

Bureau of Ocean Energy Management Fishing and Offshore Energy— Best Management Practices

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Stages of Development

Identifying Wind Energy Areas

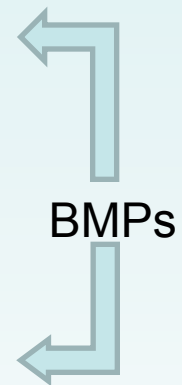
Task Force Consultation → Public Notice & Comment

Leasing:

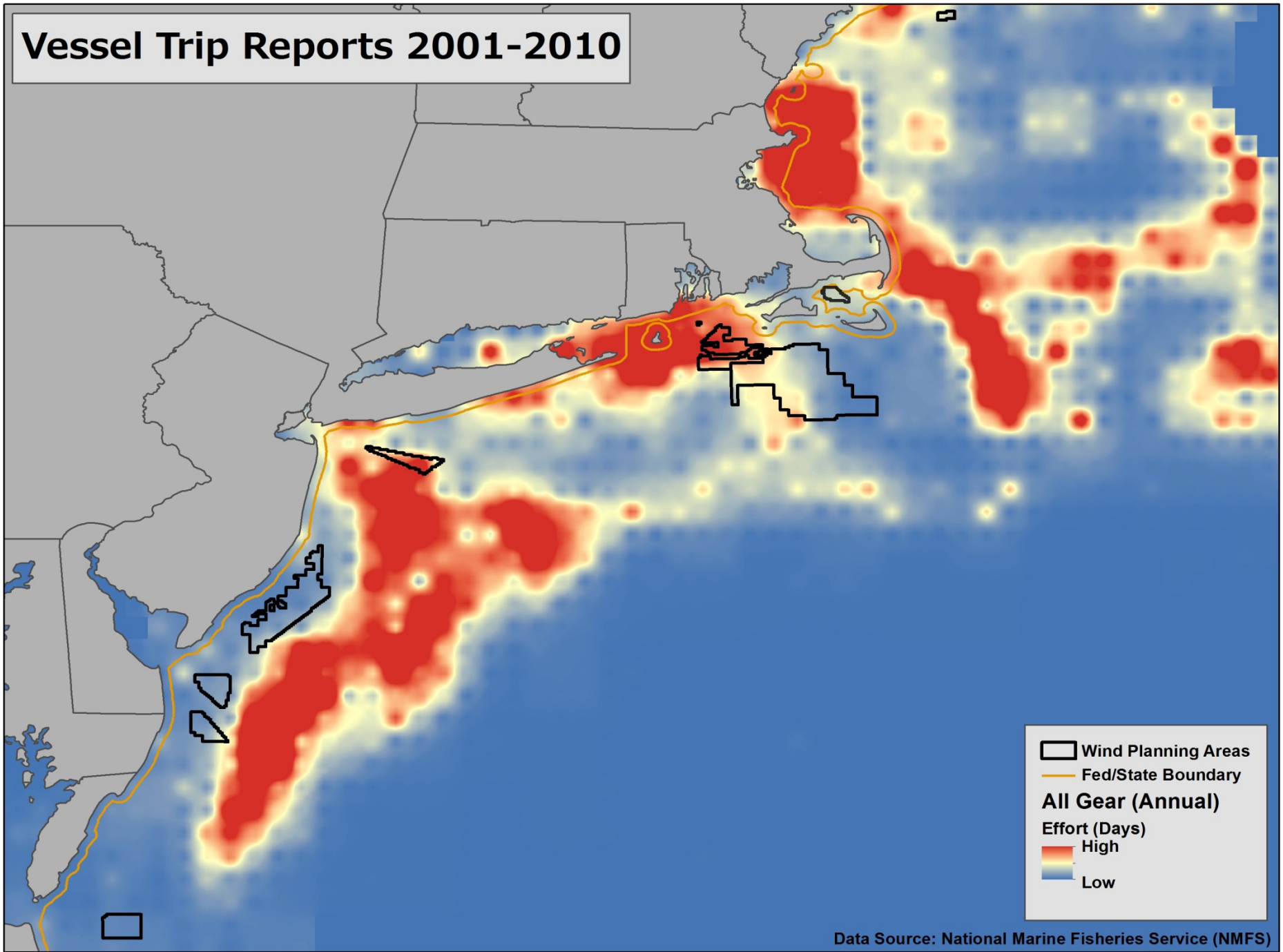
Notice → Environmental Assessment → Issuance

Site Assessment Plan
(Surveys)

Construction &
Operations Plan
EIS



Vessel Trip Reports 2001-2010

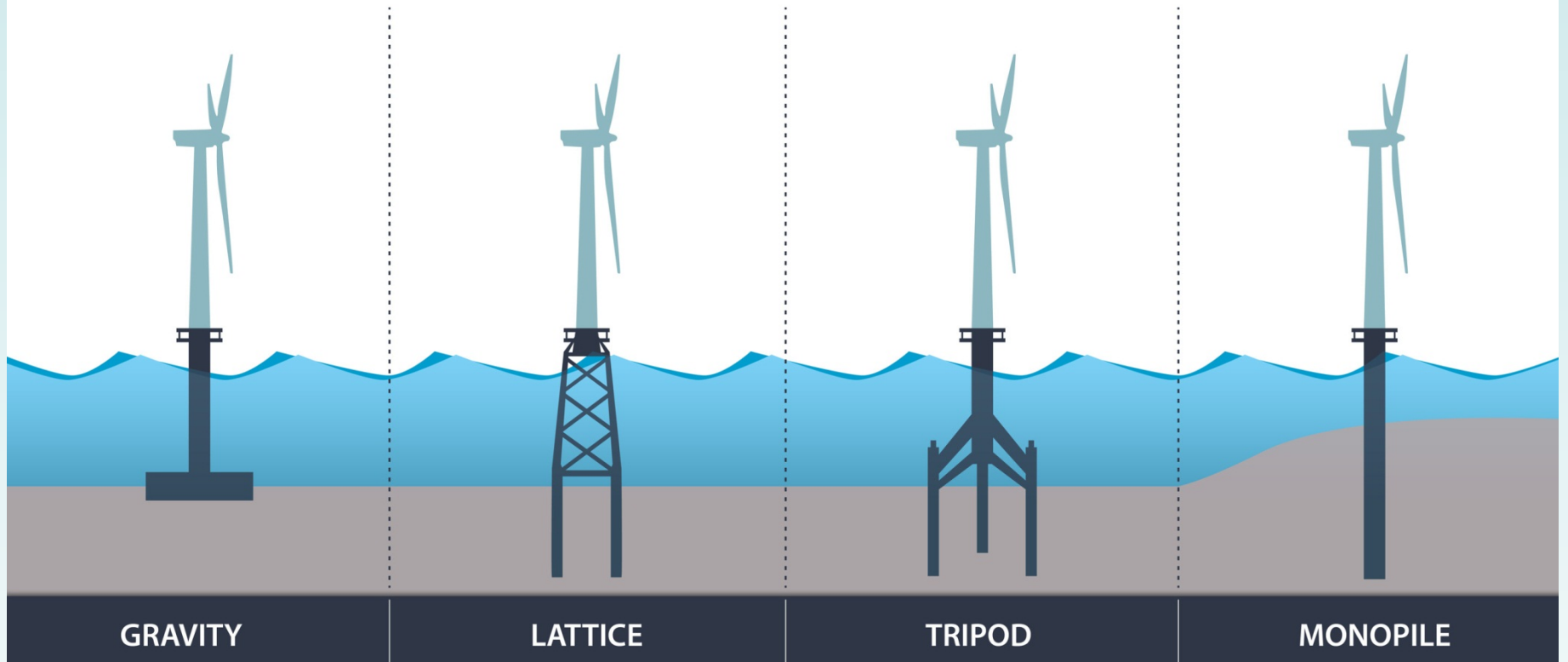


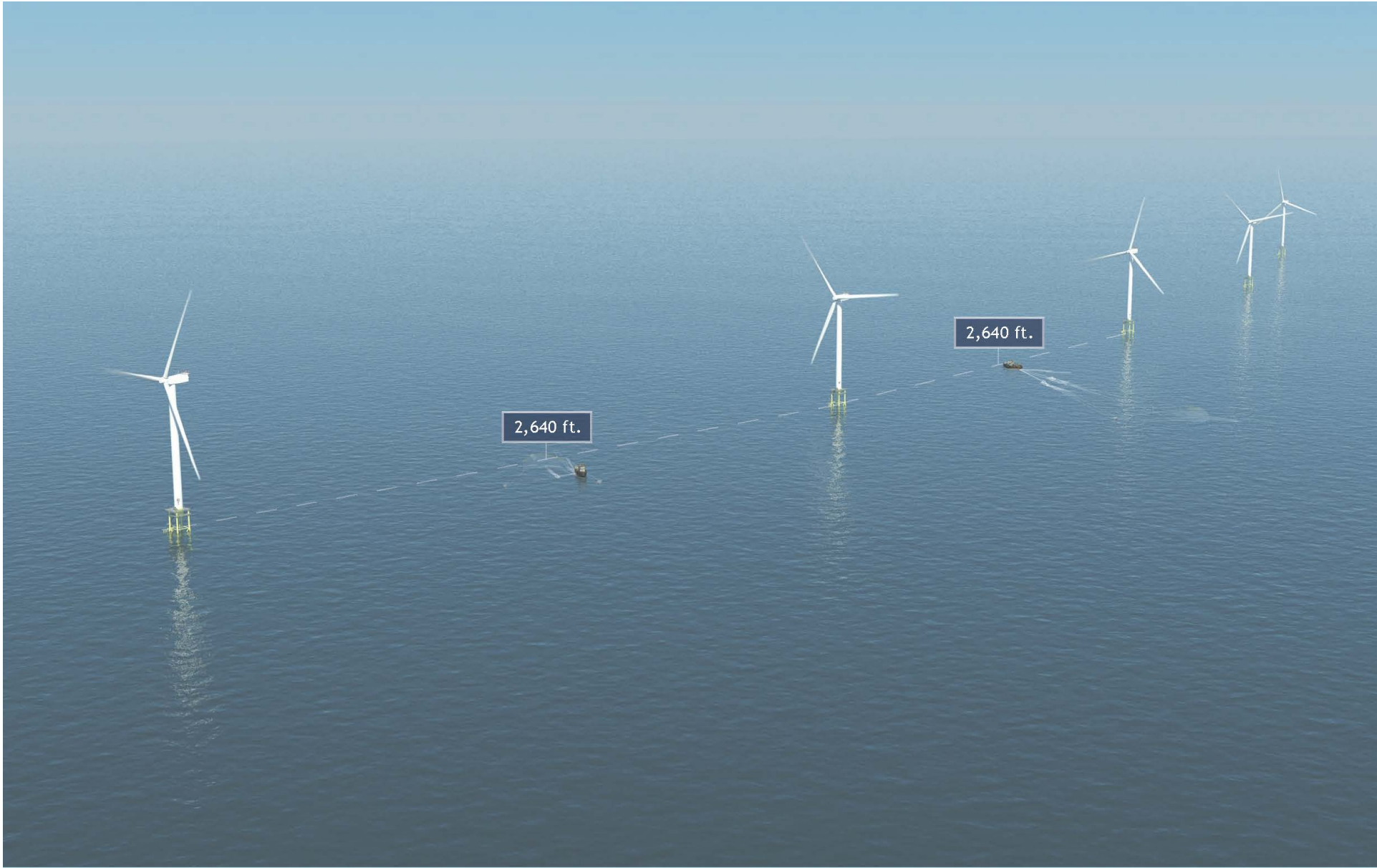
- Wind Planning Areas
- Fed/State Boundary
- All Gear (Annual)**
- Effort (Days)
- High
- Low

Data Source: National Marine Fisheries Service (NMFS)

Map ID: ERB-2012-1082

Foundation Types





Block Island Wind Farm

October 9, 2012

Prepared by



Prepared for



Initial BMP Development

- Identified as a need to address construction and operation concerns in 2011.
- BOEM and Ecology and Environment consulted with state and Federal partners, the fishery councils and wind industry representatives.
- Held 8 workshops Maine to N.C.
- Draft BMPs were posted to BOEM's website in November 2013 for a 60-day comment period.

BMP Workshops

- Eight workshops were held between Oct. 2012 and Feb. 2013.
- Opportunity to provide comments on the construction and operational phases.
- Near term product- updated list of fishing-related best management practices (BMPs).
- Long term product – application of new fishing-related BMPs to the review of site assessment plans (SAPs), construction and operation plans (COPs), and general activity plans (GAPs).

Draft Fishing BMPs

- Fisheries Community Outreach and Communication Program
- Project, Siting, Design, Navigation, and Access
- Alternating/Rotating Construction Schedule
- Safety

Draft Fishing BMPs continued

- Wind Facility Fishing Access
- Environmental Monitoring Plan
- Financial Support for Gear Modification
- Port or Shore-side Improvements
- Measures to Offset Adverse Impacts

Comments on Draft BMPS

- The MAFMC held a workshop February 5-6 in Baltimore, MD to provide comments on the draft BMPs. UK fishing perspectives were also presented.
- The MAFMC submitted their comments to BOEM on February 28th.
- Participant comments and comments from NMFS were also submitted during this period.

Revised BMPs

- Tried to capture all input received.
- BOEM may not adopt all of the recommendations or may further revise them as appropriate.
- Attempt to partition them into appropriate development phase: Planning and Analysis; Site Assessment and Site Characterization; Construction; Operation; and Decommissioning

Fisheries Communication and Outreach Plan (1)

- The lessee shall develop a fisheries communication and outreach plan.
 - Applicable for all stages of development
 - Provides for a fisheries liaison (FL) and a fisheries representative (FR).
 - Identifies communication methods/frequency.
 - Establishment of process/protocol to address gear loss.

Project Siting, Design, Navigation and Access (2, 3, and 5)

- Applicable in all phases.
- Applicant should consider input regarding:
 - Configuration of facility
 - Cable routes
 - Dockside changes
 - Minimization of scour and sedimentation
 - Minimization of turbidity
- Develop a detailed publically available schedule prior to construction.
- Considerations should be given to seasonal or sector use of a particular area.

Safety (4)

- Applicable during all phases.
- Marking of structures beyond that required of USCG and FAA.
- Specific information to include in the developer's Safety Management System.
 - Clear communication protocols in event of an accident
 - Assumptions
 - Roles and responsibilities

Environmental Monitoring Plan (6)

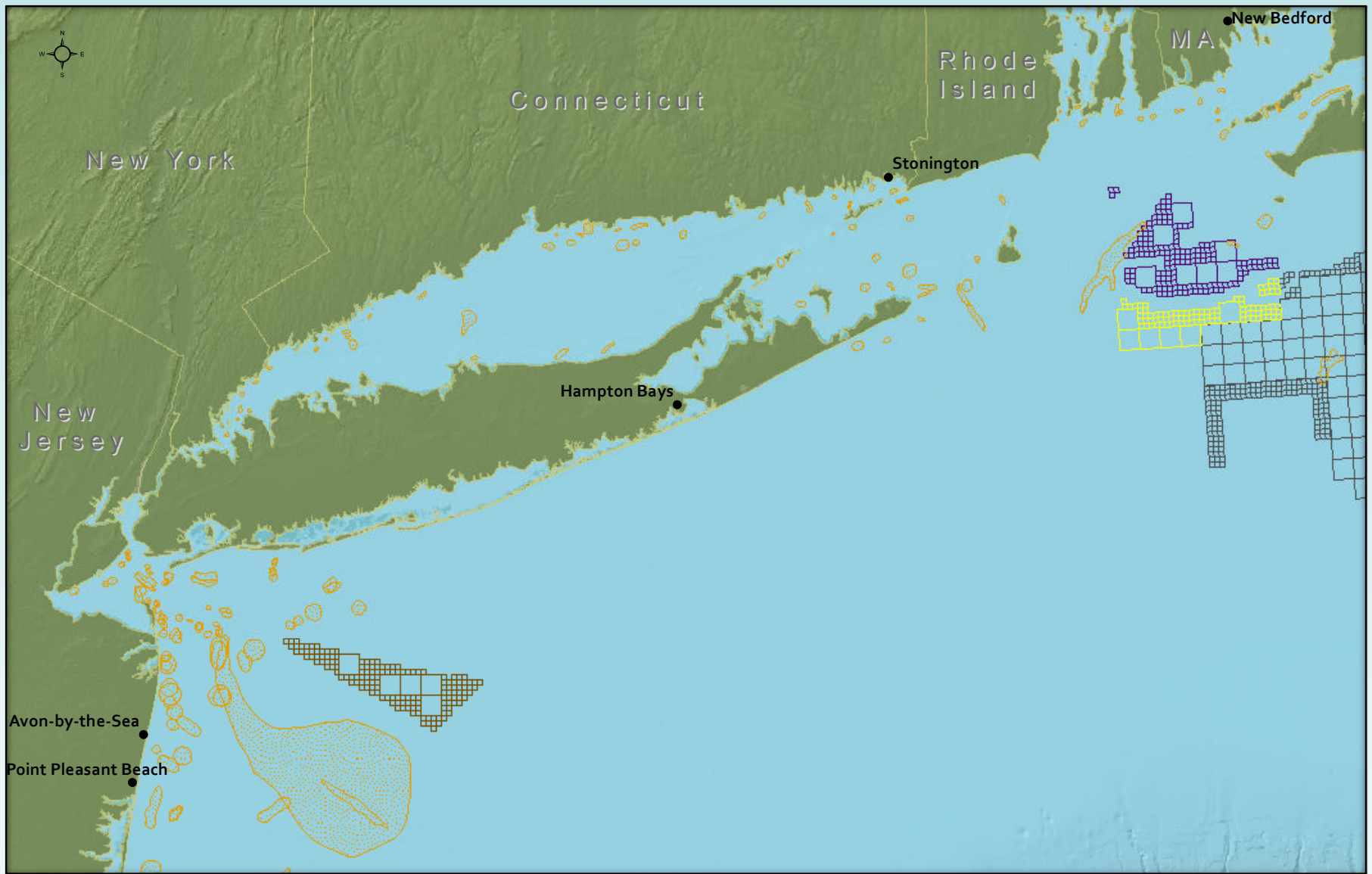
- Applicable to construction, operations, and decommissioning
- Plan should be detailed enough to know
 - Monitoring schedule following storm events
 - Regular monitoring and maintenance schedule and possible disruptions to fishing.

Financial Compensation (7-9)

- Developer should support the fishing industry's adoption of new technology/net design that would minimize interactions between gear and offshore facilities.
- The lessee would consider monetary support for enhancing or improving fishing port or shore-side facilities associated with an offshore wind facility. Well-maintained port or shoreside facilities are important for the efficient and safe operation of every fishing vessel.
- Various forms of direct compensatory mitigation.

Studies: Socioeconomic

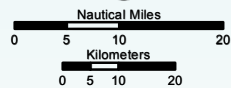
- “Development of Mitigation Measures to Address Potential Use Conflicts Between the Wind and Commercial Fishing Industries.”
- Inter-Agency Agreement with NMFS to evaluate the socio-economic impact to fishing from offshore wind energy development was signed in September.
- Present and historical fishing usage data processing.



U.S. Department of the Interior
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 Office of Renewable Energy Programs

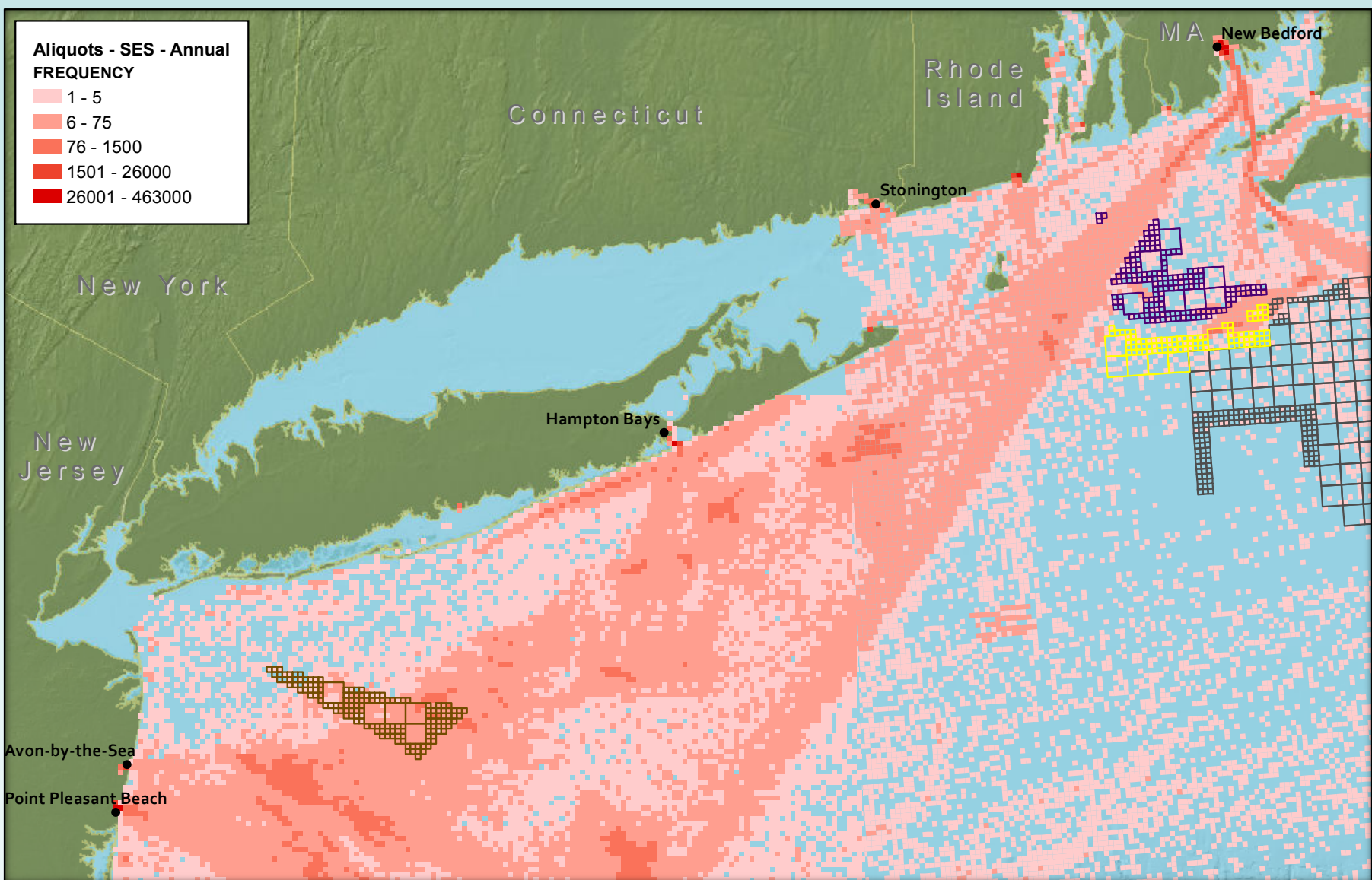


Fishing Atlas



Coordinate System: NAD 1983 UTM Zone 18N
 Projection: Transverse Mercator
 Datum: North American 1983

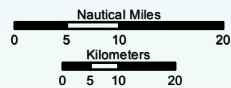
- Sea Floor Characteristic Area
- Massachusetts WEA
- New York RFI
- Rhode Island / Massachusetts Lease Area North Zone
- Rhode Island / Massachusetts Lease Area South Zone



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2010 VMS Scallop

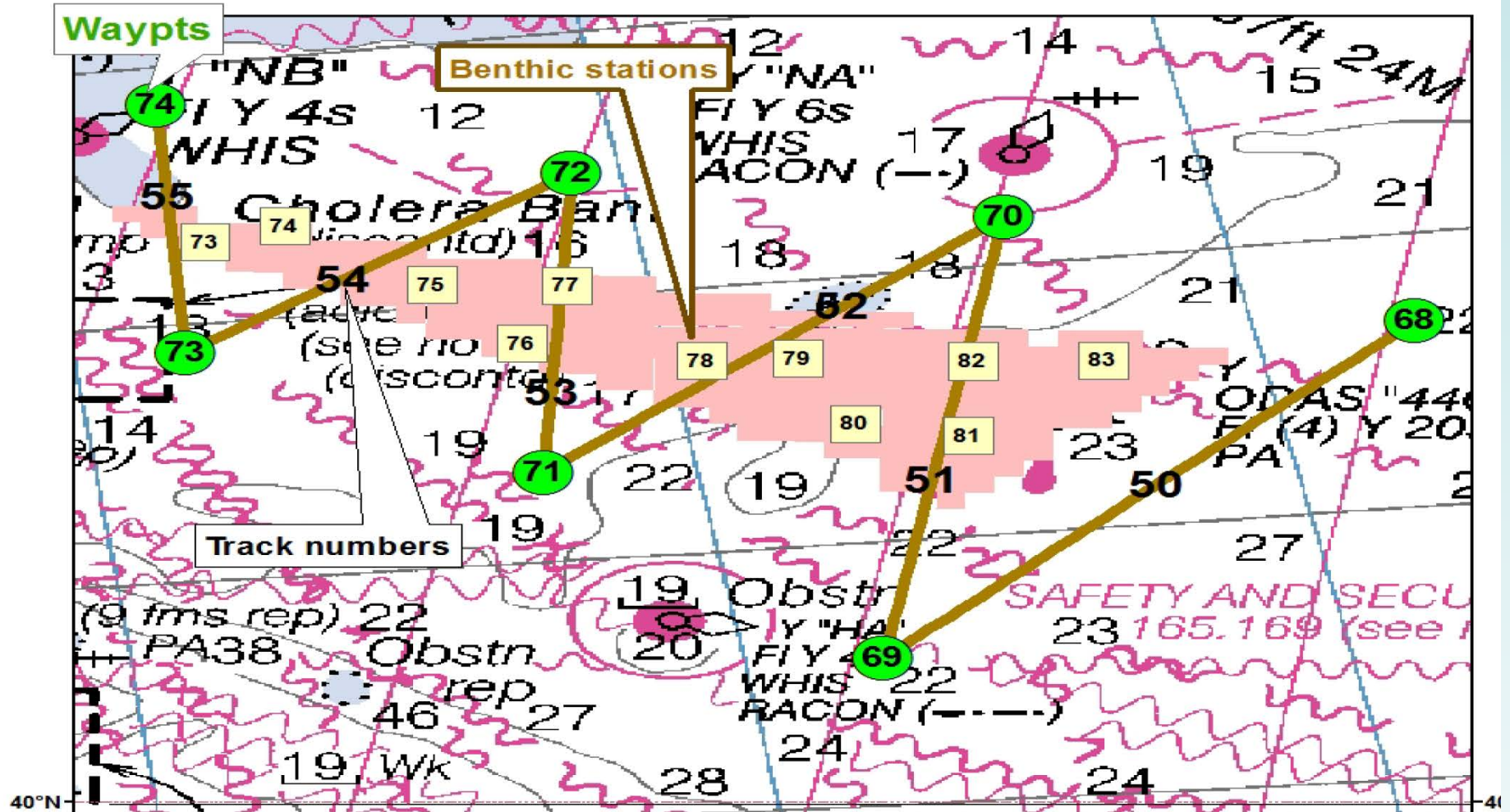


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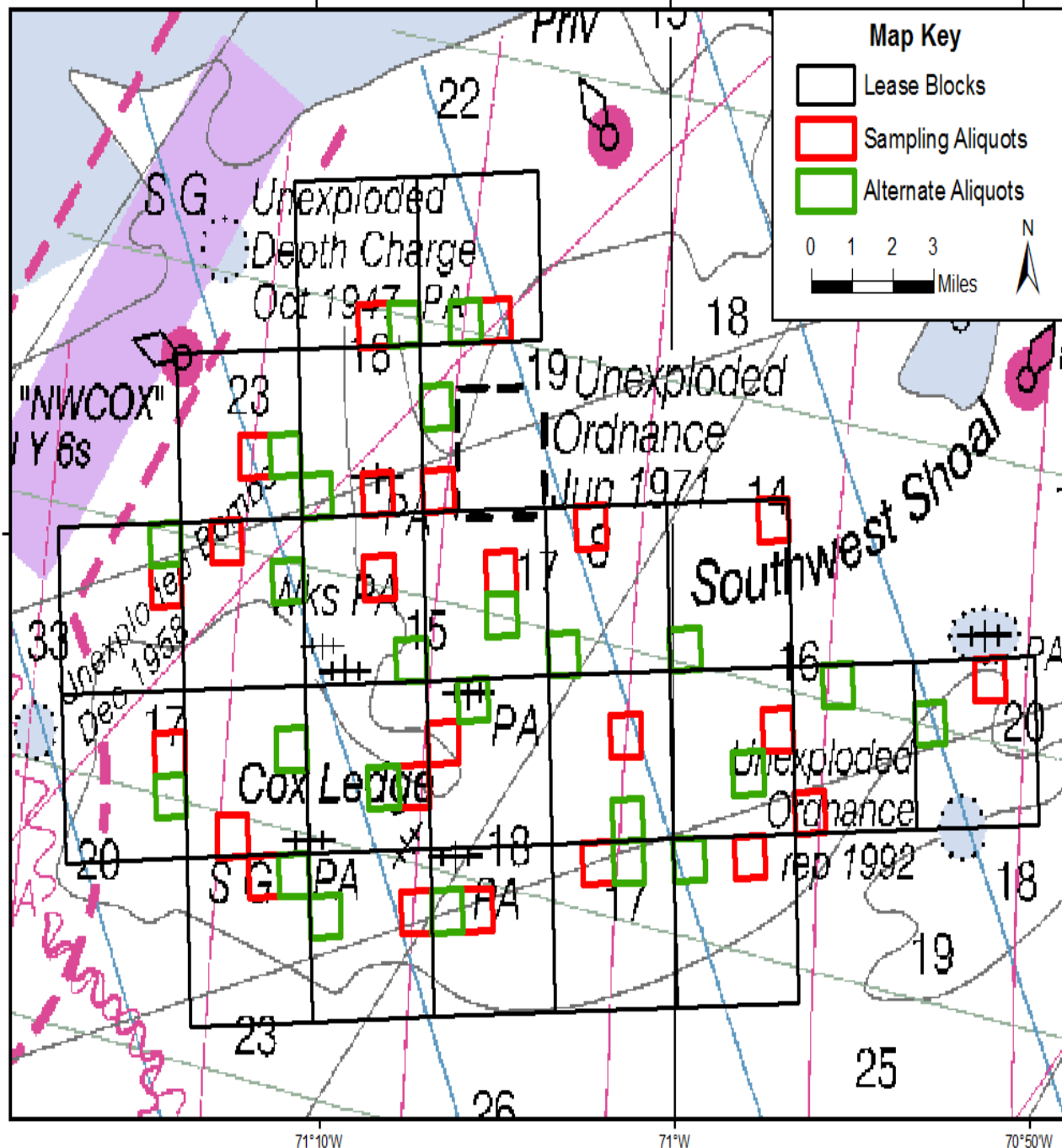
Studies: Biological

- Benthic Habitat Mapping and Assessment Interagency Agreement.
- Southern New England Cooperative Ventless Trap Survey.
- EMF impact studies are continuing.
- Fish acoustic impacts:
 - Workshop held in March 2012.
 - Effects of Pile Driving Sounds on Auditory and Non-Auditory Tissues of Fish has now been posted.



AMAPPS Cruise Tracks, March 2014

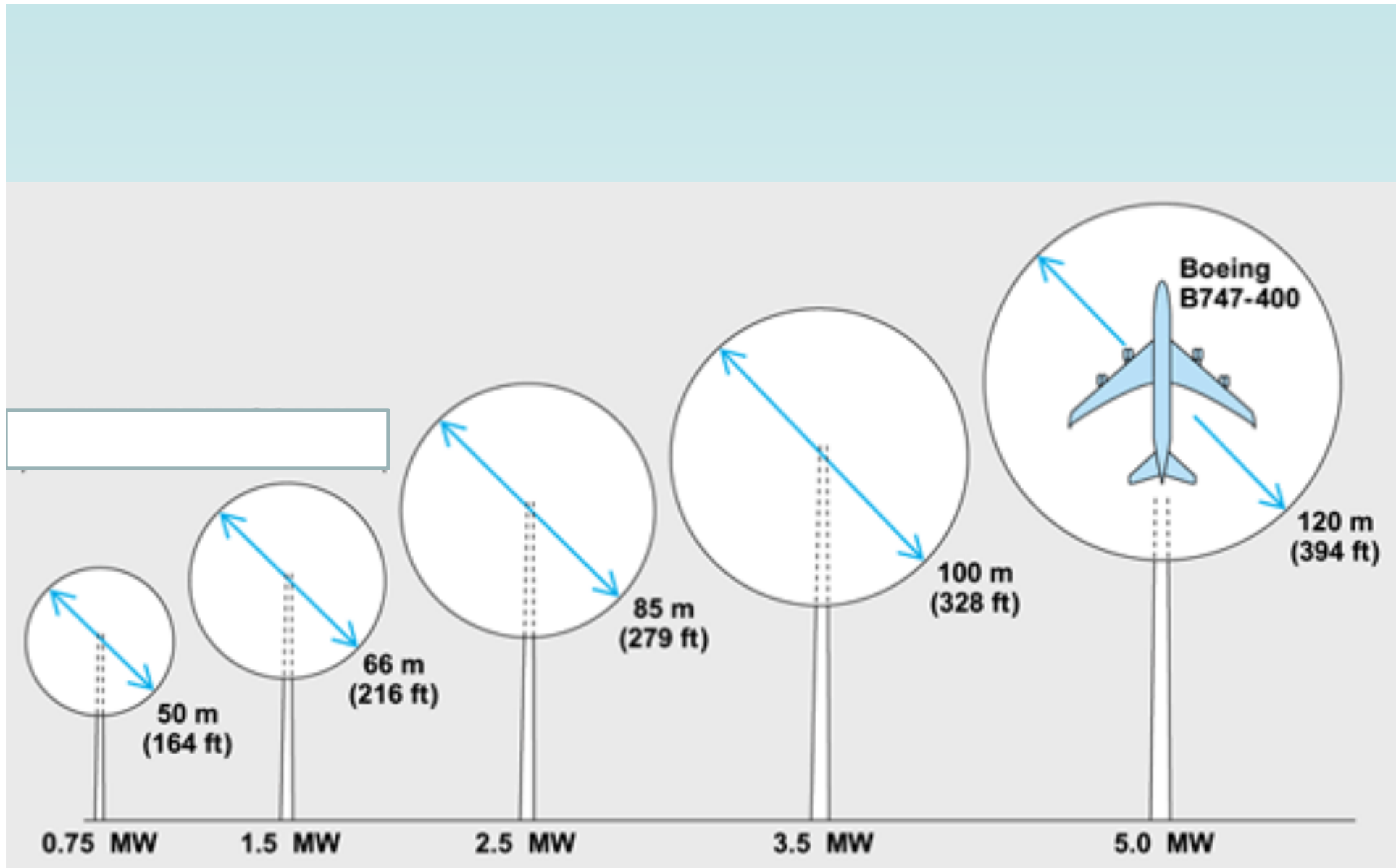
SNECVTS: 2013-2014 Sampling & Alternate Aliquots



Southern New England Cooperative Ventless Trap Survey in the RI/Deepwater Wind Lease Area.

This project is also less than a year in, program will begin in earnest in the spring.

Thank you for your
feedback



Current Fishing BMPs -

1

Lessees and grantees shall work cooperatively with commercial and recreational fishing entities and interests to ensure that the construction and operation of a project will minimize potential conflicts with commercial and recreational fishing interests.

Current Fishing BMPs - 2

Lessees and grantees shall review planned activities with potentially affected fishing organizations and port authorities to prevent unreasonable fishing gear conflicts. Lessees and grantees shall minimize conflict with fishing activity and gear by notifying state and Federal regional fishery management organizations and local fishing groups of the location and time frame of the project construction activities well in advance of mobilization with updates throughout the construction period.

Current Fishing BMPs - 3

- Lessees and grantees shall use practices and operating procedures that reduce the likelihood of vessel accidents and fuel spills.
- Lessees and grantees shall avoid or minimize impacts to the commercial fishing industry by marking applicable structures (e.g., wind turbines, wave generation structures) with USCG-approved measures (such as lighting) to ensure safe vessel operation.

Current Fishing BMPs - 4

Lessees and grantees shall avoid or minimize impacts to the commercial fishing industry by burying cables, where practicable, to avoid conflict with fishing vessels and gear operation. If cables are buried, lessees and grantees shall inspect cable burial depth periodically during project operation to ensure that adequate coverage is maintained to avoid interference with fishing gear/activity.