



MARINE MAMMAL COMMISSION

21 April 2014

Ms. Jolie Harrison, Chief
Incidental Take Program Supervisor
Permits and Conservation Division
Office of Protected Resources
National Marine Fisheries Service
1315 East-West Highway
Silver Spring, MD 20910-3225

Dear Ms. Harrison:

The Marine Mammal Commission (the Commission), in consultation with its Committee of Scientific Advisors on Marine Mammals, has reviewed the application submitted by Deepwater Wind Block Island Transmission, LLC (DWBIT), seeking authorization under section 101(a)(5)(D) of the Marine Mammal Protection Act (the MMPA) to take small numbers of marine mammals by harassment. The taking would be incidental to construction of the Block Island Transmission System (BITS) from December 2014 through November 2015 off Rhode Island. The Commission also has reviewed the National Marine Fisheries Service's (NMFS) 20 March 2014 notice (79 Fed. Reg. 15573) announcing receipt of the application and proposing to issue the authorization, subject to certain conditions.

RECOMMENDATIONS

The Marine Mammal Commission recommends that the National Marine Fisheries Service—

- require DWBIT to (1) provide additional information regarding the data and assumptions used to derive density estimates and (2) address apparent inconsistencies in the density estimates for fin whales;
- include in each *Federal Register* notice for its proposed incidental harassment authorizations a sufficiently detailed description of the status and distribution (including seasonality) of the species of marine mammals likely to be affected by the proposed activities to allow the public to review and comment on the proposed authorization as a stand-alone document;
- require DWBIT to (1) provide estimated source levels associated with all cable installation activities (i.e., horizontal directional drilling and jet plowing) and (2) estimate the number of takes associated with those activities, if indeed the source levels for those activities exceed the threshold for Level B harassment;
- require all DWBIT vessels to reduce speeds to less than 10 knots from 1 November to 30 April in all areas of operation; and
- require DWBIT to include additional visual or acoustic monitoring measures as part of its monitoring plan to ensure that the entire 4.75-km Level B harassment zone for the dynamic positioning system is monitored and a significant portion of the greater than 40-km Level B harassment zone for vibratory pile driving is also monitored.

BACKGROUND

DWBIT proposes to install a bi-directional submarine transmission cable running from Block Island to the Rhode Island mainland. The BITS project would involve (1) cable landfall construction on Block Island, (2) cable landfall construction on Scarborough State Beach in Narragansett, Rhode Island, and (3) installation of the submarine BITS cable. The BITS would connect Block Island to the existing Narragansett Electric Company distribution system on the Rhode Island mainland. The project is being conducted in conjunction with construction of the Block Island Wind Farm, which is addressed in a separate incidental harassment authorization application (79 Fed. Reg. 16301).

At the Block Island site, DWBIT would install a temporary cofferdam and excavate a trench on Crescent Beach between the mean high and low water lines, using vibratory pile driving (as necessary) to install the steel sheet piles for the cofferdam. NMFS stated in the *Federal Register* notice that it is unlikely that sound associated with vibratory sheet pile driving at the Crescent Beach site, if used, would result in harassment of marine mammals. DWBIT would then use a short-distance horizontal directional drill to connect the BITS cable from a point on land to the excavation trench. At the Narragansett site, NMFS indicated that DWBIT would install the BITS cable using a long-distance¹ horizontal directional drill from a cofferdam-stabilized excavation trench located offshore of Scarborough State Beach². Installation and removal of the cofferdam would require vibratory pile driving to install the sheet piles during a four-day period (two days for installation and two days for removal). For installation of the submarine cable between Block Island and Narragansett, DWBIT would use a cable installation barge equipped with a dynamic positioning system in conjunction with a jet plow. Installation of the BITS submarine cable would occur for up to six weeks (42 days maximum).

NMFS preliminarily has determined that the proposed activities could result in a temporary modification in the behavior of small numbers of up to nine species of marine mammals, but that any impact on the affected species would be negligible. It does not anticipate any take of marine mammals by death or serious injury. NMFS believes that the potential for temporary or permanent hearing impairment will be at the least practicable level because of the proposed mitigation and monitoring measures. Those measures include—

- (1) conducting in-situ sound source and sound propagation measurements during vibratory pile driving and dynamic positioning system use;
- (2) using sound measurements to adjust, as necessary, the proposed 200-m exclusion zone (based on a harassment threshold of 160 dB re 1 μ Pa for vibratory pile driving);
- (3) using protected species observers to monitor the exclusion zone for 30 minutes before, during, and for 30 minutes after vibratory pile driving and use of the dynamic positioning system;

¹ DWBIT indicated in its application that using a short-distance horizontal directional drill method at the Narragansett site was its preferred cable landfall method.

² The *Federal Register* notice stated that the distance to the offshore excavation trench would be between 685.8 and 1,125 m from shore; DWBIT's application indicated the distance would be between 91.4 and 548.6 m from shore.

- (4) installing and removing the sheet piles for the cofferdam only during daylight hours or when lighting and weather conditions allow for visual monitoring of the entire exclusion zone;
- (5) using “soft-start” procedures at the beginning of each pile driving session and after activities cease for more than 30 minutes;
- (6) delaying or shutting down pile driving and removal activities at the Narragansett site if the exclusion zone is obscured by fog or poor lighting conditions or if an observer detects a marine mammal within the exclusion zone;
- (7) reducing the power of the dynamic positioning system to the maximum extent possible if a marine mammal approaches or enters the 160-dB re 1 μ Pa zone;
- (8) reporting injured and dead marine mammals to the NMFS Office of Protected Resources and the Greater Atlantic Regional Stranding Coordinator using NMFS’s phased reporting approach and suspending activities, if appropriate; and
- (9) submitting a final report to NMFS.

RATIONALE

Densities used to estimate takes

DWBIT and NMFS identified 32 species of marine mammals with possible or confirmed occurrence in the proposed project area (Table 2). However, DWBIT requested take authorizations for only nine of those species. NMFS referred the reader to DWBIT’s application and the NMFS marine mammal stock assessment reports for information regarding the biology and local distribution of marine mammals that may occur in the project area. The Commission agrees that the species for which DWBIT requested takes are those most likely to be affected by the proposed project activities. However, NMFS should have included in the *Federal Register* notice a description of the status and distribution (including seasonality) of the species of marine mammals likely to be affected by the proposed activities, as was provided by DWBIT in its application.

Of greater concern is the lack of information on how density estimates for cetaceans were derived. DWBIT stated in its application that it used sightings-per-unit-effort information from Kenney and Vigness-Raposa (2009), but deriving density estimates from those data requires certain assumptions regarding sightings distances and other parameters. Without information on those assumptions, it is difficult to evaluate the appropriateness of the density and associated take estimates for the periods and areas of proposed operation for each of the species. In addition, there are apparent discrepancies in the density estimates. For example, NMFS states that DWBIT used the highest seasonal species density to estimate dynamic positioning-related takes. As only the winter and spring densities are listed in the *Federal Register* notice (Table 5), one must assume the maximum seasonal density is the higher of the two. This appears to be the case for all species except fin whales, for which the maximum seasonal density provided is higher than either the winter or spring densities. There are also unexplained discrepancies between the maximum seasonal densities provided for this project and the maximum seasonal densities provided for the Block Island Wind Farm project (79 Fed. Reg. 16301) for three of the nine species, even though both projects are proposed to occur during the same timeframe and in the same general areas. The Commission recommends that NMFS require DWBIT to (1) provide additional information regarding the data and assumptions used to derive density estimates and (2) address apparent inconsistencies in the density estimates for fin whales. The Commission further recommends that NMFS include in each *Federal Register* notice for its proposed incidental harassment authorizations a sufficiently detailed

description of marine mammals expected to be affected by the proposed activity, including their status and distribution, to allow the public to review and comment on the proposed authorization as a stand-alone document.

Including takes associated with other construction activities

DWBIT estimated Level B harassment takes associated with vibratory sheet pile driving and the use of a dynamic positioning system by the cable installation barge. DWBIT stated in its application that sound levels associated with other construction activities (i.e., horizontal directional drilling and jet plowing associated with submarine cable installation) would not be of concern. Therefore, DWBIT did not request, and NMFS did not propose, an authorization for marine mammal takes associated with those other cable installation activities. It is unclear what information DWBIT and NMFS used as the basis for determining that takes from those other activities would not occur, as DWBIT did not provide estimates of sound levels associated with those activities. For similar projects involving drilling and excavation to install submarine pipelines, applicants have included estimated sound levels for those activities in their incidental harassment authorization applications. For example, Port Dolphin Energy LLC estimated that horizontal directional drilling, pipe laying, and pipe burial would have sound levels that exceeded the threshold for Level B harassment of 120 dB re 1 μ Pa (Table 6 in 77 Fed. Reg. 55646). Takes associated with each of those activities were estimated and included as part of the proposed incidental harassment authorization.

Without information from DWBIT on the estimated sound levels for other cable installation activities, it is premature for NMFS to determine that no takes would result from DWBIT's other cable installation activities. Therefore, the Commission recommends that NMFS require DWBIT to (1) provide estimated source levels associated with all cable installation activities (i.e., horizontal directional drilling and jet plowing) and (2) estimate the number of takes associated with those activities, if indeed the source levels for those activities exceed the threshold for Level B harassment.

Mitigation measures to protect North Atlantic right whales

DWBIT has proposed to conduct cable installation from December 2014 to November 2015. Therefore, some of the proposed vessel activities would overlap with the migratory presence of the North Atlantic right whale, a critically endangered species. The migratory corridor extends from calving areas off Florida and Georgia to feeding areas in the Gulf of Maine. NMFS has established a seasonal management area off Block Island that is in effect from 1 November through 30 April, during which time vessels greater than or equal to 19.8 m are required to reduce speeds to 10 knots or less to reduce the risk of vessel strikes (73 Fed. Reg. 60173). Since right whales move past Block Island during these times, and may also be found in waters off Rhode Island closer to shore³, the Commission believes that additional measures are needed to reduce the potential for vessel strikes. Therefore, the Commission recommends that NMFS require all DWBIT vessels to reduce speeds to less than 10 knots from 1 November to 30 April in all areas of operation.

³ <http://www.nefsc.noaa.gov/psb/surveys/>

Monitoring the Level B harassment zone

DWBIT and NMFS estimated the size of the Level B harassment zones for both vibratory pile driving and the use of a dynamic positioning system by the cable installation barge, yet have not proposed any methods for monitoring those zones. Rather, NMFS is proposing that DWBIT monitor and implement mitigation in a 200-m exclusion zone, based on the distance at which received sound levels from vibratory pile driving may be greater than or equal to 160 dB re 1 μ Pa. Monitoring only the 160-dB re 1 μ Pa exclusion zone would not allow any quantification of species-specific takes down to the 120-dB re 1 μ Pa threshold, which is the appropriate threshold for continuous sources (i.e., vibratory pile driving and use of a dynamic positioning system). To address this deficiency, the Commission recommends that NMFS require DWBIT to include additional visual or acoustic monitoring measures as part of its monitoring plan to ensure that the entire 4.75-km Level B harassment zone for the dynamic positioning system is monitored and a significant portion of the greater than 40-km Level B harassment zone for vibratory pile driving is also monitored.

The Commission appreciates the opportunity to provide comments on DWBIT's application. Please contact me if you have questions concerning the Commission's recommendations.

Sincerely,



Rebecca J. Lent, Ph.D.
Executive Director

cc: Mary Colligan, NMFS Greater Atlantic Region

Reference

Kenney, R.D. and Vigness-Raposa, K.J. 2009. Marine Mammals and Sea Turtles of Narragansett Bay, Block Island Sound, Rhode Island Sound, and Nearby Waters: An Analysis of Existing Data for the Rhode Island Ocean Special Area Management Plan. Rhode Island Coastal Resources Management Council Technical Report, May 31, 2009.