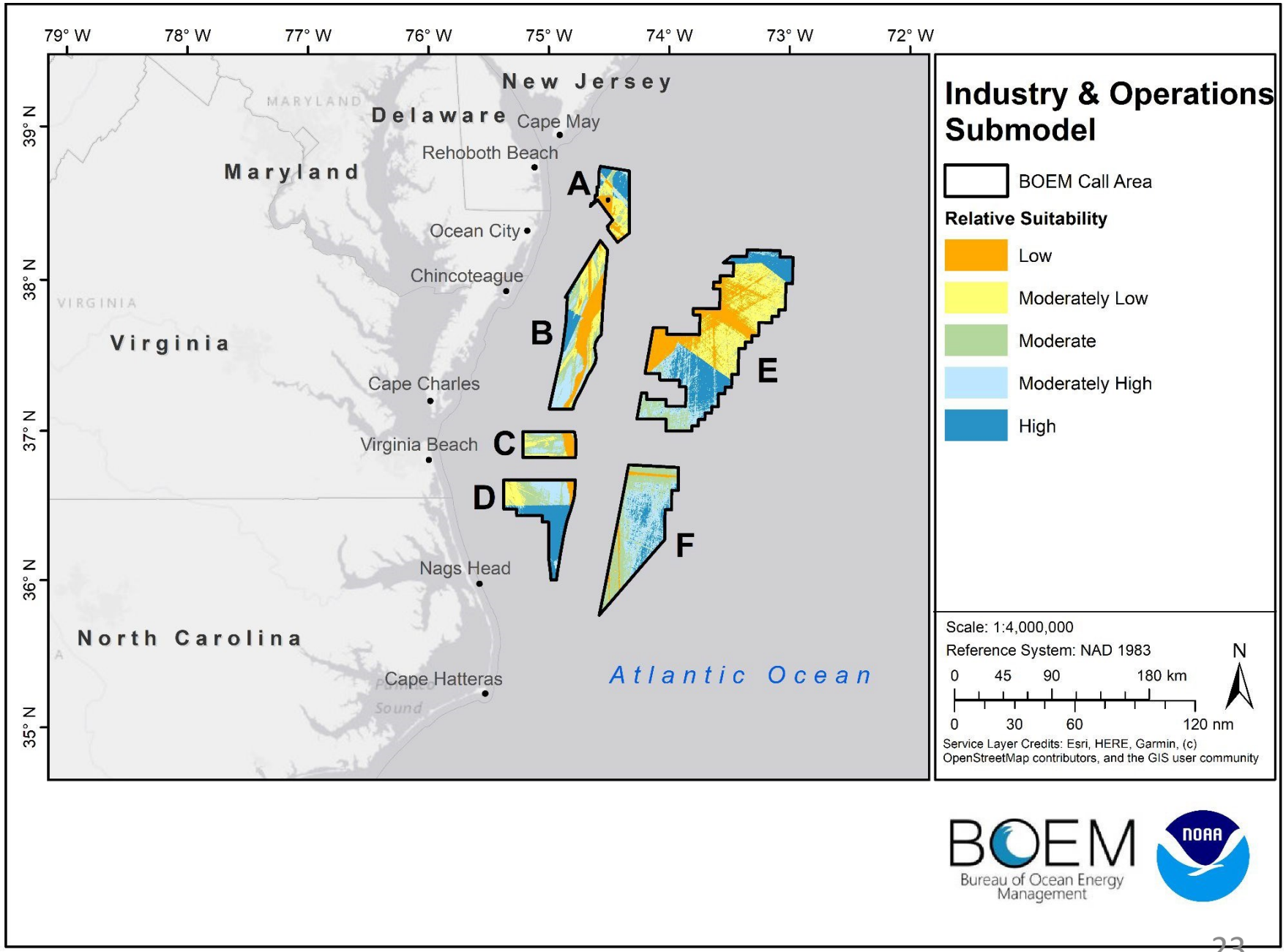
National Security Submodel



Industry and Operations Submodel

Data Layer	Score
NMFS Independent Fisheries Surveys	Z membership function
AIS Vessel Traffic All Vessels 2015 - 2021	Z membership function

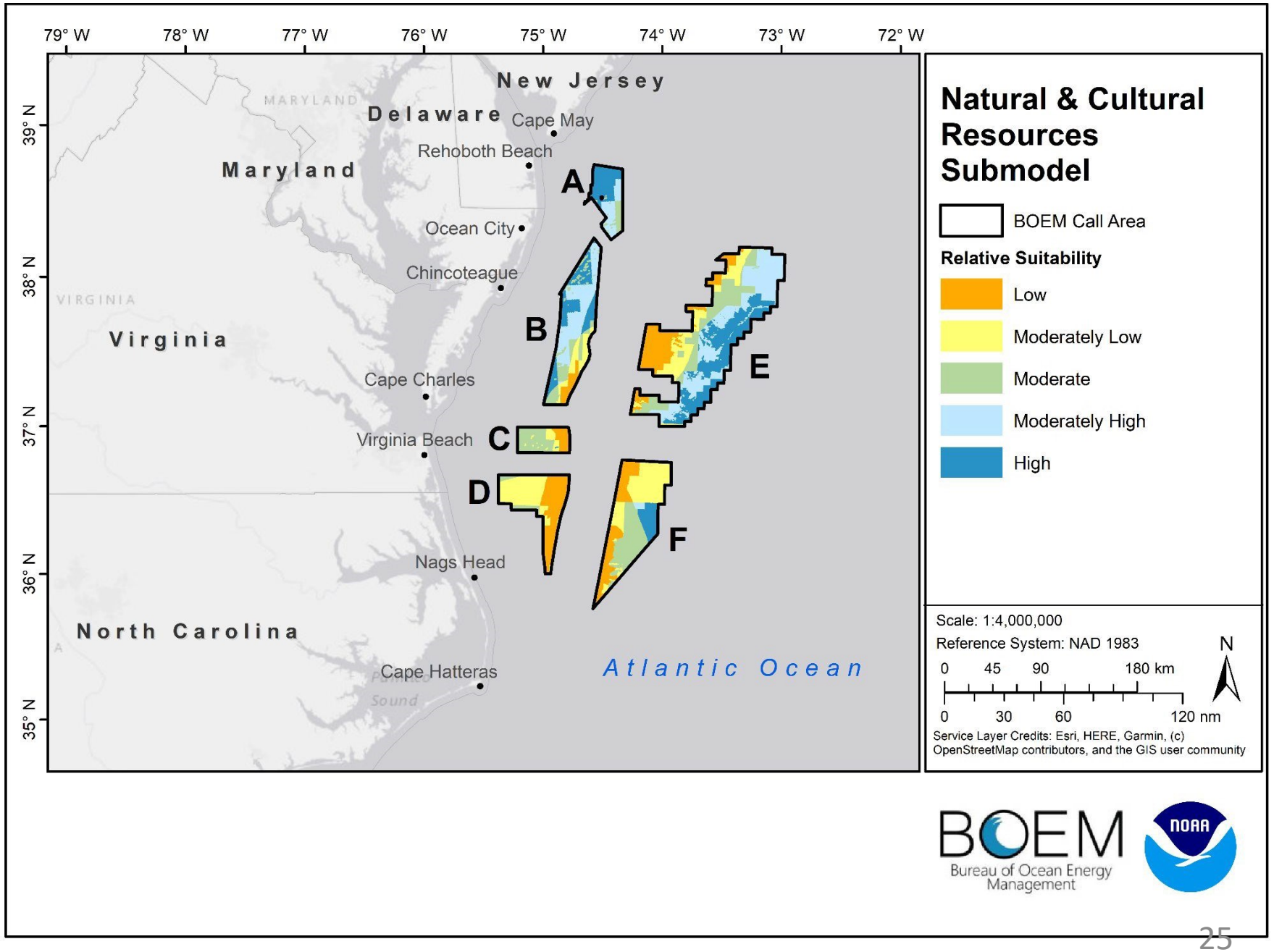
Industry and Operations Submodel



Natural and Cultural Resources Submodel

Data Layer	Score
PRD Combined Layer (31 species)	NMFS Scores
Habitat Combined Layer (Model 4)	NMFS Scores
Black-Capped Petrel Annual Abundance	Z Membership Function
HMS EFH Overfished/Prohibited Sharks Count	Z membership function
HMS EFH Target Species Count	Z membership function

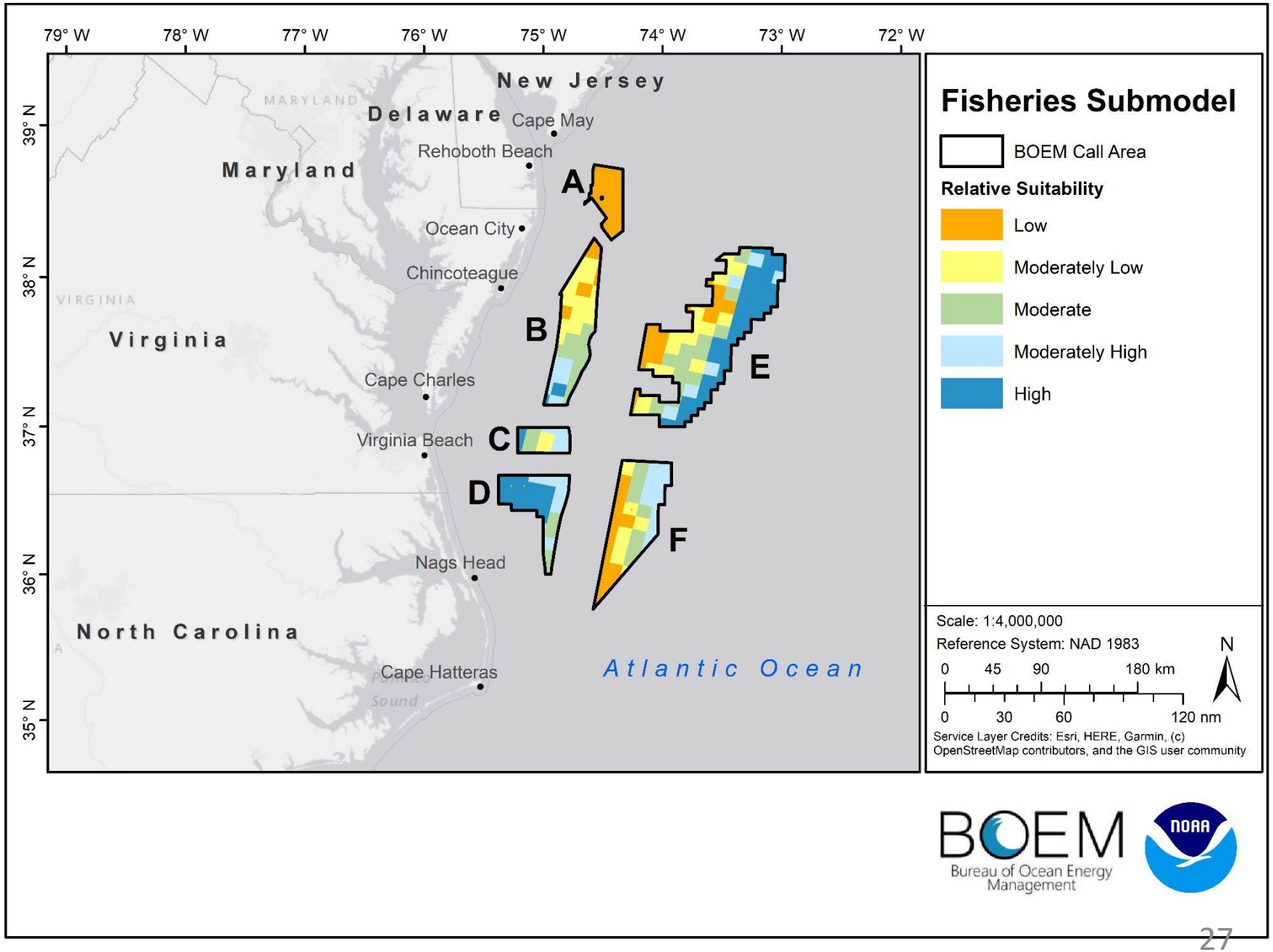
Natural & Cultural Resources Submodel



Fisheries Submodel

Data Layer	Score
VMS All Fishing Types Mean 2016-2021	Z membership function
Southeast Region Headboat Survey	Z membership function

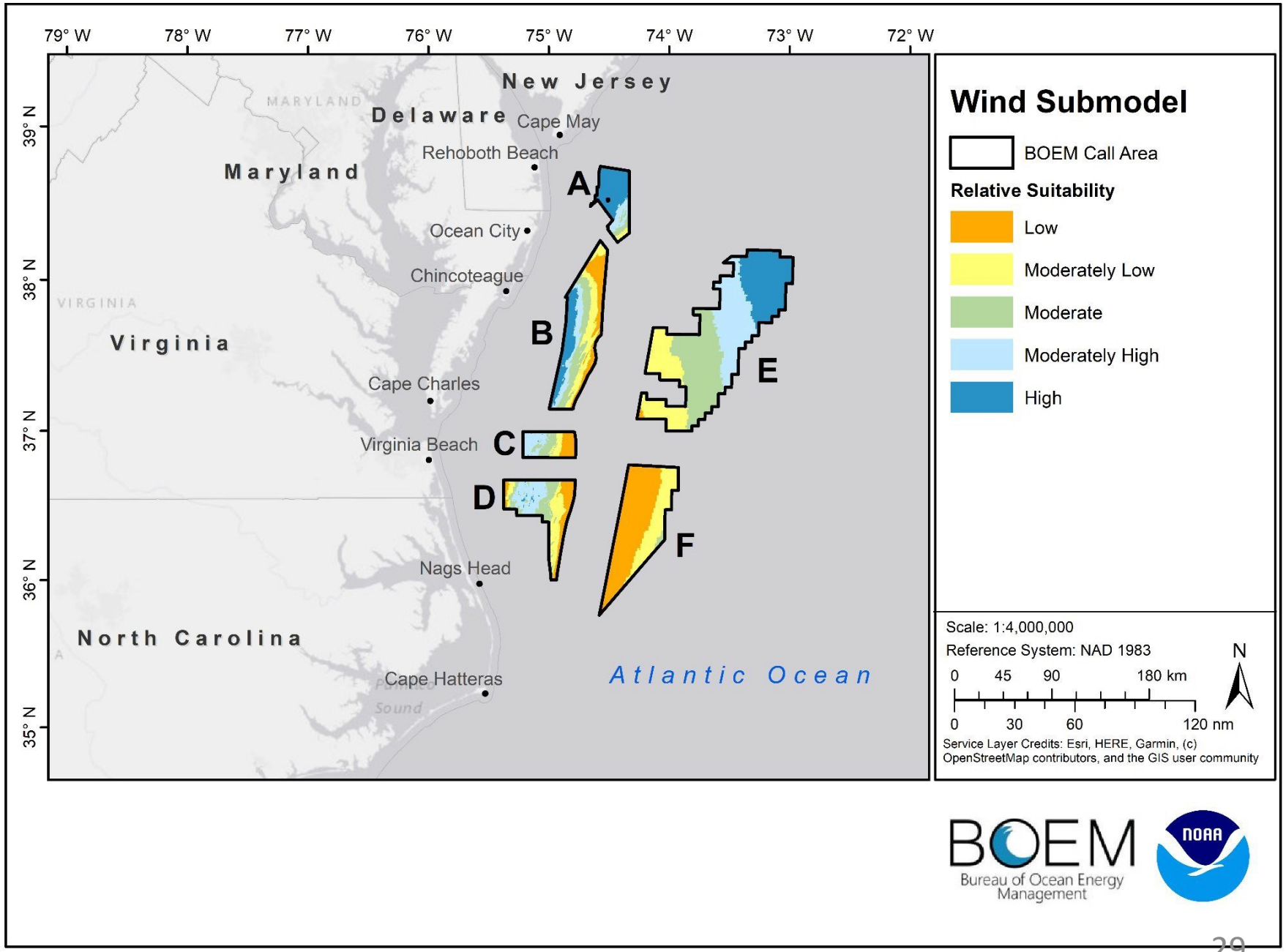
Fisheries Submodel

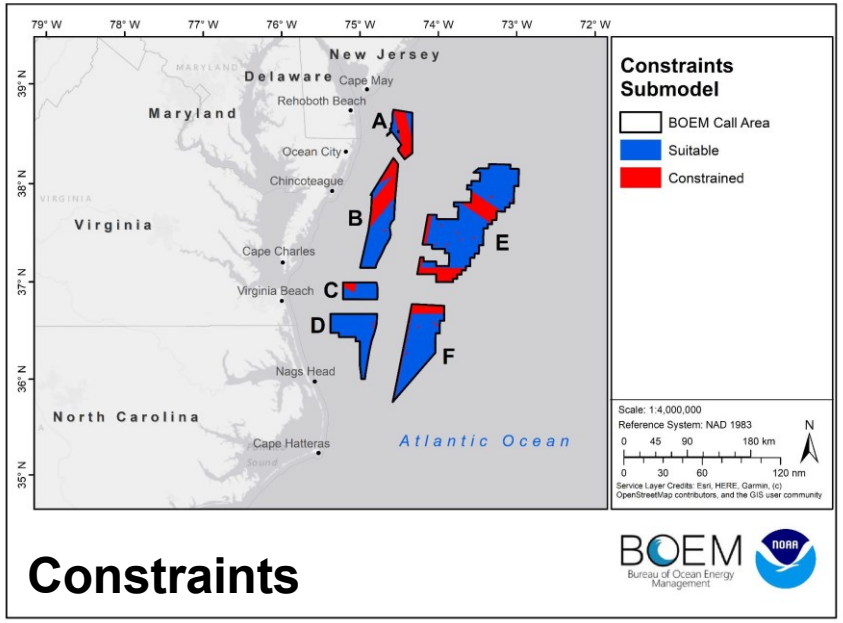


Wind Submodel

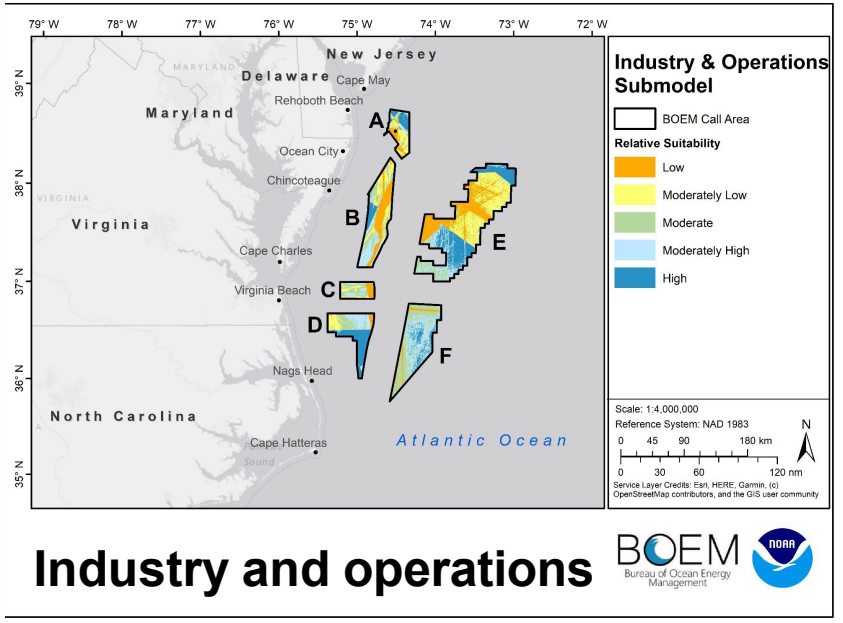
Data Layer	Score
Distance to shore	Linear function (Closer to shoreline is better) - ***Excluded from offshore study area model***
Distance to principal ports	Linear function (Closer to principal port is better) - ***Excluded from offshore study area model***
Depth	Linear function (Shallower depth is better)
Atlantic Wind Speed - Annual Average	Linear function (Greater Mean WS is better)

Wind Submodel

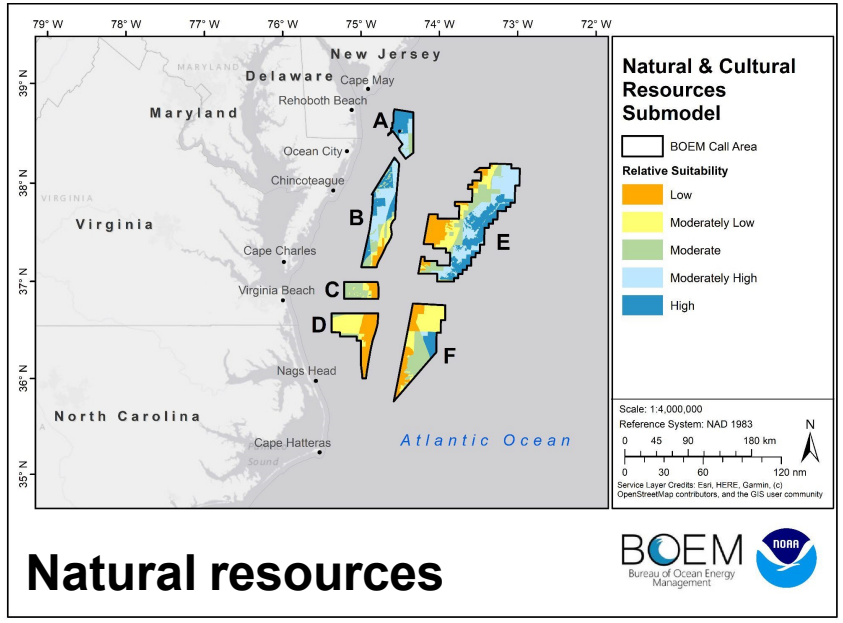




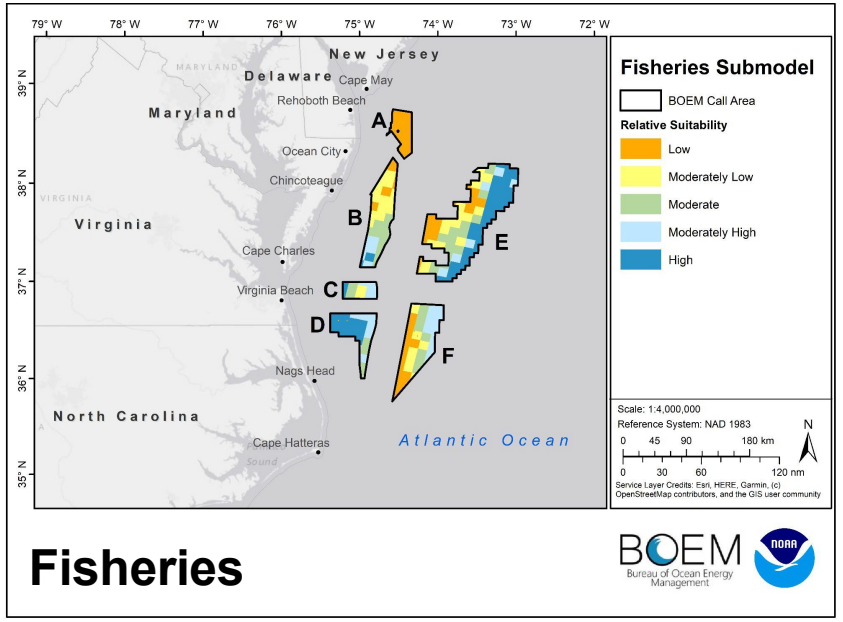
Constraints



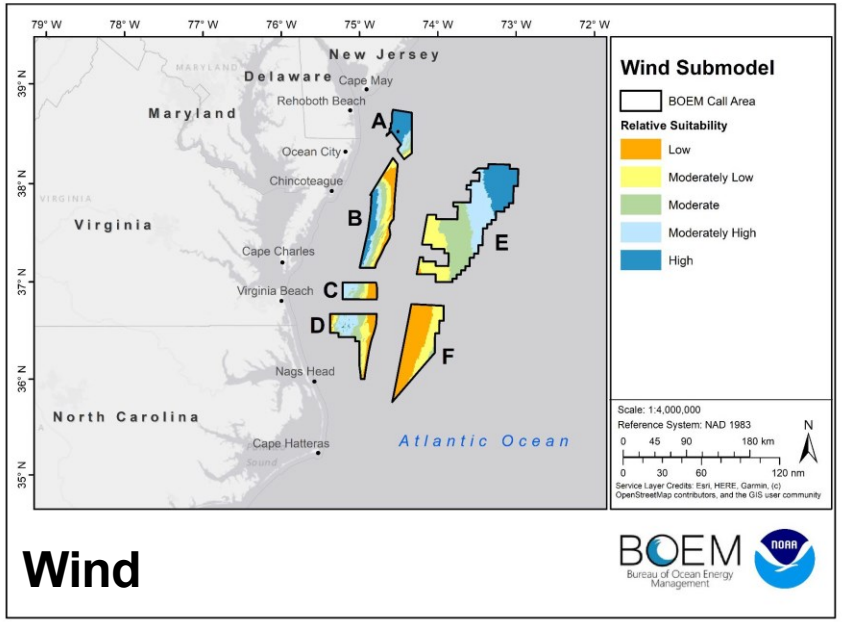
Industry and operations



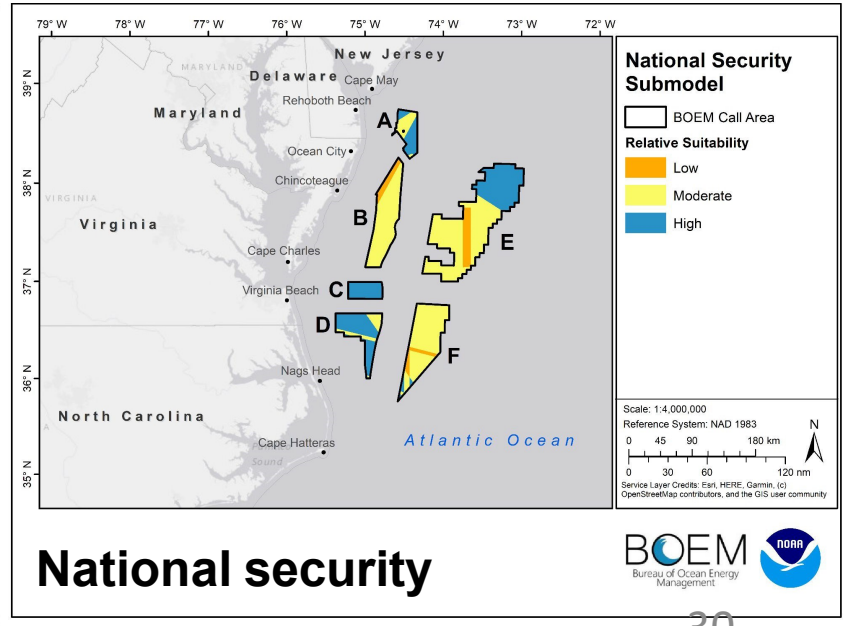
Natural resources



Fisheries

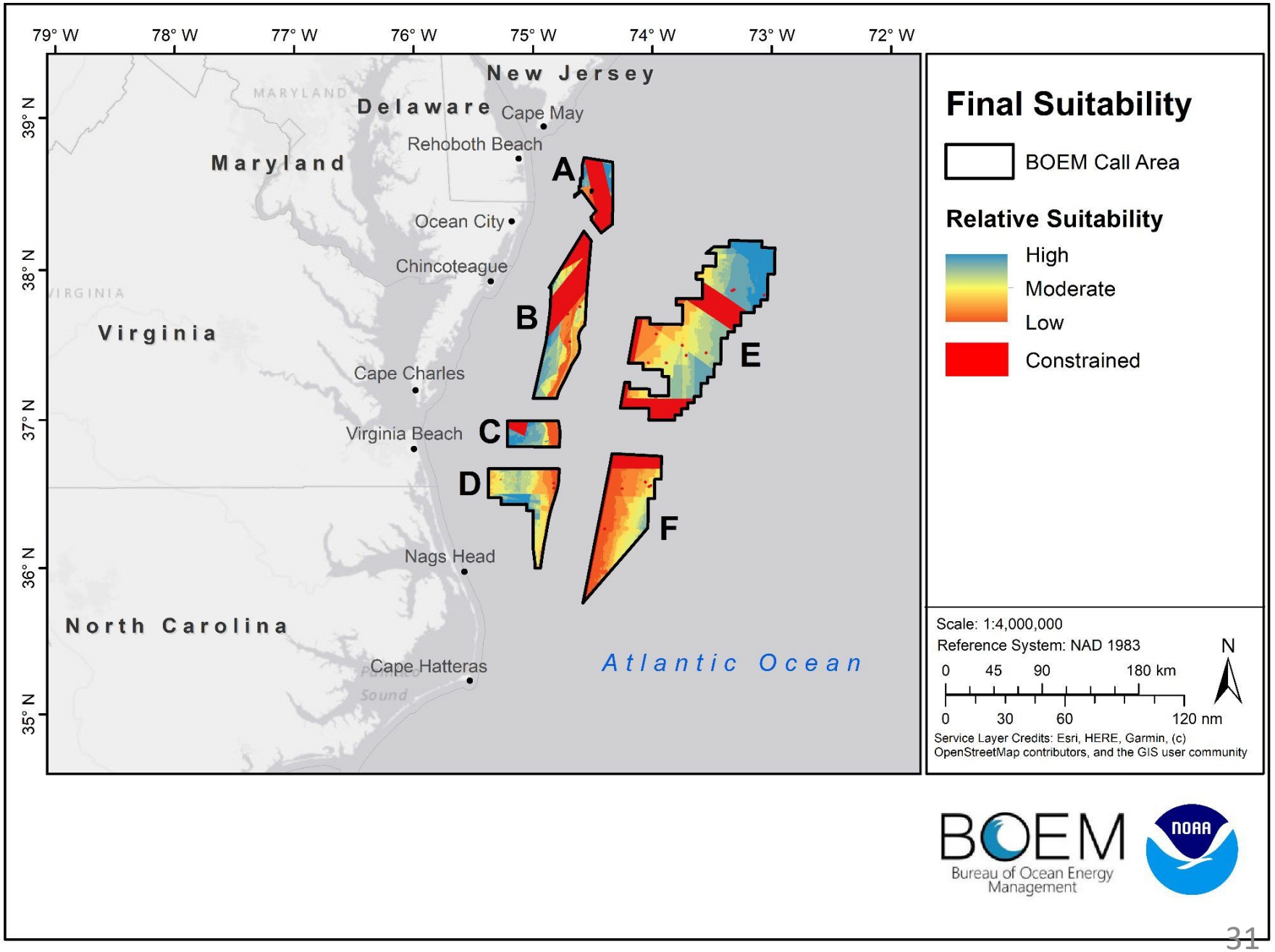


Wind



National security

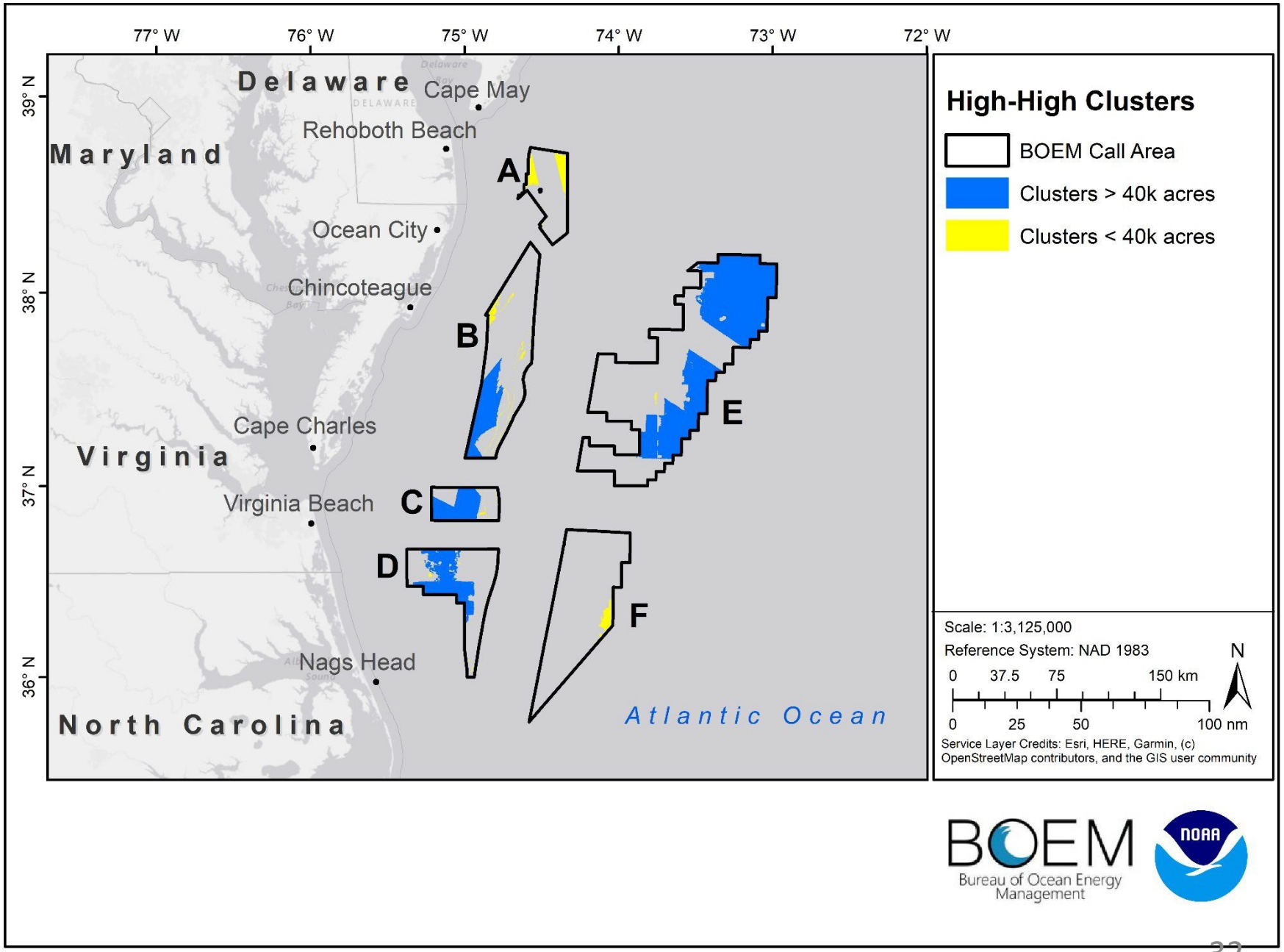
Final Suitability



High-High Clusters

1,203,160 acres

Top scoring clusters at the p=.15 significance level (85% confidence interval)

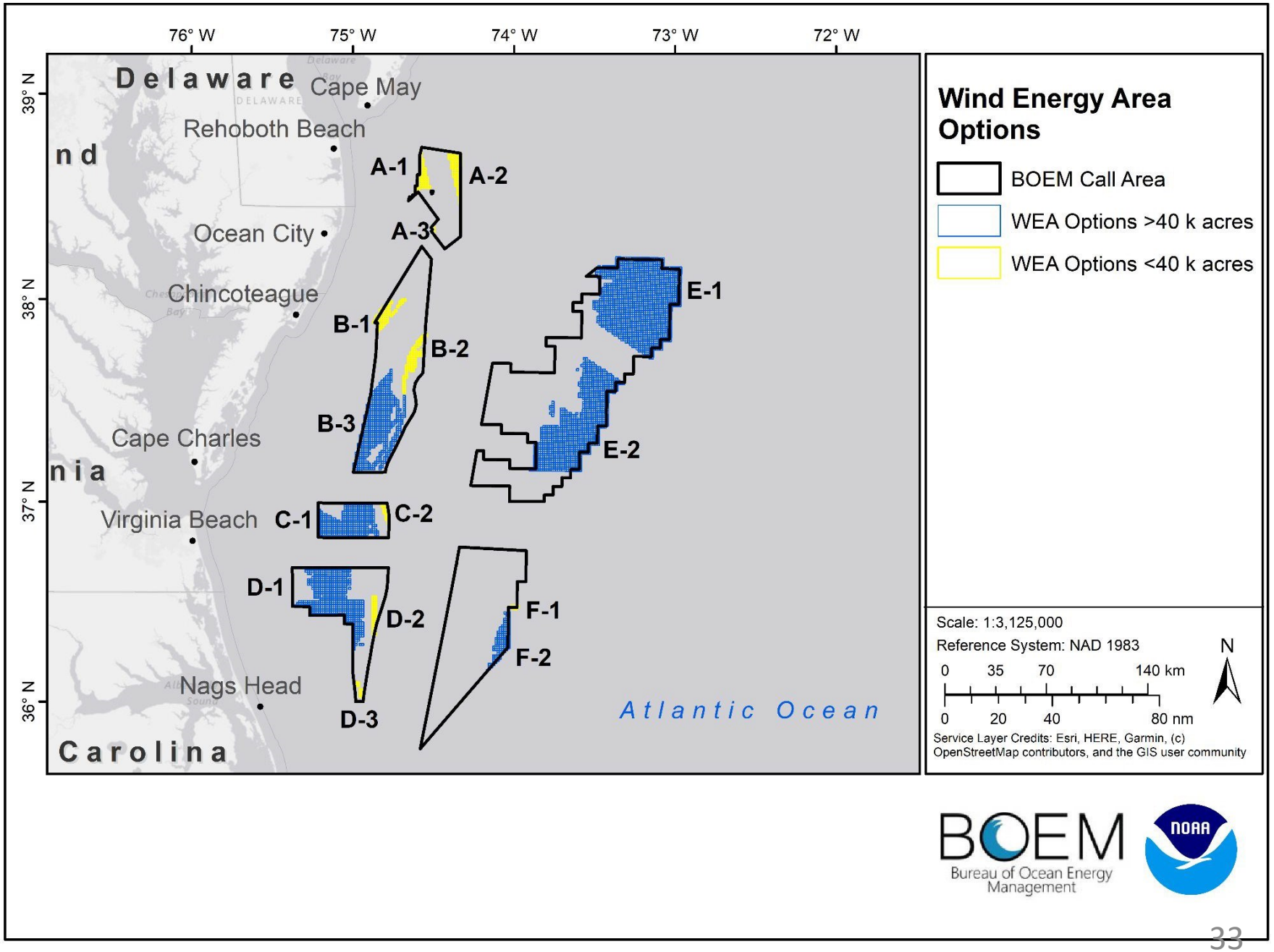


WEA Options

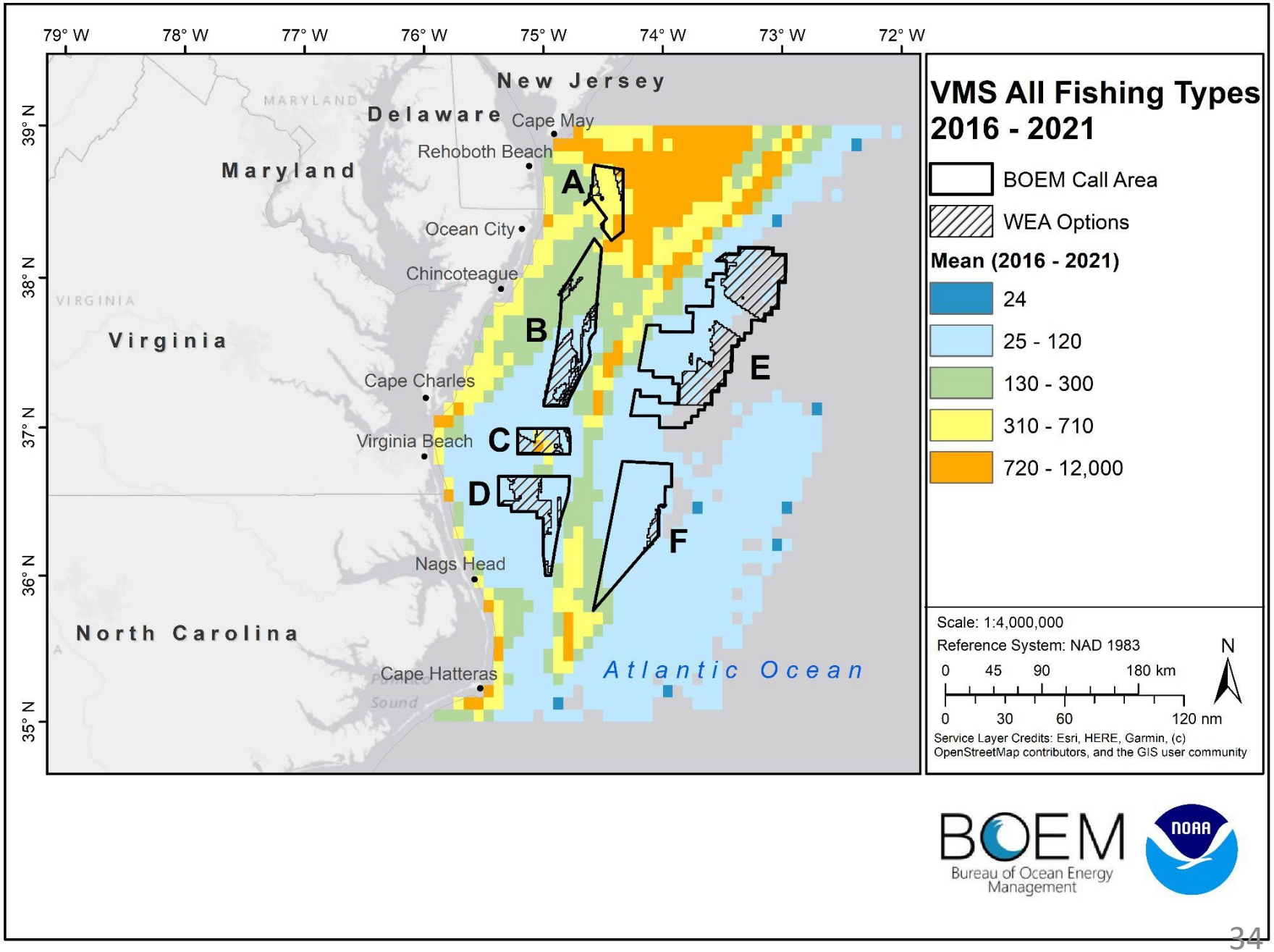
15 areas ranging from:
470,501 to 1,068 acres

1,458,224 acres total

4,096 total aliquots



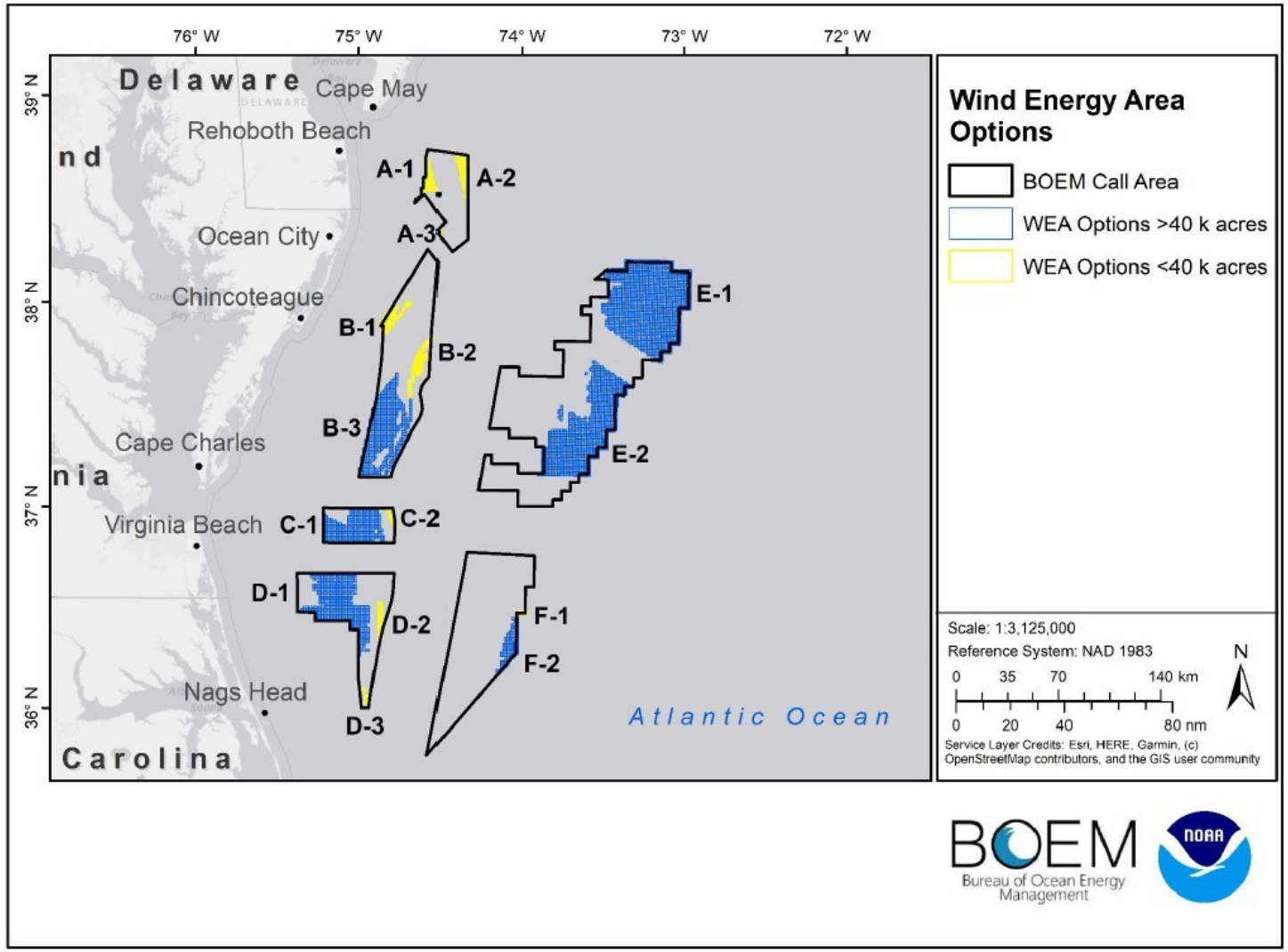
VMS All Fishing Types Mean 2016 - 2021



Thank you!
Questions/discussion

Draft WEA Options: Model Recommendations

- 15 draft WEA options
  - Approximately 1.45M acres
  - 62.5% reduction of Call Area

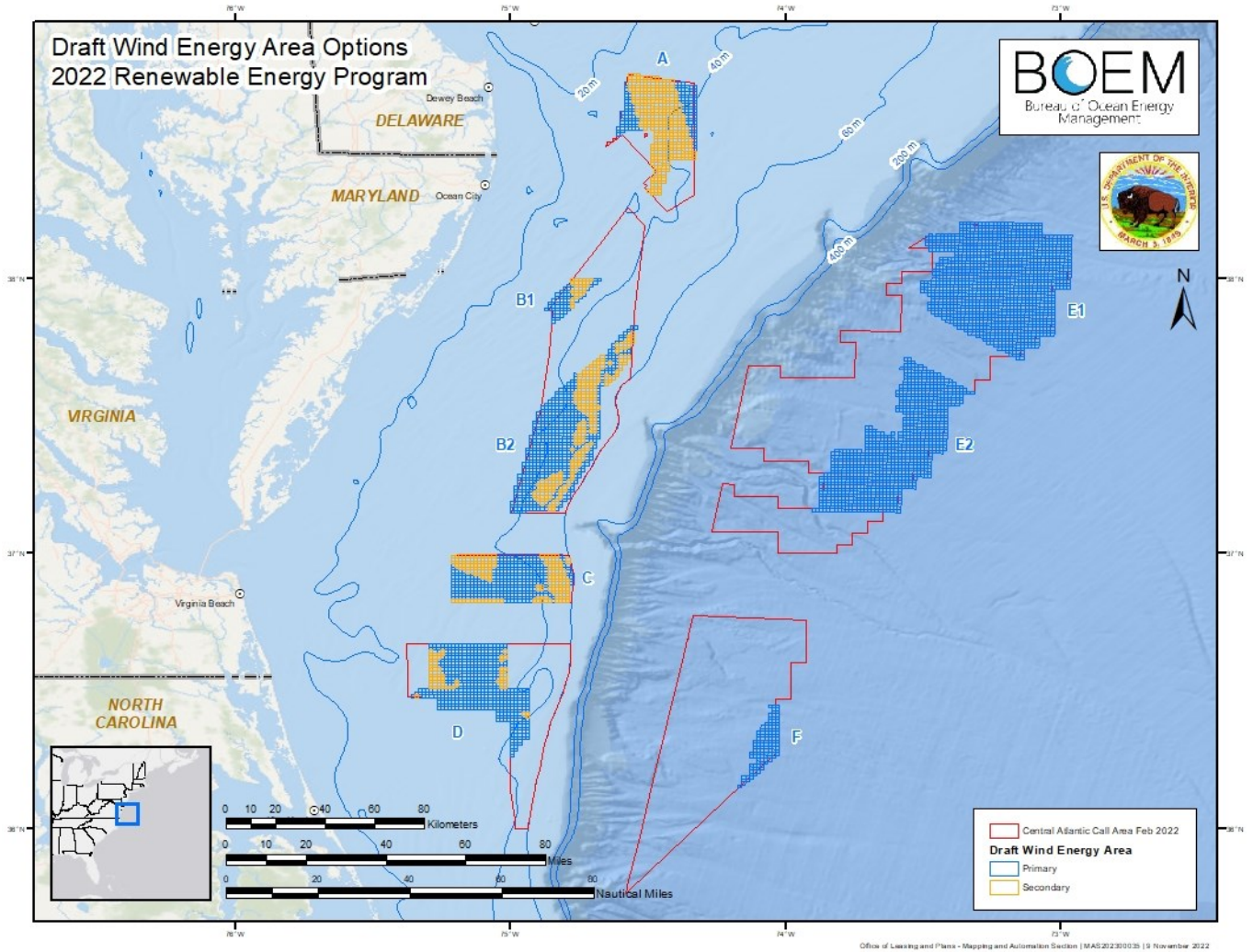


Draft WEAs Overview

- BOEM recommends 8 draft WEAs
  - A
  - B-1, B-2
  - C
  - D
  - E-1, E-2
  - F
- Total Acres: Approximately 1.75M
  - Nearshore area (A-D): 890,631 acres
  - Deepwater area (E – F): 856,395 acres
- 55% reduction in Call Area

= Primary model recommended area

= Secondary BOEM added area



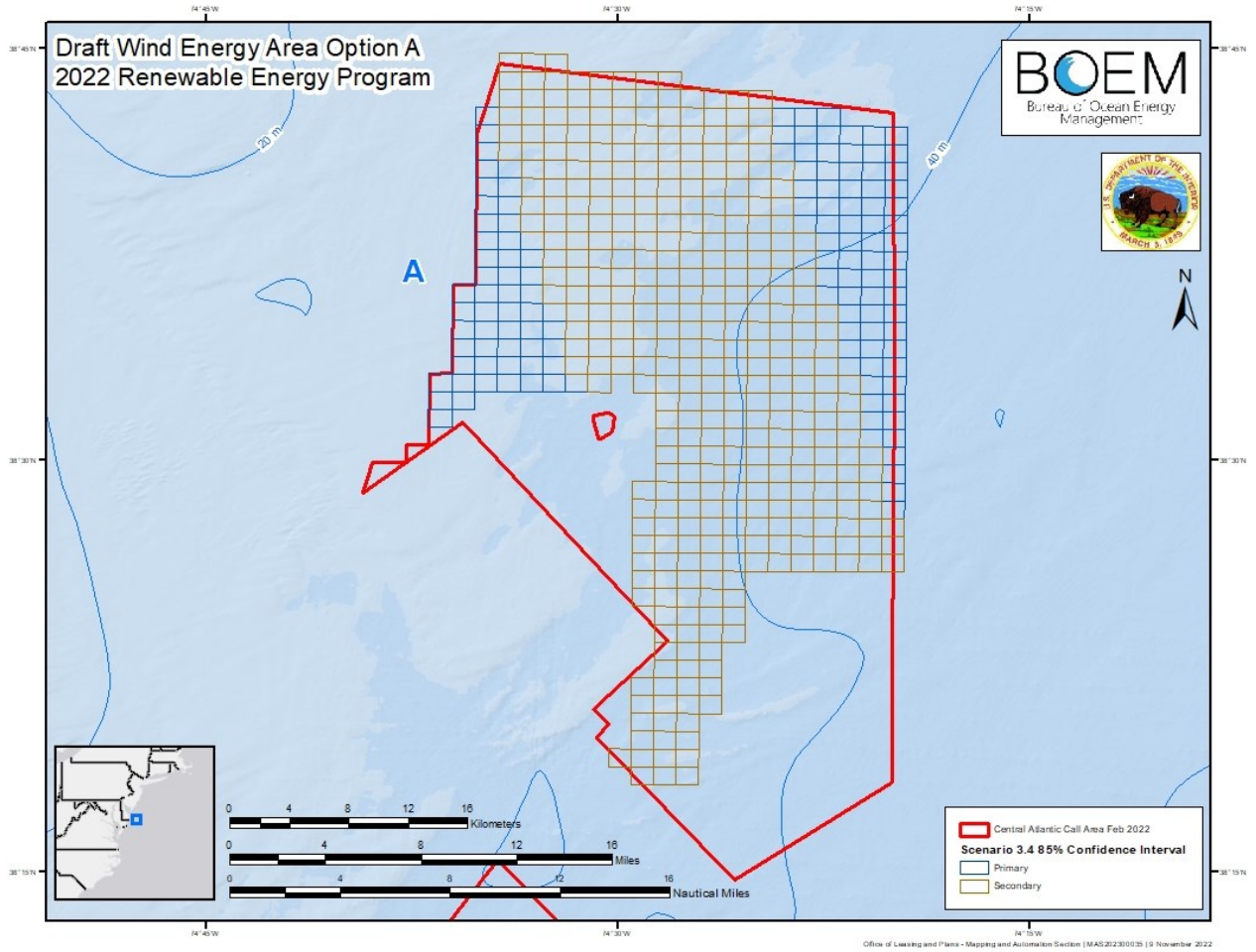
Draft WEA Options BOEM Recommendation: Call Area A

- BOEM recommends the following draft WEAs in Call Area A:
  - Combined A1 and A-2
    - Primary=45,935 acres
    - Secondary=129,619 acres
    - Total=175,554 acres; max depth=45m
  - Eliminated A-3

Potential conflicts: Preliminary_USCG navigational safety fairways and commercial fishing activities are the potential WEA compatibility issues within this area.

= Primary model recommended area

= Secondary BOEM added area



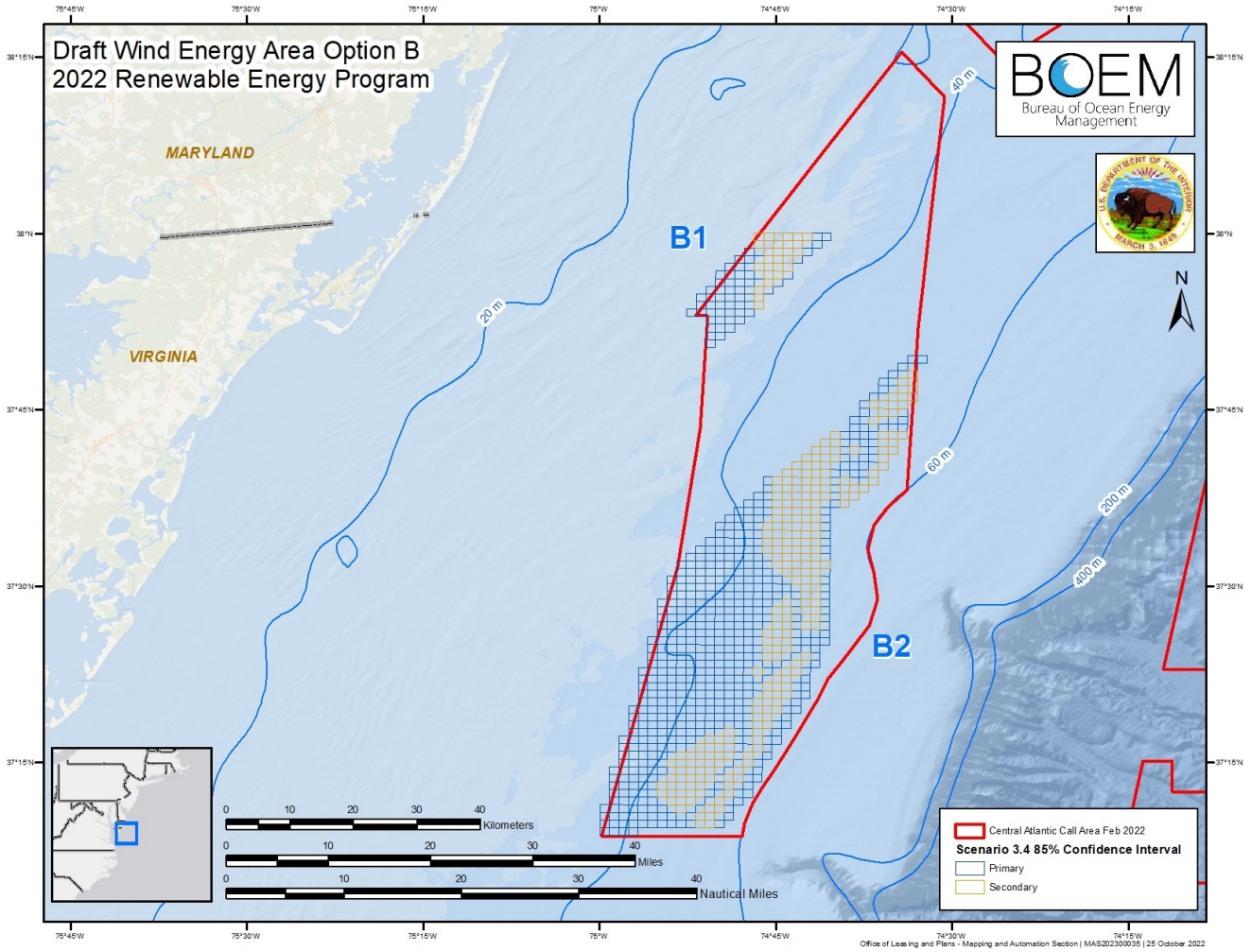
Draft WEA Options BOEM Recommendation: Call Area B

- BOEM recommends the following draft WEAs in Call Area B:
  - B-1 (18.9 nm from shore)
    - Primary=22,079 acres
    - Secondary=9,615 acres
    - Total=31,694 acres; max depth=35m
  - B-2 (29.8 nm from shore)
    - Primary=205,121 acres
    - Secondary=85,467 acres
    - Total=290,588 acres; max depth=48m

Potential conflicts: NMFS Fisheries surveys

= Primary model recommended area

= Secondary BOEM added area



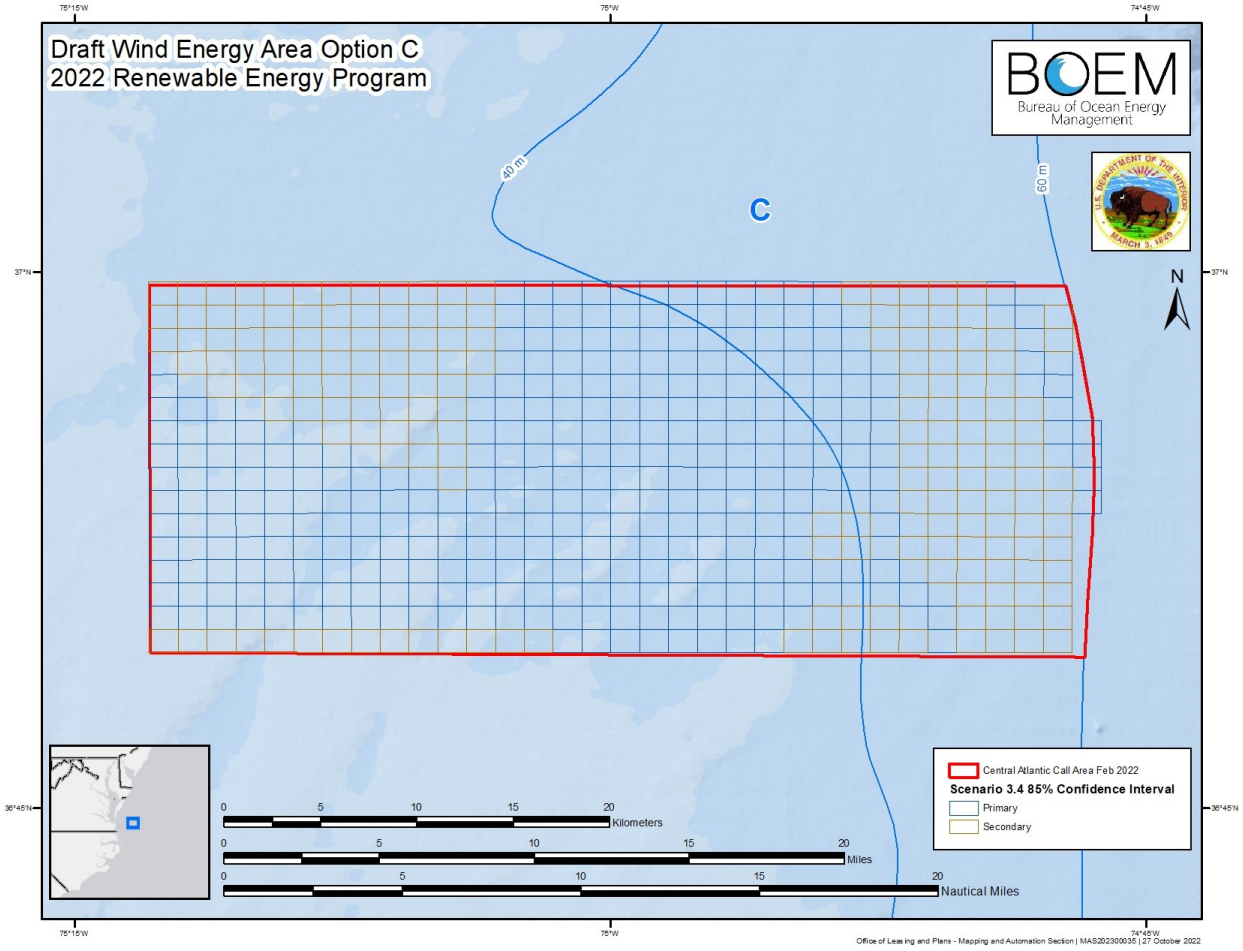
Draft WEA Options BOEM Recommendation: Call Area C

- BOEM recommends keeping all of Call Area C as a draft WEA.
  - 30.9 nm from shore
  - Primary=120,011 acres
  - Secondary=63,032 acres
  - Total=183,043 acres; max depth=60m

Potential conflicts: NASA Danger Zone, protected resources habitat on shelf break

= Primary model recommended area

= Secondary BOEM added area



Draft WEA Options BOEM Recommendation: Call Area D

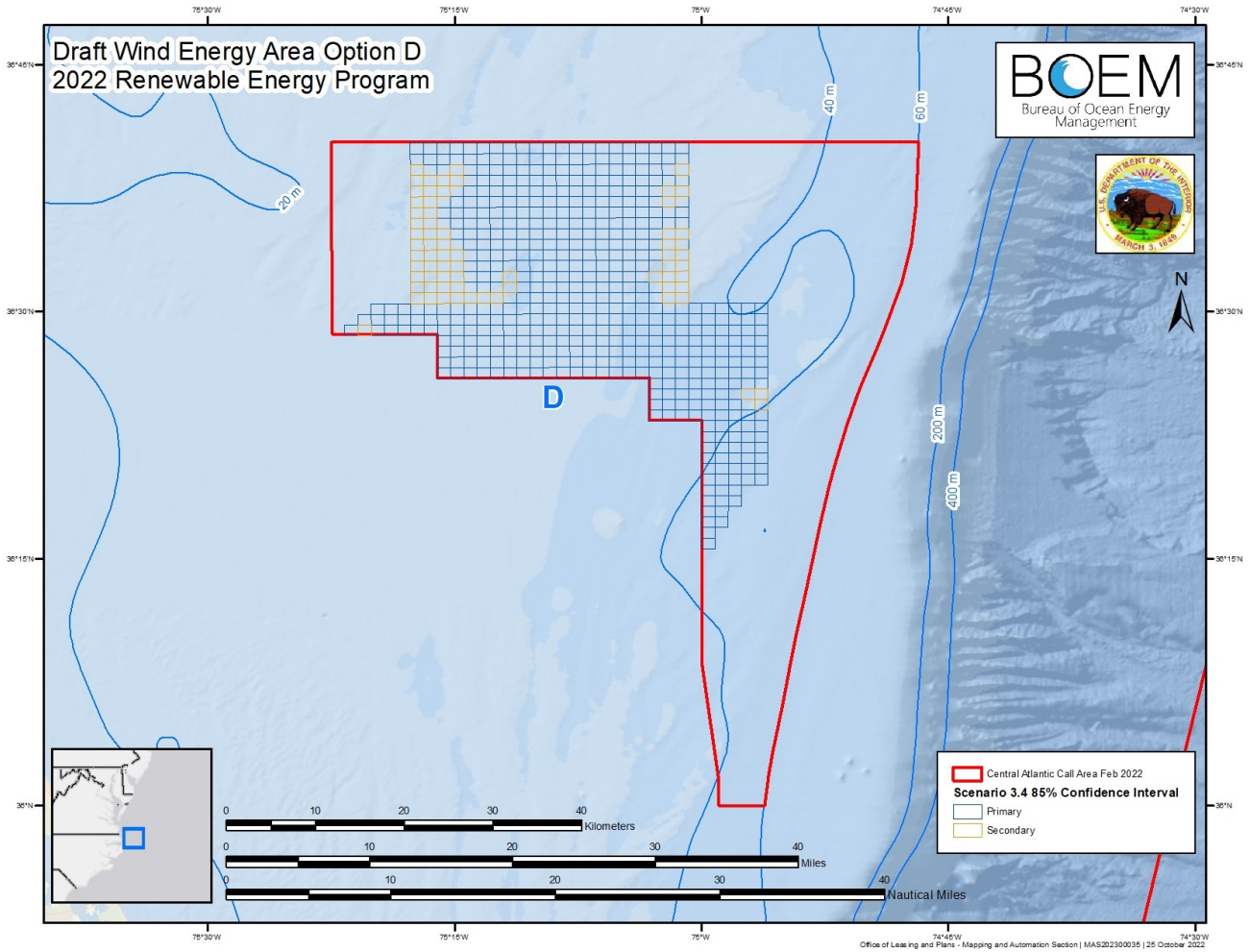
- BOEM recommends the following draft WEA in Call Area D:
  - 23.1 nm from shore
  - Primary=185,536 acres
  - Secondary=24,216 acres
  - Total=209,752 acres, max depth=45m

- Eliminate D-2 and D-3 for size

Potential Conflicts: Southeast Region Headboat Surveys

= Primary model recommended area

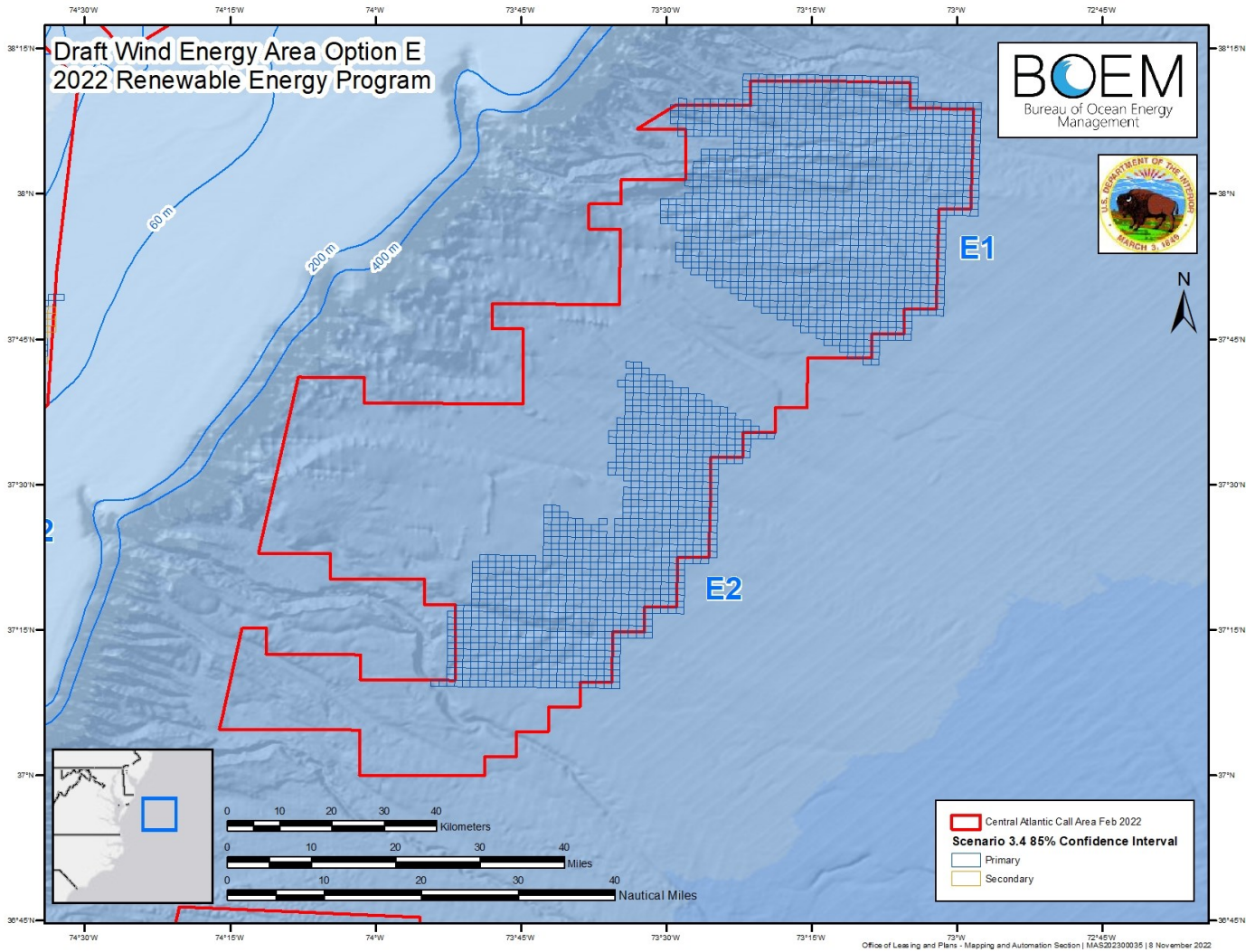
= Secondary BOEM added area



Draft WEA Options BOEM Recommendation: Call Area E

- BOEM recommends the following draft WEAs in Call Area E:
  - E-1
    - 75.4 nm from shore
    - Primary= 470,501 acres
    - Max depth=2,640m
  - E-2
    - 77.7 nm from shore
    - Primary=344,235 acres
    - Max depth=2,630m

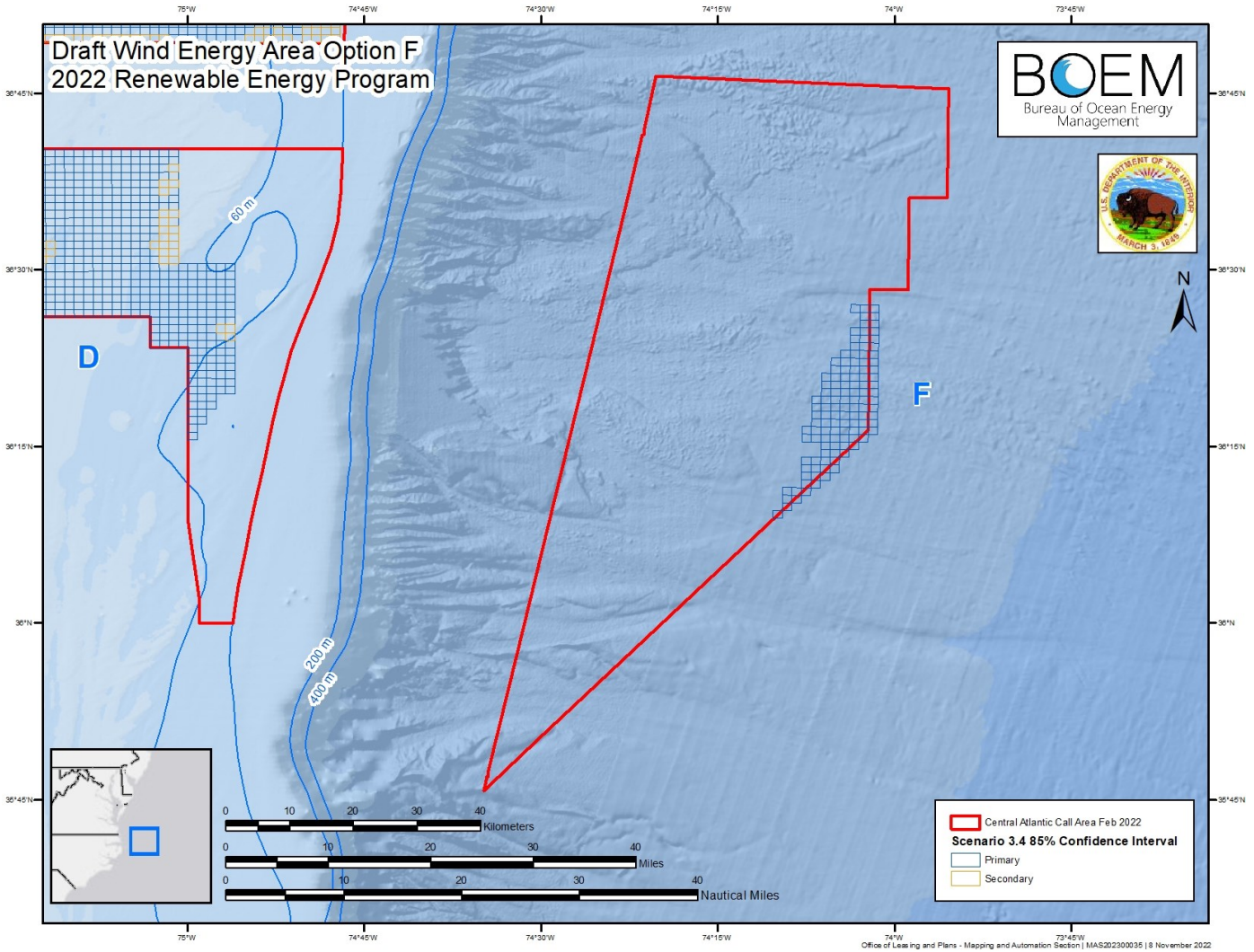
= Primary model recommended area



Draft WEA Options BOEM Recommendation: Call Area F

- BOEM recommends the following draft WEA in Call Area F:
  - 69.2 nm from shore
  - Primary=42,015 acres
  - Max depth=2,390m
- Eliminate F-1 for size

= Primary model recommended area



What is NEPA?

- National Environmental Policy Act (NEPA)
  - Provides the framework for protecting the environment by disclosing decision consequences
  - Requires Federal agencies to consider environmental impacts of their activities
  - Requires decisionmakers to incorporate environmental values into Federal programs
  - Requires coordination with other agencies and governments with resource responsibilities
- BOEM is conducting an environmental assessment (EA) to disclose the potential impacts of issuing renewable energy leases on the Outer Continental Shelf
- BOEM is asking for input for this EA

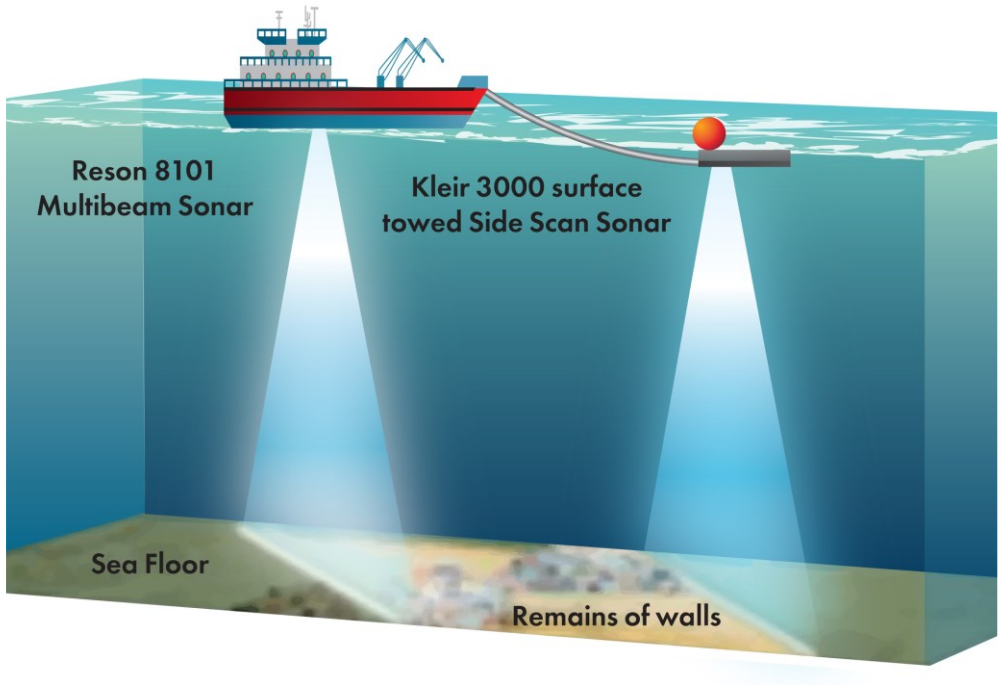
Environmental Assessment

- **Analysis will ONLY be for issuing leases and the site assessment and characterization activities**
  - Meteorological (met) buoys
  - Vessel trips
  - Geological and biological surveys
- **Analysis will NOT include**
  - Specific project layouts
  - Cable routes for specific projects
  - Visual impacts of a project
- **Analysis of *SPECIFIC* projects**
  - Covered later in the process
  - After a lease is obtained and project plan submitted
  - Additional opportunities for engagement and consultation

Example of a meteorological (met) buoy
Source: National Data Buoy Center, 2012

Environmental Assessment

- **EA will be on the Final Wind Energy Areas**
- **EA will incorporate analysis from background documents**
  - Affected Environment in the Central Atlantic Ocean
    - Physical (air, water), biological (birds, marine mammals, fish), and social (human, economic, environmental justice) resources
  - Impact-Producing Factors (IPFs)
    - Noise, bottom disturbance, air emissions
  - Cause and Effect Analysis
    - How each IPF could affect each resource



Example of a seafloor survey

Central Atlantic Milestones

Milestone	Action	Target Date
Draft WEA publication	30-day comment period on Regs.gov	November 16, 2022
Stakeholder Engagement	2 virtual meetings	November 30, December 1, 2022
Area Identification	Identify Wind Energy Area(s)	Q1 2023
Lease Sale	Proposed Sale Notice	Q3 2023
	Final Sale Notice	Q4 2023
	Hold auction	Q1 2024

How to Comment

- Federal eRulemaking Portal: http://www.regulations.gov.
  In the search box at the top of the webpage, enter **BOEM-2022-0072** and then click "search." Follow the instructions to submit public comments and to view supporting and related materials

Comment period ends on December 16, 2022 at 11:59pm ET

- U.S. Postal Service or other mail delivery service. Send your comments and other information to the following address:

Bridgette Duplantis
Bureau of Ocean Energy Management, Office of Leasing and Plans
1201 Elmwood Park Boulevard
New Orleans, Louisiana 70123