NYSERDA 2022 OFFSHORE WIND SOLICITATION ORECRFP22-1

Environmental Mitigation Plans - SCIP Facilities

Public version

Community Offshore Wind LLC

Lease OCS-A 0539

COMMUNITY offshore wind

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Contents

Environmental Mitigation Plan – GE

Environmental Mitigation Plan ("Narrative Component")
for
Port of Coeymans
Offshore Wind Nacelle Manufacturing Facility

Version [1.0]

Prepared pursuant to ORECRFP 22-1, 11/3/2022

with

New York State Energy Research and Development Authority

Albany, NY

Prepared for:

GE Vernova, our portfolio of energy businesses

GE Offshore Wind & LM Wind Power

GE VERNOVA

Our portfolio of energy businesses

GE Renewable Energy

LM WIND POWER

a GE Renewable Energy business

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Environmental Mitigation Plan – Narrative Component

This Environmental Mitigation Plan (EMP) has been prepared by Arcadis US, Inc. (Arcadis) as a component of the General Electric Renewable Energy's LM Wind Power Group's (GE's) proposal to support the development of future Offshore Wind (OSW) renewable energy in New York State. GE is well-aligned to support this initiative in New York State and the OWS Developer for several reasons:

- GE is leading the offshore wind industry with the latest technologies including [redacted], GE has invested more than $400 million to develop leading technologies while leveling costs for their customers.
- GE has installed more than 400+ gigawatts of clean renewable energy and equipped more than 90 percent of utilities worldwide with its grid solutions. GE operates a global network of local offshore wind power service centers that offer a full range of services to enhance availability of equipment, improve energy generation, and optimize performance.
- GE has a significant employee and business presence in New York State and has supported renewable energy (and other businesses) and environmental restoration projects within the state for several decades.
- GE's approach to environmental mitigation will ensure that the development and operation of an [redacted] in the Town of Coeymans, Albany County will not only satisfy all federal, state, and local laws, but further contribute to the advancement of our understanding of sustainable development practices.

[redacted] [[[redacted]

- [redacted]]]

E.1 Environmental Mitigation Plan Summary

The 2022 OSW Solicitation requires the EMP to detail, to the extent practical, specific measures that will be taken to avoid, minimize, and/or mitigate potential environmental impacts of the proposed Project. [redacted]

- Marine mammals and sea turtles.
- Birds and bats.
- Fish and invertebrates.

Certain of the above categories (or portions thereof) are applicable to the overall Project, especially related to construction and operational activities within or near the Hudson River and aquatic setting. [redacted]

[redacted]

[redacted]

Table EMP-1 (presented at the end of this section) describes the overall "roadmap" (content and organizational structure) for environmental mitigation associated will all phases of the Project life cycle. The table focuses first on the three categories of environmental impacts associated with the EMP structure (reflecting the requirements of the 2022 OSW Solicitation), then highlights other environmental impacts that will likely be considered and addressed through stakeholder coordination and regulatory permitting. Future iterations of the EMP will outline best management practices, industry standards, scheduling, or other mitigating strategies that will support and align with various federal, state, and local reviews, permits, and approval processes.

To advance the EMP framework presented herein, GE will work closely and collaboratively with the OSW Developer; federal, state, and local regulatory agencies; and other stakeholders to consider the broad range of potential environmental impacts associated with the Project.

Table EMP-1. Summary of Potential Environmental Impacts and Mitigation Considerations (Overall Planning Matrix)

Project Life-Cycle Phase	Potential Environmental Impacts and Mitigation Considerations		
	Wind Nacelle Manufacturing / Warehouse Facility	**Port Facility Infrastructure Expansion/Upgrades**	**Nacelle Transportation - Downriver Areas**
Planning / Design Primarily focused on establishment of baseline conditions to avoid and/or mitigate environmental impacts. [Note – Applicable Federal, State, and Local Regulations and Permits/Approvals will be Considered, as well as Stakeholder Engagement]	• EMP Categories Per 2022 OSW Solicitation (as applicable): - Birds and Bats • Baseline Physical Surveys (Wetlands, Topography, Geology, Soils) • Environmental Testing (Soils and Groundwater) • Wildlife and Habitat Resources and Assessments. Including Rare, Threatened, and Endangered Species • Identify seasonal restrictions for sensitive species • Migratory birds and golden/bald eagle habitat assessment. • Flood Hazard Areas and Coastal Zone Management Area mapping. • Historic and cultural resource investigations • Facility Siting - Minimize Impacts to Physical Setting; Align	• EMP Categories Per 2022 OSW Solicitation (as applicable): - Birds and Bats - Fish and Invertebrates • Baseline Physical Surveys (Waters, Wetlands, riparian areas, Topography, Bathymetry, Flows, Geology, Soils, Sediments) • Environmental Testing (Soils, Sediment, Surface Water) • Wildlife and Habitat Resources and Assessments. Including Rare, Threatened, and Endangered Plant and Animal Species • Identify seasonal restrictions for sensitive species • Migratory birds and golden/bald eagle habitat assessment. • Essential fish habitats and benthic characterization.	• EMP Categories Per 2022 OSW Solicitation (as applicable): - Marine Mammals and Sea Turtles - Birds and Bats - Fish and Invertebrates • Rare, Threatened, and Endangered Plant and Animal Species, including critical resource areas. • Essential fish habitats. • Migratory birds and golden/bald eagle habitat assessment. • Seasonal Time of Year Work Restrictions or Best Management Practices for Endangered Species and/or Physical Hazards • Greenhouse gas (GHG) emissions • Potential Climate Change Risks (water level rise; flooding; wind; changes in temperatures and precipitation; impacts on species and other natural resources)

Project Life-Cycle Phase	Potential Environmental Impacts and Mitigation Considerations		
	Wind Nacelle Manufacturing / Warehouse Facility	**Port Facility Infrastructure Expansion/Upgrades**	**Nacelle Transportation - Downriver Areas**
	Work with Existing Disturbed Areas • Construction Methodologies - Regulations and Guidelines • Traffic and noise control planning • Greenhouse Gas (GHG) Emissions • Potential Climate Change Risks (water level rise; flooding; wind; changes in temperatures and precipitation; impacts on species and other natural resources)	• Flood hazard areas and coastal zone management area mapping. • Historic and cultural resource investigations • Construction Methodologies - Regulations and Guidelines • Traffic and noise control planning • Greenhouse Gas (GHG) emissions • Potential Climate Change Risks (water level rise; flooding; wind; changes in temperatures and precipitation; impacts on species and other natural resources)	

Project Life-Cycle Phase	Potential Environmental Impacts and Mitigation Considerations		
	Wind Nacelle Manufacturing / Warehouse Facility	**Port Facility Infrastructure Expansion/Upgrades**	**Nacelle Transportation - Downriver Areas**
<u>Construction Phase</u> [Note - Specific Operational Activities to Reflect Outcome of Planning/Design, Permitting/Approval, and Stakeholder Engagement Activities]	• EMP Categories Per 2022 OSW Solicitation (as Applicable): - Birds and Bats • Waters, Wetlands Protection and Mitigation • Threatened and Endangered Species protection and mitigation. Including critical resource areas. • Historic and cultural resource protection. • Solid Waste Management • Stormwater Management • Soil erosion and Sediment Controls • Air Emissions/Dust Suppression • Noise and Traffic Controls • Spill Prevention and Control • Construction Vehicle and Work Zone Lighting • Management of Excess Spoil and Excavation Materials	• EMP Categories Per 2022 OSW Solicitation (as Applicable): - Birds and Bats - Fish and Invertebrates • Waters, Wetlands Protection and Mitigation • Threatened and Endangered Species protection and mitigation. Including critical resource areas. • Essential fish habitat protection and mitigation. • Historic and cultural resource protection. • Solid Waste Management • Stormwater Management • Soil erosion and Sediment Controls • Air Emissions/Dust Suppression • Noise and Traffic Controls • Spill Prevention and Control • Construction Vehicle and Work Zone Lighting • Management of Excess Spoil and	[redacted]

Project Life-Cycle Phase	Potential Environmental Impacts and Mitigation Considerations		
	Wind Nacelle Manufacturing / Warehouse Facility	**Port Facility Infrastructure Expansion/Upgrades**	**Nacelle Transportation - Downriver Areas**
	• Protection of Natural Vegetation and Adjacent Resources • Introduction and Spread of Invasive Plant Species • Site restoration where applicable.	Excavation/Dredging Materials • Protection of Natural Vegetation and Adjacent Resources • Introduction and Spread of Invasive Plant Species • Site restoration where applicable	
Operation Phase [Note - Specific Operational Activities to Reflect Outcome of Planning/Design, Permitting/Approval, and Stakeholder Engagement Activities]	• EMP Categories Per 2022 OSW Solicitation (as Applicable): - Birds and Bats • Permitted Air, Water, and Wastewater Discharges and Emissions • Planned Inspections and Maintenance by Operations Staff • Stormwater Pollution Prevention Plan • Waste Storage and Management • Fuel Use and Storage • Spill Prevention, Control, and Countermeasure Plan • Landscaping and Vegetation Control • Lighting Reduction Measures	• EMP Categories Per 2022 OSW Solicitation (as Applicable): - Birds and Bats - Fish and Invertebrates • Protection of Fish and Aquatic Life from Harm from Pollutants • Planned Inspections and Maintenance by Operations Staff • Permitted Air, Water, and Wastewater Discharges and Emissions • Waste Storage and Management • Fuel Use and Storage • Navigational Safety Risk Assessment for Vessel Traffic • Seasonal Navigational Safety	• EMP Categories Per 2022 OSW Solicitation (as Applicable): - Marine Mammals and Sea Turtles - Birds and Bats - Fish and Invertebrates • Protection of Fish and Aquatic Life from Harm from Pollutants • Planned Inspections and Maintenance by Operations Staff. Staff education relative to sensitive species. • Transportation in Commerce Requirements • Industry-standard requirements (State and Federal DOT, Coast Guard, etc.) • Navigational Safety Risk Assessment for Vessel Traffic

Project Life-Cycle Phase	Potential Environmental Impacts and Mitigation Considerations		
	Wind Nacelle Manufacturing / Warehouse Facility	**Port Facility Infrastructure Expansion/Upgrades**	**Nacelle Transportation - Downriver Areas**
		• Periodic maintenance dredging to maintain deep-water port.	• Seasonal Navigational Safety
Decommissioning	This activity and Project phase is generally not applicable to this EMP. Developed infrastructure is assumed to be re-purposed. [redacted]	This activity and Project phase is generally not applicable to this EMP. [redacted]	This activity and Project phase is generally not applicable for this EMP; [redacted]

Project Life-Cycle Phase	Potential Environmental Impacts and Mitigation Considerations		
	Wind Nacelle Manufacturing / Warehouse Facility	**Port Facility Infrastructure Expansion/Upgrades**	**Nacelle Transportation - Downriver Areas**

<u>Planning / Design</u>
Primarily focused on establishment of baseline conditions to avoid and/or mitigate environmental impacts.
 	
[Note – Applicable Federal, State, and Local Regulations and Permits/Approvals will be Considered, as well as Stakeholder Engagement]
	• EMP Categories Per 2022 OSW Solicitation (as applicable):
	  - Birds and Bats
	• Baseline Physical Surveys (Wetlands, Topography, Geology, Soils)
	• Environmental Testing (Soils and Groundwater)
	• Wildlife and Habitat Resources and Assessments. Including Rare, Threatened, and Endangered Species
	• Identify seasonal restrictions for sensitive species
	• Migratory birds and golden/bald eagle habitat assessment.
	• Flood Hazard Areas and Coastal Zone Management Area mapping.
	• Historic and cultural resource investigations
	• Facility Siting - Minimize Impacts to Physical Setting; Align Work with Existing Disturbed Areas
		• EMP Categories Per 2022 OSW Solicitation (as applicable):
		  - Birds and Bats
		  - Fish and Invertebrates
		• Baseline Physical Surveys (Waters, Wetlands, riparian areas, Topography, Bathymetry, Flows, Geology, Soils, Sediments)
		• Environmental Testing (Soils, Sediment, Surface Water)
		• Wildlife and Habitat Resources and Assessments. Including Rare, Threatened, and Endangered Plant and Animal Species
		• Identify seasonal restrictions for sensitive species
		• Migratory birds and golden/bald eagle habitat assessment.
		• Essential fish habitats and benthic characterization.
		• Flood hazard areas and coastal zone
			• EMP Categories Per 2022 OSW Solicitation (as applicable):
			  - Marine Mammals and Sea Turtles
			  - Birds and Bats
			  - Fish and Invertebrates
			• Rare, Threatened, and Endangered Plant and Animal Species, including critical resource areas.
			• Essential fish habitats.
			• Migratory birds and golden/bald eagle habitat assessment.
			• Seasonal Time of Year Work Restrictions or Best Management Practices for Endangered Species and/or Physical Hazards
			• Greenhouse gas (GHG) emissions
			• Potential Climate Change Risks (water level rise; flooding; wind; changes in temperatures and precipitation; impacts on species and other natural resources)

Project Life-Cycle Phase	Potential Environmental Impacts and Mitigation Considerations		
	Wind Nacelle Manufacturing / Warehouse Facility	Port Facility Infrastructure Expansion/Upgrades	Nacelle Transportation - Downriver Areas
	• Construction Methodologies - Regulations and Guidelines • Traffic and noise control planning • Greenhouse Gas (GHG) Emissions • Potential Climate Change Risks (water level rise; flooding; wind; changes in temperatures and precipitation; impacts on species and other natural resources)	management area mapping. • Historic and cultural resource investigations • Construction Methodologies - Regulations and Guidelines • Traffic and noise control planning • Greenhouse Gas (GHG) emissions • Potential Climate Change Risks (water level rise; flooding; wind; changes in temperatures and precipitation; impacts on species and other natural resources)	

Project Life-Cycle Phase	Potential Environmental Impacts and Mitigation Considerations		
	Wind Nacelle Manufacturing / Warehouse Facility	**Port Facility Infrastructure Expansion/Upgrades**	**Nacelle Transportation - Downriver Areas**
Construction Phase [Note - Specific Operational Activities to Reflect Outcome of Planning/Design, Permitting/Approval, and Stakeholder Engagement Activities]	• EMP Categories Per 2022 OSW Solicitation (as Applicable): - Birds and Bats • Waters, Wetlands Protection and Mitigation • Threatened and Endangered Species protection and mitigation. Including critical resource areas. • Historic and cultural resource protection. • Solid Waste Management • Stormwater Management • Soil erosion and Sediment Controls • Air Emissions/Dust Suppression • Noise and Traffic Controls • Spill Prevention and Control • Construction Vehicle and Work Zone Lighting • Management of Excess Spoil and Excavation Materials	• EMP Categories Per 2022 OSW Solicitation (as Applicable): - Birds and Bats - Fish and Invertebrates • Waters, Wetlands Protection and Mitigation • Threatened and Endangered Species protection and mitigation. Including critical resource areas. • Essential fish habitat protection and mitigation. • Historic and cultural resource protection. • Solid Waste Management • Stormwater Management • Soil erosion and Sediment Controls • Air Emissions/Dust Suppression • Noise and Traffic Controls • Spill Prevention and Control • Construction Vehicle and Work Zone Lighting • Management of Excess Spoil and	[redacted]

Project Life-Cycle Phase	Potential Environmental Impacts and Mitigation Considerations		
	Wind Nacelle Manufacturing / Warehouse Facility	**Port Facility Infrastructure Expansion/Upgrades**	**Nacelle Transportation - Downriver Areas**
	• Protection of Natural Vegetation and Adjacent Resources • Introduction and Spread of Invasive Plant Species • Site restoration where applicable.	Excavation/Dredging Materials • Protection of Natural Vegetation and Adjacent Resources • Introduction and Spread of Invasive Plant Species • Site restoration where applicable	
Operation Phase [Note - Specific Operational Activities to Reflect Outcome of Planning/Design, Permitting/Approval, and Stakeholder Engagement Activities]	• EMP Categories Per 2022 OSW Solicitation (as Applicable): - Birds and Bats • Permitted Air, Water, and Wastewater Discharges and Emissions • Planned Inspections and Maintenance by Operations Staff • Stormwater Pollution Prevention Plan • Waste Storage and Management • Fuel Use and Storage • Spill Prevention, Control, and Countermeasure Plan • Landscaping and Vegetation Control • Lighting Reduction Measures	• EMP Categories Per 2022 OSW Solicitation (as Applicable): - Birds and Bats - Fish and Invertebrates • Protection of Fish and Aquatic Life from Harm from Pollutants • Planned Inspections and Maintenance by Operations Staff • Permitted Air, Water, and Wastewater Discharges and Emissions • Waste Storage and Management • Fuel Use and Storage • Navigational Safety Risk Assessment for Vessel Traffic • Seasonal Navigational Safety	• EMP Categories Per 2022 OSW Solicitation (as Applicable): - Marine Mammals and Sea Turtles - Birds and Bats - Fish and Invertebrates • Protection of Fish and Aquatic Life from Harm from Pollutants • Planned Inspections and Maintenance by Operations Staff. Staff education relative to sensitive species. • Transportation in Commerce Requirements • Industry-standard requirements (State and Federal DOT, Coast Guard, etc.) • Navigational Safety Risk Assessment for Vessel Traffic

Project Life-Cycle Phase	Potential Environmental Impacts and Mitigation Considerations		
	Wind Nacelle Manufacturing / Warehouse Facility	Port Facility Infrastructure Expansion/Upgrades	Nacelle Transportation - Downriver Areas
		• Periodic maintenance dredging to maintain deep-water port.	• Seasonal Navigational Safety
Decommissioning	This activity and Project phase is generally not applicable to this EMP. Developed infrastructure is assumed to be re-purposed. [redacted]	This activity and Project phase is generally not applicable to this EMP. [redacted]	This activity and Project phase is generally not applicable for this EMP; [redacted]

E2. Communications and Collaborations

GE understands that consultation and coordination with relevant stakeholders is critical to the success of this Project, specifically to identify potential risks or opportunities for sufficiently avoiding and/or mitigating environmental impacts. This is further recognized in Table EMP-1 which identifies consideration of all applicable federal, state, and local regulations and permits/approvals, as well as stakeholder engagement throughout the Project life cycle. [redacted]

- The New York State Department of State (DOS) with respect to a Project's consistency with the policies set forth in the State's Coastal Management Program.
- The New York State Department of Environmental Conservation (DEC) with respect to assessment and mitigation of potential environmental impacts, including but not limited to, water quality, air quality, benthic communities, fish, fisheries, and wildlife impacts of the Project.

- The New York State Office of Parks, Recreation and Historic Preservation (OPRHP) with respect to the assessment and mitigation of effects on sites of historic or archeological significance.
- NYSERDA as a point of contact with respect to a Project's general consistency with the New York State Offshore Wind Master Plan and stakeholder feedback.
- NYSERDA with respect to identifying and delivering benefits to Disadvantaged Communities.]]

[redacted]

[redacted]

[redacted]

E3. Environmental Monitoring and Research Pre-, During- and Post-Construction

GE recognizes the need for further empirical research related to the development of OSW projects. GE will coordinate directly with the OSW Developer to support as necessary any required pre- and post-construction monitoring. GE is committed to collaborating with OSW Developer to ensure collaboration with the scientific community, E-TWG, relevant stakeholders, and third-party groups to conduct robust and relevant research that relates directly to monitoring [redacted]

[redacted]

[redacted]

[redacted]

E4. Supporting Other Environmental Research

Consistent with the discussion in Section E3 above, GE recognizes the need for further empirical research related to the development of the OSW projects that GE intends to support. GE is committed to collaborating with OSW Developer, the scientific community, E-TWG, relevant stakeholders, and third-party groups to conduct robust and relevant research that relates directly to monitoring environmental resources that could be affected by OSW projects. [redacted]

Since this EMP focuses on potential environmental issues and concerns associated with more traditional upland area and waterfront construction projects and operations, supporting environmental research is more applicable and critical to the development of the OSW projects rather than an SCIP Facility. Nevertheless, GE is committed to collaborating with the OSW Developer and supporting third-party research activities for environmental resources potentially impacted by the Project

[redacted]

E5. Marine Mammals and Sea Turtles

National Oceanic and Atmospheric Administration (NOAA) Fisheries Greater Atlantic Region ESA Section 7 Mapper identifies the upper extent of sea turtles within the Hudson River to be lower Manhattan proximate to Brookfield Place ferry terminal. The upper extent of Atlantic large whales with the Upper New York Bay is the Verrazano Bridge. As such, development of a [redacted] are not anticipated to impact marine mammals and sea turtles.

[redacted]

[redacted]

E6. Birds and Bats

It [redacted]

[redacted]

[redacted]

[redacted]

E7. Fish, Invertebrates and their Habitats

[redacted]

[redacted]

This EMP recognizes that the POC has already obtained approval under SEQRA and an individual U.S. Army Corps of Engineers (USACE) permit for the expansion of the port and related infrastructure to support the OSW industry. Through that process, relevant information and data was collected and presented to the stakeholders to satisfy federal and state regulatory requirements. Future revisions of this EMP will incorporate edits that address proposed mitigation measures as they relate to (1) [redacted]

[redacted]

E8. Consideration for Subsea and Overland Cables

This section is not applicable to activities covered under this EMP that focus on development of the new nacelle manufacturing facility, POC expansion, and in-river transport of the nacelles to the HRE.

E9. Additional Considerations

Future considerations to be addressed by this EMP will include emphasis on (1) [redacted]

E10. Project Decommissioning

Given the scope of the activities covered under this RFP, Project decommissioning is not expected to occur specific to: (1) [redacted]

Environmental Mitigation Plan ("Standardized Component") for Port of Coeymans Offshore Wind Nacelle Manufacturing Facility

Version [1.0]

Prepared pursuant to ORECRFP 22-1, 11/3/2022

with

New York State Energy Research and Development Authority

Albany, NY

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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]

Contents

Acronyms and Abbreviations

Arcadis	Arcadis US, Inc.
BOEM	Bureau of Ocean Energy Management
CSAP	Cetacean and Seabird Assessment Program
EFH	Essential Fish Habitat
EMF	Electromagnetic Fields
EMP	Environmental Mitigation Plan
ESA	Endangered Species Act
E-TWG	Environmental Technical Working Group
GE	General Electric Renewable Energy's LM Wind Power Group
HRE	Hudson-Raritan Estuary
IPaC	Information for Planning and Consultation
MSFCMA	Magnuson-Stevens Fishery Conservation and Management Act
NOAA	National Oceanic and Atmospheric Administration
NMFS	National Marine Fisheries Service
NYDOPS	New York State Department of Public Service
NYDOS	New York Department of State
NYOGS	New York Office of General Services
NYPRHP	New York Office of Parks, Recreation, and Historic Preservation
NYSERDA	New York State Energy Research & Development Authority
NYSDEC	New York Department of Environmental Conservation
OBIS	Ocean Biogeographic Information System
OSW	Offshore Wind
POC	Port of Coeymans
PSOs	Protected Species Observers
RFP	Request for Proposal
SCIP	Supply Chain Investment Plan
SEQR	State Environmental Quality Review
USFWS	United States Fish and Wildlife Service
USACE	United States Army Corps of Engineers

OSDOE	United States Dept. of Energy

1 Environmental 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 environmental impacts.

This Environmental Mitigation Plan (EMP) has been prepared by Arcadis US, Inc. (Arcadis) as a component of [redacted]. GE is well-aligned to support this OSW wind initiative in New York State [redacted]

[redacted]

- GE has a significant employee and business presence in New York State and has supported renewable energy (and other businesses) and environmental restoration projects within the state for several decades.
- GE's approach to environmental mitigation will ensure that the development and operation of an [redacted] in the Town of Coeymans, Albany County will not only satisfy all federal, state, and local laws, but further contribute to the advancement of our understanding of sustainable development practices.

[redacted]

Overall Project EMP Understanding

The 2022 OSW Solicitation requires the EMP to detail, to the extent practical, specific measures that will be taken to avoid, minimize, and/or mitigate potential environmental impacts of the proposed Project. Appendices E and C.2 of the Solicitation further describe the contents of the EMP and three specific categories of impacts to address:

[redacted]

Certain of the above categories (or portions thereof) are applicable to the overall Project, especially related to construction and operational activities within or near the Hudson River and aquatic setting. [redacted]

Future iterations of this EMP will evolve to reflect ongoing planning and design activities for the [redacted] facility and future OSW projects that it will support; in addition to regulatory and stakeholder communications and permitting and approval processes, including but not limited to those required under the New York State Environmental Quality Review Act ("SEQRA") related to SCIP Facilities. These activities will result in a broad and comprehensive assessment of potential environmental impacts and concerns, and corresponding mitigation measures, protective activities, best management practices, etc. that will be incorporated into the Project. There is a wide range of potential environmental impacts and related considerations that will addressed throughout the Project lifecycle (planning/design, construction, operations, and decommissioning), based on the following:

[redacted]

[redacted]

To advance the EMP framework presented herein, GE will work closely and collaboratively with the OSW Developer; federal, state, and local regulatory agencies; and other stakeholders to consider the broad range of potential environmental impacts associated with the Project. Future iterations of the EMP will outline best management practices, industry standards, scheduling, or other mitigating strategies that likely draw from the activities related to the various federal, state, and local reviews, permits, and approval processes.

The remainder of this EMP provides an initial assessment of potential environmental concerns and issues, and to the extent possible a discussion of the typical mitigation activities that will be employed. [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 EMP and support decision-making throughout the life cycle of the project (preconstruction, surveys, site design, construction, operations, and decommissioning).

- GE understands that consultation and coordinate with relevant stakeholders is critical to the success of this Project. Specifically, it is a means of identifying potential risks or opportunities for sufficiently avoiding and/or mitigating environmental impacts.

[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 EMP. Include links, if available, for all references.

- GE will follow relevant guidance documents and rely on publications, tools, and/or plans to support development of this EMP in accordance with applicable permit requirements. Such reference materials could include, but not be limited to, the following as needed:
  - Draft Guidance Regarding the Use of a Project Design Envelope in a Construction and Operations Plan (Bureau of Ocean Energy Management [BOEM] 2018) https://www.boem.gov/Draft-Design-Envelope-Guidance/
  - Guidelines for Providing Archaeological and Historic Property Information Pursuant to 30 CFR Part 585 (BOEM 2017) https://www.boem.gov/Guidelines for Providing Archaeological and Historic Property Information Pursuant to 30CFR585/
  - Guidelines for Providing Geophysical, Geotechnical, and Geohazard Information Pursuant to 30 CFR Part 585 (BOEM 2015) https://www.boem.gov/G G Guidelines Providing Geophysical Geotechnical Geohazard Information Pursuant to 30 CFR Part 585/
  - Technical Guidance for Assessing the Effects of Anthropogenic Sound on Marine Mammal Hearing (National Oceanic and Atmospheric Administration [NOAA] Fisheries 2018) https://www.fisheries.noaa.gov/resource/document/technical-guidance- assessing-effects-anthropogenic-sound-marine-mammal-hearing
  - U.S. Dept. of Energy (OSDOE) "Tethys" database for OSW energy publications (USDOE-PNNL 2019) https://tethys.pnnl.gov/
  - NYSERDA Publications
    - https://www.nyserda.ny.gov/About/Publications
    - https://www.nyserda.ny.gov/About/Publications/Offshore-Wind-Plans-for-New-York-State
  - BOEM Renewable Energy Research (BOEM 2019) https://www.boem.gov/Renewable-Energy-Environmental-Studies/
  - Summary Report: Best Management Practices Workshop for Atlantic Offshore Wind Facilities and Marine Protected Species (BOEM 2018) https://www.boem.gov/Final-Summary-Report-for-BMP-Workshop-BOEM/
  - Northeast Ocean Data Explorer (NROC 2019) https://www.northeastoceandata.org/
  - Mid-Atlantic Ocean Data Portal (MARCO 2019) https://portal.midatlanticocean.org/
  - BOEM/NOAA Marine Cadastre (BOEM & NOAA 2019) https://marinecadastre.gov/
  - NOAA Essential Fish Habitat (EFH) Data Inventory https://www.habitat.noaa.gov/application/efhinventory/index.html
  - Ocean Biogeographic Information System (OBIS) Mapper and Protected Species Database (OBIS 2019)
    - https://mapper.obis.org/
    - https://mgel.env.duke.edu/projects-old/obis-seamap/

- NOAA-U.S. Fish and Wildlife Service (USFWS) Endangered Species Act (ESA) inventory/mapper and Section-7 Consultation tools – Mapper and IPaC (NOAA 2019; USFWS 2019)
  - https://www.greateratlantic.fisheries.noaa.gov/protected/section7/listing/i ndex.html
  - https://ecos.fws.gov/ipac/
- NOAA Marine Mammal Acoustic Technical Guidance (NOAA 2018)
  - https://www.fisheries.noaa.gov/national/marine-mammal- protection/marine-mammal-acoustic-technical-guidance
- NOAA Marine Mammal Annual Stock Assessments (NOAA 2019)
  - https://www.fisheries.noaa.gov/national/marine-mammal protection/marine-mammal-stock-assessments
- Additional sources such as Marine-Life Data and Analysis Team (MDAT; http://seamap.env.duke.edu/models/mdat/) as recommended by NOAA Fisheries and the Bureau of Ocean Energy Management
- New York State Offshore Wind Master Plan (NYSERDA 2017), with corresponding studies/appendices listed below
  - https://www.nyserda.ny.gov/All-Programs/Programs/Offshore- Wind/Offshore-Wind-in-New-York-State-Overview/NYS-Offshore-Wind- Master-Plan
    - New York State Offshore Wind Master Plan Birds and Bats Study (NYSERDA 2017) https://www.nyserda.ny.gov/All- Programs/Programs/Offshore-Wind/Studies-and-Surveys
    - New York State Offshore Wind Master Plan Fish and Fisheries Study (NYSERDA 2017) https://www.nyserda.ny.gov/All- Programs/Programs/Offshore-Wind/Studies-and-Surveys
    - New York State Offshore wind Master Plan Marine Mammals and Sea Turtle Study (NYSERDA 2017) https://www.nyserda.ny.gov/All-Programs/Programs/Offshore-Wind/Studies-and-Surveys
    - New York State Offshore Wind Master Plan Sand and Gravel Resources Study (NYSERDA 2017) https://www.nyserda.ny.gov/All- Programs/Programs/Offshore-Wind/Studies-and-Surveys
    - New York State Offshore Wind Master Plan Environmental Sensitivity Analysis (NYSERDA 2017) https://www.nyserda.ny.gov/All- Programs/Programs/Offshore-Wind/Studies-and-Surveys

2 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 environmental mitigation.

- GE will engage with both regulatory (including federal, state, and local agencies) and non-regulatory stakeholders (including environmental groups, fishing community, and local communities).
- GE will provide updates to regulatory and non-regulatory stakeholders at all stages of the Project so that interested parties have sufficient opportunity to provide input.
- GE will undertake a detailed regulatory and non-regulatory stakeholder mapping process to promote Project awareness of relevant inputs, and consideration of appropriate information that is applicable to the Project.

2.2 Communication Officers/Positions, Responsibilities, and Contact Information

This section will 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 will also include links to the project website so readers know where to find additional information. [Complete Table as Appropriate]

Name/Title	Roles/Responsibilities	Contact Information
[redacted]	[redacted]	[redacted]

2.3 Identification of Stakeholders

This section should describe the process by which stakeholders relevant to environmental issues will be identified and classified by stakeholder group.

[redacted]

[redacted]

2.4 Participation in stakeholder and technical working groups

2.4.1 Communication with E-TWG

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

- GE is committed to actively participating in and contributing to the E-TWG.
- GE will further dedicate Project specific resources to the E-TWG.
- GE is committed to E-TWG through attending future meetings and workshops.

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.

- GE is committed to engaging with New York State agencies throughout the Project development process, including Project updates and plans, environmental data collection, baseline data, potential mitigation options, terrestrial archaeology, historic architecture, and permitting. New York State agencies could include:
  - New York Department of Environmental Conservation (NYSDEC)
  - New York Department of State (NYDOS)
  - New York Office of Parks, Recreation, and Historic Preservation (NYPRHP)
  - New York Office of General Services (NYOGS)
  - NYSERDA
  - New York State Department of Public Service (NYDOPS)

2.4.3 Communication with Other Stakeholder and Working Groups

This should describe any relevant participation with other stakeholder groups that would help inform the EMP.

[redacted]

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.

[redacted]

2.5 Communication methods and tools 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.

[redacted]

Proposed Outreach Method/Tools	Phase*			
	1	2	3	4
Public Informational Meetings	X	X	X	X
Stakeholder Workshops	X	X	X	X
Website Promotion and Social Media	X	X	X	X
Press Releases or Newsletters	X	X	X	X
Regulatory Meetings	X	X	X	X
E-TWG Meetings	X	X	X	X
**Phase: 1: Survey/Design; 2: Construction; 3: Operation; 4: Decommission*				

3 Supporting Other Research

3.1 Support of Collaborative Research

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

[redacted]

- [redacted]

3.2 Handing/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 the environment for the purpose of publication in peer-reviewed journals or other scientifically rigorous products.

[redacted]

3.3 Data Availability

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

[redacted]

3.4 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.

[redacted]

3.5 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, including federal or State-supported research. Or, if elected, provide the level of

commitment to a general fund for supporting third-party research into potential environmental effects of offshore wind energy development.

[redacted]

3.6 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]

4 Proposed Mitigation of Impacts to Marine Mammals and Sea Turtles

NOAA Fisheries Greater Atlantic Region ESA Section 7 Mapper identifies the upper extent of sea turtles within the Hudson River to be lower Manhattan proximate to Brookfield Place ferry terminal. The upper extent of Atlantic large whales with the Upper New York Bay is the Verrazano Bridge. As such, development of the new nacelle manufacturing facility and the expansion of POC facility infrastructure are not anticipated to impact marine mammals and sea turtles.

This EMP assumes that in-river transport of nacelles from POC will extend only into areas within the HRE. The HRE is an intricate natural harbor associated with both the Hudson River and Raritan River, and which includes both the Port of New York and New Jersey. Specifically, this EMP acknowledges the potential impact associated with vessel strikes during transportation of the nacelles. While it is expected there will be overlap with EMPs developed specifically to support the development of multiple OSW projects, this EMP identifies mitigation and monitoring practices that will likely be considered specific to the transportation of nacelles from the POC. This plan will be revised as needed to ensure consistency with relevant downriver EMPs, as well as federal, state, and local permits required to support the overall development of OSW projects.

4.1 Baseline Characterization

4.1.1 Available Information

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

[redacted]

- [redacted]

4.1.2 Data Being Collected

Describe data collected, or will be collected, to support baseline characterization.

[redacted]

4.2 Species at Risk

Describe which species the Developer believes to be of greatest concern and why.

[redacted]

4.3 Potential Impacts and Mitigation Measures by Phase

The table below should list the potential impacts to marine mammals and sea turtles and proposed mitigation measures. To this end, a description of proposed measures to minimize the impacts of sound on marine mammals and sea turtles during all phases to Project development should be included. In addition, provide a description of the anticipated pre- and post-construction survey techniques to establish an ecological baseline and changes to that baseline within the Project site; the minimum size of exclusion zone intended to be monitored during geophysical surveys and construction; planned approaches to understanding marine mammal and sea turtle presence and absence within development site exclusion zone during site assessment and construction (e.g. a combination of visual monitoring by protected species observers and passive acoustic monitoring, the use of night vision and infra-red cameras during nighttime activities, etc.); proposed temporal constraints on construction activities and geophysical surveys with noise levels that could cause injury to harassment in marine mammals (e.g., seasonal restrictions during periods of heightened vulnerability for priority species; commencing activities during daylight hours and good visibility conditions, dynamic adjustments following the detection of a marine mammal); and proposed equipment and technologies the Developer would use to reduce the amount of sound at the source, if any. [Add potential impacts and proposed mitigation measures as appropriate

Potential Impacts	Proposed Mitigation Measures	Phase*			
		1	2	3	4
Underwater Noise Impacts from Geophysical Survey	[redacted]				
Underwater Noise Impacts from Construction and Installation Activities	[redacted]				
Increased Vessel Traffic, and Increased Risk of Spills and Strikes on Marine Mammals and Sea Turtles	[redacted]		X	X	

Potential Impacts	Proposed Mitigation Measures	Phase*			
		1	2	3	4
	[redacted]				
Electromagnetic Fields (EMF), Resulting in Disturbance to	Not Applicable – Placement of electromagnetic cables to support Project not applicable to this EMP.				

Potential Impacts	Proposed Mitigation Measures	Phase*			
		1	2	3	4
Marine Mammals/Sea Turtles/or Their Prey Resources					
Additional Proposed Mitigations	[redacted]	X	X	X	

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

4.4 Monitor for Potential Impacts During Each Phase

Describe how potential impacts will be monitored on marine mammals and sea turtles 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.

- GE will seek to collaborate with regulatory agencies and stakeholder groups to identify research needs and opportunities. This specifically applies to coordination with the OSW Developer associated with the Project.

4.4.1 Pre/Post Monitoring to Assess and Quantify Impacts and Changes

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

[redacted]

- [redacted]

4.4.2 Address Data Gaps

Describe how data gaps will be addressed.

[redacted]

- [redacted]

4.5 Strategies for Developing Alternate Protocols

Describe the process for determining when mitigation strategies are insufficient and under what conditions they might elect to rehabilitate or restore impacted marine mammals and sea turtles in an alternative location.

[redacted]

5 Proposed Mitigation of Impacts to Birds and Bats

It is recognized that the development of the [redacted] facility and expansion of POC facility infrastructure has the potential to impact birds and bats. Specifically, potential impacts could result from habitat disturbance and possible displacement. It is assumed for purposes of this EMP that transport of wind nacelles down the Hudson River and into the HRE will not impact birds and bats [redacted]

5.1 Baseline characterization

Describe how baseline data will be established on the presence of bird and bat assemblages, temporal and spatial use of the site by key species within the area of the proposed Project.

5.1.1 Available information

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

[redacted]

https://ecos.fws.gov/ipac/

https://www.dec.ny.gov/animals/38801.html

[redacted]

https://www.nyserda.ny.gov/All-Programs/Programs/Offshore-Wind/Offshore-Wind-in-NewYork-State-Overview/NYS-Offshore-Wind- Master- Plan

[redacted]

https://www.nj.gov/dep/dsr/ocean-wind/report.htm

[redacted]

[redacted]
http://www.dec.ny.gov/animals/7179.html
[redacted]

5.1.2 Data collected

Describe data collected, or will be collected, to support baseline characterization.

- [redacted]

5.2 Species at risk

Describe which species the Developer believes to be of greatest concern and why.

[redacted]

- [redacted]

5.3 Potential impacts/risks and mitigation measures by Project stage

The table below should list the potential impacts and mitigation measures to understand and minimize the Project's risk to birds and bats. At a minimum this should include the steps the Developer will pursue to minimize risk to birds and bats (e.g., lighting), and identification of technological approaches to assess impacts or any Proposals for other research or mitigations relating to birds or bats planned or under consideration at this time. [Add impacts and mitigation measures as appropriate]

Potential Impacts	Proposed Mitigation Measures	Phase*			
		1	2	3	4
Collision risk to marine birds and bats	Not applicable to activities covered by this EMP. [redacted]				
Impacts from Accidental Oil Spills from Project Related Vessels or Structures	• [redacted]	X	X	X	X
Habitat impacts, including disturbance and displacement	[redacted] Siting and construction of facilities and warehouses associated with [redacted]		X	X	X

Potential Impacts	Proposed Mitigation Measures	Phase*			
		1	2	3	4
	[redacted]				
Phase: 1: Survey/Design; 2: Construction; 3: Operation; 4: Decommission					

5.4 Monitor for impacts during each phase

Describe how potential impacts will be monitored on birds and bats 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.

5.4.1 Pre/Post monitoring to assess and quantify changes

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

[redacted]

5.4.2 Address data gaps

Describe how data gaps will be addressed.

[redacted]

[redacted]

5.5 Strategies for developing alternate protocols

Describe the process for determining when mitigation strategies are insufficient and under what conditions they might elect to rehabilitate or restore impacted birds and bats in an alternative location.

[redacted]

6 Proposed Mitigation of Impacts to Fish, Invertebrates and their Habitats

6.1 Baseline characterization

Describe what is known about the proposed site in terms fish and invertebrate assemblage, and temporal and spatial variations in fish, invertebrates, and their habitats at the proposed site. The use of collaborative monitoring models with the fishing community is encouraged to develop trusted baseline data.

6.1.1 Available information

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

- Public data sources are suitable for characterizing benthic habitat and fisheries resources in the Project area, including:
  - The evaluation of NYSERDA's Master Plan Fish and Fisheries Study (2017; Appendix J).
  - Estuarine Living Marine Resource database (NOAA 2000) provides descriptions of spatial and temporal distributions of species (by life stage) in Hudson River/Raritan Bay and the Great South Bay.
  - NYSDEC Atlantic Sturgeon Monitoring in Hudson River Region https://www.dec.ny.gov/animals/109120.html
  - NOAA NMFS Biological Assessment of Shortnose Sturgeon (*Acipenser brevirostrum*).
  - NYSDEC Environmental Resource Mapper, available at https://www.dec.ny.gov/animals/38801.html
  - NOAA Fisheries EFH Mapper, available at https://www.fisheries.noaa.gov/resource/map/essential-fish-habitat-mapper.

6.1.2 Data being collected

Describe data collected, or will be collected, to support baseline characterization.

- The POC has obtained approval under the New York State Environmental Quality Review Act (SEQRA) and an individual USACE permit for the expansion of the port to support the OSW industry. Through that process, data was collected and presented to the stakeholders to satisfy federal and state regulatory requirements. [redacted]

6.2 Species at risk

Describe which species the Developer believes to be of greatest concern and why.

[redacted]

6.3 Potential impacts/risks and mitigation measures by Project stage

The table below should list the potential impacts to fish, invertebrates, and their habitats and proposed mitigation measures. To this end, this section should describe how the Developers will minimize risk to fish, invertebrates and their habitats (e.g., foundation type, scour protection, cable shielding for electromagnetic fields, construction windows, siltation/turbidity controls, use of dynamic-positioning vessels and jet plow embedment).

Potential Impacts	Proposed Mitigation Measures	Phase*			
		1	2	3	4
Micro-siting conflicts with habitats and fishery resources		X	X	X	
Exposure to Underwater Noise			X		
Increased Suspended Sediment Concentration and Impacts to Water Quality			X	X	
Exposure to Accidental Spills, Pollution, or Trash from Project Related Activities		X	X	X	X

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

6.4 Monitor for Impacts During Each Phase

Describe how potential impacts will be monitored on these types of fish and invertebrates 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.

6.4.1 Pre/Post Monitoring to Assess and Quantify Changes

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

[redacted]

- [redacted].

6.4.2 Addressing data gaps

Describe how data gaps will be addressed.

[redacted]

- [redacted].

6.5 Strategies for developing alternate protocols

Describe the process for determining when mitigation strategies are insufficient and under what conditions they might elect to rehabilitate or restore impacted fisheries in an alternative location or when the provision of compensation of some form may be appropriate.

- [redacted].

7 Considerations for Subsea and Overland Cables

This section is not applicable to activities covered under this EMP.

8 Additional Considerations

8.1 Additional Mitigation Strategies and EMP Refinement

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

[redacted]

8.2 Process for updating the EMP

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

[redacted]

9 Project Decommissioning

Given the scope of the activities covered under this RFP, project decommissioning is not expected to occur specific to (1) construction of the manufacturing/warehouse facility, and (2) expansion of the POC. If nacelle manufacturing was no longer required at some point in the future, then this developed infrastructure is assumed to be repurposed to support other industries.

9.1 Potential impacts on marine wildlife, birds, bats, and fisheries

This section should describe potential impacts to marine mammals, sea turtles, birds, bats, and fisheries and habitats from decommissioning the project, based on available information and relevant experience (if any).

[redacted]

[redacted]
www.arcadis.com

Environmental Mitigation Plan – LM

Environmental Mitigation Plan ("Narrative Component")
for
Port of Coeymans
Offshore Wind Turbine Blade Manufacturing Facility
Version [1.0]
Prepared pursuant to ORECRFP 22-1, 11/3/2022

with

New York State Energy Research and Development Authority

Albany, NY

Prepared for:

GE Renewable Energy & LM Wind Power

GE Renewable Energy

LM WIND POWER
a GE Renewable Energy business

Contents

Environmental Mitigation Plan – Narrative Component

This Environmental Mitigation Plan (EMP) has been prepared by Arcadis US, Inc. (Arcadis) as a component of the General Electric Renewable Energy's LM Wind Power Group's (GE's) proposal to support the development of future Offshore Wind (OSW) renewable energy in New York State. GE is well-aligned to support this initiative in New York State and the OWS Developer for several reasons:

- GE is leading the offshore wind industry with the latest technologies including the H[redacted], GE has invested more than $400 million to develop leading technologies while leveling costs for their customers.
- GE has installed more than 400+ gigawatts of clean renewable energy and equipped more than 90 percent of utilities worldwide with its grid solutions. GE operates a global network of local offshore wind power service centers that offer a full range of services to enhance availability of equipment, improve energy generation, and optimize performance.
- GE has a significant employee and business presence in New York State and has supported renewable energy (and other businesses) and environmental restoration projects within the state for several decades.
- GE's approach to environmental mitigation will ensure that the development and operation of an o[redacted] in the Town of Coeymans, Albany County will not only satisfy all federal, state, and local laws, but further contribute to the advancement of our understanding of sustainable development practices.

G[redacted]

- [redacted]

E.1 Environmental Mitigation Plan Summary

The 2022 OSW Solicitation requires the EMP to detail, to the extent practical, specific measures that will be taken to avoid, minimize, and/or mitigate potential environmental impacts of the proposed Project. [redacted]

Certain of the above categories (or portions thereof) are applicable to the overall Project, especially related to construction and operational activities within or near the Hudson River and aquatic setting. [redacted]

Table EMP-1. Summary of Potential Environmental Impacts and Mitigation Considerations (Overall Planning Matrix)

Project Life-Cycle Phase	Potential Environmental Impacts and Mitigation Considerations		
	Blade Manufacturing / Warehouse Facility	**Port Facility Infrastructure Expansion/Upgrades**	**Blade Transportation - Downriver Areas**
Planning / Design Primarily focused on establishment of baseline conditions to avoid and/or mitigate environmental impacts. [Note – Applicable Federal, State, and Local Regulations and Permits/Approvals will be Considered, as well as Stakeholder Engagement]	• EMP Categories Per 2022 OSW Solicitation (as applicable): - Birds and Bats • Baseline Physical Surveys (Wetlands, Topography, Geology, Soils) • Environmental Testing (Soils and Groundwater) • Wildlife and Habitat Resources and Assessments. Including Rare, Threatened, and Endangered Species • Identify seasonal restrictions for sensitive species • Migratory birds and golden/bald eagle habitat assessment. • Flood Hazard Areas and Coastal Zone Management Area mapping. • Historic and cultural resource investigations • Facility Siting - Minimize Impacts to Physical Setting; Align	• EMP Categories Per 2022 OSW Solicitation (as applicable): - Birds and Bats - Fish and Invertebrates • Baseline Physical Surveys (Waters, Wetlands, riparian areas, Topography, Bathymetry, Flows, Geology, Soils, Sediments) • Environmental Testing (Soils, Sediment, Surface Water) • Wildlife and Habitat Resources and Assessments. Including Rare, Threatened, and Endangered Plant and Animal Species • Identify seasonal restrictions for sensitive species • Migratory birds and golden/bald eagle habitat assessment. • Essential fish habitats and benthic characterization.	• EMP Categories Per 2022 OSW Solicitation (as applicable): - Marine Mammals and Sea Turtles - Birds and Bats - Fish and Invertebrates • Rare, Threatened, and Endangered Plant and Animal Species, including critical resource areas. • Essential fish habitats. • Migratory birds and golden/bald eagle habitat assessment. • Seasonal Time of Year Work Restrictions or Best Management Practices for Endangered Species and/or Physical Hazards • Greenhouse gas (GHG) emissions • Potential Climate Change Risks (water level rise; flooding; wind; changes in temperatures and precipitation; impacts on species and other natural resources)

Project Life-Cycle Phase	Potential Environmental Impacts and Mitigation Considerations		
	Blade Manufacturing / Warehouse Facility	**Port Facility Infrastructure Expansion/Upgrades**	**Blade Transportation - Downriver Areas**
	Work with Existing Disturbed Areas • Construction Methodologies - Regulations and Guidelines • Traffic and noise control planning • Greenhouse Gas (GHG) Emissions • Potential Climate Change Risks (water level rise; flooding; wind; changes in temperatures and precipitation; impacts on species and other natural resources)	• Flood hazard areas and coastal zone management area mapping. • Historic and cultural resource investigations • Construction Methodologies - Regulations and Guidelines • Traffic and noise control planning • Greenhouse Gas (GHG) emissions • Potential Climate Change Risks (water level rise; flooding; wind; changes in temperatures and precipitation; impacts on species and other natural resources)	

Project Life-Cycle Phase	Potential Environmental Impacts and Mitigation Considerations		
	Blade Manufacturing / Warehouse Facility	**Port Facility Infrastructure Expansion/Upgrades**	**Blade Transportation - Downriver Areas**
Construction Phase [Note - Specific Operational Activities to Reflect Outcome of Planning/Design, Permitting/Approval, and Stakeholder Engagement Activities]	• EMP Categories Per 2022 OSW Solicitation (as Applicable): - Birds and Bats • Waters, Wetlands Protection and Mitigation • Threatened and Endangered Species protection and mitigation. Including critical resource areas. • Historic and cultural resource protection. • Solid Waste Management • Stormwater Management • Soil erosion and Sediment Controls • Air Emissions/Dust Suppression • Noise and Traffic Controls • Spill Prevention and Control • Construction Vehicle and Work Zone Lighting • Management of Excess Spoil and Excavation Materials	• EMP Categories Per 2022 OSW Solicitation (as Applicable): - Birds and Bats - Fish and Invertebrates • Waters, Wetlands Protection and Mitigation • Threatened and Endangered Species protection and mitigation. Including critical resource areas. • Essential fish habitat protection and mitigation. • Historic and cultural resource protection. • Solid Waste Management • Stormwater Management • Soil erosion and Sediment Controls • Air Emissions/Dust Suppression • Noise and Traffic Controls • Spill Prevention and Control • Construction Vehicle and Work Zone Lighting • Management of Excess Spoil and	This activity and Project phase is generally not applicable for this EMP; [redacted]

Project Life-Cycle Phase	Potential Environmental Impacts and Mitigation Considerations		
	Blade Manufacturing / Warehouse Facility	**Port Facility Infrastructure Expansion/Upgrades**	**Blade Transportation - Downriver Areas**
	• Protection of Natural Vegetation and Adjacent Resources • Introduction and Spread of Invasive Plant Species • [redacted]	Excavation/Dredging Materials • Protection of Natural Vegetation and Adjacent Resources • Introduction and Spread of Invasive Plant Species [redacted]	
Operation Phase [Note - Specific Operational Activities to Reflect Outcome of Planning/Design, Permitting/Approval, and Stakeholder Engagement Activities]	• EMP Categories Per 2022 OSW Solicitation (as Applicable): - Birds and Bats • Permitted Air, Water, and Wastewater Discharges and Emissions • Planned Inspections and Maintenance by Operations Staff • Stormwater Pollution Prevention Plan • Waste Storage and Management • Fuel Use and Storage • Spill Prevention, Control, and Countermeasure Plan • Landscaping and Vegetation Control • Lighting Reduction Measures	• EMP Categories Per 2022 OSW Solicitation (as Applicable): - Birds and Bats - Fish and Invertebrates • Protection of Fish and Aquatic Life from Harm from Pollutants • Planned Inspections and Maintenance by Operations Staff • Permitted Air, Water, and Wastewater Discharges and Emissions • Waste Storage and Management • Fuel Use and Storage • Navigational Safety Risk Assessment for Vessel Traffic • Seasonal Navigational Safety	• EMP Categories Per 2022 OSW Solicitation (as Applicable): - Marine Mammals and Sea Turtles - Birds and Bats - Fish and Invertebrates • Protection of Fish and Aquatic Life from Harm from Pollutants • Planned Inspections and Maintenance by Operations Staff. Staff education relative to sensitive species. • Transportation in Commerce Requirements • Industry-standard requirements (State and Federal DOT, Coast Guard, etc.) • Navigational Safety Risk Assessment for Vessel Traffic

Project Life-Cycle Phase	Potential Environmental Impacts and Mitigation Considerations		
	Blade Manufacturing / Warehouse Facility	Port Facility Infrastructure Expansion/Upgrades	Blade Transportation - Downriver Areas
		• Periodic maintenance dredging to maintain deep-water port.	• Seasonal Navigational Safety
Decommissioning	[redacted]	This activity and Project phase is generally not applicable to this EMP. Developed infrastructure is assumed to be re-purposed as needed.	This activity and Project phase is generally not applicable for this EMP; [redacted]

E2. Communications and Collaborations

GE understands that consultation and coordination with relevant stakeholders is critical to the success of this Project, specifically to identify potential risks or opportunities for sufficiently avoiding and/or mitigating environmental impacts. This is further recognized in Table EMP-1 which identifies consideration of all applicable federal, state, and local regulations and permits/approvals, as well as stakeholder engagement throughout the Project life cycle. [redacted]

- The New York State Department of State (DOS) with respect to a Project's consistency with the policies set forth in the State's Coastal Management Program.
- The New York State Department of Environmental Conservation (DEC) with respect to assessment and mitigation of potential environmental impacts, including but not limited to, water quality, air quality, benthic communities, fish, fisheries, and wildlife impacts of the Project.

- The New York State Office of Parks, Recreation and Historic Preservation (OPRHP) with respect to the assessment and mitigation of effects on sites of historic or archeological significance.
- NYSERDA as a point of contact with respect to a Project's general consistency with the New York State Offshore Wind Master Plan and stakeholder feedback.
- NYSERDA with respect to identifying and delivering benefits to Disadvantaged Communities.

[redacted]

[redacted]

[redacted]

E3. Environmental Monitoring and Research Pre-, During- and Post-Construction

GE recognizes the need for further empirical research related to the development of OSW projects. GE will coordinate directly with the OSW Developer to support as necessary any required pre- and post-construction monitoring. GE is committed to collaborating with the OSW Developer to ensure collaboration with the scientific community, E-TWG, relevant stakeholders, and third-party groups to conduct robust and relevant research that relates directly to monitoring environmental resources that could be affected from OSW projects.

[redacted]

[redacted]

[redacted]

E4. Supporting Other Environmental Research

Consistent with the discussion in Section E3 above, GE recognizes the need for further empirical research related to the development of the OSW projects that GE intends to support. GE is committed to collaborating with the OSW Developer, the scientific community, E-TWG, relevant stakeholders, and third-party groups to conduct robust and relevant research that relates directly to monitoring environmental resources that could be affected by OSW projects. [redacted]

Since this EMP focuses on potential environmental issues and concerns associated with more traditional upland area and waterfront construction projects and operations, supporting environmental research is more applicable and critical to the development of the OSW projects rather than an SCIP Facility. Nevertheless, GE is committed to collaborating with the OSW Developer and supporting third-party research activities for environmental resources potentially impacted by the Project.

[redacted]

E5. Marine Mammals and Sea Turtles

National Oceanic and Atmospheric Administration (NOAA) Fisheries Greater Atlantic Region ESA Section 7 Mapper identifies the upper extent of sea turtles within the Hudson River to be lower Manhattan proximate to Brookfield Place ferry terminal. The upper extent of Atlantic large whales with the Upper New York Bay is the Verrazano Bridge. As such, development of manufacturing/warehouse facility and the expansion of POC facility infrastructure are not anticipated to impact marine mammals and sea turtles.

[redacted]

[redacted]

E6. Birds and Bats

[redacted]

E7. Fish, Invertebrates and their Habitats

[redacted]

[redacted]

This EMP recognizes that the POC has already obtained approval under SEQRA and an individual U.S. Army Corps of Engineers (USACE) permit for the expansion of the port and related infrastructure to support the OSW industry. Through that process, relevant information and data was collected and presented to the stakeholders to satisfy federal and state regulatory requirements. Future revisions of this EMP will incorporate edits that address proposed mitigation measures as they relate to [redacted]

[redacted]

E8. Consideration for Subsea and Overland Cables

This section is not applicable to activities covered under this EMP that focus on development of the new blade manufacturing facility, POC expansion, and in-river transport of the blades to the HRE.

E9. Additional Considerations

Future considerations to be addressed by this EMP will include emphasis on [redacted]

E10. Project Decommissioning

Given the scope of the activities covered under this RFP, Project decommissioning is not expected to occur specific to: ([redacted]

Environmental Mitigation Plan ("Standardized Component") for Port of Coeymans Offshore Wind Turbine Blade Manufacturing Facility

Version [1.0]

Prepared pursuant to ORECRFP 22-1, 11/3/2022

with

New York State Energy Research and Development Authority

Albany, NY

Prepared by

GE Renewable Energy & LM Wind Power

GE Renewable Energy

LM WIND POWER

a GE Renewable Energy business

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]

Contents

Acronyms and Abbreviations

Arcadis	Arcadis US, Inc.
BOEM	Bureau of Ocean Energy Management
CSAP	Cetacean and Seabird Assessment Program
EFH	Essential Fish Habitat
EMF	Electromagnetic Fields
EMP	Environmental Mitigation Plan
ESA	Endangered Species Act
E-TWG	Environmental Technical Working Group
GE	General Electric Renewable Energy's LM Wind Power Group
HRE	Hudson-Raritan Estuary
IPaC	Information for Planning and Consultation
MSFCMA	Magnuson-Stevens Fishery Conservation and Management Act
NOAA	National Oceanic and Atmospheric Administration
NMFS	National Marine Fisheries Service
NYDOPS	New York State Department of Public Service
NYDOS	New York Department of State
NYOGS	New York Office of General Services
NYPRHP	New York Office of Parks, Recreation, and Historic Preservation
NYSERDA	New York State Energy Research & Development Authority
NYSDEC	New York Department of Environmental Conservation
OBIS	Ocean Biogeographic Information System
OSW	Offshore Wind
POC	Port of Coeymans
PSOs	Protected Species Observers
RFP	Request for Proposal
SCIP	Supply Chain Investment Plan
SEQR	State Environmental Quality Review
USFWS	United States Fish and Wildlife Service
USACE	United States Army Corps of Engineers

OSDOE	United States Dept. of Energy

1 Environmental 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 environmental impacts.

This Environmental Mitigation Plan (EMP) has been prepared by Arcadis US, Inc. (Arcadis) as a component [redacted]

- GE is leading the OSW industry with the latest technologies including the [redacted], GE has invested more than $400 million to develop leading technologies while leveling costs for their customers.
- GE has installed more than 400⁺ gigawatts of clean renewable energy and equipped more than 90 percent of utilities worldwide with its grid solutions. GE operates a global network of local OSW power service centers that offer a full range of services to enhance availability of equipment, improve energy generation, and optimize performance.
- GE has a significant employee and business presence in New York State and has supported renewable energy (and other businesses) and environmental restoration projects within the state for several decades.
- GE's approach to environmental mitigation will ensure that the development and operation of an OSW turbine blade facility in the Town of Coeymans, Albany County will not only satisfy all federal, state, and local laws, but further contribute to the advancement of our understanding of sustainable development practices.

G[redacted]

[redacted]

To advance the EMP framework presented herein, GE will work closely and collaboratively with the OSW Developer; federal, state, and local regulatory agencies; and other stakeholders to consider the broad range of potential environmental impacts associated with the Project. Future iterations of the EMP will outline best management practices, industry standards, scheduling, or other mitigating strategies that likely draw from the activities related to the various federal, state, and local reviews, permits, and approval processes.

The remainder of this EMP provides an initial assessment of potential environmental concerns and issues, and to the extent possible a discussion of the typical mitigation activities that will be employed. [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 EMP and support decision-making throughout the life cycle of the project (preconstruction, surveys, site design, construction, operations, and decommissioning).

- GE understands that consultation and coordinate with relevant stakeholders is critical to the success of this Project. Specifically, it is a means of identifying potential risks or opportunities for sufficiently avoiding and/or mitigating environmental impacts.

[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 EMP. Include links, if available, for all references.

- GE will follow relevant guidance documents and rely on publications, tools, and/or plans to support development of this EMP in accordance with applicable permit requirements. Such reference materials could include, but not be limited to, the following as needed:
  - Draft Guidance Regarding the Use of a Project Design Envelope in a Construction and Operations Plan (Bureau of Ocean Energy Management [BOEM] 2018) https://www.boem.gov/Draft-Design-Envelope-Guidance/
  - Guidelines for Providing Archaeological and Historic Property Information Pursuant to 30 CFR Part 585 (BOEM 2017) https://www.boem.gov/Guidelines for Providing Archaeological and Historic Property Information Pursuant to 30CFR585/
  - Guidelines for Providing Geophysical, Geotechnical, and Geohazard Information Pursuant to 30 CFR Part 585 (BOEM 2015) https://www.boem.gov/G_G_Guidelines_Providing_Geophysical_Geotechnical_Geohazard Information Pursuant to 30 CFR Part 585/
  - Technical Guidance for Assessing the Effects of Anthropogenic Sound on Marine Mammal Hearing (National Oceanic and Atmospheric Administration [NOAA] Fisheries 2018) https://www.fisheries.noaa.gov/resource/document/technical-guidance- assessing-effects-anthropogenic-sound-marine-mammal-hearing
  - U.S. Dept. of Energy (OSDOE) "Tethys" database for OSW energy publications (USDOE-PNNL 2019) https://tethys.pnnl.gov/
  - NYSERDA Publications
    - https://www.nyserda.ny.gov/About/Publications
    - https://www.nyserda.ny.gov/About/Publications/Offshore-Wind-Plans-for-New-York-State
  - BOEM Renewable Energy Research (BOEM 2019) https://www.boem.gov/Renewable-Energy-Environmental-Studies/
  - Summary Report: Best Management Practices Workshop for Atlantic Offshore Wind Facilities and Marine Protected Species (BOEM 2018) https://www.boem.gov/Final-Summary-Report-for-BMP-Workshop-BOEM/
  - Northeast Ocean Data Explorer (NROC 2019) https://www.northeastoceandata.org/
  - Mid-Atlantic Ocean Data Portal (MARCO 2019) https://portal.midatlanticocean.org/
  - BOEM/NOAA Marine Cadastre (BOEM & NOAA 2019) https://marinecadastre.gov/
  - NOAA Essential Fish Habitat (EFH) Data Inventory https://www.habitat.noaa.gov/application/efhinventory/index.html
  - Ocean Biogeographic Information System (OBIS) Mapper and Protected Species Database (OBIS 2019)
    - https://mapper.obis.org/
    - https://mgel.env.duke.edu/projects-old/obis-seamap/

- NOAA-U.S. Fish and Wildlife Service (USFWS) Endangered Species Act (ESA) inventory/mapper and Section-7 Consultation tools – Mapper and IPaC (NOAA 2019; USFWS 2019)
  - https://www.greateratlantic.fisheries.noaa.gov/protected/section7/listing/i ndex.html
  - https://ecos.fws.gov/ipac/
- NOAA Marine Mammal Acoustic Technical Guidance (NOAA 2018)
  - https://www.fisheries.noaa.gov/national/marine-mammal- protection/marine-mammal-acoustic-technical-guidance
- NOAA Marine Mammal Annual Stock Assessments (NOAA 2019)
  - https://www.fisheries.noaa.gov/national/marine-mammal protection/marine-mammal-stock-assessments
- Additional sources such as Marine-Life Data and Analysis Team (MDAT; http://seamap.env.duke.edu/models/mdat/) as recommended by NOAA Fisheries and the Bureau of Ocean Energy Management
- New York State Offshore Wind Master Plan (NYSERDA 2017), with corresponding studies/appendices listed below
  - https://www.nyserda.ny.gov/All-Programs/Programs/Offshore- Wind/Offshore-Wind-in-New-York-State-Overview/NYS-Offshore-Wind- Master-Plan
    - New York State Offshore Wind Master Plan Birds and Bats Study (NYSERDA 2017) https://www.nyserda.ny.gov/All- Programs/Programs/Offshore-Wind/Studies-and-Surveys
    - New York State Offshore Wind Master Plan Fish and Fisheries Study (NYSERDA 2017) https://www.nyserda.ny.gov/All- Programs/Programs/Offshore-Wind/Studies-and-Surveys
    - New York State Offshore wind Master Plan Marine Mammals and Sea Turtle Study (NYSERDA 2017) https://www.nyserda.ny.gov/All-Programs/Programs/Offshore-Wind/Studies-and-Surveys
    - New York State Offshore Wind Master Plan Sand and Gravel Resources Study (NYSERDA 2017) https://www.nyserda.ny.gov/All- Programs/Programs/Offshore-Wind/Studies-and-Surveys
    - New York State Offshore Wind Master Plan Environmental Sensitivity Analysis (NYSERDA 2017) https://www.nyserda.ny.gov/All- Programs/Programs/Offshore-Wind/Studies-and-Surveys

2 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 environmental mitigation.

- GE will engage with both regulatory (including federal, state, and local agencies) and non-regulatory stakeholders (including environmental groups, fishing community, and local communities).
- GE will provide updates to regulatory and non-regulatory stakeholders at all stages of the Project so that interested parties have sufficient opportunity to provide input.
- GE will undertake a detailed regulatory and non-regulatory stakeholder mapping process to promote Project awareness of relevant inputs, and consideration of appropriate information that is applicable to the Project.

2.2 Communication Officers/Positions, Responsibilities, and Contact Information

This section will 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 will also include links to the project website so readers know where to find additional information. [Complete Table as Appropriate]

Name/Title	Roles/Responsibilities	Contact Information
[redacted]	[redacted]	[redacted]

2.3 Identification of Stakeholders

This section should describe the process by which stakeholders relevant to environmental issues will be identified and classified by stakeholder group.

[redacted]

[redacted]

2.4 Participation in stakeholder and technical working groups

2.4.1 Communication with E-TWG

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

- GE is committed to actively participating in and contributing to the E-TWG.
- GE will further dedicate Project specific resources to the E-TWG.
- GE is committed to E-TWG through attending future meetings and workshops.

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.

- GE is committed to engaging with New York State agencies throughout the Project development process, including Project updates and plans, environmental data collection, baseline data, potential mitigation options, terrestrial archaeology, historic architecture, and permitting. New York State agencies could include:
  - New York Department of Environmental Conservation (NYSDEC)
  - New York Department of State (NYDOS)
  - New York Office of Parks, Recreation, and Historic Preservation (NYPRHP)
  - New York Office of General Services (NYOGS)
  - NYSERDA
  - New York State Department of Public Service (NYDOPS)

2.4.3 Communication with Other Stakeholder and Working Groups

This should describe any relevant participation with other stakeholder groups that would help inform the EMP.

[redacted]

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.

- [redacted]

2.5 Communication methods and tools 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.

[redacted]

- [redacted]

Proposed Outreach Method/Tools	Phase*			
	1	2	3	4
Public Informational Meetings	X	X	X	X
Stakeholder Workshops	X	X	X	X
Website Promotion and Social Media	X	X	X	X
Press Releases or Newsletters	X	X	X	X
Regulatory Meetings	X	X	X	X
E-TWG Meetings	X	X	X	X
**Phase: 1: Survey/Design; 2: Construction; 3: Operation; 4: Decommission*				

3 Supporting Other Research

3.1 Support of Collaborative Research

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

[redacted]

3.2 Handing/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 the environment for the purpose of publication in peer-reviewed journals or other scientifically rigorous products.

[redacted]

3.3 Data Availability

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

[redacted]

3.4 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.

[redacted]

3.5 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, including federal or State-supported research. Or, if elected, provide the level of

commitment to a general fund for supporting third-party research into potential environmental effects of offshore wind energy development.

[redacted]

- [redacted]

3.6 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]

4 Proposed Mitigation of Impacts to Marine Mammals and Sea Turtles

NOAA Fisheries Greater Atlantic Region ESA Section 7 Mapper identifies the upper extent of sea turtles within the Hudson River to be lower Manhattan proximate to Brookfield Place ferry terminal. The upper extent of Atlantic large whales with the Upper New York Bay is the Verrazano Bridge. As such, development of the new blade manufacturing facility and the expansion of POC facility infrastructure are not anticipated to impact marine mammals and sea turtles.

This EMP assumes that in-river transport of turbine blades from POC will extend only into areas within the HRE. The HRE is an intricate natural harbor associated with both the Hudson River and Raritan River, and which includes both the Port of New York and New Jersey. Specifically, this EMP acknowledges the potential impact associated with vessel strikes during transportation of the blades. While it is expected there will be overlap with EMPs developed specifically to support the development of multiple OSW projects, this EMP identifies mitigation and monitoring practices that will likely be considered specific to the transportation of turbine blades from the POC. This plan will be revised as needed to ensure consistency with relevant downriver EMPs, as well as federal, state, and local permits required to support the overall development of OSW projects.

4.1 Baseline Characterization

4.1.1 Available Information

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

[redacted]

4.1.2 Data Being Collected

Describe data collected, or will be collected, to support baseline characterization.

[redacted]

- [redacted]e.

4.2 Species at Risk

Describe which species the Developer believes to be of greatest concern and why.

[redacted]

4.3 Potential Impacts and Mitigation Measures by Phase

The table below should list the potential impacts to marine mammals and sea turtles and proposed mitigation measures. To this end, a description of proposed measures to minimize the impacts of sound on marine mammals and sea turtles during all phases to Project development should be included. In addition, provide a description of the anticipated pre- and post-construction survey techniques to establish an ecological baseline and changes to that baseline within the Project site; the minimum size of exclusion zone intended to be monitored during geophysical surveys and construction; planned approaches to understanding marine mammal and sea turtle presence and absence within development site exclusion zone during site assessment and construction (e.g. a combination of visual monitoring by protected species observers and passive acoustic monitoring, the use of night vision and infra-red cameras during nighttime activities, etc.); proposed temporal constraints on construction activities and geophysical surveys with noise levels that could cause injury to harassment in marine mammals (e.g., seasonal restrictions during periods of heightened vulnerability for priority species; commencing activities during daylight hours and good visibility conditions, dynamic adjustments following the detection of a marine mammal); and proposed equipment and technologies the Developer would use to reduce the amount of sound at the source, if any. [Add potential impacts and proposed mitigation measures as appropriate

Potential Impacts	Proposed Mitigation Measures	Phase*			
		1	2	3	4
Underwater Noise Impacts from Geophysical Survey	[redacted]				
Underwater Noise Impacts from Construction and Installation Activities	[redacted]				
Increased Vessel Traffic, and Increased Risk of Spills and Strikes on Marine Mammals and Sea Turtles	[redacted]				

Potential Impacts	Proposed Mitigation Measures	Phase*			
		1	2	3	4
	[redacted]				
Electromagnetic Fields (EMF), Resulting in Disturbance to Marine Mammals/Sea Turtles/or Their Prey Resources	[redacted]				

Potential Impacts	Proposed Mitigation Measures	Phase*			
		1	2	3	4
Additional Proposed Mitigations	[redacted]	[redacted]	[redacted]	[redacted]	

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

4.4 Monitor for Potential Impacts During Each Phase

Describe how potential impacts will be monitored on marine mammals and sea turtles 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.

- GE will seek to collaborate with regulatory agencies and stakeholder groups to identify research needs and opportunities. This specifically applies to coordination with the OSW Developer associated with the Project.

4.4.1 Pre/Post Monitoring to Assess and Quantify Impacts and Changes

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

[redacted]

4.4.2 Address Data Gaps

Describe how data gaps will be addressed.

[redacted]

4.5 Strategies for Developing Alternate Protocols

Describe the process for determining when mitigation strategies are insufficient and under what conditions they might elect to rehabilitate or restore impacted marine mammals and sea turtles in an alternative location.

[redacted]

5 Proposed Mitigation of Impacts to Birds and Bats

It is recognized that the development of the [redacted] facility and expansion of POC facility infrastructure has the potential to impact birds and bats. Specifically, potential impacts could result from habitat disturbance and possible displacement. It is assumed for purposes of this EMP that transport of wind turbine blades down the Hudson River and into the HRE will not impact birds and bats. [redacted]

5.1 Baseline characterization

Describe how baseline data will be established on the presence of bird and bat assemblages, temporal and spatial use of the site by key species within the area of the proposed Project.

5.1.1 Available information

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

[redacted]

https://ecos.fws.gov/ipac/

https://www.dec.ny.gov/animals/38801.html

[redacted]

https://www.nyserda.ny.gov/All-Programs/Programs/Offshore-Wind/Offshore-Wind-in-NewYork-State-Overview/NYS-Offshore-Wind- Master- Plan

[redacted]

https://www.nj.gov/dep/dsr/ocean-wind/report.htm

[redacted]

[redacted]
http://www.dec.ny.gov/animals/7179.html
[redacted]

5.1.2 Data collected

Describe data collected, or will be collected, to support baseline characterization.

- GE does not have knowledge of any current or ongoing third-party surveys for avian and bats. GE will collect necessary data as it relates to the development of the new blade manufacturing facility. The final location of the new facility has not yet been determined; as such, data has not been collected at this time. GE commits to working with both POC and the OSW Developer to ensure adequate data is collected elsewhere within the Project area to support the necessary baseline characterization.

5.2 Species at risk

Describe which species the Developer believes to be of greatest concern and why.

- Full details of avian species and bats at risk, likely impacted and proposed mitigation will be described in the permitting documentation for the manufacturing/warehouse facility and consulted on with the relevant stakeholders.
- USFWS IPaC database identifies 2 threatened and endangered bats with potential to occur with the Project area. The bat species include: (1) Indiana bat – federal/state endangered; (2) Northern long-eared bat – federal/state threatened.
- USFWS IPaC database also identifies 18 migratory birds with potential to occur within the approximate Project area of the POC and adjacent areas along the Hudson River.

5.3 Potential impacts/risks and mitigation measures by Project stage

The table below should list the potential impacts and mitigation measures to understand and minimize the Project's risk to birds and bats. At a minimum this should include the steps the Developer will pursue to minimize risk to birds and bats (e.g., lighting), and identification of technological approaches to assess impacts or any Proposals for other research or mitigations relating to birds or bats planned or under consideration at this time. [Add impacts and mitigation measures as appropriate]

Potential Impacts	Proposed Mitigation Measures	Phase*			
		1	2	3	4
Collision risk to marine birds and bats	Not applicable to activities covered by this EMP. [redacted]				
Impacts from Accidental Oil Spills from Project Related Vessels or Structures	• [redacted]	X	X	X	X
Habitat impacts, including disturbance and displacement	[redacted]		X	X	X

Potential Impacts	Proposed Mitigation Measures	Phase*			
		1	2	3	4
	[redacted]				
*Phase: 1: Survey/Design; 2: Construction; 3: Operation; 4: Decommission					

5.4 Monitor for impacts during each phase

Describe how potential impacts will be monitored on birds and bats 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.

5.4.1 Pre/Post monitoring to assess and quantify changes

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

- GE will undertake desktop studies and stakeholder discussions for avian and bat species, as necessary. During field studies to support this Project, GE will complete appropriate surveys to further characterize the Project area and determine presence/absence of habitat within proposed Project activities.
- GE believes that monitoring of highly mobile species, such as birds and bats, should focus on behavioral responses rather than pre-, during, and post- construction monitoring of abundance, which may not always have robust statistical power to identify change as a direct result of the manufacturing/warehouse facility.
- GE will work with the OSW Developer to evaluate if further monitoring of birds and bats is required.
- Impacts to avian and bat species will be sufficiently examined as part of the state permitting processes, and in consultation with USFWS and relevant stakeholders. Where appropriate, mitigation will be implemented to reduce impacts to as low as practicable.

5.4.2 Address data gaps

Describe how data gaps will be addressed.

[redacted]

[redacted]

5.5 Strategies for developing alternate protocols

Describe the process for determining when mitigation strategies are insufficient and under what conditions they might elect to rehabilitate or restore impacted birds and bats in an alternative location.

- [redacted].

6 Proposed Mitigation of Impacts to Fish, Invertebrates and their Habitats

6.1 Baseline characterization

Describe what is known about the proposed site in terms fish and invertebrate assemblage, and temporal and spatial variations in fish, invertebrates, and their habitats at the proposed site. The use of collaborative monitoring models with the fishing community is encouraged to develop trusted baseline data.

6.1.1 Available information

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

- Public data sources are suitable for characterizing benthic habitat and fisheries resources in the Project area, including:
  - The evaluation of NYSERDA's Master Plan Fish and Fisheries Study (2017; Appendix J).
  - Estuarine Living Marine Resource database (NOAA 2000) provides descriptions of spatial and temporal distributions of species (by life stage) in Hudson River/Raritan Bay and the Great South Bay.
  - NYSDEC Atlantic Sturgeon Monitoring in Hudson River Region https://www.dec.ny.gov/animals/109120.html
  - NOAA NMFS Biological Assessment of Shortnose Sturgeon (*Acipenser brevirostrum*).
  - NYSDEC Environmental Resource Mapper, available at https://www.dec.ny.gov/animals/38801.html
  - NOAA Fisheries EFH Mapper, available at https://www.fisheries.noaa.gov/resource/map/essential-fish-habitat-mapper

6.1.2 Data being collected

Describe data collected, or will be collected, to support baseline characterization.

- The POC has obtained approval under the New York State Environmental Quality Review Act (SEQRA) and an individual USACE permit for the expansion of the port to support the OSW industry. Through that process, data was collected and presented to the stakeholders to satisfy federal and state regulatory requirements. GE is not aware of additional third-party surveys for fish, invertebrates and their habitat that would be applicable. GE will collect necessary data as it relates to the development of the blade manufacturing facility. The final location of the new facility has not yet been determined; as such, data has not been collected at this time. GE commits to working with both POC and the OSW Developer proposer for OSW projects to ensure adequate data is collected elsewhere within the Project area to support the necessary baseline characterization.

6.2 Species at risk

Describe which species the Developer believes to be of greatest concern and why.

[redacted]

6.3 Potential impacts/risks and mitigation measures by Project stage

The table below should list the potential impacts to fish, invertebrates, and their habitats and proposed mitigation measures. To this end, this section should describe how the Developers will minimize risk to fish, invertebrates and their habitats (e.g., foundation type, scour protection, cable shielding for electromagnetic fields, construction windows, siltation/turbidity controls, use of dynamic-positioning vessels and jet plow embedment).

Potential Impacts	Proposed Mitigation Measures	Phase*			
		1	2	3	4
Micro-siting conflicts with habitats and fishery resources					
Exposure to Underwater Noise					
Increased Suspended Sediment Concentration and Impacts to Water Quality					
Exposure to Accidental Spills, Pollution, or Trash from Project Related Activities					

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

6.4 Monitor for Impacts During Each Phase

Describe how potential impacts will be monitored on these types of fish and invertebrates 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.

6.4.1 Pre/Post Monitoring to Assess and Quantify Changes

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

[redacted]

6.4.2 Addressing data gaps

Describe how data gaps will be addressed.

[redacted]

6.5 Strategies for developing alternate protocols

Describe the process for determining when mitigation strategies are insufficient and under what conditions they might elect to rehabilitate or restore impacted fisheries in an alternative location or when the provision of compensation of some form may be appropriate.

[redacted]

7 Considerations for Subsea and Overland Cables

This section is not applicable to activities covered under this EMP.

8 Additional Considerations

8.1 Additional Mitigation Strategies and EMP Refinement

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

[redacted]

8.2 Process for updating the EMP

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

[redacted]

9 Project Decommissioning

Given the scope of the activities covered under this RFP, project decommissioning is not expected to occur specific to (1) construction of the manufacturing/warehouse facility, and (2) expansion of the POC. If blade manufacturing was no longer required at some point in the future, then this developed infrastructure is assumed to be repurposed to support other industries.

9.1 Potential impacts on marine wildlife, birds, bats, and fisheries

This section should describe potential impacts to marine mammals, sea turtles, birds, bats, and fisheries and habitats from decommissioning the project, based on available information and relevant experience (if any).

[redacted]

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Environmental Mitigation Plan – Staten Island Marine Terminal

APPENDIX

C Environmental Mitigation Plan (Standardized)

Environmental Mitigation Plan

for

Staten Island Marine Terminal
SCIP Facility Funding
Version [1.0]

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

with

New York State Energy Research and Development Authority

Albany, NY

Prepared by

NorthPoint Development LLC

3315 N Oak Trafficway

Kansas City, MO 64116

[January 24, 2023]

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

Links to project information:
[https://www.beyondthecontract.com/]

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1 Environmental 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 environmental impacts.

NorthPoint Development (NorthPoint) has shown its commitment to avoid, minimize, restore, and offset portential environmental impacts through a companywide commitment to environmental stewardship. The following points make up NorthPoint's philosophy and principles related to environmental and energy-focused development initiatives, which will be carried forward appropriately to the Staten Island Marine Terminal project (referred to herein as the Project and/or the Supply Chain Investment Plan [SCIP] Facility).

- **Innovative business approach with an entrepreneurial spirit**. In an effort to help reduce environmental impacts from its projects, NorthPoint has begun to implement a sustainability and energy vision across its portfolio to ensure top-tier assets in energy, technology, and sustainability, including carbon reduction, energy resilience, renewable energy, and sustainable development practices – helping to reduce energy.
- **Committed to early identification of potential impacts and prioritizing avoidance and/or minimization of environmental impacts** through siting, design, and real time mitigation, consistent with its companywide environmental stewardship approach. This is expressed through NorthPoint's environmental commitment to clean technology and LEED standards for all buildings beginning development in 2022. Clean technology that has and will continue to be implemented across projects include (1) mobility and EV charging, (2) energy and carbon reporting, and (3) battery storage.

  NorthPoint will address environmental impacts in the siting of the SCIP Facility components in accordance with all permits and approvals required for the Project from applicable governmental and regulatory authorities charged with protecting the environment.
- **Restoring potentially impacted resources** and, to the extent applicable, offsetting environmental impacts when they cannot be avoided within the parameters of the Project Site.

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 EMP and support decision-making throughout the life cycle of the project (pre-construction, surveys, site design, construction, operations, and decommissioning).

- *NorthPoint shall seek consultation and coordinate with relevant stakeholders.*

- *NorthPoint shall review existing research and data and seek input from stakeholders regarding data gaps to inform decisions made throughout the Project life cycle.*
- *NorthPoint 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 wildlife.*
    - Monitoring is not anticipated as part of this Project.
- **Additionally:**
    - NorthPoint believes that consultation and coordination with relevant stakeholders such as the U.S. Army Corps of Engineers (USACE) and New York State Department of Environmental Conservation (NYSDEC) is an important means of identifying potential risks or opportunities for sufficiently avoiding and mitigating environmental impacts.
    - NorthPoint has identified proven effective steps to consult with the relevant stakeholder groups to get feedback on plans, data, mitigation, and buy-in on decisions in advance of the regulatory process.
    - NorthPoint has hosted, and will continue to host as part of the future City Environmental Quality Review (CEQR) process, regular progress meetings with agencies (including relevant new agencies) to provide status updates, communicate planned project activities (e.g., field surveys, siting, etc.), and solicit feedback as required in connection with permitting processes and requirements.

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 EMP. Include links, if available, for all references.

NorthPoint will follow relevant guidance documents, updating the guidance documents list as appropriate. Such guidance is expected to include, but not be limited to, the following documents. A selection of data sources for resource baseline characterization are listed below. A more detailed list can be found in each of the resource-specific sections below.

- Atlantic Coastal Cooperative Statistics Program. 2022. Standard Atlantic Fisheries Information System - Fisheries-dependent catch data. https://www.accsp.org/.
- National Oceanic and Atmospheric Administration (NOAA) National Marine Fisheries Service (NMFS). 2018. 2018 Revision to: Technical Guidance for Assessing the Effects of Anthropogenic Sound on Marine Mammal Hearing: Underwater Acoustic Thresholds for

Onset of Permanent and Temporary Threshold Shifts, April 1, 2018. Available at: https://www.fisheries.noaa.gov/resource/document/technical-guidance-assessingeffectsanthropogenic-sound-marine-mammal-hearing.

- NOAA. 2022. Estuarine Living Marine Resource Database. https://www.fisheries.noaa.gov/inport/item/39291.
- NMFS. 2022. Essential Fish Habitat (EFH) Mapper Tool. http://www.habitat.noaa.gov/protection/efh/habitatmapper.html. *(To be used for species identification and habitat characteristics at any particular location.)*
- NMFS. 2022. Endangered Species Act (ESA) Critical Habitat Mapper. https://www.fisheries.noaa.gov/resource/map/national-esa-critical-habitat-mapper.
- Northeast Regional Habitat Assessment. 2022. Data Explorer. https://nrha.shinyapps.io/dataexplorer/#!/.
- NYSDEC. 2022. Environmental Resource Mapper. https://www.dec.ny.gov/animals/38801.html.
- NYSERDA. 2017. New York State Offshore Wind Master Plan. https://www.nyserda.ny.gov/All-Programs/Offshore-Wind/About-Offshore-Wind/Master-Plan.
- U.S. Environmental Protection Agency (USEPA). 2022. National Coastal Conditions Assessment https://www.epa.gov/national-aquatic-resource-surveys/ncca.
- U.S. Fish and Wildlife Service (USFWS). 2022. Information on threatened and endangered species and/or their habitat, available through Information for Planning and Consultation (IPaC). https://ipac.ecosphere.fws.gov/.

2 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.

- *NorthPoint shall seek methods and processes to allow for a two-way flow of information between key stakeholders and developers, specifically highlighting how the developer uses this feedback to inform their decision making.*
- *NorthPoint shall provide updates to environmental stakeholders in an appropriate manner that would be easily accessed and widely distributed.*
- **Additionally:**
    - NorthPoint will approach Project development by sharing Project updates, plans, results, and information regularly so that relevant interested parties have sufficient opportunities to provide input into these processes.
    - Creating trusted and enduring relationships with partners and communities is a core value and cornerstone of Northpoint's approach to engaging with and sharing data with stakeholders.

2.2 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. **Table 1** below summarizes the project communications and engagement team.

Table 1: Project Communications and Engagement Team

Name/Title	Role/Responsibilities	Contact Information
Bryan Roslund, P.E. Development Manager	Site design and due diligence manager for Staten Island Marine Terminal	Phone: (973) 919-4114 Email: broslund@northpointkc.com
David Rickard Vice President of Development	Site Permitting Lead	Phone: (913)-827-7860 Email: drickard@northpointkc.com
Brian Stahl Manager for Vice President of Development	Political Outreach Manager	Phone: (570)-417-0031 Email: bstahl@northpointkc.com
Jamie Lamb Community Development Director	Community Stakeholder Manager	Phone: 913-337-8085 Email: jlamb@northpointkc.com
William Farrell Communications Liaison	Political and Community Engagement	Phone: (212)-652-3866 Email: wfarrell@pittabishop.com

Project Website: https://www.beyondthecontract.com/

2.3 Participation in Stakeholder and Technical Working Groups

2.3.1 Communication with Environmental Technical Working Group (E-TWG)

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

- *NorthPoint shall dedicate project specific technical resources to the E-TWG.*
  - When applicable, NorthPoint will take part in E-TWG discussions.
- *To the extent practicable, NorthPoint shall work with and attend future E-TWG meetings and sponsored conferences.*
- *NorthPoint shall identify specific individuals to serve at least one-year terms in the role of primary and secondary core members.*
  - NorthPoint will consult with the E-TWG to determine the appropriate level of participation for the SCIP Facility.
- **Additionally:**
  - NorthPoint is open to active participation with technical working groups, when appropriate, as a means to promote future offshore wind energy development through port access.

2.4 Identification of 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.

- NorthPoint has and will continue to identify stakeholders as part of the overall CEQR process.
- NorthPoint will continue to engage with regulatory agencies, environmental nongovernmental organizations (ENGOs), research institutions, and relevant stakeholders to discuss the Project and/or solicit feedback. This process will continue throughout the development of the Project into the CEQR phase.

2.4.1 Communication with Other New York State Agencies

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

- NorthPoint has hosted and will continue to host agency meetings with federal (e.g., USACE) and/or New York State regulatory agencies as part of the permitting and CEQR phase of the Project. New York State agencies in which NorthPoint will continue to consult with include:

- New York State Energy Research and Development Authority (NYSERDA);
- New York Department of State;
- NYSDEC;
- New York State Office of Parks, Recreation and Historic Preservation;
- New York State Department of Public Service; and
- New York Office of General Services.

2.4.2 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 EMP.

- NorthPoint is in the process of developing a Community Outreach Plan for the Project to identify and engage various interest groups. In developing the Community Outreach Plan, NorthPoint will leverage its experience implementing successful community outreach and engagement plans for many projects across the U.S.
- NorthPoint will continue to engage with regulatory agencies as needed to facilitate the development of effective environmental mitigation and minimization measures.

2.4.3 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.

- *NorthPoint shall seek to maximize the impact of research efforts such as data collection, methodology, analysis and dissemination by collaborating with other developers, particularly those in adjacent lease areas, taking on similar initiatives.*
- **Additionally:**
  - When appropriate, NorthPoint will continue to collaborate with adjacent landowners, developers, and regulatory agencies to identify innovative avoidance, minimization, mitigation, and monitoring measures based on lessons learned in the industry.

2.5 Communication Methods and Tools 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.

- When appropriate, NorthPoint will continually refine its Community Outreach Plan during each phase of the Project, subject to applicable permitting requirements, and proactively develop effective outreach methods and tools listed in **Table 2**.

Table 2: Proposed Outreach Methods and Tools

Proposed Outreach Methods/Tools	Phase			
	1	2	3	4
Public meetings	x	x		
Website promotion	x	x		
Agency meetings	x	x	x	

** Phase: 1: Survey/Design; 2: Construction; 3: Operation; 4: Decommission*
Key: ENGO = environmental nongovernmental organization; E-TWG = Environmental Task Working Group; F-TWG = Fisheries Technical Working Group

3 Supporting Other Research

3.1 Support of Collaborative Research

This section will 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 E-TWG during data gathering and assessment.

- *NorthPoint shall commit to being an active member of regional science organizations (e.g., Regional Wildlife Science Collaborative, Responsible Offshore Science Alliance).*
- **Additionally:**
  - When appropriate, NorthPoint will collaborate with relevant stakeholder groups to conduct studies that relate to environmental resources and port infrastructure development.

3.2 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 the environment for the purpose of publication in peer-reviewed journals or other scientifically rigorous products.

NorthPoint will make an effort to meet with any interested parties when contacted to discuss prospective research opportunities onsite. NorthPoint is willing to consider requests to access data collected as part of this Project.

3.3 Data Availability

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

NorthPoint will consider making relevant information or data available, so long as NorthPoint does not deem this information proprietary in nature. Prior to any disclosure, data made available by NorthPoint will undergo final quality assurance/quality control.

3.4 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.

NorthPoint has not specifically identified any proposed restrictions on data provision or access that would protect trade secrets or maintain site security. However, NorthPoint has the right to restrict data for public disclosure if considered confidential and/or submitted as part of a regulatory permitting process.

3.5 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 toa 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.

NorthPoint, contingent upon receiving NYSERDA funding through the SCIP Facility Funding process, is open to supporting regional monitoring of wildlife and key nearshore species, when applicable.

3.6 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.

At this time, NorthPoint has not committed to collaborations with third-party researchers in support of monitoring activities and assessing impacts. NorthPoint will reevaluate these collaborations and commitments when potential dredging impacts are determined as part of the final site design.

4 Proposed Mitigation of Impacts to Marine Mammals and Sea Turtles

4.1 Baseline Characterization

This section describes how baseline data will be established on the spatial and temporal presence of marine mammals and sea turtles in the proposed area of the Project.

4.1.1 Available Information

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

NorthPoint evaluated the extent to which existing, and publicly available data sources were suitable for characterizing environmental resources in the relevant area. NorthPoint has referenced the NYSERDA Master Plan Marine Mammals and Sea Turtles Study (NYSERDA 2017; Appendix L) to characterize baseline conditions. This study reviewed the available data and has provided summaries of "Best Available Data" in the form of comprehensive lists of datasets for marine mammals and sea turtles and notes that current studies will provide reliable species counts when they are complete. NorthPoint has also referenced habitat-based models for marine mammals along the U.S. Atlantic coast. Since the Project occurs slightly outside the boundaries of the model, the closest grid cells in western Raritan Bay were examined. Additional literature and datasets include:

- NMFS. 2022. Endangered Species Act (ESA) Critical Habitat Mapper. https://www.fisheries.noaa.gov/resource/map/national-esa-critical-habitat-mapper.
- NMFS. 2022. Essential Fish Habitat (EFH) Mapper Tool. http://www.habitat.noaa.gov/protection/efh/habitatmapper.html. (To be used for species identification and habitat characteristics at any particular location.)
- NOAA. 2022. Sea Turtle Stranding and Salvage Network Interactive Mapper. https://connect.fisheries.noaa.gov/content/cb3f4647-9e4f-4f3d-9edf-e7a87a1feef6/.

4.1.2 Data Collected

Describe data collected, or will be collected, to support baseline characterization.

- *Observations of all right whales and dead, entangled, or distressed marine mammals shall be communicated to federal authorities as soon as is practicable, and no later than 24 hours after occurrence*.
- **Additionally:**
    - As the Project is a port facility in the Arthur Kill, North Atlantic right whale observations are not anticipated. Further marine mammal sightings at the facility are expected to be uncommon, and it is not anticipated that rehabilitation of the port

infrastructure and dredging will result in impacts on marine mammals. In the rare event that an observation of a dead, entangled, or distressed marine mammal is observed, the occurrence would be reported to the NMFS Stranding Hotline at 866-755-6622.

4.2 Species at Risk

Describe which species the Developer believes to be of greatest concern and why.

As mentioned in **Section 4.1.2**, the location of the Project Area in the southern reaches of the Arthur Kill is outside the likely area for marine mammals and sea turtles to occur. Therefore, it is not anticipated that such species would be at risk from the proposed Project activities.

4.3 Potential Impacts and Mitigation Measures by Phase

The table below should list the potential impacts to marine mammals and sea turtles and proposed mitigation measures. To this end, a description of proposed measures to minimize the impacts of sound on marine mammals and sea turtles during all phases to Project development should be included. In addition, provide a description of the anticipated pre- and post-construction survey techniques to establish an ecological baseline and changes to that baseline within the Project site; the minimum size of exclusion zone intended to be monitored during geophysical surveys and construction; planned approaches to understanding marine mammal and sea turtle presence and absence within development site exclusion zone during site assessment and construction (e.g. a combination of visual monitoring by protected species observers and passive acoustic monitoring, the use of night vision and infra-red cameras during nighttime activities, etc.); proposed temporal constraints on construction activities and geophysical surveys with noise levels that could cause injury to harassment in marine mammals (e.g., seasonal restrictions during periods of heightened vulnerability for priority species; commencing activities during daylight hours and good visibility conditions, dynamic adjustments following the detection of a marine mammal); and proposed equipment and technologies the Developer would use to reduce the amount of sound at the source, if any. These impacts and measures are documented in **Error! Reference source not found.** below.

Table 3: Marine Mammals and Sea Turtle Impacts and Proposed Mitigation Measures

Potential Impacts	Proposed Mitigation Measures	Phase			
		1	2	3	4
Underwater noise impacts from dredging and rehabilitation activities	• *Monitoring during noise-generating activities shall be done through an integrated monitoring approach, including the use of PAM, NMFS-approved PSOs, and other proven technologies, as appropriate, to the extent practicable* • Underwater noise from mechanical dredge operation will not exceed injury-level thresholds for marine mammals or sea turtles. Significant behavioral impacts from underwater noise are not anticipated due to the elevated ambient noise environment, coupled with the rarity of marine mammals and sea turtles in the Project Area. • If required, mitigation measures for marine mammals and sea turtles for any noise-generating activities will be developed through consultation with relevant agencies. • If required, time-of-year restrictions to avoid impactful work during overlap of rehabilitation activities and sensitive species presence would be developed during consultation.		x		
Vessel strikes on marine mammals	• *NorthPoint shall ensure that all vessel personnel are trained regarding animal identification and protocols when sightings occur.* • NorthPoint will work with vessel operators to ensure that crew members undergo the proper training regarding animal identification and protocols when sightings occur. • *NorthPoint shall provide reference materials on board all project vessels for identification of marine mammals and sea turtles.* • NorthPoint will work with vessel operator(s) to ensure reference materials for identification of marine mammals and sea turtles are provided onboard. • Extended vessel transits for port rehabilitation are not anticipated.	x	x	x	x
Turbidity/ contaminant impacts from dredging activities	• NorthPoint shall hire a separate contractor that will follow best management practices for dredging activities.		x		

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

4.4 Monitor for Potential Impacts

Describe how potential impacts will be monitored on marine mammals and sea turtles 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.

- *NorthPoint Development 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.*
- **Additionally:**
  - NorthPoint shall ensure that contractor(s) include observers on dredge equipment to observe the immediate area for presence of marine mammals or sea turtles.
  - Any further measures will be developed in conjunction with relevant agency consultation.

4.4.1 Assess and Quantify Changes

Describe how changes to environmental 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 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. NorthPoint will ideally target monitoring and research towards interactions between offshore wind energy developments and the receptors it is being judged against*.
  - Monitoring is not anticipated as part of this Project.
- *Outside expertise will, if practicable, be consulted during study design and data analysis processes.*
- **Additionally:**
  - Changes in bathymetry, and therefore habitat, will be recorded by a pre- and post-dredge/construction bathymetric survey as indicated in NYSDEC dredge permitting requirements.

4.4.2 Address Data Gaps

Describe how data gaps will be addressed.

- *NorthPoint shall work with stakeholders, including regulatory agencies and local groups, in the design phase of the Project to identify data gaps to be addressed through surveys or permitting applications.*
- **Additionally:**
    - NorthPoint believes the baseline information for marine mammals and sea turtles is adequate enough to provide a comprehensive assessment of impacts and enact responsible mitigation measures.

4.4.3 Strategies for Developing Alternative Protocols

Describe the process for determining when mitigation strategies are insufficient and under what conditions they might elect to rehabilitate or restore impacted marine mammals and sea turtles in an alternative location.

- *As necessary, NorthPoint shall explore this further in consultation with the E-TWG, regulatory agencies and relevant stakeholders.*
- **Additionally:**
    - NorthPoint will continue to consult with NOAA NMFS and other key stakeholders throughout the project development process to determine if any mitigation measures may be necessary.

5 Proposed Mitigation of Impacts to Birds and Bats

5.1 Baseline Characterization

Describe how baseline data will be established on the presence of bird and bat assemblages, temporal and spatial use of the site by key species within the area of the proposed Project.

NorthPoint reviewed existing and publicly available data sources to characterize bird and bat resources at the Project Site, with a focus on key species. It is anticipated that use of the area by birds and bats will be consistent with existing knowledge of the species' occurrence and distribution. Some site-specific surveys were conducted to help with the baseline characterization and evaluation of temporal and spatial use by birds.

5.1.1 Available Information

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

NorthPoint relied on the following information for bird and bat baseline characterization. NorthPoint will consider any relevant studies that become publicly available after the EMP has been submitted.

- Birds Canada. 2022. Motus wildlife tracking system. Motus Wildlife Tracking System. https://motus.org/.
- Cornell Lab of Ornithology. 2022. The Birds of the World, online. https://birdsoftheworld.org/bow/historic/bna/barswa/1.0/introduction.
- Cornell Lab of Ornithology. 2022. eBird Online database. https://ebird.org/home.
- Esri. 2016. Audubon Important Bird Areas – Polygon. Available at https://gis.audubon.org/arcgisweb/rest/services/NAS/ImportantBirdAreas_Polygon/MapServer.
- NYSDEC. 2022. Protection of Long-eared Bats. https://www.dec.ny.gov/animals/106090.html.
- NYSDEC. 2022. Environmental Resource Mapper. https://www.dec.ny.gov/animals/38801.html.
- NYSERDA. 2017. New York State Offshore Wind Master Plan. https://www.nyserda.ny.gov/All-Programs/Offshore-Wind/About-Offshore-Wind/Master-Plan.
- Princeton Hydro. 2022. Avian Field Surveys for the Project Site.
- U.S. Fish and Wildlife Service (USFWS). 2022. Information on threatened and endangered species and/or their habitat, available through Information for Planning and Consultation (IPaC). https://ipac.ecosphere.fws.gov/.

5.1.2 Data Being Collected

Describe data collected, or will be collected, to support baseline characterization.

Princeton Hydro conducted avian surveys for the onshore Project Area. Given the low impacts anticipated for birds associated with the Project, it is not expected that additional data will be collected to support baseline characterization of birds. Furthermore, no bat surveys were conducted for the Project as desktop research determined that there was no presence of bats in the vicinity.

5.2 Species at Risk

Describe which species the Developer believes to be of greatest concern and why.

As described above, Princeton Hydro performed avian monitoring on site. Princeton Hydo did not perform bat surveys to date as the Project Site is not listed in an area of concern for the Northern Long-eared bat (Myotis septentrionalis).[1] Based on these findings, NorthPoint has determined there are no species of great concern that would require additional monitoring or surveys at this time.

5.3 Potential Impacts and Mitigation Measures by Phase

The table below should list the potential impacts and mitigation measures to understand and minimize the Project's risk to birds and bats. At a minimum this should include the steps the Developer will pursue to minimize risk to birds and bats (e.g. lighting), and identification of technological approaches to assess impacts or any Proposals for other research or mitigations relating to birds or bats planned or under consideration at this time. These impacts and measures are documented in **Error! Reference source not found.**, below.

[1] *https://www.dec.ny.gov/animals/106090.html*

Table 4: Birds and Bats Impacts and Proposed Mitigation Measures

Potential Impacts	Proposed Mitigation Measures	Phase			
		1	2	3	4
Collision risk to birds and bats	• *To avoid and minimize attraction- and disorientation-related impacts to birds and bats, artificial lighting on offshore wind projects shall be reduced to the extent practicable while maintaining human safety and compliance with FAA, USCG, BOEM and other regulations.* **As this is a port marshalling facility, and not an offshore wind project, this measure is not applicable.** • *Monitoring shall be conducted to determine if there is a need for perching-related deterrents to reduce attraction and minimize potential perching and loafing opportunities for birds.* **As this is a port marshalling facility, and not an offshore wind project, this measure is not applicable.** • *Physical deterrents to perching (e.g., such as spikes and netting or other best available technology) shall be implemented if there is demonstrated risk at the site (e.g., perching and roosting on infrastructure is a common occurrence) and to the extent that they do not represent a human safety hazard.* **As this is a port marshalling facility, and not an offshore wind project, this measure is not applicable.** • Project-related vessels will be instructed to avoid rafting birds to minimize disturbance during dredging, construction, operations, and maintenance.		x	x	x
Habitat impacts, including breeding and nesting areas	• *Siting and construction of nearshore and onshore project components for offshore wind farms (including but not limited to nearshore export cable routes, landfall sites, onshore cable routes, and onshore substations) shall be conducted in such a way as to avoid or minimize the loss or alteration of bird and bat habitat, as well as avoid or minimize disturbance and direct and indirect effects to bird and bat populations and their prey. Specifically, onshore infrastructure (i.e., landfall site, cable routes, substations) and development activities should 1) maximize the use of previously developed or disturbed areas, and 2) avoid unique or protected habitats, as well as habitat for key species, where feasible*. **As this is a port marshalling facility, and not an offshore wind project, this measure is not applicable.** • Replacement and rehabilitation of the existing port for staging and marshalling of offshore wind components, as well as dredging, will be conducted in such a way as to avoid or minimize the loss or alteration of bird habitat, as well as avoid or minimize disturbance and direct and indirect effects on bird populations. • NorthPoint will adhere to time of year restrictions as necessary in sensitive onshore bird habitats, where feasible and required, unless otherwise determined acceptable by the applicable agencies.		x	x	x

Potential Impacts	Proposed Mitigation Measures	Phase			
		1	2	3	4
Additional proposed mitigations	• Since no impacts to birds are anticipated, a formal monitoring program will not be implemented; however, as appropriate, if impacts on birds are identified, NorthPoint will conduct a review and apply adaptive management measures.	x	x	x	x

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

5.4 Monitor for Potential Impacts During Each Phase

Describe how potential impacts will be monitored on birds and bats 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.

- NorthPoint will assess potential impacts on birds during each Project phase via visual observations, when applicable. However, as there is no tree clearing or habitat disturbance, it is not anticipated that monitoring will be needed for the Project.

5.4.1 Pre/Post Monitoring to Assess and Quantify Changes

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

- *Pre- and post-construction monitoring shall be designed in such a way that it improves understanding of the impacts of offshore wind energy development on birds and bats, including identifying specific questions and taxa on which to focus monitoring efforts for the proposed Project, or in relation to broader regional efforts to assess variation between sites and understand cumulative impacts for sensitive species.*
    - Monitoring is not anticipated as part of this Project.
- *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.*
    - Monitoring is not anticipated as part of this Project.
- *Outside expertise will, if practicable, be consulted during the study design and data analysis processes.*
- **Additionally:**
    - When required, NorthPoint will continue desktop studies and stakeholder discussions, and consult outside expertise, if needed, on avian species to analyze any risks.

5.4.2 Address Data Gaps

Describe how data gaps will be addressed.

- *NorthPoint shall work with stakeholders, including regulatory agencies and local groups, in the design phase of the Project to identify data gaps to be addressed through surveys or permitting applications.*
- NorthPoint hired Princeton Hydro to conduct desktop research of birds and bats as well as field monitoring of birds on the Project Site. It was determined that there were no data gaps as part of monitoring or data collection.

5.5 Strategies for Developing Alternative Protocols

Describe the process for determining when mitigation strategies are insufficient and under what conditions they might elect to rehabilitate or restore impacted marine mammals and sea turtles in an alternative location.

- *As necessary, NorthPoint will explore this further in consultation with the E-TWG, regulatory agencies and relevant stakeholders.*

6 Proposed Mitigation of Impacts to Fish, Invertebrates and their Habitats

6.1 Baseline Characterization

Describe what is known about the proposed site in terms fish and invertebrate assemblage, and temporal and spatial variations in fish, invertebrates and their habitats at the proposed site. The use of collaborative monitoring models with the fishing community is encouraged to develop trusted baseline data.

6.1.1 Available Information

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

NorthPoint relied on the following information for fish and invertebrate baseline characterization. NorthPoint will consider any relevant studies that become publicly available after the EMP has been submitted.

- Atlantic Coastal Cooperative Statistics Program. 2022. Standard Atlantic Fisheries Information System - Fisheries-dependent catch data. https://www.accsp.org/.
- Commercial and Recreational fisheries data
- NMFS. 2020. Greater Atlantic Regional Fisheries Office (GARFO). Recommendations for Mapping Fish Habitat. NMFS GARFO Habitat Conservation and Ecosystem Services Division.
- NMFS. 2022. Essential Fish Habitat (EFH) Mapper Tool. http://www.habitat.noaa.gov/protection/efh/habitatmapper.html. *(To be used for species identification and habitat characteristics at any particular location.)*
- NOAA. 2022. Estuarine Living Marine Resource Database. https://www.fisheries.noaa.gov/inport/item/39291.
- NOAA. 2022. New England Fishery Management Council Fisheries Management Plans https://www.fisheries.noaa.gov/new-england-mid-atlantic/commercial-fishing/new-england-mid-atlantic-fishery-management-plans.
- Northeast Regional Habitat Assessment. 2022. Data Explorer. https://nrha.shinyapps.io/dataexplorer/#!/.
- NYSERDA. 2017. New York State Offshore Wind Master Plan - Appendix J Fish and Fisheries Study. https://www.nyserda.ny.gov/All-Programs/Offshore-Wind/About-Offshore-Wind/Master-Plan.
- NYSDEC. 2022. Fisheries Management and Atlantic Sturgeon Tagging Program. https://www.dec.ny.gov/animals/109120.html.

- USEPA. 2022. National Coastal Conditions Assessment https://www.epa.gov/national-aquatic-resource-surveys/ncca.
- USFWS. 2022. Information on threatened and endangered species and/or their habitat, available through Information for Planning and Consultation (IPaC). https://ipac.ecosphere.fws.gov/.

6.1.2 Data Being Collected

Describe data collected, or will be collected, to support baseline characterization.

- If required, fisheries and habitat assessments to support baseline characterization will be conducted.

6.2 Species at Risk

Describe which species the Developer believes to be of greatest concern and why.

- EFH may exist within the Project Area for protected fish species. Therefore, NorthPoint will avoid important habitats, to the extent practicable, such as areas of submerged aquatic vegetation.
- The Project Area has been identified as a potential location for migrating and foraging adult and subadult Atlantic sturgeon. Impacts on sturgeon will be minimized through the limited geographic nature of dredging activities and the use of mitigation measures, as described below.

6.3 Potential Impacts and Mitigation Measures by Phase

The table below should list the potential impacts to fish, invertebrates, and their habitats and proposed mitigation measures. To this end, this section should describe how the Developers will minimize risk to fish, invertebrates and their habitats (e.g., foundation type, scour protection, cable shielding for electromagnetic fields, construction windows, siltation/turbidity controls, use of dynamic-positioning vessels and jet plow embedment). These impacts and measures are documented in **Table 5** below.

Table 5: Fish, Invertebrates, and Their Habitats Impacts and Proposed Mitigation Measures

Potential Impacts	Proposed Mitigation Measures	Phase			
		1	2	3	4
Micro-siting conflicts with habitats and fishery resources	• *NorthPoint will 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.* **As this is a port marshalling facility, and not an offshore wind project, this measure is not applicable.** • NorthPoint will, to the extent practicable, avoid areas with important fisheries habitats, such as areas with high levels of submerged aquatic vegetation.	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).* • NorthPoint will adhere to all best practices when dredging contaminated sediments, and for dredging across/within Federal Navigation Channels.	x	x	x	x
Long-term changes to seabed and habitat	• *NorthPoint will, to the extent possible, avoid sensitive benthic habitats.* • During construction, NorthPoint will ensure the vessel contractor will develop an anchoring plan to ensure that anchoring is avoided or minimized in complex habitats.	x	x	x	x
EMF Impacts	• *NorthPoint will use proper shielding to reduce EMF impacts.* **As transmission lines are not part of the NorthPoint rehabilitation effort, EMF impacts are not anticipated.** • *NorthPoint will conduct EMF modeling and assessments to identify potential mitigation requirements.* **As transmission lines are not part of the NorthPoint rehabilitation effort, EMF impacts are not anticipated.**		x	x	
Cable burial	• *NorthPoint shall bury export cables to an appropriate minimal depth to reduce exposure risk. If depth cannot be reached, NorthPoint will add protective materials over the cable.* **As transmission lines are not part of the NorthPoint rehabilitation effort, EMF impacts are not anticipated.** • *NorthPoint shall conduct routine surveys or inspections of sub-sea cables, and shall conduct a survey or inspection to ensure and correct for cable exposure following hurricane or other major events causing disturbance to the seabed.* **As transmission**		x	x	

Potential Impacts	Proposed Mitigation Measures	Phase			
		1	2	3	4
	lines are not part of the NorthPoint rehabilitation effort, EMF impacts are not anticipated.				
Turbine Scour Protection	• *NorthPoint 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.* **As this is a port marshalling facility, and not an offshore wind project, this measure is not applicable.**	x	x	x	x
Impacts from dredging	• NorthPoint will follow all requirements laid out in the NYSDEC dredging permit.	x	x		

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

6.4 Monitor for Potential Impacts During Each Phase

Describe how potential impacts will be monitored on these types of fish and invertebrates 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.

6.4.1 Pre/Post Monitoring to Assess and Quantify Changes

Describe how changes to environmental 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 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.*
    - Monitoring is not anticipated as part of this Project.
- *Outside expertise will, if practicable, be consulted during study design and data analysis processes.*
- *NorthPoint shall seek to collaborate with other regulatory agencies and stakeholder groups to identify research needs and opportunities.*
- **Additionally:**
    - Changes in bathymetry, and therefore habitat, will be recorded by pre- and post-dredge/construction bathymetric surveys as required in the NYSDEC dredging permit.

6.4.2 Address Data Gaps

Describe how data gaps will be addressed.

- *NorthPoint shall work with stakeholders, including regulatory agencies and local groups, in the design phase of the Project to identify data gaps to be addressed through surveys or permitting applications.*
- NorthPoint believes the baseline information for fish and macroinvertebrates is adequate to provide a comprehensive assessment of impacts and enact responsible mitigation measures. Therefore, data gaps have not been identified.

6.5 Strategies for Developing Alternative Protocols

Describe the process for determining when mitigation strategies are insufficient and under what conditions they might elect to rehabilitate or restore impacted fisheries in an alternative location or when the provision of compensation of some form may be appropriate.

- *As necessary, NorthPoint shall explore this further in consultation with the E-TWG, regulatory agencies and relevant stakeholders.*
- When appropriate, NorthPoint will continue to consult with NMFS and other key stakeholders throughout the Project development process to determine if any alternative or additional mitigation measures may be necessary.

7 Considerations for Subsea Cables and Overland 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.

The proposed activities associated with the Project do not impact subsea and/or overland cables. It is anticipated that dredging in the Arthur Kill will not occur in the vicinity of subsea cables, and therefore, no impacts are expected.

8 Additional Considerations

8.1 Additional Mitigation Strategies and EMP Refinement

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

- *NorthPoint will support collaborative research on potential mitigation strategies and best management practices, with other developers, agencies and stakeholders.*
- NorthPoint will employ best management practices to prevent the loss of construction materials, debris, and sediment from entering the waterways and impacting marine resources.

8.2 Process for Updating the EMP

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

- *NorthPoint will continuously evaluate and evolve this EMP so that all the components of the EMP are complete and sufficient.*
- *NorthPoint expects that additional guidance and information will become available throughout the planning and regulatory process and as such will continue to consider its relevance to the EMP at the appropriate intervals*.
- *Updates to the EMP are intended to reflect the results of iterative exchanges with members of the E-TWG, F-TWG and relevant stakeholders.*
- *NorthPoint shall update the EMP in a timely manner that reflects changes made based on key regulatory project deliverable dates.*

9 Project Decommissioning

9.1 Potential Impacts Based on Available Information and Experience

This section should describe potential impacts to marine mammals, sea turtles, birds, bats, and fisheries and habitats from decommissioning the project, based on available information and relevant experience (if any).

- *NorthPoint's waste handling processes during decommissioning shall focus on re-use or recycling, with disposal as the last option.*
- NorthPoint will attempt to mitigate potential adverse impacts as much as possible. Potential impacts will be remediated through the implementation of best management practices to prevent the construction materials, debris, and sediment from entering the waterways and impacting marine resources.
- *NorthPoint shall collaborate with regulatory authorities and key fisheries stakeholder groups to better understand the effects and potential impacts associated with decommissioning.*
- **Additionally:**
  - NorthPoint does not anticipate potential impacts on marine resources during decommissioning as changes will only entail the ceasing of port operations and the retrofitting of the site for other port-related or waterfront uses.
  - During operations, if impacts are suspected to occur during the decommissioning phase, NorthPoint will coordinate with regulatory stakeholders when required.
  - NorthPoint will coordinate with the port operator to develop a decommissioning plan based on lessons learned from previous terminal operations decommissioning.

9.2 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.

- *NorthPoint shall decommission the Project in accordance with all necessary laws and*
- **Additionally,**
  - NorthPoint shall seek input on the decommissioning plan from regulatory agencies, stakeholders, and local communities and facilitate ongoing communication and engagement with the environmental community consistent with NorthPoint's core principles of creating trusted and enduring relationships with partners and communities.
  - NorthPoint shall use "lessons learned" from the construction and operation activities and apply them when appropriate to the decommissioning plan.

Environmental Mitigation Plan – Smulders New York Offshore Steel Hub

Environmental Mitigation Plan

for

New York Offshore Steel Hub

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

with

New York State Energy Research and Development Authority

Albany, NY

Prepared by

Community Offshore Wind LLC

January 16, 2023

Record of Revision		
Revision Date	**Description of changes**	**Revision on pages**
January 25, 2023	Original Issue	-

Communication Officers, Contact Information, Links		
Name/Title	**Role**	**Contact Information**
Dirk Kassen	Smulders Business Development Manager	[redacted]

Table of Contents

List of Tables

1. Environmental Mitigation Plan Summary

1.1 Overall philosophy and principles

- This section should describe the overall philosophy and principles Community Offshore Wind will follow to avoid, minimize, restore, and off-set potential environmental impacts. Community Offshore Wind, LLC (Community Offshore Wind) is committed to delivering sustainable energy safely, reliably, and efficiently to the communities we serve. It is important that everyone enjoys the benefits of the clean energy transition – no one should be left behind. It is Community Offshore Wind's goal to build strong sustainable communities for the future.
- Community Offshore Wind will use the best available science, stakeholder feedback, and lessons learned from other applicable offshore wind offshore windfarms in considering site characterization, site design, construction, operations, and decommissioning. This synthesis will allow Community Offshore Wind to achieve our goals by applying the following objectives:
    - Avoid, minimize, restore, and offset potential environmental impacts from the proposed Project
    - Apply and advance research to study impacts of mitigation efficacy
    - Use a transparent and collaborative approach

We will utilize this approach in the development of the New York Offshore Steel Hub in order to ensure that any environmental impacts are identified, avoided, and mitigated where necessary.

1.2 Overall approach to incorporating data and stakeholder feedback

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

- Community Offshore Wind has begun and shall continue seek consultation and coordinate with relevant stakeholders.
- Community Offshore Wind shall review existing research and data and seek input from stakeholders regarding data gaps to inform decisions made throughout the Project life cycle.
- Community Offshore 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.
- 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 wildlife.
- Consistent stakeholder engagement throughout the Project life cycle will support inclusive decision making; build support for offshore wind; avoid, minimize, and mitigate potential impacts and conflicts; and meet the critical goals of the New York Climate Leadership and Community Protection Act.
- Community Offshore Wind's Project will follow federal, state, and local requirements. Community Offshore Wind is committed to working with stakeholders to achieve community benefits and net positive environmental outcomes. This commitment will require community engagement exceeding the minimum requirements and is based on an "early and often" approach.
- Community Offshore Wind will monitor impacts of the Offshore Steel Hub as required by relevant permits and

approvals.

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 EMP. Include links, if available, for all references.

- There are a variety of guidance and best practices documents that Community Offshore Wind will take into consideration and use to develop Project-specific best management practices (BMPs). Table 1-1 provides an initial list of such documents and will be updated to include additional guidance documents as they are identified and made available.

Table 1-1 List of Applicable Guidance and Best Practices Documents

Document name	Publication date	Author	Hyperlink	Environmental aspect
New York State Research and Development Authority Mitigation and Monitoring Tool	2020	NYSERDA	https://www.nyftwg.com/mmp-tool/	Consolidated list of mitigation and monitoring measures to address wildlife and fisheries impacts from offshore wind
CWA Section 404(b)(1) Guidelines	2010	EPA	https://www.epa.gov/sites/default/files/2015-03/documents/cwa_section404b1_guidelines_40cfr230_july2010.pdf	Description of needs used in evaluation activities regulated under Section 404 of the CWA
Essential Fish Habitat (EFH) Assessment for Consultations - Guidelines for completing an EFH assessment	2022	NOAA	https://media.fisheries.noaa.gov/2022-01/03-201-11_GUIDE%20to%20EFH%20CONSULTATIONS_final%20for%20signature%20%281%29_0.pdf	Description of EFH consultation needs
Guidance for Carrying Out ESA Section 7 Consultations with NOAA Fisheries Greater Atlantic Regional Fisheries Office	2022	NOAA	https://media.fisheries.noaa.gov/2022-08/GARFO%20ESA%20Section%207%20Technical%20Guidance_08082022_508.pdf	Description of ESA consultation needs

2. 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 environmental mitigation.

- Community Offshore Wind shall seek methods and processes to allow for a two-way flow of information between key stakeholders and developers, specifically highlighting how Community Offshore Wind uses this feedback to inform their decision making.
- Community Offshore Wind shall provide updates to environmental stakeholders in an appropriate manner that would be easily accessed and widely distributed.
- Community Offshore Wind will ensure that specific opportunities for engagement are created for stakeholders interested in, and impacted by, the Steel Distribution Facility.
- Community Offshore Wind will set up a communication procedure to ensure correspondence occurs throughout survey work, design, construction, operation, and decommissioning of the Project.
- Community Offshore Wind will develop communication approaches that are specific to and appropriate for each stakeholder group, including response turnaround time, language, and differing priorities.
- Community Offshore Wind will work to identify barriers to participation and address them and will acknowledge the contributions and expertise of stakeholders.
- Community Offshore Wind will develop metrics to measure success of stakeholder engagement practices.
- Community Offshore Wind will ensure Disadvantaged, Underserved, and Environmental Justice communities, minority- and women-owned businesses, and service-disabled veteran-owned businesses are partners who benefit from the Community Offshore Wind Project.
- Community Offshore Wind commits to providing appropriate and reasonable translation services for information, Americans with Disabilities Act compliant outreach and engagement materials, and engagement using a variety of media and in-person and virtual platforms to ensure broad reach and accessibility. In-person meetings will consider the ability of individuals to attend as times, days, and locations are chosen. Services like language interpretation and childcare will be considered in the context of the type of engagement and the stakeholders involved.

2.2 Communication officers/positions, responsibilities, and contact information

This section will 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 will also include links to the project website so readers know where to find additional information.

- Table 2-1 provides a list of Community Offshore Wind communication officers, roles, names, and contact information should stakeholders wish to contact Community Offshore Wind personnel directly with any questions, issues, or concerns throughout the life of the Project. Community Offshore Wind will continue to update this list as part of EMP updates.
- Stakeholders may also find additional information such as Project updates and contact information for team members at https://communityoffshorewind.com/.

Table 2-1 List of Community Offshore Wind Communications Officers

[redacted]

2.3 Identification of stakeholders

This section should describe the process by which stakeholders relevant to environmental issues will be identified and classified by stakeholder group.

- [redacted]
- Stakeholder identification has started with community outreach.
- Community Offshore Wind has also developed a Stakeholder Engagement Plan (see response to ORECRFP22-1 Appendix F) that includes the approach to engagement and metrics for measuring success of engagement for stakeholders interested in all aspects of the Project.
- Stakeholder identification was initially based on the existing connections and knowledge of relevant stakeholders from the Community Offshore Wind team. Further identification of stakeholders focused on the use of publicly available information, such as public comments on federal and state actions, fisheries data online and requested from NMFS, engagement associated with permitting and state and federal requirements, engagement by Community Offshore Wind's fisheries liaisons, and census data that can help identify Environmental Justice and Disadvantaged communities and businesses. The stakeholder contact list will continue to be developed and updated as the Project development progresses.
- Stakeholders will be classified into the following categories: Offshore wind developers, Maritime industry, Labor leaders/organizations, Federal and State government agencies, Environmental organizations, Elected officials, Economic and workforce development organizations, Commercial and recreational fishermen, Coastal residents/business owners, Training and research institutions, Tourism operators, Supply chain businesses, and Port owners/operators. Each stakeholder may fall into more than one category. The issues of interest to these stakeholders will be included in the stakeholder list that is ultimately developed to ensure communication can be targeted to their needs and interests.

2.4 Participation in stakeholder and technical working groups

2.4.1. Communication with E-TWG

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

- *Community Offshore Wind shall dedicate Project-specific technical resources to the E-TWG.* Community Offshore Wind has assigned Katherine Miller as the primary member for E-TWG attendance and communication, with Daniel Sieger as the secondary (back-up) member.
- *To the extent practicable, Community Offshore Wind shall work with the E-TWG and shall attend E-TWG meetings and workshops.* Community Offshore Wind is committed to being an active member of the E-TWG and attending meetings and workshops to the extent practicable.
- Community Offshore Wind shall identify specific individuals to serve at least one-year terms in the role of primary and secondary core members. The individuals noted above are committed to at least one-year terms, and if for any reason one becomes unavailable (e.g., maternity leave), Community Offshore Wind will assign another person as long as is necessary to ensure there are always two people with direct responsibility to engagement with the E-TWG.

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.

- Community Offshore Wind has had initial consultations with the New York Department of State (NYDOS) and the New York Department of Environmental Conservation (NYDEC [redacted]
- Community Offshore Wind will continue to engage with the appropriate Local, State, and Federal Agencies as the Offshore Steel Hub advances from schematic design. [redacted]

2.4.3. Communication with other stakeholder and working groups

This should describe any relevant participation with other stakeholder groups that would help inform the EMP.

- Community Offshore Wind shall seek to collaborate with other regulatory agencies and stakeholder groups and consider memberships and participation in such collaborative efforts (e.g., E- TWG, F-TWG, ROSA, RWSE, etc.).

[redacted]

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.

- Community Offshore Wind shall seek to maximize the impact of research efforts such as data collection, methodology, analysis and dissemination by collaborating with other developers, particularly those in adjacent lease areas, taking on similar initiatives.

2.5 Communication methods and tools 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.

- Community Offshore Wind has developed a Stakeholder Engagement Plan (see response to Appendix F of ORECRFP22-1). Community Offshore Wind has also developed three communication plans as part of Lease OCS-A 0539: a Native American Tribes, Fisheries, and Agency Communication Plans. These plans identify proposed communication strategies to the respective stakeholders for each phase of the Project, which are captured in Table 2-2. Content in Table 2-2 is not an exhaustive list of stakeholders or tools but represents the start of developing an EMP communications approach that can be expanded as more stakeholders and tools are identified.
- Community Offshore Wind has developed positions that have a dedicated responsibility to stakeholder engagement and communications across the organization (see Stakeholder Engagement Plan for additional information). Community Offshore Wind will keep NYSERDA and other New York State agencies apprised of any changes in points of contact regarding stakeholder outreach and communications.
- Approaches and tools will be updated as stakeholders express their preferred methods of communication and as mechanisms to better reach Environmental Justice and Disadvantaged communities and historically under-represented stakeholders, such as minority-owned businesses, are developed. Community Offshore Wind will follow-up with stakeholder groups who do not respond initially to ensure information communicated was received and appropriate opportunity for engagement was made available.
- Community Offshore Wind believes in reciprocal learning, a two-way communication strategy in which Community Offshore Wind and stakeholders will learn from each other through dialogue that will be both in-person and remote and made as convenient as practicable for stakeholders. For example, local public meetings may be held on a few different days and times to accommodate different work schedules, and opportunities for virtual participation will be developed as practicable to allow for the greatest level of participation.

Table 2-2 Proposed Communication Methods for Tribes/Tribal Nations and Stakeholders by Phase

Proposed Outreach Method/Tool	Phase*			
	1	2	3	4
Agencies				
Engage and consult with Agencies on proposed activities and draft study and management plans for review and comment, information requests, and recommendations and feedback	X	X	X	X
Conduct regular and recurring communications and transmissions to agencies via meetings, emails, and reports to provide updates on Project activities	X	X	X	X
Affected Communities/Environmental Justice/Disadvantaged Communities				

Proposed Outreach Method/Tool	Phase*			
	1	2	3	4
Use public comments from federal and state actions, location of communities relative to anticipated infrastructure development, and census data to identify potentially affected communities and Environmental Justice and Disadvantaged communities	X			
Continue to update lists of interested community governments and stakeholders as public comments are made and public meetings occur	X	X	X	X
Hold in-person and virtual meetings for communities pre-construction (potentially in collaboration with agencies) to seek community input and understand community concerns and needs	X			
Collaborate with community governments and members to identify information of interest about the Project and include information on website and in public documentation, share data as practicable	X	X	X	X
Publish information in local papers, locally-focused websites and with community groups to share what Community offshore wind is doing on the Project, to support communities, and to seek feedback	X	X	X	X
Follow recommendations for public outreach from New York State and other agencies as part of Article VII and other processes	X	X	X	X
Collaborate with other lease holders to engage the public jointly when practicable to reduce stakeholder fatigue	X	X	X	X
Other Stakeholders				
Other stakeholders will be identified throughout the Project life cycle as the EMP continues to develop and will be engaged via online, in-print, and in-person methods as appropriate to those groups	X	X	X	X

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

Proposed Outreach Method/Tools	Phase*			
	1	2	3	4
Public Meetings and Open Houses	*	*		
Social Media and electronic outreach	*	*	*	
Community mailings to provide information on Project	*	*		

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

3. Supporting Other Research

3.1 Support of collaborative research

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

- Community Offshore Wind shall commit to being an active member of regional science organizations (e.g. Regional Wildlife Science Collaborative, Responsible Offshore Science Alliance).
- Community Offshore Wind commits to examining opportunities for regional data collection, such as Motus receiver deployment and surveys for protected species.
- The administration of funds for research will include both contributions to established collaborative funding sources, such as RWSC, and potentially will include some directly funded projects with a focus on providing opportunities to historically under-represented groups, such as women and minorities, and development of research that benefits Environmental Justice, Underrepresented, and Disadvantaged communities and businesses.
- A rubric for evaluating research support that can contribute to regional collaboratives will be developed in collaboration with scientific experts, and the plans and priorities developed by collaboratives will be taken into consideration, including priorities developed through the Synthesis of Environmental Effects Research program[1] and NYSERDA and ROSA's collaboration on research prioritization criteria.[2]

3.2 Handing/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 the environment for the purpose of publication in peer-reviewed journals or other scientifically rigorous products.

- Community Offshore Wind is committed to making data that are not commercially sensitive available as soon as practicable in publicly available data portals and sharing data for contribution to larger studies, models, technical reports, and peer-reviewed publications.
- Community Offshore Wind has assigned staff members with the responsibility for quality control, formatting of data, and removing commercially sensitive information from data to ensure Community Offshore Wind has resources and accountability for data sharing.
- Data will be packaged with metadata following protocols in guidance, such as those in NYSERDA 2021a and provided by ROSA for fisheries data management and protocols required by data portal managers.

3.3 Data availability

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

[1] See https://tethys.pnnl.gov/sites/default/files/summaries/SEER-Booklet.pdf
[2] See https://www.rosascience org/wp-content/uploads/2022/12/Joint-Prioritization-Criteria-Meeting-Summary_13-July13-2022.pdf

- Community Offshore Wind agrees to make publicly available, as practicable, any information or data and supporting metadata that are not commercially sensitive developed in furtherance of the Project and relate to environmental characteristics, or use by wildlife, of any offshore, nearshore or onshore areas, as well as any data sponsored or developed by Community Offshore Wind relating to the potential impacts of the construction, operation, or decommissioning of the Project on the environment and wildlife.
- Community Offshore Wind will work with collaborators to ensure underlying data, not just data products, are made available for download and are easily accessible in public data portals. Community Offshore Wind shares NYSERDA's strong focus on getting the maximum value from data collected during offshore wind development and ensuring that data can provide insights into cumulative impacts and inform adaptive management.
- Community Offshore Wind will prepare a Data Management and Availability Plan which will be submitted to NYSERDA within 90 days of contract execution and will detail how data will be made available as soon as practicable.
- Community Offshore Wind will not make data agreements with collaborators that prohibit sharing of data that are not commercially sensitive or limit sharing of those data to certain institutions or under certain conditions associated with publication or acknowledgement.
- Community Offshore Wind commits to working with scientific partners to ensure they have the appropriate ability to publish new science without tying up important datasets that can inform other studies focused on different questions.
- Community Offshore Wind will prioritize publication and will provide funding as part of research projects that ensures the resources available to develop peer-reviewed publications to make outcomes of studies broadly available and vetted within the scientific community.
- Community Offshore Wind will not unreasonably withhold site accessibility for the advancement of third-party scientific and technological study and will work with New York State and other stakeholders to assess the most appropriate means of third-party scientific monitoring plan development and implementation, including addressing potential health and safety requirements
- Community Offshore Wind will put funds toward data sharing and management internally and assigning an individual position the responsibility to serve as a point of contact and ensure timely release of data to portals and the public. Community Offshore Wind will curate its data to ensure that data can be packaged and shared upon request in a timely manner.

3.4 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.

3.4.1. Community Offshore Wind shall seek to explain why identified data types are considered commercially sensitive.

- Although some data have commercial sensitivity and cannot be shared immediately upon obtaining them, such as geophysical and geotechnical data, Community Offshore Wind is willing to put such data in a neutral repository where it will be kept private until such time as it can be released to the public.
- To promote mutual respect and trust, Community Offshore Wind is committed to keeping any sensitive information shared by Tribes/Tribal Nations during engagement activities confidential.
- Commercially sensitive data pertaining to fisheries may also be withheld or aggregated as appropriate.

3.5 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, including federal or State-supported research. Or, if elected, provide the level of commitment to a general fund for supporting third- party research into potential environmental effects of offshore wind energy development.

- Community Offshore Wind will continue to be engaged on the research prioritization criteria being developed collaboratively across ROSA, RWSC, and NYSERDA and with the ROSA and RWSC science plans for application to funding priorities over the lifetime of the Project.

3.6 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.

- Community Offshore Wind is aware of a wide variety of ongoing research projects and research prioritization efforts, as noted throughout the EMP. The NYSERDA State of the Science Workshop in 2022 highlighted the significant body of research and large number of institutions and individuals engaged.
- Community Offshore Wind's research support will be spread across large-scale regional projects and more local, specific questions.

In addition to impact research, Community Offshore Wind seeks to understand the efficacy of mitigation measures, develop technologies that will collect more robust data, and understand how unavoidable impacts can be offset and remediated.

4. Proposed Mitigation of Impacts to Marine Mammals and Sea Turtles

4.1 Baseline characterization

4.1.1. Available information

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

[redacted]

4.1.2. Data being collected

Describe data collected, or will be collected, to support baseline characterization.

- [redacted] *Observations of all right whales and dead, entangled, or distressed marine mammals shall be communicated to federal authorities as soon as is practicable, and no later than 24 hours after occurrence*

4.2 Species at risk

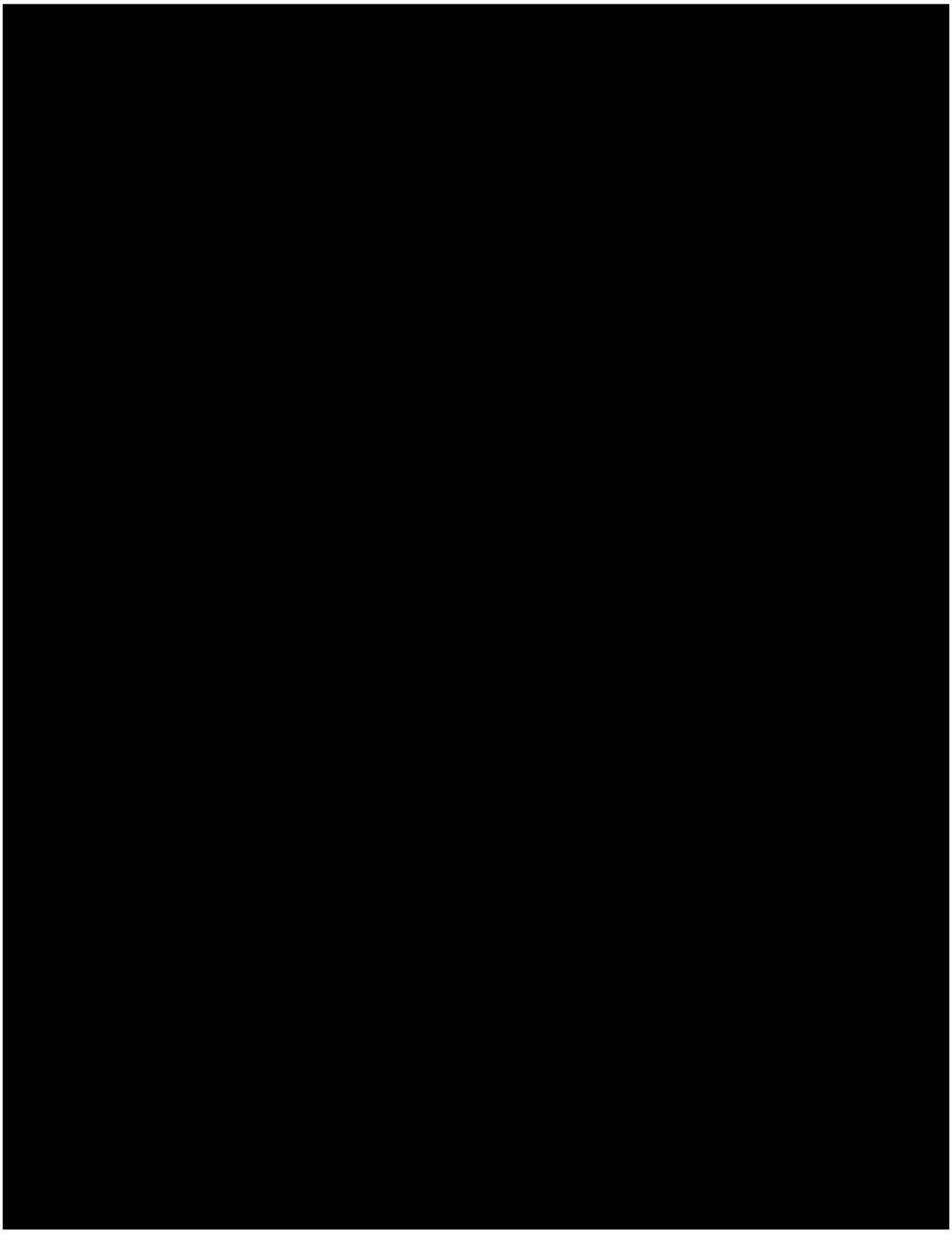
Describe which species Community Offshore Wind believes to be of greatest concern and why.

Marine mammal and sea turtle species are not anticipated to be present at or within the vicinity of the Offshore Steel Hub. However, generally species with elevated risk include state and federally-listed ESA species and species listed as High Priority of Greatest Conservation Need by the NYSDEC.

4.3 Potential impacts and mitigation measures by phase

The table below should list the potential impacts to marine mammals and sea turtles and proposed mitigation measures. To this end, a description of proposed measures to minimize the impacts of sound on marine mammals and sea turtles during all phases to Project development should be included. In addition, provide a description of the anticipated pre- and post- construction survey techniques to establish an ecological baseline and changes to that baseline within the Project site; the minimum size of exclusion zone intended to be monitored during geophysical surveys and construction; planned approaches to understanding marine mammal and sea turtle presence and absence within development site exclusion zone during site assessment and construction (e.g. a combination of visual monitoring by protected species observers and passive acoustic monitoring, the use of night vision and infra-red cameras during nighttime activities, etc.); proposed temporal constraints on construction activities and geophysical surveys with noise levels that could cause injury to harassment in marine mammals (e.g., seasonal restrictions during periods of heightened vulnerability for priority species; commencing activities during daylight hours and good visibility conditions, dynamic adjustments following the detection of a marine mammal); and proposed equipment and technologies Community Offshore Wind would use to reduce the amount of sound at the source, if any.

[redacted]



[3] The Offshore Steel Center is not anicipated to have any of these impacts, however, this table is included as mandatory text in the EMP

4.4 Monitor for potential impacts during each phase

Describe how potential impacts will be monitored on marine mammals and sea turtles 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.

- Community Offshore Wind shall seek to collaborate with other regulatory agencies and stakeholder groups to identify research needs and opportunities.
- [redacted] no impacts to are anticipated in the design, development, and operation of the Offshore Steel Hub.

4.4.1. Assess and quantify changes

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

[redacted]

4.4.2. Address data gaps

Describe how data gaps will be addressed.

- Community Offshore Wind shall work with stakeholders, including regulatory agencies and local groups, in the design phase of the Project to identify data gaps to be addressed through surveys or permitting applications.

4.5 Strategies for developing alternate protocols

Describe the process for determining when mitigation strategies are insufficient and under what conditions they might elect to rehabilitate or restore impacted marine mammals and sea turtles in an alternative location.

- As necessary, Community Offshore Wind shall explore this further in consultation with the E-TWG, regulatory agencies and relevant stakeholders.

5. Proposed Mitigation of Impacts to Birds and Bats

5.1 Baseline characterization

Describe how baseline data will be established on the presence of bird and bat assemblages, temporal and spatial use of the site by key species within the area of the proposed Project.

- [redacted]

5.1.1. Available information

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

[redacted]

5.1.2. Data collected

Describe data collected, or will be collected, to support baseline characterization.

[redacted]

5.2 Species at risk

Describe which species Community Offshore Wind believes to be of greatest concern and why.

- [redacted]
- Community Offshore Wind has identified bat species that may be more at risk than others, as summarized in Table 5-1.

[redacted]

Table 5-1 Bird and Bat Species at Risk

[redacted]

Sources: USFWS ecos.fws.gov/ecp/species listings

Definitions: Very likely – occurring consistently in New York Bight in moderate to large numbers, Likely – occurring regularly, inhabitants at least seasonally and have been documented within the New York Bight & Not likely – occurring in low numbers or on an irregular basis or limited records

5.3 Potential impacts/risks and mitigation measures by project stage

The table below should list the potential impacts and mitigation measures to understand and minimize the Project's risk to birds and bats. At a minimum this should include the steps Community Offshore Wind will pursue to minimize risk to birds and bats (e.g. lighting), and identification of technological approaches to assess impacts or any Proposals for other research or mitigations relating to birds or bats planned or under consideration at this time

No impacts to birds or bat species are anticipated in the design, development, and operation of the Offshore Steel Hub.

Table 5-2 Impacts and mitigations by project stage

Potential Impacts	Proposed Mitigation Measures	Phase*			
		1	2	3	4
Collision risk to marine birds and bats	• To avoid and minimize attraction- and disorientation-related impacts to birds and bats, artificial lighting on offshore wind projects shall be reduced to the extent practicable while maintaining human safety and compliance with FAA, USCG, BOEM and other regulations. • Monitoring shall be conducted to determine if there is a need for perching-related deterrents to reduce attraction and minimize potential perching and loafing opportunities for birds. • Physical deterrents to perching (e.g. such as spikes and netting or other best available technology) shall be implemented if there is demonstrated risk at the site (e.g., perching and roosting on infrastructure is a common occurrence) and to the extent that they do not represent a human safety hazard.		X	X	
Habitat impacts, including breeding and nesting areas	• Siting and construction of nearshore and onshore project components for offshore wind farms (including but not limited to nearshore export cable routes, landfall sites, onshore cable routes, and onshore substations) shall be conducted in such a way as to avoid or minimize the loss or alteration of bird and bat habitat, as well as avoid or minimize disturbance and direct and indirect effects to bird and bat populations and their prey. Specifically, onshore infrastructure (i.e., landfall site, cable routes, substations) and development activities should 1) maximize the use of previously developed or disturbed areas, and 2) avoid unique or protected habitats, as well as habitat for key species, where feasible.		X	X	X
Lighting attraction/avoidance	• Where this doesn't contradict health and safety standards, lighting may be minimized to the extent practicable, based on sensitivity of species present	X	X	X	X
Disturbing bat roosts and hibernacula	• Pre-construction habitat survey to look for roosts and hibernacula • Pre-construction survey to determine if setbacks and/or offsets are needed	X			

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

5.4. Monitor for impacts during each phase

[redacted]

5.4.1. Pre/Post monitoring to assess and quantify changes

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

[redacted]

5.4.2. Address data gaps

Describe how data gaps will be addressed.

- Community Offshore Wind shall work with stakeholders, including regulatory agencies and local groups, in the design phase of the Project to identify data gaps to be addressed through surveys or permitting applications.
- Community Offshore Wind will prioritize funding research to address gaps in collaboration with agencies, RWSC, the E-TWG, other developers, and other stakeholders to maximize data value and create public and transparent studies. Research priorities to address data gaps have been assessed in a variety of workshops, and a research plan is under development by RWSC.

5.5. Strategies for developing alternate protocols

Describe the process for determining when mitigation strategies are insufficient and under what conditions they might elect to rehabilitate or restore impacted birds and bats in an alternative location.

- As necessary, Community Offshore Wind will explore this further in consultation with the E-TWG, regulatory

agencies and relevant stakeholders.

- Community Offshore Wind will engage with New York State agencies, federal agencies, scientists, and other stakeholders regularly (as described in the Stakeholder Engagement Plan in response to Appendix F of the ORECRFP22-1 .

[redacted]

[4] https://www.fws gov/service/conservation-banking
[5] https://www.conservationfund.org/projects/range-wide-indiana-bat-in-lieu-fee-program

6. Proposed Mitigation of Impacts to Fish, Invertebrates and their Habitats

6.1 Baseline characterization

Describe what is known about the proposed site in terms fish and invertebrate assemblage, and temporal and spatial variations in fish, invertebrates and their habitats at the proposed site. The use of collaborative monitoring models with the fishing community is encouraged to develop trusted baseline data.

6.1.1. Available information

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

[redacted]

6.1.1. Data being collected

Describe data collected, or will be collected, to support baseline characterization.

[redacted]

6.2 Species at risk

Describe which species Community Offshore Wind believes to be of greatest concern and why.

[redacted]

Table 6-1 Species at risk

[redacted]

[6] https://www.mafmc.org/fishery-management-plans
[7] https://www.fisheries.noaa gov/resource/map/essential-fish-habitat-mapper
[8] https://www.arcgis.com/home/webmap/viewer.html?webmap=12ba9d56b75d497a84a36f94180bb5ef&extent=-74.6987 39 852 -71.315 41.7603
[9] https://www.dec.ny.gov/lands/110813.html
[10] https://www.dec.ny gov/docs/wildlife_pdf/wetart24a.pdf

Table 6-1 Species at risk

[redacted]

Sources: NHRA Data Explorer, MAFMC, NOAA

6.3 Potential impacts/risks and mitigation measures by project stage

The table below should list the potential impacts to fish, invertebrates, and their habitats and proposed mitigation measures. To this end, this section should describe how Community Offshore Winds will minimize risk to fish, invertebrates and their habitats (e.g., foundation type, scour protection, cable shielding for electromagnetic fields, construction windows, siltation/turbidity controls, use of dynamic-positioning vessels and jet plow embedment).

[redacted]

- Community Offshore Wind is committed to mitigating impacts to fish, invertebrates, and their habitats and expects that research will continue to result in better understanding of priorities, more effective mitigation measures, and more accurate means to detect and mitigate in real-time.
- Community Offshore Wind's strategy around mitigation is to plan to the extent practicable at this stage without specific Project details or knowledge of the specific technologies and methods that will be available for construction, maintenance, decommissioning, mitigation, and monitoring and continue to update this plan over time.

[redacted]

Table 6-2 Impacts and mitigations by project stage

Potential Impacts	Proposed Mitigation Measures	Phase*			
		1	2	3	4
Micro-siting conflicts with habitats and fishery resources	Community Offshore Wind 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.	X			
Temporary, alteration of the seabed and localized increases in noise and turbidity	Community Offshore Wind shall seek to use noise attenuation technologies to reduce sound from pile driving of foundations (if such methods are used)	X	X	X	X
Long-term changes to seabed and habitat	Community Offshore Wind shall, to the extent possible, avoid sensitive benthic habitats.	X	X	X	X
EMF Impacts	Community Offshore Wind shall use proper shielding to reduce EMF. Community Offshore Wind shall conduct EMF modeling and assessments to identify potential mitigation requirements.				
Cable burial	Community Offshore Wind shall bury export and interarray cables to an appropriate minimal depth to reduce exposure risk. If depth cannot be reached, Community Offshore Wind shall add protective materials over the cable. Community Offshore Wind shall conduct routine surveys or inspections of sub-sea cables, and shall conduct a survey or inspection to ensure and correct for cable exposure following hurricane or other major events causing disturbance to the seabed.				
Turbine Scour Protection	Community Offshore 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.				
Vessel collision	Community Offshore Wind will follow vessel collision avoidance vigilance and speed limits developed through ESA consultation and additional engagement with scientists, federal and state agencies, and other stakeholders	X	X	X	X
Sediment suspension and contaminant release	Community Offshore Wind will engage with the U.S. Army Corps of Engineers, U.S. Environmental Protection Agency, NYSDEC, and scientific experts and be compliant with and monitor to meet standards set for turbidity and contaminant release from sediments	X	X	X	X

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

6.4 Monitor for impacts during each phase

Describe how potential impacts will be monitored on these types of fish and invertebrates 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.

- There are a variety of organizations, agencies, and academic institutions with whom collaborations can be formed, and Community Offshore Wind seeks to develop its monitoring in a manner compatible with local and regional assessment.
- Community Offshore Wind aims to integrate research and monitoring efforts in collaboration and will commit to engaging on the development of a regional receiver network, support fish tagging, and engage in other large-scale, collaborative monitoring.

6.4.1. Pre/Post monitoring to assess and quantify changes

Describe how changes to environmental 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 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.
- Community Offshore Wind shall seek to collaborate with other regulatory agencies and stakeholder groups to identify research needs and opportunities.
- Community Offshore Wind will support and engage in studies to detect changes in distribution, habitat use, movements, behavior, and other important aspects of fish and invertebrate life history as well as their habitats throughout each phase of the Project.
- Change will be assessed and quantified to the extent practicable on different temporal and spatial scales and effort will be made to tie changes back to population- and ecosystem-level consequences. Community Offshore Wind will rely on RWSC, ROSA, the E-TWG, the F-TWG, NYSDEC, and other scientific experts to inform methodologies that will integrate into regional studies and achieve statistically robust outcomes with accounting for variability and context-dependent changes (e.g., changes in underlying dynamic habitat variables may affect distribution).

[redacted]

6.4.2. Addressing data gaps

Describe how data gaps will be addressed.

- Community Offshore Wind shall seek to work with stakeholders, including regulatory agencies, to identify data gaps to be addressed through surveys or permitting applications.
- [redacted]
- Community Offshore Wind aspires to develop collaborations with fisheries and ROSA to study fish, invertebrates, and habitats in conjunction with fisheries research to help address data gaps in understanding the relationships among ocean uses, fauna, and habitats to better address impacts.

6.5 Strategies for developing alternate protocols

Describe the process for determining when mitigation strategies are insufficient and under what conditions they might elect to rehabilitate or restore impacted fisheries in an alternative location or when the provision of compensation of some form may be appropriate.

- As necessary, Community Offshore Wind shall explore this further in consultation with the E-TWG, regulatory agencies and relevant stakeholders.

[redacted]

[11] https://www.noaa.gov/sites/default/files/2022-07/NAO_216-123_Mitigation_Policy.pdf

7. Considerations for Subsea and Overland Cables

7.1 Mitigation strategies for subsea and overland cables

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

- The Offshore Steel Hub will not include any subsea or overland cables, however, the following best practice measures will be incorporated onto the onshore development.

8. Additional Considerations

8.1 Additional mitigation strategies and EMP refinement

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

- Community Offshore Wind will support collaborative research on potential mitigation strategies and best management practices, with other developers, agencies and stakeholders.
- Community Offshore Wind commits to supporting collaborative research on potential mitigation strategies and BMPs with other developers, agencies, and stakeholders. Community Offshore Wind seeks to develop strong collaborations with agencies, researchers, NGOs, Tribes/Tribal Nations, fisheries, and other stakeholders to support research and mitigation that addresses priorities, focuses on question-driven science, fills both fine-scale and broad-scale data gaps, and delivers robust actionable outcomes.

[redacted]

8.2 Process for updating the EMP

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

- Community Offshore Wind will continuously evaluate and evolve this EMP so that all the components of the EMP are complete and sufficient.
- Community Offshore Wind expects that additional guidance and information will become available throughout the planning and regulatory process and as such will continue to consider its relevance to the EMP at the appropriate intervals.
- Updates to the EMP are intended to reflect the results of iterative exchanges with members of the E-TWG, F-TWG and relevant stakeholders.
- Community Offshore Wind shall update the EMP in a timely manner that reflects changes made based on key regulatory project deliverable dates.
- The results of feedback received based on public meetings and notices, Tribe/Tribal Nation engagement, fisheries engagement, and engagement with Environmental Justice and Disadvantaged communities and businesses will be considered in refining the plan. Concerns or recommendations in conflict will be examined carefully to ensure decisions do not disproportionately adversely affect Environmental Justice and/or Disadvantaged communities and businesses.

9. Project Decommissioning

9.1 Potential impacts on marine wildlife, birds, bats, and fisheries

This section should describe potential impacts to marine mammals, sea turtles, birds, bats, and fisheries and habitats from decommissioning the project, based on available information and relevant experience (if any).

- Community Offshore Wind's waste handling processes during decommissioning shall focus on re-use or recycling, with disposal as the last option.
- Community Offshore Wind shall collaborate with regulatory authorities and key environmental stakeholder groups better understand the effects and potential impacts associated with decommissioning.

[redacted]

9.2 Approach for decommissioning 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 stakeholders, and any elements of its contemplated decommissioning plan that can be identified at this stage.

- Community Offshore Wind shall decommission the Project in accordance with all necessary laws and regulations and generate a detailed Project-specific decommissioning plan.
- Community Offshore Wind shall seek input on the detailed Project-specific decommissioning plan from regulatory agencies, fisheries and marine stakeholders, and local communities.
- Community Offshore Wind shall use "lessons learned" from the construction and operations activities and apply them when appropriate to the decommissioning plan.
- To streamline decommissioning, decommissioning concepts will be integrated into the Project infrastructure design, as practicable, and this will be considered as Design for Decommissioning.

[redacted]