



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Northeast Fisheries Science Center
166 Water Street
Woods Hole, MA 02543-1026

Cristiana Banks
Vineyard Wind
700 Pleasant St., Suite 510
New Bedford, MA 02740

February 28, 2019

Dear Ms. Banks,

Thanks for sharing your fisheries monitoring plan, entitled, "Submission re Fisheries Studies Final," with the Northeast Fisheries Science Center (NEFSC). On the evening of February 25th, 2019 NOAA received the draft with your request to review and provide comments back to Vineyard Wind within four days so that Vineyard Wind could commence studies. Unfortunately, NOAA Fisheries is not able to provide official comments on the Vineyard Wind Monitoring Plan as the submitted plan lacks sufficient detail and critical information to evaluate its efficacy. Clearly defined objectives, underlying research, methods, and justification would be essential given the scale and magnitude of the proposed Vineyard Wind project. The proposed efforts, as described, may fit the definition of site characterization studies but not a monitoring plan. Despite these shortcomings and unreasonable review period, I can offer the following initial comments based on brief consultation with NEFSC scientific staff, and as described below.

It is not clear from the proposed submittal what research questions and hypotheses are being tested and why. The proposed plan lacks necessary supporting data, research, and analysis, including an evaluation of sampling strategies; and recommendations to justify the conclusions presented in the proposed monitoring plan. The plan should also describe how the proposed studies, methodologies, and statistical analyses addresses the input received during Vineyard Wind engagement with regulatory and fishing communities.

Specifically, there is little description of the survey and sampling designs that would be utilized for the various monitoring methods nor any description of the statistical methods that would be used to test these hypotheses. For example, What was the question posed to the power analysis that was conducted? Similarly, it is not evident that any stratification has been planned in either the trawl or drop-camera surveys though there is certainly very good benthic habitat survey data available to build a survey design. There are also likely specific habitats of concern that were identified by industry and resource agencies that should be treated in the survey design.

The proposed plan provides no basis for the selection of sample sizes and thus this can not be evaluated. Initial evaluation by NEFSC staff indicate that the proposed sample size is likely too small to be able to be used in any reasonable manner. However, without presentation/evaluation of any data and clearly articulated hypotheses to test against; it is impossible for NOAA to review the effectiveness of the proposed sampling and justify the activities proposed.



Although the submitter references making the data collected by the proposed studies available to future regional studies there is no description of these regional surveys or plans to collaborate with others to design them; and how adaptive monitoring strategies would be executed. We also recognize that no other entities or management authorities have provided Vineyard Wind or SMAST with a synoptic regional monitoring plan to integrate site-specific monitoring programs. We recommend that should you pursue the current plan that you recognize that your efforts would be expected to be modified or expanded in the future as regional standards/monitoring programs are developed either through pending regulatory processes or other discussions by resource management agencies, developers, or other collaborative arrangements.

In terms of timing constraints for obtaining immediate input into the design and construction of your proposed trawl survey net specifications, NOAA cannot offer any specific recommendations at this time. We would note that there is much more information required than just constructing an identical net to the inshore regional trawl survey performed by the F/V Darana R through NEAMAP. Should a trawl survey be recommended to meet research objectives; a deliberative process that taps the expertise from industry and trawl survey design leads in the region should be pursued in the scoping, design, evaluation, and construction of a new trawl survey; including establishing the necessary performance standards. In order to evaluate survey design, it goes well beyond understanding the net itself and these details are not described in the proposed monitoring plan, e.g., vessel attributes, door configuration, and ability to monitor gear performance. We do not advise simply constructing a net using Darana R NEAMAP survey specifications and beginning to sample without first addressing these and other questions.

Further, NOAA shared scoping level comments with VWW regarding the project's impacts to federal fisheries surveys, including impacts to the federal bottom trawl survey. The project's layout will result in hazardous safety conditions for federal vessels seeking to access sampling areas and would impact execution of current sampling methodologies and procedures. Specifically, the project would have direct impacts on the federal multi-species bottom trawl survey conducted on FSV Henry Bigelow, the Surfclam/Ocean Quahog clam dredge survey conducted on chartered commercial fishing platforms, the integrated benthic/sea scallop habitat survey, and the shelf-wide Ecosystem Monitoring Survey. Any untowable areas (and their vicinities) along the submarine cable routes would create additional exclusions to current sampling protocols.

While the area of the Vineyard Wind project area may not on its own result in a substantive loss of sampling area for these federal surveys, taken in conjunction with the impending development of other foreseeable future lease developments, the removal of large areas of habitat available to these surveys could have deleterious impacts on federal survey operations and could have consequent impacts on a multitude of fisheries stock assessments. Since we will lose survey access for this and other surveys, NOAA had requested Vineyard Wind to address these effects and potential impacts (loss of precision and accuracy) of the many stock assessments that are underpinned with this data. NOAA Fisheries has not received any response to these comments and the DEIS claims the project will have a minor beneficial impact on regional scientific surveys. Based on preliminary analysis, the area covered by turbine footings would result in either a loss of sampling area and/or require the development of new alternative survey methodologies and protocols.

NEFSC has not conducted the required analyses to determine the full range of impacts of these sampling area exclusions on the myriad of stocks dependent on these data streams. Some examples of likely impacts include the following: removal of sampling area from assessments may reduce the precision on stock assessment indices of abundance and the accuracy of assessment indices due to survey availability effects; impacts due to required changes in random survey design protocols; and efforts to design and conduct new survey methodologies and protocols that could effectively sample

in wind energy areas would also impact precision due to the time to build robust/usable time series. Any environmental impacts due to the construction and operation of Vineyard Wind could result in impacts to survey gear performance, gear efficiency, and availability e.g., increased sedimentation and water clarity impacts on video or drop-camera survey operations; and lighting effects on fish behavior. In addition, any displacement of vessels due to changes in transit corridors or displacement of recreational and commercial fishing effort could further exacerbate the availability of sampling area for NOAA survey operations.

The design of new monitoring surveys such as the Vineyard Wind proposal should consider how proposed new surveys address the impacts to these core regional surveys and proposed alternative sampling program plans should consider the design, experimental evaluation, and calibration with existing survey methods. The process to develop new surveys and methods should be subject to a deliberative peer-review process consistent with federal fisheries stock assessment processes.

Please free to contact me at Andrew.lipsky@noaa.gov or 401-829-8286 if you would like to discuss these comments further.

Sincerely,

A handwritten signature in black ink, appearing to read 'Andy Lipsky', with a stylized, cursive script.

Andy Lipsky
Planning Officer
Lead for Fisheries and Offshore Wind Energy
NOAA Fisheries
Northeast Fisheries Science Center