



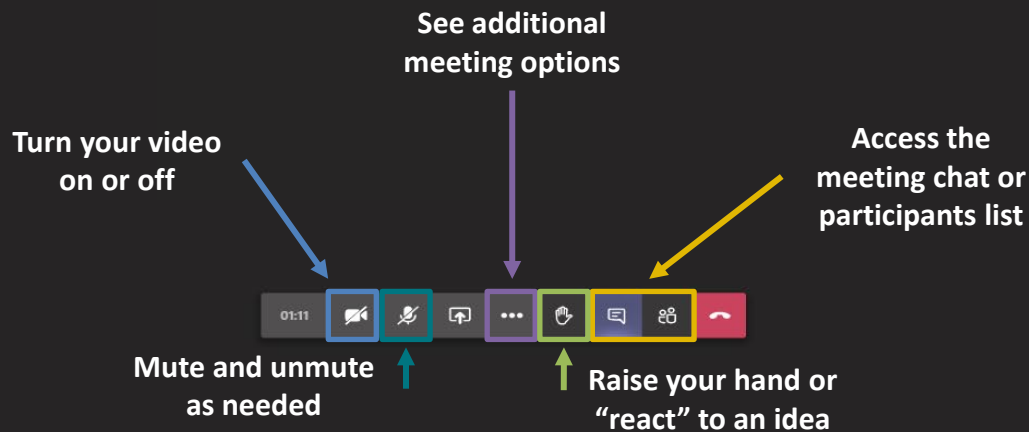
NYSERDA

NYS Fisheries Technical Working Group (TWG)

February 18, 2021

The bar at the top or bottom of your screen is your access to functionality in Teams.

Select the ellipsis (...) function for detailed options, a number to call in, device settings, and more.



Meeting chat

- Benjamin (Parker) Jones joined the meeting.
- Benjamin (Parker) Jones renamed the meeting to Test (do not accept).
- Ashley Arayas joined the meeting.

Meeting chat or participants list will appear in this side bar when selected

Type a new message

Mission Reminder

- The mission of the Fisheries Technical Working Group (Fisheries TWG or “F-TWG”) is to provide advice and guidance to help steer the State of New York’s efforts to advance offshore wind development in an environmentally responsible way and to protect and sustain the State’s and region’s fisheries and fishing communities
- For purposes of this framework, the term “fisheries” includes commercial and recreational fishing as generally used in fisheries management-related discussions.

FTWG Objectives

- Enhance communication and coordination
- Disseminate information
- Provide advice and input
- Support scientific research

FTWG Ground Rules

- Engage constructively with one another
- Acknowledge and articulate differences with respect and clarity
- Provide input and advice to the State of New York, including broadly shared advice where possible
- In lieu of agreement among F-TWG members, articulate the range of advice clearly and the reasons for differences

Agenda

2:45 **Welcome**

3:00 **New York State OSW Update**

3:15 **Research and Science Updates**

- *Fishermen's Knowledge Data Trust*
- *Fishing Access within Turbine Arrays*
- *Follow-up and Next Steps from Synthesis of the Science Workshop*

4:15 **Cabling Project**

4:35 **Other Updates**

- *NMFS Offshore Wind & Federal Surveys*
- *Compensation Background Research*

5:15 **Next Steps and Adjourn**

New York State OSW Updates

Updates – *NYSERDA*

- Update on late 2020 Solicitation
- OSW Opportunities for Experienced Mariners Report
- E-TWG associated updates
 - Follow Up and Next Steps from State of the Science Workshop on Cumulative Impacts
 - Status of the Regional Wildlife Science Entity

New York's Second Offshore Wind Solicitation

- > Launched July 2020
- > At least 1,000 MW and up to 2,500 MW of offshore wind
- > Included a **multi-port strategy** and requirement for offshore wind generators to partner with any of the 11 prequalified New York ports to stage, construct, or manufacture key components, or coordinate operations and maintenance activities
- > Bids received for four offshore wind projects and complementary port infrastructure investments



Evaluation Criteria:

70% Price

20% Economic Benefits

10% Viability

2020 OSW RFP - Environmental and Fisheries Requirements

- > Reaffirmed continued engagement of the E-TWG and F-TWG to incorporate necessary feedback in the decision-making process to ensure the environmentally responsible development.
- > Standardized Environmental and Fisheries Mitigation Plans include new components:
 - A narrative that describes the developer's approach and philosophy towards environmental and fisheries mitigation
 - A standardized version that highlights specific details on how such approaches and philosophies will be implemented.
 - New requirements to mitigate potential impacts to wildlife from noise, vessel strikes, and lighting.
- > New York was **first in the nation** to include a requirement of \$10,000 per MW for the winning bidder to support regional monitoring of wildlife and key commercial fish stocks to better understand and minimize the potential impacts generating nearly **\$25 million** split between both wildlife and fisheries regional monitoring

Awards Announced for Largest Renewable Energy Procurement in US History - 2,490 MW

Empire Wind 1 (816 MW)

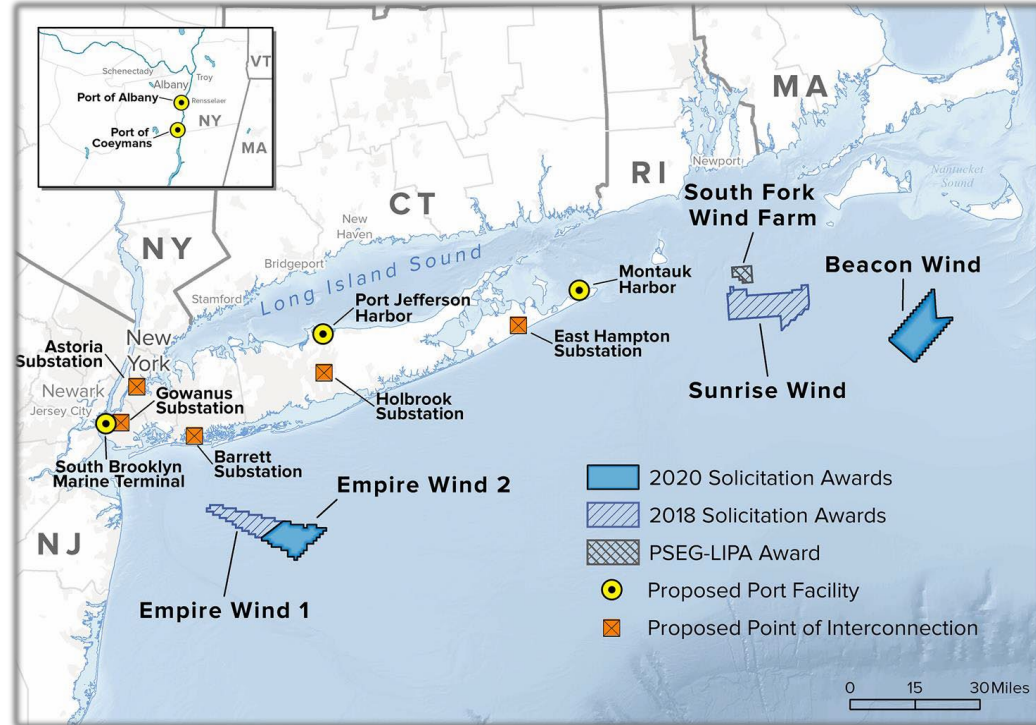
2021: Empire Wind 2 (1,260 MW)

South Fork Wind Farm (130 MW)

Sunrise Wind (880 MW)

2021: Beacon Wind (1,230 MW)

Total of ~ 4,300 megawatts
of OSW energy in active
development



5 Projects, 5 Ports

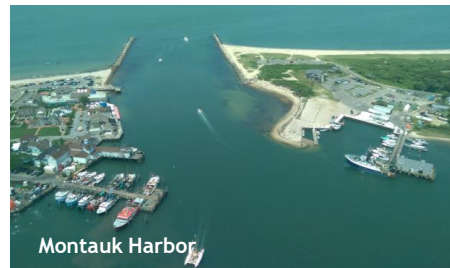
With this announcement,
New York State now has

**5 OFFSHORE
WIND PROJECTS**

in active development



- > Many NY port facilities have potential to support the offshore wind industry
- > New York now has 5 wind industry ports, more than any other state



Offshore Wind Training Institute

\$20 million Offshore Wind Training Institute (OWTI) launches with first solicitation

- > **\$3 million solicitation LIVE NOW** to support Disadvantaged Communities and/or Priority Populations, or promote the development of the OSW supply chain in NYS
- > Awards expected in summer 2021, and selected training institutions will aim to begin training workers later this year
- > The OWTI will educate 2,500 New York workers
- > The OWTI is administered by Stony Brook University and Farmingdale State College

See
NYSERDA
website:
PON
4595



New York Power Grid Study Offshore Wind

Now
Available

The New York State Department of Public Service has prepared an initial report of findings and recommendations, published 1/19/2021

DPS Matter Master: 20-00905/20-E-0197



Findings

- Through radial lines, 9,000 MW of offshore wind generation can be integrated without requiring major bulk transmission upgrades
- Interconnecting a maximum amount of OSW in the New York City area (6+ GW) would be advantageous
- Permitting complexities in the NY Harbor and Long Island Sound will require careful planning
- “Meshed” configuration of offshore transmission provides flexibility

[Grid Study Document](#)

Offshore Wind Job Opportunities for Mariners

At the advice and guidance of the State's Fisheries Technical Working Group (F-TWG), NYSERDA commissioned a study to:

- > **Understand the skills and qualifications held by the local maritime industry** and the skills required to work in offshore wind jobs to **determine the most applicable jobs to mariners**
- > Identify ways for experienced mariners to **complement their income** and forecast the number of opportunities available
- > Focus mainly on **supplemental part-time work** that would allow for the maritime industry to maintain their traditional means of making a living

[Final Report](#)
Now
Available



E-TWG Updates

- > Scientific Research Framework to Understand the Effects of Offshore Wind Energy Development on Birds and Bats in the Eastern United States, Feb 2021
- > Environmental Data Standardization and Sharing Supporting Data Transparency Requirements for Offshore Wind Energy Projects Supplying Power to New York State, March/April 2021
- > 2020 State of the Science Workshop on Offshore Wind and Wildlife held November 16-20, next workshop planned for 2022
- > Scheduled to meet virtually six times in 2021, summaries available on www.nyetwg.com

2020 State of the Science Workshop

- Plenary Sessions (Nov 16-20, 2020)
 - Focused on sharing knowledge on cumulative impacts to wildlife from offshore wind energy development
 - Interactive online platform for workshop activities
 - Over 430 attendees from 21 states and 20 countries
 - Thanks to all who participated, presented, and helped moderate sessions!

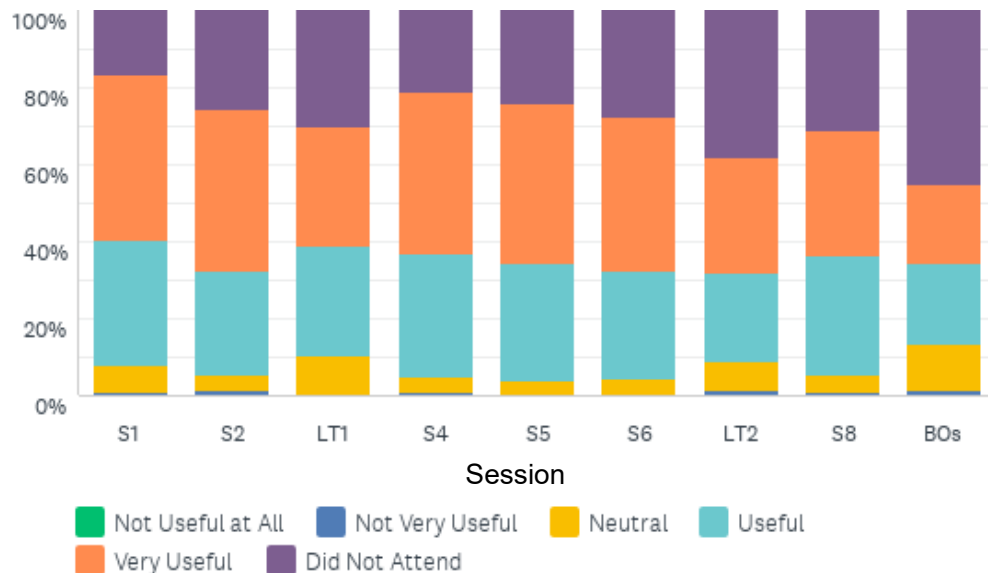


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2020 State of the Science Workshop

Post-Workshop Survey

- 276 responses
- 88% of respondents were “Very satisfied” or “Satisfied” with the workshop platform and logistics
- 76-94% of survey respondents who attended each session indicated that sessions were “Useful” or “Very useful”
- 90-94% satisfaction with plenary sessions



X-axis key: S1 = Session 1, S2= Session 2, etc.; LT1 = Lighting Talk Session 1, LT2 = Lighting Talk Session 2; BOs = Breakout Group Discussions.

2020 State of the Science Workshop

Efforts continue...

- Taxon-specific work groups are meeting throughout early 2021 to develop a list of research priorities for the next 3-5 years to improve our understanding of cumulative impacts
- Groups: Marine mammals, sea turtles, birds, bats, fishes and mobile invertebrates, benthos, and environmental change
- Culmination webinar in May 2021 to report back on efforts and synthesize across groups
- Final workshop proceedings released in summer 2021

RWSE Status Update

- Request For Qualifications (RFQL)
- Department of Energy Funding Opportunity Announcement (FOA)



REGIONAL
WILDLIFE SCIENCE
ENTITY FOR
ATLANTIC
OFFSHORE WIND

A Stakeholder Driven Vision

Coming Soon:

Learning from the Experts

- > Upcoming webinar series facilitated by NYSERDA's offshore wind team and **featuring outside experts** who will present on key offshore wind technologies, development practices, and research findings
- > To receive notices of upcoming webinars, **sign up for the offshore wind email list at offshorewind.ny.gov.**



NYSERDA

Updates on NYSERDA-Led Research

5 Contracted Studies

- > Wildlife Distribution Modeling in the New York Bight; Ecology and Environment
- > Multi-Scale Relationships Between Marine Predators and Forage Fish; Biodiversity Research Institute
- > Development of Monitoring Protocols for Nanotag Studies at Offshore Wind Farms; US Fish and Wildlife Service
- > Strategies and Tools to Address Commercial Fishing Access in Offshore Wind Farms; National Renewable Energy Laboratory (NREL)
- > Creation of a Fishermen's Data Trust for effective inclusion of fishermen's knowledge in OSW decision making; Responsible Offshore Development Alliance (RODA)



Questions?

Research and Science Updates

Research and Science Updates

- Status of various NYSERDA-funded fisheries research projects
 - Fishermen's Knowledge Data Trust – Responsible Offshore Development Alliance (*RODA*)
 - Fishing Access within Turbine Arrays – *National Renewable Energy Laboratory (NREL)*
- Follow Up and Next Steps from Synthesis of the Science Workshop
 - *Responsible Offshore Science Alliance (ROSA)*



Fisheries Knowledge Trust

NY F-TWG

February 18th, 2021



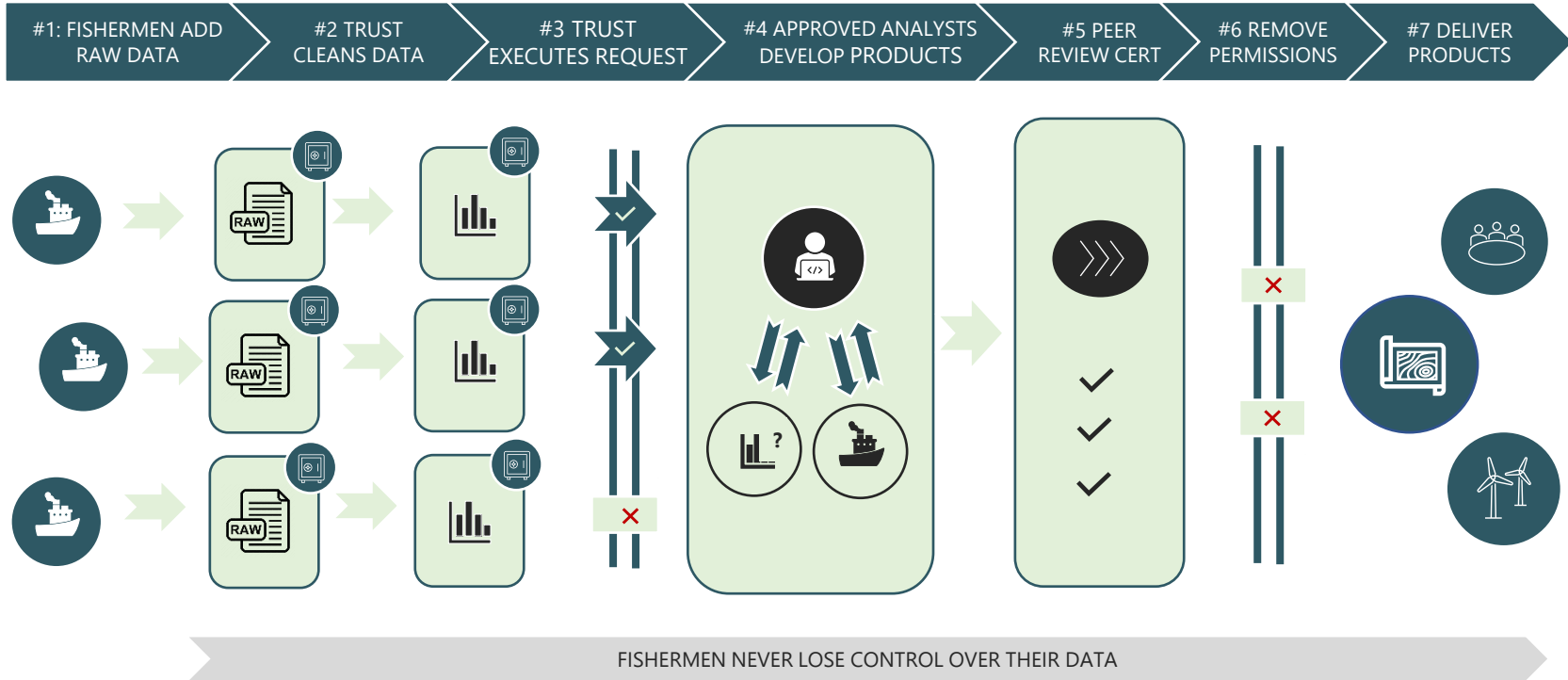
Where We Are Today

Trust is actively receiving data and has created robust governance and data processing/cleaning structures

- The goal of the Trust is to provide data infrastructure that enables the industry to develop trusted science products in a secure, cost-effective way
- In November 2019, the Trust received funding from NYSERDA to build that infrastructure and conduct two “pilot” studies
 - Currently implementing pilots with Atlantic herring and surfclam fleets
 - *In future, Trust will provide infrastructure – fleet & analysts will be responsible for developing products*
- Trust has built core infrastructure
 - Governance processes & documentations
 - Secure, data sharing platform
 - Data integration, cleaning processes & code
- Two pilots currently under way - w/ over 80 vessels
- Data requests from the government have delayed product development
 - Inconsistency in processing time and output formats
- We've developed a new process, working with the gov, to enable faster processing times
 - Standardized scripts
 - Explained project and partnered closely on process improvement (THANK YOU to wonderful NMFS data team!)
 - Enabled RODA to act as the "authorized agent" for the fishermen in requesting their data if desired
- We are aiming for our first draft product in March

How are products created in the Trust?

Data are processed, cleaned and readied for analyses by the Trust with your input. These data are then made available to specifically-named analysts and only with your approval



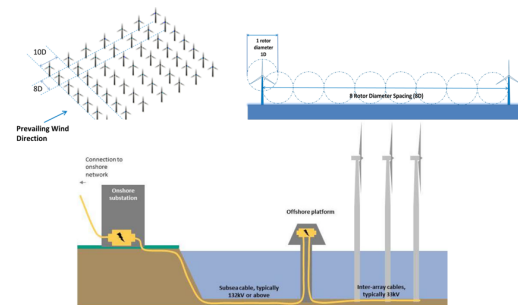


Collaborative Development of Strategies and Tools to Address Commercial Fishing Access in U.S. Offshore Wind Farms

Rebecca Green, NREL, Senior Project Leader
NYSERDA F-TWG Meeting
February 18th, 2021

Project Overview

- **Project Team:** NREL, RODA, Global Marine, PAC, NYSERDA
- **Timeline:** 2-year project (4/1/2020 - 3/31/2022).
- **Overall Goal:** Collaboratively develop technical strategies and tools, including new datasets and modeling, to minimize the disruption of commercial fishing within OSW arrays, while also ensuring economical energy generation and safe operation for the industry.
- **Approach:** Address how turbines, cables, and other structures can make it difficult to actively fish or navigate in the vicinity of a wind project from an operational perspective, including direct and indirect access restrictions due to physical obstructions, risk, and safety.
- **Scope considerations**
 - Location of NY Bight OSW projects
 - Commercial fisheries access
 - Scallop and clam fishing operations
 - Wind farm design, layout, and costs

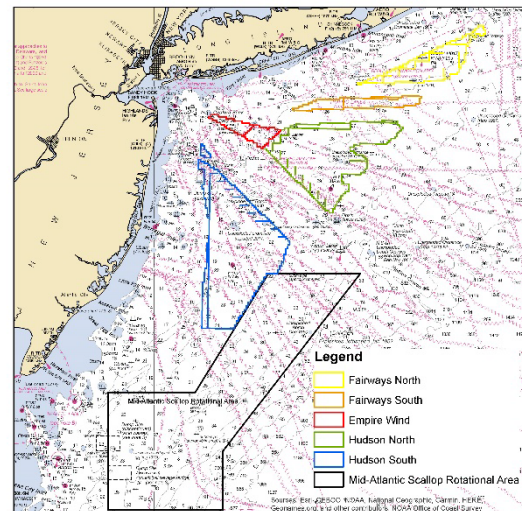


Offshore wind farm design considerations for fishing access include elements, such as turbine spacing, foundation design, anchoring, and cabling.

Task #1 - Information Gathering



- **Literature Review:** Inform spatial and operational restrictions for fishing vessels within offshore wind turbine arrays and associated mitigation practices.
 - **Topics:** Wind farm size/layout/spacing; Cable and scour protection; Economic impacts to fishing; Radar interference; Potential redistribution of species and fishing effort; Fishing vessel operations within potentially restricted waters; Insurance policies; Icing; Search and Rescue
 - ~135 literature resources compiled and being synthesized
- **Interviews:** Of fishery participants to identify anticipated risks related to offshore wind arrays and related data needs
 - RODA and NEFSC are leading semi-structured interviews
 - Focus on Atlantic sea scallop and surfclam/ocean quahog fisheries
 - Surveys are ongoing and will be completed in the next ~3 weeks
- **Subtasks:** (a) Literature search, (b) Interviews, (c) Data assessment/gap analysis, (d) Development of preliminary measures that minimize access conflicts.
 - Task Report partially drafted.

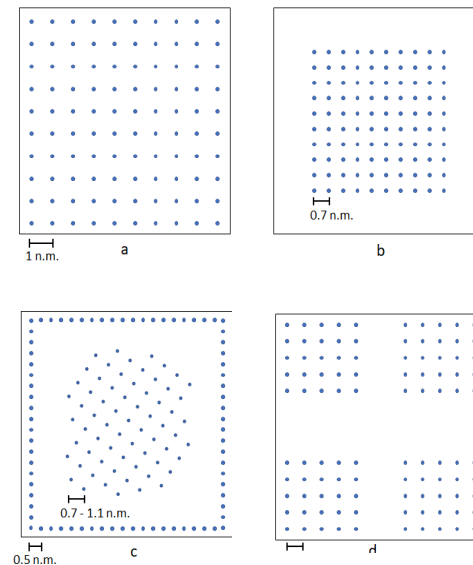


Tasks #2-4 and Timeline



- **Task #2 – Scenario Development and Analysis**
 - Develop and analyze a realistic set of OSW project scenarios to better understand how to minimize access constriction to scallop and clam fishing industry and reduce risk to vessels and gear.
 - NREL has initiated coupling of FLORIS and ORBIT models.
- **Task #3 – Validation of Approach/Pilot Study**
 - Pilot project in NY Bight shall provide a small-scale preliminary study to evaluate the applicability and feasibility of select mitigation measures.
 - Global Marine lead development of a set of site selection criteria.
- **Task #4 – Information Sharing and Dissemination**
 - Information Transfer and Dissemination Plan includes: Development of an information hub; New layers for a decision support tool; Engagement with the F-TWG, NYSEDA and others; and Final Presentation/Report.
 - Brainstorming platform options and layers/graphics for dissemination.

Hypothetical Wind Array Layouts



Questions?

Thank you!

Contact: Rebecca.Green@nrel.gov





Offshore Wind and Fisheries Interactions: Synthesis of the Science



Project leads: RODA/NMFS/BOEM

- Planning began with signing of MoU in March 2019
- Facilitation and workshop organization by Consensus Building Institute
- Planning committee includes RODA, BOEM, GARFO, NEFSC, NMFS HQ, ROSA, and Shell

Two-Part Effort:

1. Workshop (Oct. 14-16 and 30)
2. Report (completion in late spring): Section leads from project team coordinating groups of authors, reviewers, and fishing industry expertise

Goals:

1. To describe the current state of science, existing research and monitoring programs, data gaps, and solicit input into priority research questions
2. Model best practices to successfully engage the fishing industry in complex scientific processes and setting research and monitoring agendas
3. Advance the Responsible Offshore Science Alliance's (ROSA) regional science efforts

[MORE INFO: www.rodafisheries.org/synthesis-of-the-science](http://www.rodafisheries.org/synthesis-of-the-science)



General Topics

1. Ecosystem Effects

- Benthic habitat modification
- Physical habitat modification
- Physical oceanographic process modification
- Ecosystem synthesis – Biological impacts

2. Fisheries Socio-Economics

- Distribution of effort
- Navigation
- Safety
- Impacts to coastal communities (secondary/tertiary impacts)
- Gear loss
- Ports/infrastructure
- Opportunity costs

3. Fisheries Management and Data Collection

- Fishery Dependent Data Collection
- Fishery Independent Data Collection
- Impacts on Management

4. Methods and Approaches

- Cumulative impacts
- Integrated ecosystem assessment
- Innovative monitoring approaches and technologies
- Regional science planning



Next Steps & Role of ROSA



- ROSA formed in 2019, organizational buildout in 2020
- Mission and goals:
 - To provide for and advance **regional research** and **monitoring** of **fisheries** and **offshore wind** interactions through **collaboration** and **cooperation**
- Outcomes of Synthesis of the Science white paper and other regional efforts, including the work groups formed after they NYSERDA state of the science meeting, will help identify priority research in 2021
- ROSA will also work with our Advisory Council to identify near-term needs

ROSA Work In Progress



ROSA Advisory Council

- Meetings held September 28 and November 23, 2020
- Next meeting **9:30am-12:30pm on March 5, 2021**
 - Topics include role of ROSA Council and Research Advisors in “issue spotting” and technical problem solving; how to address baseline data needs asap
- Open to the public- **register at rosascience.org**

ROSA Monitoring Guidance

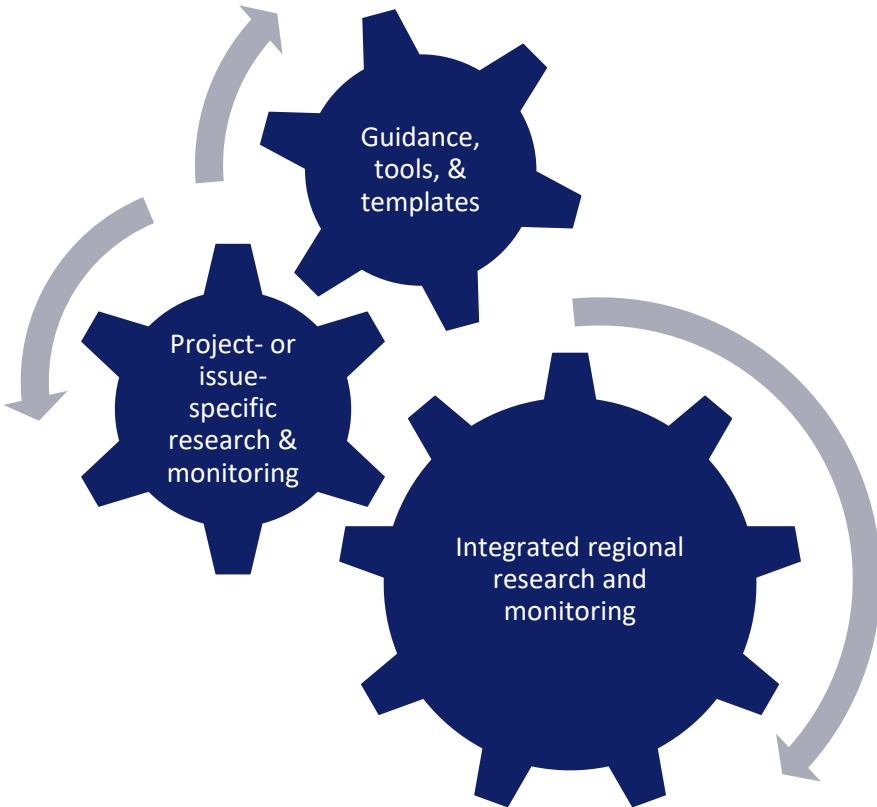
- **ROSA Interim Fisheries Monitoring Working Group** developed draft monitoring guidance for offshore wind development and fisheries
- Working group includes state and federal government fisheries managers, fisheries scientists, fishing industry representatives, and offshore wind developers
- Public comment period Oct. 29-Dec. 1, 2020
- **Updated draft anticipated Feb/March 2021**

Monitoring Guidance



- Builds upon existing **BOEM guidance** and **member expertise** to highlight **best practices** and elements that could help **improve future monitoring plan submissions**
- **Over 200** comments received from various agencies and groups
- Had follow up calls with **state and federal agencies** to ensure document **aligns with existing regulatory standards**
- Review of comments led to **reorganization of document** to create a more **comprehensive framework**
- Goal: updated draft **February/March 2021**
- Contact working group co-chairs with questions
 - Lyndie Hice-Dunton, ROSA
 - Doug Christel, NOAA Fisheries Greater Atlantic Regional Fisheries Office

Types of Research ROSA is working to address



- **Guidance, tools, & templates**
 - Monitoring plan guidance & templates
 - Data management & sharing
- **Project- or issue-specific research & monitoring**
 - Baseline ecological data & near-term needs
 - Improved coordination and communication across projects
- **Integrated regional research and monitoring**
 - Outcomes of Synthesis of the Science white paper and workshop, as well as other regional efforts including NYSERDA State of the Science work groups, will help identify priority research in Spring 2021
 - Longer term goal of regional research and monitoring framework

Cabling Project Updates

Submarine Cabling Overview Document - Status



- Document development, June – Nov 2020
 - Incorporated F-TWG comments on review of TOC during June F-TWG meeting, and post-meeting comments
 - Draft issued on Nov 13, 2020
- “Cable Burial 101” Presentations to various Stakeholder Groups
 - RODA Joint Industry Task Force
 - Interstate Fisheries Agency Meeting
- F-TWG reviews through Jan 29
- Final Report delivered to NYSED on Feb 15
- Will distribute Final Report once approved by NYSED team
- Potential for a NYSED-sponsored “Cable Burial 101” Presentation, similar to what has already been shared

Submarine Cabling Overview Document - Feedback

- Received 185 comments, facilitated through the F-TWG
- 18 Individual Reviewers, represented by 15 separate agencies or groups
 - Agencies
 - NYSERDA
 - NYSDEC
 - NYSDOS
 - NJDEP
 - BOEM
 - DOE
 - NOAA Fisheries
 - Developers / Industry / Consultants
 - Vineyard Wind
 - Ørsted
 - Avangrid Renewables
 - EnBW
 - Boskalis
 - ESS
 - Global Marine Group
 - Fishermen/Fishery Groups
 - Garden State Seafood Association
 - One individual fisherman



Submarine Cabling Overview Document – Utility & Applications

- The Document ***DOES***

- Provide a background on the technical aspects & constraints of cable burial
- Summarize the risks,
 - *to* cables, and
 - *from* cables
- Provide a high-level overview of potential impacts to be considered for all three phases of a project:
 - Construction
 - Operations
 - Decommissioning
- Summarize potential mitigation measures

- The Document ***DOES NOT***

- Establish a recommended minimum/optimal cable burial depth, or other regulatory determinations
- Replace the need for project-specific analysis of cable burial risks
- Make recommendations (or pass judgement) on routing, installation methods, burial tools, cable protection, or other project-specific components

Please return from break by 4:10 pm

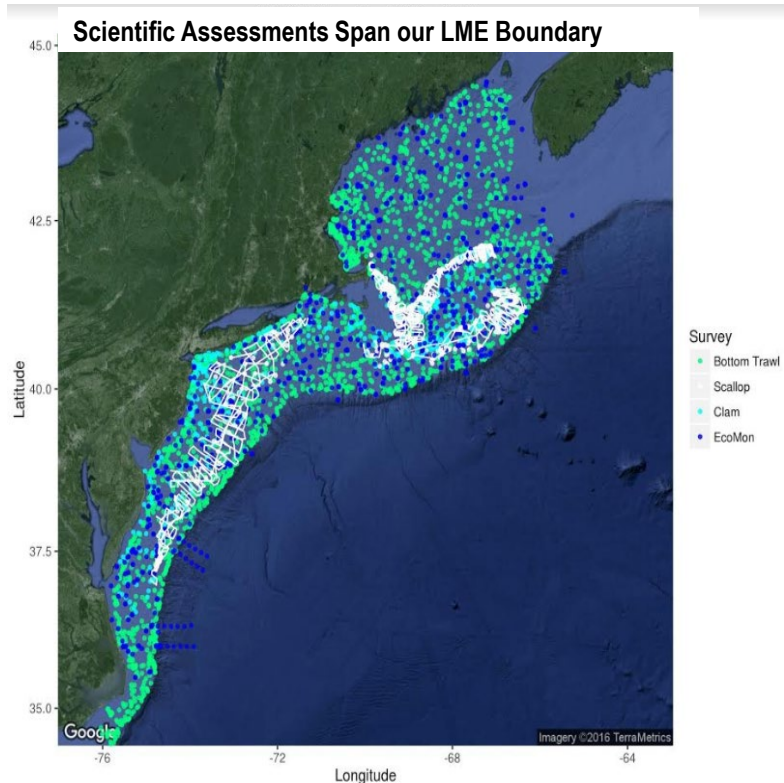
Other Updates

Updates

- Brief Update from BOEM – *BOEM*
- Empire 1 and Sunrise Updates – *Developers*
- National Marine Fisheries Service (NMFS) Trawl Survey work to re-orient survey to post-construction – *NMFS*
- Compensation Background Research to Learn From – *Tetra Tech*
- Other

Offshore Wind & Federal Surveys Update

Phil Politis-Multi-Species Bottom Trawl Survey Lead; NOAA Northeast Fisheries Science Center
Andy Lipsky, Fisheries & Wind Lead, NOAA Northeast Fisheries Science Center



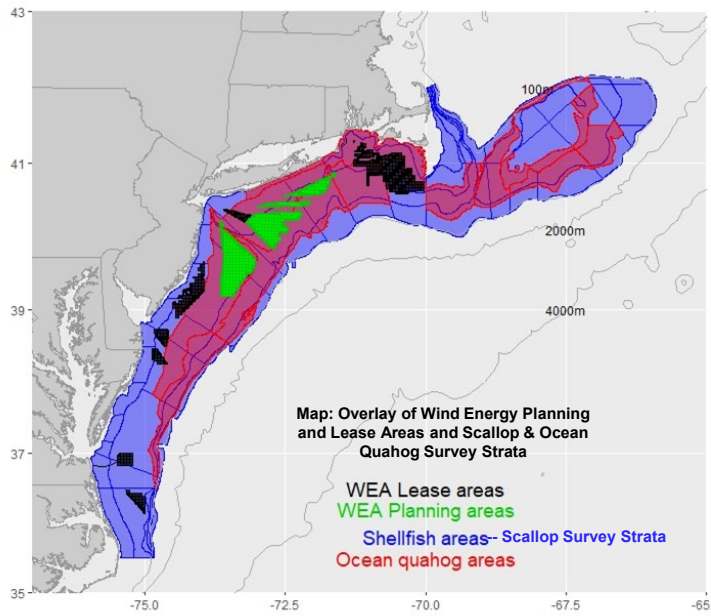
Goals of Fishery-Independent Data Monitoring

- Use standardized time series data collection to monitor abundance, distribution and demographics of stock over its range
- Maintain quality of information flow for stock and ecosystem assessments; and fishery management

Implications of Wind Energy Areas:

- Vessel/aircraft operations and access to areas for sampling under status quo vessel/gear: **No**
- Continuity of historical stratified random statistical design: **No**
- Assumptions on Species distribution, abundance, and vital rates within and outside wind energy areas: **No**

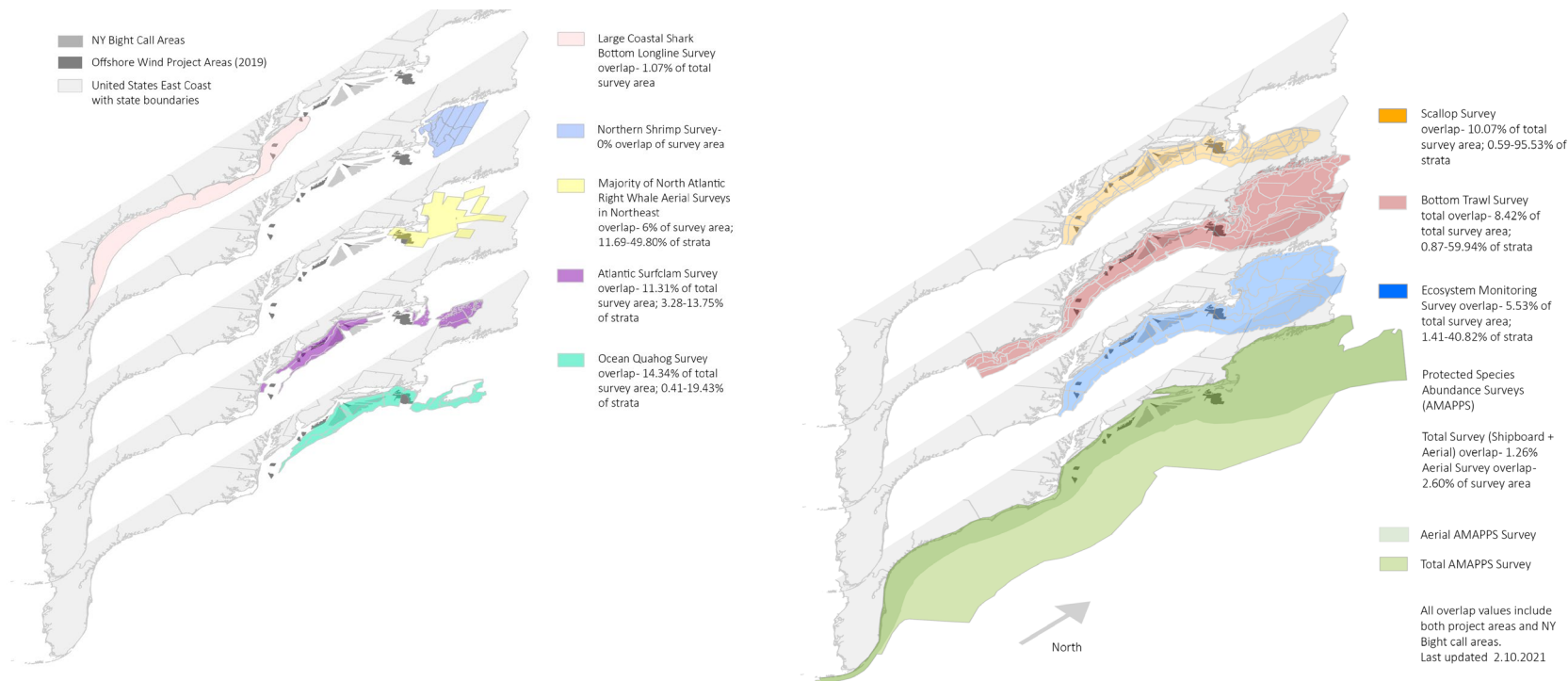
Offshore Wind & Fisheries Independent Surveys



394 Years of Combined Survey Effort Support Fisheries that contribute \$14 Billion Annually to U.S. GDP

Survey	Year Started	Survey Design	Major Applications
Autumn Bottom Trawl Survey	1963	Random Stratified Design - North Carolina to Nova Scotia (bottom trawl)	abundance; length, age, sex, weight, diet, maturity samples, distribution, EcoMon
Spring Bottom Trawl Survey	1968	Random Stratified Design - North Carolina to Nova Scotia (bottom trawl)	abundance; length, age, sex, weight, diet, maturity samples, distribution, components of Ecosystem Monitoring survey
Scallop Survey	1979	Random Stratified Design (dredge); line transect (HabCam)	biomass, abundance, distribution, size and sex of sea scallops and other benthic fauna
Atlantic Surfclam and Ocean Quahog Surveys	1980	Random Stratified Design (hydraulic dredge)	biomass, abundance, distribution, size and sex of Atlantic surfclam and ocean quahog
Northern Shrimp Survey	1983	Random Stratified Design (commercial shrimp trawl)	biomass, abundance, length
Gulf of Maine Cooperative Bottom Longline Survey	2014	Randomly Stratified Design (bottom longline)	abundance, biomass, length, age, sex, weight, maturity samples, distribution, habitat data
Ecosystem Monitoring Survey	1977	Random Stratified Design (linked to Trawl Survey Design); fixed stations embedded in design (plankton and oceanographic sampling)	Phyto/nkton, zooplankton, ichthyoplankton, carbonate chemistry, nutrients, marine mammals, sea birds
North Atlantic Right Whale Aerial Surveys	1998	Aerial line transects	Right Whale population estimates; dynamic area management
Marine mammal and sea turtle ship-based and aerial surveys	1991	Line transects for ship and aerial surveys. biological and physical oceanography sampling	Abundance and spatial distribution of marine mammals, sea turtles, and sea birds
Large Coastal Shark Bottom Long-line Survey	1986	Fixed station design in US continental shelf waters from FL to DE with stations ~ 30 nm apart	Abund., distribution, migrations (tagging), and bio-sampling for assessment, EFH designations, and life history studies
Coop. Atlantic States Shark Pupping and Nursery Longline/Gillnet Survey	1998	Random stratified and fixed station (longline and gillnet) surveys in estuarine and nearshore waters from Florida to Delaware	Abundance, distribution, migrations (tagging), and bio-sampling for assessment, EFH, and life history studies

NMFS-Core Surveys in Southern New England & Mid-Atlantic



Does not include Gulf of Maine Cooperative Bottom Long-line Survey Line Survey,
Apex Predators Inshore COASTSPAN Survey

Updates on Implementing a Federal Survey Mitigation Program- Included in South Fork DEIS

1. **Evaluate survey designs:** Evaluate and quantify effects and impacts of proposed project-related wind development activities on scientific survey operations and on provision of scientific advice to management.
2. **Identify and develop new survey approaches:** Evaluate or develop appropriate statistical designs, sampling protocols, and methods, while determining if scientific data quality standards for the provision of management advice are maintained.
3. **Calibrate new survey approaches:** Design and carry out necessary calibrations and required monitoring standardization to ensure continuity, interoperability, precision, and accuracy of data collections.
4. **Develop interim provisional survey indices:** Develop interim indices from existing data sets to partially bridge the gap in data quality and availability between pre-construction, and operational periods while new approaches are being identified, tested or calibrated.
5. **Wind energy monitoring to fill regional scientific survey data needs:** Apply new statistical designs and carryout sampling methods to effectively mitigate survey impacts due to offshore wind activities from Vineyard Wind operations for the 30 year operational life-span of the project.
6. **Develop and communicate new regional data systems:** New data collections will require new data collection, analysis, management, dissemination and reporting systems. Changes to surveys and new approaches will require substantial collaboration with fishery management, fishing industry, scientific institutions and other partners.



Current Status of Efforts

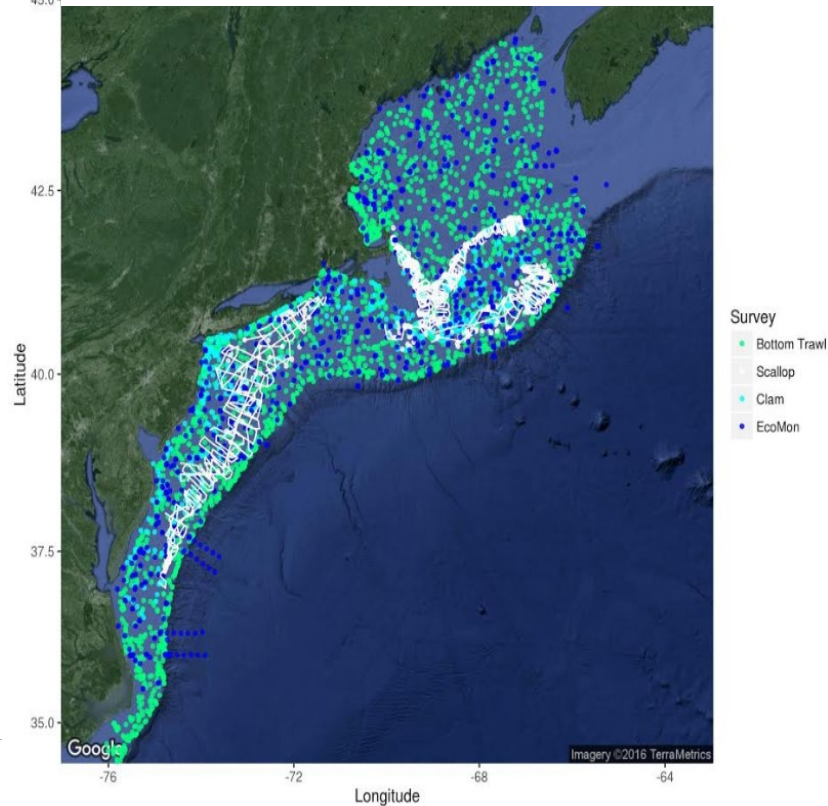
- NEFSC is in the planning phase
- Inter-agency agreement with BOEM
 - Develop a strategy to mitigate wind energy areas impact on NEFSC Multispecies Bottom Trawl Survey
 - Soliciting contractor support
 - Planning for 2 stakeholder workshops in 2021 to develop modeling framework to evaluate survey impacts and alternative methods through simulation
- Investigating options for supplemental bottom trawl survey efforts on smaller vessels capable of operating inside wind energy areas

Offshore Wind & Federal Surveys Update

Phil Politis-Multi-Species Bottom Trawl Survey Lead; NOAA Northeast Fisheries Science Center
Andy Lipsky, Fisheries & Wind Lead, NOAA Northeast Fisheries Science Center



Scientific Assessments Span our LME Boundary



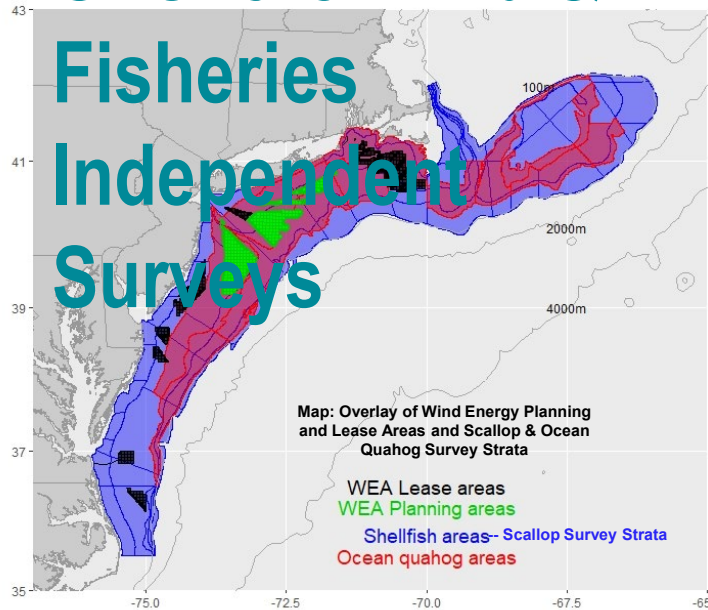
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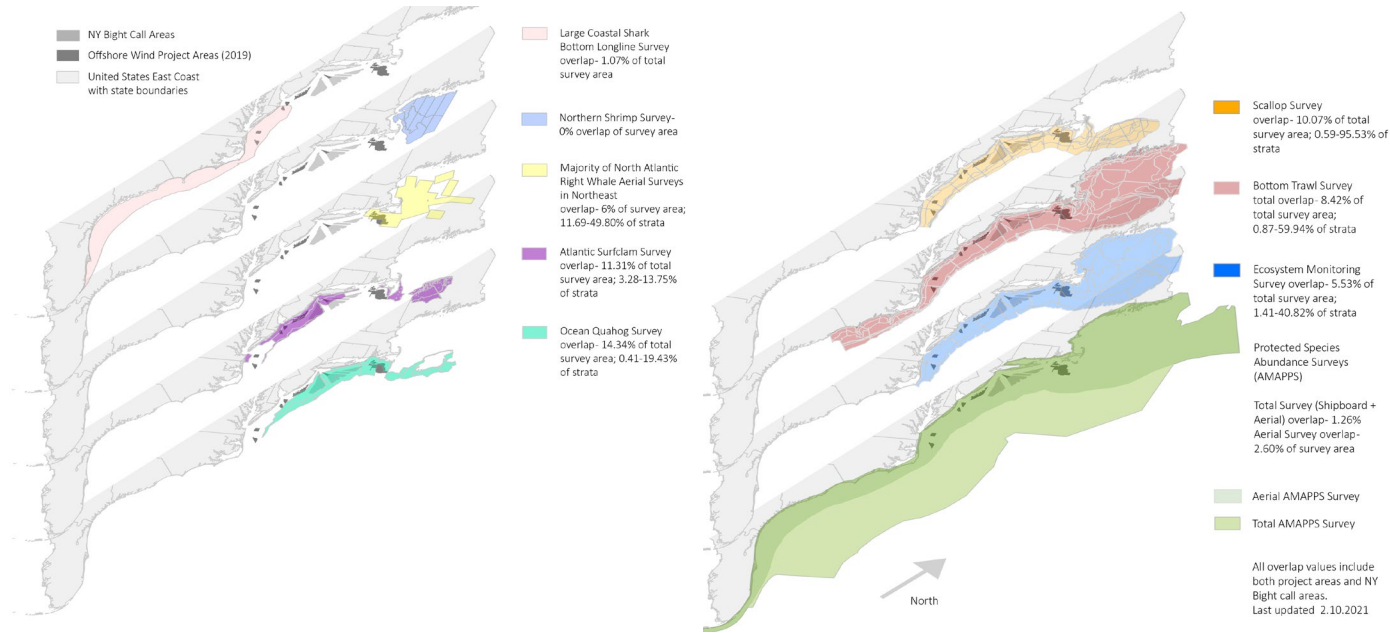
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Northern Shrimp Survey	1983	Random Stratified Design (commercial shrimp trawl)	biomass, abundance, length
Gulf of Maine Cooperative Bottom Longline Survey	2014	Randomly Stratified Design (bottom longline)	abundance, biomass, length, age, sex, weight, maturity samples, distribution, habitat data
Ecosystem Monitoring Survey	1977	Random Stratified Design (linked to Trawl Survey Design); fixed stations embedded in design (plankton and oceanographic sampling)	Phyto/nkton, zooplankton, ichthyoplankton, carbonate chemistry, nutrients, marine mammals, sea birds
North Atlantic Right Whale Aerial Surveys	1998	Aerial line transects	Right Whale population estimates; dynamic area management
Marine mammal and sea turtle ship-based and aerial surveys	1991	Line transects for ship and aerial surveys. biological and physical oceanography sampling	Abundance and spatial distribution of marine mammals, sea turtles, and sea birds
Large Coastal Shark Bottom Long-line Survey	1986	Fixed station design in US continental shelf waters from FI to DE with stations ~ 30 nm apart	Abund., distribution, migrations (tagging), and bio-sampling for assessment, EFH designations, and life history studies
Coop. Atlantic States Shark Pupping and Nursery	1998	Random stratified and fixed station (longline and gillnet) surveys in estuarine	Abundance, distribution, migrations (tagging), and bio-sampling for

NMFS-Core Surveys in Southern New England & Mid-Atlantic



Does not include Gulf of Maine Cooperative Bottom Long-line Survey Line Survey,
Apex Predators Inshore COASTSPAN Survey

Updates on Implementing a Federal Survey Mitigation Program- Included in South Fork DEIS

1. **Evaluate survey designs:** Evaluate and quantify effects and impacts of proposed project-related wind development activities on scientific survey operations and on provision of scientific advice to management.
2. **Identify and develop new survey approaches:** Evaluate or develop appropriate statistical designs, sampling protocols, and methods, while determining if scientific data quality standards for the provision of management advice are maintained.
3. **Calibrate new survey approaches:** Design and carry out necessary calibrations and required monitoring standardization to ensure continuity, interoperability, precision, and accuracy of data collections.
4. **Develop interim provisional survey indices:** Develop interim indices from existing data sets to partially bridge the gap in data quality and availability between pre-construction, and operational periods while new approaches are being identified, tested or calibrated.
5. **Wind energy monitoring to fill regional scientific survey data needs:** Apply new statistical designs and carryout sampling methods to effectively mitigate survey impacts due to offshore wind activities from offshore wind operations for the 30 year operational life-span of the project.
6. **Develop and communicate new regional data systems:** New data collections will require new data collection, analysis, management, dissemination and reporting systems. Changes to surveys and new approaches will require substantial collaboration with fishery management, fishing industry, scientific institutions and other partners.

Current Status of Efforts

- NEFSC is in the planning phase
- Inter-agency agreement with BOEM
 - Develop a strategy to mitigate wind energy areas impact on NEFSC Multispecies Bottom Trawl Survey
 - Soliciting contractor support
 - Planning for 2 stakeholder workshops in 2021 to develop modeling framework to evaluate survey impacts and alternative methods through simulation
- Investigating options for supplemental bottom trawl survey efforts on smaller vessels capable of operating inside wind energy areas

Fisheries Compensation Overview Document - Status

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- Draft Report development, Oct 2020–Feb 2021
 - Initial outline developed by NYSERDA
 - Initial Draft Report submitted for NYSERDA review on Jan 3, 2021
 - Incorporated comments/edits into revised Draft Report, submitted for NYSERDA review on Feb 15, 2021
- Will distribute Draft Report for F-TWG review, to solicit feedback on the topic, once approved by NYSERDA team

Fisheries Compensation Overview Document - Considerations

- No federal or state requirement for compensation – this is a topic currently handled on a project-specific basis
- Examples of implementation from the offshore wind industry
- Examples of implementation through existing regulatory mechanisms:
 - Fishermen's Contingency Fund (offshore oil & gas)
 - Indirect (habitat-based) compensatory mitigation/restoration
 - Federal Disaster Programs
- Common Themes:
 - Eligibility – how would it be determined?
 - Valuation – how would it be calculated?
 - Administration – who would be responsible?

Fisheries Compensation Overview Document – Utility & Applications

- The Document ***DOES***

- Provide a background of existing fisheries compensation programs
 - Europe
 - U.S.
 - Other maritime industries
- Intend to foster communication
- Summarize what others have considered
- Provide examples of what is already in-place

- The Document ***DOES NOT***

- Establish/recommend a compensation framework or criteria
- Establish a valuation of potential fisheries compensation
- Make recommendations (or pass judgement) on if/how fisheries compensation should be implemented

Next Steps and Adjourn

- Spring/Early Summer Meeting
- Future Agenda Items