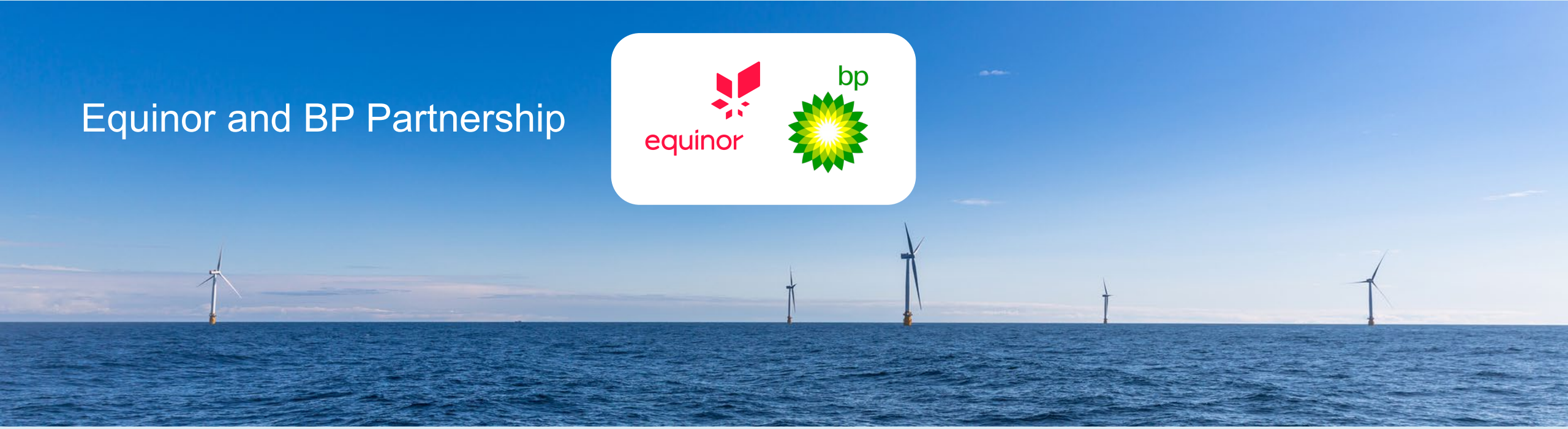
equinor

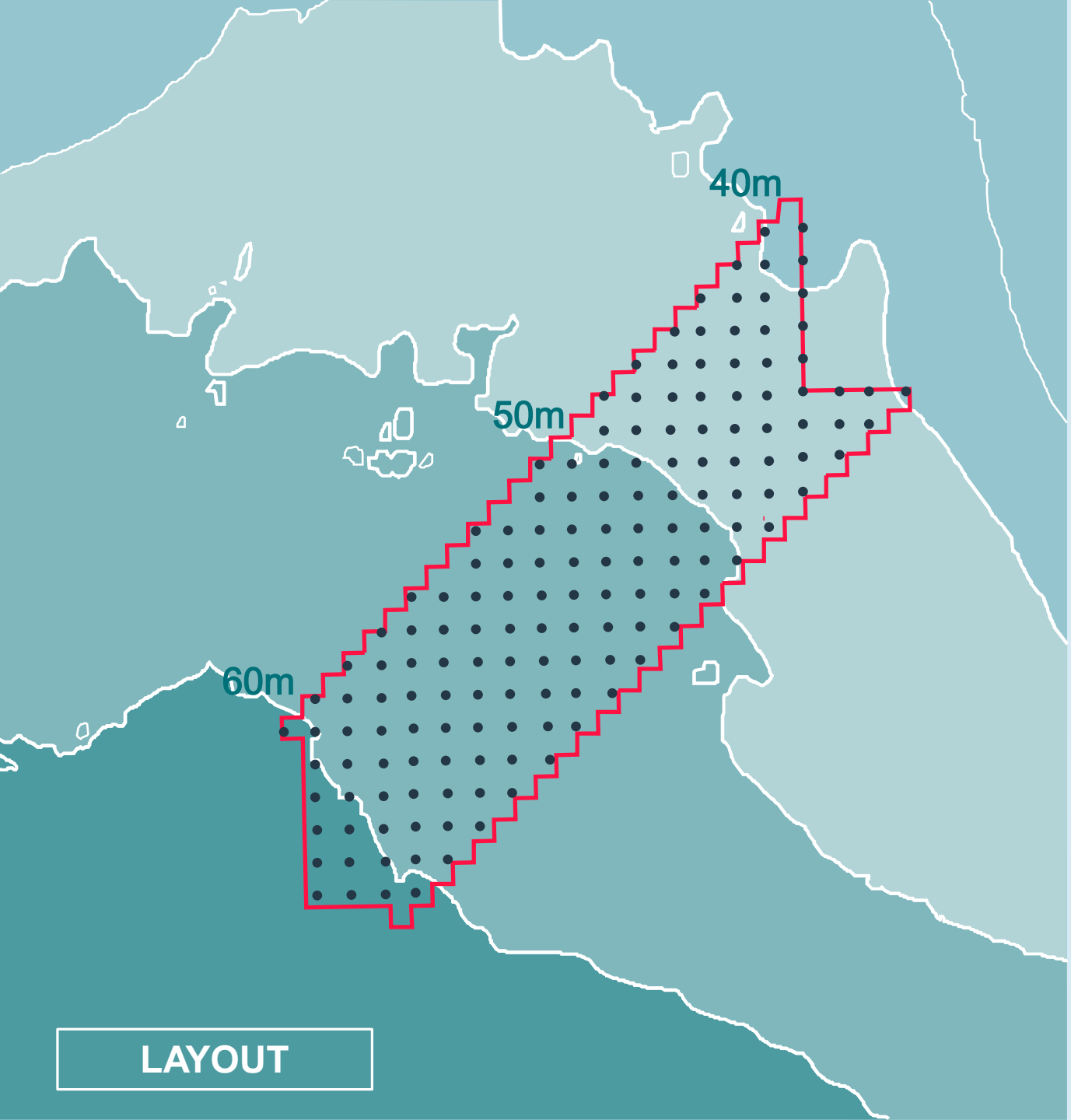
Beacon Wind

Julia Lewis
EEA Habitat Working Group on Offshore Wind Energy
December 11, 2020

Equinor and BP Partnership



- Equinor has entered into an agreement with BP to sell 50% non-operated interests in Empire Wind and Beacon Wind for USD 1.1 billion
- The two companies are establishing a strategic partnership to consider future joint opportunities in the US for both bottom-fixed and floating offshore wind
- Equinor will remain the operator of the projects in these leases through the development, construction and operations phases
- The transaction is expected to close in early 2021, subject to customary regulatory approval



equinor

LEASE CHARACTERISTICS AND CONCEPT

Characteristics:

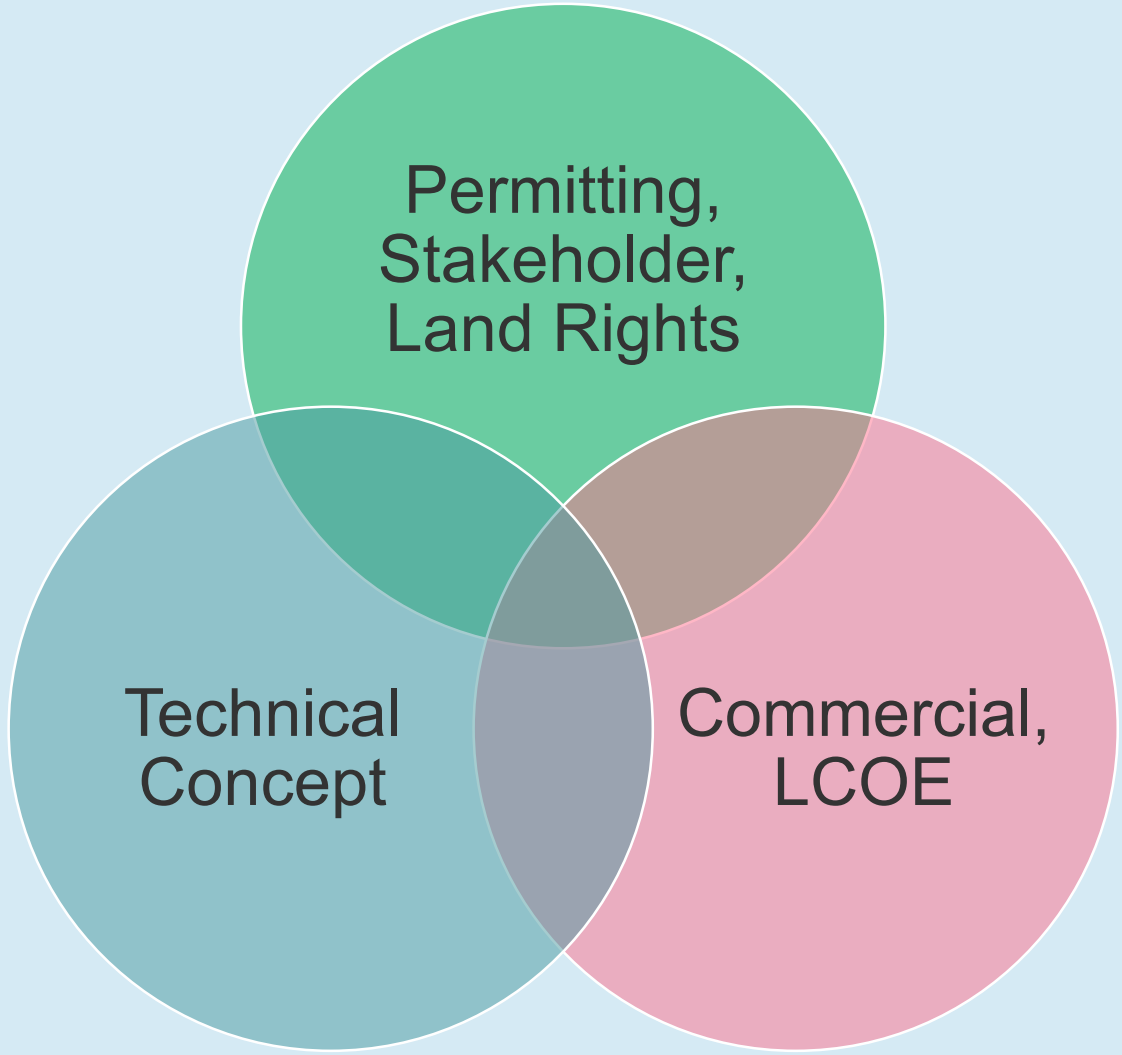
- 200 square miles
- Water depth: 120-200 feet
- Distance to land: ~20 miles SW of Nantucket
- Wind: 9-10 m/s
- Seabed: glacial zone, sand and clay

Concept:

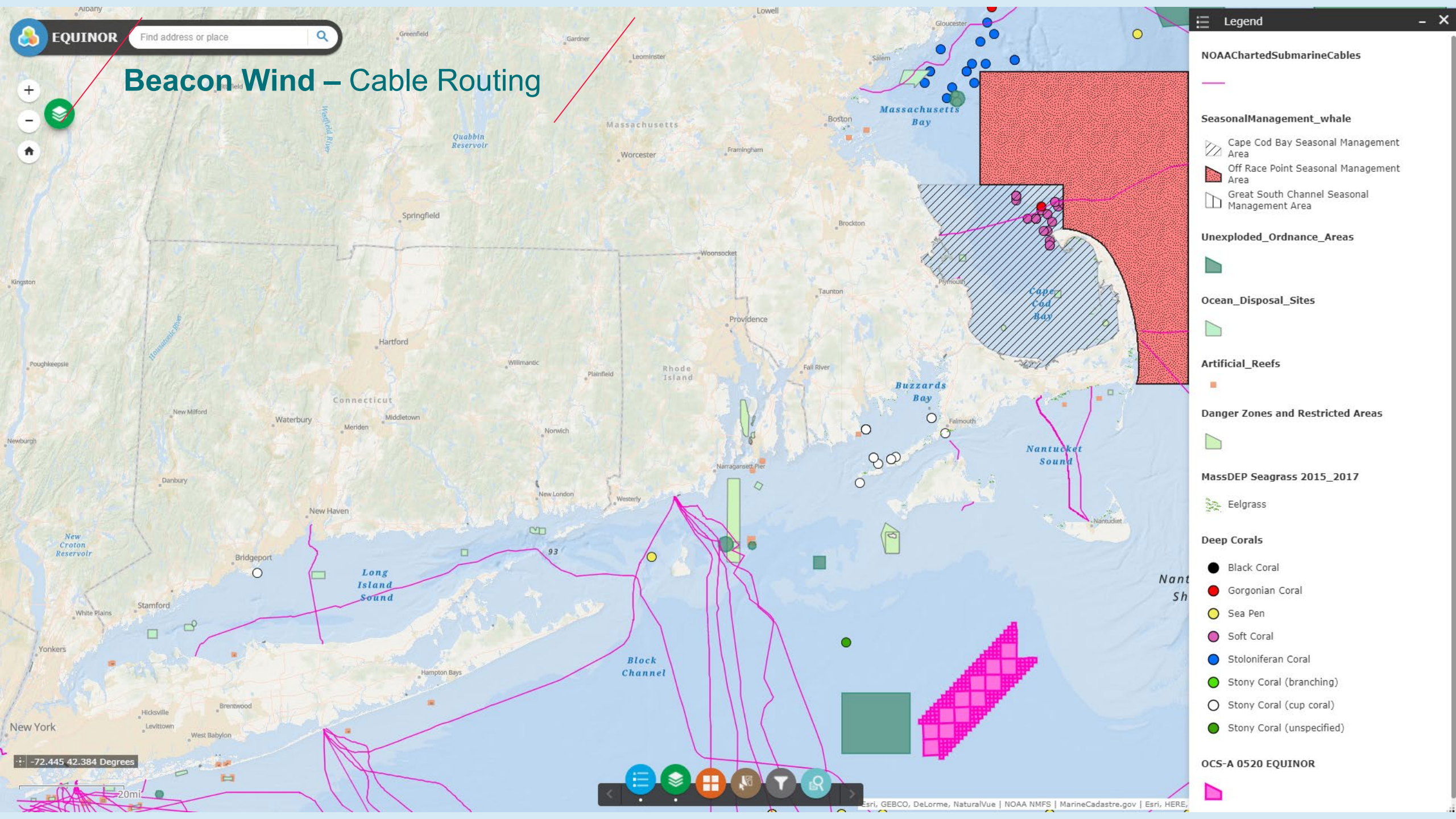
- 1x1nm grid layout - 157 locations
- WTG: 12+ MW
- Capacity: >2GW
- Phased development
- Maturing routes to Northeast markets
- Transmission technology: HVDC

Early Stage Development Strategy: Find the right balance

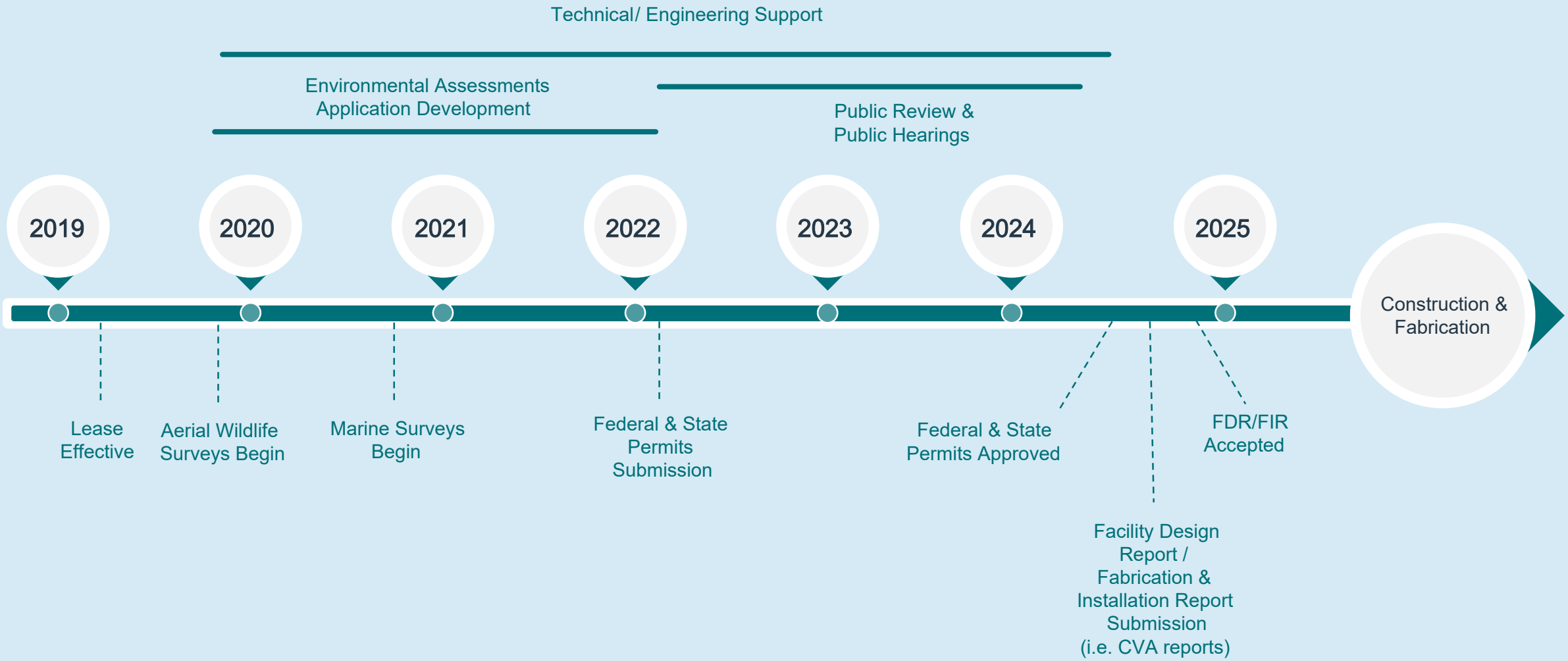
- Collaboration between technical, permitting, commercial, stakeholder, real estate and more
- Safe to construct & operate
- Safe for other users
- Lowest environmental impacts and use conflicts
- Lowest technical challenges
- Acceptable wind, economics and LCOE
- Grid connection
- Power offtake opportunities



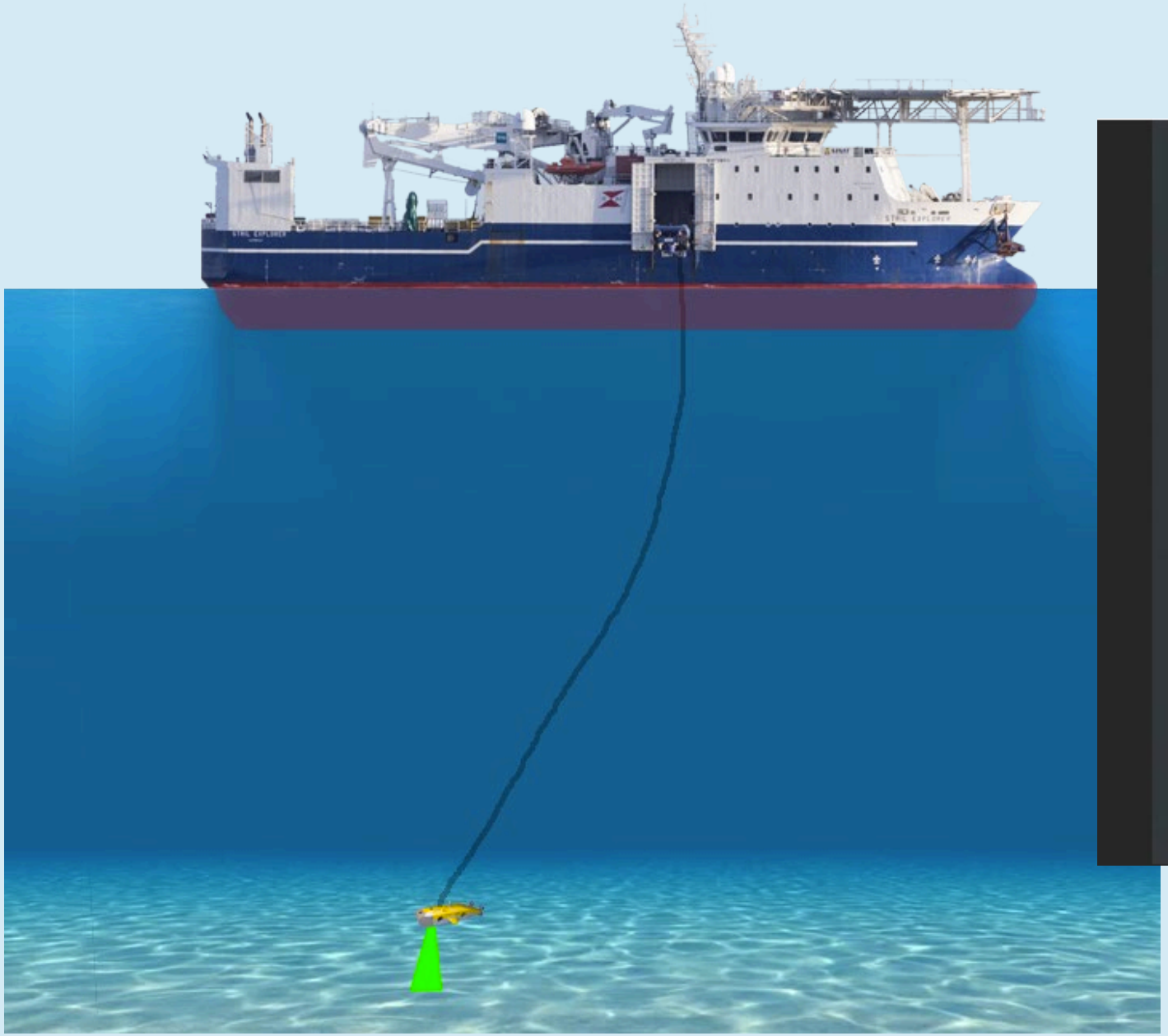
Beacon Wind – Cable Routing



Beacon Wind | Permitting Schedule



Beacon Wind | 2020 HRG Surveys



Beacon Wind | Scout Boat F/V Rayda Cheramie

- Hails from Point Judith, Rhode Island, USA
- MMSI 366947090
  Call Sign: WDB7726
- Length overall (LOA): 24.38 meters and her width is 7.32 meters
- Guides survey vessel, Stril Explorer, through her survey lines and areas of fishing gear to avoid gear conflicts and interactions
- Constant contact with fishing vessels, survey vessel, FLO onboard, and Fisheries Manager
- Scout reports provided to Fisheries Manager after every trip

Beacon Wind | 2021 Studies

Planned

- Offshore
  - Cable Route Geophysical Survey
  - Sediment Sampling
  - Benthic Habitat Mapping
  - Navigation Risk Assessments
  - Cable Burial Assessment
- Offshore & Onshore
  - Noise Assessments
  - Electromagnetic Field Assessment
  - Archaeological Survey
  - Visual Impact Assessment
  - 2nd year of aerial wildlife survey
- Onshore
  - Wetlands & Vernal Pool Delineations
  - Threatened & Endangered Species Survey

2021 Sampling Plan

- Evaluation of cable corridors starting Spring 2021
- Will utilize a combination of technologies including: benthic grab, SPI camera, seabed CPTs, and vibracores
- Sampling within lease (WTGs and interarray cables) and along export cable corridor
- Exact sampling schedule has not yet been finalized

equinor

SHAPING THE FUTURE OF ENERGY

Thank you for your attention

Julia Lewis
julew@equinor.com

MAYFLOWER WIND

Project Updates 2020

MA EEA Habitat Working Group on Offshore Wind Energy

December 11, 2020

About Mayflower Wind

Mayflower Wind is backed by two world-leading energy companies with deep experience and capability in working alongside communities and managing the complexities of offshore and onshore energy development projects.

We are guided by our core values:

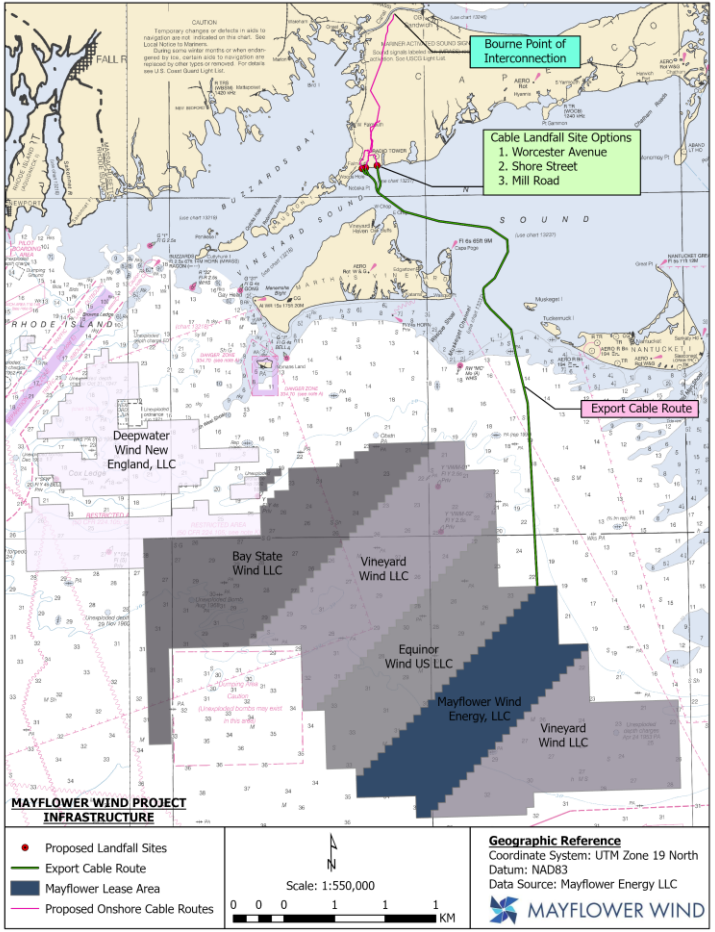
Safety First, Safety Always.
We are committed to treating our people, community, and environment with care.

Innovation and Industry Development.
We expect innovation will continue to drive the rapid decline in the cost of wind energy and aim to be a leader in this space.

Investing in Communities.
We are committed to building responsible partnerships with local communities by supporting jobs, economic development, and innovation that will flourish for decades to come.

Project Characteristics

- **Lease:** OCS-A 0521
- **Area:** 127,000 acres (520 km^2)
- **Water Depth:** 64% < 180 ft (55m)
- 36% > 180 ft (55m)
- **Average wind speed at 135m**: 33 ft/s (10.1 m/s)
- **Distance to shore:** 53-65 miles (85-105 km)
- **Landfall:** Falmouth, MA
- **Connection point:** Bourne, MA
- **Distance to grid connection:** 78 miles (125 km)
- **Potential:** over 1,600 MW, depending on technology



Making Massachusetts A Hub for Offshore Wind

Mayflower Wind has committed to invest $77 million in programs administered by MassCEC over 25 years that help make the Commonwealth a hub for offshore wind energy, including:

- $35 million- ports & infrastructure
- $10 million- innovative technologies
- $5 million- workforce development
- $5 million- applied research

Mayflower Wind looks forward to being a long-term member of the Southcoast, Upper Cape & Islands communities and active participant in supporting activities such as local school STEM and renewable energy education programs and skills/workforce training

In 2020, Mayflower Wind contributed $100,000 towards MassCEC's awarding of grants to nine Massachusetts organizations and institutions for workforce training and development programs

Mayflower Wind has committed to provide $5 million over 10 years to the Cape Light Compact JPE towards initiatives that lower electric bills for low-income households

Baseline Conditions

Avoiding and minimizing impacts paramount to project success

Detailed baseline studies critical component of project planning, including:

Physical environment studies

- Geology and sediment quality
- Geophysical & geotechnical surveys
- Wind and metocean conditions

Fauna studies

- Fisheries (including benthic habitat)
- Birds and bats
- Marine mammals
- Sea turtles
- Subsea noise propagation modeling

Flora studies

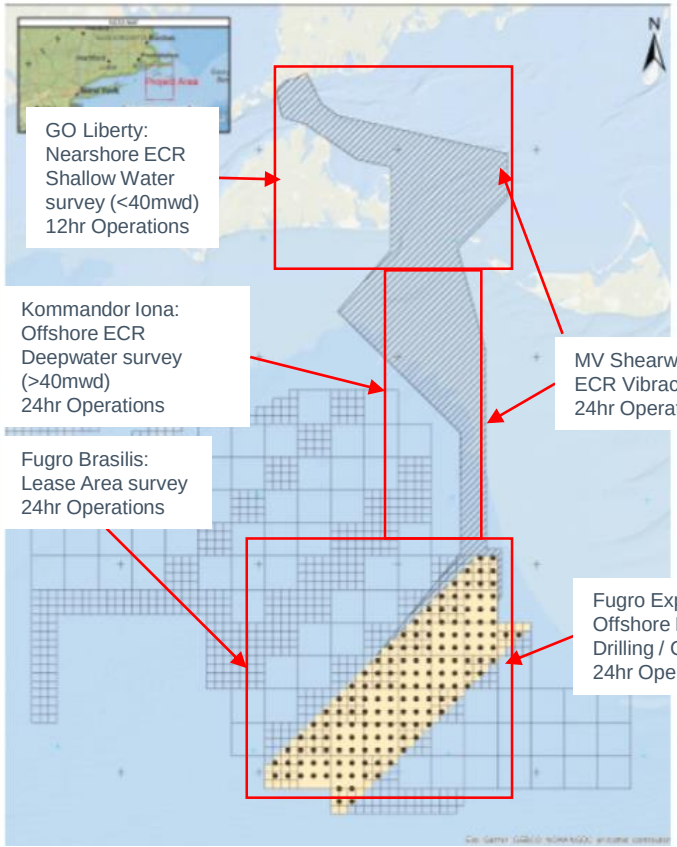
- Wetlands and onshore ecology
- Seafloor surveys

Socioeconomic studies

- Marine transportation and hazard studies
- Onshore archaeology and historic properties
- Marine archaeological studies
- Aviation studies
- Supply chain, ports and harbor evaluation
- Noise and traffic impact studies

Geophysical & Geotechnical Campaigns

- Completed lease area, export cable route, and benthic surveys
- Worked with Massachusetts Lobsterman's Association Captains for gear scouting
- Will continue surveys in 2021



Fisheries Survey Planning & Research

Fisheries – Project & Regional

- Highly Migratory Species research (acoustic telemetry & tagging with NEAq)
- Analysis of recreational fishing effort (NEAq)
- Lobster larval, ventless trap, and trawl (camera) surveys with SMAST
- Responsible Offshore Science Alliance (ROSA Founding member)

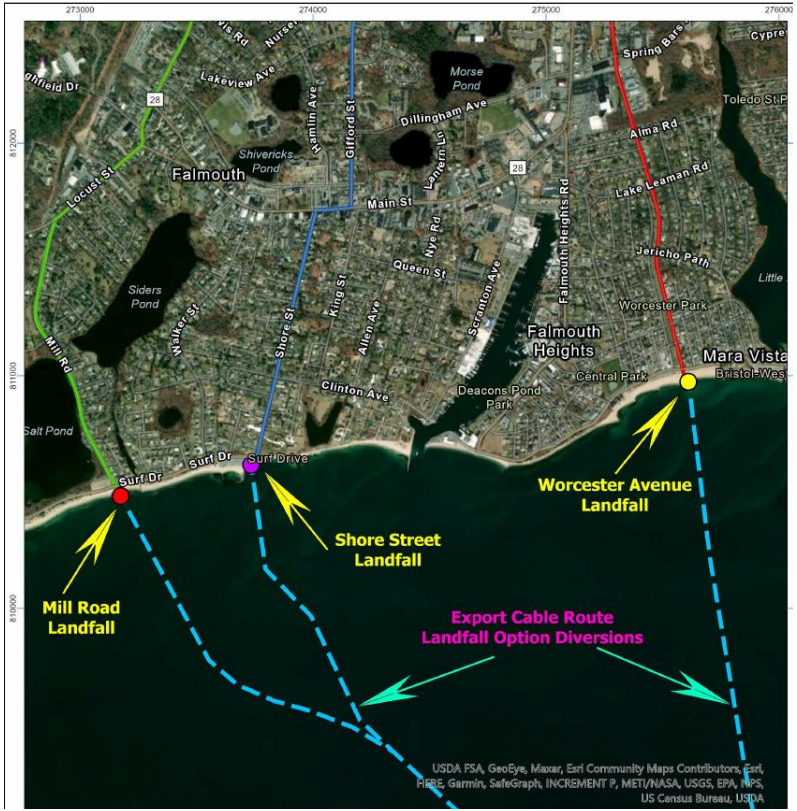
Environmental – Project & Regional

- Coordination of digital aerial surveys – birds, marine life
- Right whale aerial surveys (joint developers with MassCEC & NEAq))
- Regional Wind Science Entity
- Metocean data sharing (with NOAA)

Mayflower Wind MA
Offshore Wind south of Nantucket, MA
Lat: 40.80 **Lon:** -70.34
Latest Observation: 06/25 05:00 PM EDT

Variable	Value
Wave height	3.1 ft (1.0 m)
Wave period	8.0 sec
Wave direction	S (180 °)
Air temp	66.8 °F (19.3 °C)
Air pressure	1015.72 mb
Water temp	65.1 °F (18.4 °C)
Salinity	32.27 psu

Potential Landfall: Surf Drive or Falmouth Heights Beach, Falmouth



- No final decisions on site location will be made until a full routing analysis has been completed
- Surveys and investigations are needed to gather data on-site and assess the suitability of alternative sites for a complete and reasoned analysis of the alternatives
- Mayflower Wind is committed to working with federal, state and local permitting agencies, non-governmental organizations, local residents, and neighborhood associations to avoid and minimize environmental and social impacts

Proposed Onshore Cable Routes

- Mill Road - Route 28 - Goodwill Park
- Shore Street - Main Stret - Gifford Street
- Wocester Avenue - Jones Road - Gifford Street

Proposed Landfall Sites

- Option 1 (Worcester Avenue Land Fall)
- Option 2 (Shore Street Land Fall)
- Option 3 (Mill Road Land Fall)

Scale: 1:17,000

0 1 2 4 6 8 KM

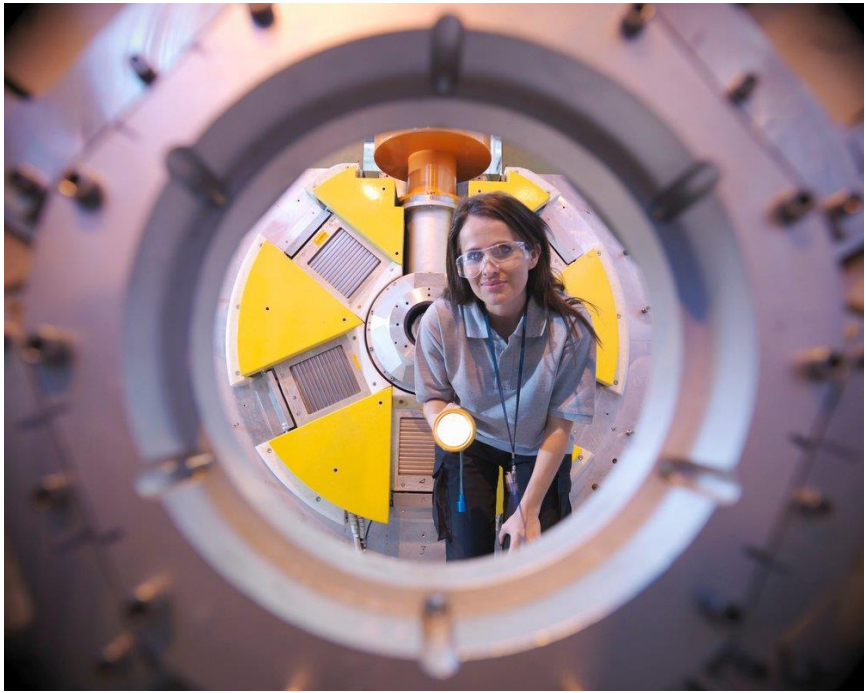
Geographic Reference

Coordinate System: UTM Zone 19 North
Datum: NAD83
Data Source: Mayflower Energy LLC

Supply Chain Registration

- Mayflower Wind is committed to building a skilled and experienced workforce, offering opportunities for qualified contractors & suppliers
- We are in the process of updating our procedures and system for registering potential businesses
- Interested companies may email their qualifications and capabilities to:

procurement@mayflowerwind.com



Thank You

We welcome your questions

508-589-3557

info@mayflowerwind.com

mayflowerwind.com

Ørsted Offshore North America

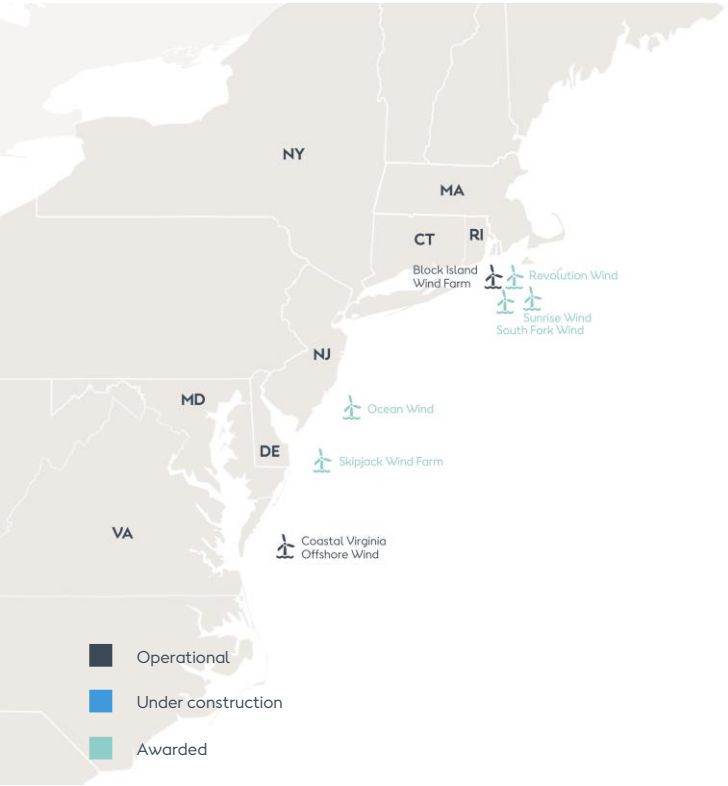
Northeast Program Update

Ørsted

MA EEA Habitat Working Group Meeting on Offshore Wind
December 2020

Ørsted Offshore North America portfolio

Awarded over 2,900 MW of offshore capacity on the East coast



In Operation

Block Island Wind Farm: 30MW

Coastal Virginia Offshore Wind: EPC contract, owned by Dominion Energy, 12 MW

Awarded

Revolution Wind: 50/50 JV w/ Eversource, 704MW (400MW to RI, 304MW to CT)

South Fork Wind: 50/50 JV w/ Eversource, 132MW

Sunrise Wind: 50/50 JV w/ Eversource, approximately 880MW

Ocean Wind: with the support of PSEG, 1,100MW

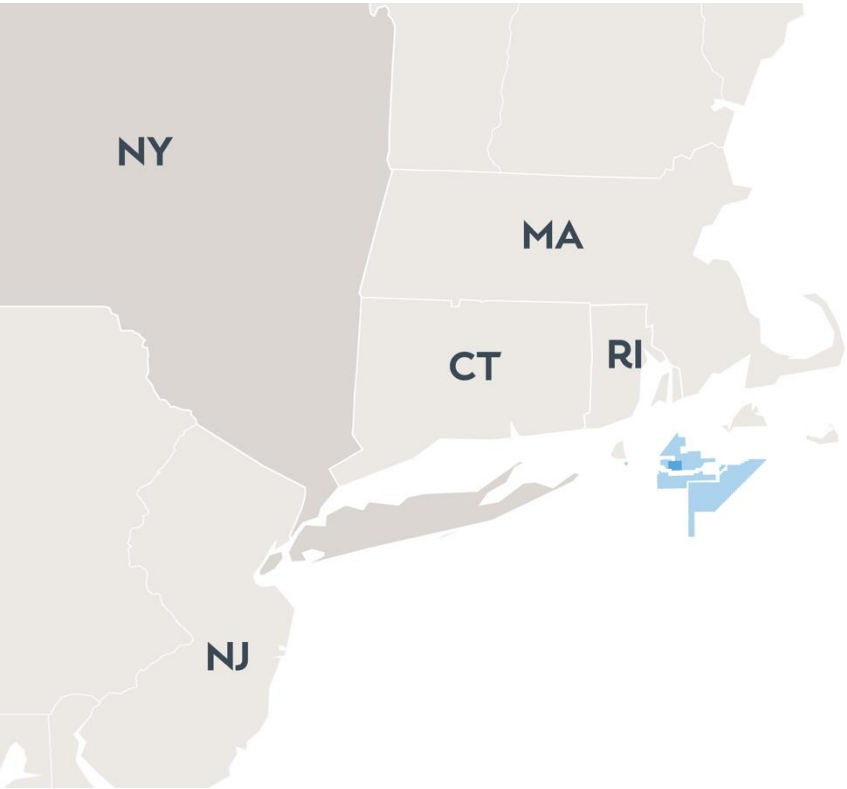
Skipjack Wind Farm: 120MW

Ørsted

Project Updates

Ørsted

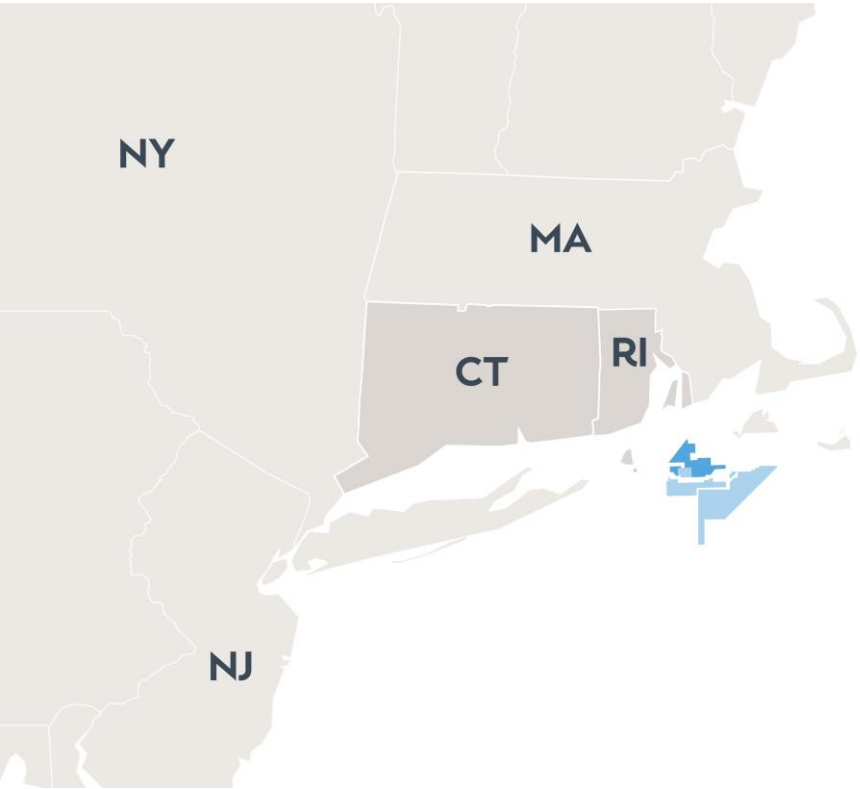
South Fork Wind
Awarded



Project overview

- 50/50 JV with Eversource
- Approximately 132 MW
- 35 miles east of Montauk Point
- Will power 70,000 Long Island homes
- The South Fork Export Cable will deliver power to the substation located off Cove Hollow Rd in the Town of East Hampton
- Commercial operations expected as early as 2023

Revolution Wind
Awarded



Project overview

- 50/50 JV with Eversource
- Three power contracts to date
  - CT 200MW - approved by regulators in December 2018
  - RI 400MW - contract approved by RI PUC in June 2019
  - CT 104MW - awarded
- Will power over 350,000 CT and RI homes
- Construction expected to start as early as 2023

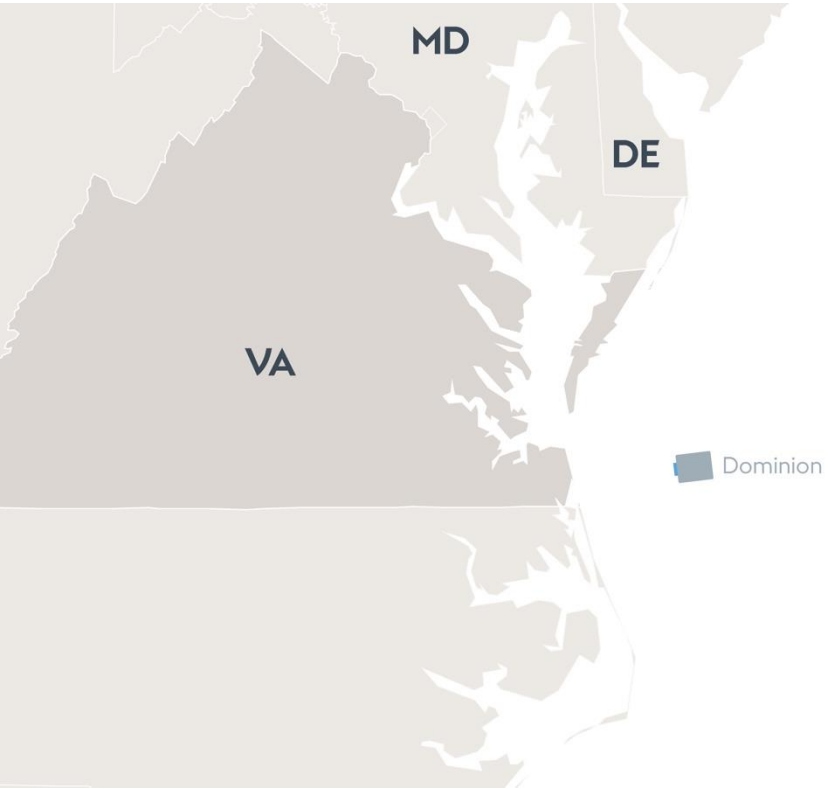
Sunrise Wind
Awarded

Project overview

- 50/50 JV with Eversource
- Approximately 880 MW
- 30 miles east of Montauk Point
- Will power over 500,000 homes
- Sunrise Wind is supported by Con Edison Transmission and NYPA, who will cooperate in the development of the transmission system
- Commercial operations expected as early as 2024

Ørsted

Coastal Virginia Offshore Wind (CVOW)
EPC contract



Project overview

- Ørsted completed work on the Coastal Virginia Offshore Wind (CVOW) project for Dominion Energy in 2020
- 12MW demonstration project – enough to power 3,000 homes
- Located in a BOEM research lease held by the Department of Mines, Minerals and Energy approximately 27 miles from the City of Virginia Beach
- The two turbines are the first ever to be installed in federal waters

Thank you

Liz Gowell
Permitting Manager, Northeast Program
LIZGO@orsted.com

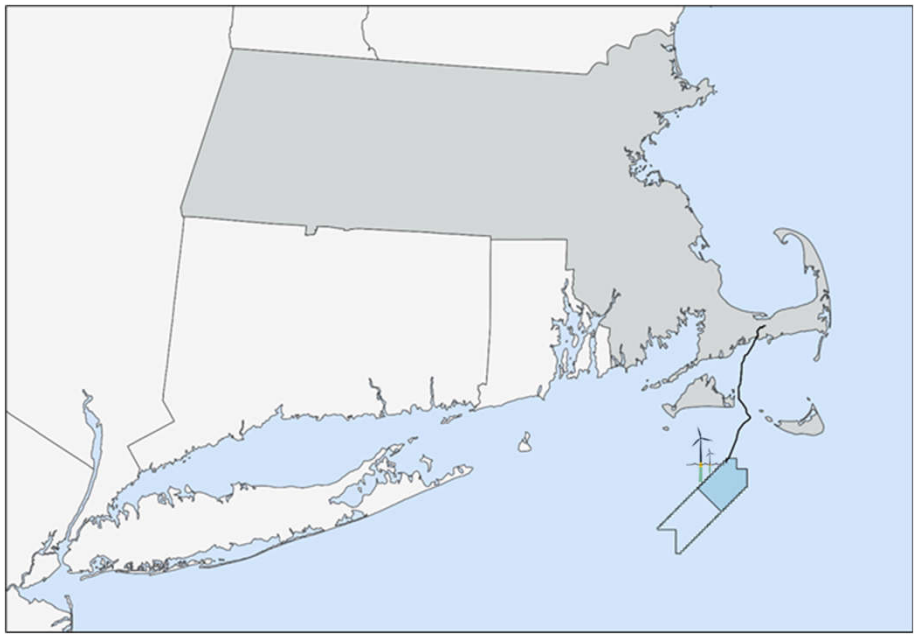
Ørsted


VINEYARD
WIND
Project Updates
December 11, 2020

Vineyard Wind 1

Overview

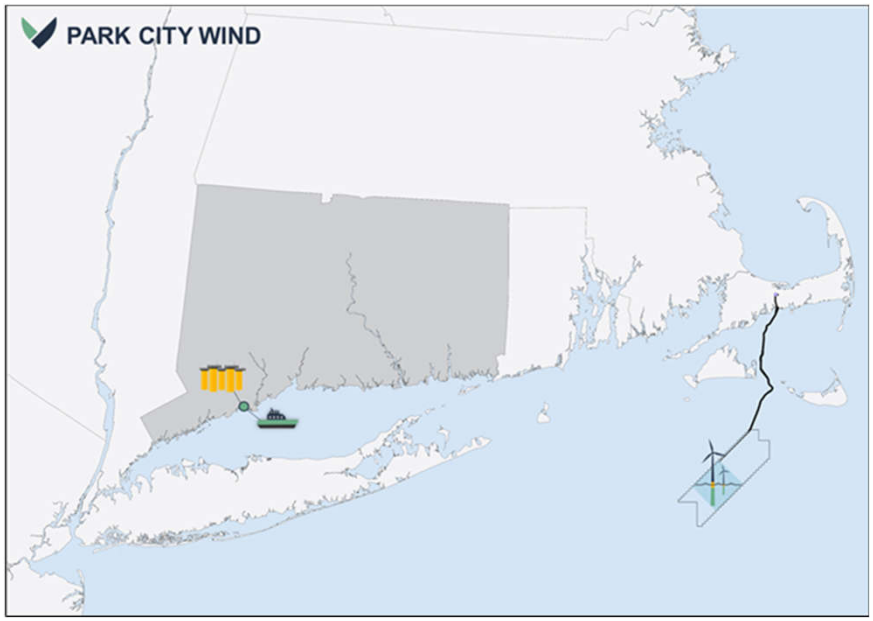
- **Capacity:** 800 MW
- **Lease Area:** OCS-A 0501
- **Turbine Model:** 13 MW GE Haliade-X
- **Federal Permitting**
  - SEIS released on June 12, 2020
    - 13,260 written comments ~80% in favor
    - >19,500 petition signatures ~84% support
  - Vineyard Wind announced decision to pause the Construction and Operations Plan review process to facilitate final due diligence process in light of turbine selection decision. The pause is not expected to affect the overall project timeline.
- **State Permitting:** Completed
- **Point of Interconnection:** Barnstable Substation (MA)
- **Power Purchase Agreements:** 20-year PPAs with Massachusetts utilities (approved)
- **Commercial Operation:** Anticipated in late 2023



Vineyard Wind 1 is on track to be the nation's first commercial-scale offshore wind project

VINEYARD WIND

Park City Wind



Park City Wind includes a commitment to base construction and operations activities primarily out of Bridgeport, Connecticut

Overview

- **Capacity:** 804 MW
- **Lease Area:** OCS-A 0501
- **Federal Permitting:** COP filing expected to be completed no later than Q1 2021
- **State Permitting:** Commenced in 2020 with EFSB petition filing in Q1 and ENF filing in Q2
- **Point of Interconnection:** West Barnstable Substation (MA)
- **Power Purchase Agreements:** 20-year PPAs with Connecticut utilities (approved)
- **Commercial Operation**: Anticipated in 2025

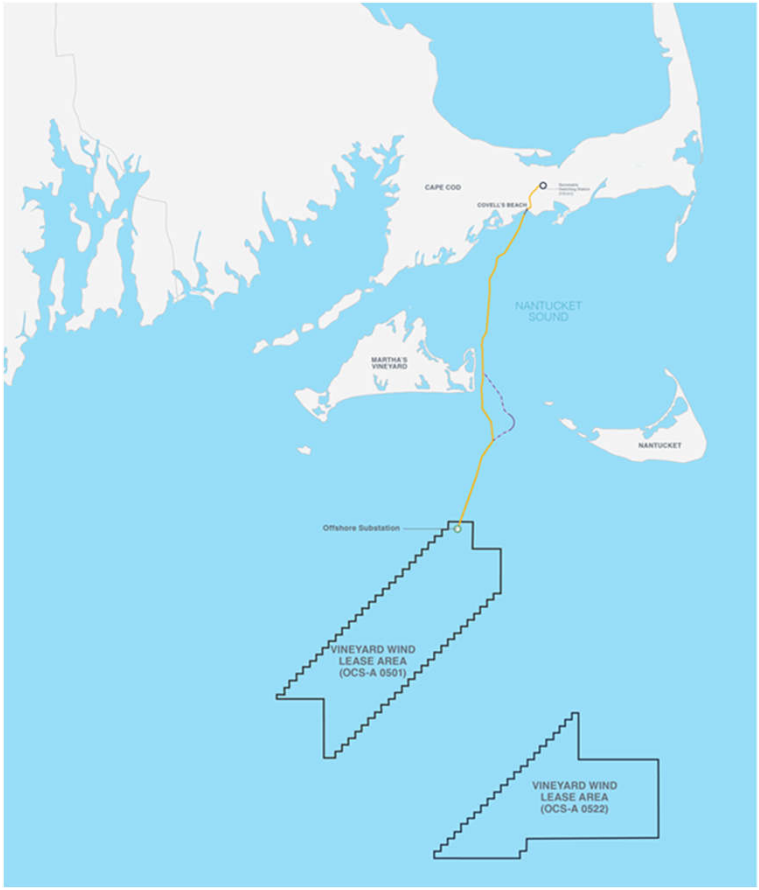
Lease Area OCS-A 0522

Site Assessment Plan (SAP)

- SAP submitted to BOEM on March 6, 2020 and Vineyard Wind is currently finalizing SAP approval items
- Working on metocean buoy deployment
- Construction and Operations Plan drafting to begin in 2021

New York's ORECRFP20-1

- Vineyard Wind filed a proposal in response to New York's second offshore wind solicitation on October 20, 2020 for the Liberty Wind project
- Award announcement expected by end 2020



VINEYARD WIND

Environmental Monitoring

Fisheries Surveys

- Second year of pre-construction surveys in both lease areas ongoing; led by UMass Dartmouth's School of Marines Science and Technology
  - Trawl surveys (4 times per year); drop camera surveys (2 times per year); lobster, plankton, black sea bass surveys (June – October)
- Highly Migratory Species study in partnership with New England Aquarium Anderson Cabot Center for Ocean Life completed
- Data available at: https://www.vineyardwind.com/fisheries

Aerial Digital Surveys

- Aerial digital surveys ongoing in OCS-A 0522; led by APEM and Biodiversity Research Institute
  - Additional survey over a nearshore avian "hotspot" to continue to improve species identification from aerial digital surveys
- 20 aerial surveys conducted between June 2019 and September 2020 to collect spatial and temporal distribution and abundance data on birds and other wildlife; additional surveys planned
- Surveys conducted monthly – two surveys per month during the spring (April/May) and fall (August/September) migration periods

Environmental Initiatives

Vineyard Wind 1

- **Marine Mammals and Innovation Fund:** $3 million to support development and demonstration of innovative methods and technologies to enhance marine mammal protections
- **Offshore Wind Challenge:** Partnership with Greentown Labs and MassCEC supporting advances in technology related to marine mammal monitoring, specifically for data collection and real-time transmission or data analysis for the offshore wind industry and beyond
- **Passive Acoustic Monitoring:** Issued a Request for Proposals for the advancement of a non-invasive permanent and mobile passive acoustic monitoring system for the protection of marine mammals during construction and operation of Vineyard Wind 1

Park City Wind

- **Offshore Wind Protected Marine Species Mitigation Fund:** Partnership with Mystic Aquarium to continue evolving the understanding of underwater noise generated by OSW and potential impacts on cetacean and pinniped behavior, hearing, and physiology
- **Connecticut's Initiative on Environmental Research of Offshore Wind:** Partnership with UConn's Department of Marine Sciences to support fisheries research, training, and education

Regional Science

- Participating in Regional Wildlife Science Entity formation to identify priority research and monitoring needs on wildlife and the offshore wind industry
- Collaborating with NEAq, MassCEC, and other developers to continue aerial marine mammal and sea turtle surveys across the WEA
- Collaborating with NMFS and NEAq to support the Marine Mammal Commission project, *Evaluating the utility of Protected Species Observer data to address cetacean management and conservation*

VINEYARD WIND

QUESTIONS?

VINEYARD WIND

Update on ROSA

Habitat Working Group Meeting on Offshore Wind

Mike Pol – DMF

11 December 2020

ROSA Responsible Offshore Science Alliance

https://www.rosascience.org/

Update on ROSA

Habitat Working Group Meeting on Offshore Wind

- Mission is to advance regional research and monitoring of fishery and offshore wind interactions in the waters from Maine to North Carolina
- Board of directors (10 members) with equal representation of developers and fishing industry; chairs are R. Pachter (VW CDO) and P. Hughes (Director of Sustainability for Atlantic Capes Fisheries)
- Currently funded by contributions from offshore wind developers with federal leases; fishing industry leaders provide in-kind support through participation and dedication of RODA staff time

ROSA RESPONSIBLE OFFSHORE SCIENCE ALLIANCE

Update on ROSA

Habitat Working Group Meeting on Offshore Wind

ROSA RESPONSIBLE OFFSHORE SCIENCE ALLIANCE

- Hired executive director (L. Hice-Dunton)
- Formed up the Advisory Council
  - Sector representation
  - Main responsibility for establishing scientific direction and guidance; priority setting
  - I'm appointed Massachusetts representative; also member of Ex. Comm. As New England rep.
  - Interim Fisheries Monitoring Guidance Cte
- Synthesis of the Science Symposium
- Developing Research Advisors to be appointed in late 2020 to provide independent, scientific input to the Council and Committees
- Soon to recruit for Chief Science Officer

Update on ROSA

Habitat Working Group Meeting on Offshore Wind

ROSA RESPONSIBLE OFFSHORE SCIENCE ALLIANCE

Tools to identify and minimize risks to marine mammals

Jessica Redfern, Dan Pendleton,
Orla O'Brien, Laura Ganley,
Brooke Hodge, Katherine McKenna

EcoMap

Spatial Ecology, Mapping, and Assessment Program

Anderson Cabot Center for Ocean Life
at the New England Aquarium

New England Aquarium
Protecting the blue planet

Right Whales

Vol. 18: 147–161, 2012
doi: 10.3354/esr00433

ENDANGERED SPECIES RESEARCH
Endang Species Res

Published online August 16

Contribution to the Theme Section 'Beyond marine mammal habitat modeling'

OPEN ACCESS

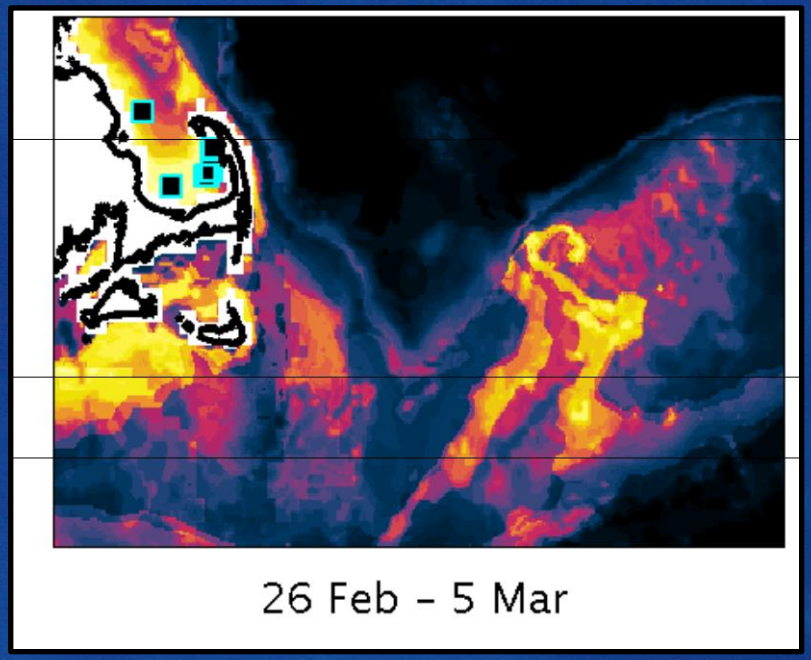
Weekly predictions of North Atlantic right whale *Eubalaena glacialis* habitat reveal influence of prey abundance and seasonality of habitat preferences

Daniel E. Pendleton[1,9,*], Patrick J. Sullivan[1], Moira W. Brown[2,9], Timothy V. N. Cole[3], Caroline P. Good[4], Charles A. Mayo[2], Bruce C. Monger[5], Steven Phillips[6], Nicholas R. Record[7,8], Andrew J. Pershing[7,8]

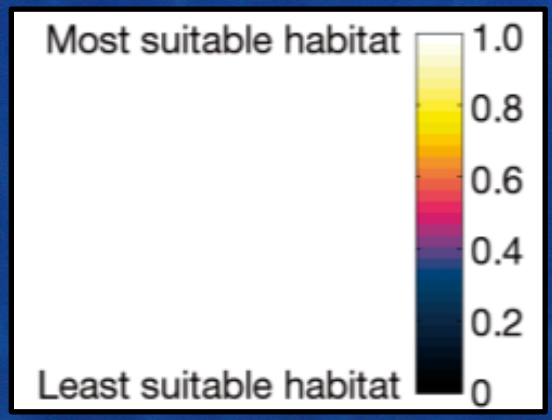
[1]Department of Natural Resources, Cornell University, Ithaca, New York 14853, USA
[2]Provincetown Center for Coastal Studies, 5 Holway St., Provincetown, Massachusetts 02657, USA
[3]National Marine Fisheries Service, Northeast Fisheries Science Center, Woods Hole, Massachusetts 02543, USA
[4]Duke University Marine Lab, Beaufort, North Carolina 28516, USA
[5]Ocean Resources and Ecosystem Program, Snee Hall, Cornell University, Ithaca, New York 14853, USA
[6]AT&T Labs-Research, Florham Park, New Jersey 07932, USA
[7]School of Marine Sciences, University of Maine, Orono, Maine 04469, USA
[8]Gulf of Maine Research Institute, 350 Commercial St., Portland, Maine 04101, USA
[9]*Present address*: New England Aquarium, Central Wharf, Boston, Massachusetts 02110, USA

Photographer: Marianna Hagbloom
Credit: Anderson Cabot Center
New England Aquarium
Collected under Canadian SARA permit

Right Whales



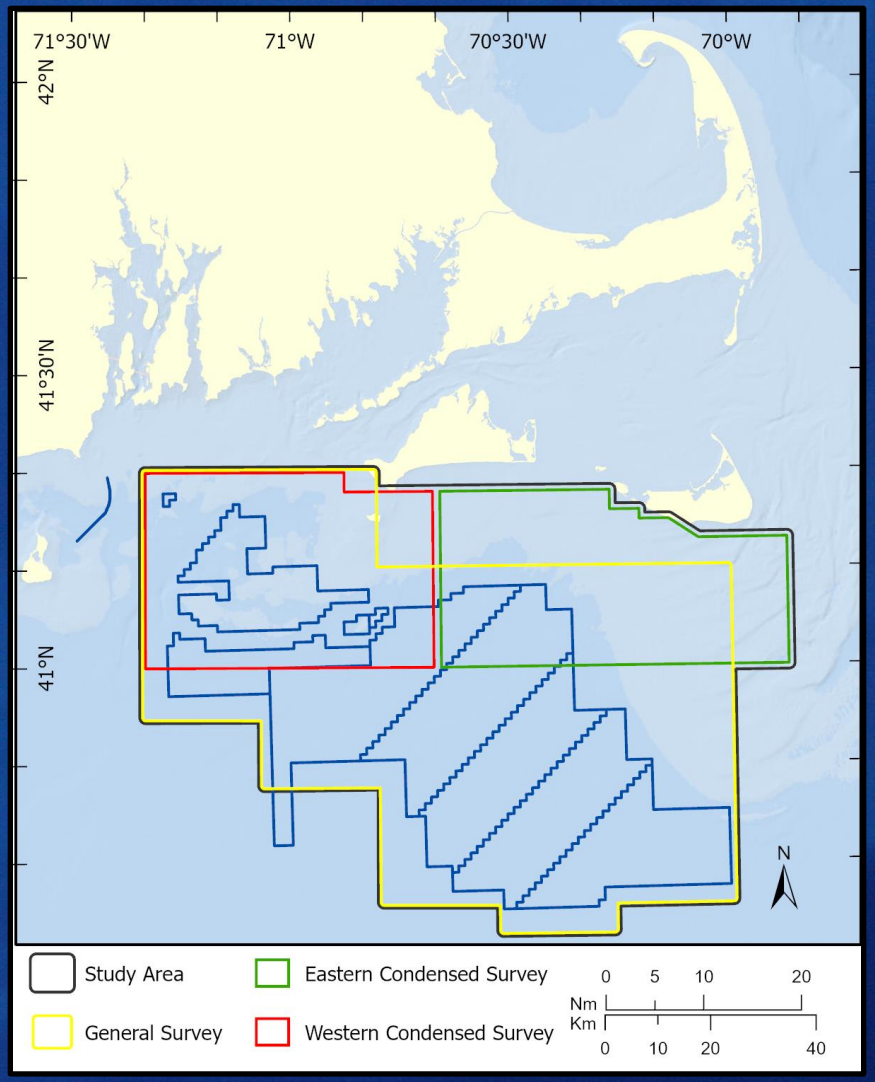
Little survey effort in this area and time period (2002-2006)!



Pendleton et al. 2012. Endangered Species Research 18:147-161.

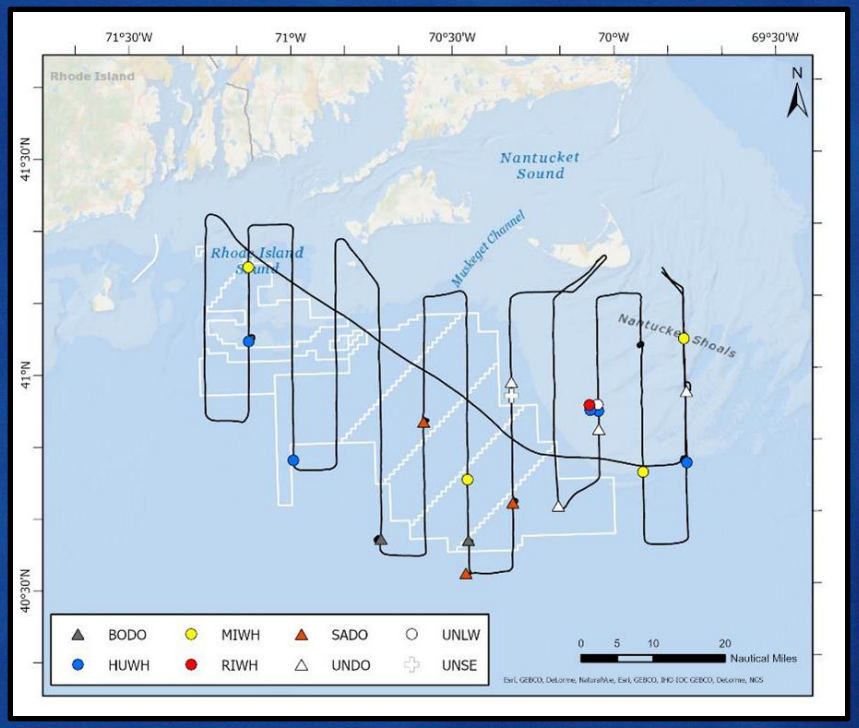
Photo on the left
Photographer: Melissa Patrician
Credit: Anderson Cabot Center
New England Aquarium
Collected under Canadian SARA permit

Massachusetts and Rhode Island Wind Energy Areas



Right Whales and Wind Energy

Wind Energy Areas



New England Aquarium Aerial surveys

2011-present
Approximately monthly

2011- 2020 surveys funded by MassCEC and BOEM

2020-2021 surveys funded by Equinor Wind U.S., Mayflower Wind Energy LLC, Ørsted North America, and Vineyard Wind

Right Whales and Wind Energy

New England Aquarium Aerial surveys

2011-2015

Vol. 34: 45–59, 2017
https://doi.org/10.3354/esr00827

ENDANGERED SPECIES RESEARCH
Endang Species Res

Published July 21

OPEN ACCESS

North Atlantic right whale *Eubalaena glacialis* occurrence in offshore wind energy areas near Massachusetts and Rhode Island, USA

S. M. Leiter[1,*], K. M. Stone[1], J. L. Thompson[2], C. M. Accardo[2], B. C. Wikgren[1], M. A. Zani[1], T. V. N. Cole[3], R. D. Kenney[4], C. A. Mayo[2], S. D. Kraus[1]

[1]New England Aquarium, Boston, MA 02110, USA
[2]Center for Coastal Studies, Provincetown, MA 02657, USA
[3]NOAA Northeast Fisheries Science Center, Woods Hole, MA 02543, USA
[4]University of Rhode Island Graduate School of Oceanography, Narragansett, RI 02882, USA

J Coast Conserv (2017) 21:527–543
DOI 10.1007/s11852-017-0526-4

CrossMark

Distribution and abundance of cetaceans in a wind energy development area offshore of Massachusetts and Rhode Island

Kelsey M. Stone[1] · Sarah M. Leiter[1] · Robert D. Kenney[2] · Brooke C. Wikgren[1] · Jessica L. Thompson[3] · Jessica K. D. Taylor[1] · Scott D. Kraus[1]

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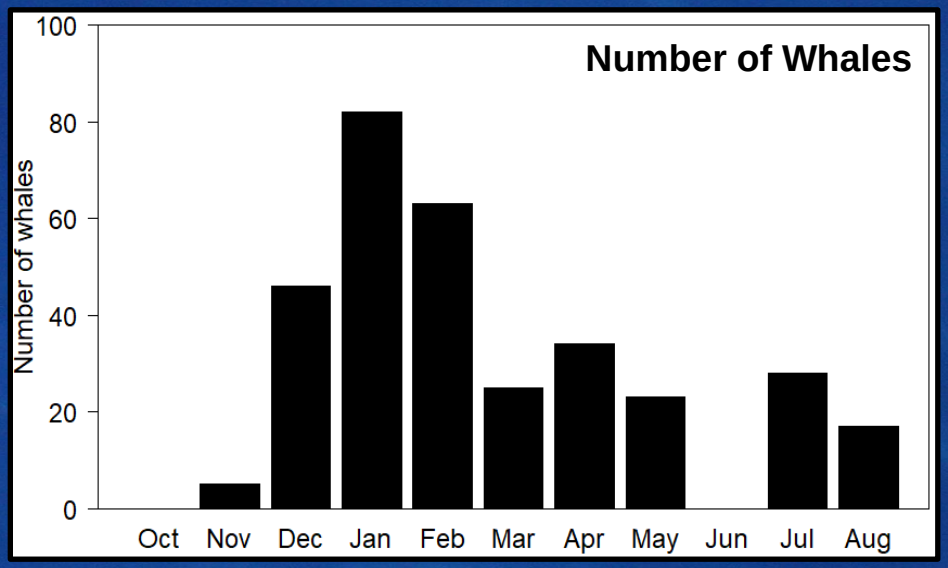
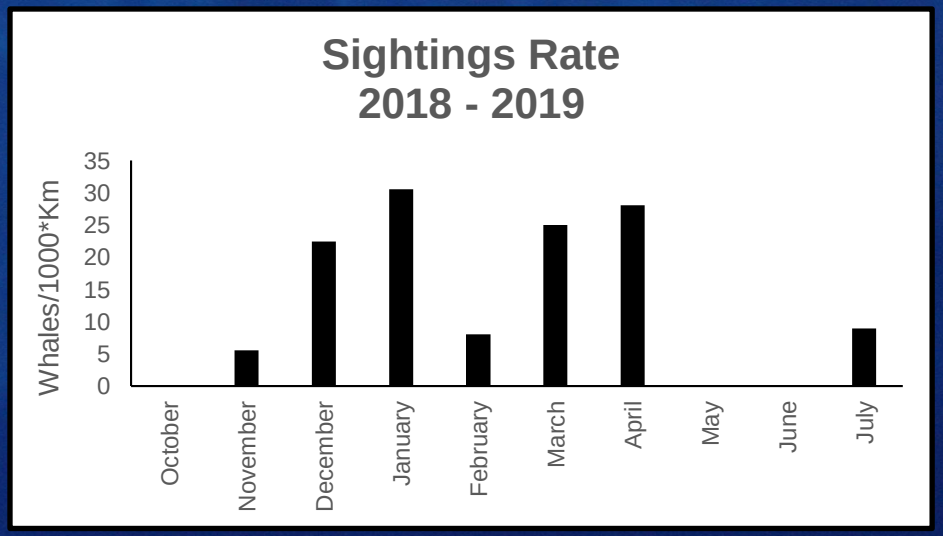
Aerial Surveys 2018-2019

- 40 surveys flown over 185.8 hours
- Documented marine fauna, human activity, and debris
  - Observer sightings and photos taken directly below the plane
- 1,436 detections of marine fauna
  - 10,940 individuals
  - 17 species
    - Large whales
    - Small cetaceans
    - Birds
    - Sharks/fish
    - Sea turtles

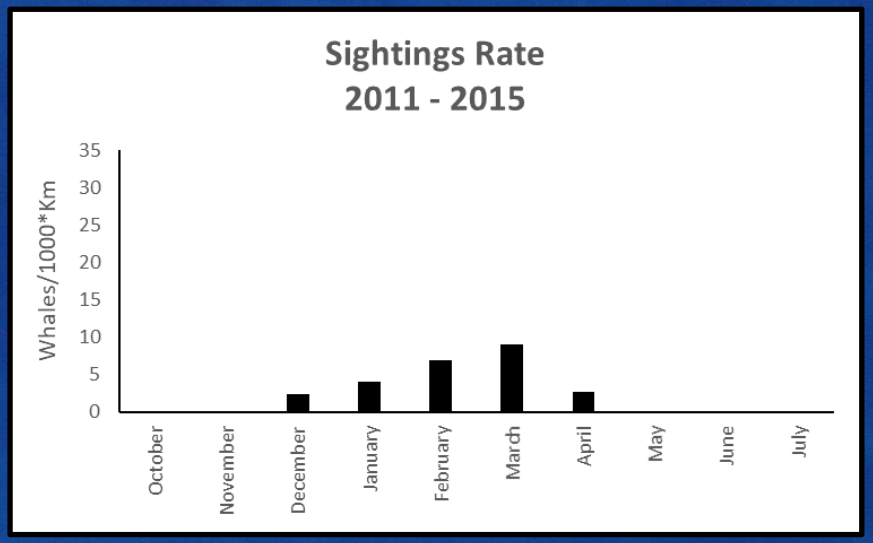
Aerial Surveys 2018-2019
Right Whales

Seen in every season and 9 of 11 months surveyed





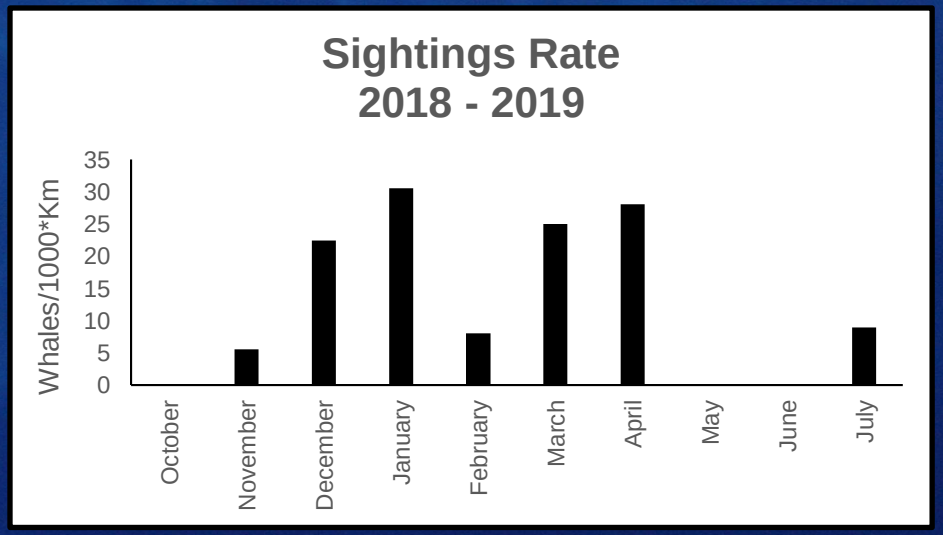
Temporal Changes



Leiter et al. 2017
Endangered Species Research

Right whale temporal occurrence

- 2011-2015: Dec. – April
- 2018-2019: All year



Aerial Surveys 2018-2019

Right Whale Seasonal Abundance Estimates

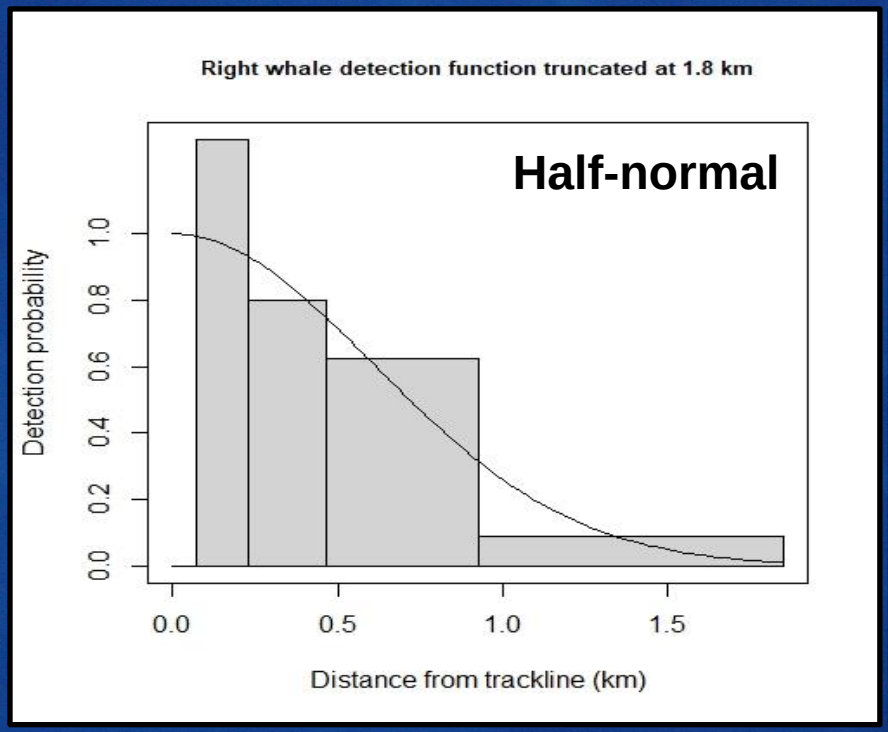
- Single abundance estimate for the entire survey area
- Captures temporal trends in abundance
- Does not capture spatial trends within the study area

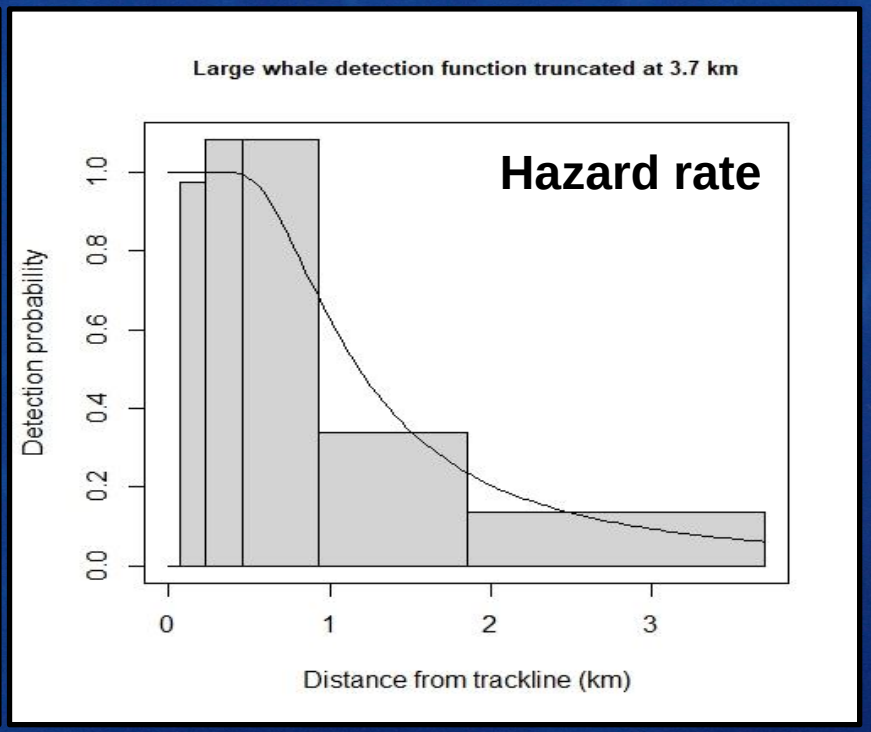
Photographs taken under NOAA permit 19674

Aerial Surveys 2018-2019

Right Whale Seasonal Abundance Estimates

Progress!

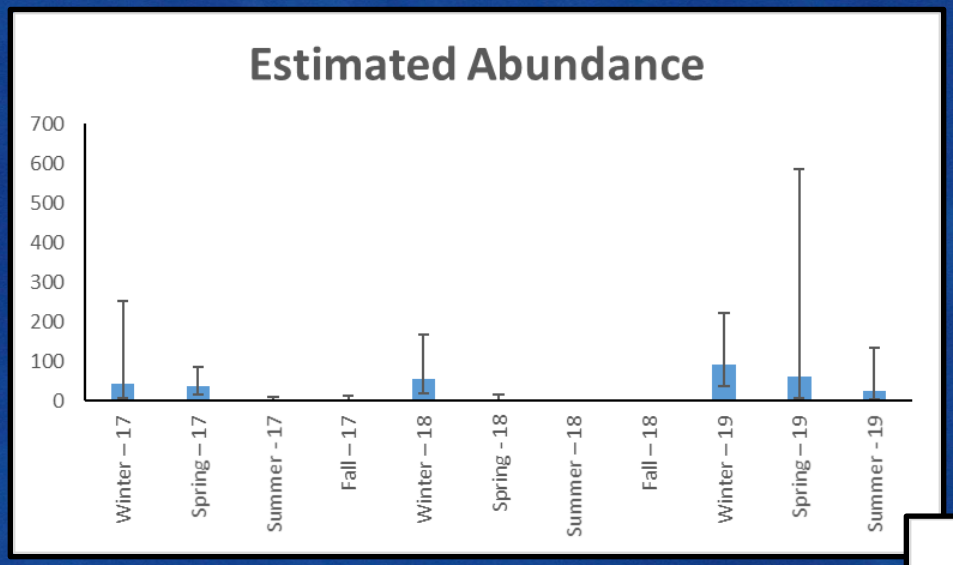




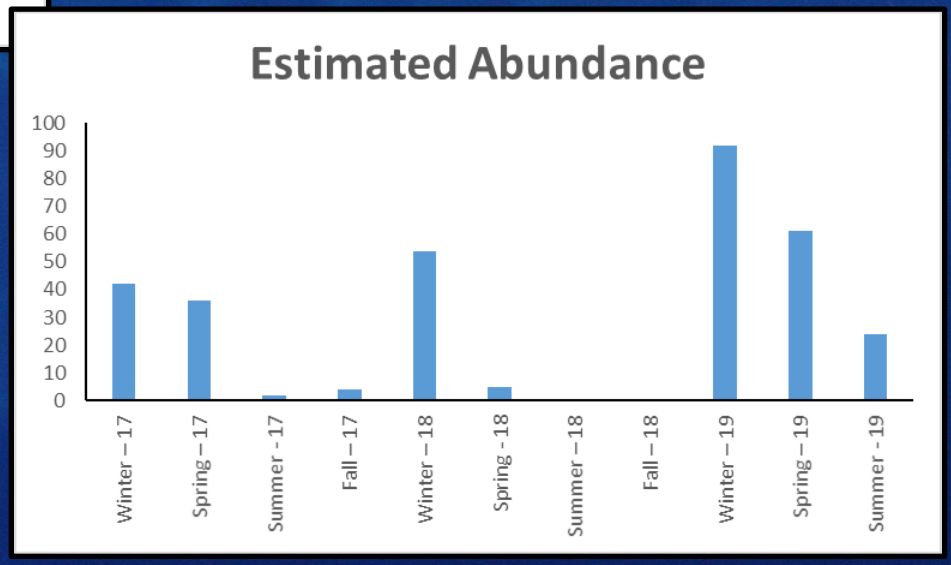
- 2011 – 2015: detection function for all large whales
- 2017 – 2019: detection function for right whales

Aerial Surveys 2018-2019

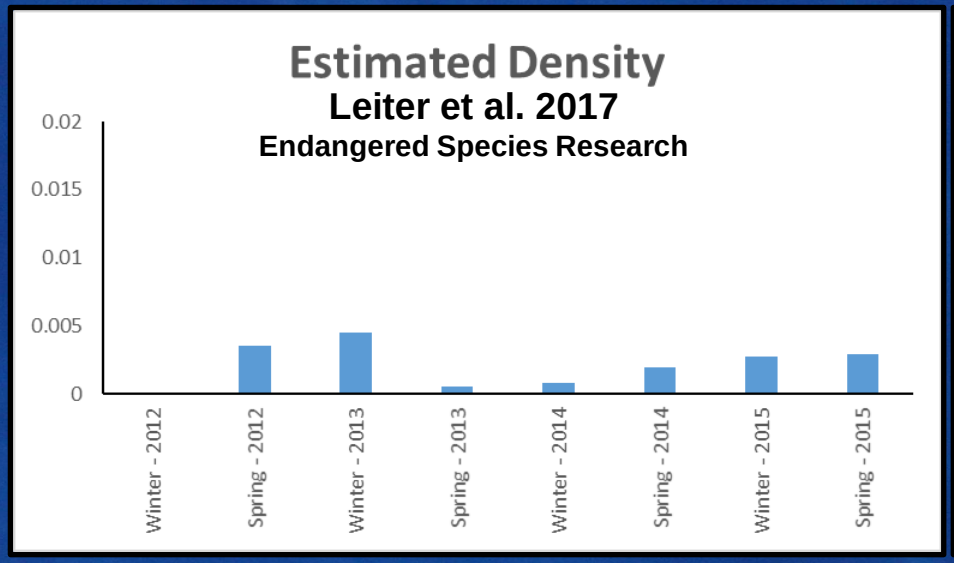
Right Whale Seasonal Abundance Estimates

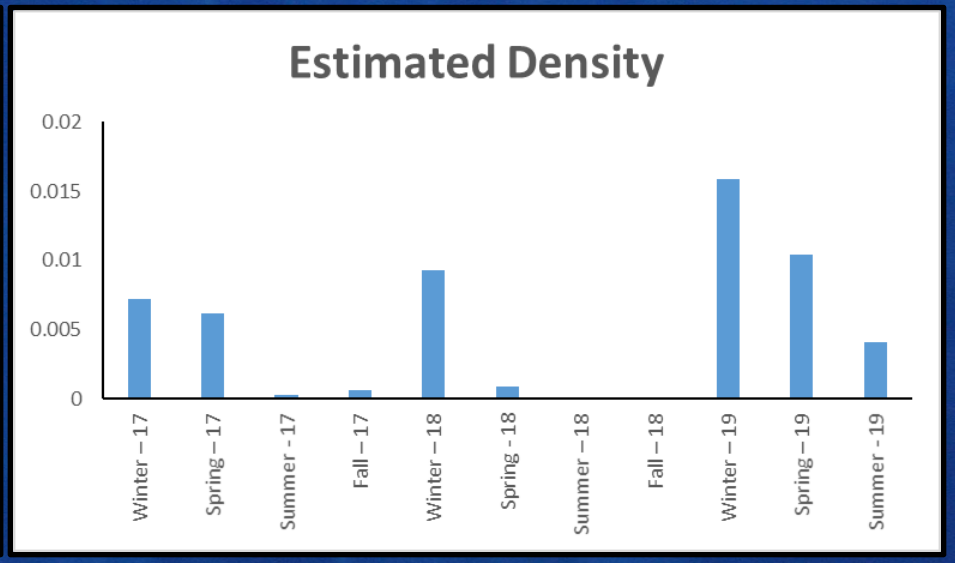


Confidence intervals are large



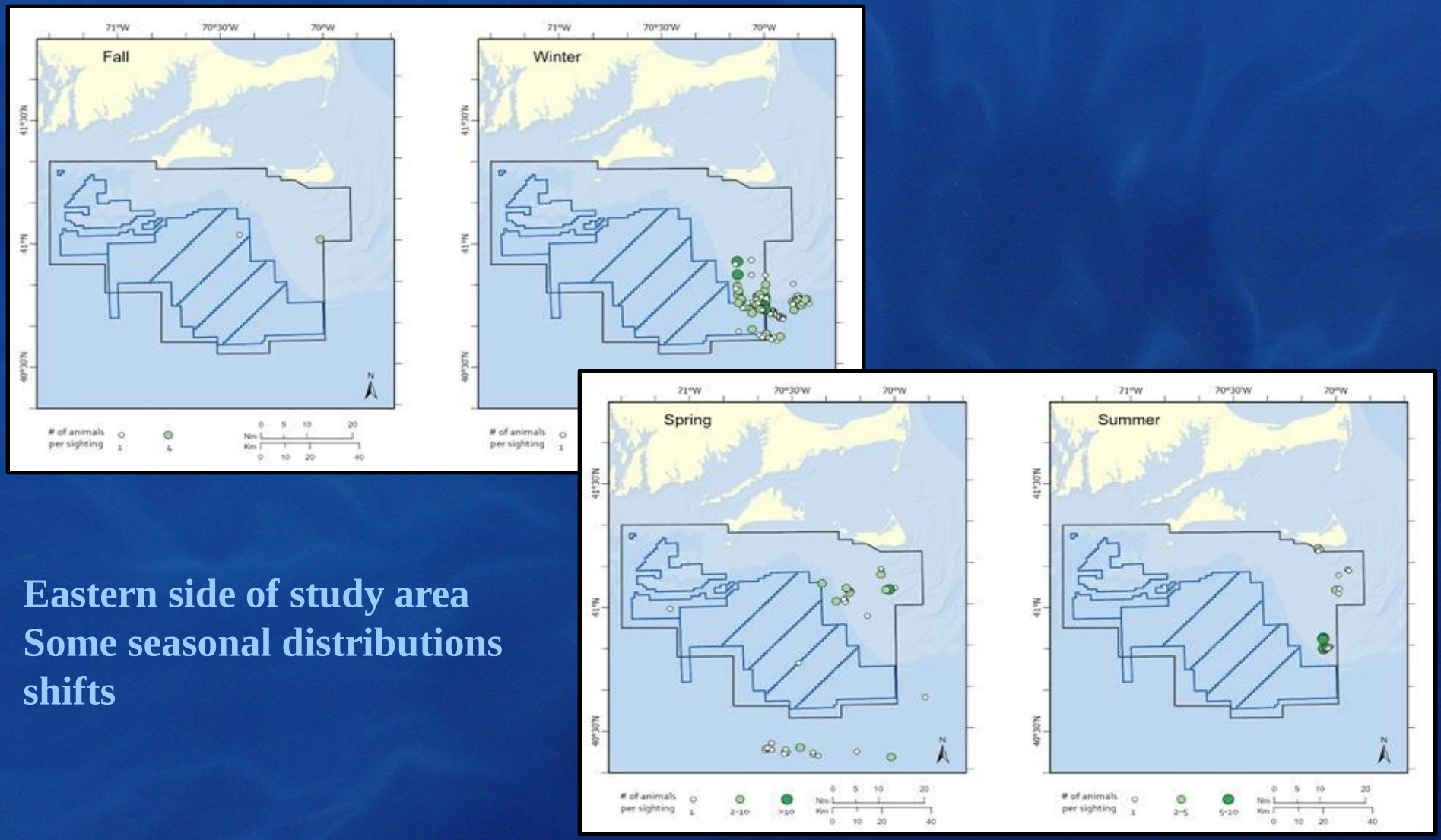
Temporal Changes





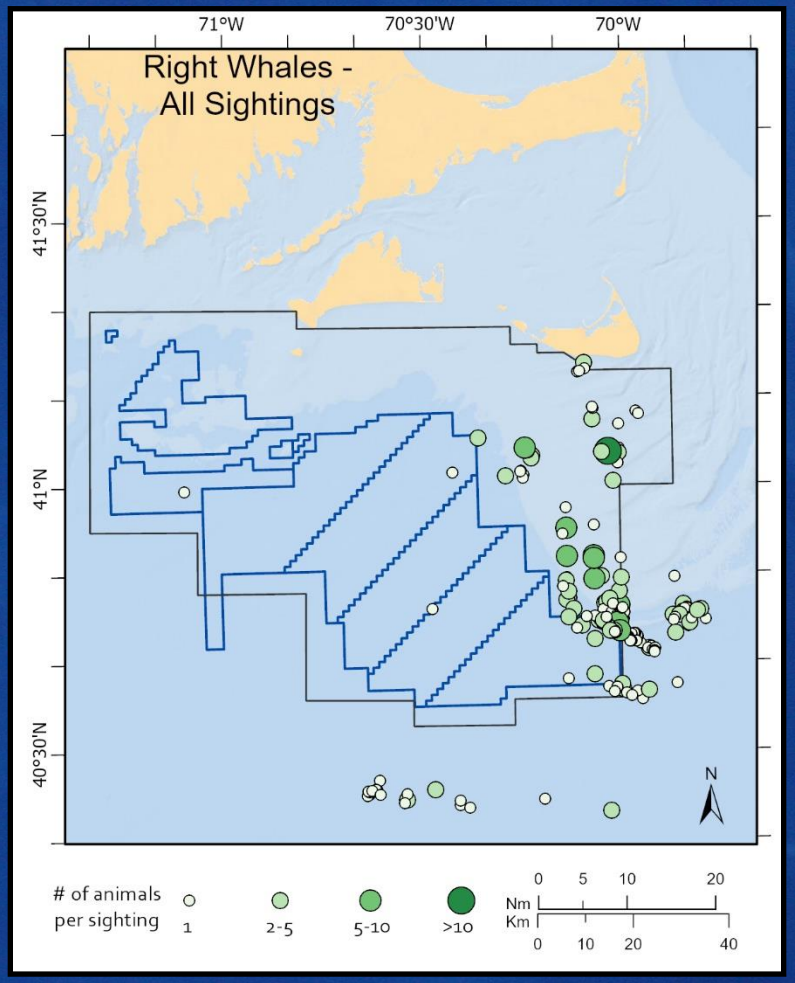
- Confidence intervals are large
- Density appears to be increasing
  - Need to recalculate abundance from the earlier surveys to standardize methodology
    - For example: change in detection function
  - Explore Bayesian trend assessment (e.g., Moore and Barlow 2011, 2013)

Aerial Surveys 2018-2019
Right Whales

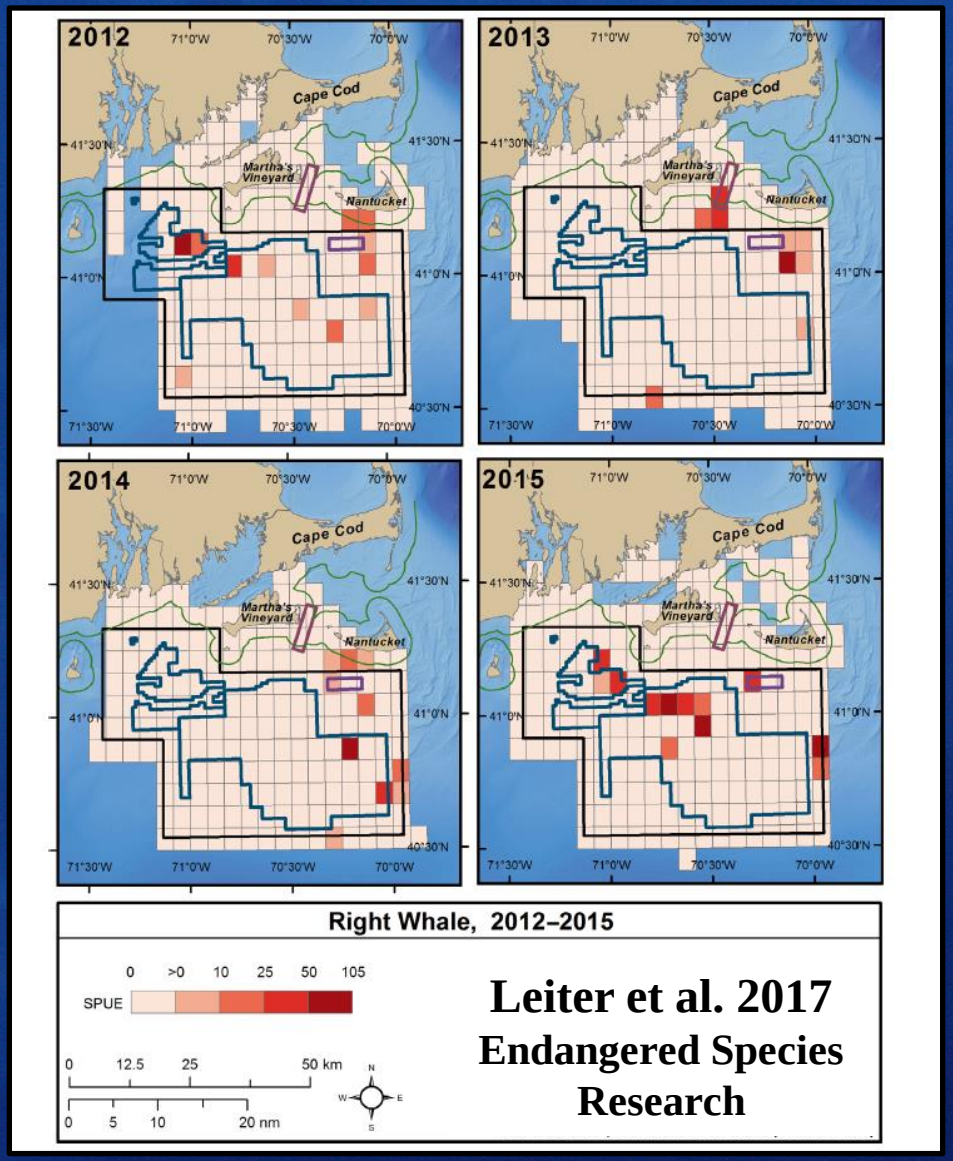


Eastern side of study area
Some seasonal distributions shifts

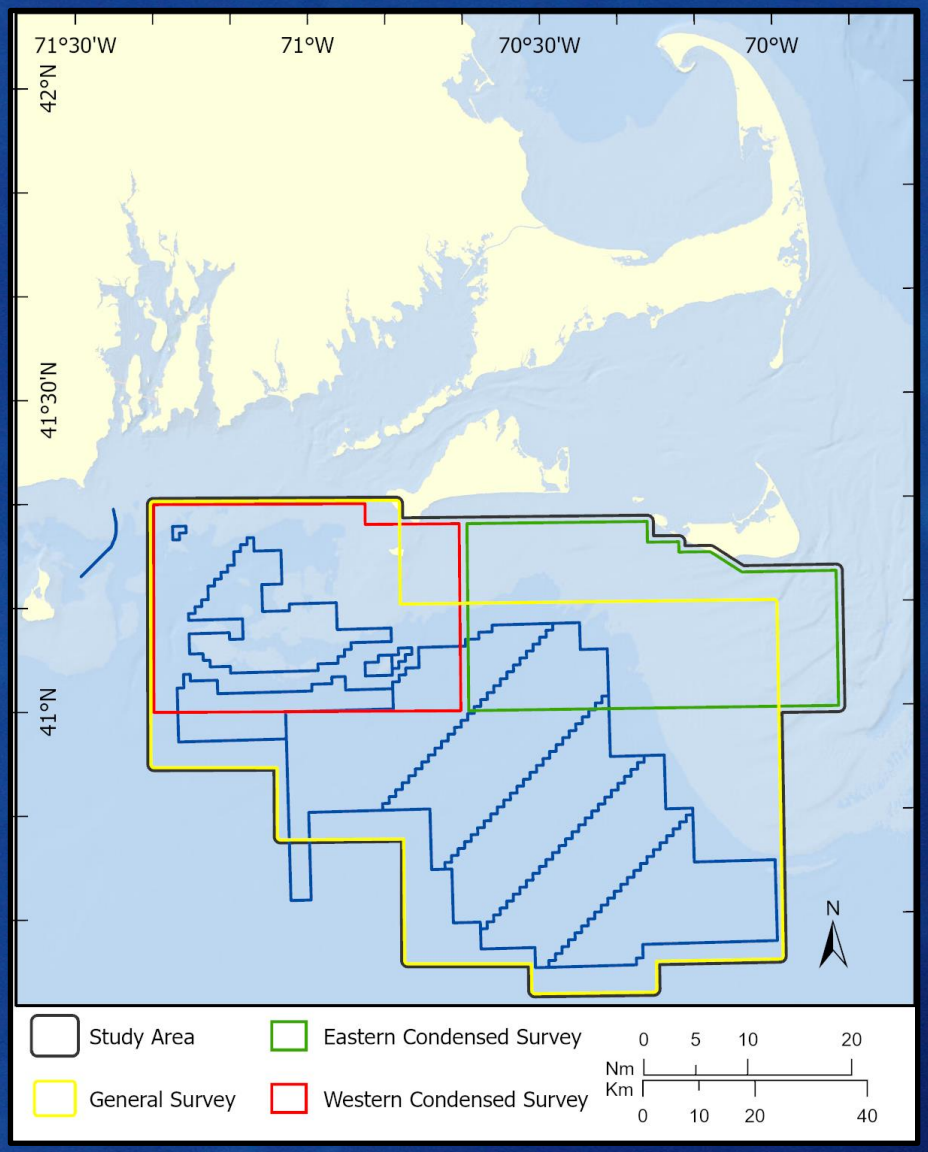
Spatial Changes



2018-2019
Eastern side of study area



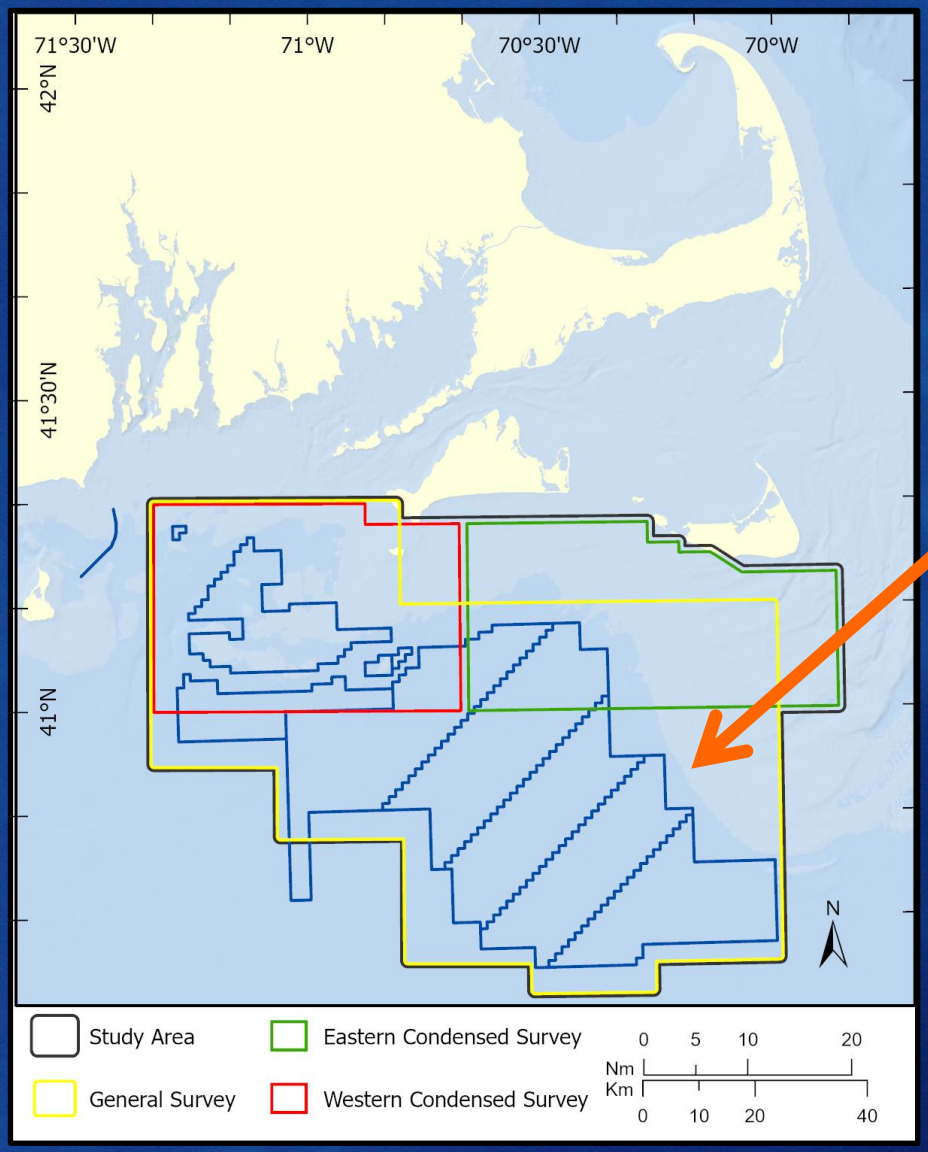
Habitat Modeling



Seasonal abundance estimates and sightings rates tell us the number of animals in whole study area

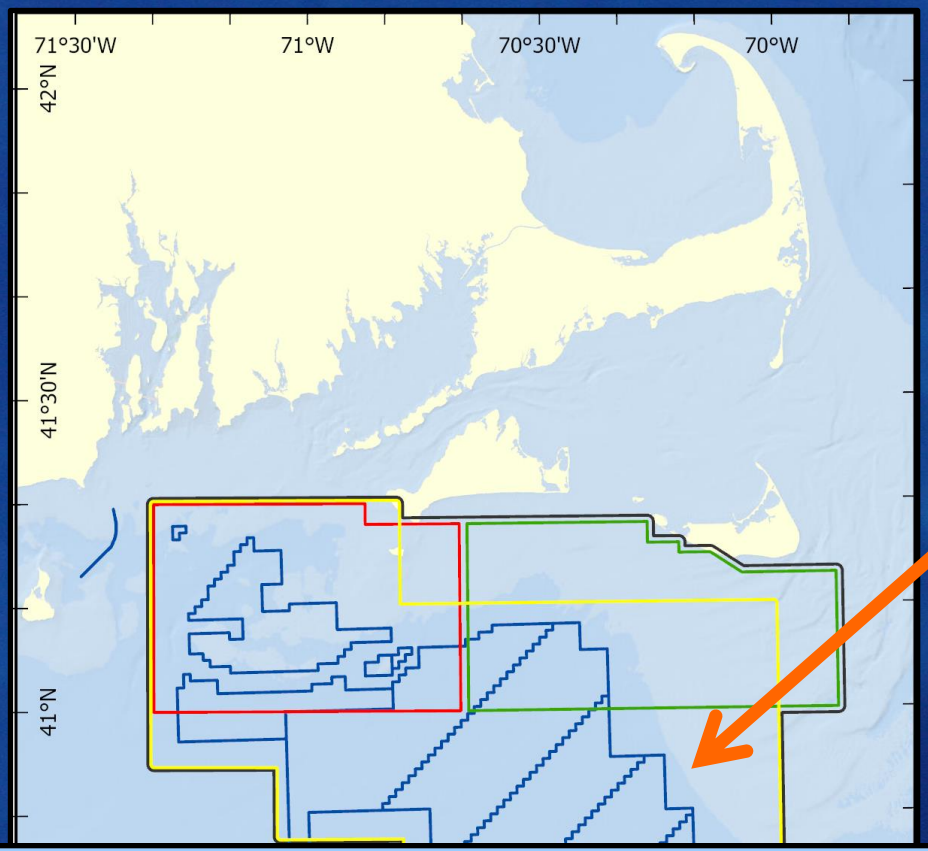
Sightings per unit effort provides estimates only in sampled areas

Habitat Modeling



What if we want to know the impact of an activity within one of these lease areas?

Habitat Modeling

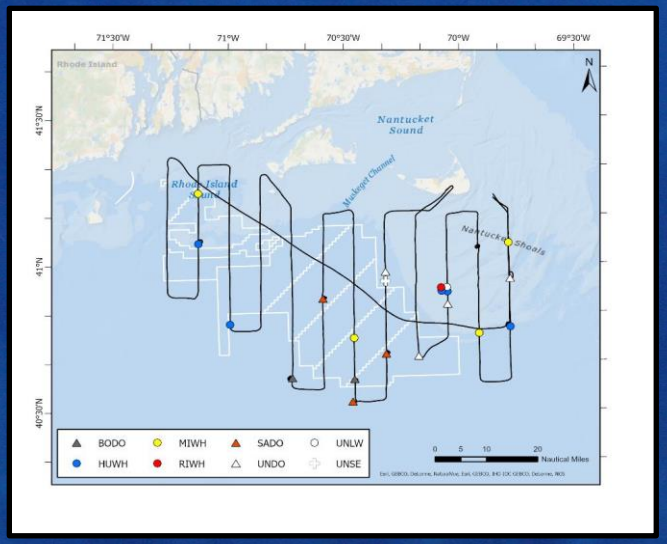


What if we want to know the impact of an activity within one of these lease areas?

Habitat models can be used to estimate distribution patterns at smaller spatial scales

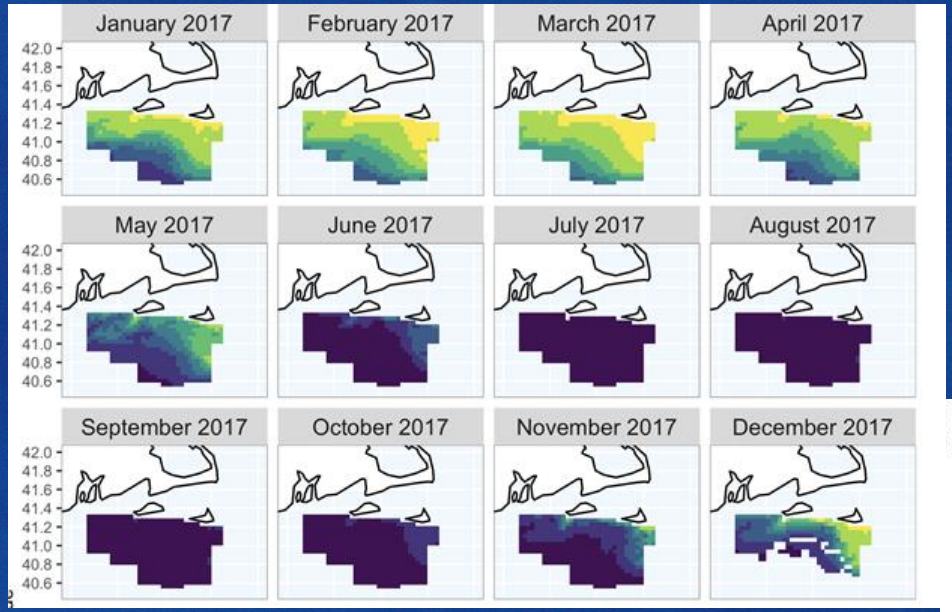
Density Surface Modeling

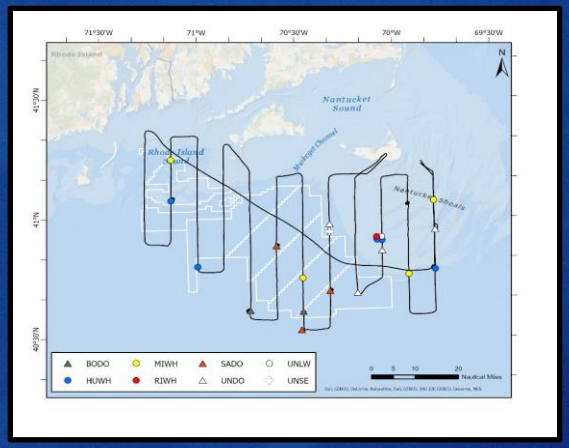
- Data from 2017 and 2018
- Transect lines divided into ~4.6 km segments

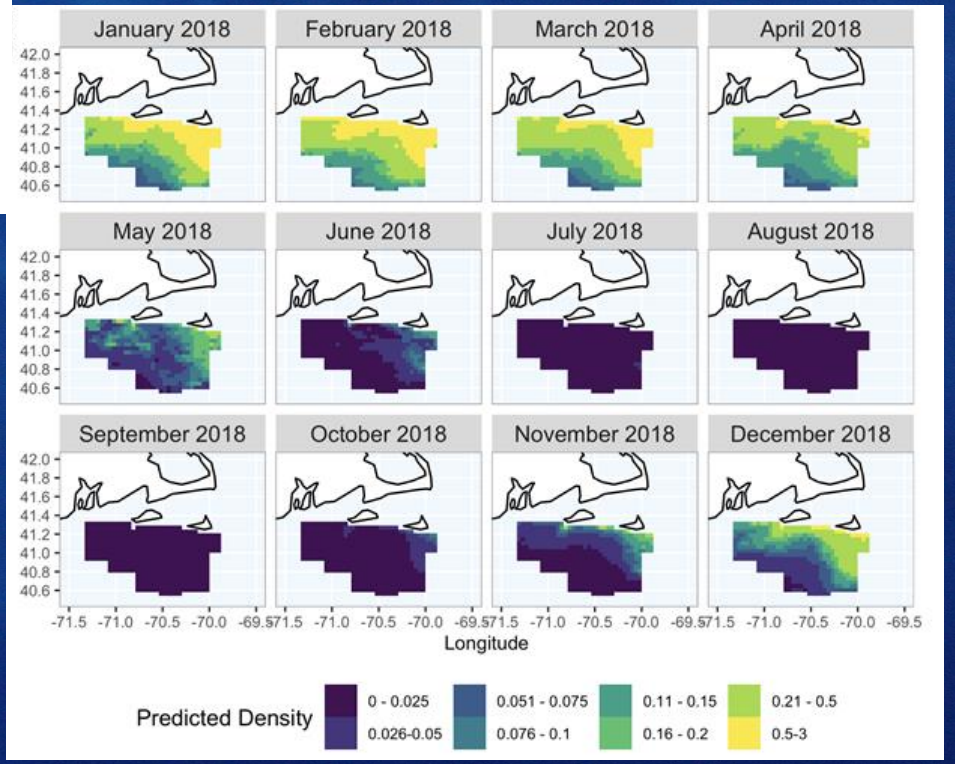


- Oceanographic data extracted at segment midpoints
  - Log transformed chlorophyll-a (mg/m3) concentration
    - NASA MODIS-Aqua, 4.6 x 4.6 km resolution
  - Sea surface temperature
    - NASA MODIS-Aqua sensor, 4.6 x 4.6 km resolution
  - Depth

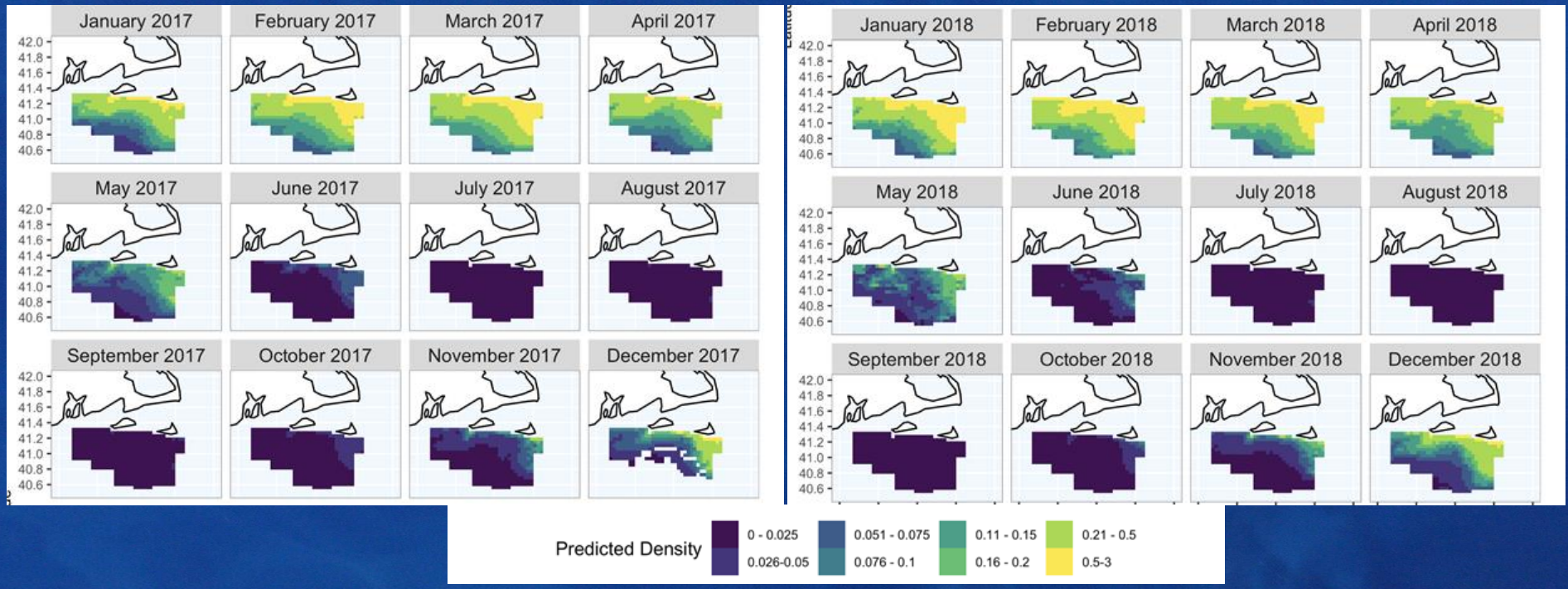
Density Surface Modeling







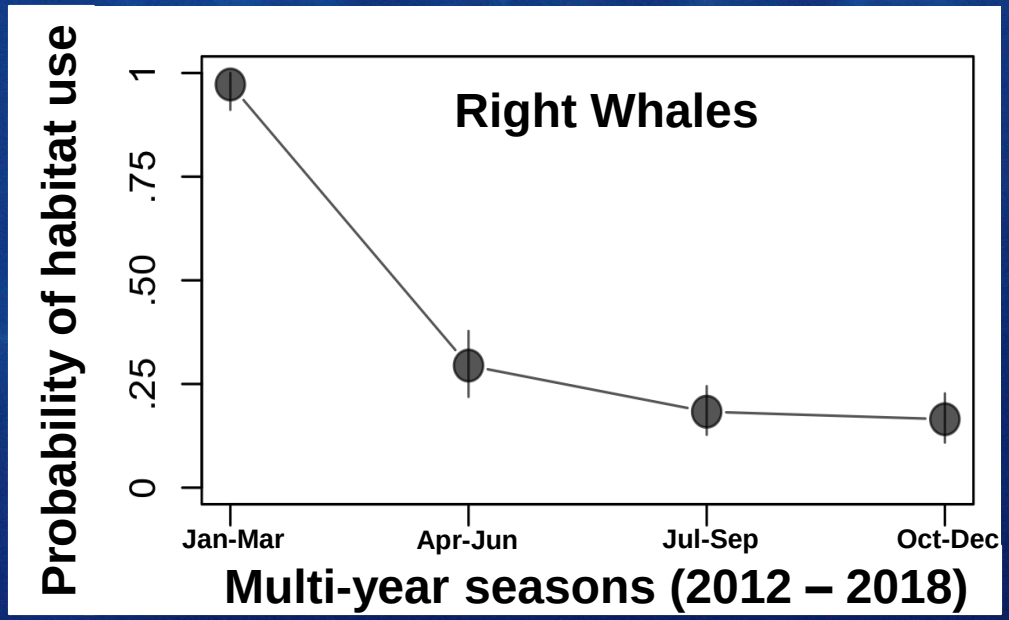
Density Surface Modeling



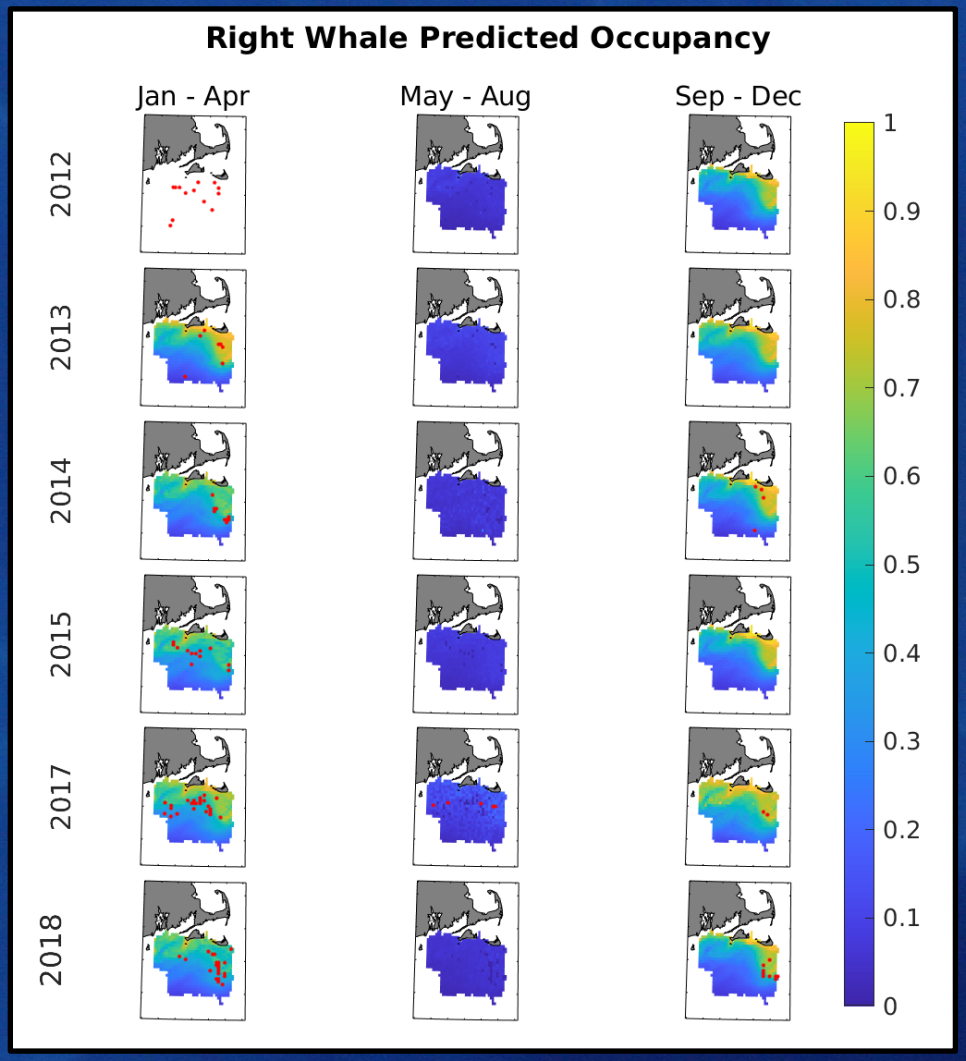
- Captures spatial and temporal trends in distributions
- Estimates density
  - Rather than probability of occurrence
- Requires line-transect data
- We need to improve our oceanographic variables to better capture spatial patterns

Occupancy Modeling

- Probability that a site is occupied
- Addresses imperfect detection
  - Observer bias
  - Availability bias
- Uses presence/absence data
  - Option to use a wider range of data sets

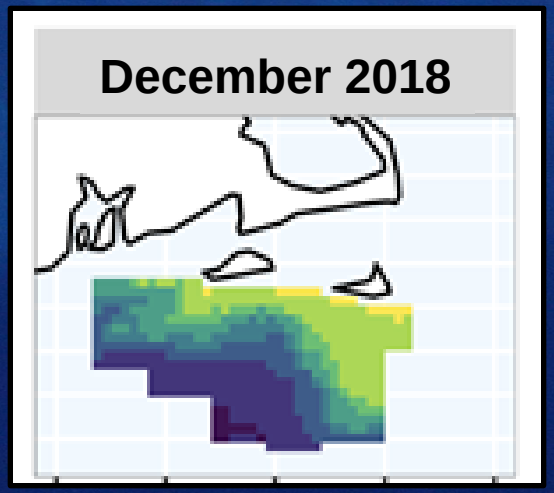


Seasonal Occupancy Predictions



Moving Forward

- Manuscript documenting temporal and spatial changes among surveys
  - Standardizing methodology
- Demographic analyses to understand when males and females, adults and juveniles are in the study area
- Habitat modeling
- Analyzing data for other species



Acknowledgements

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