Orsted Long Island Wind

Section 8.1

Fisheries Mitigation Plan

Portions of this proposal contain confidential, proprietary, and/or commercially sensitive information that has been redacted from the "Public Version" of this proposal. Ørsted and Bay State Wind d/b/a Long Island Wind have submitted a "Confidential Version" of this proposal that includes the redacted information, which should be treated as a non-public record that is exempt from disclosure to the extent permitted under applicable laws and/or as expressly set forth in the Request for Proposals.

ORECRFP24-1 SECTION 8.1 – FISHERIES MITIGATION PLAN

Table of Contents

8.1	Fisheries Mitigation Plan	8.1-1
8.1.1	Fisheries Mitigation Plan Summary	8.1-1
8.1.2 Revo	Previous Experience (Block Island Wind Farm, South Fork Wind, Sur lution Wind)	nrise Wind, and 8.1-3
8.1.3	Communications and Collaboration	8.1-4
8.1.4	Monitoring and Research Pre-, During, and Post-Construction	8.1-8
8.1.5	Supporting Other Research	8.1-10
8.1.6	Site Design Considerations	8.1-11
8.1.7	Construction and Operation	8.1-12
8.1.8	Considerations for Subsea Cables	8.1-13
8.1.9	Project Decommissioning	8.1-14
8.1.1	0 Fisheries Compensation Plan	8.1-14
8.1.1	1 Additional Considerations	8.1-15

List of Attachments

Attachment 8.1-1: Fisheries Mitigation Plan

List of Acronyms

BOEM	Bureau of Ocean Energy Management
CFR	Code of Federal Regulations
СОР	Construction and Operations Plan
F-TWG	New York State Fisheries Technical Work Group
MCC	Marine Coordination Center
NYSERDA	New York State Energy Research and Development Authority
RODA	Responsible Offshore Development Alliance
ROSA	Responsible Offshore Science Alliance
UHF	ultra-high frequency
USCG	United States Coast Guard
VHF	very high frequency

8.1 FISHERIES MITIGATION PLAN

6.2.8.1 The Fisheries Mitigation Plan should give as much detail as possible on how Proposer will mitigate adverse impacts on the commercial fishing industry that may be caused by the Project. ...the Proposer must submit as part of its Proposal, a Fisheries Mitigation Plan ("FMP"). The aim is to balance the interests of responsible offshore wind energy development with that of ecologically and economically important fish and invertebrate resources and commercial and recreational fishermen that may be present in the Project area. The FMP should detail, to the extent practical, specific measures the Proposer will take to avoid, minimize, and/or mitigate potential impacts of the Project on fish and fisheries. Where specific measures are not known for a specific category of impact at the time of proposing, the FMP must describe how the Proposer will work collaboratively with the State, federal agencies and other stakeholders to define avoidance, minimization, and mitigation measures. The FMP should provide a roadmap for the fisheries work to be included in the Project's development and operation and provide a degree of certainty that the Proposer is committed to working collaboratively with stakeholders to develop a cost-effective and environmentally responsible Project.

8.1.1 Fisheries Mitigation Plan Summary

C.1 The Proposer must briefly present its philosophy and approach to avoiding, minimizing, mitigating, restoring and offsetting (e.g., net positive impact) the potential fisheries impacts of the proposed Project and how the Proposer will use research, data and stakeholder feedback to support decision making with respect to pre-construction surveys, site design, construction, operations and decommissioning.

As described in Section 1 of the Fisheries Mitigation Plan for the Project (the Fisheries Mitigation Plan), which is included as Attachment 8.1-1,¹ Ørsted has built sustainable working relationships with fisheries stakeholders throughout all phases of the Project, with a focus on meaningful engagement that produces mutual benefits.

The Fisheries Mitigation Plan is modeled on the plan developed and implemented by the South Fork Wind, Sunrise Wind, and Revolution Wind projects with input from and in collaboration with the New York State Energy Research and Development Authority (NYSERDA), the New York State Fisheries Technical Work Group (F-TWG), and other stakeholders.

Ørsted will follow its engagement and outreach program with the commercial and recreational fishing community, as described in Ørsted's Fisheries Communication and Outreach Plan. In the past, this type of outreach has resulted in significant changes in wind projects, including changes in cable routing, array layout, and turbine placement. This exchange of information with the fishing industry has been mutually beneficial, resulting in less conflict and better collaboration—an achievement Ørsted plans to build on.



ORECRFP24-1 SECTION 8.1 – FISHERIES MITIGATION PLAN

As described in the Fisheries Communication and Outreach Plan, the four core principles of Ørsted's fisheries engagement philosophy, which apply across Ørsted's U.S. portfolio are:

See Section 1 of the Fisheries Mitigation Plan and Sections 8.1.2 and 8.1.3 below for more information regarding Ørsted's communication and coordination plan

8.1.2 Previous Experience (Block Island Wind Farm, South Fork Wind, Sunrise Wind, and Revolution Wind)

Experience is the foundation of Ørsted's philosophy. Beginning with the Block Island Wind Farm, the Ørsted team has been conducting safe and successful offshore operations and maintenance activities in the U.S. since 2016.

Ørsted has deeply invested in science and research to advance knowledge of how offshore wind energy development might affect fisheries resources and is committed to the collaborative and transparent sharing of that research. Across Ørsted's projects in the Northeast, Ørsted is conducting extensive fisheries and benthic monitoring. These surveys have produced multiple peer reviewed publications including "Flatfish habitat use near North America's first offshore wind farm"² which is just one example of research being conducted at Ørsted's wind farm sites.

Ørsted's commitment to collaboration is exemplified by its approach to science across its Northeast projects:



² Wilber, D.H., D.A. Carey, and M. Griffin. 2018. Flatfish habitat use near North America's first offshore wind Farm. Journal of Sea Research, 139, 24-32. https://doi.org/10.1016/j.seares.2018.06.004



This Project will continue to further Ørsted's commitment to advancing the concept of regional science and maintain its position as an industry leader on these discussions.

8.1.3 Communications and Collaboration

C.2 The New York State Offshore Wind Master Plan, the New York State Public Service Commission Order Establishing Offshore Wind Standard Framework for Phase 1 Procurement issued on July 12, 2018, the Order Adopting Modifications to the Clean Energy Standard issued on October 15, 2020 pursuant to Case no. 15-E-0302, and the Order on Power Grid Study Recommendations issued on January 20, 2022 pursuant to Case No. 20-E-0197, and this RFP emphasize the value of stakeholder engagement in the development of offshore wind energy Projects. Further, the Orders require Proposers to work with the State supported Fisheries Technical Working Group ("F-TWG"). The Proposer must describe how it will identify additional stakeholders relevant to both on shore and offshore fishery issues and describe how the Proposer intends to communicate with those stakeholders during survey work, and design, construction, operation, and decommissioning of the Project. The Proposer must also describe how, specifically, it will communicate 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. This description of communication protocols must account for the need to coordinate with members of the F-TWG and consultations with New York State agencies during the various Project phases.

Ørsted continually refines the Fisheries Communication and Outreach Plan for a consistent approach that will allow the Project to benefit from the experience of South Fork Wind, Sunrise Wind, Revolution Wind, and affiliated offshore wind projects. See Section 2 of the Fisheries Mitigation Plan for a more detailed summary of Ørsted's comprehensive approach to communications and collaboration.

As part of the implementation of the Fisheries Communication and Outreach Plan, Ørsted will use communication methods and tools appropriate for different phases of the Project as detailed in Section 2.5 of the Fisheries Mitigation Plan and summarized below.

8.1.3.1 Surveys

Ørsted will provide regional fishing interests with information on survey activities through extensive outreach by its Fisheries Liaisons and Fisheries Representatives. Before surveys commence, Ørsted will issue specific Local Notices to Mariners in coordination with the United States Coast Guard (USCG). The Local Notice to Mariners will be broadcast by the USCG to the maritime and boating community. Ørsted Mariners Briefings will also be issued at regular intervals and posted on Project websites to help ensure mariners are aware of offshore activities.





of the Project will see an increase in vessel activities, and Ørsted will coordinate with the USCG and maritime stakeholders in the Project Area to minimize concerns and maintain safe operations.

. In addition to leveraging

South Fork Wind's and Revolution Wind's experience in the construction phase, Ørsted will develop and refine construction communication plans in coordination with federal and state agencies, as well as with the fishing industry and other mariners

Examples of these activities include:



8.1.3.3 Operations/Decommissioning



Section 2.4 of the Fisheries Mitigation Plan includes specific provisions to coordinate with members of the F-TWG and consult with New York State agencies. Ørsted will build on the relationships established by the South Fork Wind, Sunrise Wind, and Revolution Wind projects.

8.1.4 Monitoring and Research Pre-, During, and Post-Construction

C.3. Fisheries research and peer-reviewed publication of research findings is key to advancing the knowledge of how offshore wind energy development might affect fish and fisheries. Proposers are encouraged to work with the fishing industry in the collection of data, to publish their own work in scientific journals or other scientifically vigorous products, and to coordinate with scientists and regulators interested in investigating fishery- and wind energy- related scientific questions.

Because offshore wind energy development is in early stages in the US there is little empirical information as to the effects such development may have on ecological communities and fishery resources specific to the New York Bight. Thoughtfully planned, designed, and implemented pre-, during- and post-construction monitoring and research to understand fish responses and potential effects from development is key for adaptive management. Further, multiple regional sites working together and coordinating monitoring and research in a consistent manner would bring additional value to the scientific understanding of how development of offshore wind energy is affecting regional resources.

The Proposer must (to the extent possible at this stage) describe how it plans to conduct scientifically sound, statistically rigorous studies to accomplish the following:

1. Establish baseline data 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;

2. Monitor for impacts 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;

3. Assess and quantify (to the extent practical) changes attributable to Project activities; and

4. Determine how the proposed Project area is used by commercial and recreational fisheries in the region, including current and historic usage as well as associated transit routes, and how usages changes in commercial and recreational fishing patterns will be calculated post- construction.

Proposers should also identify opportunities for developing or investing in collaborative research with the fishing industry to collect ecological and/or fishing data. The description must account for the need to coordinate with members of the F-TWG during data gathering and assessment.

Proposers should identify collaborative efforts currently underway or in the planning stages to help highlight means by which the industry plans to standardize scientific methods, surveys, and monitoring plans across the region to enhance data compatibility and utility. Proposers are encouraged to reference resources such as the Responsible Offshore Science Alliance (ROSA) Offshore Wind Project Monitoring and Guidance Document Research and Monitoring Recommendations.

In the event that these activities cannot be clearly defined at this stage, the Proposer must describe how it will approach these questions and data gaps.

The Proposer must describe how it plans to make fisheries data available in accordance with Section 2.2.8 of the RFP.

Ørsted will facilitate collaborative, transparent science pre-, during, and post-construction at the Project. The scope of the actual studies conducted will be determined through coordination with fisheries stakeholders, the F-TWG, and regulatory authorities.

ORECRFP24-1 SECTION 8.1 – FISHERIES MITIGATION PLAN

As part of the efforts by the Project and others, fisheries populations, as well as temporal and spatial distribution, are well-studied because of their environmental and economic importance in the vicinity of the Lease Area(s). A variety of fisheries population studies have been conducted in the northern Atlantic Outer Continental Shelf by agencies and organizations.

In connection with its permitting process, Ørsted

has utilized the extensive data collected by these

Additionally, as described in Section 3.2.2 of the Fisheries Mitigation Plan,

Baseline characterization of the fisheries resources in the Project Area has been informed through interviews with fishermen who frequent the Project Area. Ørsted has also been consulting with federal and state agencies and other stakeholders to build a baseline understanding of fisheries resources in the Project Area.

To better understand the research, survey requests, and areas of concern in the Project Area, Ørsted will work with stakeholders, including fishermen, to identify priorities using outreach, surveys, and questionnaires to assist in building consensus. Ørsted will also use multiple state agencies and industry groups and associations such as the ROSA, the New York State Environmental Technical Work Group, and the F-TWG to assist in identifying research needs and priorities.



Ørsted will engage in discussions and participate in workshops with fishermen and local organizations to map typical transit routes taken by fishermen within the Project Area. As part of the F-TWG, Ørsted will participate in upcoming transit studies and discussions. Additionally, Ørsted will continue to engage with

Orsted Long Island Wind fishermen to gain a greater understanding of how commercial and recreational fisheries are used in waters in and around the Project Area.

Ørsted will continue with its strong response and commitment to fishing industry needs in design and implementation of its projects.

8.1.5 Supporting Other Research

C.4 The selected Proposer will be required to coordinate with third-party supported scientists, providing reasonablyrequested Project data and access to the Project area for independent scientists examining environmental and fishery sensitivities and/or the impacts of offshore wind energy development on fish, invertebrates, and fisheries for the purpose of publication in peer reviewed journals or other scientifically vigorous products.

The Proposer must describe how such requests will be considered and processed, and any restrictions on data provision or access the Proposer believes may be required to protect trade secrets or maintain site security.

The Proposer shall identify ways to enhance site accessibility for the advancement of third party scientific and technological study.

The Proposer may also elect to identify a level of financial commitment that will be appropriated to leverage thirdparty environmental research funding related to fish, invertebrates and fisheries, including federal or State-supported research into relevant fish and invertebrate communities and associated commercial and recreational fisheries and the effects of offshore wind energy development. Such financial commitments will be favorably considered in the Proposal review process. Funding identified here should be separate from funding allocated under Section 2.2.7 of the RFP.

Ørsted supports third-party research associated with the development of the Project. As described in Section 8.1.3 above and in Section 4 of the Fisheries Mitigation Plan, Ørsted intends to take a collaborative approach to science. In the spirit of collaborative and informative science,



The Project Area will also be accessible by research vessels, including fishing vessels used for research, for independent scientists to examine fishery sensitivities, and for other environmental topics.

8.1.6 Site Design Considerations

C.5 As offshore wind energy technology advances, Proposers are able to consider various alternatives for elements of the proposed site design and related infrastructure. The Proposer must describe how it will consider the potential adverse impacts of infrastructure design elements (e.g., turbine spacing and layout, turbine foundation type, cable burial and protection methods, offshore substation design, and cable crossing designs) on fishing in the proposed Project area.

The Proposer must 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 Proposal must outline how the Proposer 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.

The Proposer must identify in their site design the use of benthic habitat enhancement techniques that are applicable to promote added beneficial ecological improvement while offsetting adverse impacts.

Ørsted has
engaged, and will continue to engage, with stakeholder groups such as the F-TWG, regional fishermen,
and other maritime stakeholders such as maritime experts, consultants, and marine safety committees
in
coordination with marine stakeholders, including the USCG Districts and Sectors, commercial shipping,
and commercial and recreational fishing, as well as the F-TWG, addressing key concerns such as

8.1.7 Construction and Operation

C.6 The Proposer must describe its 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. The Proposer must also describe its process for determining when mitigation strategies are insufficient and under what conditions they might elect to rehabilitate or restore fisheries in an alternative location or when the provision of compensation of some form may be appropriate.

The Proposer must describe how they will minimize 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, and how the Proposer will approach claims of lost gear in the event of a snag that provides for a fair and timely review of the claim and appropriate compensation of impacted parties.

Ørsted has extensive construction and operational experience and capability, as evidenced by its total installed, under construction, and awarded renewable energy capacity globally.

The detailed table in Section 6.1 of the Fisheries Mitigation Plan includes Ørsted's approach to potential impacts to fisheries and proposed mitigation measures for each stage of the Project.

By collecting data on the Project, siting the Project outside of sensitive areas to the extent reasonably practicable, and working with stakeholders to design the Project to coexist with current fishing activities, Ørsted intends to avoid significant impacts to fisheries. Furthermore, Ørsted has designed the Project to minimize exposure risk.

8.1.7.3 Gear Loss Prevention and Claim Procedure

Ørsted is the first offshore wind developer in the U.S. to publish a Fishing Gear Conflict Prevention and Claim Procedure to address the potential for gear interaction between offshore wind activities and fishing activities.

The procedure,

was developed in consultation with regulatory authorities and fisheries

stakeholders and designed to be as straightforward as possible for the affected fishermen, while providing a transparent, fair, and balanced review process.

8.1.8 Considerations for Subsea Cables

C.7 New York State has developed an Offshore Wind Cable Corridor Constraints Assessment (Assessment) to better understand the constraints of siting cables in New York State waters, at landfall, and along overland routes to existing points of interconnection. The potential fish and fisheries impact of activities associated with subsea cable routes should be identified.

Ørsted and its affiliates reviewed the final Offshore Wind Cable Corridor Constraints Assessment and will consider the findings when conducting detailed cable routing for the Project. In developing the cable routing, Ørsted sought to avoid, minimize, and mitigate impacts to sensitive habitats and prioritized use of previously developed or disturbed areas, while also identifying a technically feasible route that considers cable burial requirements.

8.1.9 Project Decommissioning

C.8 The Proposer must describe how it will develop a decommissioning plan, including coordination with fisheries stakeholders, and any elements of its contemplated decommissioning plan that can be identified at this stage. Proposals demonstrating thoughtful consideration of the full life cycle of offshore wind energy projects will be considered favorably.

In March 2017, Ørsted became the first developer to decommission an offshore wind project, the Vindeby Offshore Wind Farm near Lolland, Denmark. The 11-turbine Vindeby Offshore Wind Farm was constructed in 1991 and remained in operation for over 25 years.



Ørsted anticipates that the decommissioning plan will include coordination with fisheries stakeholders (similar to that developed and implemented for the construction phase). The plan will account for changing circumstances during the operational phase of the Project and new discoveries, particularly in the areas of the marine environment and technological change.

8.1.10 Fisheries Compensation Plan

C.9 The Proposer must 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 for potential losses and or increased costs associated with offshore wind development is warranted. The Proposer must describe how a fisheries compensation plan was, or will be developed; how the Proposer will coordinate with the F-TWG and other entities in the design or review of the fisheries compensation plan, and; how the compensation plan will be administered by an non-governmental third-party to provide reasonable and equitable compensation for impacts that cannot be sufficiently addressed through other means.



8.1.11 Additional Considerations

C.10 The Proposer must outline any additional mitigation strategies not otherwise described herein that would improve the Plan and reduce impacts on the fishing community. Proposers are encouraged to review the Bureau of Ocean Energy Management (BOEM) Guidelines for Providing Information on Fisheries Social and Economic Conditions for Renewable Energy Development on the Atlantic Outer Continental Shelf Pursuant to 30 Code of Federal Regulations (CFR) Part 585. (Available at https://www.boem.gov/Social-and-Economic-Conditions -Fishery-Communication-Guidelines/) and Development of Mitigation Measures to Address Potential Use Conflicts between Commercial Wind Energy Lessees/Grantees and Commercial Fishermen on the Atlantic Outer Continental Shelf Report on Best Management Practices and Mitigation Measures. A final report for the U.S. Department of the Interior, Bureau of Ocean Energy Management, Office of Renewal Energy Programs, Herndon, VA. OCS Study BOEM (available at https://www.boem.gov/OCS-Study-BOEM-2014-654/) in the development of their Plan.

Ørsted through its experience on South Fork Wind, Sunrise Wind, and Revolution Wind has implemented and, in connection with the permitting of the Long Island Wind project, will continue to implement relevant mitigation strategies as discussed in BOEM's *Guidelines for Providing Information on Fisheries Social and Economic Conditions for Renewable Energy Development on the Atlantic Outer Continental Shelf Pursuant to 30 Code of Federal Regulations (CFR) Part 585,* and *Development of Mitigation Measures to Address Potential Use Conflicts between Commercial Wind Energy Lessees/Grantees and Commercial Fishermen on the Atlantic Outer Continental Shelf Report on Best Management Practices and Mitigation Measures,* and *Guidelines for Mitigating Impacts to Commercial and Recreational Fisheries on the Outer Continental Shelf Pursuant to 30 CFR Part 585.* Ørsted intends to be transparent in its engagement with the fishing community to address issues in a manner consistent with BOEM's suggested methods while continuing to explore ways to go above and beyond suggested guidelines.

ORECRFP24-1 SECTION 8.1 – FISHERIES MITIGATION PLAN

Ørsted will continue to engage with, the fishing industry to inform its refinement of the Project design. Through outreach to fisheries groups, Ørsted has acquired information on sensitive areas to avoid and other features of the Project Area, as well as the nature of fishing activities that occur within and around the Project Area, including temporal and spatial fishing patterns. Ørsted will continue to utilize feedback received from the fishing industry for consideration

and the implementation of a science-based monitoring program.

Ørsted will consider the safety of fishermen and mariners traversing the Project Area in its Safety Management System and Emergency Response Plan to be submitted with the Project's Construction and Operations Plan (COP), which will establish a communication protocol and describe roles and responsibilities and procedures for emergency events. Ørsted will work with BOEM and the Bureau of Safety and Environmental Enforcement to determine if additional safety requirements are necessary.

The Project's COP will establish plans for mitigation and monitoring of conditions within the Project Area during the construction, operation, and decommissioning phases of the Project. Ørsted will work with BOEM, as well as with other federal and state agencies and fisheries stakeholders, to address concerns regarding the monitoring plans.

Orsted Long Island Wind

Attachment 8.1-1

Fisheries Mitigation Plan

Fisheries Mitigation Plan for Long Island Wind Version [1.0]

Prepared pursuant to ORECRFP24-1

with

New York State Energy Research and Development Authority

Albany, NY

Prepared by

Bay State Wind LLC

437 Madison Avenue, Suite 1903

New York, NY 10022

Orsted Long Island Wind

September 9, 2024

Record of Revision				
Revision Date	Description of changes		Revision on pages	
1.0; 09/09/2024	[Original issue]		-	

Communication Officers, Contact Information, Links			
Name/Title	Role	Contact Information	

Links to Project information: Offshore Wind Farm Information for Mariners | Ørsted

Maritime Stakeholder Communication and Outreach Plan (orsted.com)

ORECRFP24-1 ATTACHMENT 8.1-1 - FISHERIES MITIGATION PLAN

Table of Contents

1.0	Fi	sheries Mitigation Plan Summary	1-1
1.1		Overall Philosophy and Principles	1-1
1.2		Overall Approach to Incorporating Data and Stakeholder Feedback	1-2
1.3		Existing Guidance and Best Practices That Will Be Followed	1-3
2.0	Сс	ommunications and Collaboration Approach	2-1
2.1		Overview and Communication Plan Objectives	2-1
2.2		Project Staff, Responsibilities, and Contact Information	2-1
2.3		Identification of Fishing Industry Stakeholders	2-2
2.4		Participation in Stakeholder and Technical Working Groups	2-3
2	.4.1	Communication with F-TWG	2-3
2	.4.2	Communication with Other New York State Agencies	2-4
2	.4.3	Communication with Other Stakeholder and Working Groups	2-4
2	.4.4	Communication and Collaboration with Other Developers	2-4
2.5		Communication Methods and Tools	2-5
2	.5.1	Methods by Phase	2-5
2	.5.2	Communication with Vessels	2-7
3.0	Mo	onitoring and Research Pre-, During, and Post-Construction	3-1
3.1		Identification of Scope of Monitoring Activities/Studies	3-1
3.2		Baseline Data and Characterization Approach	3-1
3	.2.1	Existing Literature and Data of Benthic and Fisheries Resources	3-2
3	.2.2	Data Collected of Benthic and Fisheries Resources	3-8
3.3		Monitor for Potential Impacts During Each Phase	3-9
3.4		Assess and Quantify Changes to Fishery Resources	3-10
3.5		Assess Potential Changes to Commercial and Recreational Fishing Activities	3-11
3	.5.1	Current and Historical Usage	3-11
3	.5.2	Changes in Usage	3-11
3	.5.3	Addressing Data Gaps	3-12
3.6		Data Availability	3-12
4.0	Su	pporting Other Research	4-1
4.1		Support of Collaborative Research	4-1
4.2		Handling/Processing Requests	4-2
4.3		Proposed Restrictions	4-3
4.4		Financial Commitment for Third-Party research	4-3
4.5		Proposed or Existing Commitments/Collaborations	4-3
5.0	Pr	oposed Mitigation of Impacts to Benthic/Fisheries Resources	5-1

ORECRFP24-1 ATTACHMENT 8.1-1 - FISHERIES MITIGATION PLAN

5.1	Potential Impacts/Risks and Mitigation Measures by Project Stage	5-1
5.2	Coordination with F-TWG and Other Stakeholders	5-2
6.0	Proposed Mitigation of Impacts to the Recreational and Commercial Fishing I	ndustry6-1
6.1	Potential Impacts/Risks and Mitigation Measures by Project Stage	6-1
6.	.1.1 General Approach to Avoiding and Mitigating Fishing Gear Loss	6-3
6.	.1.2 Processing Claims for Lost Fishing Gear	6-4
6.2	Coordination with F-TWG and Other Stakeholders	6-4
7.0	Considerations for Subsea Cables	7-1
7.1	Mitigation Strategies for Subsea and Overland Cables	7-1
8.0	Project Decommissioning	8-1
8.1	Potential Impacts Based on Available Information and Experience	8-1
8.2	Approach for Developing Plan and Coordination with Stakeholders	8-1
9.0	Fisheries Compensation Plan	9-1
9.1	Consideration of Compensation Plan	9-1
9.2	Approach to Developing Compensation Plan	9-1
9.	.2.1 Coordination with Stakeholders	9-1
9.	.2.2 Third-Party Administration	9-1
10.0	Additional Considerations	10-1
10.1	Additional Mitigation Strategies and FMP Refinement	10-1
10.2	Process for Updating the FMP	10-1

List of Tables

		2-2
Table 2.2	Proposed Outreach Methods and Tools by Project Phase	2-6
Table 5.1	Potential Impacts and Risks to Benthic/Fisheries Resources and Proposed Mitigation	
	Measures	5-1
Table 6.1	Potential Impacts and Risks to Recreational and Commercial Fisheries and Proposed	
	Mitigation Measures	6-1

1.0 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, mitigate, restore, and offset (e.g., net positive impact) potential fisheries impacts.





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).

- Long Island Wind shall seek consultation and coordinate with relevant stakeholders.
- Long Island Wind shall review existing research and data and seek input from stakeholders regarding data gaps to inform decisions made throughout the Project life cycle.
- Long Island Wind 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.
- Pre- and post-construction monitoring shall be designed

	impacts of offshore wind energy development and operations on fisheries.
_	
L	
•	
-	



to improve the understanding of



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.

• Long Island Wind will follow the successful "Fisheries Communication and Outreach Plan" developed and implemented regionally by Ørsted. This plan guides engagement and feedback with the commercial and recreational fishing community.



2.0 COMMUNICATIONS AND COLLABORATION APPROACH

2.1 OVERVIEW AND COMMUNICATION PLAN OBJECTIVES

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

- Long Island Wind shall adopt methods and processes to allow for a two-way flow of information between key stakeholders and developers, highlighting how feedback informs decision making.
- Long Island Wind shall provide updates to the fishing industry stakeholders in appropriate manners that are easily accessible and widely distributed.
- Long Island Wind shall seek collaboration with the fishing industry to use technical applications to enhance communication and coordination for all on-water activities.
- Long Island Wind will follow the Maritime Stakeholder Communication and Outreach Plan.² This
 plan outlines key strategies that Long Island Wind and its affiliates use to communicate with the
 maritime community during the planning, design, construction, operations, and decommissioning
 phases of its projects.



2.2 PROJECT STAFF, RESPONSIBILITIES, AND CONTACT INFORMATION

This section should provide a list of project fisheries staff, their role(s), 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.

² Maritime Stakeholder Communication and Outreach Plan (orsted.com)

Information for mariners and stakeholders can be found at Offshore Wind Farm Information for Mariners | Ørsted (orsted.com).

2.3 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.





2.4 PARTICIPATION IN STAKEHOLDER AND TECHNICAL WORKING GROUPS

2.4.1 Communication with F-TWG

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

- Long Island Wind shall dedicate Project-specific technical resources to the F-TWG.
- Long Island Wind shall work with and attend future F-TWG meetings and sponsored conferences.
- Long Island Wind shall identify specific individuals to serve at least one-year terms in the role of primary and secondary core members.



2.4.2 Communication with Other New York State Agencies

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



2.4.3 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.

 Long Island Wind shall collaborate with other regulatory agencies and stakeholder groups and consider memberships and participation in such collaborative efforts (e.g., New York State Environmental Technical Working Group [E-TWG], Maritime Technical Working Group [M-TWG], ROSA, Regional Wildlife Science Collaborative [RWSC], etc.).



2.4.4 Communication and Collaboration with Other Developers

This should describe any relevant participation and collaboration with other developers in the offshore space, with a focus on communication and collaboration with adjacent leaseholders. This may include but is not limited to shared research efforts, coordination of survey methods, or standardization of navigational and safety protocols.

 Long Island Wind shall seek to maximize the impact of research efforts by coordinating on elements such as data collection, methodology, analysis, and dissemination and by collaborating with other developers, particularly those in adjacent lease areas, taking on similar initiatives. Additionally, through requirements of Section 2.2.7 of the Request for Proposals (RFP), Long Island Wind is committing to support regional monitoring of wildlife, fish, and invertebrates.

2.5 COMMUNICATION METHODS AND TOOLS

2.5.1 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.

Broposod Outroach Methode/Toolo		Ph	ase*	
Proposed Outreach Methods/Tools	1	2	3	4
			•	
			Ē	
			-	
			-	
		Ē	Ē	
			Ē	
	_			
	-	-	-	-
	Ē		-	
	_		_	
		Ē	Ē	
			Ē	
	_	_	_	_
			Ē	Ē
		Ē	Ē	
*Phase: 1: Survey/Design; 2: Construction; 3: Operation; 4: Decommission				



2.5.2 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, Long Island Wind shall employ a fishing captain or other experienced fishing industry representative to serve as a FLO onboard key vessels during key time/activities where potential conflicts could be greatest.

3.0 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 and should follow guidance mentioned in the Offshore Wind Project Monitoring Framework and Guidelines developed by ROSA.
- 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 or research 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 including 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.

- Studies are available to assess the baseline characteristics for fish, invertebrates and their habitats occurring within the Project Area. Such studies include, but are not limited to, the following documents:
- 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 habitats and species including fish, lobsters, and crabs (https://www.boem.gov/environment/environmental-studies/renewable-energy-researchcompleted-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: US 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
 - 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.
- NOAA. 2009. Consolidated Atlantic Highly Migratory Species Fishery Management Plan, Amendment 1, Chapter 5.
- 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.
- 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-andfishery-evaluation-report-atlantic-highly-migratory.
- NOAA Fisheries 2022. 2022 Stock Assessment and Fishery Evaluation Report for Highly Migratory Species.
 - https://www.fisheries.noaa.gov/s3/2023-06/SAFE-Report-062223.pdf
- 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
- 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
- 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/.
- 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/.
- NEFSC. 2017c. Scup Stock Assessment Update for 2017. Accessed June 2020.
 - https://static1.squarespace.com/static/511cdc7fe4b00307a2628ac6/t/596fb26bc5 34a5fa937b2c07/1500492396171/5Scup_2017_Assessment_Update.pdf.
- 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/.
- 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/.
- 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
- 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 and regional studies and other published data for waters of the northeast Atlantic related to 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
 - ASMFC. 2017. 2017 Atlantic Sturgeon Benchmark Stock Assessment and Peer Review Report. Accessed July 2020.
 - http://www.asmfc.org/uploads/file/59f8d5ebAtlSturgeonBenchmarkStockAssmt_P eerReviewReport_2017.pdf
 - 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_A tlantic_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.
- Friedland, K. D., E. T. Methratta, A. B. Gill, S. K. Gaichas, T. H. Curtis, E. M. Adams, J. L. Morano, D. P. Crear, M. C. McManus, and D. C. Brady. 2021. Resource occurrence and productivity in existing and proposed wind energy lease areas on the Northeast US Shelf. Frontiers in Marine Science 8:629230.
- 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.
- 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.
- 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.
- 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.
- 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.
- 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.
- 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.
- MAFMC. 2011. Amendment 11 to the Atlantic Mackerel, Squid, and Butterfish Fishery Management Plan. Mid-Atlantic Fishery Management Council. May 2011.
- 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.

- MAFMC. 2016. Regional Use of the Habitat Area of Particular Concern (HAPC) Designation. May 2016.
- MAFMC and 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/5c113b1f70 a6ad290cf75cfd/15446 33161550/20181018_Squid-Amendment-Final+EA.pdf.
- 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.
- Stokesbury, K.D.E, Bethony, N.D, Restrepo, F and Harris B.P. 2024. Anticipating the winds of change: A baseline assessment of Northeast US continental shelf surficial substrates. Fisheries Oceanography, e12693. https://doi.org/10.1111/fog.12693
- 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.
- United States Geological Survey. 2020. usSEABED: Coastal and Marine Geology Program.
 - https://walrus.wr.usgs.gov/usseabed/ Accessed: 6/30/2020
- Wilber, D. H., L. Brown, M. Griffin, G. R. DeCelles, and D. A. Carey. 2022. Demersal fish and invertebrate catches relative to construction and operation of North America's first offshore wind farm. ICES (International Council for the Exploration of the Sea) Journal of Marine Science 79: 1274–1288.

 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 the 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.





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.

• Long Island Wind shall seek to collaborate with other regulatory agencies and stakeholder groups (e.g., E-TWG, F-TWG, M-TWG, and ROSA) to identify research needs and opportunities.



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 sitespecific fisheries risk assessment, 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.



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.

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.



3.5.3 Addressing Data Gaps

This section should describe how data gaps will be addressed.



This section should describe how fisheries data will be made available in accordance with Section 2.2.8 of the RFP.

• Long Island Wind shall make non-proprietary environmental and fisheries data publicly available in a format and manner best suited for efficient distribution.



4.0 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.

 Long Island Wind shall commit to being an active member of regional science organizations (e.g., RWSC, ROSA).





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 or other scientifically vigorous products.



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.

• Long Island Wind shall seek to explain why identified data types are considered commercially sensitive.



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. These financial commitments are outside those identified in Section 2.2.7 of the RFP and beyond those identified to fulfill state and federal regulatory permitting requirements.



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





5.0 PROPOSED MITIGATION OF IMPACTS TO BENTHIC/FISHERIES RESOURCES

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.

Table 5.1 Potential Impacts and Risks to Benthic/Fisheries Resources and Proposed Mitigation Measures



ORECRFP24-1 ATTACHMENT 8.1-1 - FISHERIES MITIGATION PLAN

Potontial Impecto	Potential Impacts Proposed Mitigation Measures		Phase*		
Potential impacts			2	3	4
localized increases in noise and turbidity					
Long-term changes to seabed habitat	 Long Island Wind shall, to the extent possible, avoid sensitive benthic habitats. 	x	x	x	x
Electric and magnetic fields (EMF) impacts	 Long Island Wind shall use proper cable shielding to reduce EMF. Long Island Wind shall conduct EMF modeling and assessments to identify potential mitigation requirements. 	x	x	x	
Cable burial			x	x	
Turbine scour protection	 Long Island Wind shall seek collaboration with state and federal regulatory authorities and key stakeholders to assess the use of ecological enhancements for turbine scour protection to provide offsets from potential adverse impacts. 	x	x	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.

 Long Island Wind shall coordinate with the F-TWG stakeholders, and other regional fishing groups, to address concerns and mitigate impacts to benthic/fisheries resources.





6.0 PROPOSED MITIGATION OF IMPACTS TO THE RECREATIONAL AND 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 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. 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.

Table 6.1Potential Impacts and Risks to Recreational and Commercial Fisheries and
Proposed Mitigation Measures



ORECRFP24-1 ATTACHMENT 8.1-1 - FISHERIES MITIGATION PLAN

Potential Impacts	Proposed Mitigation Measures		Phase*				
Potential impacts			2	3	4		
Navigational safety concerns	Long Island Wind shall develop a Navigational Enhancement and Training Plan in consultation with regulatory authorities and fisheries stakeholders. Long Island Wind shall seek consultation with appropriate regulators, F-TWG, M-TWG, and the fishing community, to minimize the overall area of temporary restricted areas.	x	x	x	x		
Displacement/loss of access to traditional fishing grounds during survey and construction activities	 Long Island Wind shall coordinate with fishing stakeholders to determine spatial and temporal use. Long Island Wind shall, to the extent practicable, avoid heavily fished areas. 	x	x	x	х		
EMF impacts	 Long Island Wind shall use proper cable shielding to reduce EMF impacts. Long Island Wind shall conduct EMF modeling and/or assessments to identify potential mitigation requirements. 	x	x	x			
Cable burial			x	x			
Impacts to sensitive areas	• Long Island Wind 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		

Detential Imposto	Proposed Mitigation Measures	Phase*			
Potential impacts		1	2	3	4
Turbine scour protection	 Long Island Wind shall seek collaboration with state and federal regulatory authorities and key stakeholders to assess the use of ecological enhancements for turbine scour protection to provide offsets from potential adverse impacts. 	x	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.



 Long Island Wind and its affiliates published a "Gear Loss Prevention and Claim Procedure," which will be followed for the Project. https://orstedcdn.azureedge.net/-/media/www/docs/corp/us/mariners/gear-loss-claim-1220.ashx?la=en&rev=d1a83b4a98b24a7aa441faf858a2bcb3&hash=F750409DAFEE5DCA16A CD0A520921C5A.





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.

- Long Island Wind shall work with F-TWG and the fishing community to establish appropriate claims procedures in advance of construction activities. When practical, the claims procedures shall be standardized across projects, fisheries, gear types, and geographic regions.
- Long Island Wind shall use a third-party reviewer to assess claims and appeals when practicable.
- The Fishing Gear Conflict Prevention and Claim Procedure can be found on the Ørsted Mariners page and at the following link: https://orstedcdn.azureedge.net/-/media/www/docs/corp/us/mariners/gear-loss-claim-1220.ashx?la=en&rev=d1a83b4a98b24a7aa441faf858a2bcb3&hash=F750409DAFEE5DCA16A CD0A520921C5A

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.

Long Island Wind shall work with fishermen and other stakeholders through Long Island Wind's
dedicated fisheries staff to help address key concerns such as navigation, vessel access, and
safety.



7.0 CONSIDERATIONS FOR SUBSEA CABLES

7.1 MITIGATION STRATEGIES FOR SUBSEA AND OVERLAND CABLES

This section should describe any additional fish and fisheries mitigation strategies for proposed subsea cable routes that support the offshore wind project.



8.0 PROJECT DECOMMISSIONING

8.1 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).

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

8.2 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.

- Long Island Wind shall decommission the Project in accordance with all applicable federal, state, and local laws and regulations and generate a detailed Project-specific decommissioning plan.
- Long Island Wind shall seek input on the detailed Project-specific decommissioning plan from regulatory agencies, fisheries and maritime stakeholders, and local communities.
- Long Island Wind shall use "lessons learned" from the construction and operation activities and apply them when appropriate to the decommissioning plan.



9.0 FISHERIES COMPENSATION PLAN

9.1 CONSIDERATION OF COMPENSATION PLAN

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.

- At a minimum, Long Island Wind will be required to follow any and all guidance being developed as part of BOEM's 2022 Draft Fisheries Mitigation Guidance (https://www.boem.gov/renewable-energy/reducing-or-avoiding-impacts-offshore-wind-energy-fisheries)
- 9.2 APPROACH TO DEVELOPING COMPENSATION PLAN

9.2.1 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.

- Long Island Wind will work as needed to evolve the guidance being developed as part of BOEM's 2022 Draft Fisheries Mitigation Guidance (https://www.boem.gov/renewable-energy/reducing-oravoiding-impacts-offshore-wind-energy-fisheries) provided that to the extent aspects of such guidance are memorialized in Ørsted's selected Project COP approval.

9.2.2 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.

• Long Island Wind will work with the state and federal agencies and fishing industry members to assess the most appropriate entity for administration and disbursement of fisheries mitigation funds.





10.0 ADDITIONAL CONSIDERATIONS

10.1 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.

- Long Island Wind shall support collaborative research on potential mitigation strategies, with other developers, agencies, and stakeholders.
- Long Island Wind shall implement a Navigational Enhancement and Training Plan that is designed with engagement from the F-TWG, fisheries organizations, and regulatory authorities.



10.2 PROCESS FOR UPDATING THE FMP

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

- Long Island Wind shall update the FMP to reflect the results of iterative exchanges with members of the F-TWG, E-TWG, and other relevant stakeholders.
- Long Island Wind shall engage with the F-TWG and fisheries organizations and use feedback in these discussions to evolve the FMP.
- Long Island Wind shall update the FMP in a timely manner that reflects changes made based on key regulatory Project deliverable dates.

