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National Marine Fisheries Service (NMFS) Essential Fish Habitat (EFH)

Conservation Recommendations (CRs)

Table of Conditions

NMFS EFH CRs (June 7, 2021 and August 31, 2021)	Description	CR Adopted/ Not Adopted	Explanation if Not Fully Adopted	Summary of Conditions to be Included in Record of Decision (ROD)
1) Bureau of Ocean Energy Management (BOEM) to update and revise EFH assessment. Coordinate to develop template.	Revisions to habitat impact calculations, clarification of type of turbine scour protection to be used and extent of boulder relocation required for each turbine location; identification of unexploded ordinances (UXOs) and proposed plans for remediation and movement of any UXOs; anticipated impacts from proposed monitoring plans. Coordinate to develop EFH template for future projects.	Partially Adopted	BOEM prepared an addendum and transmitted to NMFS on 8/2/21. EFH template is not part of Project action so will not be adopted, but BOEM is committed to working with NMFS to develop an EFH assessment template for future projects.	No conditions in ROD.
2) Avoid and minimize impacts to hard bottom and structurally complex habitats by removing five turbines from Project action.	Turbine locations WTG 1, WTG 5, WTG 15, WTG 16A, and WTG 17A should be removed.	Partially Adopted	Five wind turbine generators (WTG) would be removed, including three of the five recommended by NMFS (WTG 5, 16A, 17A). BOEM will also remove WTG 6 and WTG 9 instead of NMFS's recommended WTG 1 and WTG 15.	BOEM will require SFW to remove five WTGs from project action: WTG 5, WTG 6, WTG 9, WTG 16A, WTG 17A.
3) Micrositing of 9 WTGs and offshore substation (OSS) and associated inter-array cables and anchoring plan. Develop a micrositing plan to avoid and minimize substantial adverse impacts to complex habitats.	Micrositing of WTG 2, WTG 4, WTG 6, WTG 8, WTG 9, WTG 10, WTG 12, WTG 13, WTG 14, OSS, and the associated inter-array cables. (Specifics provided). Restrictions on anchoring (anchoring plan, see CR #4). Develop a micrositing plan; NMFS review and comment prior to BOEM approval.	Partially Adopted	At least three of the recommended WTGs and associated inter-array cables will be microsited. BOEM is still weighing the technical and economic burdens associated with fully adopting this CR by micrositing the recommended WTGs and associated inter-array cables.	(1) BOEM will require micrositing of at least three recommended WTGs and associated inter-array cables, (2) South Fork Wind (SFW) will prepare micrositing plan with listed components with NMFS review.

Enclosure

4) Develop an anchoring plan to ensure anchoring is avoided and minimized in sensitive habitats, including hard bottom, structurally complex habitats during construction and maintenance operations.	Applicant to develop an anchoring plan to ensure anchoring is avoided and minimized in complex habitats during construction and maintenance of the project. (Specifics for plan provided). Specifically delineate areas of complex habitat around each turbine and cable locations, and identify areas restricted from anchoring. Anchor chains should include mid-line buoys to minimize impacts to benthic habitats from anchor sweep where feasible. SFW to provide submerged aquatic vegetation (SAV) maps to contractors. NMFS review and comment prior to BOEM approval.	Partially Adopted	BOEM cannot adopt the inshore components of the CR (SAV and anchoring at O&M facility) because their implementation and enforcement are outside of BOEM's jurisdictional authority. The U.S. Army Corps of Engineers (USACE) will consider including inshore (O&M) components of this CR in any permit issued for this activity.	SFW will prepare anchoring plan with listed components with NMFS review. SFW will provide habitat maps to contractors.
5) Scour and cable protection – natural, rounded stone or specific engineered stone	Scour and cable protection – natural, rounded stone to match existing conditions should be required; if engineered, provide 3D structure. NMFS review and comment on descriptions/specs of proposed engineered stone prior to BOEM approval.	Adopted.	BOEM will require natural or engineered stone because natural stone is likely to be technically or financially infeasible.	SFW will utilize cable protection measures that consist of natural or engineered stone that does not inhibit epibenthic growth and provides three-dimensional complexity, both in height and in interstitial spaces, as technically and economically feasible. The plan must include a consideration of nature-inclusive designs (NIDs). SFW must also include a proposal for use of NIDs or materials appropriate for Atlantic cod habitat for impacts to complex habitat permanently disturbed at WTG 1 and WTG 15. SFW will submit plan to NMFS and BOEM for review and comment.

6) Restrict pile driving and all bottom-disturbing activities within the lease area during periods of Atlantic cod spawning.	Pile driving activity and bottom-tending disturbances should be prohibited during peak spawning, from November through March to avoid and minimize substantial adverse impacts to Atlantic cod EFH.	Partially adopted.	BOEM will require adaptive restrictions on certain bottom-disturbing activities when Atlantic cod aggregations indicative of spawning are detected, November - March. Pile driving not restricted during November	BOEM will restrict pile driving from January through April, with addition of December with contingencies. SFW will be required to develop an adaptive acoustic monitoring plan for spawning Atlantic cod from November through March, including restrictions on Project activities if Atlantic cod aggregations indicative of spawning are detected.
7) Require the applicant to use noise mitigation measures during construction, such as soft start procedures and bubble curtains.	Noise mitigation: soft start and noise mitigation devices such as bubble curtains. Development of plan with NMFS review and comment. Noise mitigation plan to include process for notification of resource agencies within 24 hours if fish kill, plus contingency plan for resolution.	Adopted.	N/A	(1) Soft starts, (2) Noise mitigation devices (e.g., bubble curtains), (3) Noise mitigation plan with agency review, (4) Notification within 24 hours if fish kill.
8) Require passive acoustic monitoring (PAM) to be conducted along a range of gradients from the proposed turbine locations.	PAM details: conduct PAM along range of gradients before, during, after construction; sound verification monitoring during pile driving activities; noise dampening technology should be applied should real-time monitoring indicate noise levels are not attenuated to the minimum required 10 decibels. Plan provided to resource agencies for review. Acoustic monitoring reports provided to agencies.	Partially adopted.	PAM along gradients before, during and after construction will be considered for funding in BOEM's annual Studies Development Plan, depending on availability of funds and management priorities.	Sound verification monitoring and noise dampening will occur during pile driving.

9) Revise the Benthic Habitat Monitoring Plan (section within Fisheries Research Monitoring Plan, [FRMP]) to better detect changes.	BOEM should require SFW to revise the plan to address agency concerns regarding ability of plan to detect changes and include additional monitoring (e.g., invasive species, habitats impacted by project construction, demersal juvenile fish species). SFW should consult with the resource agencies in the revision and refinement of this plan and give the resource agencies a minimum of 30 days to review and comment on the plan.	Partially adopted	BOEM will not require SFW to revise the plan but will require SFW to review and respond to recommendations in CR #9 and provide revisions as feasible.	SFW to provide revisions to FRMP according to NMFS EFH CR #9, as feasible. SFW to provide revised FRMP to NMFS for 30-day review. SFW must resolve all comments on revisions to the FRMP to BOEM's satisfaction prior to implementation of the revisions.
10) BOEM should continue and expand the on-going telemetry and passive acoustic survey.	The study should be extended to provide continuous monitoring of Atlantic cod spawning aggregations prior to the construction of the project, and post-construction. We also recommend that the survey be expanded throughout the entire Massachusetts and Rhode Island/Massachusetts wind energy areas (WEA).	Not adopted.	Not adopted because it does not address impacts of the Project action. However, BOEM is currently funding the study "Movement Patterns of Fish in Southern New England" through an interagency agreement with the NMFS. The project is currently funded through FY 2023. BOEM will consider continuing and/or expanding this study at that time, depending on availability of funds and management priorities.	No condition in ROD.
11) BOEM should develop and implement a regional scale study to evaluate and monitor shifts and changes in hydrodynamics.	Given the uncertainties surrounding potential impacts to hydrodynamics and predator-prey relationships that may result from this project and cumulatively across the southern New England WEAs, BOEM should take measures to address this uncertainty.	Not adopted.	Not adopted because it does not address impacts of the Project action. BOEM will continue to work with NMFS in the development of studies funded in BOEM's annual Studies Development Plan. Funding of studies depends on availability of funds and management priorities.	No condition in ROD.

12) Restrict nearshore dredging.	Nearshore dredging and silt-producing activities associated with the sea-to-shore cable installation and proposed Operations & Maintenance (O&M) facility improvements that occur at or adjacent to water depths of 5 meters or less, from January 1 through May 31, of any calendar year, to protect sensitive life history stage winter flounder EFH.	Not adopted.	BOEM supports this CR but cannot adopt because its implementation and enforcement are outside of BOEM's jurisdictional authority. The USACE will consider including this timing restriction in any permit issued for this activity.	No condition in ROD.
13) Consultation prior to decommission-ing.	The EFH consultation should be reinitiated prior to decommissioning turbines to ensure that the impact to EFH as a result of the decommissioning activities have been evaluated and minimized to the extent practicable.	Adopted.	N/A	BOEM will consult prior to decommissioning.
14) Location of UXO within project area should be clearly depicted on micrositing plan (see CR #3). Should any UXOs be proposed to be relocated, micrositing plan should clearly depict initial location and all potential relocation sites. Information on proposed mitigation measure for each UXO should be provided with micrositing plan.	Location of potential and identified UXOs should be depicted on micrositing plan. For any relocation of UXOs, micrositing plan should depict initial location and potential relocation sites. Information on mitigation of each UXO should be provided with the micrositing plan.	Adopted	The potential mitigation measure for relocation of UXOs has been rescinded by SFW.	Location of potential and identified UXOs will be depicted on micrositing plan, as practicable.

15) Consider spatial extent of boulder relocation in evaluation of micrositing turbine and inter-array cable paths. As feasible, fully locate boulder relocation activities within low multibeam backscatter areas. Depict boulder relocation activities on micrositing plan.	Spatial extent of boulder relocation should be considered in the evaluation of micrositing turbine and inter-array cable paths. As feasible, relocation should occur within low multibeam backscatter areas. Boulder relocation should be depicted on micrositing plan for each turbine installation and inter-array cable route.	Adopted	N/A	SFW will provide documentation that the spatial extent of boulder relocation in the micrositing of turbines and inter-array cables, and relocation of boulders into low multibeam backscatter areas, was given consideration, as feasible. All boulder relocation activities will be depicted on micrositing plans for WTG and inter-array cable routes, as feasible.
Fish and Wildlife Coordination Act: Horseshoe crabs	Avoid dredging and placement at the proposed O&M facility between April 15 to July 15 to minimize potential impacts to horseshoe crab spawning.	N/A	The USACE will consider including this recommendation in any permit issued for this activity.	No condition in ROD.