



VINEYARD WIND

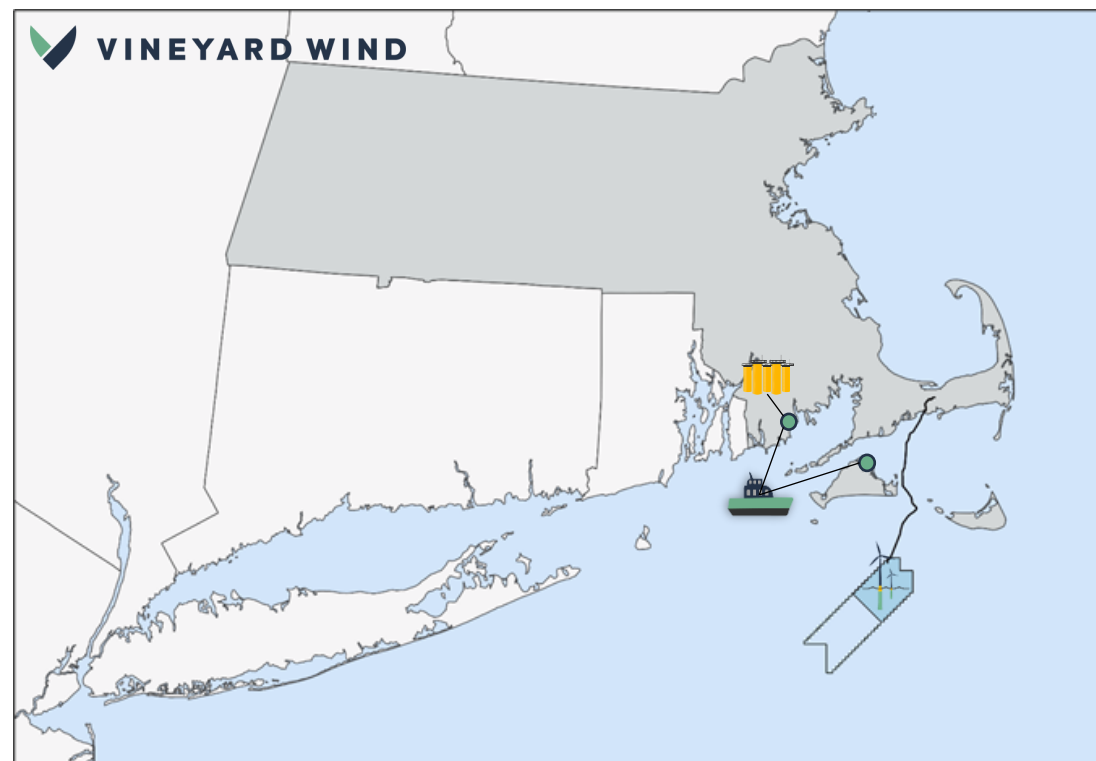
MA Fisheries Working Group

March 31, 2021

VINEYARD WIND I

Overview

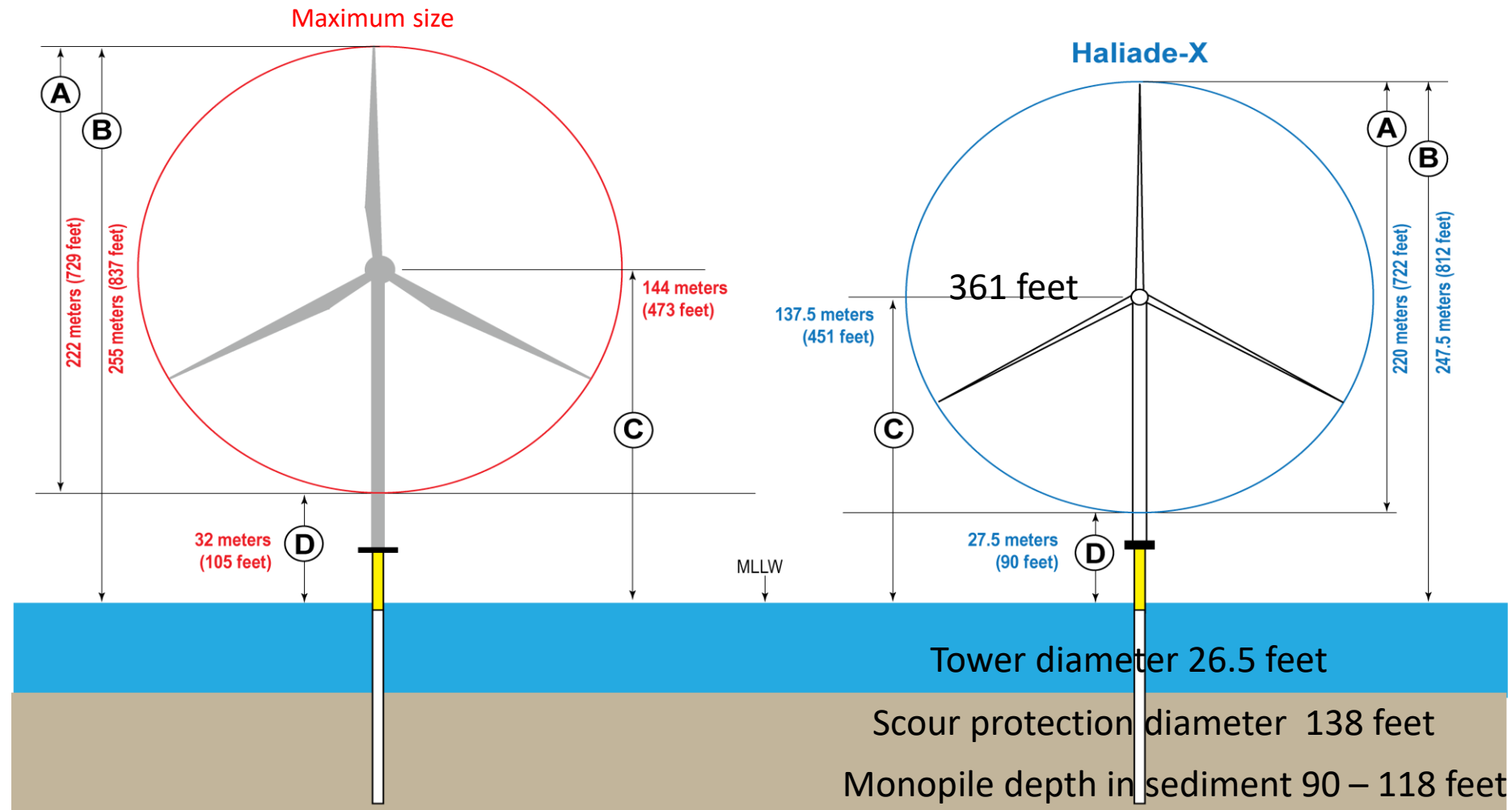
- **Capacity:** 800 MW
- **Turbine Model:** 13 MW GE Haliade-X
- **Federal Permitting**
 - Due Diligence: Haliade-X
 - January 2021, results of review determined no changes needed to COP
 - FEIS released - March 12, 2021
 - Record of Decision
- **State Permitting:** Completed
- **Point of Interconnection:** 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

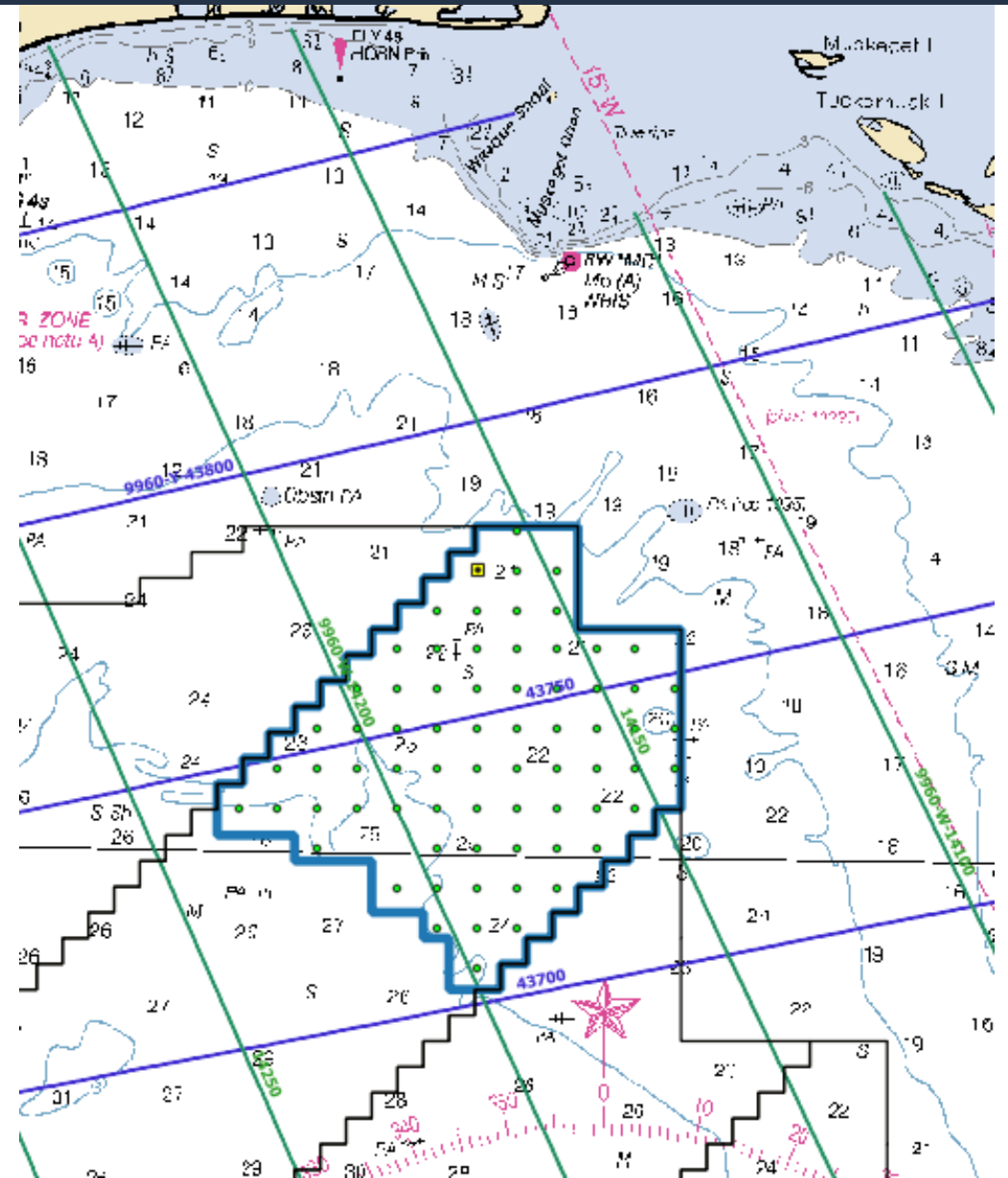
- Construction & Operation Plan (COP) includes a size range
- Compare Haliade-X to maximum size range in the COP



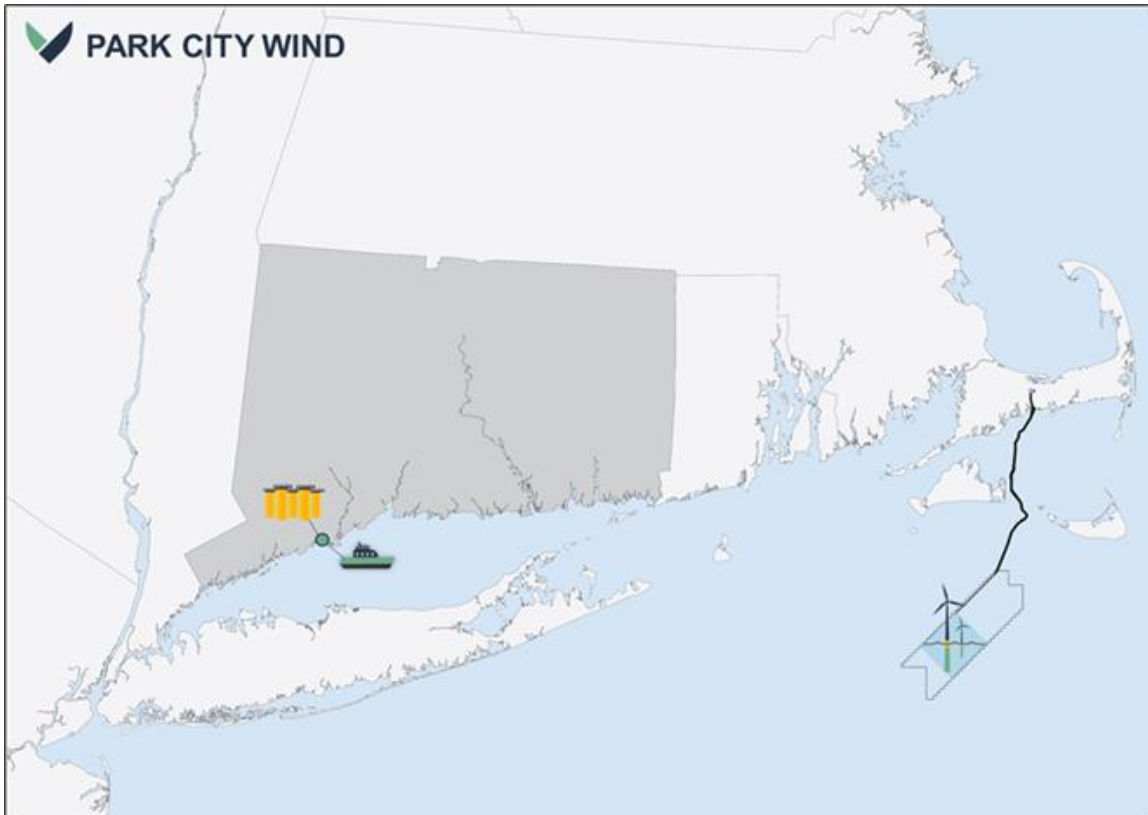
	PDE Minimum	PDE Maximum	COP	Haliade-X
A = Rotor Diameter	164 meters (538 feet)	222 meters (729 feet)	222 meters (729 feet)	220 meters (722 feet)
B = Total Blade Tip Height above MLLW	191 meters (627 feet)	255 meters (837 feet)	255 meters (837 feet)	247.5 meters (812 feet)
C = Hub Height above MLLW	109 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)

FISHERIES SURVEYS

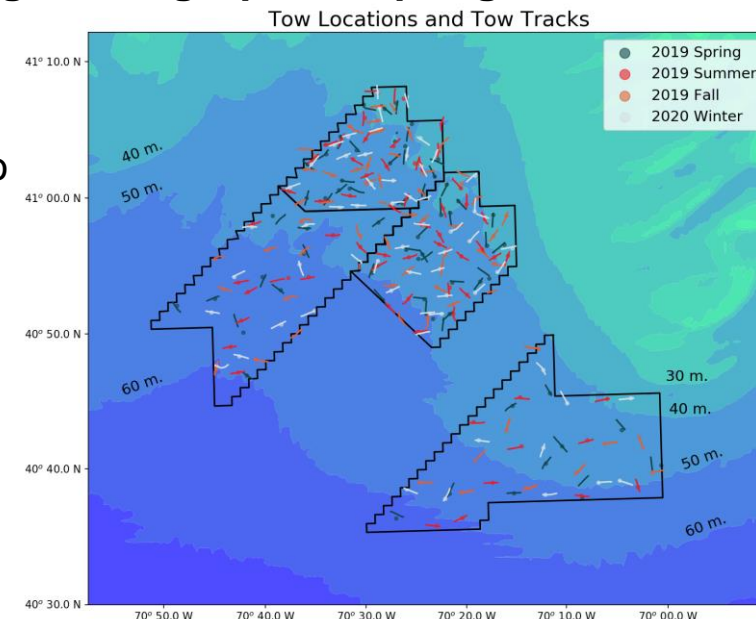
Fisheries Surveys Completed - Data available at: <https://www.vineyardwind.com/fisheries>

- 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



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)

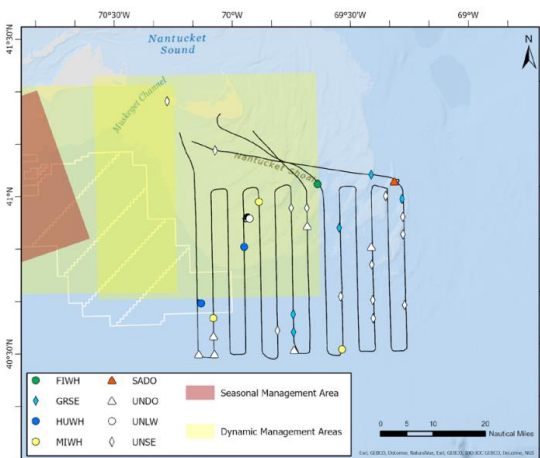
Regional Science

- 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

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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 * -- select state --

ZIP/Postal Code *

Country *

Email Address *

[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 cbank@vineyardwind.com](mailto:cbank@vineyardwind.com).

vineyardwind.com/offshore-wind-mariner-updates

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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:

<p>VINEYARD WIND OFFSHORE WIND MARINER UPDATE NO. 30 ENVIRONMENTAL SURVEYS</p> <p>July 31, 2020</p> <p>Environmental Surveys</p>	<p>VINEYARD WIND OFFSHORE WIND MARINER UPDATE NO. 29 GEOTECHNICAL & ENVIRONMENTAL SURVEYS</p> <p>July 30, 2020</p> <p>Geotechnical & Environmental Surveys</p>	<p>VINEYARD WIND OFFSHORE WIND MARINER UPDATE NO. 28 GEOTECHNICAL SURVEYS</p> <p>July 23, 2020</p> <p>Geotechnical Surveys</p>	<p>VINEYARD WIND OFFSHORE WIND MARINER UPDATE NO. 27 GEOPHYSICAL SURVEYS</p> <p>July 21, 2020</p> <p>Geophysical Surveys, Neutrack Sound and Magnet Channel</p>
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ARCHIVED UPDATES:

<p>VINEYARD WIND OFFSHORE WIND MARINER UPDATE NO. 24 GEOTECHNICAL SURVEYS</p>	<p>VINEYARD WIND OFFSHORE WIND MARINER UPDATE NO. 23 GEOTECHNICAL SURVEYS</p>	<p>VINEYARD WIND OFFSHORE WIND MARINER UPDATE NO. 22 GEOTECHNICAL SURVEYS</p>	<p>VINEYARD WIND OFFSHORE WIND MARINER UPDATE NO. 21 GEOTECHNICAL SURVEYS</p>
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vineyardwind.com/fisheries-science

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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

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

ONGOING SURVEYS

- [Lobster Ventless Trap, Black Sea Bass, Plankton Survey](#)
- [Bottom Trawl Survey](#)
- [Drop Camera Survey](#)