Overview of the Environmental Assessment for Commercial Wind Lease Issuance and Site Assessment Activities Offshore Massachusetts

November 13-15, 2012
Boston, New Bedford, Vineyard Haven, Nantucket

Brian Krevor, Environmental Protection Specialist

Office of Renewable Energy Programs
Bureau of Ocean Energy Management

Major Milestones (to date)

- December 2010- Request for Interest (RFI)
- February 2012 – Call for Information and Nominations and Notice of Intent to prepare an environmental assessment (EA)
- May 2012 – Area Identification of MA Wind Energy Area (WEA)
- November 2012 - Notice of Availability of the EA

Outline

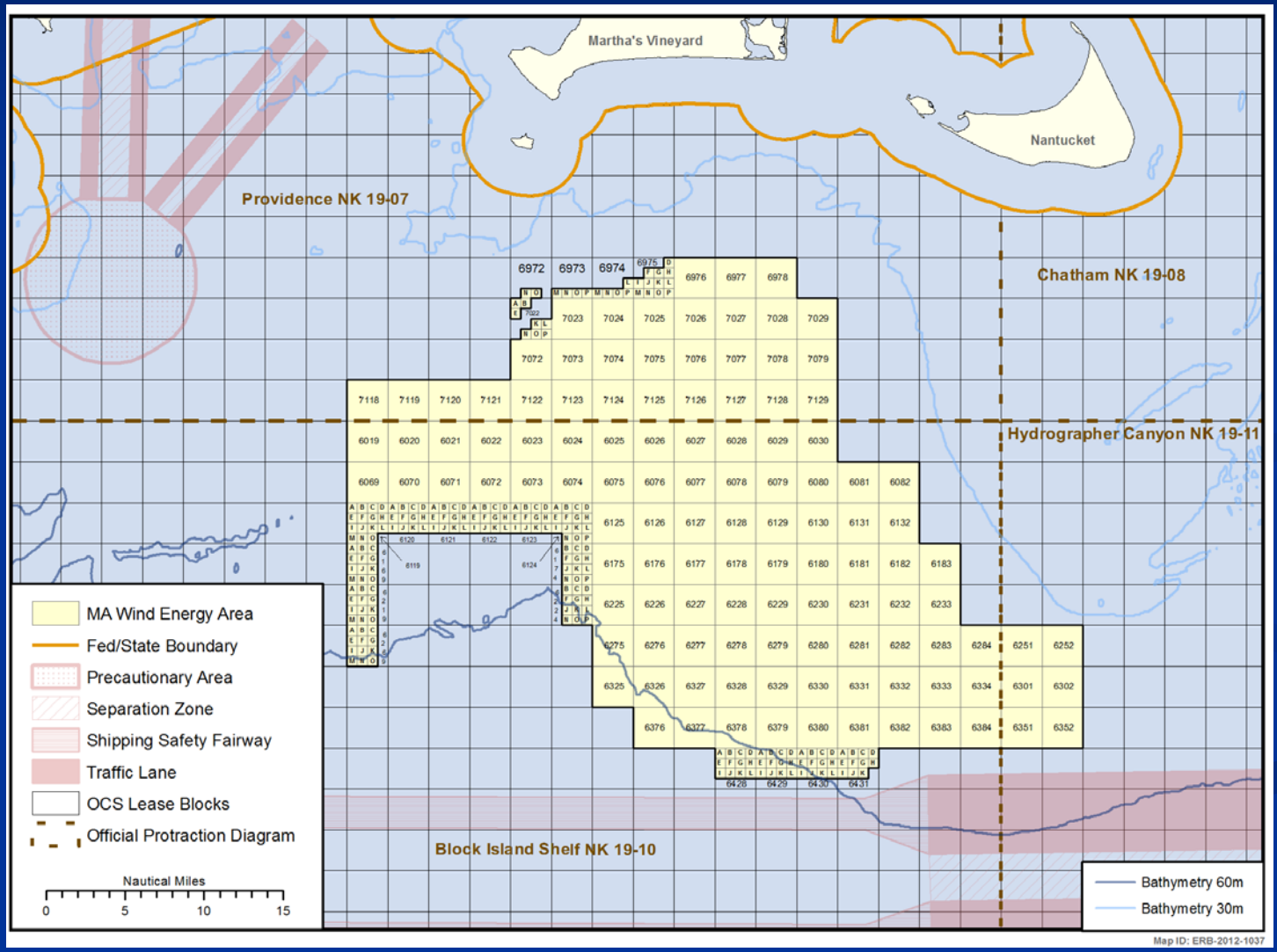
- Overview of the Environmental Assessment (EA):
  - Proposed action and alternatives
  - Resources considered
  - Resource highlights
    - Marine Mammals
    - Commercial Fishing
    - Visual Impacts
  - Standard operating conditions
- Next Steps and How to Comment

Proposed Action (Alternative A) and Activities Considered

- Lease issuance of the entire WEA
- 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)

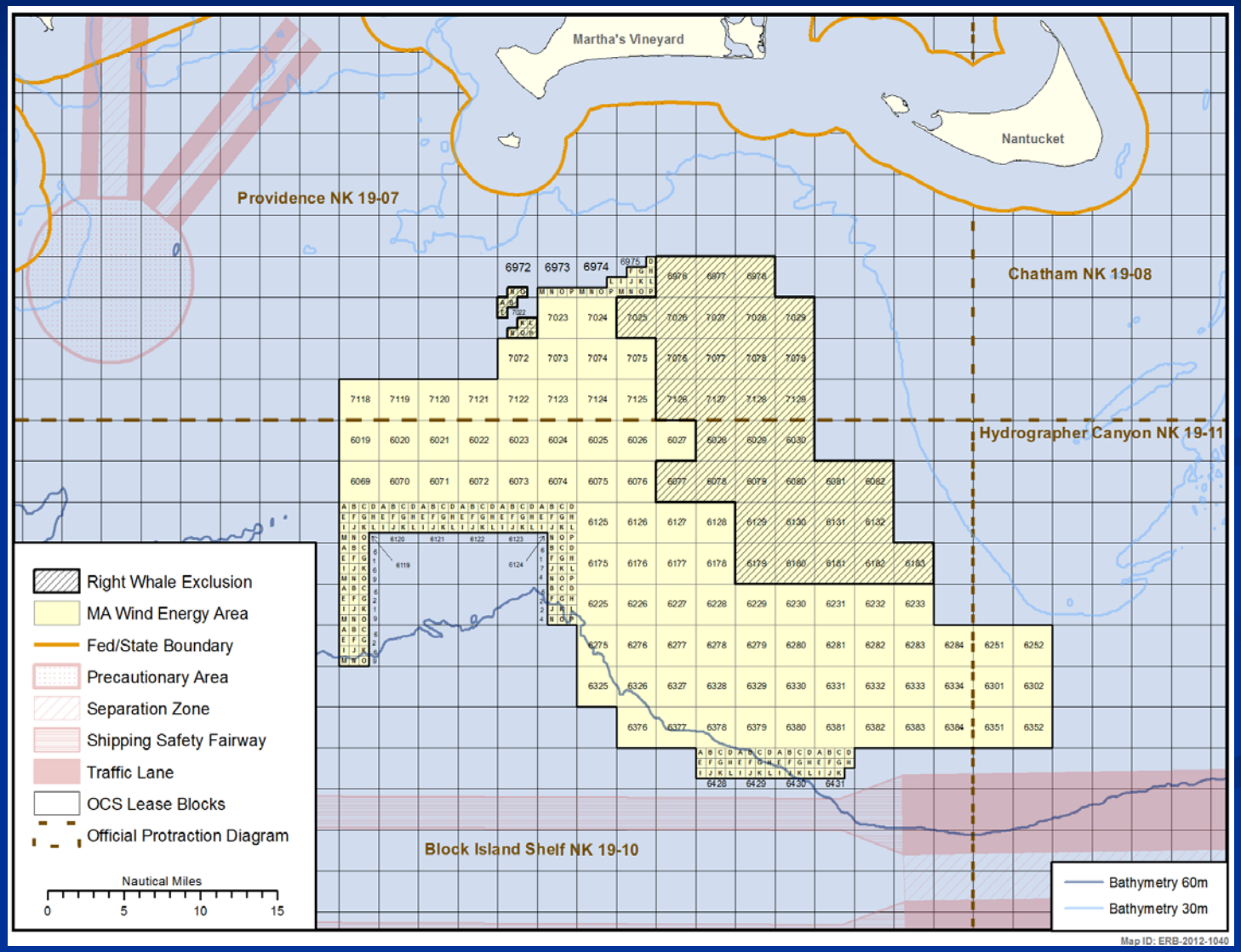
Alternative A

Proposed Action – MA Wind Energy Area



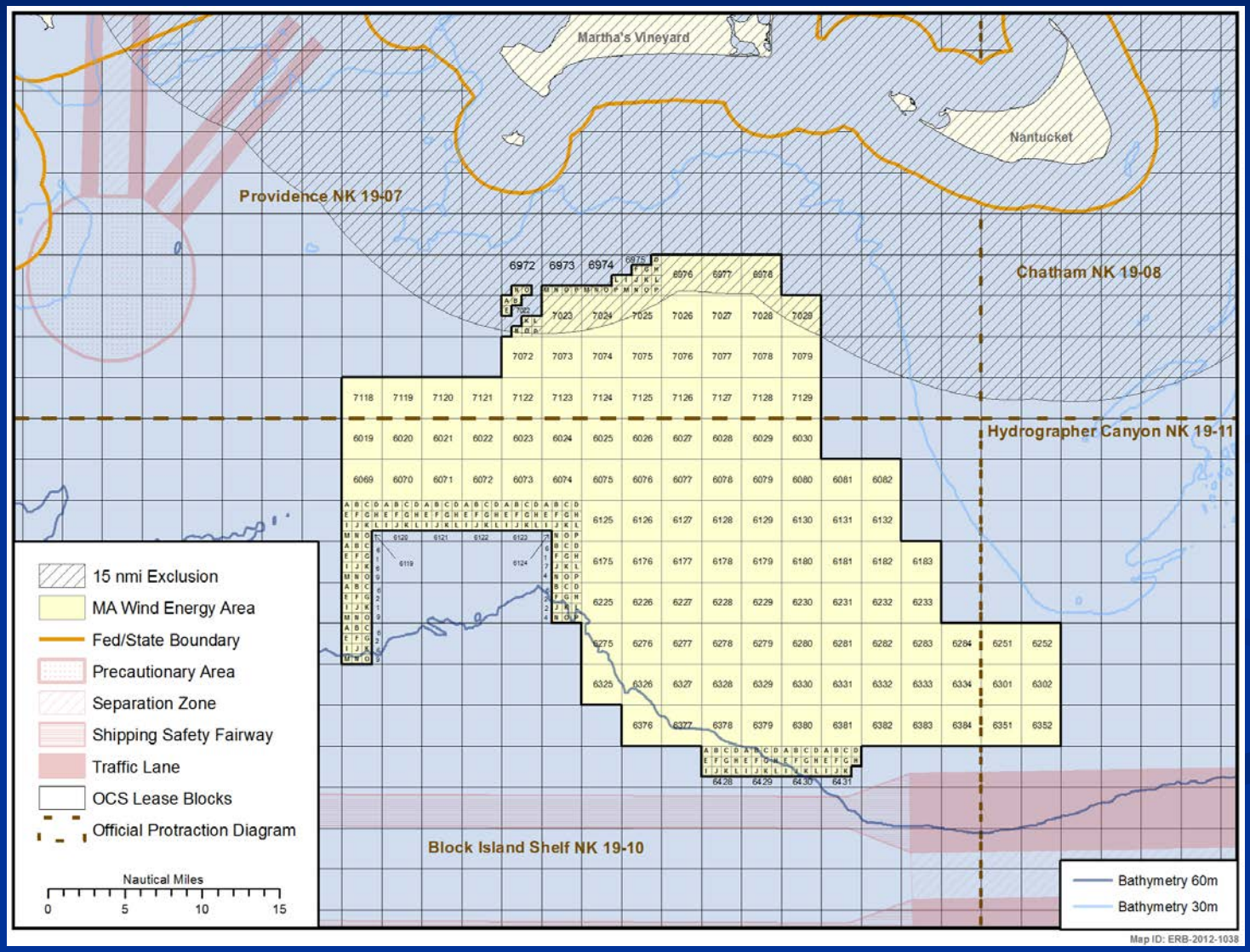
Alternative B

Exclusion for North Atlantic Right Whales



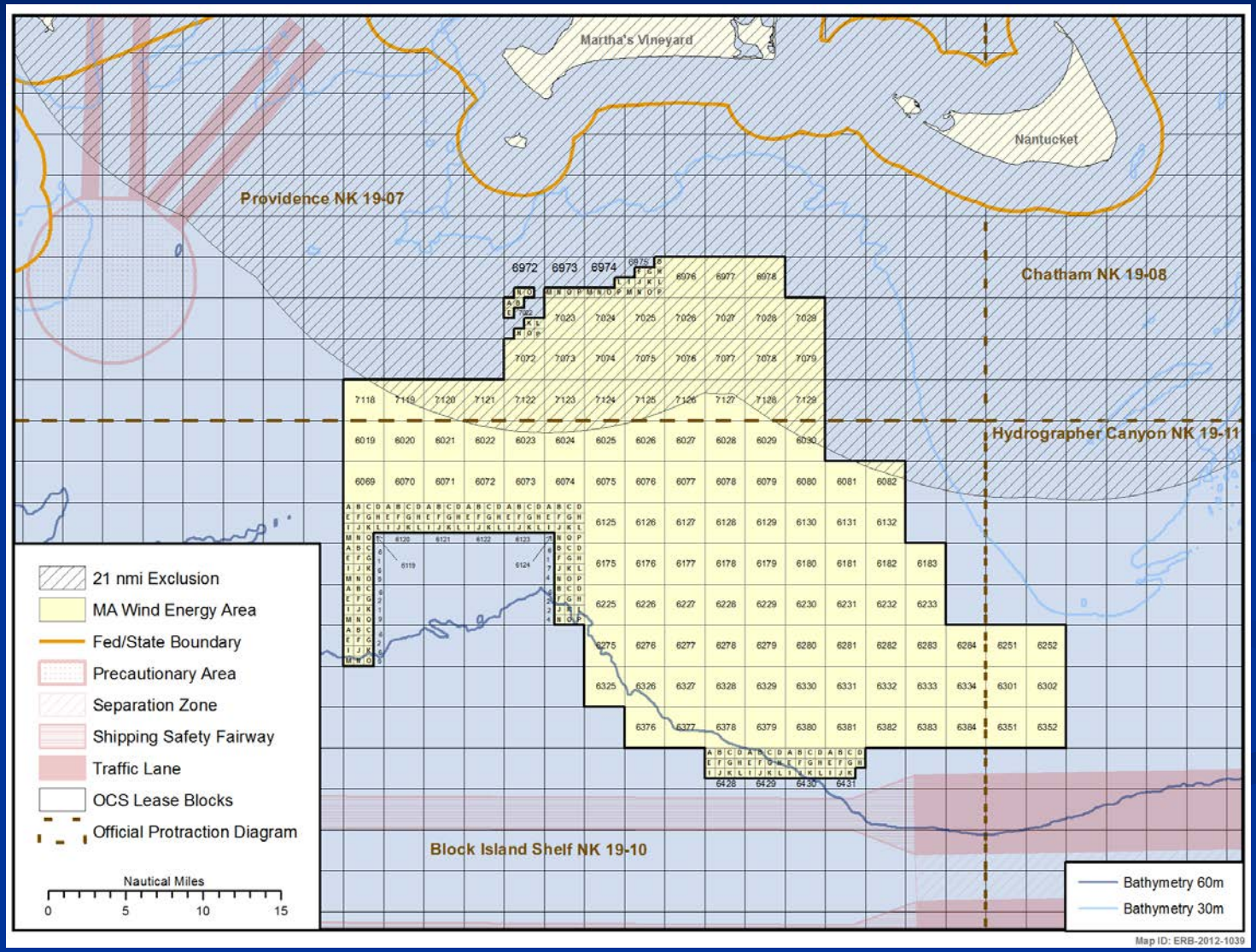
Alternative C

Exclusion of 15 nmi from inhabited MA Coast



Alternative D

Exclusion of 21 nmi from inhabited MA Coast



Alternative E

No Action

- No wind energy leases would be issued and no site assessment activities would be approved in the WEA at this time.
- Data needed to successfully determine the feasibility of potential proposed lease areas for commercial wind energy development would not be collected.

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

Overall EA Conclusions

- With standard operating conditions in place, no reasonably foreseeable significant impacts identified
- Negligible to minor impacts expected

Resource Highlights

- Marine Mammals
- Commercial Fishing
- Visual Impacts

Marine Mammals
(Including North Atlantic Right Whales)

- Potential acoustic impacts to marine mammals from proposed action:
  - Pile driving
  - High-resolution Geophysical Surveys (HRG)
    - Boomer, Side-scan sonar, Sub-bottom profiler, Multi-beam depth sounder)
  - Geotechnical sampling
    - Bottom sampling devices, Vibracores, Deep boring, Core Penetration Test (CPT)

Marine Mammals
(Including North Atlantic Right Whales)

- Potential non-acoustic impacts to marine mammals from proposed action:
  - Benthic Habitat Effects
  - Vessel Collision Effects
  - Spills
  - Waste Discharges and Accidental Fuel Leaks
  - Meteorological Tower Decommissioning

Marine Mammals
(Including North Atlantic Right Whales)

- Standard operating conditions adopted as part of the proposed action
- Include the following provisions to reduce or eliminate potential impacts to marine mammals (specifically North Atlantic Right Whales):
  - Vessel strike avoidance measures
  - Establishing and monitoring exclusions zones
  - Electronic survey equipment ramp-up
  - Seasonal prohibition on pile driving (Nov-Apr)
  - Pile driving soft start

Marine Mammals: EA Conclusion

- SOCs are expected to minimize potential impacts to marine mammals
- Reasonably foreseeable adverse impacts may still exist for the following activities under certain circumstances: 1) acoustic effects from pile-driving and HRG surveys, and 2) vessel strikes. However, impacts from these circumstances are expected to be minor.
- As a result of the SOCs, no significant impacts on marine mammals are anticipated.

Commercial Fishing

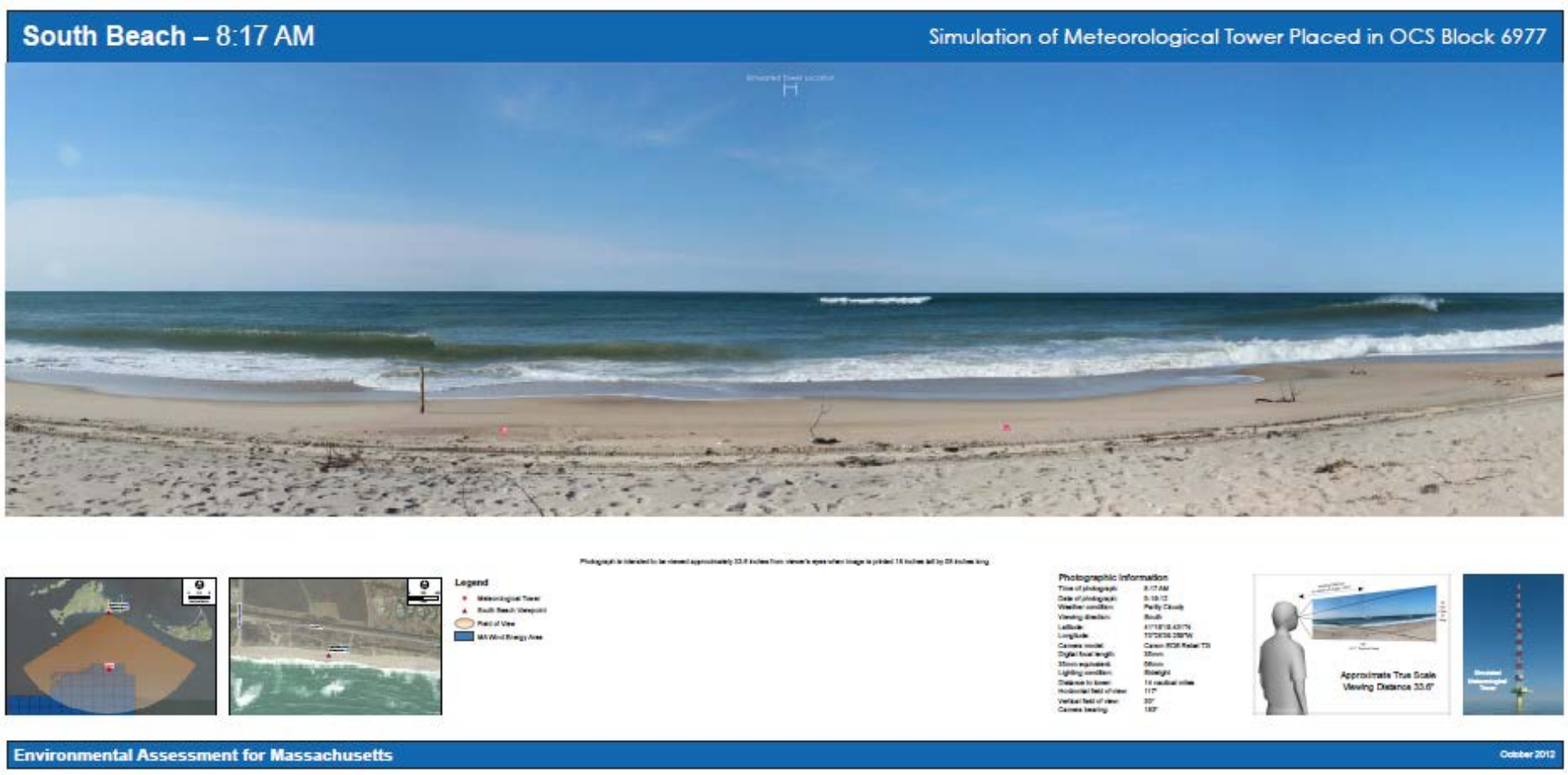
- Potential impacts to commercial fishing from the proposed action:
  - Displacement of fishing activities
  - Alteration of species availability

Commercial Fishing: EA Conclusion

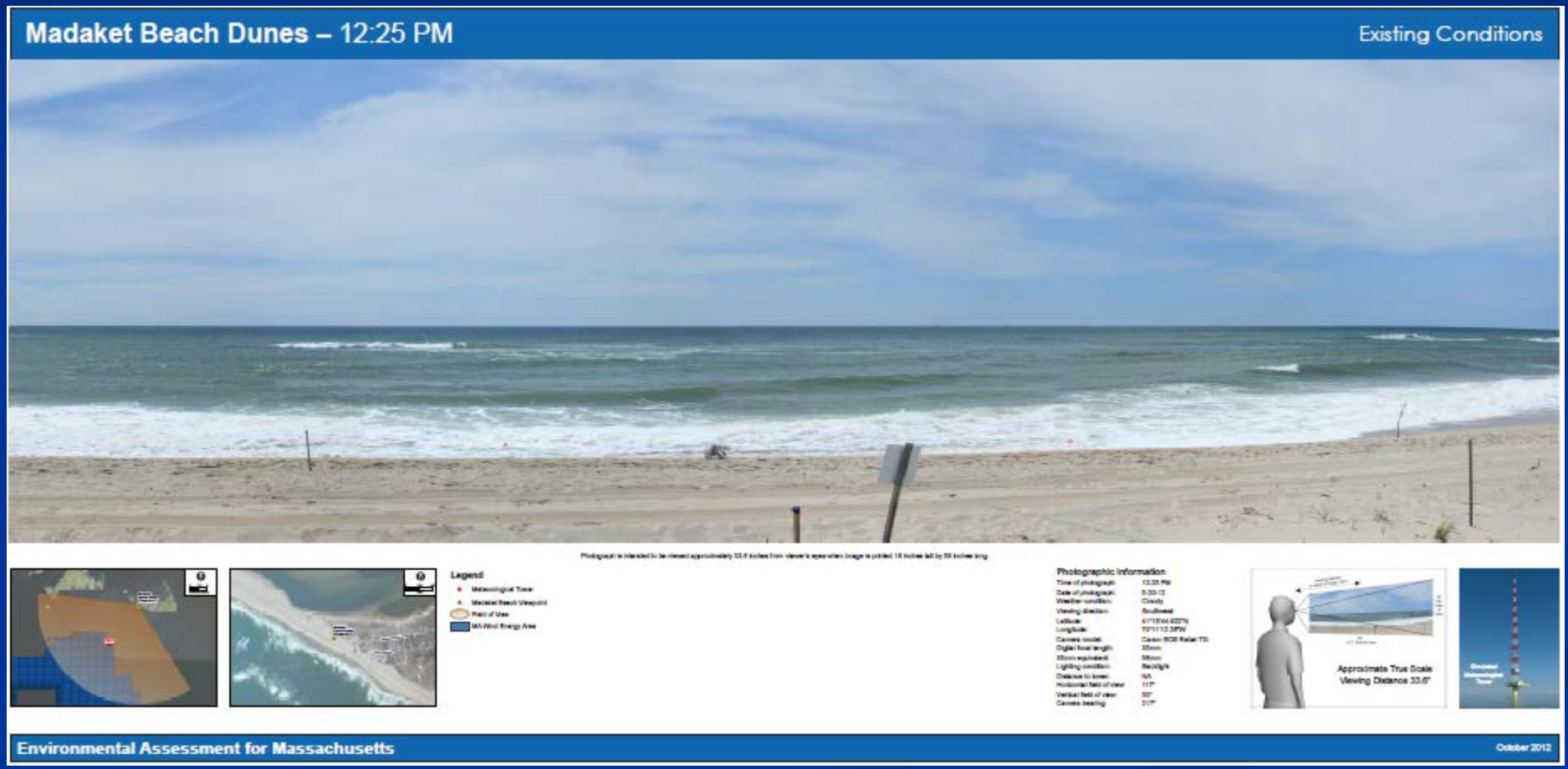
- Areas where commercial fishermen would be excluded are small (Meteorological Tower locations) in relation to overall fishing grounds
- Any fishing displacement and/or changes to target species availability would be confined to the immediate area of the proposed activities and would be temporary. The result would be a negligible, if detectable, impact to fishing.

Visual Impacts: South Beach Early Morning, Existing Conditions

Visual Impacts: South Beach Early Morning, Simulation



Visual Impacts: Madaket Beach Afternoon, Existing Conditions

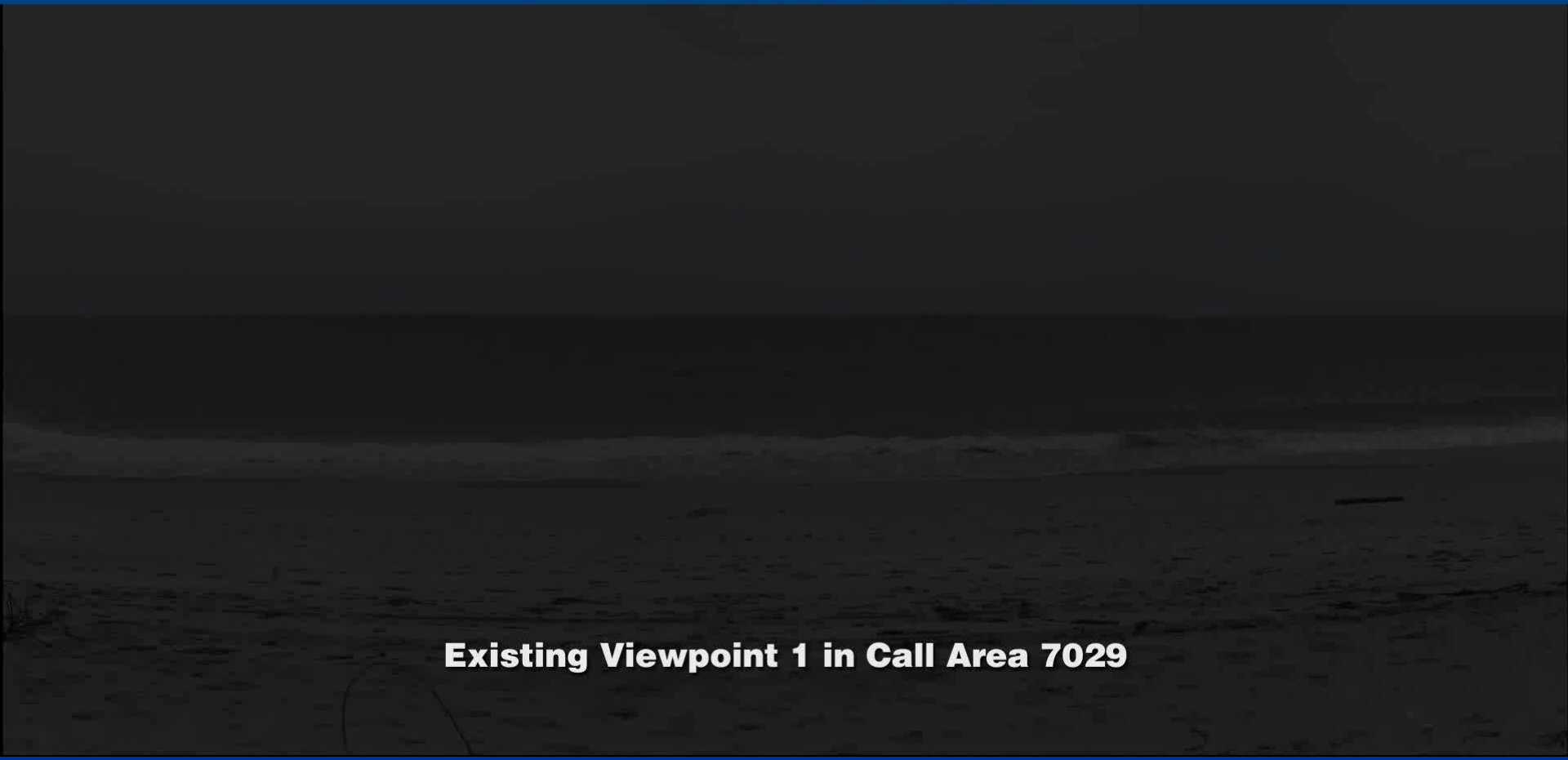


Visual Impacts: Madaket Beach Afternoon, Simulation

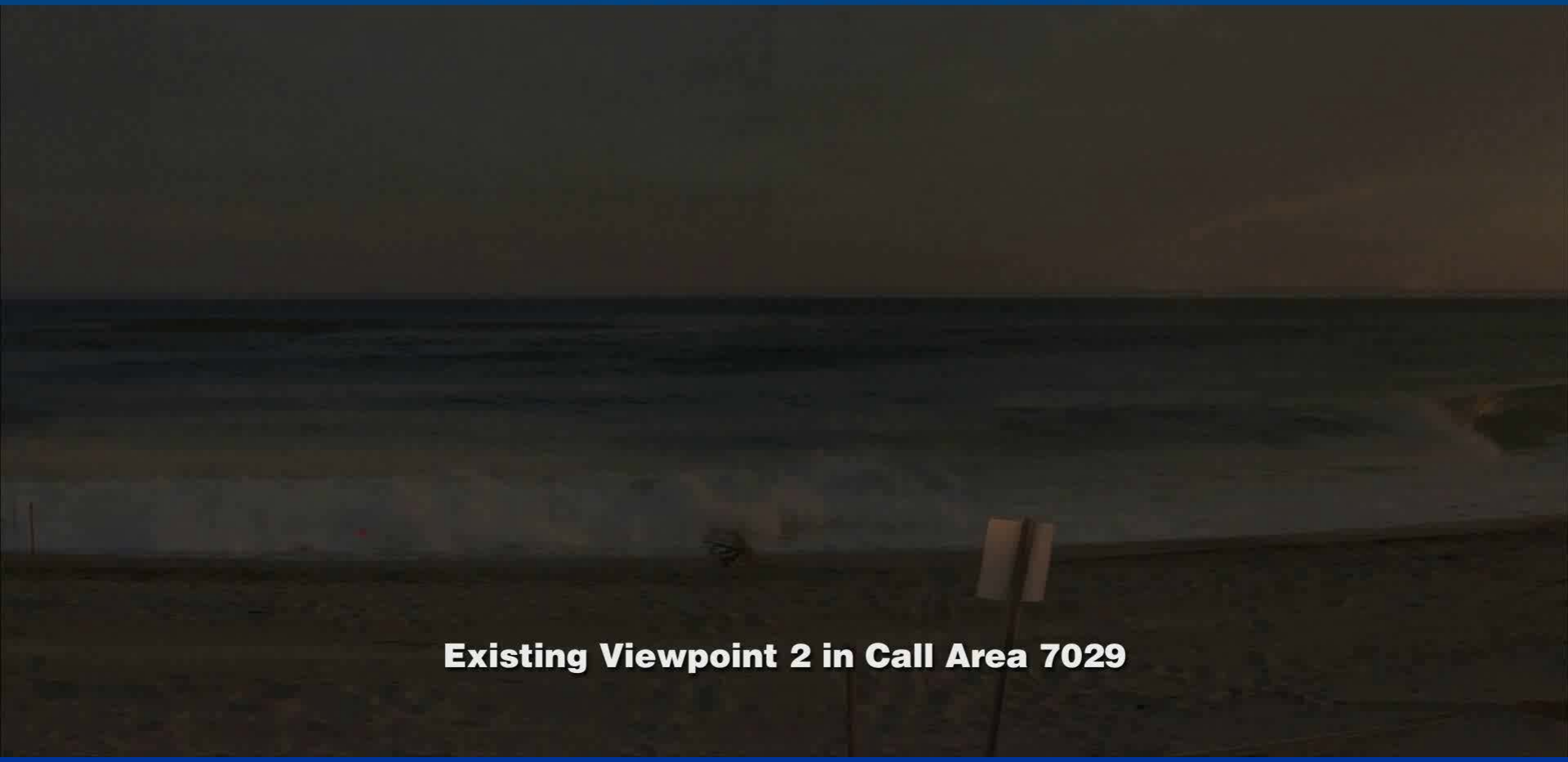
Visual Impacts: EA Conclusion (Daytime)

- The widest portion of the meteorological tower (the deck) would be below the visual horizon and would not be visible from shore.
- The mast of the tower would not be discernible by the naked eye in the best visibility conditions (a clear day, high visibility).

South Beach Nighttime Video



Madaket Beach Nighttime Video

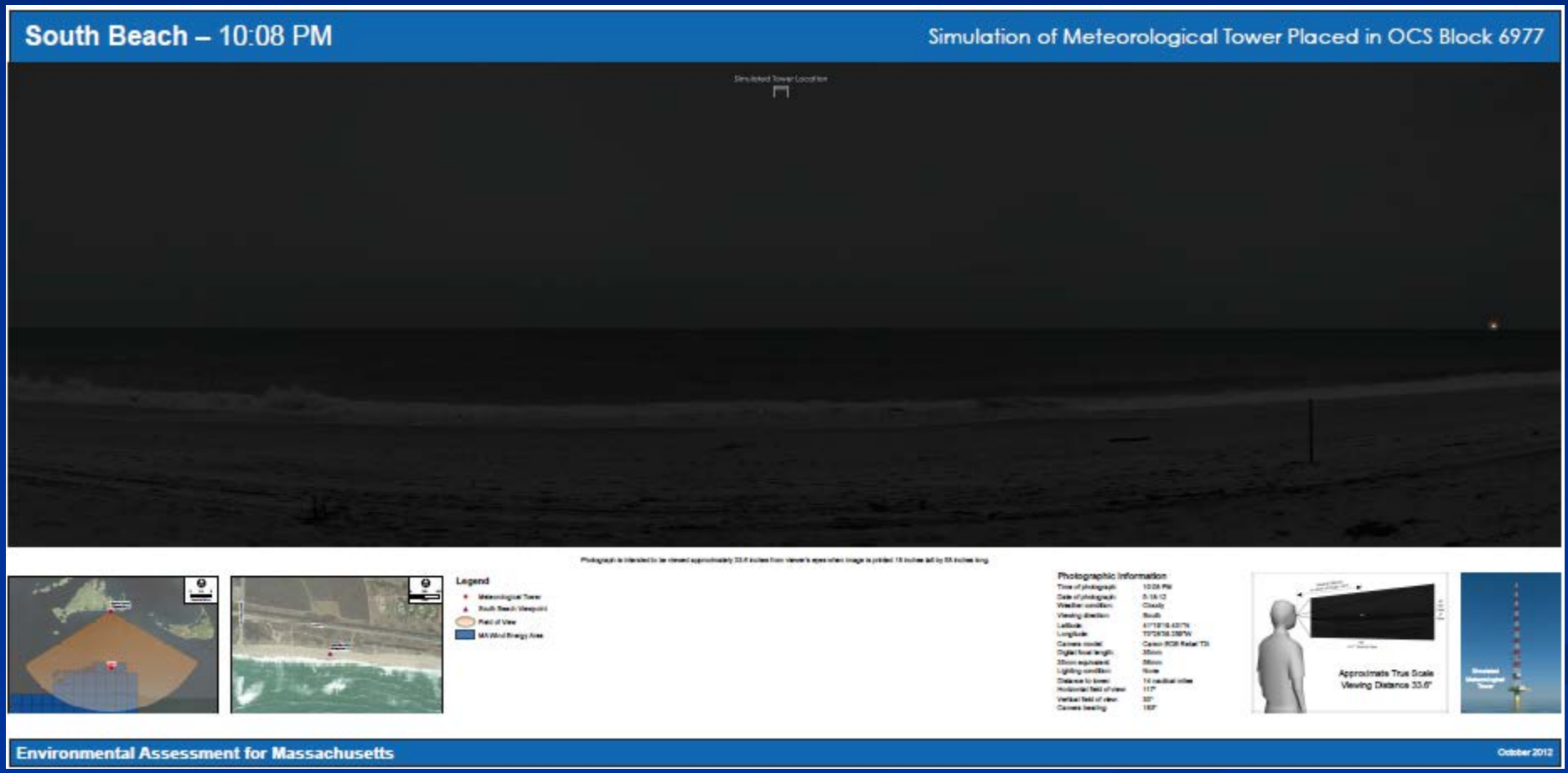


Visual Impacts: EA Conclusion (Nighttime)

- Lighting markers at the top of the tower would likely be visible on clear nights from the shoreline.

- Boats and ships frequently appear on the horizon and the tower light would be difficult to distinguish from the other lights (as shown in the Martha's Vineyard simulation).

South Beach Nighttime Simulation



Standard Operating Conditions

- 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 environmental risks
- Will be enforced through lease stipulations or terms and conditions of plan approval

Consultations

- National Historic Preservation Act (NHPA)
- Endangered Species Act (ESA)
- Magnuson-Stevens Fishery Conservation and Management Act (Essential Fish Habitat (EFH))

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.

How to Comment

- Comment period closes **December 3, 2012**
- On www.regulations.gov use Keyword : **BOEM–2012–0086**
- In written form either by hand or by mail:

  Program Manager

  Office of Renewable Energy Programs

  Bureau of Ocean Energy Management

  381 Elden Street, HM 1328

  Herndon, Virginia 20170–4817

For further information please visit our website at:

http://www.boem.gov/Renewable-Energy-Program/State-Activities/Massachusetts.aspx

Or, contact:

Brian Krevor, Environmental Protection Specialist

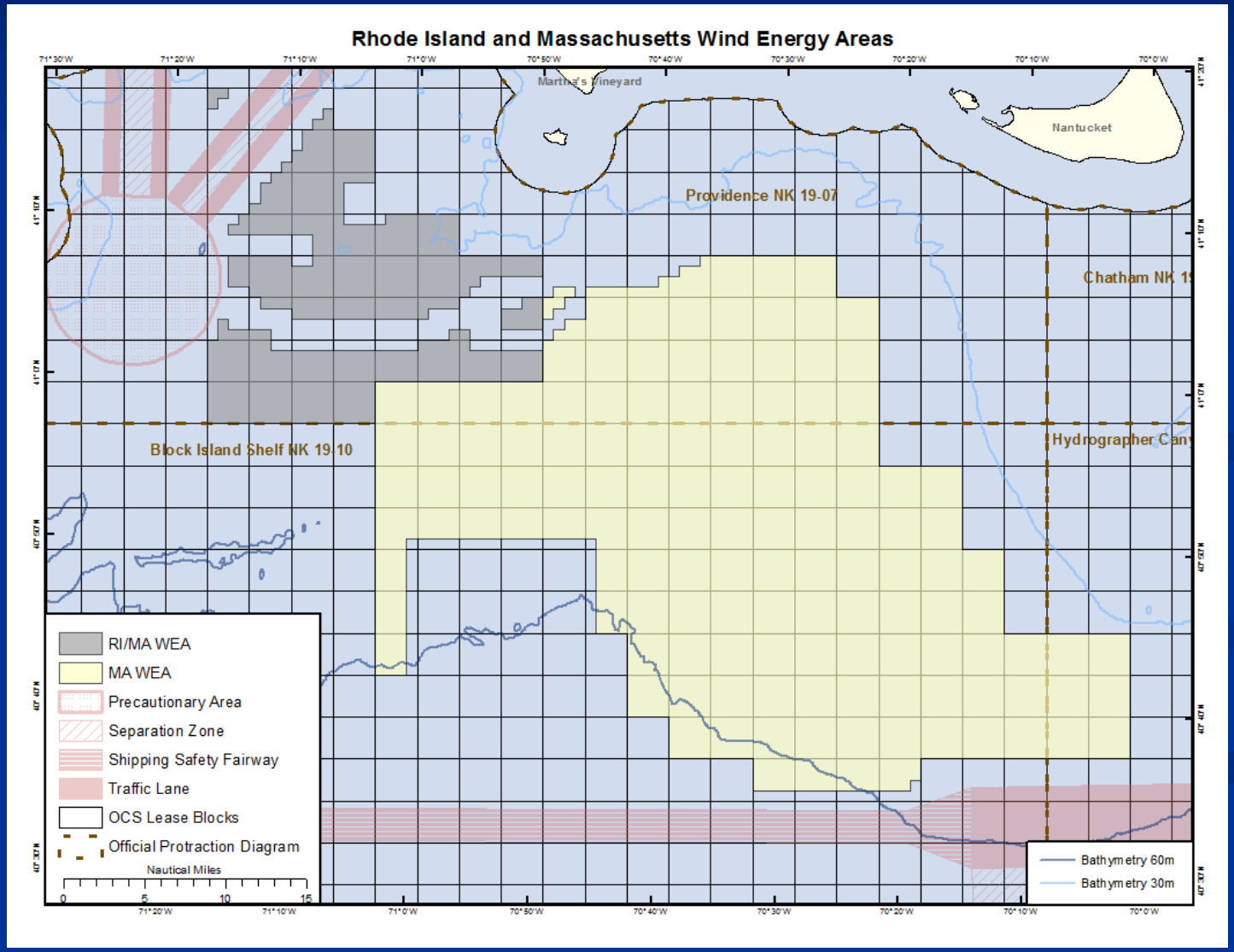
brian.krevor@boem.gov

703-787-1340

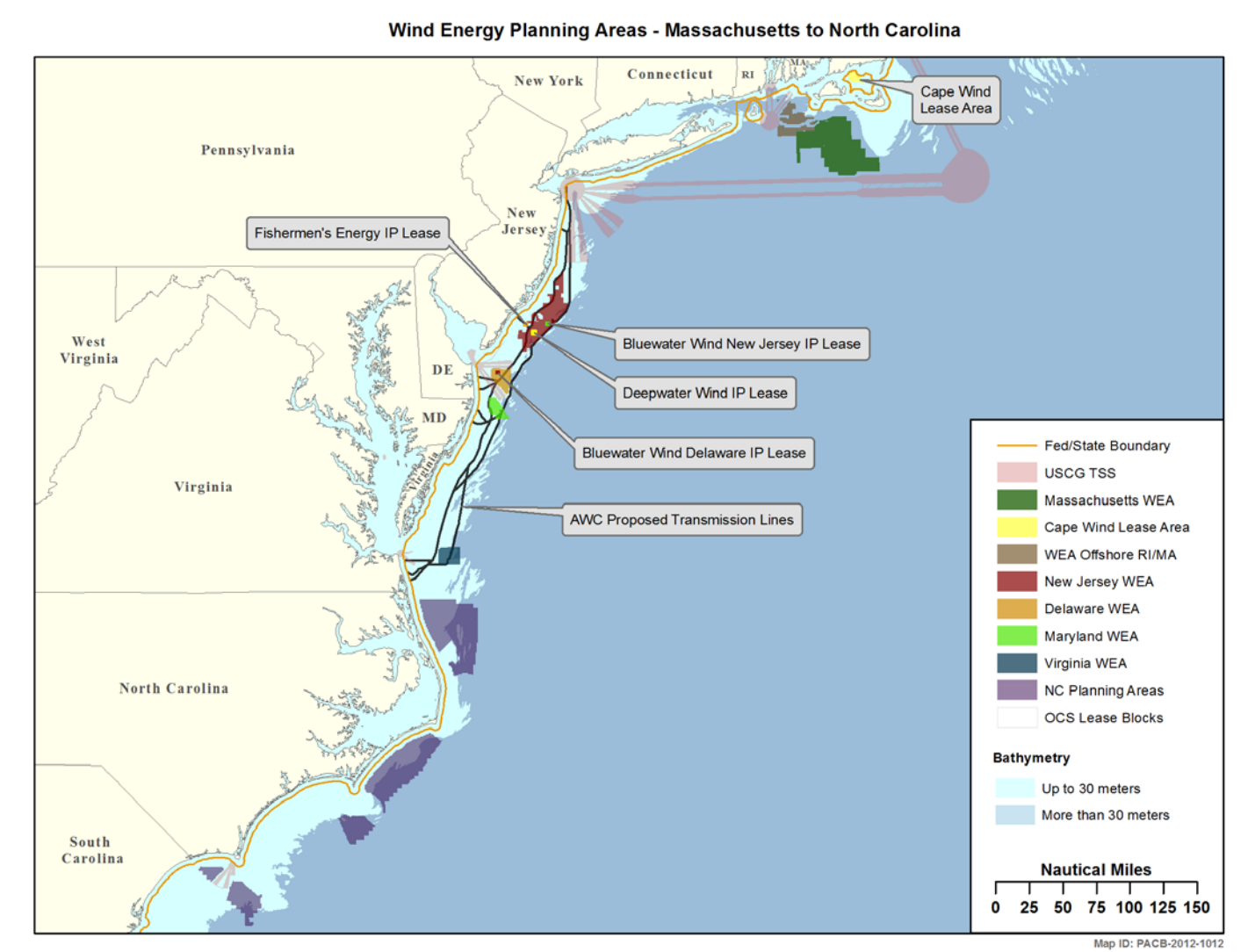
BOEM

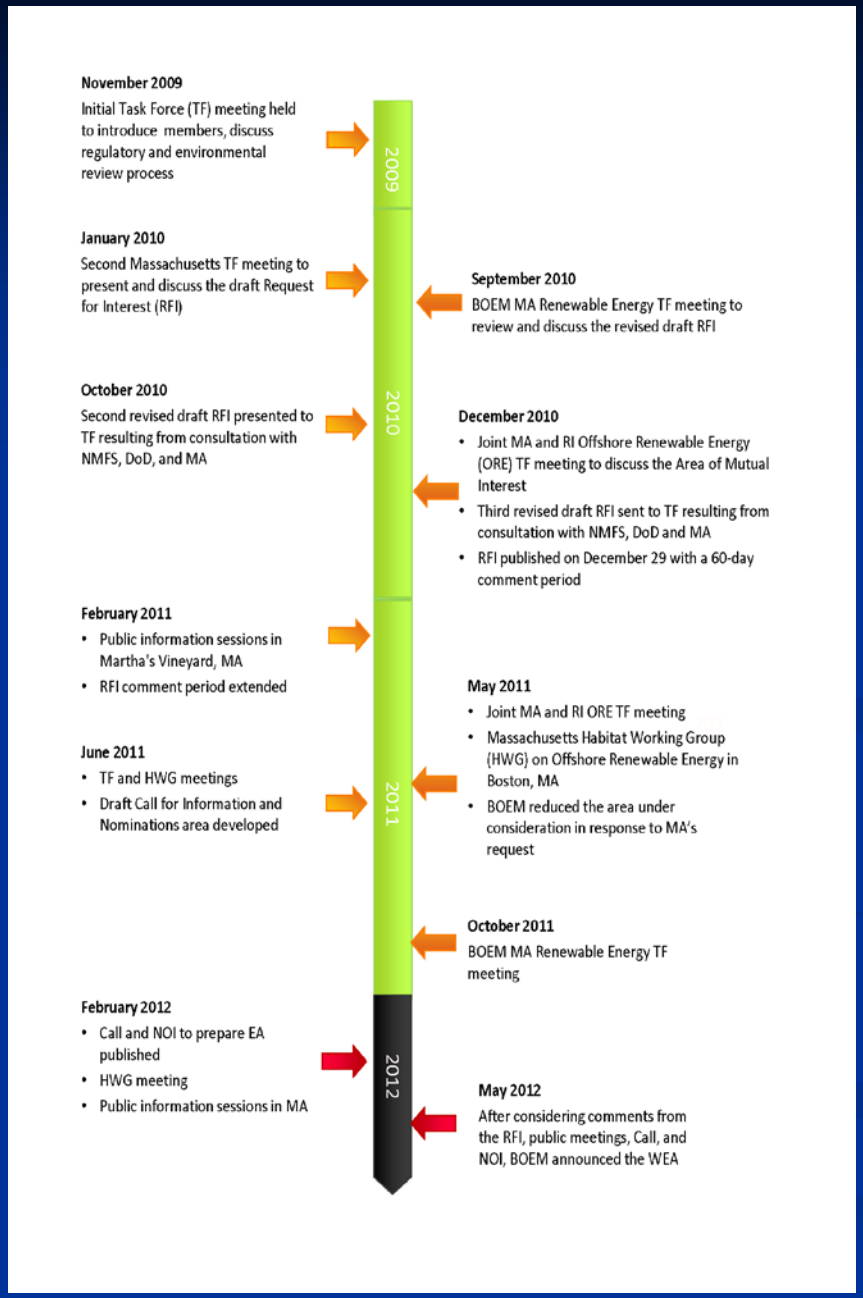
Bureau of Ocean Energy Management

RI/MA and MA WEAs



Wind Energy Planning Areas




November 2009
Initial Task Force (TF) meeting held to introduce members, discuss regulatory and environmental review process
2009
January 2010
Second Massachusetts TF meeting to present and discuss the draft Request for Interest (RFI)
September 2010
BOEM MA Renewable Energy TF meeting to review and discuss the revised draft RFI
October 2010
Second revised draft RFI presented to TF resulting from consultation with NMFS, DoD, and MA
2010
December 2010
• Joint MA and RI Offshore Renewable Energy (ORE) TF meeting to discuss the Area of Mutual Interest
• Third revised draft RFI sent to TF resulting from consultation with NMFS, DoD and MA
• RFI published on December 29 with a 60-day comment period
February 2011
• Public information sessions in Martha's Vineyard, MA
• RFI comment period extended
May 2011
• Joint MA and RI ORE TF meeting
• Massachusetts Habitat Working Group (HWG) on Offshore Renewable Energy in Boston, MA
• BOEM reduced the area under consideration in response to MA's request
June 2011
• TF and HWG meetings
• Draft Call for Information and Nominations area developed
2011
October 2011
BOEM MA Renewable Energy TF meeting
February 2012
• Call and NOI to prepare EA published
• HWG meeting
• Public information sessions in MA
2012
May 2012
After considering comments from the RFI, public meetings, Call, and NOI, BOEM announced the WEA