



February 22, 2021

Program Manager, Bureau of Ocean Energy Management  
Office of Renewable Energy Programs  
45600 Woodland Road (VAM-OREP)  
Sterling, Virginia 20166

Dear Sir/Madam,

Please accept these comments from the New England Fishery Management Council (New England Council) and Mid-Atlantic Fishery Management Council (Mid-Atlantic Council) on the Draft Environmental Impact Statement (DEIS) for Deepwater Wind South Fork LLC's (DWSF) wind farm and export cable proposed offshore of Rhode Island.

The New England Council has primary management jurisdiction over 28 marine fishery species in federal waters and is composed of members from Connecticut to Maine. The Mid-Atlantic Council manages more than 65 marine species<sup>1</sup> in federal waters and is composed of members from the coastal states of New York to North Carolina (including Pennsylvania). In addition to managing these fisheries, both Councils have enacted measures to identify and conserve essential fish habitats (EFH), protect deep sea corals, and manage forage fisheries sustainably. The Councils support policies for U.S. wind energy development and operations that will sustain the health of marine ecosystems and fisheries resources. While the Councils recognize the importance of domestic energy development to U.S. economic security, we note that the marine fisheries throughout New England and the Mid-Atlantic, including within the project area, and in surrounding areas, are profoundly important to the social and economic well-being of communities in the Northeast U.S. and provide numerous benefits to the nation, including domestic food security.

### ***General comments***

Given that multiple wind farms are simultaneously undergoing environmental review, lessons learned while working with cooperating agencies to prepare EIS documents should be adopted for subsequent projects. These include methods for processing and analyzing data (our particular interests relate to fisheries and seafloor habitats), as well as consistent organization of documents so that information is easier to find. We understand that standardization will be challenging when environmental review processes overlap and there are different authors involved in each project. However, consistency in approaches will benefit stakeholders who seek to engage in the review process for these extremely complex projects.

It is essential to clearly identify the impacts of each alternative on each resource, and to compare impacts across alternatives. The table describing what constitutes negligible, minor, moderate, or major

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<sup>1</sup> Fifteen species are managed with specific Fishery Management Plans, and over 50 forage species are managed as "ecosystem components" within the Mid-Atlantic Council's FMPs.

impacts across the different resources provides useful criteria for evaluating which level of impacts might be assigned under various circumstances (Table 3.1.1-1). However, based on the data presented, the impact levels estimated in Chapter 3 do not always seem to match these definitions. In addition, the overall impacts conclusions listed in Table 2.3.1-1 (Comparison of Impacts by Alternative) are the same for the proposed action and the transit and habitat alternatives. Even if the three alternatives do have the same magnitude of impacts (negligible, minor, moderate, or major), their relative impacts should be ranked for each resource. For example, as compared to the proposed action, will the habitat alternative result in less adverse impact to complex habitat, even if the impact magnitude of both alternatives is minor? Will the vessel transit alternative improve vessel navigation through the lease area? Clear comparisons among alternatives will improve the utility of the FEIS as a decision support tool, and importantly, such comparisons are required by 40 CFR 1502.14<sup>2</sup> which states that the document "...should present the environmental impacts of the proposal and the alternatives in comparative form, thus sharply defining the issues and providing a clear basis for choice among options by the decision maker and the public." This is a significant shortcoming of the DEIS and makes it difficult to compare the alternatives.

We recognize that it is an editorial decision to specify magnitude but not direction for adverse impacts (vs. magnitude and direction for beneficial impacts); however, it would be helpful to reiterate this caveat at intervals throughout the text. In addition, BOEM should be careful when summarizing the effects of an alternative on a resource when a range of positive and negative outcomes are expected over different time frames due to a range of impact producing factors. This should be noted as a caveat wherever impacts are summarized. Direct and cumulative impacts are described in a single narrative by alternative and resource in Chapter 3. This is a reasonable way to structure the analysis, but it is sometimes difficult to follow where the DEIS is describing a direct project effect vs. a cumulative effect. Relative to long term impacts, the document should acknowledge that although future decommissioning will attempt to reverse all impacts and return the area to pre-construction conditions, this may not be possible.

We know BOEM is working under Secretarial Order regarding maximum document length. Our observation while reviewing these documents is that the page limits relegate important content to appendices. BOEM should carefully consider whether additional information can be included in the body of the FEIS. For example, where impacts are deemed to be negligible or minor for a resource, estimates of direct and cumulative effects are provided in Appendix H. We recommend at least summarizing negligible and minor impacts in Table 2.3.1-1. We also suggest that this table would make more sense as part of Chapter 3, which focuses on impacts, rather than at the end of Chapter 2, which focuses on the range of alternatives. In addition, the written descriptions of the geographic analysis areas for each resource (Table E-1 in Appendix E) are fundamental to understanding the assessment and we believe are necessary to include in the body of the document. To the extent that information must be placed in an appendix, we recommend that the document include hyperlinks to figures, tables, and section headings throughout the document. Most of the maps are provided in the appendices to streamline the body of the document, but small reference maps of wind energy areas and lease areas would be useful at intervals throughout the text. Since the EIS frequently references the

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<sup>2</sup> Here we are referring to the previous NEPA regulations, but this requirement is included in the 2020 NEPA regulations as well, under the same section number.

Construction and Operations Plan (COP), we appreciate that BOEM has provided very specific references to the relevant volumes and sections, as the COP itself is a complex document.

### *Management alternatives*

We appreciate BOEM's analysis of the transit lane alternative, as recommended by fishery stakeholders, and the habitat alternative. Since some turbine locations are considered for removal in the transit lane and habitat alternatives, it would be helpful to understand whether these alternatives do in fact meet the purpose and need for the project. The purpose and need includes the following: "In addition, DWSF's goal is to fulfill its contractual commitments to Long Island Power Authority (LIPA) pursuant to a power purchase agreement executed in 2017." This statement suggests that the power purchase agreement, and by extension the amount of power expected by LIPA, is an important consideration for evaluating the range of alternatives. However, the total project generation capacity is not mentioned in the DEIS. From the New York State Energy Research & Development Authority's website<sup>3</sup>, the expectation is that the project would be 130 MW. With 15 possible locations, and up to 12 MW turbines, it would be possible to install only 11 turbines and still generate 130 MW. A reduction in the number of turbines would reduce impacts on both habitat and fisheries. Due to the large amount of complex habitat in the project area, it will be important to minimize the amount of impacted habitat while achieving the project's designed power output. The document should provide some discussion of why the greater number of turbines is planned.

The fisheries habitat impact minimization alternative does not specify how many or which turbines might be microsited or removed. While we understand that analysis of habitat data is ongoing, we think the potential differences between this alternative and the proposed action could have been more fully specified in the DEIS, and we look forward to additional clarity in the FEIS. Please include a more specific definition of complex habitat, for example percent of gravels, existence of attached epifauna, occurrence of boulders or bedrock in addition to cobble and pebble, etc. In addition, the alternative should indicate how different sites might be ranked in terms of which locations might be dropped from the array to best minimize impacts. For example, would the preference be to maintain spatial continuity of complex habitat? To avoid areas with the highest percent cover of gravels or attached fauna? Considering two locations, one known to have complex habitat, and one with potentially complex habitat, would avoidance of known habitat be the preferred approach, or would both be avoided? We recommend that the FEIS indicate how habitat conditions were assessed at each site based on what data, as well as which locations are most appropriate for micrositing or turbine removal and why.

Mitigation measures are described in Appendix G. Table G-1 summarizes measures that have been agreed to by DWSF and Table G-2 lists potential additional measures. While not alternatives per se, these measures are fundamental to how the project will be constructed and will influence the impacts the project will have on various resources. The FEIS should clarify if any of the mitigation measures listed in Table G-2 are assumed as part of the alternatives, including for the purpose of impacts analysis. This clarification is important because some of these measures could have significant potential for reducing project impacts, potentially more so than what is suggested in the document. As

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<sup>3</sup> <https://www.nysedra.ny.gov/All-Programs/Programs/Offshore-Wind/Focus-Areas/NY-Offshore-Wind-Projects>

stated on page 3-38: “If BOEM requires the above measures, impacts to benthic habitat, EFH, invertebrates, and finfish could be further reduced, although impacts would still be negligible to moderate.” For example, Section 3.5.1.4 notes that monitoring of the export cable would reduce the expected adverse impacts on commercial fishing, however, this is only included as a potential additional mitigation measure in Table G-2. The issue of which mitigation measures might be required becomes further complicated when considering the cumulative scenario. It seems that the same mitigation measures will likely be required for other projects, but this would ideally be clarified as it has bearing on the cumulative effects analysis: “Assuming other offshore wind projects employ the same minimizing measures included in the Project, impacts would be further reduced and would be moderate” (Appendix H, page H-68).

Overall, Table G-1 and Table G-2 are very general and do not detail what each mitigation plan entails and the expected effects on resource impacts. This has implications for which subset of the commercial fishing sector, for example, will likely be most impacted and in need of financial compensation, even if the overall fishing fleet experiences negligible to minor impacts. Also, the financial compensation policy for the fishing industry for any lost or damaged gear is referenced in the DEIS as being included in the communications plan; however, we cannot find the communications plan through the DEIS or COP references. Please include a link to the communications plan in the FEIS.

In order to reduce potential impacts, we recommend that BOEM require the following mitigation measures shown in Table G-2: (1) *anchoring plan* to limit disturbance to bottom habitat (especially on Cox Ledge) during construction of platforms, (2) *post installation cable monitoring plan* to proactively mitigate for any cable exposure and risk to mobile gear from shifting bottom sediments (e.g., Block Island Wind Farm situation), (3) *pile-driving sound source verification plan* and *monitoring plan* to better understand how energy is propagated through the water and seafloor to help assure the required 10 dB reduction in sound is achieved to minimize harm to fish, (4) *geophysical survey vessel collision avoidance* of whales, turtles, and other protected species requiring protected species observers to help avoid any species interaction and to collect biological samples in the wind farm area, and (5) *scientific survey mitigation* through funding to help consider ways to address the likely missing NOAA (National Oceanic and Atmospheric Administration) survey data in the wind energy area, which has potentially major implications for stock assessments and catch limit advice.

### ***Impacts to physical habitat and EFH***

We recognize that additional habitat data analysis and mapping will be completed prior to development of the FEIS, and therefore it is not possible to fully evaluate the impacts of any of the alternatives, including the fisheries habitat impact minimization alternative, on physical habitat and EFH. However, this uncertainty makes the DEIS difficult to review, in the sense that the physical habitat impacts analysis is very incomplete. This information limitation also makes it impossible to compare the habitat alternative to the proposed action and transit alternatives. While the DEIS places all three alternatives in the same category (negligible to minor), we expect the magnitude of the impacts will vary across alternatives because the number of turbines will change. For example, page 3-38 states: “Although the number of wind turbine generators and their associated inter-array cables varies slightly, BOEM expects that benthic resource, EFH, invertebrate, and finfish impacts would range from negligible to minor for all action alternatives.” This point could be followed by a statement such as, “These impacts would vary in degree across alternatives, depending on the final number and siting of

turbines. For example, the minor negative impacts of the habitat alternative on habitat would be lesser in magnitude than the minor negative impacts of the proposed action.” We assume that the transit alternative, which removes turbine locations that appear to be within complex habitat, would also have positive habitat impacts relative to the proposed action.

We agree that avoiding placement of piles, scour, or cables within complex habitat will reduce impacts to physical habitats and EFH. We also agree that seafloor disturbance during installation may be short term in sandy or muddy-sand areas. However, the FEIS should be clear about when permanent conversion of habitat may occur, and what the expected effects might be, and should estimate how much conversion is expected depending on how many and which turbine locations are used. In terms of impacts determinations, if there are permanent changes in habitat types, this outcome is not consistent with the definitions of negligible or minor provided in Table 3.1.1-1, which imply a temporary change. It would be useful to state how much conversion, as an absolute amount or as a percent of the project area, is allowable under a minor determination, vs. a moderate or major impact determination.

Overall, a more quantitative impacts analysis would elucidate the benefits of the habitat or transit alternatives relative to the proposed action. This analysis could include information such as how much complex habitat presently occurs within the project site, the expected area of overlap with piles, foundations, and cable routes, overall and by turbine location, how much complex habitat will be created where there is currently sand, and how much natural hard bottom would be converted to artificial hard bottom. Relative to artificial hard bottom, options for scour protection materials are listed but not described in any detail in the COP. The New England Council’s [submarine cables policy](#) recommends using materials that mimic natural, nearby habitats where possible. It would be helpful to identify the characteristics of any cable protection materials, should burial depths of 4-6 feet not be achieved, because these materials have the potential to mimic natural complex habitats, and thus contribute to the net amount of complex habitat that would exist in the area once the project is constructed.

As a foundation for any further analysis, it would be helpful to explain more specifically how complex habitat is defined, beyond occurrence of glacial moraine and coarse sediment as compared to areas of sand and muddy sand (see section 3.2.4.1.1, page 3-5). BOEM’s presentation during the February 11 public information session suggested that greater than 5% gravel coverage is a threshold that was used to identify complex habitat, but we could not find this definition in the DEIS. We recommend the definition in NOAA Fisheries’ habitat mapping recommendations.<sup>4</sup> This definition should in turn be clearly mapped to the data used to classify habitats, and classification challenges should be identified, at least briefly, in the chapter about impacts analysis. For example, pebble and cobble habitats are important to many finfish and invertebrate species, as stated in the DEIS. However, if acoustic mapping methods are unable to detect features at the scale of a few centimeters, how are pebble or cobble areas identified within the lease area? Ultimately the habitat delineations must be consistently and clearly mapped to the available data. We are particularly concerned about accurate habitat

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<sup>4</sup> These are posted on the NEFMC-MAMFC joint wind webpage at [https://static1.squarespace.com/static/511cdc7fe4b00307a2628ac6/t/5ed7a3d163b9cb64d977a88f/1591190482376/NMFS+HabMapRecs+to+BOEM\\_May272020.pdf](https://static1.squarespace.com/static/511cdc7fe4b00307a2628ac6/t/5ed7a3d163b9cb64d977a88f/1591190482376/NMFS+HabMapRecs+to+BOEM_May272020.pdf)

delineations in the southern part of the project area that overlaps Cox Ledge.

Improved map products would better support the impacts analysis. Figure 3.4.2-1 is helpful for understanding the rough distribution of habitats in the project area, but it is difficult to assess individual turbine locations at this scale. Ideally the FEIS would include a map of this size for each turbine location and the adjacent cable corridor. Also, the caption should clarify that the black markings indicate surficial boulder, and the text should describe why boulder can be identified throughout the project area, but complex/non-complex habitat is only identified in specific corridors overlapping the turbine and cable locations. Occurrence of boulders would suggest that the area should be identified as complex habitat. Based solely on Figure 3.4.2-1, it appears that all locations except 2, 3, 4, 7, and 11 overlap with complex habitat and might therefore be considered for removal under the habitat alternative. Finally, in the COP (page 3-38, and Appendix F Figure 3) there are maps of areas that may require boulder relocation. How were these areas identified?

Finally, related to habitat description and delineation, we are confused by the terminology ‘mobile gravel’ as used in the appendices. It seems this term is intended to indicate areas where gravels (e.g., pebbles and cobbles) occur within a mobile sand matrix; however, we think it would be more appropriate to characterize the sand as mobile. More important than the terminology, the analysis should indicate whether the dynamic nature of these seafloor habitats is material to the estimation of impacts. Is the implication that sediment movement will facilitate rapid return of the habitat to pre-construction conditions?

### ***Impacts to invertebrates and finfish***

The document should include greater detail on how the impacts of the proposed action and the other two alternatives vary across different species of commercial and recreational importance, especially the species that overlap the most with the wind farm area and analysis area (e.g., Section 3.4.2.1.2 includes some species without nexus to the wind farm or surrounding area). This level of detail is important for determining the likely impacts to a species that is rebuilding (e.g., Atlantic cod) and evaluating the effectiveness of mitigation and monitoring measures going forward for this wind farm and other future projects. Species-specific impacts are important to include because even if the impacts are negligible to minor at the population level, the adverse impacts could be more substantial at higher spatial resolution resulting in localized depletion, disruption in cod spawning, alteration to squid recruitment, etc., all of which indirectly impact fishermen in this region. For species with complex population structure, like Atlantic cod, it is important to maintain local spawning components throughout the species’ range. Both the planned and potential mitigation measures in Appendix G should also specify how these measures are likely to reduce impacts to commercial and recreational species to the species-level.

The Atlantic Cod Stock Structure Working Group concluded there are more than two stocks of Atlantic cod, including a likely separate Southern New England stock, which overlaps with Cox Ledge EFH area (Peer Review of the Atlantic Cod Stock Structure Working Group Report 2020<sup>5</sup>). This area

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<sup>5</sup> Kritzer, J. 2020. Peer Review of the Atlantic Cod Stock Structure Working Group Report. Presented to the NEFMC Scientific and Statistical Committee. June 4, 2020. Available at <https://s3.amazonaws.com/nefmc.org/Presentation-ACSSWG-Review-Panel-Report.pdf>

could be greatly beneficial for stock rebuilding given this and other surrounding complex habitat areas are important for cod spawning and survival of juvenile cod. The DEIS does not consider how the proposed action will impact the Southern New England cod stock or cod rebuilding more broadly.

Impacts to herring, mackerel, and squid, and other ecologically important forage species (e.g., sandlance) should be included in the FEIS. Construction of the wind farm will likely at least temporarily negatively impact these forage species (displacement due to underwater noise), which could result in predators of these species (e.g., cod, pollock) moving elsewhere (again, at least temporarily). This outcome in turn could negatively impact the commercial, for-hire recreational, and private recreational fishermen who fish in those areas. This impact could be partially offset by the “reef effect” as it does for the impact on marine mammals as stated on page 3-59; however, this point should be clearly stated. Time of year restrictions related to pile driving should be considered as a mitigation measure, since some species, including longfin squid, could be disproportionately affected if most pile driving occurs in summer during their spawning season.

Multiple aspects of wind farm construction and operations involve noise production. Noise can negatively affect biological processes for many species of fishes and invertebrates. Table 2.3.1-1 lists negligible to minor impacts for invertebrates and finfish; however, Table 3.4.2-3 lists injury from underwater construction noise to finfish larger than two grams out to a radius of 39,265 ft from each monopile during installation. This is a diameter of 12.9 nm, suggesting a larger impact than what is listed in Table 2.3.1-1. On page 3-53 the DEIS indicates that due to ‘difficult substrate conditions’ pile driving at some turbine locations could take longer than the expected installation time of two hours. Given the amount of hard bottom at the South Fork site, some additional exploration of this issue in the FEIS would be helpful. In addition, the two-hour estimate mentioned in the proposed action section differs from the 4-6 hours mentioned on page 3-46 (No Action/Future Activities section). In general, the cumulative impacts of pile driving for multiple projects at the same time should be given more emphasis, since construction of these projects could overlap both temporally and spatially.

### ***Impacts to commercial fishing***

The estimates of commercial fishing revenue exposed to offshore wind energy development by fishery are helpful to include, however, without corresponding landings information by species and stock area, the impacts on a particular fishery may be incomplete. Focusing on ex-vessel value can mask other important considerations such as the use of a low-value species as bait for a high-value species or the number of impacted fishery participants. For example, skates are typically a low revenue, high volume fishery with one fishery segment supplying bait to the lobster fishery; however, this level of fishery dependence and impacts on other fisheries are not readily apparent in the revenue tables. There is significant overlap of the lease area with the skate fishery and skate is one of a few fisheries most impacted by the proposed action (Figure C-12).

Appendix F provides a good overview of the commercial fisheries data used in the analysis, including associated caveats. Additional clarification should be added that although vessel monitoring system (VMS) data cover most landings in many fisheries, certain types of activity, potentially for many vessels, are not captured in VMS data. The document should also make it clearer that the number of vessels not covered by the VMS data is not quantified.

Like our findings on EFH impact determinations, the analysis of impacts to commercial fishing do not match the definitions of potential adverse and beneficial impact levels listed in Table 3.1.1-1. It would be useful specify criteria for negligible, minor, moderate, or major impacts to commercial fishing in terms of loss of revenue, landings, and number of vessels, by species or FMP.

We are curious why fisheries information related to the larger RI-MA Wind Energy Area precedes the description of fishing activity in the South Fork Wind Farm Area (Section 3.5.1). Is the intention to better incorporate impacts on transiting and operational effects on fishing in the broader area and/or to inform the cumulative effects analysis? Without additional clarification, the inclusion of data from the broader regional area takes the focus away from the South Fork Wind Farm area of interest.

Finally, regarding Memorandum M-37059 released by the Department of the Interior Office of the Solicitor on December 14, 2020<sup>6</sup>, clarification on how BOEM will evaluate the project with respect to “interference with reasonable uses of the exclusive economic zone, the high seas, and the territorial seas” would be helpful.

### ***Impacts to recreational fishing***

The DEIS considers for-hire recreational fishing impacts separately from private recreational fishing impacts. The grouping of private recreational fishing with the recreation and tourism resource, rather than with commercial and for-hire fisheries, is not intuitive to us and makes it challenging for readers to understand the full picture of potential impacts on all fishery sectors. If fishery species are affected by the project, this will affect both for-hire and private recreational fishing. Linkages between biological and fishery conditions would be more straightforward to explain if both types of recreational fishing were grouped into a single resource, while still considering their differences, as was done for the grouping of commercial and for-hire recreational fishing. Regardless of how the document is structured, private angling accounted for over 50% of recreational trips made in 2016 and is economically important in the SFWF project area (Fisheries Economics of the United States 2016<sup>7</sup>). By grouping private recreational fishing with the tourism sector and considering it through Appendix H, rather in the main body of the document, we are concerned that the impacts to private recreational anglers are essentially discounted.

We recognize that data on private angling are very limited. In addition, we are concerned that data on the party/charter recreational fishing fleet are outdated; the 2006-2014 data are likely not representative of current fishing.

The occurrence of complex, hard bottom habitats underlies the project area’s importance to recreational fishing. Appendix H mentions the relocation of approximately 255 acres of boulders that are encountered along the inter-array and export cable routes (page H-75). This process is described in the COP as involving a “dragging technique that would have similar impacts as trenching” (page 3-19). Relocation of boulders for cable laying will cause disruptions in recreational fishing activity (private and for-hire), as it could take several trips to find their new locations. While the relocated boulders may continue to attract recreational fishery species, relocation is not a negligible impact. Detailed

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<sup>6</sup> <https://www.mafmc.org/s/DOI-legal-memo-re-fisheries-interference.pdf>

<sup>7</sup> National Marine Fisheries Service. 2018. Fisheries Economics of the United States, 2016. U.S. Dept. of Commerce, NOAA Tech. Memo. NMFS-F/SPO-187, 243 p.



reporting on where boulders are moved to, as described in Appendix G, Table G-2, should be required as a mitigation strategy.

Turbine foundations and their associated fouling communities will create artificial reefs throughout the project area, which are expected to attract certain fishery species (e.g., black sea bass). The benefits of this artificial reef effect will vary by target species. The negligible to minor beneficial impact from the increased production is species dependent as it is likely that only certain species will colonize on or aggregate near the reef, and these may or may not be the species of greatest value to anglers. For example, any benefit to anglers targeting highly migratory species (i.e., tunas and sharks) could be offset by the inability to anchor or to drift throughout the area. If operators shift their effort outside the wind farm, during construction or long-term operations, this will potentially put them in areas of higher vessel traffic and gear conflict. Also, depending on operating conditions at sea, recreational fishermen cannot always reap the benefits of any increased catchability of target species due to safety concerns of fishing in swells around the turbines. These safety considerations will be different than the existing artificial reefs in the region which, except for the Block Island Wind Farm turbine foundations, are all submerged structures.

### ***Navigation and vessel traffic, other uses***

We continue to hear concerns from commercial fishing partners about navigation safety, including the potential for impacts to use of radar. The continued ability of the Coast Guard to effectively conduct search and rescue, or SAR operations, described in the Other Uses analysis, is also of concern. The ability of fishing vessels to operate within the South Fork Wind Farm and adjacent wind farms will influence the magnitude of negative effects of the projects on commercial fisheries. The impact information related to navigation and vessel traffic is narrowly included in one summary table (Table 2.3.1-1) and kept primarily in Appendix H; it would be helpful to pull some of this information forward, especially the cumulative effects, to the impacts section (3.5.6). This is important because even though it is technically feasible to transit through the South Fork Wind Farm, safety concerns and navigational complexity appear understated in other parts of the draft text. For example, successful transit is dependent upon many factors including environmental conditions, radar cluttering and shadowing and gear conflict with other resource users. Safety concerns pertinent to commercial and for-hire fisheries likely apply to private recreational anglers as well. We hope BOEM will recommend any mitigation measures included in Table G-2 that make transit and fishing in the wind farm safer, beyond those already required under Federal Aviation Administration, United States Coast Guard, and BOEM guidelines.

The Councils have significant concerns about the cumulative impacts of wind farms on fishery independent surveys. We agree with the conclusion that the alternatives would have “major effects on scientific research...potentially leading to impacts on fishery participants and communities.” We are encouraged by BOEM’s commitment to working with NOAA on long term solutions to this challenge.

### ***Monitoring and adaptive management***

A robust monitoring program is important to understanding project effects and adaptively managing wind farm construction in the region going forward. It would be helpful to understand how DWSF and other regional developers will be held accountable to monitoring plans, as well as the mechanism for

modifying these plans over time. Given that large scale offshore wind development is new for our region, and that the spatial scale of reasonably foreseeable projects is unprecedented world-wide, there are certain to be effects that we cannot fully anticipate at present. We appreciate developer commitments to the work of the Responsible Offshore Science Alliance and the coordination around monitoring that will result, but these are voluntary agreements as opposed to permit conditions.

There are many opportunities for learning and adaptive management going forward. For example, the DEIS discusses that there may be positive effects associated with the creation of artificial hard bottom habitats. A range of materials could be used for scour protection and for cable armoring where burial is not possible. These materials will likely have different ecological benefits, depending on the species. Materials can be selected for their expected benefits, and/or the effects of different types of materials might be compared. Time of year restrictions on construction and maintenance, e.g., to protect fish spawning activity, also provide an opportunity for data gathering and adaptive approaches. These windows may shift over time as the region continues to experience the effects of climate change. Such shifts could have implications for best practices related to operations and maintenance of the South Fork Wind Farm project, as well as other projects in the region.

The relationship between this project and others is important. BOEM should articulate how it will ensure that regional development occurs in a coordinated manner across projects. For example, could a single planning and environmental evaluation process be conducted when multiple projects wish to use similar routes for their export cables? If the effects of installation or operation are found to be unacceptable despite best efforts to mitigate them, will this information be used to alter future projects?

### ***Minor errors noted in the DEIS***

The following errors in the document are not substantive to the overall conclusions drawn but should be corrected in the FEIS.

- On page 3-7, summer flounder is listed as a “northeast multispecies.” This is inaccurate and should be corrected. If the intent was to list species by management group, summer flounder should be grouped with scup and black sea bass.
- A numerical value is missing from this sentence on page 3-19: “Long-term changes to benthic habitat within the SFWF, SFEC, and Montauk O&M facility would result from the conversion of approximately of soft-bottom benthic habitat to hard-bottom (e.g., steel piles, rock scour protection, bulkhead improvements) habitat.”
- In the first paragraph under “Regional Setting” on page 3-70, the Summer Flounder, Scup, and Black Sea Bass FMP should be listed with the other Mid-Atlantic Fishery Management Council FMPs with the citation of MAFMC 2019. Similarly, the Herring FMP should be listed with the other New England Fishery Management Council FMPs with the citation of NEFMC 2019. In both cases, these FMPs are jointly managed with the Atlantic States Marine Fisheries Commission. The associated footnote is sufficient to indicate this.
- This statement on page 3-86 is misleading and inaccurate: “Nevertheless, state permit holders must report their catch to state agencies, including the statistical area within which fishing occurred.” It would be more accurate to say, “Of all the states considered in this document, only New York, Rhode Island, and Maryland require all for-hire vessels with state permits to submit trip-level information on catch and areas fished.”

***Conclusion***

We appreciate the opportunity to provide comments to ensure the FEIS provides a comprehensive and effective evaluation of expected impacts from the South Fork project. The Councils look forward to working with BOEM to ensure that any wind development in our region minimizes impacts on the marine environment and can be developed in a manner that ensures coexistence of our fisheries with future wind development activities.

Please contact us if you have any questions.

Sincerely,



Thomas A. Nies  
Executive Director, New England Fishery Management Council



Dr. Christopher M. Moore  
Executive Director, Mid-Atlantic Fishery Management Council

cc: J. Bennett, A. Lefton, M. Luisi and W. Townsend