

# Protected Species Monitoring During Construction of Block Island Wind Farm



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# Protected Species Monitoring Overview

- Environmental Awareness Training
- Environmental Compliance Methods
- Overview of BIWF Construction  
Compliance Monitoring
- Challenges
- Suggestions for Future Projects

# Environmental Awareness Training

- **ALL** individuals working offshore to support BIWF received environmental awareness training prior to project work.
- Covered the following topics:
  - Environmental Compliance Tools
  - Protected Species Compliance and Mitigation Measures
  - Ship Strike Avoidance Measures
  - Marine Species Awareness
- Everyone is Responsible approach!



## Opportunistic Sighting Log

If you observe a marine mammal, sea turtle, or Atlantic sturgeon while working on the Block Island Wind Farm you must follow the steps listed below and fill out the form below.

### When you see a Marine Mammal or Sea Turtle:

1. **Do NOT approach animal**
2. Follow the Vessel Strike Avoidance Guidelines in the vessels Compliance Clipboard
3. Contact the Protected Species Observer on designated VHF channel to notify them of the sighting, follow any instructions they provide
4. Obtain photographs if possible (do not approach animal to get photos)
5. ID species if possible using species ID guide in the vessels Compliance Clipboard
6. Fill out form below:

Date of Observation: \_\_\_\_\_ Time of Observation: \_\_\_\_\_

Location of Observation: Latitude - \_\_\_\_\_ Longitude - \_\_\_\_\_

Species Observed: \_\_\_\_\_

Vessel Observation Made From: \_\_\_\_\_

Approximate Distance Between Vessel and Observed Animal: \_\_\_\_\_

Additional Comments: \_\_\_\_\_  
\_\_\_\_\_

Name of individual completing report: \_\_\_\_\_

Completed forms must be submitted daily. Completed forms can be scanned and emailed or sent via text. To text a completed form, take a picture of the form (make sure it is legible) and text it to the number provided below.

Vessels working for WMJV should submit completed forms to the WMJV Environmental Compliance Manager.

Vessels working directly for Deepwater Wind Block Island, LLC should submit completed forms to Aileen Kenney at [akenney@dwwind.com](mailto:akenney@dwwind.com) or via text to 617-852-7031.

# Environmental Compliance Methods

## Hydroacoustic Verification

- Hydroacoustic verification of sound propagation of construction equipment
- 2015 Foundation Installation – provided real time verification of the 180 dB and 160 dB isopleth
- 2016 Cable Installation – verified prior to start of installation distance to 160 dB isopleth of sound made by dynamic positioning thrusters used by cable installation barge

## Protected Species Observers (PSO)

- Stationed on highest available vantage point to monitor 360° around sound source
- Estimated distance to protected species using reticule binoculars and laser rangefinders
- Gen 3 night vision monocular provided for night time observations onboard the DP Cable Lay Barge.



# 2015 Block Island Wind Farm: Foundation Installation

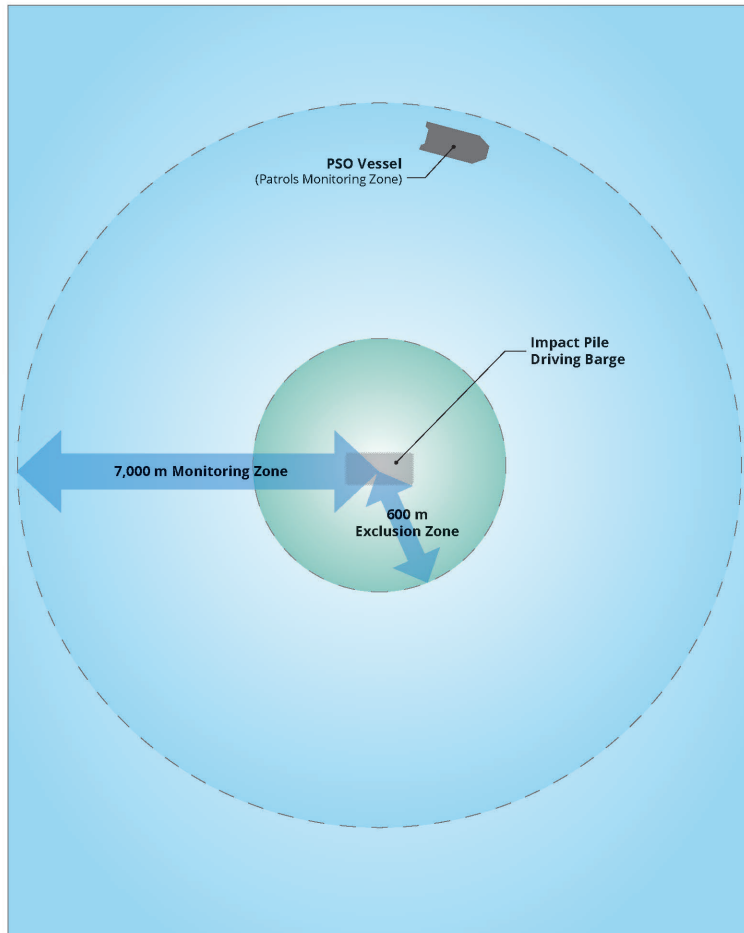
## Protected Species Mitigation Requirements

- Pile driving only authorized to occur during daylight hours
- 2 teams of PSO
  - One team aboard the pile driving barge
  - One team aboard the monitoring zone vessel
- Cleared EZ and MZ for 60 minutes prior to start of pile driving, during pile driving, and for 60 minutes following conclusion of pile driving daily



# 2015 Block Island Wind Farm: Foundation Installation

## EXCLUSION AND MONITORING ZONE



## Exclusion Zone

- Monitored by pile driving barge PSOs
- Associated with the 180 decibel (dB) isopleth (Level A Harassment)
- Extends ~ 600 m from the impact pile driving vessel (~1 km<sup>2</sup>)
- Protected species in this zone will be cause for immediate shutdown

## Monitoring Zone

- Monitored by support vessel circling at ~4km from the pile driving barge
- Associated with the 160 decibel (dB) isopleth where Level B Harassment
- Extends ~7,000 m from the impact pile driving source (approximately 154 km<sup>2</sup>)
- Protected species entering this zone will be cause for warning of potential shutdown

# 2016 Block Island Wind Farm: Submarine Cable Installation

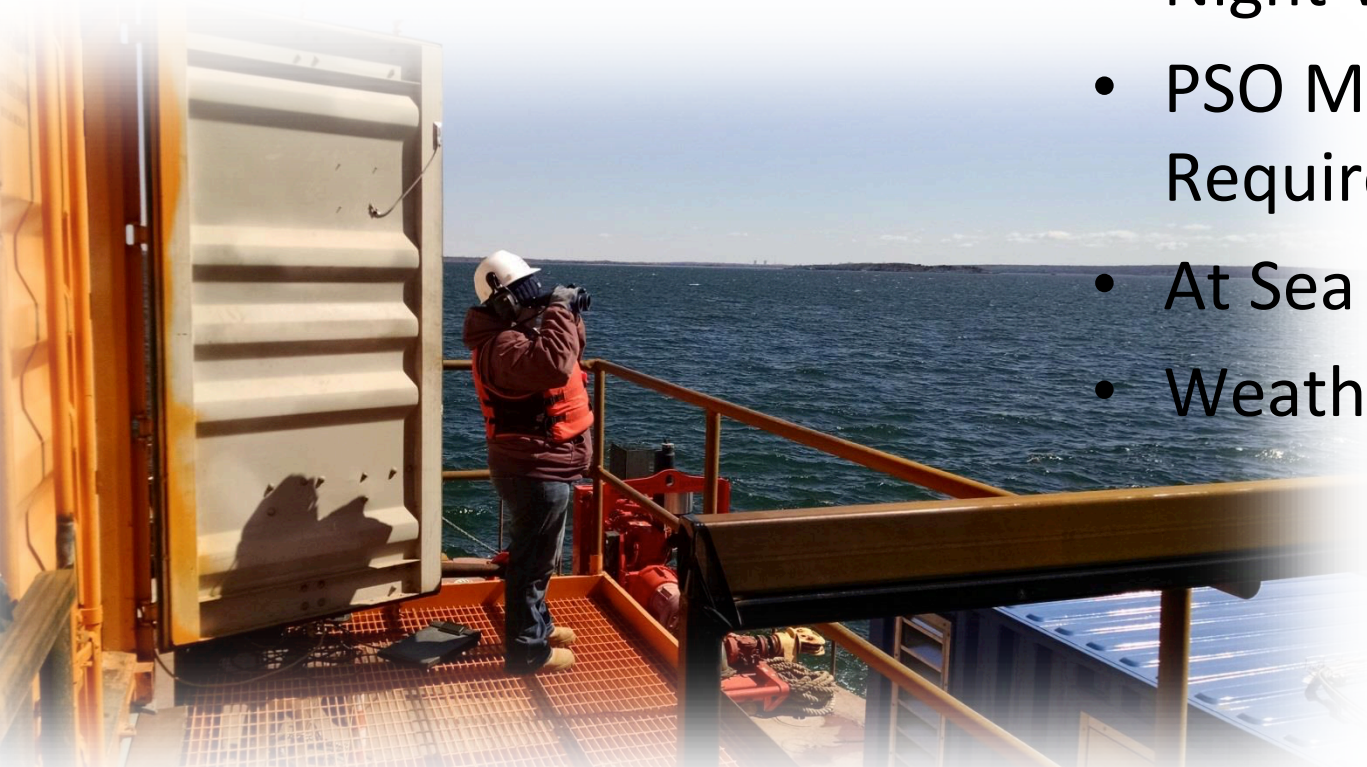
## Monitoring Zone

- Monitored by PSOs aboard cable lay barge using dynamic positioning (DP)
- Associated with the 160 decibel (dB) isopleth (Level B Harassment)
- Extends ~ 21 m from DP vessel
- Protected species in this zone will be cause for DP power down to maximum extent possible
- PSO monitored continuously beginning when vessel left dock to when it returned to port at of work



# Protected Species Monitoring Challenges

- PSO approval
- Long hours
- Data Submission
- Night Vision limitations
- PSO Monitoring Vessel Requirements
- At Sea Transfers
- Weather Conditions





# Suggestions for Future Projects

- HD and Thermal Imaging Cameras
- Live aboard accommodations



# THANK YOU!

