


EEA Fisheries Working Group on Offshore Wind Energy



March 31, 2021

Zoom Functions

Zoom Meeting



Talking:

Meeting Topic:

Lisa Engler's Zoom Meeting

Host:

Lisa Engler

Passcode:

E8t7Px

Numeric Passcode:

996952

(Telephone/Room Systems)

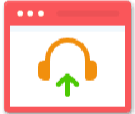
Invite Link:

<https://us02web.zoom.us/j/88997481001?pwd=RnZhM2p6...>

[Copy Link](#)


Participant ID:

404721




Join Audio


Computer Audio Connected





Share Screen





Invite Others


 Mute


 Start Video


 Security


 Participants

 Chat

 Share Screen

 Record

 More

 End

To: Everyone

File

Type message here...

Meeting Protocols

- Meeting will be recorded for note taking purposes
 - Add your name and affiliation to the chat box
 - Raise hand to speak
 - Remain muted unless it is your turn to speak
 - Use chat function to post questions for presenters
-
- Constructively receive and provide input on discussion topics
 - Respectfully acknowledge and articulate differences of opinion or perspective

Agenda

- 1:00 Welcome and Introductions
- 1:10 DRAFT Fisheries Working Group Terms of Reference

Offshore Wind Developer Updates:

- 1:40 Vineyard Wind
- 1:55 Equinor
- 2:10 Mayflower
- 2:25 Ørsted
 - Developer Update
 - South Fork Wind Farm Economic Impact Assessment
- 3:15 Pilot Regional Fisheries Studies: Overview & Status
- 3:30 Responsible Offshore Science Alliance Update
- 3:45 Other Announcements/Updates
- 3:55 Action Items and Next meeting
- 4:00 Adjourn

DRAFT Terms of Reference

To establish the purpose, framework, and engagement guidelines for the EEA Fisheries Working Group on Offshore Wind Energy

“... to provide a forum to engage with the Commonwealth’s fishing industry on the planning, siting, and leasing of wind energy areas and the development and operation of offshore wind projects in southern New England, the New York Bight, the Gulf of Maine, and other regions along the Atlantic coast.”

DRAFT Terms of Reference

Fisheries Working Group

- Voluntary and informal body
- Provides guidance to EEA on the development of offshore wind in a manner that supports the long-term coexistence of the offshore wind and fishing industries.
- Meetings are a forum for discussion and information exchange on topics
- Discussion topics: proposed projects, permitting processes, navigation and transit, habitat and fisheries monitoring, fishing activity, construction and operation considerations, and research needs and opportunities.

DRAFT Terms of Reference

Purpose

1. Advice and Recommendations

- Discuss interactions between offshore wind and fisheries
- Provide input into baseline surveys, pre/post construction monitoring
- Input into research needs/priorities

2. Education and Knowledge Sharing

- Share information about permitting, research outcomes

3. Regional Coordination

- Create connections beyond MA through other organizations

DRAFT Terms of Reference

Membership

- 1) Interested and experienced stakeholders in the Massachusetts commercial and recreational fishing industries; and
 - 2) Commonwealth or federal agencies and authorities with regulatory roles in the review of offshore wind energy projects or advisory roles in the Commonwealth's development of the offshore wind industry.
-
- Fishing industry representatives will reflect the diversity of sectors and Commonwealth ports active in fisheries impacted by wind development.
 - Membership will be reviewed on a regular basis and upon request.
 - Suggestions for changes to membership will be considered by EEA after consultation with the Fisheries Working Group.

DRAFT Terms of Reference

Roles and Responsibilities

- Members will provide experience and knowledge of fishing activities, resources, and marine ecosystems and how these experiences may apply to the development and operations of offshore wind.
- CZM, DMF, and MassCEC will provide meeting logistics and organization, record and summarize meeting discussions, and prepare necessary written results discussions.

DRAFT Terms of Reference

Members commit to

- Constructively receive and provide input on discussion topics
- Respectfully acknowledge and articulate differences of opinion or perspective
- Provide constructive input on offshore wind energy development and fisheries activities
- When consensus among members cannot be reached, members should seek to articulate the range of advice clearly and the reasons for differences.

DRAFT Terms of Reference

Meetings

- Meetings will be open to the public.
- Members of the public will be provided opportunities to speak at specific times during meetings.
- Meetings will be held quarterly or as agreed to by the Fisheries Working Group.
- Agenda items for upcoming meetings will be discussed with members and finalized by EEA, CZM, DMF, and MassCEC.
- Meetings will be announced at least two weeks prior to the meeting date.
- Agendas will be posted at least three days prior to a scheduled meeting
- Meeting attendance will be documented for each meeting.
- Meeting summary will be taken and distributed within two weeks of each meeting.
- Meeting materials will be made available within two weeks of each meeting.

Developer Updates

- Vineyard Wind
- Equinor
- Mayflower
- Ørsted

Other Updates/Announcements

Action Items and Next Meeting

- Send feedback of Terms of Reference to Lisa Engler and Dan McKiernan
- Next meeting late April/Early May
- Send suggestions for agenda items

Thank you





Beacon Wind

Scott Lundin
EEA Fisheries Working Group on Offshore Wind Energy
March 31, 2021



Agenda

- Beacon Wind 1 Export Cable Route
- Geophysical Survey Update
- Highly Migratory Species Study w/ New England Aquarium





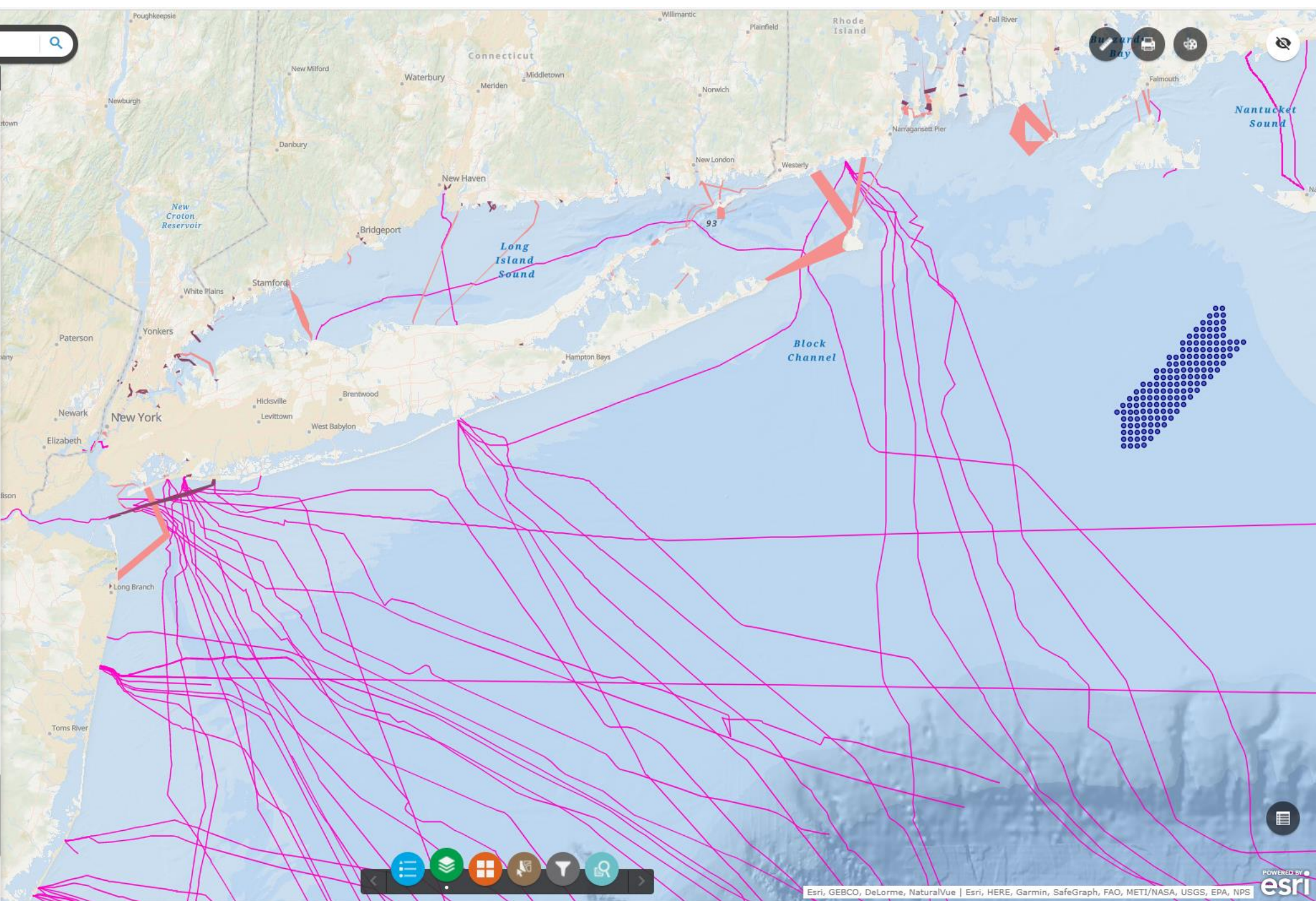
EQUINOR

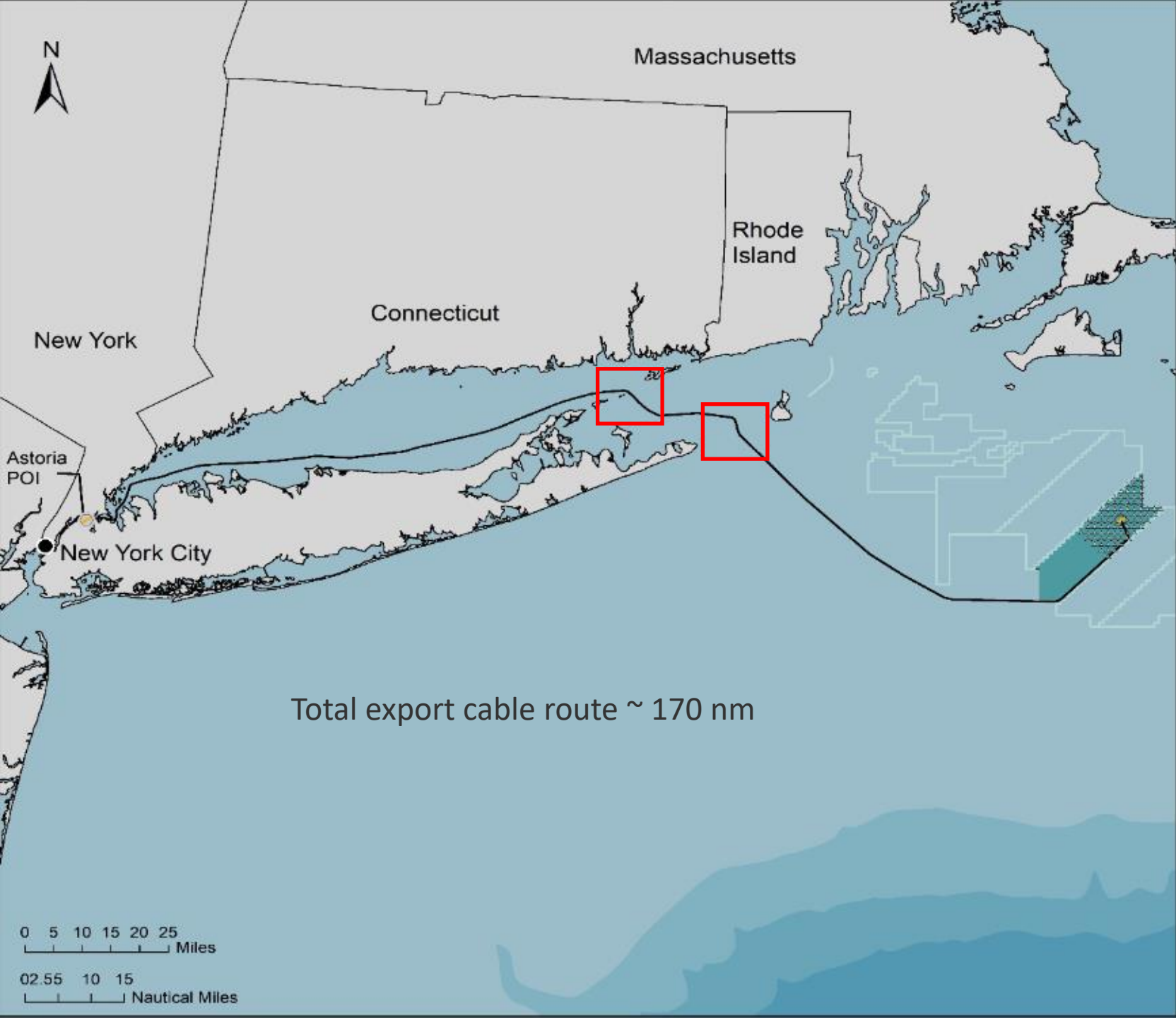
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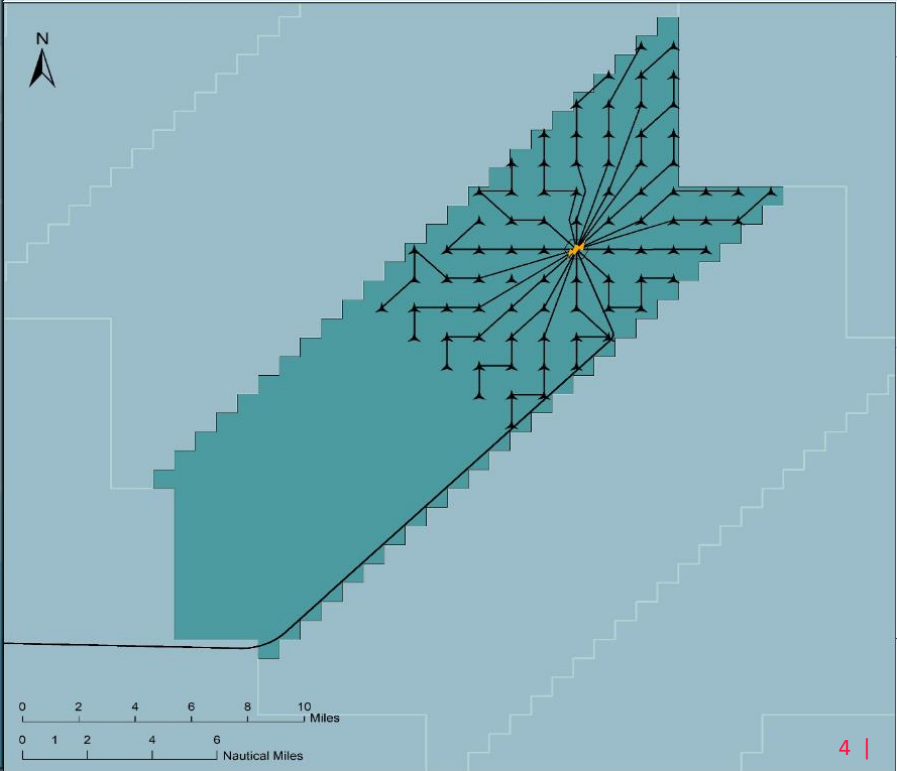
Layer List

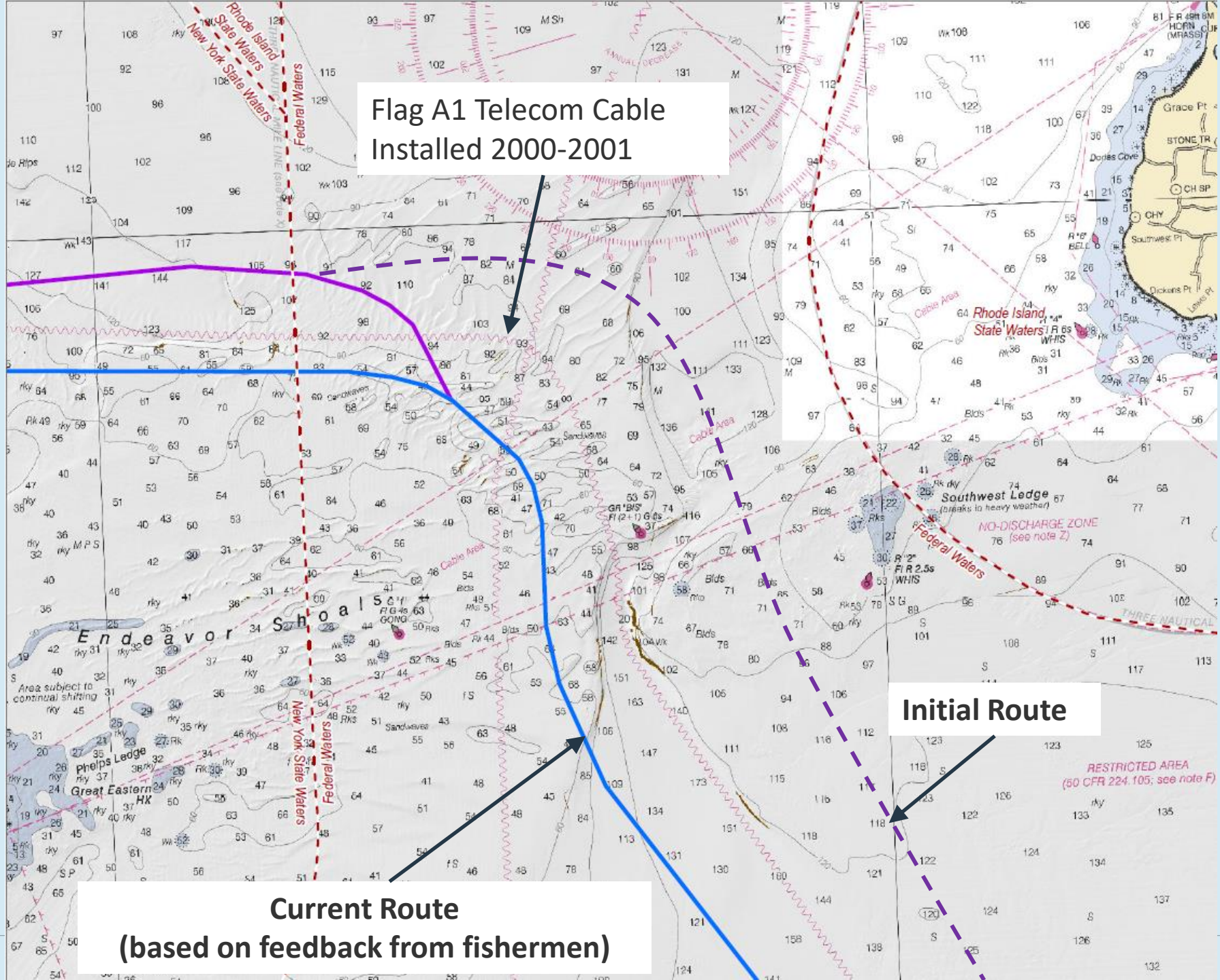
- ☐ Blue Plan Data ...
- ☐ ESA - Cold Water Corals ...
- ☐ ESA - Hard and Complex Seafloor ...
- ☐ ESA - Wrecks-Obstructions sublayer ...
- ☐ ESA - Hard Bottom sublayer ...
- ☐ ESA - Complex Seafloor sublayer ...
- ☐ ESA - Submerged Aquatic Vegetation ...
- ☐ ESA - Coastal Wetlands ...
- ☐ ESA - Endangered, Threatened, Species of Concern ...
- ☐ ESA - Atlantic Sturgeon Critical Habitat sublayer ...
- ☐ ESA - CT Critical Habitats sublayer ...
- ☐ ESA - CT Natural Diversity Database sublayer ...
- ☐ ESA - NY Significant Natural Communities sublayer ...
- ☐ ESA - Roseate Tern sublayer ...
- ☐ ESA - NY Signif. Coastal Fish-Wildlife sublayer ...
- ☐ ESA - NY Rare Plants-Animals sublayer ...
- ☐ ESA - Atl-Shortnose Sturgeon Habitat sublayer ...
- ☐ ESA - Managed Shellfish Beds ...
- ☐ ESA - Pinnipeds ...
- ☐ ESA - Sea turtles and other reptiles ...
- ☐ ESA - Sessile mollusk dominated communities ...
- ☐ ESA - Birds ...
- ☐ ESA - Bird Species Richness: Summer ...
- ☐ ESA - Bird Species Richness: Winter ...

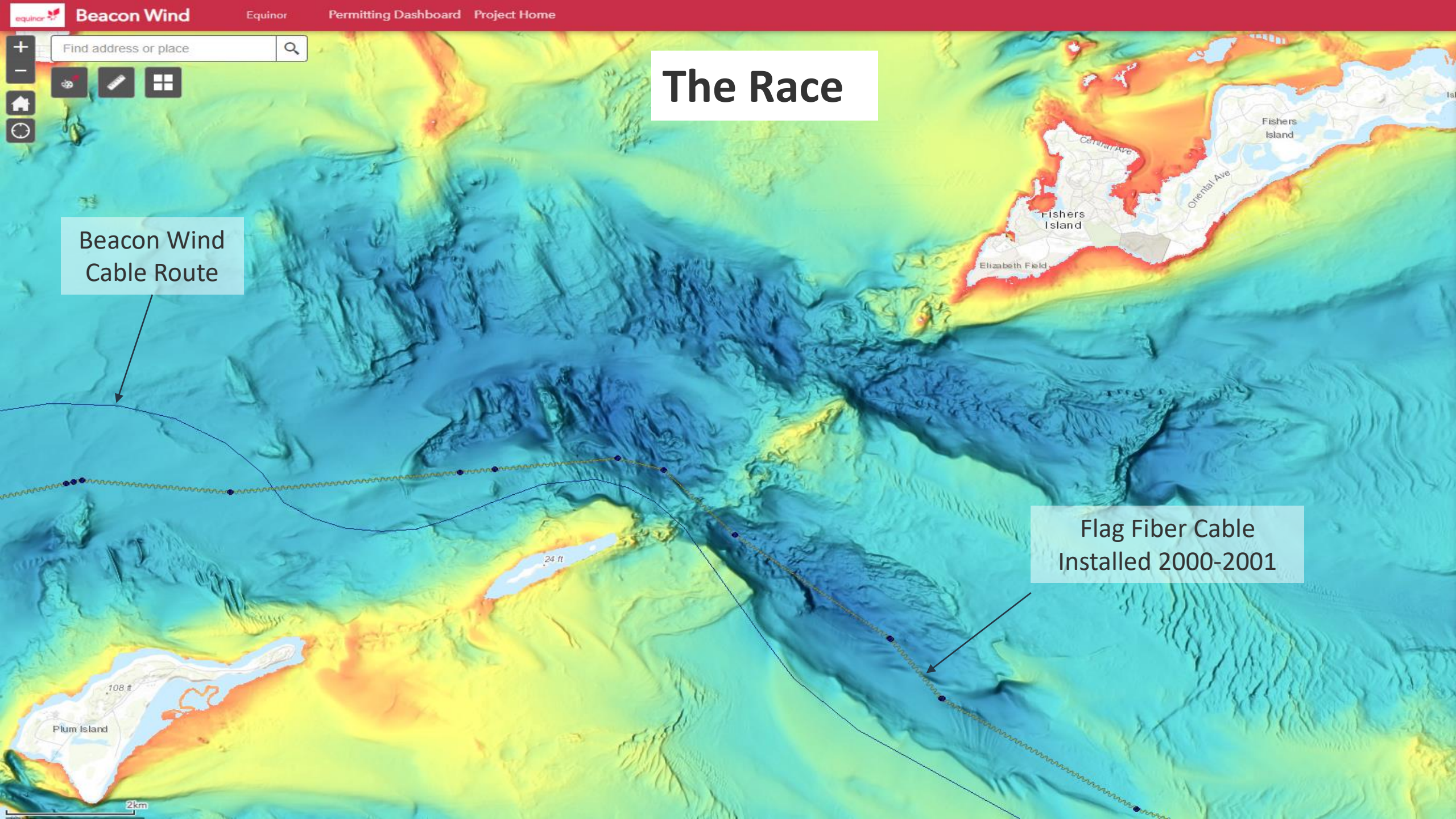




Beacon Wind 1







The Race

Beacon Wind
Cable Route

Flag Fiber Cable
Installed 2000-2001

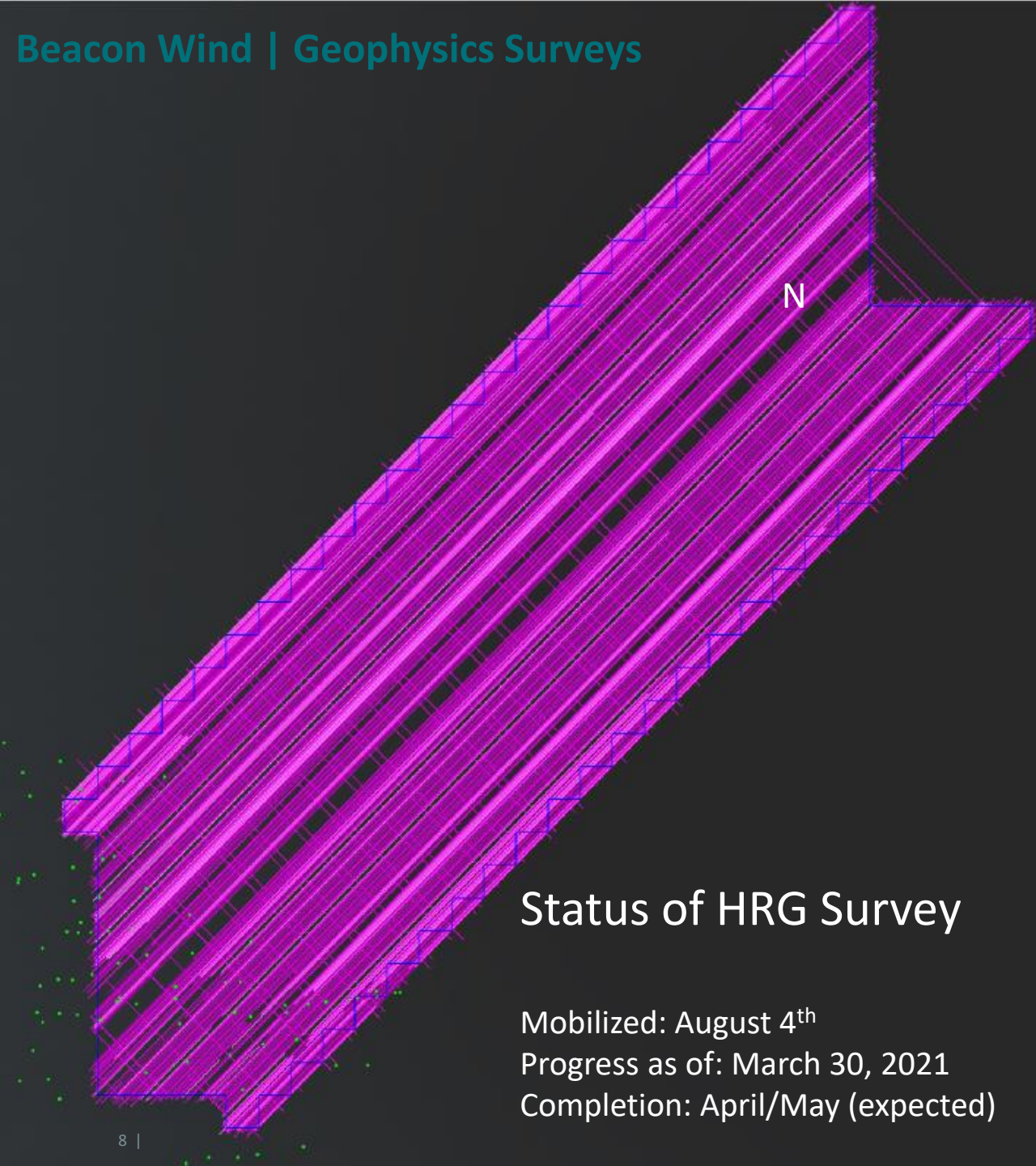
Route Consultations



Action for our region's environment.

THE MARITIME ASSOCIATION OF THE PORT OF NEW YORK - NEW JERSEY





Status of HRG Survey

Mobilized: August 4th
Progress as of: March 30, 2021
Completion: April/May (expected)



Utilizing Scout Boat

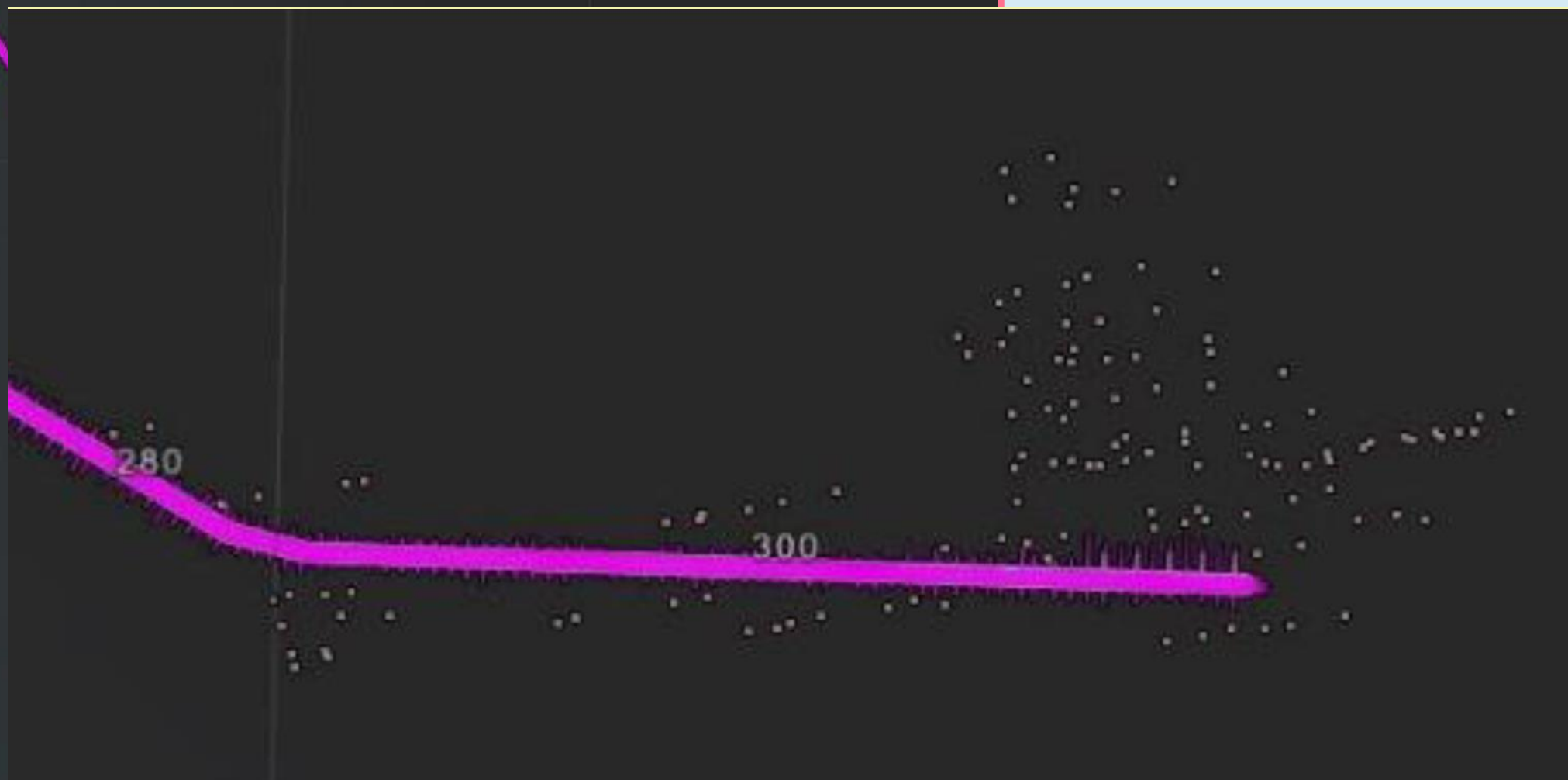
Scout Boat Support:

FV Rayda Cheramie
Started in October
115+ days on the water
24-hr / 7-day/week operation

Offshore Fisheries Representatives:

6 fishermen deployed offshore
(CT., RI, MA and ME)

Survey Progress as of March 30, 2021



In the event there is gear loss or damage caused by, or resulting from, Equinor activity:



1. Contact FLO and notify them of the incident as soon as safe and practicable.
2. Complete information request w/in 30 days
3. Details will be reviewed by Equinor's fisheries manager and fisheries industry representatives
4. A written explanation of the decision will be provided w/in 30 days.
5. If claim is approved, a check will be issued.



Claim Information to be Provided by Fisherman

Date of incident:

Time of day, weather conditions:
(optional)

Location of gear loss/damage:

A. Lat/Long

B. Photo of chart plotter/vessel tracks

Gear description - Markings /polyballs, highflyers:

Offshore wind vessels in the area, other vessel activity:

When was the last time gear was set and hauled?

Was any of the gear retrieved?

How many gillnets, pots, highflyers, trawl, doors, ground cables, scissor legs, etc. are lost/damaged?

Invoice for replacement gear or gear repair (must be substantially similar to gear that was lost/damaged)

Remaining questions only need to be completed if claiming lost fishing time:

Description of normal fishing activity / fishing gear configuration

Date of loss:

Date of replacement:



Proof of fish landing history through VTR, sales slip, or similar type of documentation:

Tag replacement application/receipt, both state and federal if applicable:

By submitting this Application, Applicant authorizes Equinor to make whatever reasonable inquiries and investigations it deems necessary to verify my application and request for compensation. Applicant understands that submitting this Application does not guarantee payment. Applicant further agrees that if this claim is accepted and paid in its entirety, that acceptance of such payment constitutes full, final and complete payment for this particular claim and that neither developer nor any of its affiliates shall have any further outstanding or ongoing obligation with respect to this specific claim and Applicant shall not, directly or indirectly, assert any claim, or commence, join in, prosecute, participate in, or fund any part of, any suit or other proceeding of any kind against developer or any of its affiliates, based upon this specific claim. If a claim is denied in part, Applicant may accept payment for the undisputed part without waiving Applicant's right to appeal the disputed part of the claim. Applicant recognizes that submission of this Application does not affect Applicant's rights concerning matters other than those specifically identified in this specific Application. I attest, under penalty of perjury, that to the best of my knowledge the information in this Application is true and correct.

Signature:

Date:

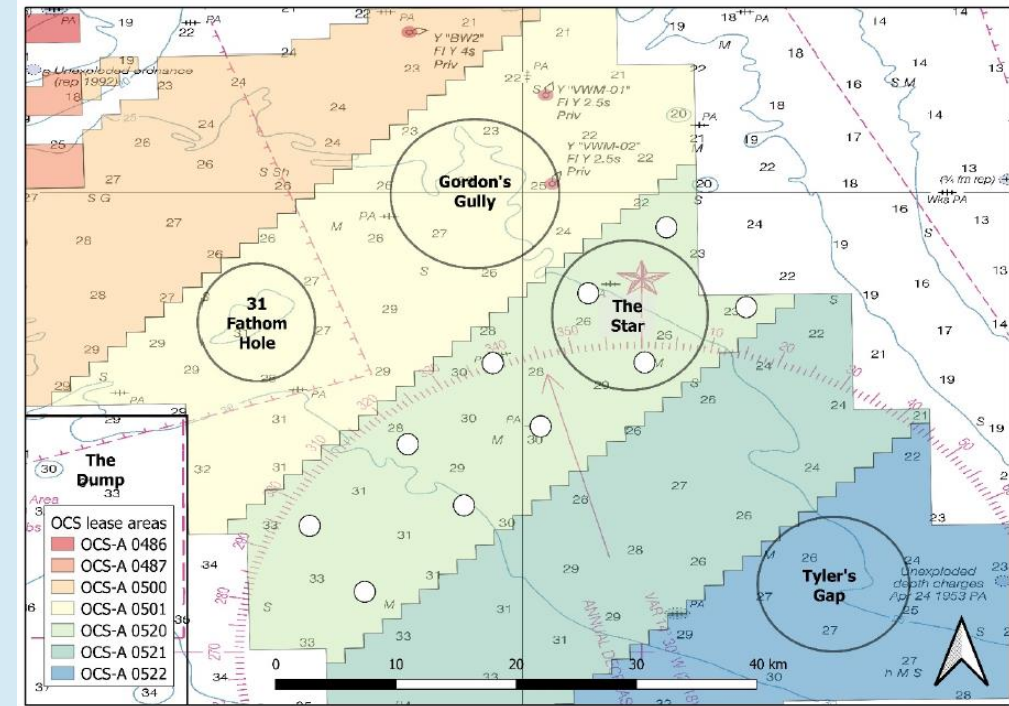
Equinor Fisheries Liaison Contacts:

Elizabeth Marchetti
Fisheries Manager
emarch@equinor.com
mobile: 401.954.2902

Steve Drew
Fisheries Liaison
sdrew@searisksolutions.com
mobile: 908.339.7439

New England Aquarium – Highly Migratory Species acoustic telemetry and recreational fishery monitoring

- Goal: Assess impacts on highly migratory species (HMS) and the large recreational fishery that targets them
 - Part 1: Passive acoustic monitoring
 - 10 acoustic receivers in lease area
 - 50 tags to be deployed (25-2021 / 25-2022)
 - 4 target species
 - Part 2: HMS recreational fishery monitoring in lease area
 - Report on baseline recreational fishing effort in lease area
 - Monitoring of recreational effort in the 2020 and 2021 fishing season



White circles = 1,000 m max detection range



Atlantic bluefin tuna
Thunnus thynnus



shortfin mako
Isurus oxyrinchus



blue shark
Prionace glauca



common thresher shark
Alopias vulpinus



equinor

SHAPING THE FUTURE OF ENERGY

Thank you for your attention

Scott Lundin
sclu@equinor.com

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MAYFLOWER WIND

MA EEA Fisheries Working Group Update



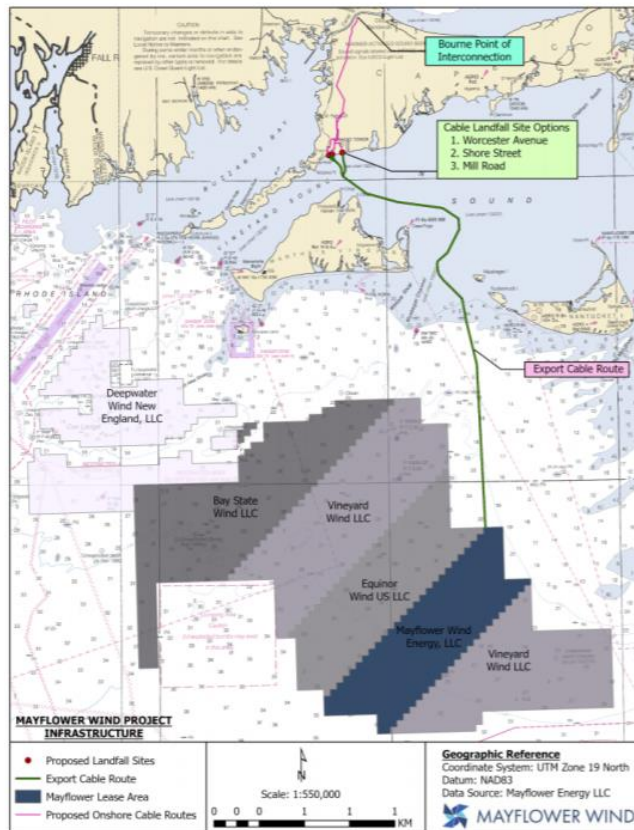
Joel Southall
Fisheries Liaison Officer

June 14, 2021

Mayflower Wind

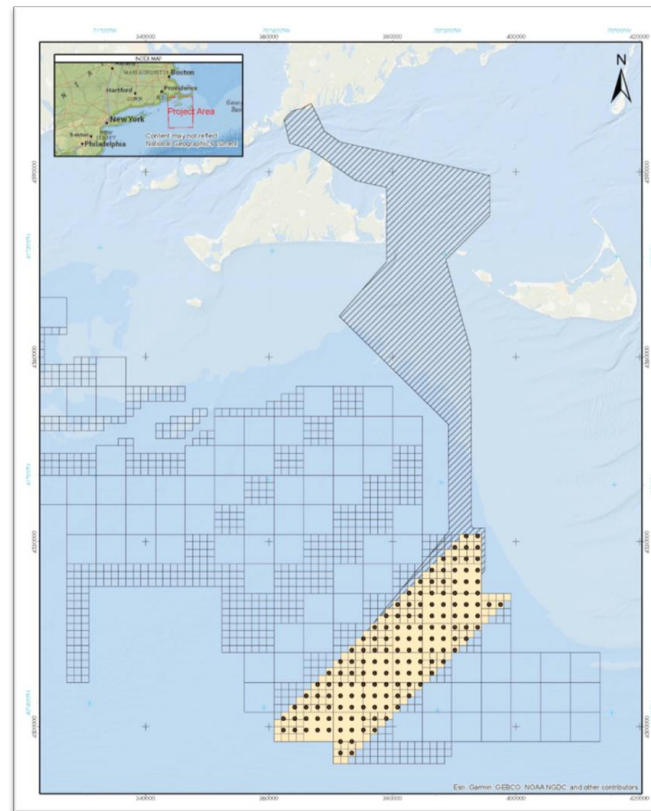
Project Characteristics

- **Lease:** OCS-A 0521
- **Area:** 127,000 acres (520 km²)
- **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



Mayflower Wind Milestones

- SAP approved by BOEM in May 2020; 2020 G&G Survey Plan approved by BOEM
- Agreed to 1x1 nm grid layout with other MA/RI developers
- High-resolution geophysical surveys conducted May-November 2020
- Geotechnical and geoarchaeological surveys conducted July-September 2020
- Virtual geoarchaeological core testing in consultation with BOEM, BUAR, MHC and Tribes, completed Fall 2020
- 2021 surveys began in mid/late April
 - R/V Westerly
 - GO Liberty
 - GO Pursuit



2021 Activities

GEOPHYSICAL SURVEY VESSELS

LEASE AREA



VESSEL: GO PURSUIT

Mobilization: April 17
24-hr operations
Water Depths > ~12m
Estimate Duration ~60 to 90 days
LOA: 150'
Call Sign: WDH 6498
Phone: +1 337 205 7400
Monitoring VHF Channel 16

EXPORT CABLE CORRIDOR



VESSEL: GO LIBERTY

Mobilization: April 19
Daylight operations
Water Depths > ~7m
Estimate Duration ~125 days
LOA: 170'
Call Sign: WDK6648
Phone: +1 337 735 1828
Monitoring VHF Channel 16

EXPORT CABLE CORRIDOR



VESSEL: WESTERLY

Mobilization: April 12
Daylight operations, will return to port nightly
Water Depths > ~2m
Estimated Duration ~175 days
LOA: 50'
Call Sign: WDF7918
Phone: 805 850 9593
Monitoring VHF Channel 16

mayflowerwind.com



[PROJECT OVERVIEW](#) ▾ [ABOUT US](#) [OUR COMMITMENT](#) ▾ [NEWS & EVENTS](#) ▾ [WORK WITH US](#) ▾ [SIGN UP FOR UPDATES](#)

Mayflower Wind and Anbaric Agree To Bring Offshore Wind Ashore at Brayton Point

May 27, 2021

Supplements Mayflower's Cape Cod Efforts

Somerset, Massachusetts—May 27, 2021— Mayflower Wind and Anbaric Development Partners (Anbaric) today announced that they have signed an agreement for Mayflower Wind to use transmission assets developed by Anbaric to bring offshore wind to Brayton Point. Mayflower Wind will bring clean offshore wind energy from its federal offshore energy lease area to Brayton

NEWS

[Announcements](#)
[News Coverage](#)
[Newsletters](#)
[Events](#)
[Press Releases](#)

MEDIA CONTACT

Joyce McMahon
McMahon Communications
joyce@mcmahoncomm.com
(978) 430-8847

Monitoring

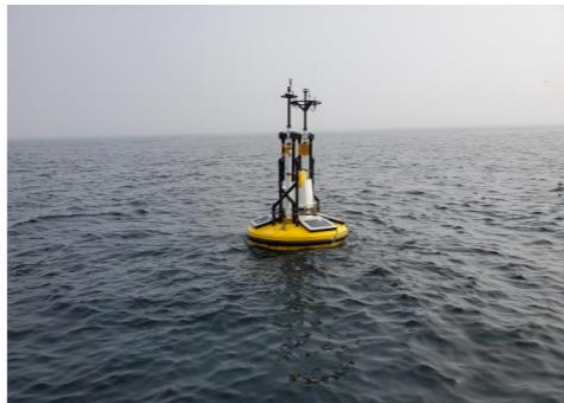
Fisheries Survey Planning & Research

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

We want to hear from fishermen, please contact me

Joel Southall
Fisheries Liaison Officer

joel.southall@mayflowerwind.com
617-817-4682
mayflowerwind.com



Ørsted Offshore North America

**Marine Affairs Department Presentation to the
Massachusetts Fisheries Working Group**

Edward G. LeBlanc



March 2021

Project Updates

Sunrise Wind

Awarded

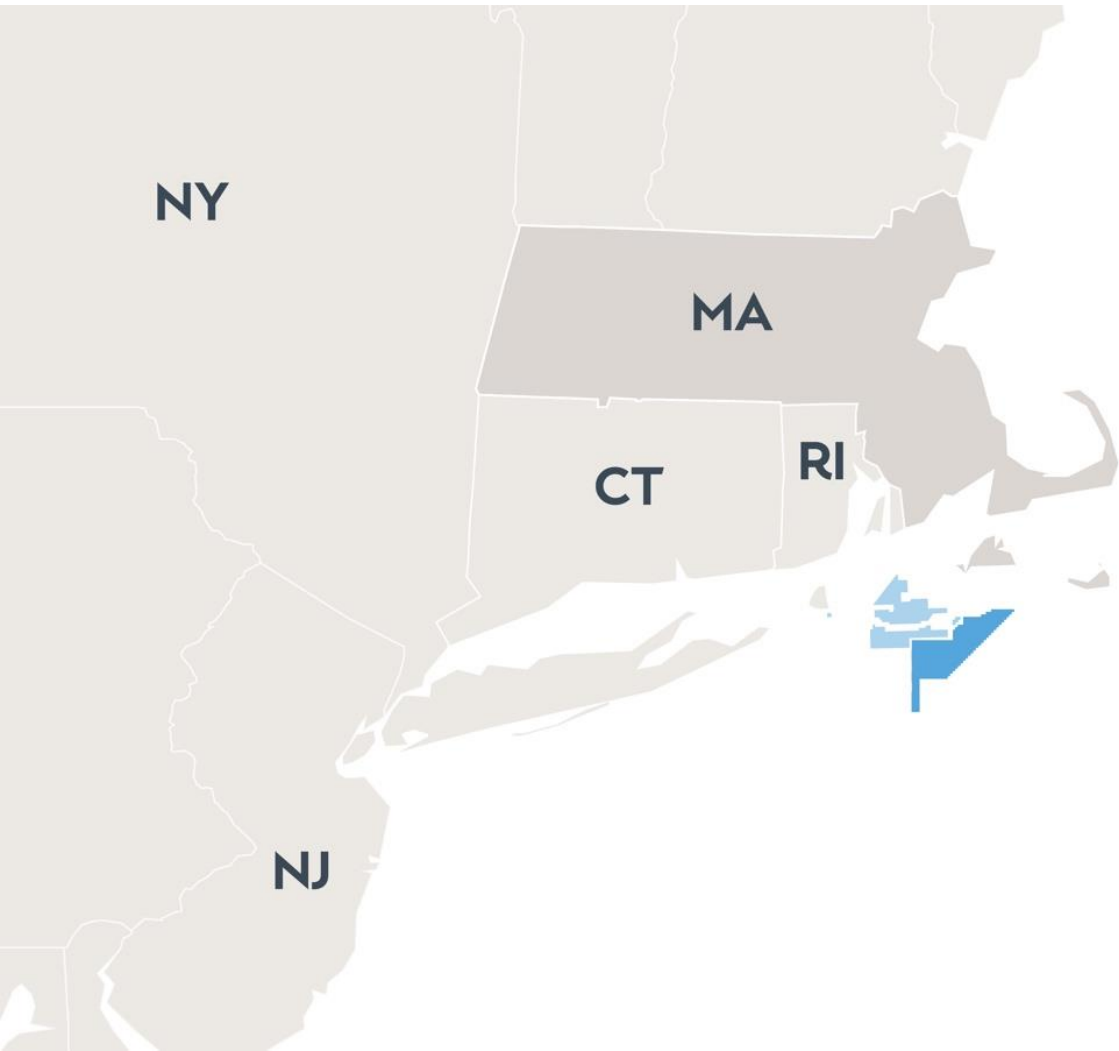


Project overview

- 50/50 JV with Eversource
- Approximately 880 MW
- 30 miles east of Montauk Point
- Will power over 500,000 homes
- The Sunrise Export Cable will deliver power to the Holbrook substation in the Town of Brookhaven
- Commercial operations expected as early as 2024

Bay State Wind

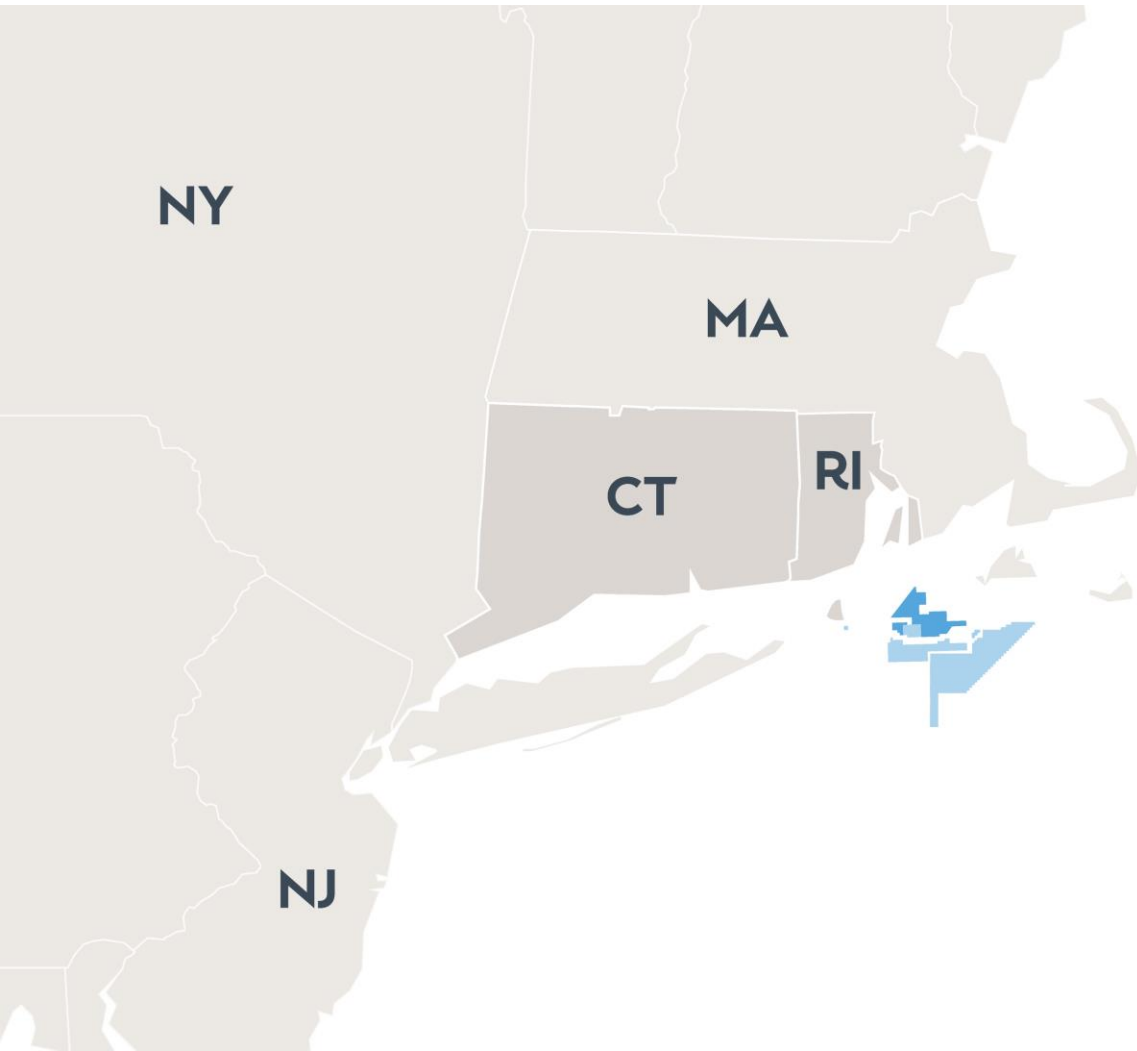
Under development



Project overview

- 50/50 JV with Eversource
- ~14 miles south of Martha's Vineyard
- 73,657 acres within Massachusetts Wind Energy Area Lease OCS-A 0500

Revolution Wind Awarded



Project overview

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

“Invaluable chance to test out multiple scenarios.”

“Very positive.”

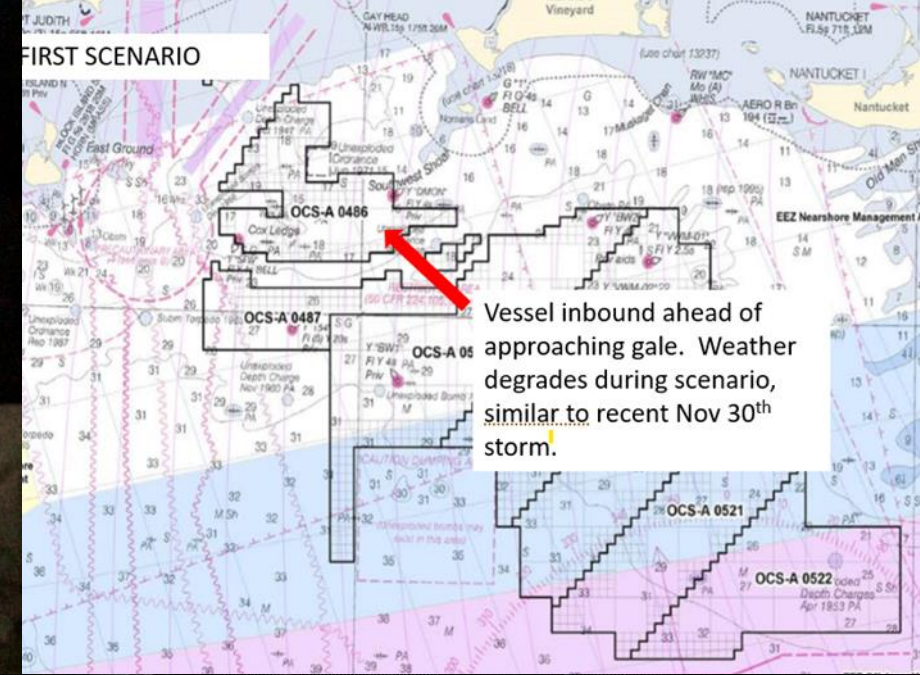
“Very helpful event.”

“I think I learned a bunch. It was positive.”

“With new/upgraded radar this will be manageable.”

“An important tool to disarm fear.”

**Revolution Wind
Full-Scale Simulator
U.S. Maritime Resource Center
Middletown, RI**



Conceptual Framework

Navigational Enhancement and Training Program

Objectives:

- 1) Improve navigation equipment; and
- 2) provide training and experiential learning opportunities to those navigating the Orsted/Eversource lease areas.
- **Navigation Equipment**
 - Voucher or grants for improved navigation equipment.
- **Professional Training & Experiential Learning**
 - Provide opportunities to attend simulator training at USMRC in Middletown, RI, where attendees would have the opportunity to navigate a vessel through a windfarm and experience various scenarios such as night conditions, adverse weather, and vessel crossings.
 - Other professional training including but not limited to a captain's course, license upgrade, or rules of the road refresher.

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 2023

Thank you

Edward G. LeBlanc

Marine Affairs Manager, Northeast

EDWLE@Orsted.com



03.31.2021

South Fork Wind

A Joint Venture of Ørsted and Eversource

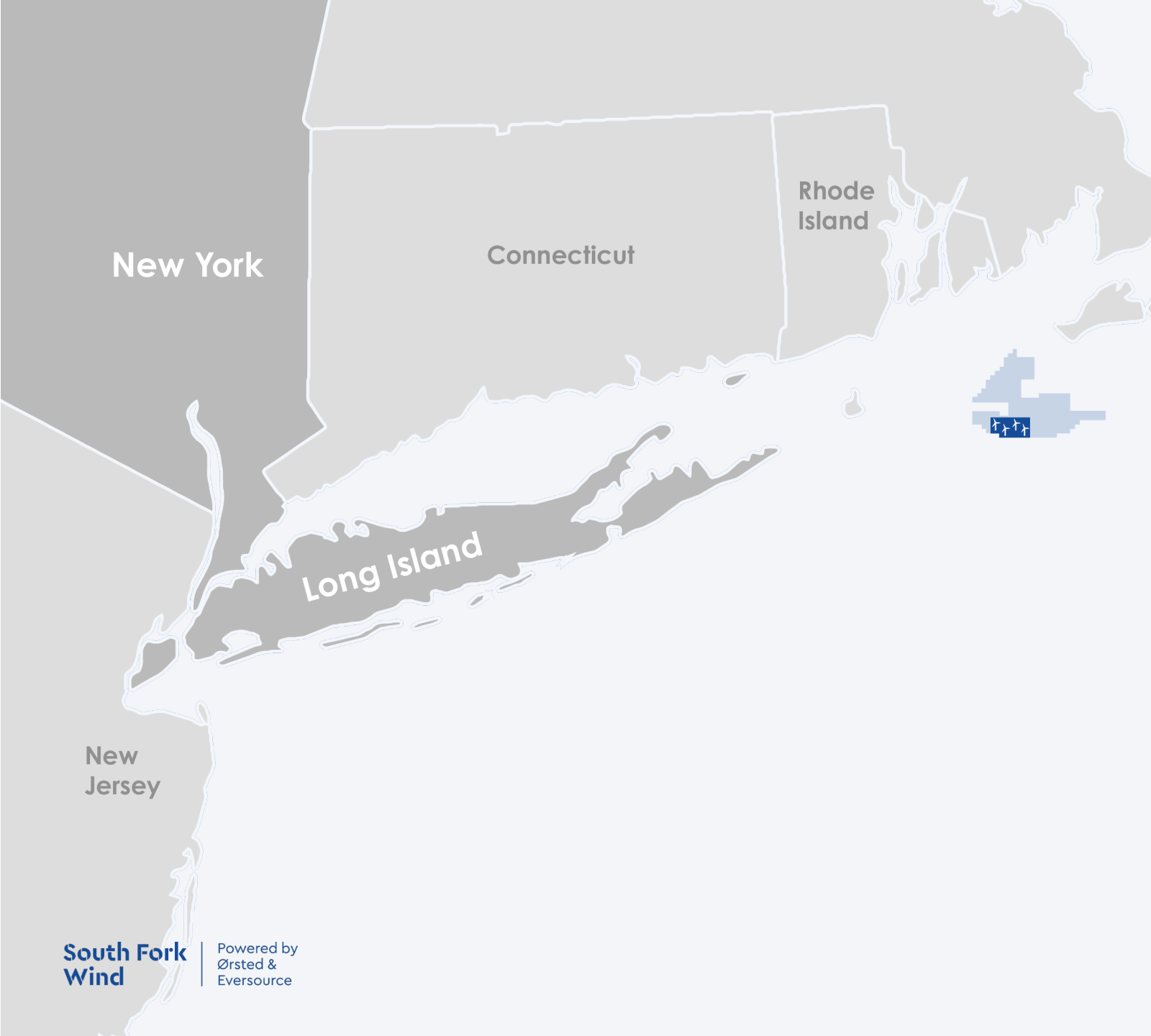
**South Fork
Wind**

Powered by
Ørsted &
Eversource

Massachusetts Fisheries Working Group
on Offshore Wind Energy

Agenda

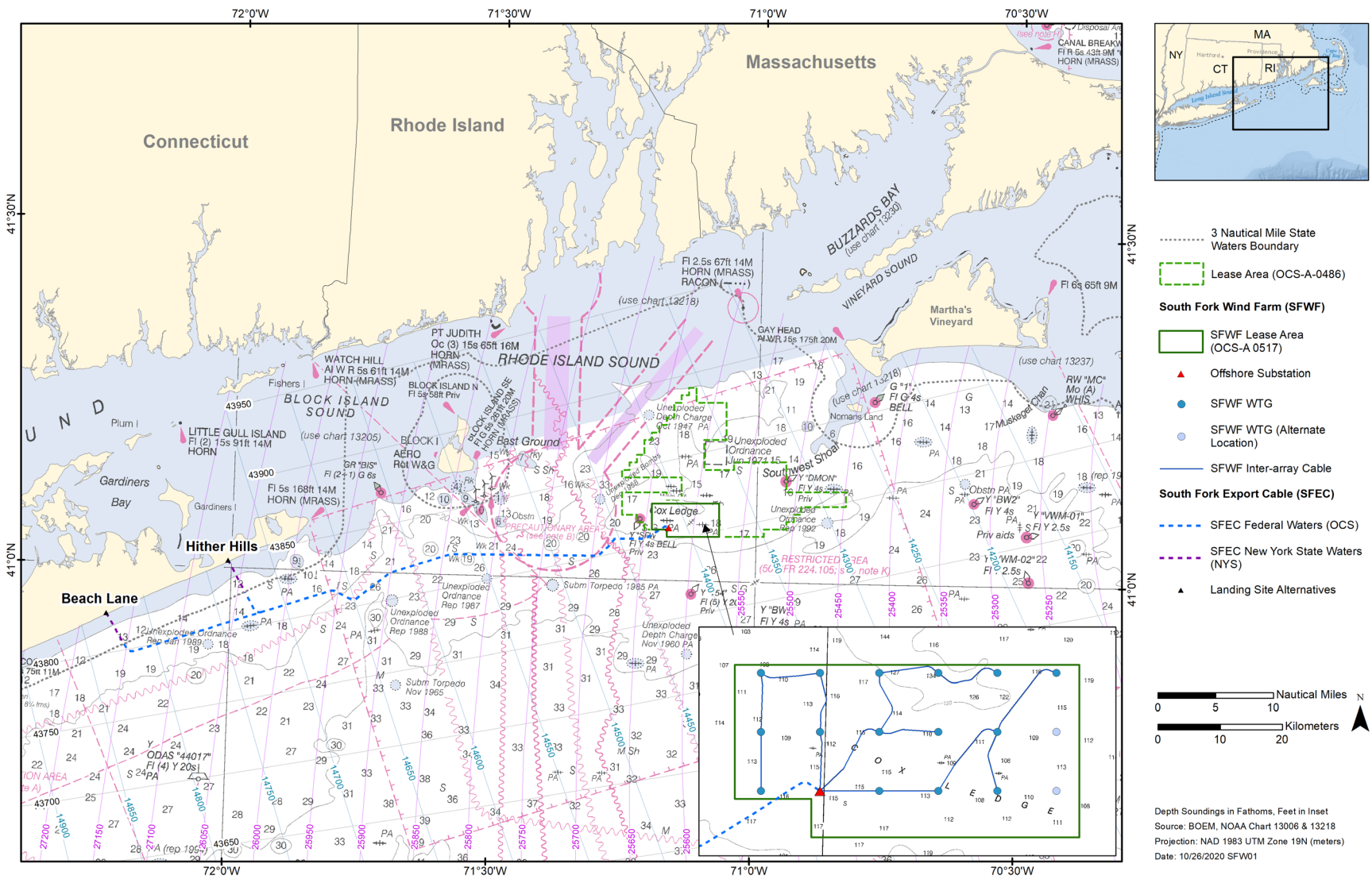
- 01 South Fork Wind Project Background
- 02 Woods Hole Oceanographic Institute
Fisheries Economic Impact Analysis
- 03 Questions and Comments



South Fork Wind

- Approximately 130 MW
- 35 miles east of Montauk Point
- Up to 15 Wind Turbine Generators (WTGs)
- One Offshore Substation (OSS)
- The South Fork Export Cable will interconnect to a substation located on the South Fork of Long Island

Project Location



SFWF	Acres	% of Total
Lease OCS-A-0517	13,700	100.00%
Footprint of Permanent Structures	32.5	0.24%

COP Updates and Environmental Review

Construction and Operation Plan (COP)

- Originally Submitted: June 2018
- Update Submitted: May 2019
- Update Submitted: February 2020

Draft Environmental Impact Statement (DEIS) Issued in January 2021

Final Environmental Impact Statement (FEIS) Expected in August 2021

SFW has been engaged with the fishing community, including the MA FWG, since 2017.

This has resulted in several project modifications.

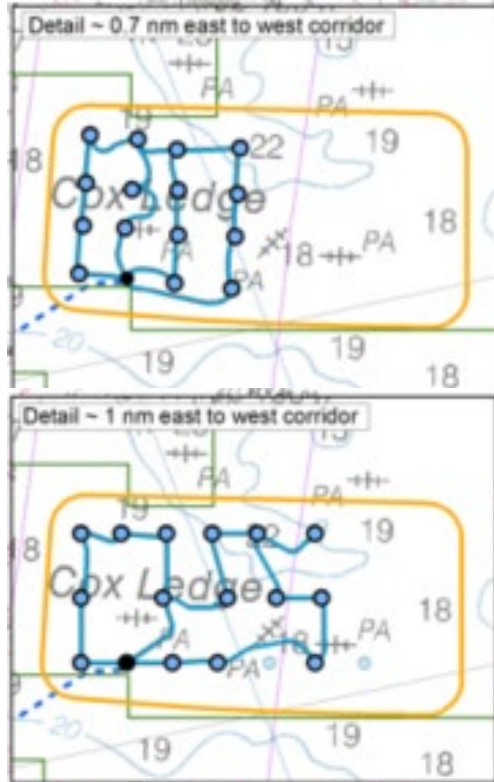
South Fork Wind's Commitments

Modifications:

- Export cable route adjustments in response to input from mobile gear fishermen
- Sufficient cable burial
- Robust Fisheries Monitoring Plan focused on commercially and recreationally important species in the project area
- Extensive fisheries outreach plan during all phases of the project
- Increased communications during offshore surveys
- Fishing gear scout vessels
- Gear claim process updated to simplify process and compensate fishermen for business loss
- Automatic Identification System (AIS), enhanced cellular and VHF coverage on the structures
- Micrositing turbines to minimize impacts to sensitive benthic habitats
- Noise reduction systems during foundation pile driving
- **Turbine layout revised to 1 by 1 nautical mile grid**

Progression of South Fork Wind Turbine Layouts

Former Layouts



2020 Layout: 1 nautical mile by 1 nautical mile grid





South Fork Wind's Ongoing Commitments to the Fishing and Environmental Communities

We:



Promote the coexistence of the offshore wind industry with all stakeholders.



Focus on maintaining access and navigation in and around our wind farms for all ocean users.



Conduct scientific research collaboratively with the fishing and environmental communities.



Are accessible and available.

Marine Affairs

We have built the largest team in the industry that is focused on engagement with fishermen, navigational safety, and fisheries science.

- 1 x 1 nautical mile grid layout
- Navigational safety
- United States Maritime Resource Center (USMRC)
- Seasource
- South Fork Wind Fisheries Monitoring Plan
- Gear claim process updated to include business loss



Fisheries Impact Analysis

Woods Hole Oceanographic Institution

**South Fork
Wind**

Powered by
Ørsted &
Eversource

South Fork Wind Fisheries Impact Analysis – Massachusetts

Woods Hole Oceanographic Institution

- Quantitative and data-driven approach
- NOAA data on commercial landings for 2008-2018 for SFW Wind Lease Area, WLA +5km buffer, and Export Cable Route
 - Adjusted for lobster/Jonah crab unreported landings and dockside sales
- For-hire charter fishing revenue at WLA estimated from RIDEM/Kirkpatrick (2017) report
- Indirect and induced impacts in Massachusetts estimated via multipliers (I/O model)
- Exposure of fisheries values estimated based on likely impacts to fishing during
 1. Construction
 2. Operations
 3. Decommissioning

NOAA Data for Baseline Values

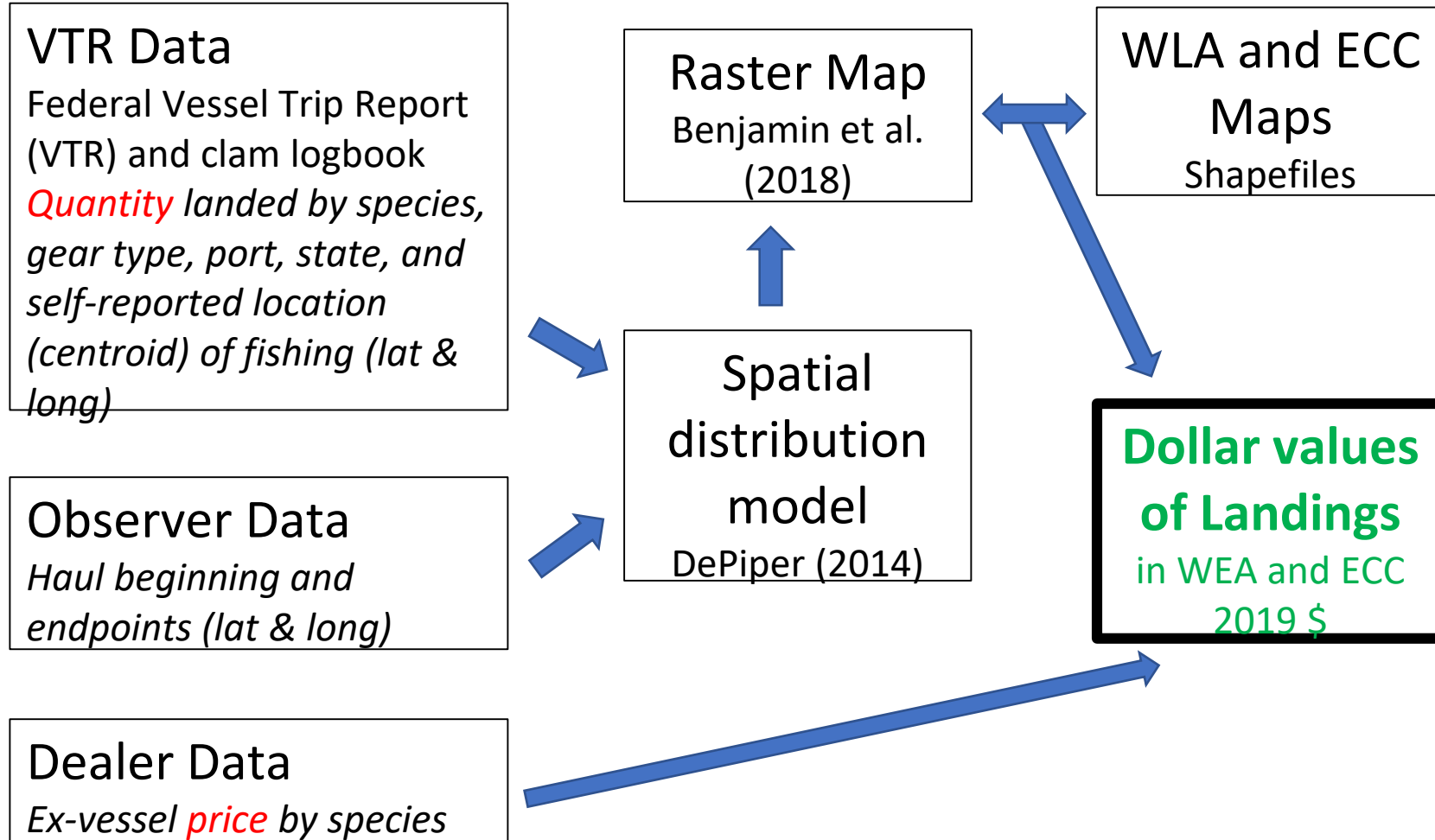
Description

- Average of 11 years of NOAA data (2008-2018) on commercial landings by weight and value from the Wind Lease Area (WLA) and two alternate Export Cable Route Corridors (ECRC)
- Updated NOAA dataset uses federal Vessel Trip Report (VTR) and clam logbook fishing trip data with observer data

Findings

- Major species: Monkfish, scallops, lobster, and flounder
- Major gear types: bottom trawls, gillnets, dredges, and pots

NOAA Commercial Fisheries Landings Data Process



Baseline NOAA Data

Table 4. Average annual landings of major species by area, 2008-2018.

Area/Species	Mean		Standard Deviation	
	Value/year (2019 \$)	Landings/year (lbs)	Value/year (2019 \$)	Landings/year (lbs)
South Fork WLA				
Monkfish	34,977	20,692	23,762	14,032
Scallops	30,192	2,793	29,154	3,119
Lobster, American	28,355	5,240	13,191	2,366
ALL_OTHERS	18,855	187,018	13,083	120,799
Skate Wings	18,600	52,544	8,121	13,826
Beach Lane				
Scallops	37,859	3,258	20,822	1,433
Flounders	17,814	6,030	5,951	2,146
Monkfish	12,911	7,380	4,126	1,601
Squid/Loligo	8,071	6,084	6,916	5,437
Skate Wings	7,340	30,148	1,712	10,751

Table 5a. Average annual landings in South Fork WLA by gear type.

Gear	Mean		Standard Deviation	
	Value/year (2019 \$)	Landings/year (lbs)	Value/year (2019 \$)	Landings/year (lbs)
Dredge	30,149	2,844	29,339	3,169
Gillnet – Other	0	0	0	0
Gillnet – Sink	53,363	53,002	29,681	23,626
Hand	771	185	1,205	273
Longline – Bottom	0	0	0	0
Pot	45,156	11,530	25,254	4,296
Trawl – Bottom	47,692	74,279	13,333	22,331
Trawl – Midwater	4,054	31,563	4,831	35,993
ALL_OTHERS	21,647	188,908	12,289	119,635

Table 5b. Average annual landings in Beach Lane ECC by gear type.

Gear	Mean		Standard Deviation	
	Value/year (2019 \$)	Landings/year (lbs)	Value/year (2019 \$)	Landings/year (lbs)
Dredge	40,925	39,674	19,852	70,720
Gillnet – Other	12	4	30	8
Gillnet – Sink	18,857	15,885	3,774	1,590
Hand	1,773	587	448	132
Longline – Bottom	35	12	117	41
Pot	6,002	1,950	1,509	270
Trawl – Bottom	47,081	60,378	12,793	12,909
Trawl – Midwater	2,589	18,391	2,794	17,479
ALL_OTHERS	7,121	63,141	6,513	68,839

Baseline NOAA Data

Table A5. Average annual landings from South Fork WLA by port (RI and MA).

Port	Mean		Standard Deviation	
	Value/year (2019 \$)	Landings/year (lbs)	Value/year (2019 \$)	Landings/year (lbs)
BARNSTABLE	5	2	15	7
BOSTON	19	16	64	54
CHATHAM	887	102	2,943	337
CHILMARK	817	148	1,283	224
DAVISVILLE	246	265	583	814
FAIRHAVEN	948	642	1,541	1,363
FALL RIVER	235	1,053	424	1,847
GLOUCESTER	107	637	217	1,458
LITTLE COMPTON	28,868	29,251	18,743	17,442
MENEMSHA	186	35	265	50
NANTUCKET	0	0	0	0
NEW BEDFORD	45,567	209,868	16,031	140,394
NEW SHOREHAM	46	19	48	30
NEWPORT	18,775	29,359	12,570	15,028
NORTH KINGSTOWN	0	0	0	0
POINT JUDITH	64,725	52,038	24,334	16,965
SANDWICH	2	3	8	11
TIVERTON	2,430	2,510	2,855	2,741
WESTPORT	11,177	4,547	7,096	3,227
WOODS HOLE	393	57	1,128	133

Lobster and Jonah Crab & Dockside Sales Adjustments

Table 10. Adjustment of landed value for lobster and Jonah crab landings not captured in VTR data.

Value (2019\$)	South Fork WLA	Beach Lane ECC
Avg. VTR total \$/year (Table 2)	202,832	124,397
Avg. VTR lobster \$/year (Tables A1-A3)	28,335	3,862
Avg. VTR Jonah crab \$/year (Tables A1-A3)	2,844	518
% of total captured by VTR	40%	40%
Adjusted lobster \$/year	70,838	9,654
Adjusted Jonah crab \$/year	7,110	1,295
Adjusted total \$/year	249,600	130,966
Adjusted increase over VTR total value	23.1%	5.3%

Table 11. Estimated annual economic impact in Rhode Island and Massachusetts.

Area	State	Average value of landings/year			Total impact/year
		VTR data only	with lobster & Jonah crab adjustment	with dockside sales adjustment	with all adjustments
South Fork WLA	RI	117,844	145,016	151,811	282,152
Beach Lane ECC	RI	51,031	53,726	54,370	105,967
South Fork WLA	MA	75,348	92,722	96,940	199,847
Beach Lane ECC	MA	31,907	33,592	33,948	73,469

Indirect and Induced Economic Impacts

- The NOAA landings data provides an estimate of fisheries value (i.e. direct impact)
- We have used a socio-economic model called IMPLAN to estimate indirect and induced economic impacts:
 1. Example of indirect economic impact: decrease in landings corresponds with decrease in businesses like commercial ice vendors or a seafood processor.
 2. Example of induced economic impact: decrease in landings corresponds with decreased income
- Multipliers for Massachusetts: For every dollar in landed value there is about 77 cents of indirect and induced economic impact “upstream” and 43 cents “downstream”
- Resulting estimates provide a comprehensive measure of impact, not just the direct impact of landed value

SFW's Total Average Economic Impact to Massachusetts (2019\$)

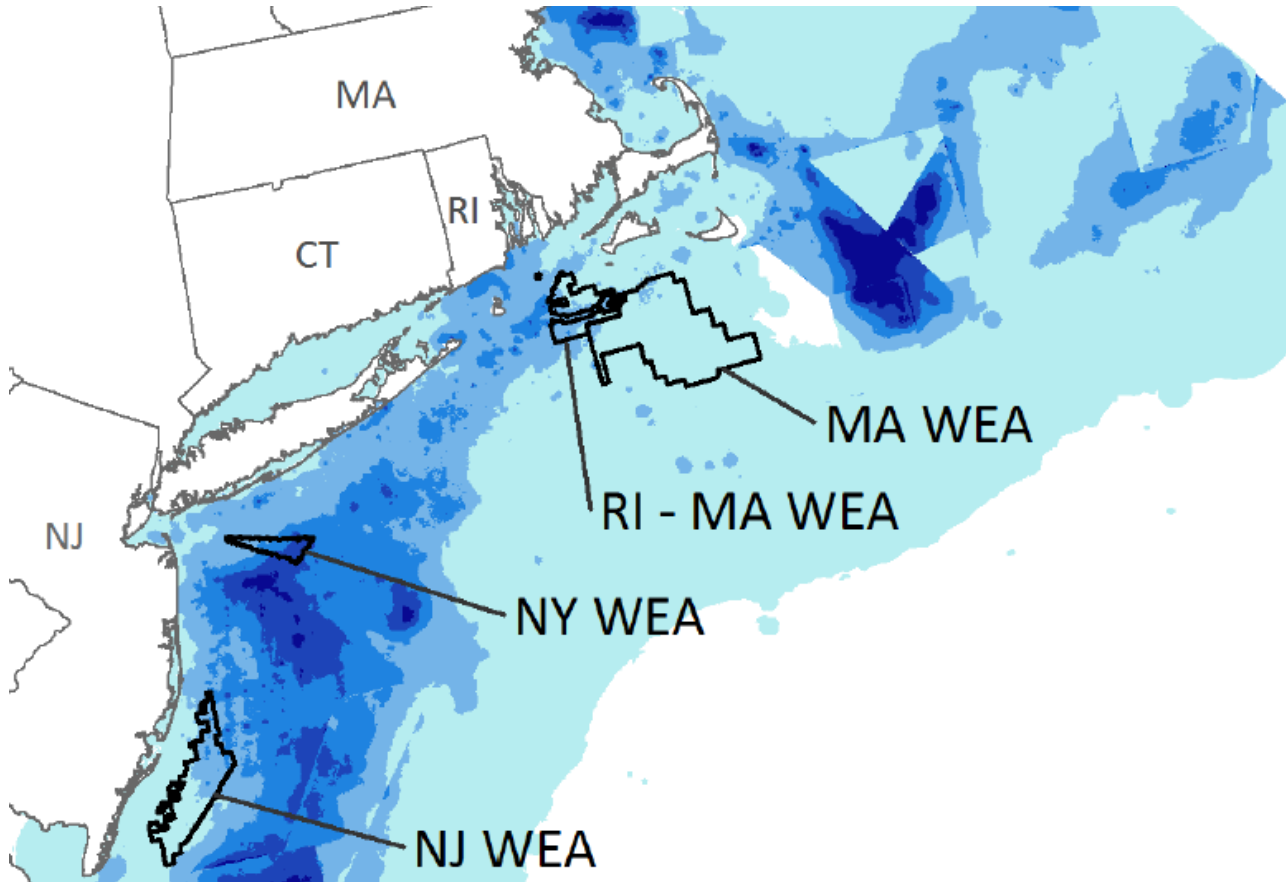
Average value of landings/year (with lobster & Jonah crab adjustment) x IMPLAN multiplier
=

Total average economic impact to Massachusetts from commercial fisheries

Massachusetts landings from SFW Lease Area and ECC: \$131,000/year

Massachusetts impact with multiplier: \$273,000/year

For-Hire Charter Fishing Data



Data on For-Hire Boat Gross Revenues Considered Exposed to Wind Energy Areas (WEAs)

MA total for-hire revenue,
average 2007-2012:
\$62.4m/year

Exposed to RI-MA WEA:
\$42,000/year

SFW portion, scaled to 2019\$:
\$4,500/year

Source: Kirkpatrick et al. 2017 Vols. I & II.

Wind Development Exposure Assumptions

Table 12. Assumptions for exposure of commercial fisheries to wind farm development.

Categories of Potential Exposure			Assumptions/Effects
Construction constrained access	WLA		No fishing in 50% of area for 8 months (a)
	ECRA	1.6km ECC WA	No fishing in 5% of area for 6 months (b)
		180m ECC	No fishing in 100% of area for 2 months (c)
Stock effects due to construction	WLA		Lobster & crab reduced 10% for 1 year (d) Scallops reduced 10% for 4 years (e) 100% of finfish stocks leave area for 4 months (f)
	WLA + 5km perimeter		100% of finfish stocks leave area for 4 months (g)
	ECRA	1.6km ECC WA	All landings reduced 10% for 1 year (h)
		180m ECC	Shellfish landings reduced 25% for 4 years (i)
Effects during operations	WLA		Landings reduced by 5% from baseline (j)
	ECRA	1.6km ECC WA	None
		180m ECC	None
Decommissioning constrained access	WLA		No fishing in 50% of area for 8 months (k)
	ECRA	1.6km ECC WA	No fishing in 5% of area for 2 months (l)
		180m ECC	No fishing in 100% of area for 2 months (m)
Stock effects due to decommissioning	WLA		None beyond constrained access (n)
	ECRA	1.6km ECC WA	All landings reduced 5% for 1 year (o)
		180m ECC	Shellfish landings reduced 12.5% for 4 years (p)

(a), (b), (c) etc. refer to detailed explanations in the text that follows

Potential Exposure

Categories of Potential Exposure		MA Direct Landed Value/Revenue \$2019
Construction constrained access	WLA	\$43,000
	ECRA	\$11,000
Stock effects due to construction	WLA + 5km perimeter	\$87,000
	ECRA	\$39,000
Effects during operations	WLA	\$67,000
	ECRA	---
Decommissioning constrained access	WLA	\$9,000
	ECRA	\$1,000
Stock effects due to decommissioning	WLA	---
	ECRA	\$4,000
Subtotal MA commercial direct effects		\$262,000
For-hire charter fishing direct effects		\$6,000
Total MA direct effects		\$268,000

Categories of Potential Exposure	MA Total Impact with Multipliers \$2019
Subtotal MA commercial fishing	\$546,000
For-hire charter fishing	\$9,000
Total MA	\$555,000

Impacts for Selected MA Ports

Port	2018 Ex-Vessel Value (2019\$)	SFW 30-year Impacts (WLA&ECC) (2019\$)	
New Bedford	435,942,741	75,706	0.02%
Gloucester	53,821,103	419	0.00%
Chatham	19,004,811	899	0.00%
Boston	16,609,675	29	0.00%
Barnstable	12,992,787	5	0.00%
Fairhaven	8,509,515	1,496	0.02%
Provincetown	7,840,614	very small	~0%
Wellfleet	7,823,862	0	0.00%
Duxbury	6,870,932	very small	~0%
Sandwich	6,842,379	2	0.00%
Rockport	6,719,439	very small	~0%

Potential Impacts from SFW

Report goes further than previous reports to quantify potential impacts to commercial fisheries from offshore wind construction, operation, and decommissioning

Five categories of potential impacts assessed

- Constrained fishing access to certain areas during construction
- Impacts on fish stocks due to construction activities
- Impacts to fishing in the wind farm area during operations
- Constrained fishing access to certain areas during decommissioning
- Impacts on fish stocks due to decommissioning activities

This analysis produced these “lump sum” (\$2019) impact values for Massachusetts from

SFW (including multipliers) :

commercial fishing	\$546,000
charter fishing	\$9,000

Questions & Comments?

Contact Us:

MELGE@orsted.com

www.southforkwind.com

info@southforkwind.com

Thank you!



VINEYARD WIND

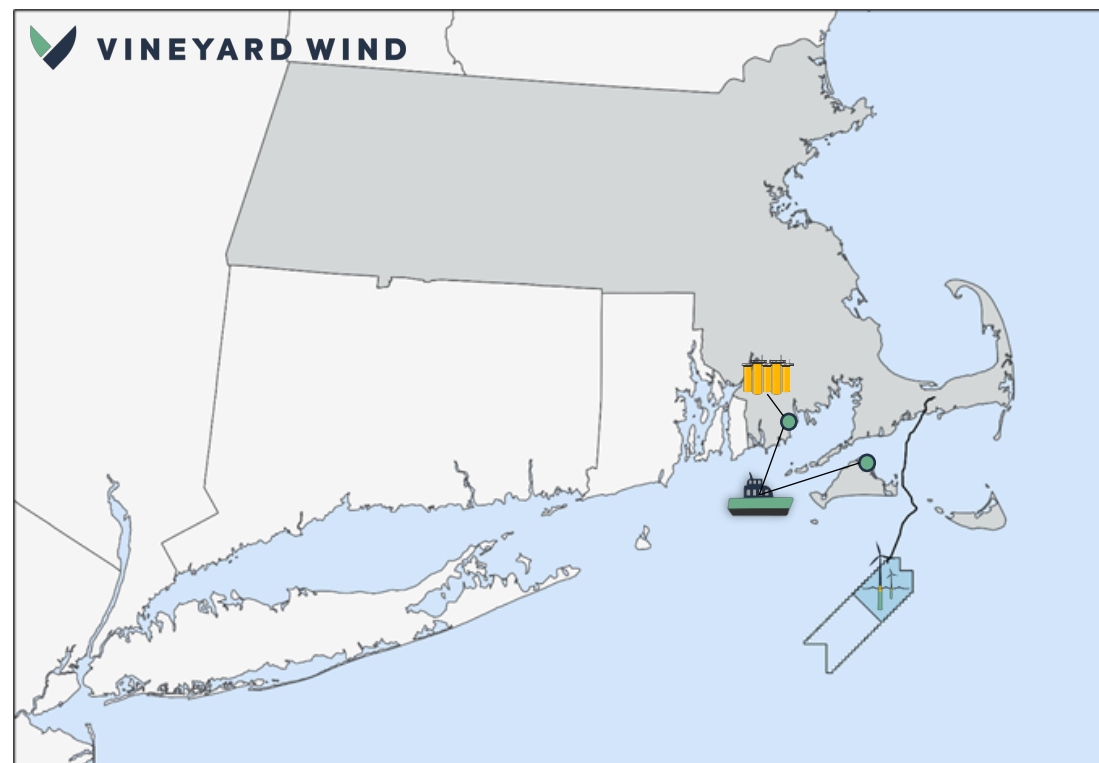
MA Fisheries Working Group

March 31, 2021

VINEYARD WIND I

Overview

- **Capacity:** 800 MW
- **Turbine Model:** 13 MW GE Haliade-X
- **Federal Permitting**
 - Due Diligence: Haliade-X
 - January 2021, results of review determined no changes needed to COP
 - FEIS released - March 12, 2021
 - Record of Decision
- **State Permitting:** Completed
- **Point of Interconnection:** Barnstable Substation
- **Power Purchase Agreements:** 20-year PPAs with Massachusetts utilities (approved)

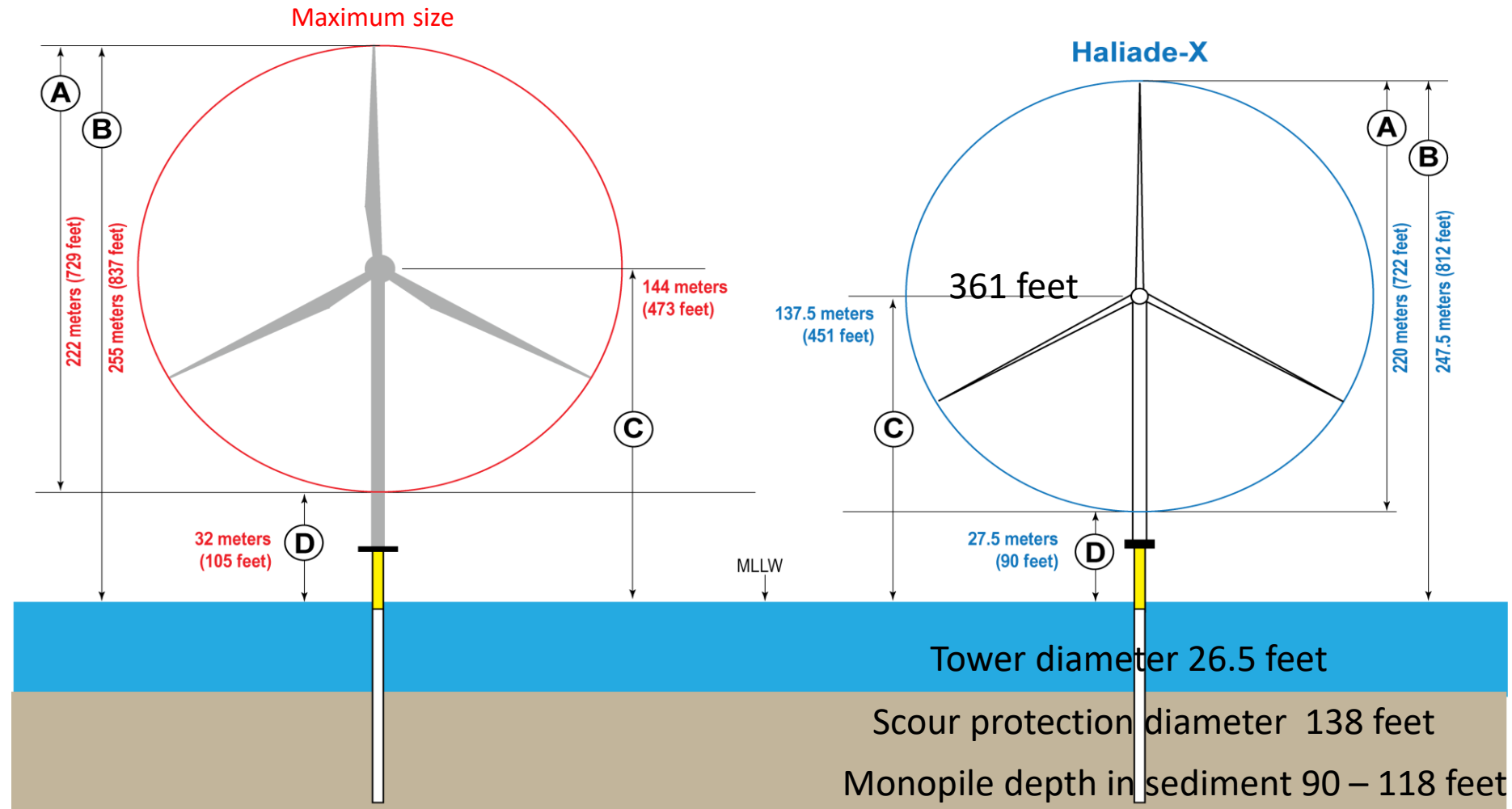


Vineyard Wind I construction and staging based in New Bedford, operations and maintenance based on Martha's Vineyard



PROJECT ENVELOPE

- Construction & Operation Plan (COP) includes a size range
- Compare Haliade-X to maximum size range in the COP

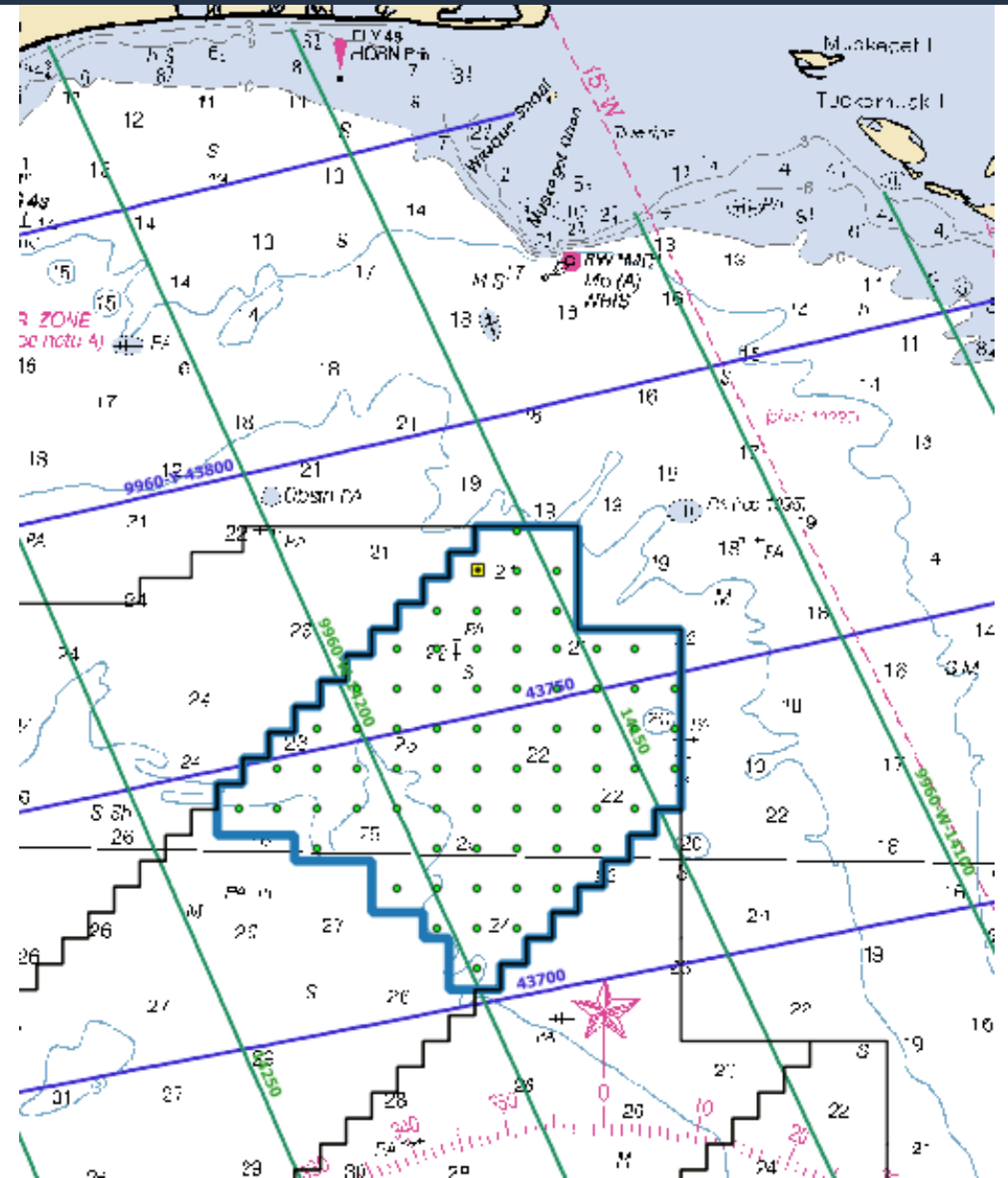


	PDE Minimum	PDE Maximum	COP	Haliade-X
A = Rotor Diameter	164 meters (538 feet)	222 meters (729 feet)	222 meters (729 feet)	220 meters (722 feet)
B = Total Blade Tip Height above MLLW	191 meters (627 feet)	255 meters (837 feet)	255 meters (837 feet)	247.5 meters (812 feet)
C = Hub Height above MLLW	109 meters (358 feet)	144 meters (473 feet)	144 meters (473 feet)	137.5 meters (451 feet)
D = Tip Clearance during Operation Above MLLW	27 meters (89 feet)	32 meters (105 feet)	32 meters (105 feet)	27.5 meters (90 feet)

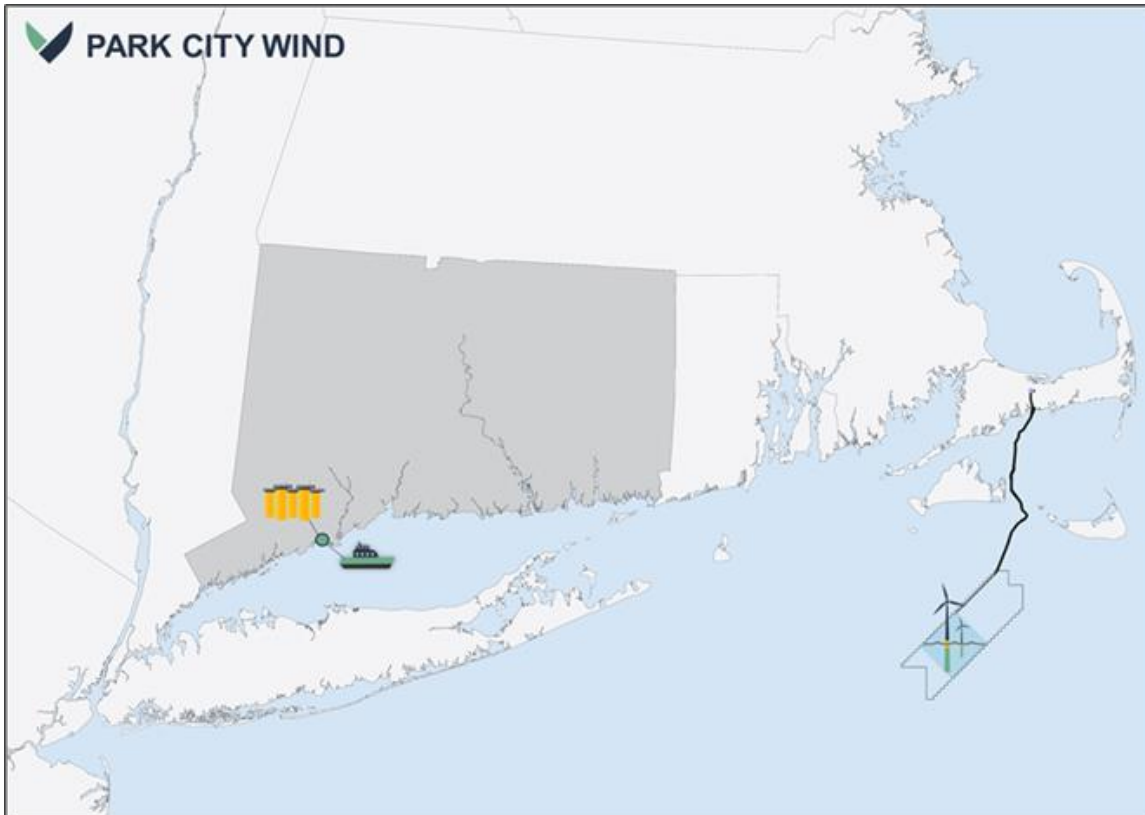


TURBINE LAYOUT

- 1 x 1 nautical mile
- 62 turbines
- Reduced footprint
- Locations on northern corners eliminated



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:** Construction & Operation Plan (COP) commenced in 2020
- **State Permitting (MA):** Commenced in 2020
- **Point of Interconnection:** West Barnstable Substation (MA)
- **Power Purchase Agreements:** 20-year PPAs with Connecticut utilities (approved)



VINEYARD WIND

FISHERIES SURVEYS

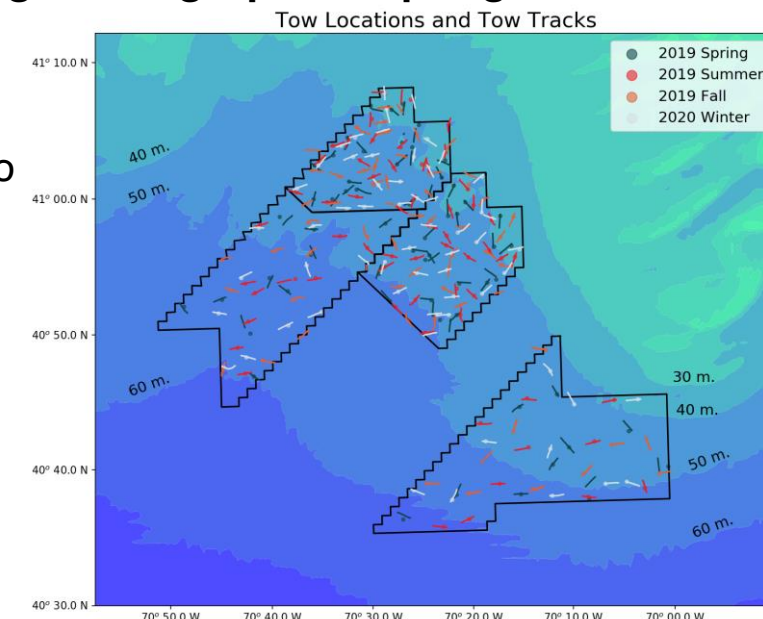
Fisheries Surveys Completed - Data available at: <https://www.vineyardwind.com/fisheries>

- Two years of pre-construction surveys in both lease areas 2019, 2020; led by UMass Dartmouth's School for Marine Science and Technology (SMAST)
 - Trawl surveys (4 times per year)
 - Drop camera surveys (2 times per year)
 - Lobster, plankton, black sea bass surveys (June – October) 501N only
- Highly Migratory Species study in partnership with New England Aquarium Anderson Cabot Center for Ocean Life completed

Fisheries Survey Plan Review – Ongoing – Public Virtual Meeting Coming Up this Spring

- 2 Fishermen reviewers for each survey
 - Fishermen who fish in the lease area
 - Participated in planning workshops SMAST hosted 2 years ago
- 3 Academic reviewers
 - Experts in fisheries science
 - Stock assessment, benthic habitat, trawl survey design

Fisheries Survey Plan for 2021 – Continuing for third year



VINEYARD WIND

AERIAL SURVEYS / REGIONAL SCIENCE / DATA SHARING



Aerial Digital Surveys

- Aerial digital surveys ongoing in 522; led by APEM and Biodiversity Research Institute
 - Additional survey over a nearshore avian “hotspot” to continue to improve species identification from aerial digital surveys
- Surveys conducted monthly – two surveys per month during migration periods (April/May) (August/September)

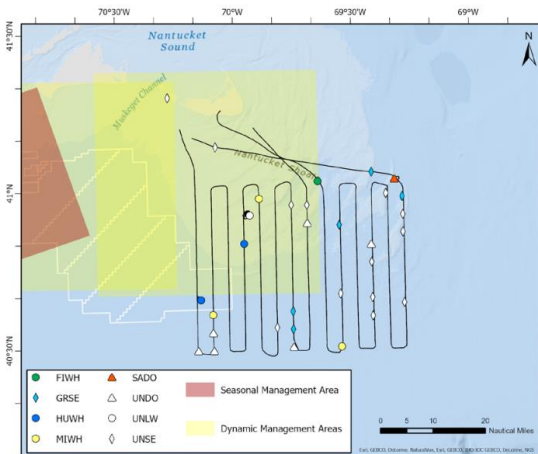
Regional Science

- Participating in Responsible Offshore Science Alliance
- Collaborating with NEAq, MassCEC, and other developers to continue aerial marine mammal and sea turtle surveys across the WEA
- Participating in State of the Science Working Groups
- Participating in ICES (*International Council for the Exploration of the Seas*) Working Group on Offshore Wind Development and Fisheries

Data Sharing

- BOEM Avian Distribution Modeling
- NMFS / NEAq Protected Species Observer (PSO) Project
- BOEM Hydrodynamic Modeling and Particle Tracking
- NYSERDA Ecosystems Dynamics Project

New England Aquarium Aerial Survey: March 21, 2021
RI/MA Wind Energy Areas



On Sunday, March 21st, the New England Aquarium (NEAq) flew a directed survey over the southern Nantucket Shoals. Conditions were excellent. Beaufort sea state ranged from 1-2. No right whales were sighted during this flight. Other marine mammals sighted included one fin whale, three humpback whales, three minke whales, 40 common dolphins (SADO), 12 unidentified dolphins, six grey seals, and 66 unidentified seals.

COMMUNICATION



OFFSHORE WIND MARINER UPDATE NO. 29 GEOTECHNICAL & ENVIRONMENTAL SURVEYS

The Survey Vessel DANIELLE MILLER will be performing geotechnical and environmental surveys in the southern half of Vineyard Wind Lease Area (OCS-A 0501), along a small corridor of the northern portion of Vineyard Wind Lease Area (OCS-A 0501), and along the Offshore Export Cable Corridor up to Muskeget Channel and into Nantucket Sound beginning on or about July 30, 2020.

DATE(S)

Estimated completion: Late-November

LOCATION(S)

All of the southern portion of Vineyard Wind Lease Area 0501 and following the Offshore Export Cable Corridor leading up through Nantucket Sound

Vessel: DANIELLE MILLER
LOA: 145 feet
Flag: US
Email: daniellemiller@millermarineservices.com
Phone: +1 516 945 7077
Sat phone: +1 505 295 2012
Onboard Fisheries Liaison:
Clint Baker, 401-588-1068
Standing by on VHF Channels 13 & 16



For the latest information, please contact our Fisheries Liaisons
Crista Bank, Cell: 508-525-0421 • Email: cbank@vineyardwind.com
Caela Howard, Cell: 508-386-9832 • Email: choward@vineyardwind.com

VineyardWind.com • info@vineyardwind.com • 508-717-8964
700 Pleasant Street, Suite 510 • New Bedford, MA 02740

Sign up for EMAIL Updates OR TEXT ALERTS

www.vineyardwind.com/fisheries

**FREE
COVID-19
Testing**



Pier 3, New Bedford | April

The Southcoast Health Wellness Van is offering free COVID-19 testing on Pier 3 in New Bedford.

Essential workers in the fishing industry and all family members are welcome.

Dates Times:

April 1 8:30 am to 11:30 am
April 8 8:30 am to 11:30 am
April 15 8:30 am to 11:30 am

Generously sponsored by Vineyard Wind



All Wellness Van services are subject to anticipated weather conditions. Please contact Crista Bank at cbank@vineyardwind.com with any questions or concerns.



Please remember to wear a mask and remain 6 feet apart when in line outside the Southcoast Health Wellness Van.

MONTHLY PORT HOURS


FISHERIES LIAISONS FROM EQUINOR, ØRSTED/EVERSOURCE, MAYFLOWER WIND AND VINEYARD WIND WILL BE AVAILABLE DURING MONTHLY PORT HOURS FOR COMMERCIAL AND RECREATIONAL FISHING INQUIRIES, COMMENTS AND FEEDBACK FOR THE RI/MA WIND ENERGY AREAS

WEBSITE RESOURCES FOR FISHERMEN

www.vineyardwind.com/vesselrfi

vineyardwind.com/offshore-wind-mariner-updates

vineyardwind.com/fisheries-science



VINEYARD
WIND

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VESSEL REQUEST FOR INFORMATION

TELL US ABOUT YOUR VESSEL

Vineyard Wind is looking to hire local vessels to work on offshore wind projects. If you are at all interested in participating in the development of offshore wind, please fill out the form to the best of your ability.

Vessel owners: Please fill out one form per vessel. Complete the form below or download a PDF copy and submit to info@vineyardwind.com or mail to Vineyard Wind, 700 Pleasant Street, Suite 510, New Bedford, MA 02740.

Vessel Request for Information

* 1. Contact Information

Name *

Company

Address *

City/Town *

State/Province *

ZIP/Postal Code *

Country *

Email Address *

-- select state --


Download a copy of the form

Subscribe to our Mariner Updates


Questions?

+Contact us at info@vineyardwind.com.

+Fishing vessel owners, contact Crista Bank at chank@vineyardwind.com.



New Bedford FV Encourager conducted surveys of lobster, plankton, and walrus populations in the wind energy lease areas.




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Take Action

OFFSHORE WIND MARINER UPDATES

Vineyard Wind's Offshore Wind Mariner Updates include important details of operational activities within our lease areas (0501 North; 0501 South; 522 and a control area). They include where we are working, an estimated timeline and vessel information. [Sign up for Offshore Wind Mariner Updates here.](#)

ACTIVE UPDATES:



VINEYARD WIND
OFFSHORE WIND MARINER UPDATE NO. 30
ENVIRONMENTAL SURVEYS

The following survey activities will be conducted within the 0501 North and 0501 South lease areas during the period of July 31, 2020, through August 14, 2020. The survey activities are part of the environmental baseline study for the proposed Vineyard Wind project. The survey activities are being conducted to provide information on the current state of the environment within the lease areas. The survey activities are being conducted to provide information on the current state of the environment within the lease areas.


Detailed Reporting: on or about July 31, 2020. Estimated duration: 10 days.

Location(s): 0501 North and 0501 South lease areas. 0501 North and 0501 South lease areas.

Jul 31, 2020

OFFSHORE WIND MARINER UPDATE NO. 30

Environmental Surveys



VINEYARD WIND
OFFSHORE WIND MARINER UPDATE NO. 29
GEOTECHNICAL & ENVIRONMENTAL SURVEYS

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Detailed Reporting: on or about July 31, 2020. Estimated duration: 10 days.

Location(s): 0501 North and 0501 South lease areas. 0501 North and 0501 South lease areas.

Jul 30, 2020

OFFSHORE WIND MARINER UPDATE NO. 29

Geotechnical & Environmental Surveys



VINEYARD WIND
OFFSHORE WIND MARINER UPDATE NO. 28
GEOTECHNICAL SURVEYS

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Detailed Reporting: on or about July 31, 2020. Estimated duration: 10 days.

Location(s): 0501 North and 0501 South lease areas. 0501 North and 0501 South lease areas.

Jul 23, 2020

OFFSHORE WIND MARINER UPDATE NO. 28

Geotechnical Surveys



VINEYARD WIND
OFFSHORE WIND MARINER UPDATE NO. 27
GEOPHYSICAL SURVEYS

The following survey activities will be conducted within the 0501 North and 0501 South lease areas during the period of July 23, 2020, through August 14, 2020. The survey activities are part of the environmental baseline study for the proposed Vineyard Wind project. The survey activities are being conducted to provide information on the current state of the environment within the lease areas. The survey activities are being conducted to provide information on the current state of the environment within the lease areas.

Detailed Reporting: on or about July 31, 2020. Estimated duration: 10 days.


Location(s): 0501 North and 0501 South lease areas. 0501 North and 0501 South lease areas.

Jul 21, 2020

OFFSHORE WIND MARINER UPDATE NO. 27

Geophysical Surveys: Nantuxet Sound and Madaket Channel

ARCHIVED UPDATES:




VINEYARD WIND
OFFSHORE WIND MARINER UPDATE NO. 34
GEOTECHNICAL SURVEYS

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Detailed Reporting: on or about July 31, 2020. Estimated duration: 10 days.

Location(s): 0501 North and 0501 South lease areas. 0501 North and 0501 South lease areas.




VINEYARD WIND
OFFSHORE WIND MARINER UPDATE NO. 33
GEOTECHNICAL SURVEYS

The following survey activities will be conducted within the 0501 North and 0501 South lease areas during the period of July 23, 2020, through August 14, 2020. The survey activities are part of the environmental baseline study for the proposed Vineyard Wind project. The survey activities are being conducted to provide information on the current state of the environment within the lease areas. The survey activities are being conducted to provide information on the current state of the environment within the lease areas.

Detailed Reporting: on or about July 31, 2020. Estimated duration: 10 days.

Location(s): 0501 North and 0501 South lease areas. 0501 North and 0501 South lease areas.




VINEYARD WIND
OFFSHORE WIND MARINER UPDATE NO. 32
GEOTECHNICAL SURVEYS

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Detailed Reporting: on or about July 31, 2020. Estimated duration: 10 days.

Location(s): 0501 North and 0501 South lease areas. 0501 North and 0501 South lease areas.




VINEYARD WIND
OFFSHORE WIND MARINER UPDATE NO. 31
GEOTECHNICAL SURVEYS


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Detailed Reporting: on or about July 31, 2020. Estimated duration: 10 days.

Location(s): 0501 North and 0501 South lease areas. 0501 North and 0501 South lease areas.



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FISHERIES STUDIES AND SCIENCE

Vineyard Wind firmly believes that offshore wind developers must support good fisheries studies and science as the offshore wind industry grows up alongside the region's oldest offshore industry- fishing. Fisheries related surveys, studies, and key research milestones are provided below. These studies should be in addition to past and on-going basic research such as conducted by the [Bureau of Ocean Energy Management](#).

All fisheries survey and science reports to Vineyard Wind will be provided here, and updates of key milestones provided below.


RESPONSIBLE OFFSHORE SCIENCE ALLIANCE




ROSA advances regional fisheries research and monitoring related to offshore wind development in federal waters. ROSA's organizing framework was developed in partnership with state and federal regulators and support from Vineyard Wind and other offshore wind developers. [Learn more about ROSA and it's framework.](#)

Vineyard Wind is supportive of the Responsible Offshore Science Alliance (ROSA), founded in March 2019 by the Responsible Offshore Development Alliance.


ONGOING SURVEYS



Lobster Ventless Trap, Black Sea Bass, Plankton Survey



Bottom Trawl Survey



Drop Camera Survey

Update on Pilot Regional Fisheries Studies

Massachusetts Habitat Working Group

Nils Bolgen

March 31, 2021



Overview

Sponsors

- | | |
|--------------------|-----------|
| • BOEM | \$400,000 |
| • MassCEC | \$496,688 |
| • Rhode Island DEM | \$200,000 |

Timeline

- | | |
|--------------|--------------|
| • RFP issued | August 2019 |
| • Proposals | October 2019 |
| • Selections | January 2020 |

Topic Areas

- Fishery Resource Studies
- Seafloor Habitat Studies
- Technical Studies

Spatial Scope

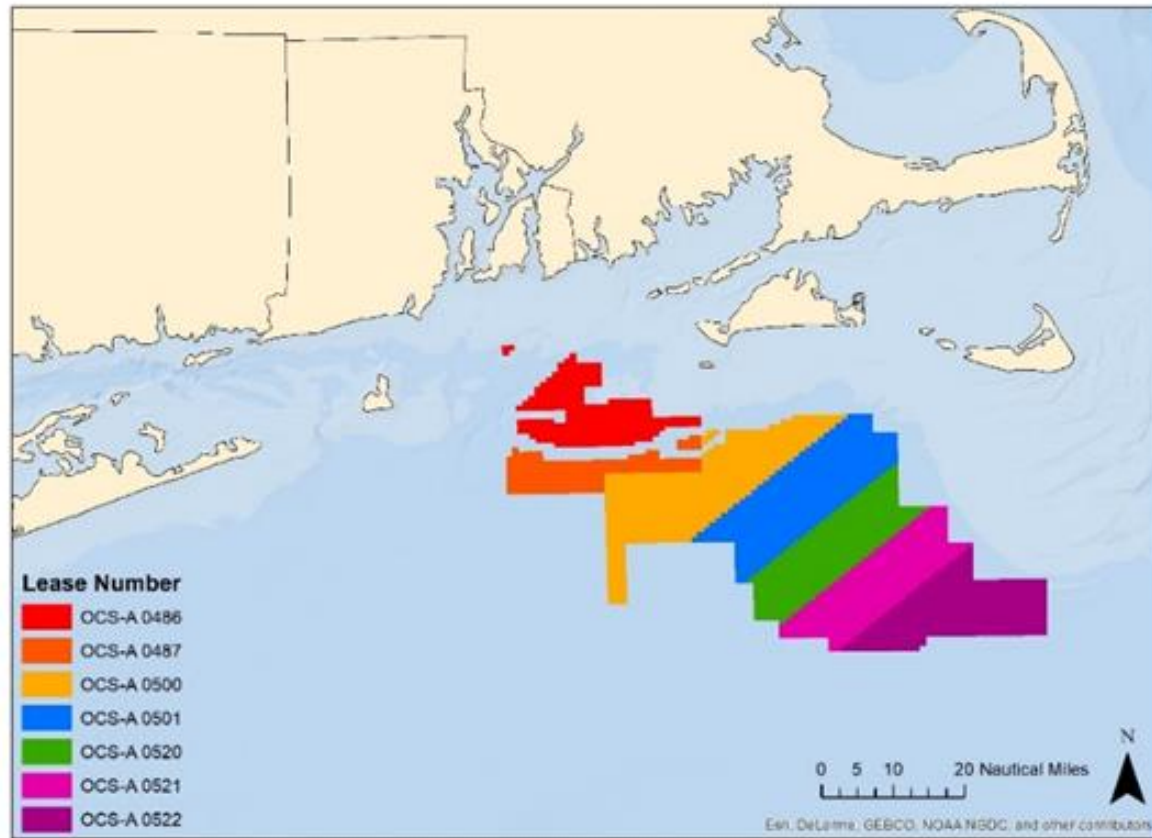


Image credit: Rhode Island Department of Environmental Management

Research Priorities White Paper

Management Objectives and Research Priorities for Fisheries in the Massachusetts and Rhode Island-Massachusetts offshore Wind Energy Area

November 2018

This document was authored by staff at the Massachusetts Division of Marine Fisheries. Input and review was provided by individual staff members at the Rhode Island Division of Marine Fisheries, NOAA National Marine Fisheries Service, and BOEM Office of Renewable Energy Programs.

Introduction

The states of Massachusetts (MA) and Rhode Island (RI) are committed to diversifying the electric grid in New England with offshore wind while maintaining existing ecosystem function and services, including healthy natural resources and water quality, profitable multi-sector marine industries including commercial and recreational fishing industries, safe and efficient navigation, and public access and enjoyment within or adjacent to offshore wind development areas. In the Southern New England (SNE) Bight shelf region between New York Harbor and Nantucket Shoals, there are currently three wind energy areas: the Massachusetts Wind Energy Area (MA WEA), the Rhode Island-Massachusetts Wind Energy Area (RI-MA WEA), and the New York Wind Energy Area (NY WEA). Within these WEAs there are

Topic Areas and Funded Studies

Fishery Resource Studies

- INSPIRE Environmental – *Acoustic Telemetry for Highly Migratory Species*
- UMass Dartmouth – *Net Surveys for Larval Lobster and Fish Neuston*

Seafloor Habitat Studies

- INSPIRE Environmental – *Standard Approaches for Mapping of Acoustic and Imagery Benthic Data*

Technical Studies

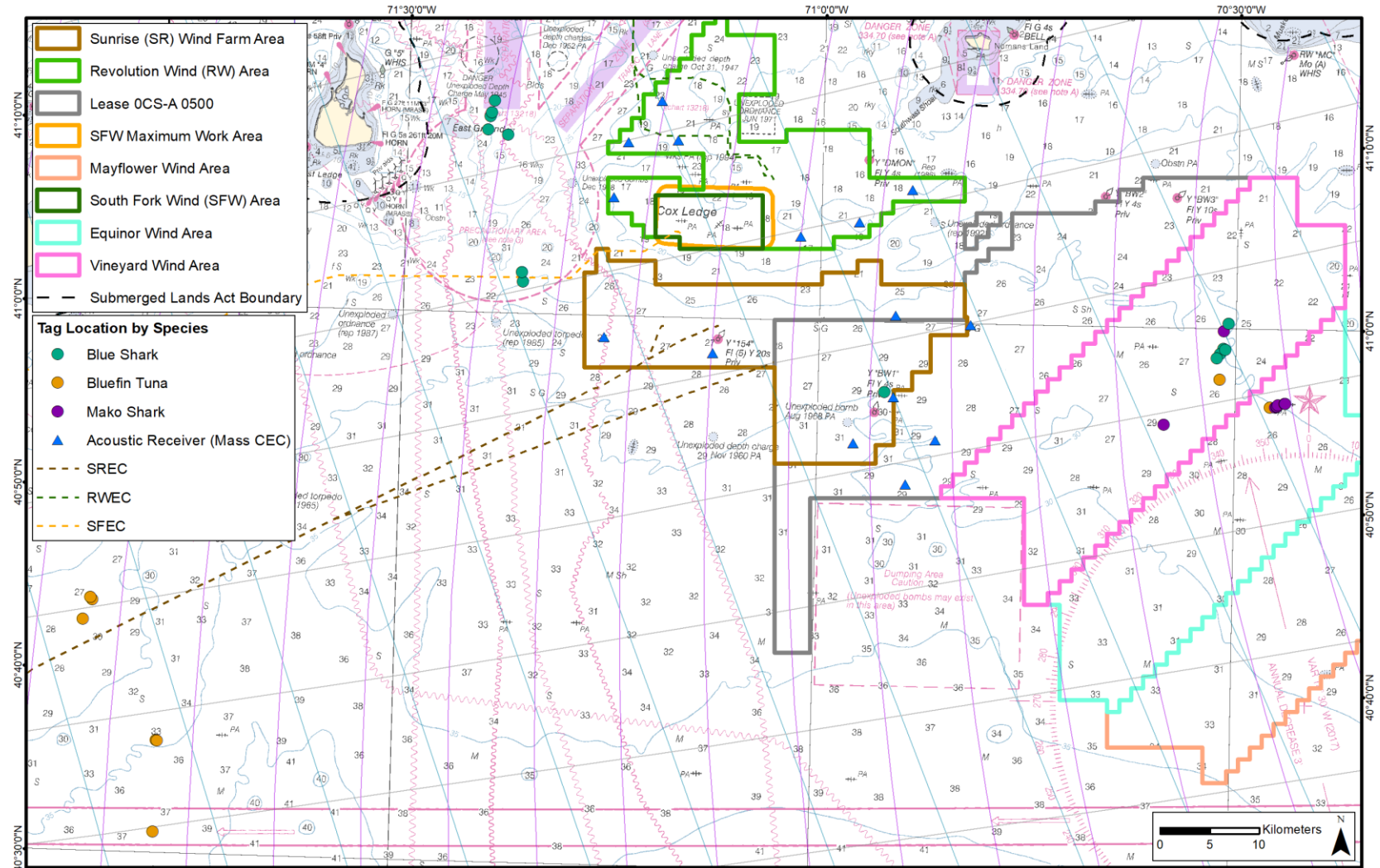
- University of Rhode Island – *Fishing Vessel Status using AIS: Big Data Approach*
- New Bedford Port Authority – *Comparative Analysis of Approaches to Regulation*

INSPIRE Environmental Acoustic Telemetry for HMS

Partners	New England Aquarium (Anderson Cabot Center for Ocean Life)
Team	Brian Gervelis, INSPIRE (Co-PI) Jeff Kneebone, NEAq (Co-PI)

2020-Q2	Q3	Q4	2021-Q1	Q2	Q3	Q4	2022-Q1
	7/15/20	12/01/20		04/01/21	08/01/21	12/01/21	
	09/01/20						
<i>Deploy Yr. 1:</i>	07/15/20		<i>Deploy Yr. 2:</i>	05/31/21	<i>Retrieve Yr. 2:</i>	12/01/21	
	<i>Retrieve Yr. 1:</i>	12/01/20			<i>Draft Report:</i>	12/31/21	
					<i>Sponsor Comments:</i>		01/31/22
					<i>Final Report:</i>		02/28/22

HMS Tag and Receiver Locations



Data: NOAA NOS Chart 12300

Document Name: SFW_MACEC_Receivers_SpeciesTagLocations

Date: 9/15/2020

INSPIRE
ENVIRONMENTAL

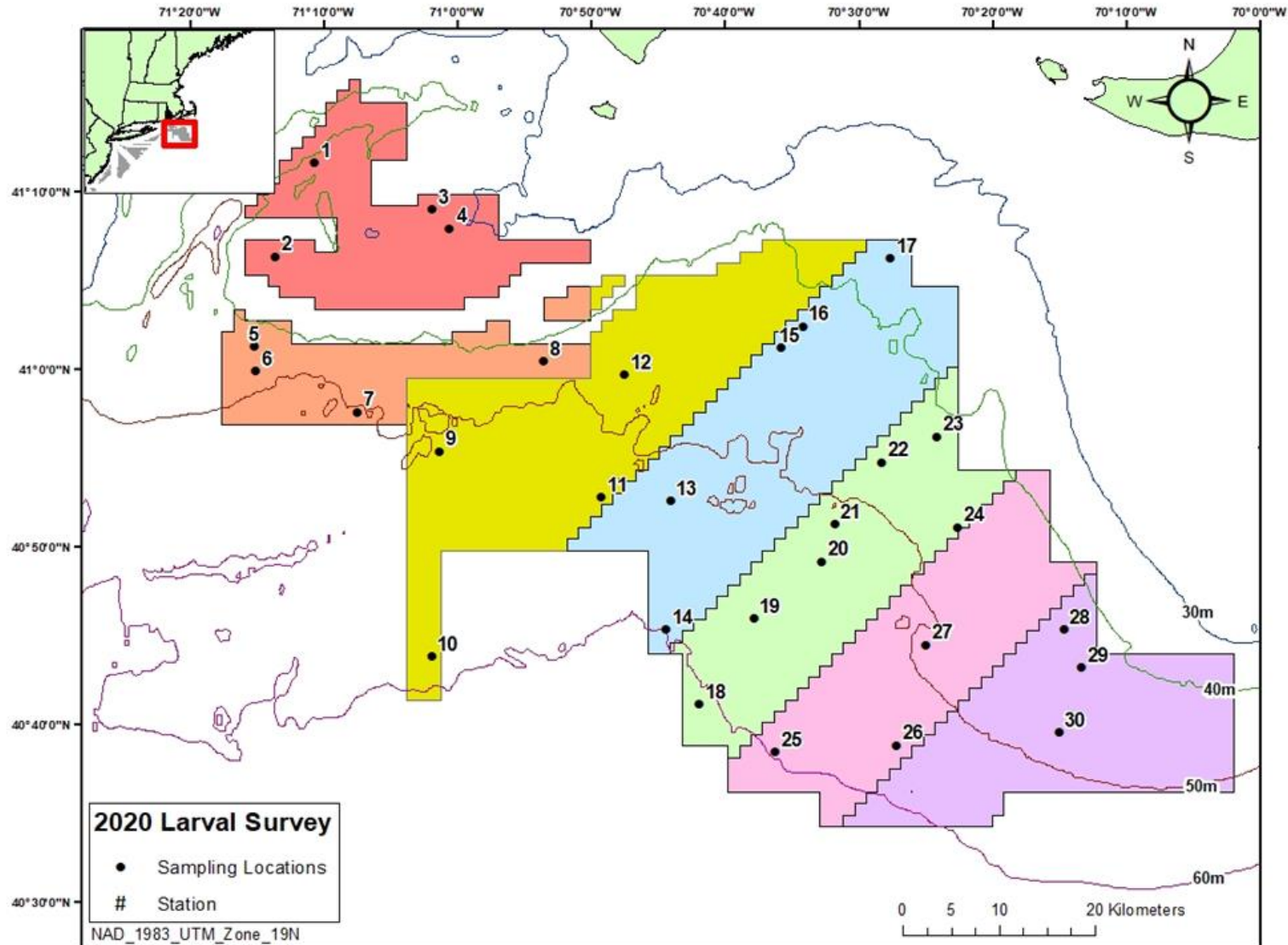
UMass Dartmouth

Net Surveys – Larval Lobster & Fish Neuston

Partners	Massachusetts Lobstermen's Association <i>Plus assorted charter vessel owners</i>
Team	Kevin Stokesbury, UMass Dartmouth (PI) Beth Casoni, MLA

	2020-Q2	Q3	Q4	2021-Q1	Q2
		07/31/20	10/31/20	01/31/21	04/30/21
<i>Procure Equipment:</i> 06/30/20					
<i>Sampling Trips:</i> 06/15 to 09/30/20					
<i>Sample Processing:</i> 12/31/20					
<i>Analysis:</i> 03/31/21					
<i>Draft Report:</i>					05/31/21
<i>Sponsor Comments:</i>					06/15/21
<i>Final Report:</i>					06/30/21

Sample Locations for Larval Lobster & Fish Neuston



INSPIRE Environmental

Std. Approaches for Benthic Mapping

Partners	NROC
Team	Marisa Guarinello, INSPIRE (PI) Emily Shumchenia, NROC

2020-Q2	Q3	Q4	2021-Q1	Q2	Q3	Q4	2022-Q1
<p><i>WG Mtg. 1:</i> 12/31/20</p> <p><i>Mapped gradient of habitats:</i> 04/30/21</p> <p><i>Interactive Data Products:</i> 07/31/21</p> <p><i>WG Mtg. 2:</i> 08/31/21</p> <p><i>Data Hosting and Delivery:</i> 08/31/21</p> <p><i>Analysis Mode:</i> 10/31/21</p> <p><i>WG Mtg. 3:</i> 12/31/21</p> <p><i>Draft Report:</i> 12/31/21</p> <p><i>Sponsor Comments:</i> 01/31/22</p> <p><i>Final Report:</i> 02/28/22</p>							

University of Rhode Island

Fishing Vessel Status using AIS

Partners	Rhode Island Dept. of Environmental Management
Team	Thomas Sproul, URI (PI) Julia Livermore, RIDEM <i>Ongoing engagement with NOAA, RODA, NYSERDA</i>

2020-Q2	Q3	Q4	2021-Q1	Q2	Q3	Q4	2022-Q1	Q2	Q3	Q4
		10/15/20	01/15/21	04/15/21	07/15/21	10/15/21	01/15/22	04/15/22	07/15/22	10/15/22
		Data Acquisition and Prep: 03/31/21								
		Outreach to Commercial Fishing: 03/31/21					Outreach to Commercial Fishing: 06/30/22			
				Model Development: 12/31/21						
							Data Analysis and Mapping: 06/30/22			
								Draft Report:	09/01/22	
									Sponsor Comments:	10/15/22
									Final Report:	11/30/22

Highlight = period of activity

New Bedford Port Authority

Comparative Analysis of Approaches to Reg.

Partners	Technical consultant TBD External working group TBD
Team	Barbara Stone, NBPA <i>Multiple collaborators TBD</i>

THANK YOU

Nils Bolgen

MassCEC

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