Public Fisheries Mitigation Plan

Fisheries Mitigation Plan for

Sunrise Wind 2

Version 1.0

Prepared pursuant to [contract number, date (TBD)]

with

New York State Energy Research and Development Authority

Albany, NY

Prepared by

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Sunrise Wind | Powered by Ørsted & Eversource

October 20, 2020

Record of Revision		
Revision Date	**Description of changes**	**Revision on pages**
[date]	[Original issue]	[page(s)]

Communication Officers, Contact Information, Links		
Name/Title	**Role**	**Contact Information**
[redacted]	[redacted]	[redacted]

Links to Project information:

Project website: https://us.orsted.com/Wind-Projects

Fisheries website: https://us.orsted.com/Mariners

Table of Contents

1. Fisheries Mitigation Plan Summary

1.1. Overall philosophy and principles

This section should describe the overall philosophy and principles the developer will follow to avoid, minimize, restore, and off-set potential fisheries impacts.

[redacted]

1.2. Overall approach to incorporating data and stakeholder feedback

This section should describe how the developer will use research, data, and stakeholder feedback to update the FMP and support decision-making throughout the life cycle of the project (pre-construction, surveys, site design, construction, operations, and decommissioning).

- The developer shall seek consultation and coordinate with relevant stakeholders.
- The developer shall review existing research and data and seek input from stakeholders regarding data gaps to inform decisions made throughout the Project life cycle.
- The developer shall review and seek input from stakeholders on proposed and conducted survey rationales and methodologies as well as design, construction and operation, and decommissioning plans for the Project.
- To the extent that the timeline allows, pre- and post-construction monitoring shall be designed to improve the understanding of impacts of offshore wind energy development and operations on fisheries.

[redacted]

[redacted]

1.3. Existing guidance and best practices that will be followed

This section should present a list of existing guidance documents, publications, tools, and/or plans that will be followed to support the FMP. Include links, if available, for all references.

[redacted]

2. Communications and Collaboration Approach[1]

2.2 Overview and communication plan objectives

This section should provide an overview of the communication plan and objectives and its importance in fisheries mitigation.

- The developer shall seek methods and processes to allow for a two-way flow of information between key stakeholders and developers, highlighting how feedback informs their decision making.
- The developer shall provide updates to the fishing industry stakeholders in an appropriate manner that is easily accessed and widely distributed.

[redacted]

2.3 Communication officers/positions, responsibilities, and contact information

This section should provide a list of communication officers, their role, and name and contact information. The list should provide stakeholders with an understanding of who should be called for a particular issue or question. It should also include links to the project website so readers know where to find additional information.

Name/Title	Role/Responsibilities	Contact Information
[redacted]		

[1] The NYSERDA Standardized template skips Section 2.1 This section is numbered to match the NYSERDA template.

Project website: https://us.orsted.com/Wind-projects

Fisheries website: https://us.orsted.com/Mariners

2.4 Identification of fishing industry stakeholders

This section should describe the process by which stakeholders relevant to fisheries and the fishing industry will be identified and classified by stakeholder group.

[redacted]

2.5 Participation in stakeholder and technical working groups

2.5.1 Communication with F-TWG

This should describe the communication and collaboration approach with members of the F-TWG and consultations.

- The developer shall dedicate Project-specific technical resources to the F-TWG.
- To the extent practicable, the developer shall work with and attend future F-TWG meetings and sponsored conferences.
- [redacted]

2.5.2 Communication with other New York State agencies

This should describe communication with New York State agencies during each phase of the project.

[redacted]

2.5.3 Communication with other stakeholder and working groups

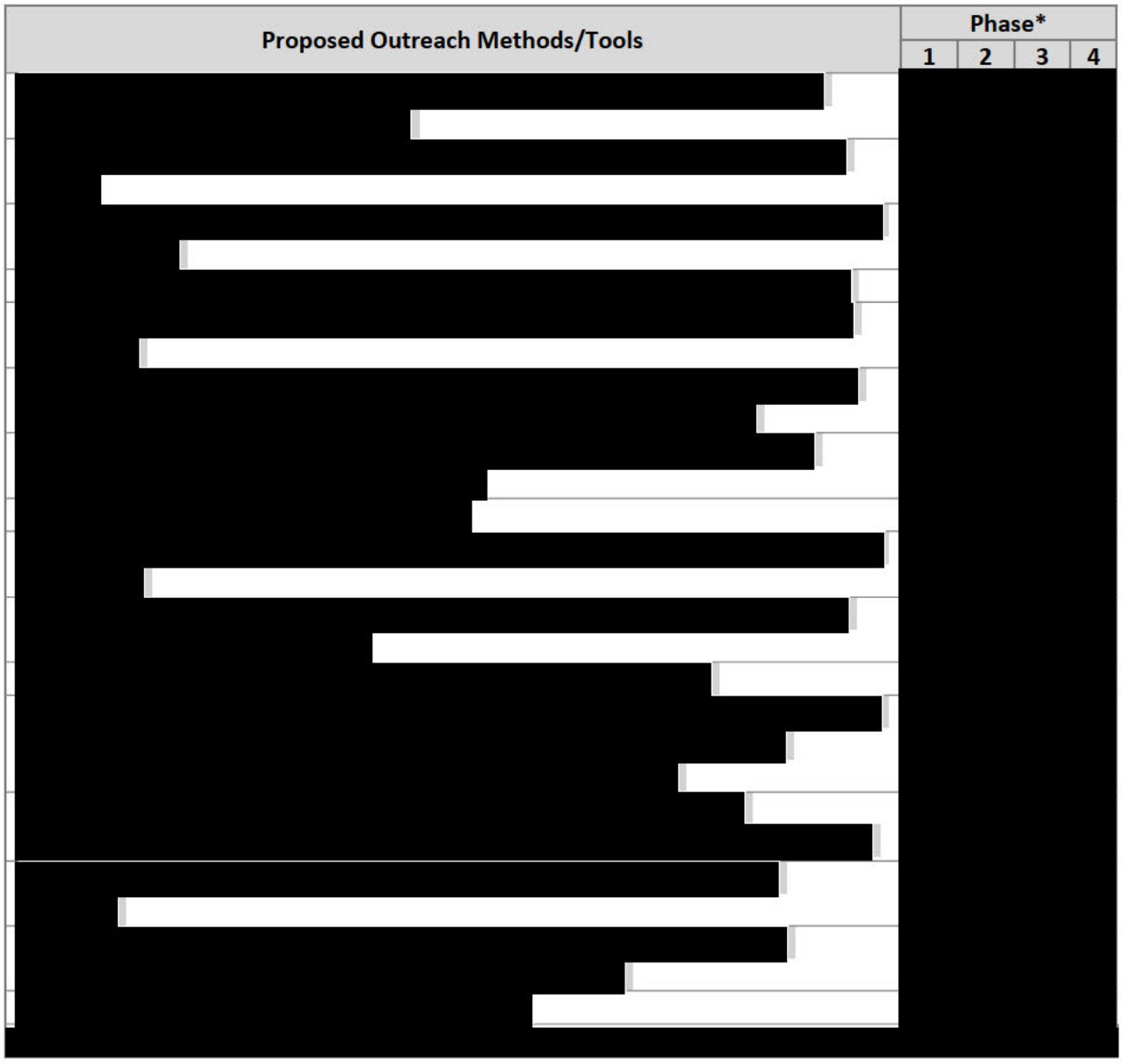
This should describe any relevant participation with other stakeholder groups, such as international fisheries groups, that would help inform the FMP.

[redacted]

2.6 Communication methods and tools

2.6.1 Methods by phase

This section should describe the communication and outreach methods and tools that will be employed for each stakeholder group during each phase of the project.



2.6.2 Communication with vessels

This section should describe communication methods/tools with vessels actively fishing in areas in or adjacent to the Project area during site assessment and construction activities and facilitate proper notification to vessels and resource managers.

- To avoid fisheries conflicts, to the greatest extent practicable the developer shall seek to employ a fishing captain or other experienced fishing industry representative to be onboard vessels during key time/activities where potential conflicts could be greatest.

[redacted]

3. Monitoring and Research Pre-, During,and Post-Construction

3.1. Identification of scope of monitoring activities/studies

This section should provide an overview of the anticipated monitoring activities, including how the specific scope of monitoring activities will be identified and what types of scientific questions will be addressed.

- Monitoring methods and scientific designs shall meet the highest scientific standards.
- To the greatest extent practicable, fisheries and related research will be performed onboard commercial and recreational fishing vessels. These vessels shall meet all appropriate regulatory safety and scientific standards prior to the beginning of any monitoring activity.

3.2. Baseline data and characterization approach

This section should describe how baseline data will be established on the spatial and temporal presence of fish and invertebrates in the proposed area of the Project at multiple life history stages included egg, larval, juvenile, adult, and spawning stages, as well as associated fish and invertebrate habitats.

3.2.1. Existing literature and data of benthic and fisheries resources

Describe key existing literature and datasets that are available for baseline characterization.

- Without limitation, the following studies are available to assess the baseline characteristics for fish, invertebrates and their habitats occurring within the Project area, including but not limited to:
  - NYSERDA and/or NYSDEC studies on marine wildlife:
    - NYSERDA. 2017a. New York State Offshore Wind Master Plan: Fish and Fisheries Study. NYSERDA Report 17-25q.

- https://www.nyserda.ny.gov/All-Programs/Programs/Offshore-Wind/About-Offshore-Wind/Master-Plan

- BOEM studies on marine species including fish, lobsters and crabs (https://www.boem.gov/environment/environmental-studies/renewable-energy-research-completed-studies):
  - Collie, J.S. and J.W. King. 2016. Spatial and Temporal Distributions of Lobsters and Crabs in the Rhode Island Massachusetts Wind Energy Area. U.S. Dept. of the Interior, Bureau of Ocean Energy Management, Atlantic OCS Region, Sterling, Virginia. OCS Study BOEM 2016-073.
  - Guida, V., A. Drohan, H. Welch, J. McHenry, D. Johnson, V. Kentner, J. Brink, D. Timmons, and E. Estela-Gomez. 2017. Habitat Mapping and Assessment of Northeast Wind Energy Areas. Sterling, VA: U.S. Department of the Interior, Bureau of Ocean Energy Management. OCS Study BOEM 2017-088. 312 p.
- NOAA and Northeast Fisheries Science Center studies and stock assessment reports, including:
  - Cargnelli, L.M., S.J. Griesbach, P.L. Berrien, W.W. Morse, and D.L. Johnson. 1999a. Essential fish habitat source document: Haddock, *Melanogrammus aeglefinus*, life history and habitat characteristics. NOAA Tech Memo NMFS-NE-128. 31 p.
  - Cargnelli, L.M., S.J. Griesbach, D.B. Packer, P.L. Berrien, D.L. Johnson, and W.W. Morse. 1999b. Essential Fish Habitat Source Document: Pollock, *Pollachius virens*, Life History and Habitat Characteristics. NOAA Tech Memo NMFS-NE-131. 38 p.
  - Cargnelli, L.M., S.J. Griesbach, D.B. Packer, P.L. Berrien, W.W. Morse, and D.L. Johnson. 1999c. Essential Fish Habitat Source Document: Witch Flounder*, Glyptocephalus cynoglossus*, Life History and Habitat Characteristics. NOAA Tech Memo NMFS-NE-139. 38 p.
  - Cargnelli, L.M., S.J. Griesbach, D.B. Packer, and E. Weissberger. 1999d. NOAA Tech Memo NMFS-NE-142.22 p.
  - Cargnelli, L.M., S.J. Griesbach, D.B. Packer, and E. Weissberger. 1999e. Essential Fish Habitat Source Document: Ocean Quahog, Arctica islandica, Life History and Habitat Characteristics. NOAA Tech Memo NMFS-NE-148. 20 p.
  - National Oceanic and Atmospheric Administration (NOAA). 2009. Consolidated Atlantic Highly Migratory Species Fishery Management Plan, Amendment 1, Chapter 5.
  - National Marine Fisheries Service (NOAA Fisheries). 2017. Amendment 10 to the 2006 Consolidated Atlantic Highly Migratory Species Fishery Management Plan: Essential Fish Habitat. Office of Sustainable Fisheries, Atlantic Highly Migratory Species Management Division. 442 p. Accessed July 2019.
    - https://www.habitat.noaa.gov/application/efhinventory/docs/a10_hms_efh.pdf.
  - National Marine Fisheries Service (NOAA Fisheries). 2019. 2019 Stock Assessment and Fishery Evaluation Report for Atlantic Highly Migratory Species.
    - https://www.fisheries.noaa.gov/resource/document/2019-stock-assessment-and-fishery-evaluation-report-atlantic-highly-migratory.

- National Marine Fisheries Service (NOAA Fisheries). 2020a. Essential Fish (EFH) Habitat Mapper. Accessed June 2020.
  - https://www.fisheries.noaa.gov/resource/map/essential-fish-habitat-mapper.
- NOAA Fisheries. 2020. Species Directory. Accessed June 2020.
  - https://www.fisheries.noaa.gov/species-directory
- Northeast Fisheries Science Center (NEFSC). 2016. 61st Northeast Regional Stock Assessment Workshop (61st SAW) Assessment Summary Report. Northeast Fisheries Science Center Reference Document 16-13. 26 p. Accessed June 2020.
  - https://www.nefsc.noaa.gov/publications/crd/crd1613/crd1613.pdf
- Northeast Fisheries Science Center (NEFSC). 2017a. Operational Assessment of 19 Northeast Groundfish Stocks, Updated Through 2016. Northeast Fisheries Science Center Reference Document 17-17. 259 p. Accessed June 2020.
  - https://www.nefsc.noaa.gov/publications/crd/crd1717/.
- Northeast Fisheries Science Center (NEFSC). 2017b. 62nd Northeast Regional Stock Assessment Workshop (62nd SAW) Assessment Report. Northeast Fisheries Science Center Reference Document 17-03. 822 p. Accessed June 2020.
  - https://www.nefsc.noaa.gov/publications/crd/crd1703/.
- Northeast Fisheries Science Center (NEFSC). 2017c. Scup Stock Assessment Update for 2017. Accessed June 2020.
  - https://static1.squarespace.com/static/511cdc7fe4b00307a2628ac6/t/596fb26bc534a5fa937b2c07/1500492396171/5Scup_2017_Assesssment_Update.pdf.
- Northeast Fisheries Science Center (NEFSC). 2017d. 63rd Northeast Regional Stock Assessment Workshop (63rd SAW) Assessment Report. Northeast Fisheries Science Center Reference Document 17-10. 409 p. Accessed June 2020.
  - https://www.nefsc.noaa.gov/publications/crd/crd1710/.
- Northeast Fisheries Science Center (NEFSC). 2018a. 65th Northeast Regional Stock Assessment Workshop (65th SAW) Assessment Summary Report. Northeast Fisheries Science Center Reference Document 18-08. 38 p. Accessed June 2020.
  - https://www.nefsc.noaa.gov/publications/crd/crd1808/.
- Northeast Fisheries Science Center (NEFSC). 2018b. 64th Northeast Regional Stock Assessment Workshop(64th SAW) Assessment Summary Report. Northeast Fisheries Science Center Reference Document 18-03. 27 p. Accessed June 2020.
  - https://www.nefsc.noaa.gov/publications
- Northeast Fisheries Science Center (NEFSC). 2020. Operational assessment of the black sea bass, scup, bluefish, and monkfish stocks, updated through 2018. NEFSC Ref Doc 20-01; 160 p. Available from:
  - http://www.nefsc.noaa.gov/publications/

- Additional studies and regional studies and other published data for waters of the northeast Atlantic related to of offshore wind development:
  - Atlantic States Marine Fisheries Commission (ASMFC). 2012. Habitat Addendum IV to Amendment 1 to the Interstate Fishery Management Plan for Atlantic Sturgeon. Accessed July 2020.
    - http://www.asmfc.org/uploads/file/sturgeonHabitatAddendumIV_Sept2012.pdf
  - Atlantic States Marine Fisheries Commission (ASMFC). 2017. 2017 Atlantic Sturgeon Benchmark Stock Assessment and Peer Review Report. Accessed July 2020.
    - http://www.asmfc.org/uploads/file//59f8d5ebAtlSturgeonBenchmarkStockAssmt_PeerReviewReport_2017.pdf.
  - Atlantic States Marine Fisheries Commission (ASMFC). Species. Accessed July 2020.
    - http://www.asmfc.org/fisheries-management/program-overview
  - Atlantic Sturgeon Status Review Team. 2007. Status Review of Atlantic Sturgeon (*Acipenser oxyrinchus oxyrinchus*). Accessed July 2020.
    - https://www.nao.usace.army.mil/Portals/31/docs/civilworks/JamesRiver/NMFS_Atlantic_sturgeon_status_review_2007.pdf
  - Collette, B.B. and G. Klein-MacPhee, ed. 2002. Bigelow and Schroeder's Fishes of the Gulf of Maine. 3rd Edition. Washington, DC: Smithsonian Institution Press.
  - Dadswell, Michael. 2006. A Review of the Status of Atlantic Sturgeon in Canada, with Comparisons to Populations in the United States and Europe. Fisheries. 31. 218-229. 10.1577/1548-8446(2006)31[218:AROTSO]2.0.CO;2.
  - Dimond J. and E. Carrington E. 2007. Temporal variation in the symbiosis and growth of the temperate scleractinian coral *Astrangia poculata*. Mar Ecol Prog Ser 348:161-172.
  - Dunton, Keith J., Adrian Jordaan, David O. Conover, Kim A. McKown, Lisa A. Bonacci, and Michael G. Frisk. 2015. Marine Distribution and Habitat Use of Atlantic Sturgeon in New York Lead to Fisheries Interactions and Bycatch, Marine and Coastal Fisheries: Dynamics, Management, and Ecosystem Science. 7:1, 18-32.
  - Gotceitas, V. and J.A. Brown. 1993. Substrate selection by juvenile Atlantic cod (*Gadus morhua):* effects of predation risk. Oecologia 93: 31-37.
  - Greene, J.K., Anderson, M.G., Odell, J., and Steinberg, N., eds. 2010. The Northwest Atlantic Marine Ecoregional Assessment: Species, Habitats and Ecosystems. Phase One. The Nature Conservancy, Eastern U.S. Division, Boston, MA.
  - Griswold, C.A. and J. Prezioso. 1981. In-situ observations on reproductive behavior of the long- finned squid, Loligo pealei. Fishery Bulletin 78: 945–947.
  - Ingram, E.C., Cerrato, R.M., Dunton, K.J., and Frisk, M.G. 2019. Endangered Atlantic Sturgeon in the New York wind energy area: implications of future development in an offshore wind energy site. Scientific Reports, Nature Research, 9:12432.
  - International Commission for the Conservation of Atlantic Tunas (ICCAT). 2014. Report of the 2014 ICCAT East and West Atlantic Skipjack Stock Assessment Meeting. Accessed July 2019.

- https://www.iccat.int/Documents/Meetings/Docs/2014_SKJ_ASSESS_ENG.pdf.

- International Commission for the Conservation of Atlantic Tunas (ICCAT). 2016a. Report of the 2016 ICCAT North and South Atlantic Albacore Stock Assessment Meeting. Accessed July 2019.
  - https://www.iccat.int/Documents/Meetings/Docs/2016_ALB_REPORT_ENG.pdf.

- International Commission for the Conservation of Atlantic Tunas (ICCAT). 2016b. Report of the 2016 ICCAT Yellowfin Tuna Stock Assessment Meeting. Accessed July 2019.
  - https://www.iccat.int/Documents/SCRS/DetRep/YFT_SA_ENG.pdf.

- International Commission for the Conservation of Atlantic Tunas (ICCAT). 2017. Report of the Standing Committee on Research and Statistics (SCRS). Accessed July 2019.
  - https://www.iccat.int/Documents/Meetings/Docs/2017_SCRS_REP_ENG.pdf.

- O'Hara, C.J. and R.N. Oldale. 1980. Maps showing geology and shallow structure of eastern Rhode Island Sound and Vineyard Sound, Massachusetts: U.S. Geological Survey Miscellaneous Field Studies Map MF-1186, 41 p.
- Mid-Atlantic Fishery Management Council (MAFMC). 1998. Amendment 12 to the Atlantic Surfclam and Ocean Quahog Fishery Management Plan. Mid-Atlantic Fishery Management Council in cooperation with the National Marine Fisheries Service, and the New England Fishery Management Council, October 1998.
- Mid-Atlantic Fishery Management Council (MAFMC). 1998a. Amendment 12 to the to the Summer Flounder, Scup, and Black Sea Bass Fishery Management Plan (FMP). Published in cooperation with National Marine Fisheries Services (NOAA Fisheries). 7 October 1998.
- Mid-Atlantic Fishery Management Council (MAFMC). 1998b. Amendment 1 to the Bluefish Fishery Management Plan, Mid-Atlantic Fishery Management Council Atlantic States Marine Fisheries Commission, in cooperation with the National Marine Fisheries Service, the New England Fishery Management Council, and the South Atlantic Fishery Management Council, October 1998.
- Mid-Atlantic Fishery Management Council (MAFMC). 1998c. Amendment 12 to the Atlantic Surfclam and Ocean Quahog Fishery Management Plan. Mid-Atlantic Fishery Management Council in cooperation with the National Marine Fisheries Service, and the New England Fishery Management Council, October 1998.
- Mid-Atlantic Fishery Management Council (MAFMC). 2011. Amendment 11 to the Atlantic Mackerel, Squid, and Butterfish Fishery Management Plan. Mid-Atlantic Fishery Management Council. May 2011.
- Mid-Atlantic Fishery Management Council (MAFMC). 2014. Amendment 3 to the Spiny Dogfish Fishery Management Plan, Includes Environmental Assessment (EA). Mid-Atlantic

Fishery Management Council in cooperation with the National Marine Fisheries Service. May 27, 2014.

- Mid-Atlantic Fishery Management Council (MAFMC). 2016. Regional Use of the Habitat Area of Particular Concern (HAPC) Designation. May 2016.
- Mid-Atlantic Fishery Management Council and the National Marine Fisheries Service (NOAA Fisheries). 2018. Squid Amendment: Atlantic Mackerel, Squid, and Butterfish Fishery Management Plan. 224 p. Accessed July 2019.
  - https://static1.squarespace.com/static/511cdc7fe4b00307a2628ac6/t/5c113b1f70a6ad290cf75cfd/15446 33161550/20181018_Squid-Amendment-Final+EA.pdf.
- Rhode Island Coastal Resources Management Council (RI CRMC). 2010. Rhode Island Ocean Special Area Management Plan Adopted by the RI CRMC on October 19, 2010.
  - http://seagrant.gso.uri.edu/oceansamp/documents.html
- Roper, C.F.E., M.J. Sweeney, and C.E. Nauen. 1984. FAO Species Catalogue, Vol. 3 Cephalopods of the world. An annotated and illustrated catalogue of species of interest to fisheries. FAO Fisheries Synopsis 125 (3):1–277.
- Scott, J.S. 1982. Selection of bottom type by groundfishes of the Scotian Shelf. Can. J. Fish. Aquat. Sci. 39: 943-947.
- South Atlantic Fishery Management Council. 2003. Fishery Management Plan for the Dolphin and Wahoo Fishery of the Atlantic Including a Final Environmental Impact Statement, Regulatory Impact Review, Initial Regulatory Flexibility Analysis, and Social Impact Assessment/Fishery Impact Statement.
- Stokesbury, K.D.E. 2012. Report: SMAST video survey of Western portion of the offshore Windfarm area, School for Marine Science and Technology, Dartmouth.
- Stokesbury, K.D.E. 2014. Final Report: SMAST video survey of Western portion of the offshore Windfarm area, School for Marine Science and Technology, Dartmouth.
- Truesdale, C.L., Dalton, T.M., and McManus, C.M. 2019. Fishers' knowledge and perceptions of the emerging southern New England Jonah crab fishery. North American Journal of Fisheries Management, 39(5): 951-963.
- USGS. 2020. usSEABED: Coastal and Marine Geology Program.
  - https://walrus.wr.usgs.gov/usseabed/ Accessed: 6/30/2020

[redacted]

- Information hosted on the Northeast Ocean Data Portal, the Mid-Atlantic Ocean Data Portal, and the New York State of Opportunity Geographic Information Gateway can be used to characterize the benthic habitats, as well as biotic and abiotic variables that influence the distribution and abundance of fisheries resources within Project area.

3.2.2. Data collected of benthic and fisheries resources

This section should describe survey activities undertaken or that will be undertaken by the developer that will inform the baseline characterization of benthic and fisheries resources.

[redacted]

[redacted]

3.3. Monitor for potential impacts during each phase

This section should describe how potential impacts will be monitored on these types of life history stages during each phase of physical work for the Project (site assessment, construction, operation, and decommissioning) to inform mitigation planning for later phases of the Project as well as for future Projects.

- The developer shall seek to collaborate with other regulatory agencies and stakeholder groups (e.g., E-TWG, F-TWG, and ROSA) to identify research needs and opportunities.

[redacted]

[redacted]

3.4. Assess and quantify changes to fishery resources

This section should describe how changes to fisheries resources will be quantified using statistically sound methods.

- Ideally, specific questions and focal taxa shall be chosen for the Project either based on site-specific fisheries risk assessments, or in relation to broader regional efforts to assess variation between sites and understand cumulative impacts for sensitive species.
- Monitoring will, to the extent practicable, use appropriate study designs and methodologies to effectively analyze risk prior to construction and evaluate impacts during construction and operation by testing hypotheses and helping to assure statistical power for meaningful data analysis.
- Outside expertise will, if practicable, be consulted during study design and data analysis processes.

[redacted]

[redacted]

3.5. Assess potential changes to commercial and recreational fishing activities

3.5.1 Current and historical usage

This section should describe how the proposed Project area is used by commercial and recreational fisheries in the region, including current and historic usage as well as how associated transit routes will be determined.

[redacted]

3.5.2 Changes in usage

This section should describe how changes in commercial and recreational fishing patterns will be calculated postconstruction using statistically sound methods.

[redacted]

3.6. Addressing data gaps

This section should describe how data gaps will be addressed.

- The developer shall seek to work with stakeholders, including regulatory agencies, to identify data gaps to be addressed through surveys or permitting applications.

[redacted]

3.7. Data availability

This section should describe how fisheries data will be made available in accordance with Section 2.2.6 of the RFP.

- The developer shall make non-proprietary environmental and fisheries data publicly available in a format and manner best suited for efficient distribution.

[redacted]

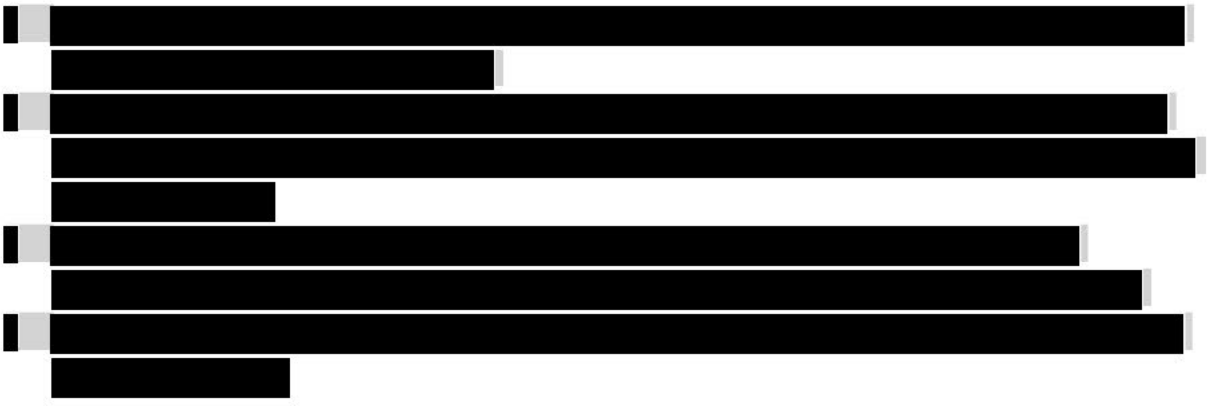
4. Supporting Other Research

4.1. Support of collaborative research

This section should describe how opportunities for developing or investing in collaborative research with the fishing industry to collect ecological and/or fishing data will be identified and undertaken. The description must account for the need to coordinate with members of the F- TWG during data gathering and assessment.

4.2. Handling/processing requests

This section should describe how requests for coordination with third-party supported scientists will be processed - including providing reasonably-requested Project data and access to the Project area for independent scientists examining environmental sensitivities and/or the impacts of offshore wind energy development on fish, invertebrates and fisheries for the purpose of publication in peer-reviewed journals.



4.3. Proposed restrictions

This section should describe any restrictions on data provision or access that may be required to protect trade secrets or maintain site security.

- The developer shall seek to explain why identified data types are considered commercially sensitive.

[redacted]

4.4. Financial commitment for third party research

This section should provide a level of financial commitment, if elected, that will be appropriated to leverage third-party environmental research funding related to fish, invertebrates and fisheries, including federal or State-supported research. Or, if elected, provide the level of commitment to a general fund for supporting third-party research into relevant fish and invertebrate communities and associated commercial and recreational fisheries and the effects of offshore wind energy development.

[redacted]

4.5. Proposed or existing commitments/collaborations

This section should describe proposed or existing commitments and collaborations with third- party researchers in support of monitoring activities and assessing impacts.

[redacted]

5. Proposed Mitigation of Impacts to Benthic/FisheriesResources

5.1. Potential impacts/risks and mitigation measures by project stage

The table below should list the potential impacts and risks to benthic/fisheries resources and proposed mitigation measures. To this end, a description of how the potential adverse impacts of infrastructure design elements (e.g., turbine spacing and layout, turbine foundation type, cable burial and protection methods, and cable crossing designs) on fishing in the proposed Project area will be considered in mitigating impacts should be included. The mitigation measures should also demonstrate that the Project area and proposed site design allows for reasonable flexibility in the site layout (e.g., orientation of turbine lines, distance between turbines, and navigation areas) to accommodate changes that may be needed in the future. The section should also describe the planned operational protocol to avoid, minimize, and mitigate impacts to fish, invertebrates and fisheries during Project construction and operation phases, such as vessel transit routes, designation and monitoring of safety zones, gear monitoring and retrieval, and communication with fishing vessels and resource managers.

Potential Impacts	Proposed Mitigation Measures	Phase*			
		1	2	3	4
Micro-siting conflicts with habitats and fishery resources	• The developer shall seek input from regulatory authorities, the fishing industry, and maritime industry to locate foundations and cable routes in the least impactful manner that is practicable. [redacted]	X			
Temporary, alteration of the seabed and localized increases in noise and turbidity	• The developer shall seek to use noise attenuation technologies to reduce sound from pile driving of foundations (if such methods are used). [redacted]	X	X	X	X

[redacted]

Potential Impacts	Proposed Mitigation Measures	Phase*			
		1	2	3	4
Long-term changes to seabed habitat	• The developer shall, to the extent possible, avoid sensitive benthic habitats.	X	X	X	X
EMF Impacts	• The developer shall use proper shielding to reduce EMF. • The developer shall conduct EMF modeling and assessments to identify potential mitigation requirements.	X	X	X	
Cable Burial	• The developer shall bury export cables to an appropriate minimal depth to reduce exposure risk. If depth cannot be reached, the developer shall add protective materials over the cable. •		X	X	
*Phase: 1: Survey/Design; 2: Construction; 3: Operation; 4: Decommission					

5.2. Coordination with F-TWG and other stakeholders

This section should describe how the developer will engage with stakeholder groups such as the F-TWG and other regional fishermen that address stakeholder concerns related to benthic and fisheries

resources. Specifically, describe the key types of information and design decisions where feedback will be solicited from stakeholders.

- The developer shall coordinate with the F-TWG stakeholders to address concerns and mitigate impacts to benthic/fisheries resources.
- Upon request, the developer shall provide a detailed, step by step breakdown of the process used to create the Project layout.

6. Proposed Mitigation of Impacts to the Recreationaland Commercial Fishing Industry

6.1. Potential impacts/risks and mitigation measures by project stage

The table below should list the potential impacts and risks to recreational and commercial fisheries and proposed mitigation measures. To this end, this section should describe how the potential adverse impacts of infrastructure design elements (e.g., turbine spacing and layout, turbine foundation type, cable burial and protection methods, and cable crossing designs) on fishing in the proposed Project area will be considered in mitigating impacts. The mitigation measures should also demonstrate that the Project area and proposed site design allows for reasonable flexibility in the site layout (e.g., orientation of turbine lines, distance between turbines, and navigation areas) to accommodate changes that may be needed in the future. The section should also describe the planned operational protocol to avoid, minimize, and mitigate impacts to fisheries during Project construction and operation phases, such as vessel transit routes, designation and monitoring of safety zones, gear monitoring and retrieval, and communication with fishing vessels and resource managers.

Potential Impacts	Proposed Mitigation Measures	Phase*			
		1	2	3	4
Fishing gear loss	• The developer shall seek consultation with regulatory authorities and fisheries stakeholders for the development and use of a Gear Loss Prevention and Claim Procedure. [redacted]	X	X	X	X
Navigational safety concerns	• The developer shall seek consultation with appropriate regulators, F-TWG and fishing community to minimize the overall area of temporary closed areas.	X	X	X	X
Displacement/loss of access to traditional fishing grounds during survey and construction activities	• The developer shall coordinate with fishing stakeholders to determine spatial and temporal use. • The developer shall, to the extent practicable, avoid heavily fished areas.	X	X	X	X

[redacted]

Potential Impacts	Proposed Mitigation Measures	Phase*			
		1	2	3	4
EMF Impacts	• The developer shall use proper shielding to reduce EMF impacts. • The developer shall conduct EMF modeling and/or assessments to identify potential mitigation requirements.	X	X	X	
Cable Burial	• The developer shall bury export cables to an appropriate minimal depth to reduce risk. If depth cannot be reached, the developer shall add protective materials over cable which allows fishing activity to occur.		X	X	
Impacts to sensitive areas	• The developer shall collaborate with state regulatory authorities and key stakeholders to collect data and avoid sensitive areas to the extent that is reasonably practicable.	X	X		X

*Phase: 1: Survey/Design; 2: Construction; 3: Operation; 4: Decommission

6.1.1. General approach to avoiding and mitigating fishing gear loss

This section should describe how potential loss of fishing gear due to snags on turbine structures, associated cables or cable mattresses, or related structures installed or deployed as a result of offshore wind energy development, will be minimized.

[redacted]

6.1.2. Processing claims for lost fishing gear

This section should describe how the developer will approach claims of lost gear in the event of a snag that provides for a fair and timely review and appeals of the claim and appropriate compensation of impacted parties.

- The developer shall work with F-TWG and the fishing community to establish the appropriate procedures in advance of the start of construction activities. When practical, the procedures shall be standardized across projects, fisheries, gear types, and geographic regions.

[redacted]

- The developer's affiliates have developed a Fishing Gear Conflict Prevention and Claim Procedure in consultation with regulatory authorities and fisheries stakeholders. [redacted] The

Fishing Gear Conflict Prevention and Claim Procedure can be found on the Ørsted Mariners page and on the following link https://orstedcdn.azureedge.net/-/media/WWW/Docs/Corp/US/Mariners/Gear-Plan-Redesign_Sept-2019.ashx?la=en&rev=3de711f948dc47a8bc41a1cc4e58a418&hash=BA81853C5418891FB65BC512879D7DB6

6.2. Coordination with F-TWG and other stakeholders

This section should describe how the developer will engage with stakeholder groups such as the F-TWG and other regional fishermen and shipping and navigation to determine Project layouts that address stakeholder concerns. Specifically, describe the key types of information and design decisions where feedback will be solicited from stakeholders.

Describe how changes to environmental resources will be quantified using statistically sound methods.

- The developer shall coordinate with the F-TWG (in accordance with Section 12.04 of the Agreement) and stakeholders to address concerns and mitigate impacts to the fishing industry.

[redacted]

- The developer shall engage with the F-TWG, regional fishermen and other maritime stakeholders such as maritime experts, consultants and marine safety committees to refine Project layouts that aim to minimize impacts on existing fishing practices and facilitate ongoing access to traditional fishing grounds.
- The developer shall work with fishermen and other stakeholders through the developer's dedicated fisheries staff to help address key concerns such as navigation, vessel access, and safety.

[redacted]

[redacted]

7. Project Decommissioning

7.1. Potential impacts based on available information and experience

This section should describe potential impacts to benthic/fisheries and the fishing industry from decommissioning the project, based on available information and relevant experience (if any).

- The developer's waste handling processes during decommissioning shall focus on re-use or recycling, with disposal as the last option.
- The developer shall collaborate with regulatory authorities and key fisheries stakeholder groups to better understand the effects and potential impacts associated with decommissioning.
- In March 2017, Ørsted became the first developer to decommission an offshore wind project, the Vindeby Offshore Wind Farm near Lolland, Denmark (Vindeby Project).

[redacted]

7.2. Approach for developing plan and coordination with stakeholders

This section should describe how a decommissioning plan will be developed to identify and mitigate potential impacts, including coordination with fisheries stakeholders, and any elements of its contemplated decommissioning plan that can be identified at this stage.

- The developer shall decommission the Project in accordance with all necessary laws and regulations and generate a detailed Project-specific decommissioning plan. The developer shall seek input on the detailed Project-specific decommissioning plan from regulatory agencies, fisheries and marine stakeholders, and local communities.
- The developer shall use "lessons learned" from the construction and operation activities and apply them when appropriate to the decommissioning plan.

[redacted]

8. (Optional) Fisheries Compensation Plan

8.1. Consideration of compensation plan

If a fisheries compensation plan is being considered to offset impacts, this section should describe how it will determine instances where all reasonable attempts to avoid and minimize Project impacts, or restoration to predevelopment conditions are not feasible and some type of fisheries compensation plan is warranted.

[redacted]

8.2. Approach to developing compensation plan

8.2.1 Coordination with stakeholders

This section should describe how a fisheries compensation plan was or will be developed; how the developer will coordinate with the F-TWG and other entities in the design or review of the fisheries compensation plan.

[redacted]

8.2.2 Third-party administration

This section should describe how the compensation plan will be administered by a nongovernmental third-party to provide reasonable and fair compensation for impacts that cannot be sufficiently addressed through other means.

[redacted]

9. Additional Considerations

9.1. Additional mitigation strategies and FMP refinement

This section should describe any additional mitigation strategies not otherwise described herein that would improve the Plan and reduce impacts on the fishing community. In addition, describe how the FMP will be updated and refined based on additional information and stakeholder feedback.

- The developer shall engage with the F-TWG and fisheries organizations and use feedback in these discussions to evolve the FMP.
- The developer shall support collaborative research on potential mitigation strategies, with other developers, agencies and stakeholders.

[redacted]

9.2. Process for updating the FMP

This section should describe how feedback from environmental stakeholders, F-TWG, and other agencies and working groups will be incorporated and updated in the FMP.

- The developer shall update the FMP to reflect the results of iterative exchanges with members of the F-TWG and other relevant stakeholders.

[redacted]