RHODE ISLAND
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
DIVISION OF FISH & WILDLIFE / MARINE FISHERIES
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To: Abigail Ross Hopper, Director of the Bureau of Ocean Energy Management

From: Jason McNamee, Chief of Marine Resources

Date: June 13, 2016

Re: Notice of Availability - Environmental Assessment for Commercial Wind Lease Issuance and Site Assessment Activities on the Atlantic Outer Continental Shelf Offshore New York, Docket ID BOEM-2016-0038

The RI Department of Environmental Management, Marine Fisheries Section, has reviewed federal docket number BOEM-2016-0038 and has the following comments:

- If BOEM is choosing not to consider the USCG-recommended 5 nm buffer around the entry/exit of a TSS for Proposed Alternative 2 due to research conducted independently by BOEM staff, that information should be presented.
    - The EA states that 90 percent of vessels traversing the TSS lanes position themselves toward the outer edges of the lanes, away from the NY WEA, creating a de facto buffer that could further reduce the risk associated with construction. While this may be true, no evidence is presented to verify it.
    - Moreover, the other 10 percent of vessels do not traverse the TSS positioned toward the outer edges of the lanes. Therefore, this de facto buffer does not actually apply to one in ten vessels using the TSS. Considering the Port of New York and New Jersey saw 2,251 large transport vessels in 2015,[1] this 10 percent could equate to up to 225 vessels not abiding by any de facto buffer.
    - 25,549,000 metric tons of mineral fuel and oil were imported and 1,667,000 metric tons were exported through the Port of New York and New Jersey in 2015.[2] Bearing in mind the amount of oil being shipped on bulk cargo vessels in the vicinity of the proposed project, there should be clearly defined buffers around the entry/exit of a TSS, rather than a de facto buffer, to reduce the potential for a collision and subsequent oil spill on the New York Bight.
    - Due to the fact that the EA is meant to investigate potential impacts to the environment resulting from issuing a lease in the NY WEA, we feel it is important to resize the NY WEA now to account for the aforementioned safety concerns.

- BOEM has opted to eliminate the suggested alternative of prohibiting noise producing activities in the summer due to a lack of evidence that deleterious effects to squid may occur. More research is necessary to make such a determination.
    - There is limited evidence regarding the sound exposure level at which squid experience damage to their statocysts. This area of research warrants further exploration.
        - Mooney et al. (2010) suggest that particle motion, and not sound pressure, is the appropriate measure for squid in terms of "hearing," or interpreting sound stimuli.[3] Unfortunately, most past research evaluating acoustic ecology and hearing in marine organisms has presented results in terms of sound pressure (dB re. 1 μPa), rather than particle motion (dB re. 1 ms^{-2}).[4,5] Instruments to record particle motion have only become available very recently[5] and there are few studies describing the particle motion caused by various anthropogenic sources of noise. Only one addresses wind farm noise generation, and the focus of the study was to evaluate the ability to measure particle motion.[6] Hence, there is limited information on how squid will respond to active sub-bottom profilers and pile driving noise.
        - Lack of evidence of potential injury to squid is due to the fact that no studies have evaluated sources of anthropogenic noise with respect to particle motion, not because studies have failed to demonstrate that squid will be negatively impacted.
    - The statement that the limited spatial and temporal noise exposure from potential pile driving and the ability of squid to swim away from sound that is potentially injurious does not support population effects to squid is inaccurate.
        - Mass strandings of giant squid have occurred in the proximity of seismic geophysical surveys. These organisms were unable to escape the area prior to injury, and subsequently death.[7] Multiple giant squid mass strandings have occurred near geophysical survey activities, which have had a direct effect on population effects.
- Section 1.6.4 discusses the outreach conducted with commercial fishermen regarding the NY WEA. Workshops and meetings regarding commercial fishing activities in the NY WEA were only held in NY and NJ. Workshops and meetings should also have been held in MA and RI due to the high use of the NY WEA by RI and MA squid and scallop fishermen. The workshops held in NY and NJ raised concerns regarding the squid and scallop fisheries, however the EA only considered, and did not analyze in detail, these potential impacts.
- Section 3.3.2 discusses the possibility of collisions and allisions from the installation of a meteorological tower/buoy and states that these can be avoided with USCG required marking and FAA required lighting. Fishermen who utilize this area heavily during squid and scallop seasons may be unaware of the installation of the tower/buoy and although lighting may help, placement of the tower/buoy location on nautical charts would drastically help alleviate the possibility of an allision.

- The EA concludes that impacts to finfish and shellfish would be negligible to minor. Given the fact that EFH for various life stages of 37 species is contained within the NY WEA, these impacts should have been found to be more than minor and any proposed site characterization activities should be subjected to time of year restrictions to reduce potential impacts to spawning.

Literature Cited

1. Port Authority of New York and New Jersey. Port of New York/New Jersey Sets New Cargo Volume Record for 2015. (2016). Available at: http://www.panynj.gov/press-room/press-item.cfm?headLine_id=2371. (Accessed: 13th June 2016)
2. The Port Authority of NY and NJ. *2015 Trade Statistics*. (2016).
3. Mooney, T. A. *et al.* Sound detection by the longfin squid (Loligo pealeii) studied with auditory evoked potentials: sensitivity to low-frequency particle motion and not pressure. *Journal of Experimental Biology* **213,** 3748–3759 (2010).
4. Radford, C. A., Montgomery, J. C., Caiger, P. & Higgs, D. M. Pressure and particle motion detection thresholds in fish: a re-examination of salient auditory cues in teleosts. *Journal of Experimental Biology* **215,** 3429–3435 (2012).
5. Nedelec, S. L., Campbell, J., Radford, A. N., Simpson, S. D. & Merchant, N. D. Particle motion: the missing link in underwater acoustic ecology. *Methods Ecol Evol* n/a-n/a (2016). doi:10.1111/2041-210X.12544
6. Frank Thomsen *et al. MaRVEN – Environmental Impacts of Noise, Vibrations and Electromagnetic Emissions from Marine Renewable Energy*. (European Commission, 2015).
7. Guerra, Á., González, Á. F., Pascual, S. & Dawe, E. G. The giant squid Architeuthis: An emblematic invertebrate that can represent concern for the conservation of marine biodiversity. *Biological Conservation* **144,** 1989–1997 (2011).