

Response to Feb. 10, 2023 Clarifying Questions

Attachment B.11

SCIP Facility Environmental Mitigation Plan

REDACTED



**Environmental Mitigation Plan
for
HV Subsea Cable factory
Version [1.0]**

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

with

New York State Energy Research and Development Authority

Albany, NY

Prepared by

[REDACTED]

[REDACTED]

24th January 2023

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| Communication Officers, Contact Information, Links | | |
|---|-------------|----------------------------|
| Name/Title | Role | Contact Information |
| To be provided | | |
| | | |
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| | | |

Links to project information:

To be provided



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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.

[REDACTED]

[REDACTED]

Table 1: [REDACTED] strategy for the NY State HV subsea cable factory

| HV subsea cable factory NY state | | |
|--|--|--|
| Environmental focus areas | Environmental goals for Construction phase | Environmental goals for factory "In use" phase |
| 1. Management | | |
| <ul style="list-style-type: none"> Environmental strategy Environmental program and follow-up system | <ul style="list-style-type: none"> Production site certified for ISO 14001 Develop Environmental strategy Use of Environmental program and follow-up system for each sub-project | <ul style="list-style-type: none"> Recertified for ISO 14001 on continuous intervals. Environmental strategy Deployment Use of Environmental program and follow-up system for Operations, Production, and Facility Management. |
| 2. Energy | | |
| <ul style="list-style-type: none"> Reduce energy consumption in buildings Energy efficient equipment Renewable energy sources LEED qualified buildings where practical | <ul style="list-style-type: none"> Install equipment for monitoring energy consumption on a regular basis Describe energy efficient equipment in contracts Procure Energy Management Systems/Contracts. Design buildings in accordance with LEED where practical | <ul style="list-style-type: none"> Specify and install energy efficient production equipment. Use best available technology to minimize energy consumption during production and between production runs Energy consumption to be monitored for all production processes |

[REDACTED]

| | | |
|--|--|---|
| 3. Transport | | |
| <ul style="list-style-type: none"> Reduce use of fossil fuel for internal transport on site and for personal and public transport | <ul style="list-style-type: none"> Install charging points for electric vehicles to be used both on site and for employee vehicles Plan for less internal transport of materials and waste on site | <ul style="list-style-type: none"> Use of electrical vehicles for internal transport on site Optimize internal logistics to minimize transport on site |
| 4. Water | | |
| <ul style="list-style-type: none"> Reduce the water consumption in factory | <ul style="list-style-type: none"> Description and installation of equipment which provide water reduction in use Engineering of system with low water consumption Installation of equipment for monitoring water on a regular basis Engineered Closed loop systems. | <ul style="list-style-type: none"> Closed loop systems to be installed for all processes requiring cooling water Energy efficient pumps/circulation systems. |
| 5. Materials | | |
| <ul style="list-style-type: none"> Use of Eco and health friendly materials | <ul style="list-style-type: none"> Use of low emission and long-lasting materials Description of low emission materials indoor in factory and office areas, (certificate class M1 or equivalent certificate) All wood with PEFC- or FSC- certificate if wood is to be used Materials free of additives from "Candidate list of substances of very high concern of authorization" (REACH) | <ul style="list-style-type: none"> Typical consumables to be low emissions. Typical consumables to be eco-friendly and waste to be recyclable. |
| 6 Waste | | |
| <ul style="list-style-type: none"> Recycling of production waste Recycling of construction waste | <ul style="list-style-type: none"> Plan for 100 % recycling of production waste Construction waste recycling minimum 90 weight%, aiming for 0 weight% to landfill. Description in contracts return of packaging when possible. | <ul style="list-style-type: none"> Facilitate for 100 % recycling of production waste Implement measures to minimize overconsumption of raw materials during production |
| 7 Land use & ecology | | |
| <ul style="list-style-type: none"> Preservation of valuable resources and local ecosystem | <ul style="list-style-type: none"> Preservation of waterways and forests located at/close to construction site | <ul style="list-style-type: none"> Use of pervious or semi-pervious site materials. |

| 8 Pollution | | |
|--|--|---|
| <ul style="list-style-type: none"> Greenhouse gas /climate gas calculations Fossil free energy consumption for buildings and transport Acute pollution and discharges | <ul style="list-style-type: none"> Reduction of greenhouse gas/climate gas from new building from materials by use of low carbon concrete minimum class B (ref. NB publ.37), high amount of recycled steel, reduce the amount of materials Calculate emission of greenhouse gas from new factory building Strive for fossil free construction site. Use fossil free construction machinery and equipment when reasonably possible Monitoring use of fossil free fuel on construction site. Aiming for 50 % fossil free construction site. Zero acute pollution on site during construction period | <ul style="list-style-type: none"> No use of SF₆ emissions for HV subsea cable plant in spite of increased activity. Implement best available technology for a goal of 0 emission to water and soil Zero acute discharges to water, soil and air No smell/odor from the plant influencing the neighbors. Trash and Liter control. Containment systems for site activities. |
| 9 External Noise | | |
| <ul style="list-style-type: none"> Minimize external noise pollution | <ul style="list-style-type: none"> Minimize noise by “Noise Pollution Analysis” for construction site and follow-up with necessary actions for preventing or reduce noise. <ul style="list-style-type: none"> Notification to neighbors in advance for planned and expected noise from construction site. | <ul style="list-style-type: none"> External noise level after plant construction not to exceed the Limit Values in the existing permit. |

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).

- [REDACTED] seek consultation and coordinate with relevant stakeholders.
- [REDACTED] review existing research and data and seek input from stakeholders regarding data gaps to inform decisions made throughout the Project life cycle.
- [REDACTED] 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.



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.

- [REDACTED] seek methods and processes to allow for a two-way flow of information between key stakeholders [REDACTED] specifically highlighting [REDACTED] uses this feedback to inform their decision making.
- [REDACTED] provide updates to environmental stakeholders in an appropriate manner that would be easily accessed and widely distributed.

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 1: List of Communication officers/positions, responsibilities, and contact information

| Name/Title | Role/Responsibilities | Contact Information |
|----------------|-----------------------|---------------------|
| To be provided | To be provided | To be provided |
| | | |
| | | |

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] hire a consultancy firm to identify relevant stakeholders to environmental issues
- An External stakeholder Engagement plan will be created and maintained during the entire construction phase of the HV subsea cable factory
- [REDACTED] continue to engage with regulatory agencies, research institutions and relevant stakeholders either via independent meetings or through environmental round tables in order to maximize opportunities to discuss the project and solicit feedback.

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.

- Not Applicable



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.

- [REDACTED] continue to engage with NY 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.

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] 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.).

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.

- Not applicable

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.

Table 2: Proposed Outreach Method/Tools

| Proposed Outreach Method/Tools | Phase* | | | |
|---|--------|---|---|---|
| | 1 | 2 | 3 | 4 |
| Public meetings, Open houses | X | X | X | |
| Stakeholder workgroups | X | X | X | |
| Website promotion | X | X | X | |
| Visual simulation tools | X | X | X | |
| Federal Agency Meetings, in person, webinars | X | X | X | |
| State Agency Meetings, in person, webinars | X | X | X | |
| <i>*Phase: 1: Survey/Design; 2: Construction; 3: Operation; 4: Decommission</i> | | | | |



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.

- Not Applicable

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.

- Not Applicable

3.3 Data availability

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

- Not Applicable

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.

- Not Applicable

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.

- Not 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.

- Not Applicable

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.

- Not Applicable

4.1.2. Data being collected

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

- Not Applicable

4.2 Species at risk

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

- Not Applicable

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.

- Not Applicable

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.

- Not Applicable

4.1.3. Assess and quantify changes

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

- Not Applicable

4.1.4. Address data gaps

Describe how data gaps will be addressed.

- Not Applicable

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.

- Not Applicable

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.

- Not Applicable

5.1.1. Available information

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

- This will be detailed during the engineering phase of the construction

5.1.2. Data collected

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

- Initial data have been collected based on consultation with the NYSDEC, USFWS, and NOAA

5.2 Species at risk

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

Based on the Draft Environmental Impact Statement performed by Port of Coeymans, the species at risk identified are the following:

- Northern Long-eared Bat - *Myotis septentrionalis*
The northern long-eared bat (NLEB) is a species that was recently listed as threatened under the Endangered Species Act on April 2, 2015. Northern long-eared bats hibernate in the winter in caves and mines, these hibernating areas are called hibernacula. During the spring and summer months, NLEBs use trees to roost, staying under loose bark or in tree cavities (U.S. Fish and Wildlife Service. 2020). Based on numerous site visits, the existing POC site is already developed and does not contain any ideal roosting trees or hibernacula locations.
- Indiana Bat - *Myotis sodalist*
The Indiana bat is a species that has been listed as endangered since 1967. Similarly, to the NLEB, Indiana bats spend the winter in hibernacula caves and spend the summer in forested areas roosting in trees with loose bark or cavities (NYS Department of Environmental Conservation. 2020).
- Bald Eagle - *Haliaeetus leucocephalus*
The bald eagle is a bird with a life span of more than 30 years. The bald eagle is a species that mates for life and returns to the approximate area where they fledged from. Once a pair selects a nesting area, they return to the same area for the rest of their lives (NYS Department of Environmental Conservation. 2020). Based on multiple site visits, the existing POC site and immediate surrounding area does not contain any active bald eagle nesting sites. Furthermore, the proposed project does not consist of any alterations to potential bald eagle nesting areas.

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.

| Potential Impacts | Proposed Mitigation Measures | Phase* | | | |
|--|---|----------------|---|---|---|
| | | 1 | 2 | 3 | 4 |
| Collision risk to marine birds and bats | <ul style="list-style-type: none"> 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. | Not Applicable | | | |
| Habitat impacts, including breeding and nesting areas | <ul style="list-style-type: none"> 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. | Not Applicable | | | |
| *Phase: 1: Survey/Design; 2: Construction; 3: Operation; 4: Decommission | | | | | |

Based on the Draft Environmental Impact Statement performed by Port of Coeymans, the potential impacts are the following:

- Northern Long-eared Bat - *Myotis septentrionalis* and Indiana Bat - *Myotis sodalist*
There are no potential impacts to the NLEB or Indiana bat species as there is limited tree clearing proposed onsite. It is highly unlikely that the proposed project will have any harm on the NLEB or the Indiana bat species, if any are present at the site.



- Bald Eagle - *Haliaeetus leucocephalus*
There are no potential impacts to the bald eagle species. It is highly unlikely that the proposed project will have any harm on the bald eagle species.

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.

- Not Applicable

5.4.1. Pre/Post monitoring to assess and quantify changes

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

- 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.

5.4.2. Address data gaps

Describe how data gaps will be addressed.

- [REDACTED] 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.

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, [REDACTED] 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 key existing literature and datasets that are available for baseline characterization.

- This will be detailed during the engineering phase of the construction

6.1.2. Data being collected

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

- Initial data have been collected based on consultation with the NYSDEC, USFWS, and NOAA

6.2 Species at risk

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

Based on the Draft Environmental Impact Statement performed by Port of Coeymans, the species at risk identified are the following:

- **Shortnose Sturgeon - *Acipenser brevirostrum* and Atlantic Sturgeon - *Acipenser oxyrinchus***
The shortnose sturgeon is an endangered species listed by the National Marine Fisheries Service (NMFS.) shortnose sturgeon have known spawning grounds between the Troy Dam and Coxsackie, NY. In the Spring the shortnose sturgeon species will travel through the proposed in-river portion of the site while traveling to their spawning grounds. It is also known that adult shortnose sturgeon also concentrate in overwintering areas over 50 miles south of the proposed project area from Saugerties to Hyde Park and to areas just south of Kingston, NY, near Esopus Meadows. As studies show, Adult shortnose sturgeon movement during this overwintering period is localized and fish are fairly sedentary (RM 86-94, rkm 139-152).⁷ The Atlantic sturgeon is also listed as an endangered species listed by the National Marine Fisheries Service and is protected in New York State. According to the NYSDEC, 2020, the Atlantic sturgeon can be found in both the upper and lower reaches of the Hudson River. It has been further documented that the Lower Hudson River is used by the Atlantic sturgeon as spawning, nursery grounds for juveniles and overwintering
- **American Waterwort - *Elatine Americana***
American Waterwort is listed as critically imperiled in New York State due to its extreme rarity in the state. American Waterwort has been found in marshes and mudflats along the Hudson River and can be associated with muddy tidal shores. According to the New York Natural Heritage Program, 2020, American Waterwort has a range from Long Island and the tidally influenced portion of the Hudson River, as far north as Rensselaer County. Although the proposed project site is within the potential habitat of American Waterwort, it has not been found on or near the project site. Furthermore, the proposed project location does not consist of mudflats or marsh habitat that is required for American Waterwort growth. The proposed project location consists of primarily gravel/rock river bottom.

- Tidewater Mucket - *Leptodea ochracea*
The Tidewater Mucket is ranked by New York State as “Critically imperiled”. Its range extended almost continuously from Troy to Kingston before the introduction of the Zebra mussel, *Dreissena polymorpha*. In 1998 the tidewater mucket was no longer detected in surveys of the Hudson River. In the early 2000’s populations recovered slightly with possible recovery up to 8%. In 2011, live specimens were found in the South Bay Creek and Marsh area near the City of Hudson.

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 | <ul style="list-style-type: none"> • The developer shall seek input from regulatory authorities, the fishing industry, and maritime industry to locate foundations and cable routes in the least impactful manner that is practicable. | Not Applicable | | | |
| Temporary, alteration of the seabed and localized increases in noise and turbidity | <ul style="list-style-type: none"> • The developer shall seek to use noise attenuation technologies to reduce sound from pile driving of foundations (if such methods are used) | Not Applicable | | | |
| Long-term changes to seabed and habitat | <ul style="list-style-type: none"> • The developer shall, to the extent possible, avoid sensitive benthic habitats. | Not Applicable | | | |
| EMF Impacts | <ul style="list-style-type: none"> • The developer shall use proper shielding to reduce EMF. • The developer shall conduct EMF modeling and assessments to identify potential mitigation requirements. | Not Applicable | | | |
| Cable burial | <ul style="list-style-type: none"> • The developer shall bury export and interarray cables to an appropriate minimal depth to reduce exposure risk. If depth cannot be reached, the developer shall add protective materials over the cable. • The developer 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. | Not Applicable | | | |



| | | |
|--|--|----------------|
| Turbine Scour Protection | <ul style="list-style-type: none"> The developer 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. | Not Applicable |
| *Phase: 1: Survey/Design; 2: Construction; 3: Operation; 4: Decommission | | |

Based on the Draft Environmental Impact Statement performed by Port of Coeymans, the potential impacts are the following:

- Shortnose Sturgeon - *Acipenser brevirostrum* and Atlantic Sturgeon - *Acipenser oxyrinchus*
There is potential for sturgeon interference from the proposed project. It has been found that vessel strikes can occur, especially in areas of high ship or other vessel activity, and cause sturgeon mortality (NOAA Fisheries, 2020). Essential Fish Habitat (EFH) studies have been conducted for the previous TZC trestle project as well as for the current project to determine the potential effects from the project on sturgeon that may be traveling the portion of the Hudson River that the POC site occupies as well as downriver areas. Some intermittent shading of the Hudson River is expected from barge mooring, but any shading will be similar to the existing conditions and will be temporary as the barges will be rotated a couple times during the week.

It is also noted that past research has found that noise effects associated with pile driving can have an impact on sturgeon in the Hudson River. Based on the Underwater Sound Monitoring report performed on November 12th, 13th, and 24th, 2014 for Tappan Zee Constructors, LLC, in-water pile driving can produce lethal and sublethal sound impacts to sturgeon that extend into the navigational channel. However, unlike the pile driving for the trestles, the proposed pile driving that will occur for the project will be concentrated in the upland area along the shoreline and along the existing timber bulkhead and not out in the deeper in water, therefore, the above referenced Underwater Sound Monitoring report project may not be accurate or applicable for the project. It is anticipated that there will be far less sound impact on river resources due to the required pile driving being concentrated on the land and land/water fringe and behind the proposed steel bulkhead.

Based on the fact, that with the exception of the steel sheeting bulkhead and larger diameter steel breasting piles along the existing timber bulkhead, pile driving will not occur in water, it is anticipated that sturgeon take will not be likely.

It should be noted that significant previous as well as new research has been done to assess the potential impacts that the proposed project may have on shortnose and Atlantic sturgeon. As stated above an essential fish habitat study has been conducted for this project, which describes the potential for impacts to the existing fisheries in detail. This report entitled, "Essential Fish Habitat Assessment & Endangered Species Act Consultation for the P&M Brick, LLC Offshore Wind Infrastructure Project", prepared by Ingalls & Associates, LLP, and dated February 2, 2021 with last revision December 16, 2021, is attached for review in Appendix 10.5. This report not only discusses and evaluates the potential project impacts on the endangered sturgeon species, but also the native anadromous fish species that inhabit this section of the Hudson River. The report is further supported by and references a 2019 sturgeon study completed by HDR to assess these potential impacts. This report is included for review as Appendix 10.6. Furthermore, the previously prepared Endangered Species Act (ESA) concurrence request letter to NMFS for making the TZC trestles permanent, prepared by Ingalls & Associates, LLP and dated December 17, 2018 is still valid and an appropriate reference when considering evaluation of potential impacts from sound during pile driving, water quality and vessel traffic (See Appendix 10.13, "Endangered Species Act Concurrence

Letter to NOAA dated December 17, 2018 ") This previous conference on potential effects to critical habitat was conducted in accordance with 50 CFR §402.10 relative to the listed species. Based on these reports, it was determined that impacts to managed species in the Hudson River may be attributed to "sedimentation, possible pollutants (toxic, chemical or oil) and resultant food chain effects of bioaccumulation and biomagnification. Cumulative effects may also include loss of forage base and spawning areas. Due to limited intertidal shoreline area, lack of underwater shelter or submerged aquatic vegetation, the project impacts are anticipated to be minimal. Previous bottom sampling/testing confirmed the absence of any detrimental bottom contaminants. Forage species of alewife, blueback herring, American shad, and blue crab may be attracted to the existing stone rip-rap shore stabilization. Likewise, minimal impact is anticipated for the resident species as well as the deeper water users of sturgeon and striped bass." It is also noted that "Minimal cumulative impact is anticipated for the deeper water sturgeon. Following proposed wharf dredging activities, which is expected to take approximately three to four weeks of river bottom disturbing activity, no additional bottom disturbing activities are proposed. Dredging activities are minimal in area and duration and will not result in any cumulative impacts to endangered species." Additionally, there will be natural restoration of any disturbed benthic habitat within one year of the end of construction activities.

The trestle project was also the subject of several previous reviews by NMFS relative to vessels traveling to and from the POC. The previous applications in 2014 to 2016 were reviewed by NYSDEC biologists as well as the subject of National Marine Fisheries Biological Opinions (Opinions) dated September 23, 2014 and June 20, 2016. The Opinions and Department staff confirmed that the limited barge movements from POC did not result in a "take" under Part 182 Endangered Species regulations. Furthermore, the 2019 Permit states, "Department staff and Hudson River Estuary staff reviewed the original application in 2014, request for extension in 2016, the current proposal, along with the sturgeon monitoring data collected over the past four years and have determined that impacts to sturgeon are unlikely to result in a "take." The mitigation measures and monitoring far outweigh the potential impact, and therefore, a Part 182 Permit is not required." As noted in the opinions, total barge movements on the Hudson River are estimated at 2,800-3,000 per year, according to FHWA, 2012 and that "given the large volume of traffic on the river and the wide variability of traffic in any given day, the increase in traffic associated with the bridge replacement, including transits to and from Coeymans, is extremely small."

Furthermore, the previous EFH concluded that potential sturgeon mortality from vessel strike would not change significantly from continued use of the trestles, which will now be transformed into the proposed wharf. The slow movement of vessels will continue to mitigate the potential that sturgeon strikes will occur. As documented from 2014 to present, barge vessels have used the site daily and the acoustical monitoring program continues to show that sturgeon pass the site and are found in the vicinity of the project.

- American Waterwort - *Elatine Americana*
Since American Waterwort is not found onsite, it is highly unlikely that the proposed project will have any harm on the species. The project will have no potential impacts on the American Waterwort species.
- Tidewater Mucket - *Leptodea ochracea*
Per the enclosed tidewater mucket survey (Appendix 10.18) no mucket were identified in the project area.

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.

- Not Applicable

6.1.3. Pre/Post monitoring to assess and quantify changes

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

- Outside expertise will, if practicable, be consulted during study design and data analysis processes.
- ██████████ seek to collaborate with other regulatory agencies and stakeholder groups to identify research needs and opportunities.

6.1.4. Addressing data gaps

Describe how data gaps will be addressed.

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

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, ██████████ explore this further in consultation with the E-TWG, regulatory agencies and relevant stakeholders.

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.

- Not Applicable. The HV subsea cable factory will not be located in the vicinity of a subsea or land cable system.

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.

- Not Applicable

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] continuously evaluate and evolve this EMP so that all the components of the EMP are complete and sufficient.
- [REDACTED] 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.
- [REDACTED] 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 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).

- Not Applicable

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.

- Not Applicable