

construction because the Exploratorium would not conduct pile driving for two weeks if a herring run is observed by the on-site PSO, who would monitor the area daily between December 1-February 28. In addition, a PSO would monitor for marine mammals twice a day to estimate take and verify impacts to marine mammals are not above those described here. The amount of take the Exploratorium has requested, and NMFS proposes to authorize, is considered small (less than one percent) relative to the estimated populations of 34,233 Pacific harbor seals, 238,000 California sea lions, 9,189 harbor porpoises, and 18,813 gray whales. As previously noted, no affected marine mammals are listed under the ESA or considered strategic under the MMPA.

Marine mammals may be temporarily impacted by pile driving noise. However, marine mammals are expected to avoid the area, thereby reducing exposure and impacts. Further, although the relocation project is expected to take up to two years, installation of the 69 steel piles would only occur for approximately 19 days. Further, San Francisco Bay is a highly industrialized area and species such as harbor seals and California sea lions flourish throughout the Bay. Therefore, animals are likely tolerant or habituated to anthropogenic disturbance, including low level vibratory pile driving operations, and noise from other anthropogenic sources (e.g., vessels in the adjacent shipping lane) may mask construction related sounds. Finally, breeding and pupping season occur outside of the proposed pile driving timeframe; therefore, no disruption to reproductive behavior is anticipated. There is no anticipated effect on annual rates of recruitment or survival of affected marine mammals.

Based on the analysis contained herein of the likely effects of the specified activity on marine mammals and their habitat, and taking into consideration the implementation of the mitigation and monitoring measures, NMFS preliminarily determines that the Exploratorium's relocation project will result in the incidental take of small numbers of marine mammals, by Level B harassment only, and that the total taking from will have a negligible impact on the affected species or stocks.

#### **Impact on Availability of Affected Species for Taking for Subsistence Uses**

There are no relevant subsistence uses of marine mammals implicated by this action.

#### **Endangered Species Act (ESA)**

No marine mammal species listed under the ESA are anticipated to occur within the action area. Therefore, Section 7 consultation under the ESA is not required.

#### **National Environmental Policy Act (NEPA)**

In compliance with the National Environmental Policy Act of 1969 (42 U.S.C. 4321 *et seq.*), as implemented by the regulations published by the Council on Environmental Quality (40 CFR parts 1500–1508), and NOAA Administrative Order 216–6, NMFS is preparing an Environmental Assessment (EA) to consider the direct, indirect, and cumulative effects to marine mammals and other applicable environmental resources resulting from issuance of a one-year IHA and the potential issuance of additional authorization for incidental harassment for the ongoing project. Upon completion, this EA will be available on the NMFS website listed in the beginning of this document.

Dated: July 16, 2010.

**James H. Lecky,**

*Director, Office of Protected Resources,  
National Marine Fisheries Service.*

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**BILLING CODE 3510-22-S**

#### **DEPARTMENT OF COMMERCE**

#### **National Oceanic and Atmospheric Administration**

**RIN 0648-XW81**

#### **Takes of Marine Mammals Incidental to Specified Activities; Installation of Meteorological Data Collection Facilities in the Mid-Atlantic Outer Continental Shelf**

**AGENCY:** National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

**ACTION:** Notice; proposed incidental harassment authorization; request for comments.

**SUMMARY:** NMFS has received two applications from Bluewater Wind (Bluewater) for an Incidental Harassment Authorization (IHA) to take marine mammals, by harassment, incidental to pile driving associated with installation of two meteorological data collection facilities (MDCFs); one each off the coast of Delaware and New Jersey. Pursuant to the Marine Mammal Protection Act (MMPA), NMFS is requesting comments on its proposal to issue an IHA to Bluewater to

incidentally harass, by Level B Harassment only, eight species of marine mammals during the installation of both MDCFs. The IHA would be effective from October 1–November 15, 2010.

**DATES:** Comments and information must be received no later than August 23, 2010.

**ADDRESSES:** Comments on the applications should be addressed to Michael Payne, Chief, Permits, Conservation and Education Division, Office of Protected Resources, National Marine Fisheries Service, 1315 East-West Highway, Silver Spring, MD 20910–3225. The mailbox address for providing e-mail comments is [PR1.0648-XW81@noaa.gov](mailto:PR1.0648-XW81@noaa.gov). NMFS is not responsible for e-mail comments sent to addresses other than the one provided here. Comments sent via e-mail, including all attachments, must not exceed a 10-megabyte file size.

**Instructions:** All comments received are a part of the public record and will generally be posted to <http://www.nmfs.noaa.gov/pr/permits/incidental.htm> without change. All Personal Identifying Information (for example, name, address, *etc.*) voluntarily submitted by the commenter may be publicly accessible. Do not submit Confidential Business Information or otherwise sensitive or protected information.

A copy of the application containing a list of the references used in this document may be obtained by writing to the address specified above, telephoning the contact listed below (see **FOR FURTHER INFORMATION CONTACT**), or visiting the Internet at: <http://www.nmfs.noaa.gov/pr/permits/incidental.htm>. The following associated document is also available at the same internet address:

Environmental Assessment (EA) on the *Issuance of Leases for Wind Resource Data Collection on the Outer Continental Shelf Offshore Delaware and New Jersey* (MMS, 2009). Documents cited in this notice may also be viewed, by appointment, during regular business hours, at the aforementioned address.

**FOR FURTHER INFORMATION CONTACT:** Jaclyn Daly, Office of Protected Resources, NMFS, (301) 713–2289, ext 151.

#### **SUPPLEMENTARY INFORMATION:**

##### **Background**

Sections 101(a)(5)(A) and (D) of the MMPA (16 U.S.C. 1361 *et seq.*) direct the Secretary of Commerce to allow, upon request, the incidental, but not intentional, taking of small numbers of

marine mammals by U.S. citizens who engage in a specified activity (other than commercial fishing) within a specified geographical region if certain findings are made and either regulations are issued or, if the taking is limited to harassment, a notice of a proposed authorization is provided to the public for review.

Authorization for incidental takings shall be granted if NMFS finds that the taking will have a negligible impact on the species or stock(s), will not have an unmitigable adverse impact on the availability of the species or stock(s) for subsistence uses (where relevant), and if the permissible methods of taking and requirements pertaining to the mitigation, monitoring and reporting of such takings are set forth. NMFS has defined "negligible impact" in 50 CFR 216.103 as " \* \* \* an impact resulting from the specified activity that cannot be reasonably expected to, and is not reasonably likely to, adversely affect the species or stock through effects on annual rates of recruitment or survival."

Section 101(a)(5)(D) of the MMPA established an expedited process by which citizens of the United States can apply for an authorization to incidentally take small numbers of marine mammals by harassment. Section 101(a)(5)(D) establishes a 45-day time limit for NMFS review of an application followed by a 30-day public notice and comment period on any proposed authorizations for the incidental harassment of marine mammals. Within 45 days of the close of the comment period, NMFS must either issue or deny the authorization.

Except with respect to certain activities not pertinent here, the MMPA defines "harassment" as:

any act of pursuit, torment, or annoyance which (i) has the potential to injure a marine mammal or marine mammal stock in the wild [Level A harassment]; or (ii) has the potential to disturb a marine mammal or marine mammal stock in the wild by causing disruption of behavioral patterns, including, but not limited to, migration, breathing, nursing, breeding, feeding, or sheltering [Level B harassment].

#### Summary of Request

On May 5, 2010, NMFS received two applications from Bluewater for the taking, by Level B harassment, of marine mammals incidental to pile driving associated with installation of a MDCF in Federal waters approximately 16.5 miles off the coast of Delaware and one approximately 20 miles off the coast of New Jersey during October 2010. Bluewater provided supplemental information to NMFS on June 8, 2010, completing the applications. In

summary, to build each MDCF, Bluewater must drive, via an impact hammer, a single 3-meter pile into the seabed which will act as the foundation to elevate and support the data collection device. Pile driving has the potential to result in the take, by Level B harassment, of eight species marine mammals within the action area as it elevates underwater noise levels. The IHA would be effective from October 1–November 15, 2010.

#### Description of the Specified Activity

In November 2009, the Mineral Management Service (MMS) issued a lease to Bluewater for construction and operation of MDCF's designed to support future development of Bluewater's planned Delaware and New Jersey Offshore Wind Parks. The purpose of installing the MDCF's is to determine the feasibility of a commercial-scale offshore wind energy park at the proposed project site. Bluewater would collect and analyze at least one full year of meteorological data inclusive of wind speed and direction at multiple heights, information on other seasonal meteorological conditions (*e.g.*, turbulence, temperature, pressure, and atmospheric stability), the marine environment (*e.g.*, ocean currents, tides, and waves), and avian and bat activity (*e.g.*, activity within the potential rotor swept area, flight altitude). The proposed IHA would authorize the take, by Level B harassment only, of marine mammals incidental to pile driving the monopole foundation required to support the wind data collection devices, not future installation of wind turbines.

Bluewater has proposed installing a single 3-meter diameter pile foundation to elevate and stabilize a data collection device at two locations; one located in the Outer Continental Shelf (OCS) Official Protraction Diagram (OPD) lease block Salisbury, NJ 18–05 Lease Block 6325 (approximately 16 miles off Delaware) and one at OCS OPD lease block Wilmington, NJ 18–02 Block 6936 (approximately 20 miles off NJ). The mean lower low water depth (MLLW) at the Delaware and New Jersey site is approximately 69 feet (21 m) and 82 feet (25 m), respectively. Sediments in the region of the project area are characterized by terrigenous quartz sand, typical of the majority of sediments found in the Mid-Atlantic to Northern continental shelf. No bedrock (which is difficult to pile drive through) was encountered during Bluewater's sub-bottom profiling operations in 2009 at either location. Pile driving is scheduled to occur during in October 2010; however, given unforeseen

construction or weather related delays, NMFS is proposing to make the IHA effective until November 15, 2010.

To install the monopole foundation, Bluewater would use a IHC–S 900 Hydraulic Impact Hammer (or equal) with a maximum rated impact force of 900 kilojoules (KJ). Noise emissions are proportional to hammer blow energy, which is determined by the weight of the falling mass and height of the fall. The IHC–S 900 hammer is a relatively larger hammer than those needed for coastal construction projects. Therefore, source levels generated from this hammer are higher than those from impact hammers used to drive piles in shallow, coastal waters. To be conservative in its acoustic modeling, Bluewater has assumed the full impact force of 900 KJ will be required for construction; however, full force may not be necessary.

Bluewater anticipates it will take approximately 8 to 12 hours to mobilize and demobilize the construction vessels on site; however, only 3–8 of these hours would be spent pile driving. The two MDCF's would not be installed simultaneously; the Delaware MDCF would be installed first followed by the New Jersey MDCF approximately 1–2 weeks later. Because of physical parameters associated with this project (*e.g.*, pile size, water depth), Bluewater has indicated a vibratory hammer cannot be used. Pile driving activities would be restricted to daylight hours between one-half hour after sunrise and one-half hour prior to sunset.

Bluewater would transport the MDCF foundation materials and equipment to the project site slowly (less than 10 knots) on a deck cargo barge. In addition, installation of the fixed MDCF will also necessitate the use of crew boats, tugs, and crane barge support vessels. Contrary to Bluewater's original proposal during the MMS leasing process, no aircraft will be used during the MDCF installation. Bluewater estimates the construction radius (total work area needed during construction operations centered on the MDCF construction site) would be approximately 450 meters. All vessels would abide by NOAA Fisheries Northeast Regional Viewing Guidelines ([http://www.nmfs.noaa.gov/pr/pdfs/education/viewing\\_northeast.pdf](http://www.nmfs.noaa.gov/pr/pdfs/education/viewing_northeast.pdf)).

#### Description of Marine Mammals in the Area of the Specified Activity

Several species of marine mammals are known to traverse or occasionally inhabit the waters within the action area of project construction activities, including some species listed as threatened or endangered under the

Endangered Species Act (ESA). Thirty-four marine mammal species including 29 cetaceans, four pinnipeds, and one sirenian species have confirmed occurrences in the mid-Atlantic OCS (Table 1).

TABLE 1—MARINE MAMMAL OCCURRENCE ON THE OCS OFF DELAWARE AND NEW JERSEY

Species	Status	Population
<b>Suborder Mysticeti (baleen whales)</b>		
North Atlantic right whale ( <i>Eubaleana glacialis</i> )	Endangered	306.
Humpback whale ( <i>Megaptera novaeangliae</i> )	Endangered	902.
Fin whale ( <i>Balaenoptera physalus</i> )	Endangered	2,269.
Sei whale ( <i>Balaenoptera borealis</i> )	Endangered	Unknown.
Blue whale ( <i>Balaenoptera musculus</i> )	Endangered	Unknown.
Minke whale ( <i>Balaenoptera acutorostrata</i> )	None	2,998.
<b>Suborder Odontoceti (toothed whales)</b>		
Sperm whale ( <i>Physeter macrocephalus</i> )	Endangered	4,804.
Pygmy sperm whale ( <i>Kogia breviceps</i> )	None	395.
Dwarf sperm whale ( <i>Kogia sima</i> )	None	395.
Cuvier's beaked whale ( <i>Ziphius cavirostris</i> )	None	3,513.
True's beaked whale ( <i>Mesoplodon mirus</i> )	None	3,513.
Gervais' beaked whale ( <i>Mesoplodon europaeus</i> )	None	3,513.
Sowerby's beaked whale ( <i>Mesoplodon bidens</i> )	None	3,513.
Blainville's beaked whale ( <i>Mesoplodon densirostris</i> )	None	3,513.
Bottlenose dolphin ( <i>Tursiops truncatus</i> )	Coastal Stock—Depleted	Coastal—Unknown; Offshore—81,588.
Pantropical spotted dolphin ( <i>Stenella attenuata</i> )	None	4,439.
Atlantic spotted dolphin ( <i>Stenella frontalis</i> )	None	50,978.
Spinner dolphin ( <i>Stenella longirostris</i> )	None.	
Clymene dolphin ( <i>Stenella clymene</i> )	None	Unknown.
Striped dolphin ( <i>Stenella coeruleoalba</i> )	None.	
Common dolphin ( <i>Delphinus delphis</i> )	None	120,743.
White-beaked dolphin ( <i>Lagenorhynchus albirostris</i> )	None.	
Atlantic White-Sided dolphin ( <i>Lagenorhynchus acutus</i> )	None.	
Risso's dolphin ( <i>Grampus griseus</i> )	None	15,053.
Melon-headed whale ( <i>Peponocephala electra</i> )	None.	
Pygmy killer whale ( <i>Feresa attenuate</i> )	None.	
Long-finned pilot whale ( <i>Globicephala melas</i> )	None	31,139.
Short-finned pilot whale ( <i>Globicephala macrorhynchus</i> )	None.	
Harbor porpoise ( <i>Phocoena phocoena</i> )	None	89,054.
<b>Order Carnivora</b>		
<b>Suborder Pinnipedia (seals, sea lions, walruses)</b>		
Harbor seal ( <i>Phoca vitulina</i> )	None	99,340.
Gray seal ( <i>Halichoerus grypus</i> )	None	Unknown.
Hooded seal ( <i>Cystophora cristata</i> )	None	Unknown.
Harp seal ( <i>Pagophilus groenlandicus</i> )	None	Unknown.
<b>Order Sirenia</b>		
West Indian manatee ( <i>Trichechus manatus</i> )	None	1,822.

Some marine mammals species are likely to occur within the action area more so than others; however, marine mammal occurrence within the action areas during the 3–8 hours of pile driving is expected to be minimal. During July–October 2009, multiple geophysical and geotechnical (G&G) surveys were conducted by three wind park developers off the coast of New Jersey, all of which had dedicated protected species observers onboard the survey vessel. In general, sightings of marine mammals were uncommon. No marine mammals were sighted during G&G surveys conducted between July

24–August 1, 2009, approximately 17 miles off the New Jersey coast (RPS GeoCet, 2009). Similarly, during nine days of G&G surveys from August 25–September 21, no marine mammals were sighted approximately 12 miles of the southeast coast of New Jersey (AIS, 2009). Only during geophysical surveys conducted by Bluewater from August 14–17, 2009 (within lease block 6936) were marine mammals observed; one group was confirmed *Tursiops* comprised of two individuals; the other group was of an unknown species and contained five individuals (Geo-Marine, 2009).

In addition to the G&G survey, from January to December 2008, the New Jersey Department of the Environment (NJDOE) conducted monthly marine mammal and avian surveys off of New Jersey out to approximately 20 nautical miles (NM) (37 km); however, no surveys were conducted in October or November. Shipboard surveys were conducted over 3 days in July and August each and four days in September. Total on-effort transect length per month equaled approximately 417 NM (773 km), 481 NM (891 km), and 440 NM (816 km), respectively. The abundance data from

the July–October quarterly report is presented in Table 2. Based on these data and the data from the G&G surveys, the potential for marine mammals to

occur within the action area exists; however, given the limited duration of pile driving associated with the project (3–8 hours), it is unlikely many

individual marine mammals would be harassed by the specified activity.

TABLE 2—SUMMARY OF MARINE MAMMAL SIGHTINGS FROM THE NJDOE SHIPBOARD SURVEYS FROM JULY THROUGH SEPTEMBER 2008 (GEO-MARINE, 2008).

Species	Number of sightings per survey month		
	July	August	September
Humpback whale .....	0	2	3
Fin whale .....	1	37	1
Bottlenose dolphin .....	44	0	7
Harbor porpoise .....	1	0	0
Unidentified dolphin .....	1	0	2
Unidentified large whale .....	0	0	1

On May 14, 2009, the NMFS Northeast Region concluded informal ESA consultation with MMS on issuance of lease blocks. In summary, NMFS determined that, given a 1,000 m exclusion zone (*i.e.*, if ESA listed species are seen within 1,000 m of the active pile driver, operation will cease until that animal clears the area), ESA-listed marine mammals are not likely to be adversely affected by the specified activity. This determination was based on acoustical information provided, in part, by Bluewater which estimated the 160 dB re: 1 microPa isopleth (NMFS' Level B harassment threshold for impulsive noise) to be approximately 500 m. Bluewater's IHA application presents a more recent and thorough acoustic analysis that reveals the Level B harassment threshold (160 dB) isopleth may extend to approximately 7,000 m (not 500 m). Bluewater and NMFS consider the 7,000 m Level B harassment distance conservative.

Given the timing of the activity (October) and short duration of pile driving (3–8 hours), North Atlantic right whales would be rare in the action area but are possible. The location of the proposed MDfC is within the main right whale migratory corridor (*i.e.*, within 20 miles of shore in 5–15 fathoms of water). However, right whales are most likely to occur in the mid-Atlantic between November and April.

Although ESA-listed whales may be present, Bluewater would implement mitigation measures such that no ESA-listed marine mammal, including right whales, would be exposed to sound levels at or above NMFS behavioral harassment threshold for impulsive noise (*i.e.*, 160 dB rms). Therefore, Bluewater has determined that only eight species of marine mammals have the potential to be taken by harassment incidental to MDfC installation off Delaware and New Jersey. These

include bottlenose dolphins, spotted dolphins, common dolphins, Atlantic white-sided dolphins, Risso's dolphins, pilot whales, harbor porpoise, and harbor seals. None of these species are listed under the ESA. The western north Atlantic coastal stock of bottlenose dolphins is the only species listed as depleted under the MMPA. The action area does not provide significant reproductive, migratory and feeding habitat for any marine mammal. Animals will likely be transiting through the area or opportunistically resting or foraging. A detailed description on species status, abundance, and ecology of the eight species of cetaceans and pinnipeds that may be taken from the specified activity are provided in the IHA application and are summarized here with updates to some population size estimates.

#### *Bottlenose Dolphins*

There are two morphologically and genetically distinct bottlenose dolphin stocks in the Western Atlantic Ocean: coastal and offshore. Coastal bottlenose dolphins are continuously distributed along the Atlantic coast south of Long Island, New York around the Florida peninsula and along the Gulf of Mexico coast. Initially, a single stock of coastal morphotype bottlenose dolphins was thought to migrate seasonally between New Jersey (summer months) and central Florida based on seasonal patterns in strandings during a large scale mortality event occurring during 1987–1988 (Scott *et al.*, 1988). However, re-analysis of stranding data (McLellan *et al.*, 2003) and extensive analysis of genetic, photo-identification, satellite telemetry, and stable isotope studies demonstrate a complex mosaic of coastal bottlenose dolphin stocks (NMFS 2001). Seven management units within the range of the coastal western North Atlantic bottlenose dolphin

(Atlantic coast south of Long Island through the Gulf of Mexico) have been defined. Animals within the action area may belong to either the Southern Migratory Management Unit (MMU) or Northern Migratory Management Unit (NMMU).

The coastal stock of bottlenose dolphins resides along the inner continental shelf and around islands preferring waters less than 30–40 meters in depth, typically travel in groups of multiple animals, and may carry soft barnacles (*Xenobalanus* sp.) on the dorsal fin or flukes (NOAA Fisheries 2001, 2008; McLellan *et al.*, 2003). The offshore form are large robust animals which tend to travel in small groups of 1–3 individuals and are distributed primarily along the outer continental shelf and continental slope in the Northwest Atlantic Ocean. The best abundance estimates of the SMMU and NMMU come from summer aerial surveys which estimate the populations to be 10,341 and 7,489, respectively (NMFS, 2008). The offshore stock is estimated at 81,588 individuals (NMFS, 2008).

#### *Spotted Dolphins*

There are two species of spotted dolphin in the Atlantic Ocean, the Atlantic spotted dolphin (*Stenella frontalis*), and the pantropical spotted dolphin (*S. attenuata*) (Perrin, 1987). Where they co-occur, the two species can be difficult to differentiate (Waring *et al.*, 2006). Atlantic spotted dolphins prefer tropical to warm temperate waters along the continental shelf 10 to 200 meters (33 to 650 feet) deep to slope waters greater than 500 meters (1,640 feet) deep. Recent surveys in the Navy's Virginia Capes Operating Area (VACAPES OPAREA), which includes waters off Delaware through North Carolina, indicate higher abundance of spotted dolphin in deep, continental slope waters east of North Carolina, but

few, if any, in the vicinity of the project area (DoN, 2007b). The best available population estimates for Atlantic and Pantropical spotted dolphins are 50,978 and 4,439, respectively.

#### *Common Dolphin*

The common dolphin may be one of the most widely distributed species of cetaceans, as it is found world-wide in temperate, tropical, and subtropical seas. Mitochondrial DNA (mtDNA), and morphometric cranial analysis of North Atlantic specimens suggest that common dolphins in the western North Atlantic are composed of a single panmictic group whereas gene flow between western and eastern North Atlantic animals is limited (Westgate, 2005). Common dolphins can be found in pelagic waters of the Atlantic and Pacific Oceans along the 200- to 2,000-meter (650- to 6,500-foot) isobaths over the continental shelf. They are present in the western Atlantic from Newfoundland to Florida. This species is especially common along shelf edges and in areas associated with Gulf Stream features and sharp bottom relief such as seamounts and escarpments (Reeves *et al.*, 2002; NMFS, 2007)—bathymetric features not found at the project site.

Recent surveys in the Northeast Study Area (New Jersey through Maine) inclusive of the Navy's Atlantic City OPAREA, which includes waters off Delaware through North Carolina, indicate higher abundance of common dolphin in deep, continental slope waters throughout the Mid-Atlantic region, but few, if any, in the vicinity of the project area (DoN, 2007a and b). The best abundance estimate for common dolphins in the western North Atlantic is 120,743 animals (NMFS, 2007).

#### *Atlantic White-sided Dolphins*

Atlantic white-sided dolphins are typically found at depths greater than 330 feet (100 meters) in the cool temperate and subpolar waters of the North Atlantic, generally along the continental shelf between the Gulf Stream and the Labrador current to as far south as North Carolina (Bulloch 1993; Reeves *et al.* 2002). NMFS recognizes three stocks of the Atlantic white-sided dolphin in the western North Atlantic: a Gulf of Maine stock, a Gulf of St. Lawrence stock, and a Labrador Sea stock (Waring *et al.*, 2006). Although this species is widely distributed, sightings in the vicinity of Hudson Canyon and points south have occurred at low densities (Waring *et al.* 2006). The best available current abundance estimate for white-sided

dolphins in the western North Atlantic stock is 63,368 (NMFS, 2009).

#### *Risso's Dolphin*

Risso's dolphins are typically an offshore dolphin whose inshore appearance is uncommon (Reeves *et al.*, 2002). Risso's dolphins prefer temperate to tropical waters along the continental shelf edge and can range from Cape Hatteras to Georges Bank from spring through fall, and throughout the Mid-Atlantic Bight out to oceanic waters during winter (Payne *et al.*, 1984). Risso's dolphins are usually seen in groups of 12 to 40 individuals (NMFS, 2009). Loose aggregations of 100 to 200, or even several thousand, are seen occasionally (Reeves *et al.* 2002). Based on a survey from Maryland to the Bay of Fundy in 2004, the estimated population size for Risso's dolphins is 15,053 (NMFS, 2009).

#### *Pilot Whale*

There are two species of pilot whales in the western North Atlantic—the Atlantic or long-finned pilot whale, *Globicephala melas*, and the short-finned pilot whale, *G. macrorhynchus*. Sightings of these animals in the U.S. Atlantic Exclusive Economic Zone (EEZ), which extends from the coastline to 200 nm, occur in oceanic waters and along the continental shelf and continental slope in the northern Gulf of Mexico (Hansen *et al.* 1996; Mullin and Hoggard 2000; Mullin and Fulling 2003). Pilot whales are highly social and typical group size can range from the tens to hundreds and may reach up to 1,200 individuals (Zachariassen, 1993; Bloch, 1998). Information on stock differentiation for the Atlantic population based on morphological, genetic, and/or behavioral data is in progress. Pending these results, the western North Atlantic *Globicephala* sp. population(s) is provisionally being considered a separate stock from the northern Gulf of Mexico stock(s). Because these species are difficult to differentiate at sea, seasonal abundance estimates are reported for both long-finned and short-finned pilot whales. The best abundance estimate for *Globicephala* sp. is 31,139 (NMFS 2009).

#### *Harbor Porpoise*

The harbor porpoise inhabits shallow, coastal waters, often found in bays, estuaries, and harbors. During fall and spring, harbor porpoises are widely dispersed in the North Atlantic from New Jersey to Maine, with lower densities farther north and south. During winter (January to March), intermediate densities of harbor

porpoises can be found in waters off New Jersey to North Carolina. They are seen from the coastline to deep waters ( $\leq 1800$  m; Westgate *et al.*, 1998), although the majority of the population is found over the continental shelf. Gaskin (1984; 1992) proposed that there were four separate populations in the western North Atlantic: the Gulf of Maine/Bay of Fundy, Gulf of St. Lawrence, Newfoundland, and Greenland populations. As described in NMFS' most recent stock assessment report (2009), this hypothesis has been recently supported by mtDNA analysis, organochlorine contaminants, heavy metals, and life history parameters. The aggregation of porpoises found in the mid-Atlantic during winter may be composed of a mix of all these stocks; however, the Gulf of Maine/Bay of Fundy stock is likely the largest contributor (NMFS, 2009). The best current abundance estimate of the Gulf of Maine/Bay of Fundy harbor porpoise stock is 89,054 (NMFS, 2009).

#### *Harbor Seals*

Harbor seals are the most abundant seals in eastern United States waters and are commonly found in all nearshore waters of the Atlantic Ocean and adjoining seas above northern Florida. However, their "normal" southern range is probably only to the waters off the coast of New Jersey. In late autumn and winter, harbor seals may be at sea continuously for several weeks or more (Reeves *et al.*, 2002). Although the stock structure of the western North Atlantic population is unknown, it is thought that harbor seals found along the eastern U.S. and Canadian coasts represent one population (Temte *et al.*, 1991). In late autumn and winter, harbor seals may be at sea continuously for several weeks or more, presumably feeding to recover body mass lost during the reproductive and molting seasons and to fatten up for the next breeding season (Reeves *et al.* 2002). (Reeves *et al.*, 2002). The population estimate for the western North Atlantic stock of harbor seals is 99,340 (Marine Mammal Center, 2002; NOAA, 1993; Waring *et al.*, 2006).

#### **Potential Effects on Marine Mammals**

NMFS has preliminarily determined that open-water impact pile driving of the single monopile at each site, as outlined in the project description, has the potential to result in behavioral harassment of marine mammals if they are present near the action area. However, NMFS notes that the limited duration of pile driving (3–8 hours) will minimize the chance marine mammals are exposed to pile driving noise and

pile driving at the sites will not occur concurrently; therefore, no cumulative impacts are anticipated. Bluewater has proposed a mitigation and monitoring plan designed to eliminate potential for Level A (injurious) harassment of all marine mammals and also Level B harassment of ESA-listed marine mammals (see *Proposed Mitigation* section).

Noise from pile driving may harass marine mammals. Sound is a physical phenomenon consisting of minute vibrations that travel through a medium, such as air or water. Sound is generally characterized by several variables, including frequency and sound level. Frequency describes the sound's pitch and is measured in hertz (Hz) or kilohertz (kHz), while sound level describes the sound's loudness and is measured in decibels (dB). Sound level increases or decreases exponentially with each dB of change. For example, 10-dB yields a sound level 10 times more intense than 1 dB, while a 20 dB level equates to 100 times more intense. Sound levels are compared to a reference sound pressure (micro-Pascal) to identify the medium. All underwater noise levels presented here are

quantified in decibels relative to 1 micro Pascal (re: 1 microPa), unless otherwise noted.

Marine mammals are continually exposed to many sources of sound. Naturally occurring noise from lightning, rain, sub-sea earthquakes, and biological sounds (e.g., snapping shrimp, whale songs) are ubiquitous throughout the world's oceans. Marine mammals produce sounds in various contexts and use sound for various biological functions including, but not limited to: (1) Social interactions; (2) foraging; (3) orientation; and (4) predator detection. Interference with producing or receiving these sounds may result in adverse impacts. Type and significance of marine mammal reactions to noise are likely to depend on a variety of factors including, but not limited to, received levels, the behavioral state (e.g., feeding, traveling, etc.) of the animal at the time it receives the stimulus, frequency of the sound, distance from the source, source characteristics (e.g., is the source moving or stationary) and the level of the sound relative to ambient conditions (Southall *et al.*, 2007).

NMFS is in the process of developing guidelines for determining sound pressure level (SPL) thresholds for acoustic harassment based on the best available science. In the interim, NMFS generally considers 180 and 190 dB root mean square (rms) as the level at which cetaceans and pinnipeds, respectively, could be subjected to Level A (injurious) harassment. Level B (behavioral) harassment has the potential to occur if marine mammals are exposed to pulsed sounds (e.g. impact pile driving) at or above 160 dB rms, but below injurious thresholds. These thresholds are considered conservative.

Bluewater's analyzed pile driving data collected during offshore wind farm construction in Europe to estimate the distances to NMFS' threshold levels during pile driving off Delaware and New Jersey (see sections 2.2 and 2.3 in Bluewater's IHA application. Table 3 below summarizes the estimated distances to NMFS' Level A and B harassment isopleths at each location based on Bluewater's modeling. Water depth is the main contributing factor to any discrepancy between the two proposed sites.

TABLE 3—ESTIMATED DISTANCES TO NMFS' HARASSMENT THRESHOLDS FOR IMPACT PILE DRIVING OFF DELAWARE AND NEW JERSEY

Site location	190 dB re: 1 microPa (rms) <sup>1</sup>	180 dB re: 1 microPa (rms) <sup>2</sup>	160 dB re: 1 microPa (rms) <sup>3</sup>
OCS—Delaware .....	330 m	760 m	7,230 m
OCS—New Jersey .....	375 m	1,000 m	6,600 m

<sup>1</sup> Level A harassment threshold for pinnipeds in water.

<sup>2</sup> Level A harassment threshold for cetaceans.

<sup>3</sup> Level B harassment thresholds for pinnipeds and cetaceans from impulsive noise.

### Hearing Impairment

Temporary or permanent hearing impairment is a possibility when marine mammals are exposed to very loud sounds. Hearing impairment is measured in two forms: Temporary threshold shift (TTS) and permanent threshold shift (PTS). There are no empirical data for onset of PTS in any marine mammal; therefore, PTS-onset must be estimated from TTS-onset measurements and from the rate of TTS growth with increasing exposure levels above the level eliciting TTS-onset. PTS is presumed to be likely if the hearing threshold is reduced by  $\geq 40$  dB (i.e., 40 dB of TTS). Due to proposed mitigation measures, NMFS does not expect that marine mammals will be exposed to levels that could elicit PTS; therefore, it will not be discussed further.

### Temporary Threshold Shift (TTS)

TTS is the mildest form of hearing impairment that can occur during exposure to a loud sound (Kryter, 1985). While experiencing TTS, the hearing threshold rises and a sound must be louder in order to be heard. TTS can last from minutes or hours to, in cases of strong TTS, days. For sound exposures at or somewhat above the TTS-onset threshold, hearing sensitivity recovers rapidly after exposure to the noise ends. Few data on sound levels and durations necessary to elicit mild TTS have been obtained for marine mammals. Southall *et al.* (2007) considers a 6 dB TTS (i.e., baseline thresholds are elevated by 6 dB) sufficient to be recognized as an unequivocal deviation and thus a sufficient definition of TTS-onset. Because it is non-injurious, NMFS considers TTS as Level B harassment that is mediated by physiological effects

on the auditory system; however, NMFS does not consider onset TTS to be the lowest level at which Level B harassment may occur.

Of all marine mammals which could be encountered during the very short pile driving period (3–8 hours), bottlenose and spotted dolphins are the species most likely to come within the action area as they are the most abundant. Bottlenose dolphins have been the subject for most TTS studies and can be considered a surrogate for other delphinids (e.g., spotted dolphins, common dolphins) that may be exposed to Bluewater's pile driving activity. For bottlenose dolphins, eight different captive individuals have been exposed to impulsive anthropogenic sound, with TTS being induced in five individuals (Schlundt *et al.*, 2000; Nachtigall *et al.*, 2004; Finneran *et al.*, 2007; Mooney *et al.*, 2009). TTS onset occurred when animals were exposed to sound levels

ranging from 182 to 203 dB re: 1 $\mu$ Pa<sup>2</sup>-s (SEL), with a median TTS onset level of 192.5 dB SEL. For pinnipeds, underwater TTS experiments involving exposure to pulse noise is limited to a single study. Finneran *et al.* (2003) found no measurable TTS when two California sea lions were exposed to sounds up to 183 dB re: 1 microPa (peak-to-peak). No TTS studies have been conducted on mysticetes; therefore, no data exist. However, if the pattern holds true as that for mid-frequency cetaceans and pinnipeds, one can assume that TTS occurs in mysticetes at levels much higher than NMFS' Level B behavioral harassment threshold for impulsive noise (*i.e.*, 160 dB) and likely above NMFS' Level A (injurious) harassment thresholds.

Bluewater is proposing to pile drive continuously for 3–8 hours. Until recently, previous marine mammal TTS studies have generally supported an equal energy relationship hypothesis whereby as amplitude and duration of sound exposure increase, generally, so does the amount of TS and recovery time (Southall *et al.*, 2007). However, two recent studies by Mooney *et al.* (2009a, 2009b) on a single bottlenose dolphin exposed to playbacks of Navy mid-frequency active sonar or octave-band (non-impulsive) noise (4–8 kHz) and one by Kastak *et al.* (2007) on a single California sea lion exposed to airborne octave-band noise (centered at 2.5 kHz) concluded that for all noise exposure situations, the equal energy relationship may not be the best indicator to predict TTS onset levels. Generally, with sound exposures of equal energy, those that were quieter SPLs with longer duration were found to induce TTS onset more than those of louder (higher SPLs) and shorter duration. For intermittent sounds, less TS will occur than from a continuous exposure with the same energy (some recovery will occur between exposures) (Kryter *et al.*, 1966; Ward, 1997). Although Bluewater's pile driving would be both loud and continuous for 3–8 hours, NMFS anticipates that if TTS does occur, it would be short in duration as: (1) Pile driving would cease if animals come within the 190 or 180 dB isopleth for pinnipeds and cetaceans, respectively; and (2) marine mammals will likely not linger in areas with sound pressure levels high enough to induce long-term TTS.

#### Behavioral Impacts

NMFS has discussed behavioral impacts resulting from impact pile driving for various other projects (*e.g.*, 73 FR 38180; 74 FR 18492; 74 FR 63724) which are relevant here. Additionally,

in 2009, the MMS prepared an EA and associated Finding of No Significant Impact (FONSI) on the *Issuance of Leases for Wind Resource Data Collection on the Outer Continental Shelf Offshore Delaware and New Jersey* which analyzes the impacts of constructing, operating, and decommissioning MDCFs similar to ones proposed by Bluewater in their MMPA application. In summary, MMS found that noise from pile driving could disturb normal marine mammal behaviors (*e.g.*, feeding, social interactions), mask calls from conspecifics, disrupt echolocation capabilities, and mask sounds generated by predators. Behavioral effects may be incurred at ranges of many miles, and hearing impairment may occur at close range (Madsen *et al.*, 2006). Behavioral reactions may include avoidance of, or flight from, the sound source and its immediate surroundings, disruption of feeding behavior, interruption of vocal activity, and modification of vocal patterns (Watkins and Scheville, 1975; Malme *et al.*, 1984; Bowles *et al.*, 1994; Mate *et al.*, 1994). These impacts are similar to those previous identified by NMFS for the previous pile driving projects discussed above. NMFS characterizes the potential effects described here as indicative of Level B (behavioral) harassment.

In addition to noise related impacts to marine mammals, NMFS has considered the specified activity includes the impacts from vessel traffic (*i.e.*, ship strikes) and potential operational discharges from MDCF construction and operation. The marine mammals most vulnerable to vessel strikes are slow-moving and/or spend extended periods of time at the surface in order to restore oxygen levels within their tissues after deep dives (*e.g.*, right whales, fin whales, sperm whales). Smaller marine mammals such as delphinids, are agile and move more quickly through the water, making them less susceptible to ship strikes. Vessels used for construction include crew boats and slow moving support vessels such as tugs and barges. To prevent ship strikes, crew aboard all vessels associated with the specified activity transiting to and from the construction site would actively watch for whales and other marine mammals and vessel operators would abide by NMFS' Northeast Marine Mammal Viewing Guidelines. As a result, NMFS does not anticipate a ship strike is likely to occur.

MMS's EA also analyzed impacts from operational waste generated from vessels includes bilge and ballast waters, trash and debris, and sanitary and domestic wastes. Operational

discharges from construction vessels would be released into the open ocean where they would be rapidly diluted and dispersed, or collected and taken to shore for treatment and disposal. Sanitary and domestic wastes would be processed through on-site waste treatment facilities before being discharged overboard or would be tanked to shore for disposal there. Deck drainage would also be processed prior to discharge. The discharge or disposal of solid debris into offshore waters from OCS structures and vessels is prohibited by the MMS (30 CFR 250.300) and the USCG (MARPOL, Annex V, Public Law 100–220 [101 Statute 1458]). MMS and USCG would enforce such prohibitions; hence, the entanglement in or ingestion of proposed action-related trash and debris by marine mammals would not be expected. Because of the limited amount of vessel traffic and construction activity that would occur from Bluewater's proposed activities, the release of liquid wastes would occur infrequently and cease following completion of tower construction. NMFS agrees with MMS's analysis and, as such, has preliminarily determined that impacts to marine mammals from the discharge of waste materials or the accidental release of fuels are expected to be negligible.

#### Anticipated Effects on Habitat

The footprint of the foundation and scour protection (if used) is approximately 0.06 acre (30-foot radius around the monopile foundation) at the MDCF site. Under the terms of the MMS lease, within a period of one year after cancellation, expiration, relinquishment, or other termination of the lease, the lessee shall remove all devices, works and structures from the leased area and restore the leased area to its original condition before issuance of the lease (MMS 2008). Bluewater's consultation with the NMFS under section 7 of the ESA for the MMS lease, completed May 14, 2009, concluded that all effects of the proposed project, including those to habitat, will be insignificant or discountable. Under the MMPA, the same determination on effects to marine mammal habitat applies based on the factors in the earlier consultation.

#### Proposed Mitigation

In order to issue an incidental take authorization (ITA) under section 101(a)(5)(D) of the MMPA, NMFS must set forth the permissible methods of taking pursuant to such activity, and other means of effecting the least practicable adverse impact on such species or stock and its habitat, paying

particular attention to rookeries, mating grounds, and areas of similar significance, and on the availability of such species or stock for taking for certain subsistence uses.

Bluewater has proposed, and NMFS supports, the following mitigation measures designed to eliminate the potential for serious injury/mortality and Level A (injurious) harassment and minimize Level B (behavioral) harassment to marine mammals:

#### *Establishment of Exclusion Zone*

Bluewater would establish and monitor a preliminary 1,000 m Level A harassment exclusion zone (EZ) around the pile driving site in order to eliminate the potential for injury (Level A harassment) of marine mammals. This zone is designed to include all areas where the underwater SPLs are anticipated to equal or exceed 180 dB rms. If the acoustic survey (see Acoustic Monitoring section) determines that the area ensounded by sounds exceeding 180 dB extends beyond the preliminary 1,000-meter EZ, a new safety exclusion zone would be established. Otherwise, the 1,000-meter EZ will remain in place. Triggers and protocol for pile driving shut down for this zone are described below.

Bluewater would also establish a 7-km EZ at the Delaware site for ESA-listed marine mammals (*i.e.*, large whales) to avoid Level B (behavioral) harassment to these species. Should acoustic monitoring at the Delaware site determine the estimated distance to the 160 dB isopleth (the Level B harassment threshold level) is not accurate, the large whale exclusion zone would be altered for the New Jersey site accordingly, after accounting for depth differences between the two sites.

#### *Pile Driving Shut-Down and Delay Triggers and Procedures*

At least one protected species observer (PSO) stationed onboard the pile-driving vessel would monitor the established 1,000 m EZ for 30 minutes prior to the soft-start of pile driving. If the PSO observes a marine mammal within this zone during this time, the PSO would notify the Resident Engineer (or other authorized individual) who would then delay pile driving. Pile driving would not commence until the PSO confirms that animal has moved out of and on a path away from the EZ or a PSO has not sighted the animal within the EZ for 15 minutes. If a marine mammal approaches or enters the exclusion zone after pile driving has begun, pile driving would cease until the PSO confirms that the animal has moved out of and on a path away from

the EZ or the PSO has not sighted the animal within the EZ for 15 minutes. If pile driving ceases for 30 minutes or more, the PSO would observe for an additional 30-minute period before he/she would notify the Resident Engineer (or other authorized individual) that none of the aforementioned situations are triggered and pile driving could commence.

On a separate vessel navigating at approximately 4–5 kms around the pile hammer, PSOs would monitor for large whales. Protocol for pile shut down and delay would follow the procedures described above for the 1,000 EZ.

#### *Ramp-Up Procedures*

A ramp-up or soft-start will be used at the beginning of pile driving in order to provide additional protection to marine mammals near the project area by allowing them time to vacate the area prior to the commencement of pile-driving activities. The soft-start requires an initial set of 3 strikes from the impact hammer at 40 percent energy with a one minute waiting period between subsequent 3-strike sets. The procedure will be repeated two additional times. If marine mammals are sighted within the exclusion zone prior to pile-driving, or during the soft start, the Resident Engineer (or other authorized individual) will delay pile driving until the animal has moved outside the exclusion zone and no marine mammals are sighted for a period of 30 minutes.

#### *Use of Sound Attenuation Devices*

Bluewater has conducted a sound attenuation device feasibility study and has concluded that traditional devices (*e.g.*, bubble curtain, wood cap, sleeve) are not practical or feasible for the proposed activity for various reasons (see Bluewater's application). However, Bluewater would continue to explore other options and, if found, would implement a sound attenuation device during pile driving.

#### *Reduced Hammer Force*

Bluewater would not ramp-up to full power if, at decreased power, the pile can be driven to the desired depth. Recall that source levels are directly related to hammer force. The estimates to the Level A and Level B harassment thresholds are based on maximum hammer force (900 kJ); hence if less energy is used, noise levels would be less than anticipated.

#### *Time-of-Day and Weather Restrictions*

Pile-driving will be limited to day light hours between one-half hour after sunrise and one-half hour prior to sunset. If detection capability of a

marine mammal within the EZ is obscured by foul weather (*e.g.*, rough seas, fog), Bluewater would delay or suspend pile driving operations until the EZ is clear.

NMFS has carefully evaluated the applicant's proposed mitigation measures in the context of ensuring that NMFS prescribes the means of effecting the least practicable adverse impact on the affected marine mammal species and stocks and their habitat. Our evaluation of potential measures included consideration of the following factors in relation to one another: the manner in which, and the degree to which, the successful implementation of the measure is expected to minimize adverse impacts to marine mammals; the proven or likely efficacy of the specific measure to minimize adverse impacts as planned; and the practicability of the measure for applicant implementation, including consideration of personnel safety, and practicality of implementation.

Based on our evaluation of the applicant's proposed measures, NMFS has preliminarily determined that the proposed mitigation measures provide the means of effecting the least practicable adverse impacts on marine mammals species or stocks and their habitat, paying particular attention to rookeries, mating grounds, and areas of similar significance.

#### **Proposed Monitoring and Reporting**

In order to issue an ITA for an activity, section 101(a)(5)(D) of the MMPA states that NMFS must set forth "requirements pertaining to the monitoring and reporting of such taking." The MMPA implementing regulations at 50 CFR 216.104(a)(13) indicate that requests for IHAs must include the suggested means of accomplishing the necessary monitoring and reporting that will result in increased knowledge of the species and of the level of taking or impacts on populations of marine mammals that are expected to be present.

#### *Visual Monitoring*

Bluewater is proposing to conduct both visual and acoustic monitoring to better understand impacts to marine mammals from pile driving and estimate take. At least one PSO would be stationed at the pile hammer to monitor, and implement mitigation if necessary, the preliminary 1,000 m EZ and notify the Resident Engineer (or other authorized person) if shut down is necessary. In addition, at least one PSO, in a dedicated visual monitoring vessel circumnavigating the pile hammer at a distance of 4–5 kms, would monitor the

Level B harassment zone (*i.e.*, those waters estimated to carry sound levels at or above 160 dB) to determine take numbers for non-listed marine mammals located at a distance to the pile hammer and call for pile driving shut down should a large whale enter this zone. PSOs would be stationed at the highest vantage point possible aboard support vessels (the higher the platform, the greater distance seen). In addition, a visual monitor would be aboard the acoustic monitoring vessel to observe for marine mammals. All PSOs will be in contact with each other at all times.

*Acoustic Monitoring*

Bluewater would carry out an acoustic study as described in the application (Attachment 1—Underwater Noise Survey Protocol). The plan includes the use of hydrophone array deployed by vessel within the near field (*i.e.*, within 1,000 m) which provides data in real time and two autonomous recorders in the far field (2 km and 5 km from the hammer) which will archive sound data until they are retrieved and downloaded. The plan is designed to: (1) Empirically verify the marine mammal exclusion and harassment zones; (2) estimate site specific underwater sound transmission loss decay rates in the action area; (3) provide a digital sound recording of acoustic measurements completed during pile driving; and (4) investigate background noise levels in absence of pile driving. As stated previously, the acoustic models contained within the application are likely an overestimate of sound levels; however, by how much cannot be determined at this time. Empirical data collection will help refine these numbers. Based on the data

collected at the each site, the EZ would be adjusted accordingly (but not less than 1,000 m) and from the autonomous recorders at the Delaware site, estimates to the Level B isopleths may be refined for the New Jersey site after adjustment for water depth differences. In addition, MMS may also conduct an independent sound study during pile driving, providing further acoustical data.

**Estimated Take by Incidental Harassment**

Except with respect to certain activities not pertinent here, the MMPA defines “harassment” as:

Any act of pursuit, torment, or annoyance which (i) has the potential to injure a marine mammal or marine mammal stock in the wild [Level A harassment]; or (ii) has the potential to disturb a marine mammal or marine mammal stock in the wild by causing disruption of behavioral patterns, including, but not limited to, migration, breathing, nursing, breeding, feeding, or sheltering [Level B harassment].

As discussed in the *Potential Effects* section above, marine mammals exposed to certain levels of pile driving noise may be taken by Level B harassment. Monitoring and mitigation measures will prevent animals from being exposed to levels which could induce Level A (injury) harassment. Responses to the specified activity may include avoidance, altered patterns in foraging, traveling, and resting patterns, masking, and stress hormone production. Many of these effects are difficult to quantify; therefore, NMFS has established threshold criteria which indicate the levels at which any of these effects may occur and a take is possible. Hence these levels are conservative and currently are being refined to better reflect the best scientific data available.

Bluewater has determined that eight species of marine mammals have the potential to be taken, by Level B harassment only, incidental to pile driving. Tables 4 and 5 below provide Bluewater’s proposed estimated take levels for Delaware and New Jersey, respectively. For all species, the requested take is less than 1% of the population; therefore, take numbers can be considered small relative to the population size. Although some species have low average and maximum calculated take estimates based on density, these species (*e.g.*, spotted dolphin, common dolphin) can travel in large groups, hence higher numbers of take are requested given the assumption that an entire group would come within the designated Level B harassment isopleths. Due to the short duration of pile driving (3–8 hours) it is unlikely single individuals would be exposed multiple times, further reducing impacts from Level B harassment. In addition, the number of requested takes proposed here are unlikely to all occur (*i.e.*, it is unlikely all these species would be present within the action area over a period of 3–8 hours); however, it is difficult to determine which species may or may not be encountered. For example, only spotted dolphins may come within the Level B harassment zone during pile driving; however, these animals travel in large groups so all take for this species may be used. Bluewater would cease pile driving if marine mammals come within 1,000 m of the pile; therefore, no Level A takes are requested nor would any be authorized in the proposed IHA. In addition, no ESA-listed species would be taken by harassment (Level A or B) given the implementation of the mitigation and monitoring measures described above.

TABLE 4—REQUESTED TAKE NUMBERS, BY SPECIES, OFF DELAWARE

Species	Density Fall (No./100 km <sup>2</sup> )	Average take estimate <sup>a</sup>	Maximum take estimate <sup>b</sup>	Requested take (number of animals)
Bottlenose dolphin .....	3.969	4.95	11.90	15
Spotted dolphin .....	8.730	14.06	28.11	35
Common dolphin .....	5.275	8.09	16.99	20
Atlantic White-Sided dolphin .....	0.410	.066	1.32	15
Risso’s dolphin .....	3.288	5.29	10.59	15
Pilot whale .....	1.696	2.73	5.46	10
Harbor porpoise .....	3.200	5.15	10.30	15
Harbor seal <sup>c</sup> .....	9.743	16.69	31.37	35

<sup>a</sup> Density values from Dept. of Navy (2007a,b).  
<sup>b</sup> Maximum take estimate 2x average take estimate.  
<sup>c</sup> Density estimate from Barlas (1999) used for this species.

TABLE 5—REQUESTED TAKE NUMBERS, BY SPECIES, OFF NEW JERSEY

Species	Density Fall (no./100 km <sup>2</sup> ) <sup>a</sup>	Average take estimate	Maximum take estimate <sup>b</sup>	Requested take (number of animals)
Bottlenose dolphin .....	3.969	4.94	9.88	15
Spotted dolphin .....	8.730	11.67	23.35	35
Common dolphin .....	5.275	7.05	14.11	20
Atlantic White-Sided dolphin .....	0.410	.055	1.10	15
Risso's dolphin .....	3.288	4.40	8.79	15
Pilot whale .....	1.696	2.27	4.54	10
Harbor porpoise .....	3.200	4.28	8.56	10
Harbor seal <sup>c</sup> .....	9.743	13.03	26.05	30

<sup>a</sup> Density values from DoN (2007a,b).

<sup>b</sup> Maximum take estimate 2x average take estimate.

<sup>c</sup> Density estimate from Barlas (1999) used for this species.

Bluewater would operate support vessels (e.g., small vessels, barges, tugs) to deliver and install equipment at the MDCF site; however, operation of these vessels is not anticipated to result in takes of marine mammals. Vessels would transit to the site slowly and operators would follow NMFS' Northeast Regional marine mammal viewing guidelines. Vessel transit speed is similar to that in NMFS' final rule concerning right whale vessel collision reduction strategy which established operational measures for the shipping industry to reduce the potential for large vessel collisions with North Atlantic right whales while transiting to and from mid-Atlantic ports during right whale migratory periods (73 FR 60173; October 10, 2008). For these reasons (slow transit, viewing guideline adherence) NMFS does not anticipate take of marine mammals incidental to support vessel operation.

#### Negligible Impact and Small Numbers Analysis and Determination

NMFS has defined "negligible impact" in 50 CFR 216.103 as " \* \* \* an impact resulting from the specified activity that cannot be reasonably expected to, and is not reasonably likely to, adversely affect the species or stock through effects on annual rates of recruitment or survival." In making a negligible impact determination, NMFS considers the following: number of anticipated mortalities; number and nature of anticipated injuries; number, nature, intensity, and duration of Level B harassment; is the nature of the anticipated takes such that we would expect it to actually impact rates of recruitment or survival; and context in which the takes occur—that is will the takes occur in areas (and/or times) of significance for marine mammals (e.g., feeding or resting areas, reproductive areas, rookeries, critical habitat, etc.).

Due to the implementation of mitigation measures, no ESA-listed species would be exposed to sound levels exceeding those established by NMFS as indicative of harassment. Therefore, no take of ESA-listed marine mammals are anticipated to occur. Non-ESA listed marine mammals may be exposed temporarily to pile driving noise; however, at each location, pile driving would occur for only 3–8 hours in total. The waters in the mid-Atlantic OCS are not designated as critical habitat for ESA-listed marine mammals, nor do they provide significant habitat for any marine mammal species (i.e., no significant foraging or reproductive areas are known to be in this area). Animals within the action area are likely to be traveling, resting, socializing or opportunistically foraging. Noise from pile driving may temporarily disturb animals in these behavioral states and induce mild TTS; however, no significant or long-term impacts are anticipated given the implementation of mitigation measures, short duration of pile driving and the anticipation that individuals are not expected to linger within the action area. While pile driving noise may affect more than one individual, population level effects are not anticipated as impacts are anticipated to be limited to short term behavioral changes in individuals (e.g., avoidance, cessation of activity at time of noise exposure, change in vocalization patterns) and potential masking effects. These effects would not alter fitness or reproductive success. Bluewater would not conduct pile driving at both sites simultaneously; therefore, no cumulative impacts which could arise from exposure to noise from multiple pile hammers are expected. Finally, the project footprint is extremely small, and each MDCF would be removed after 1–2 years. Therefore, no long term impacts to marine mammal habitat are anticipated.

Bluewater has conducted a conservative analysis of estimated sound levels and used these estimates to determine take. Hence, the number of animals potentially taken is also likely an overestimated as it is not anticipated that all species listed in Tables 3 and 4 would be encountered during the short duration of pile driving. The number of animals requested to be taken is considered small (less than 1 percent) when compared to the estimated stock size for each species. Again, no ESA-listed species would be taken based on implementation of the proposed mitigation and monitoring measures and no Level A (injurious) harassment, serious injury, or mortality is anticipated nor would any be authorized in the proposed IHA.

Based on the analysis contained herein of the likely effects of the specified activity on marine mammals and their habitat, and taking into consideration the implementation of the mitigation and monitoring measures, NMFS preliminarily finds that pile driving conducted by Bluewater during MDCF installation will result in the incidental take of small numbers of marine mammals, by Level B harassment only, and that the total taking from will have a negligible impact on the affected species or stocks.

#### Impact on Availability of Affected Species for Taking for Subsistence Uses

There are no relevant subsistence uses of marine mammals implicated by this action.

#### Endangered Species Act (ESA)

Bluewater is not requesting, nor is NMFS proposing, take of ESA listed species; hence, ESA consultation is not necessary for issuance of the proposed IHA.

**National Environmental Policy Act (NEPA)**

On June 2, 2009, the MMS issued an EA and associated Finding of No Significant Impact (FONSI) on the *Issuance of Leases for Wind Resource Data Collection on the Outer Continental Shelf Offshore Delaware and New Jersey*. The EA evaluates the impacts to the human environment, including those to marine mammals, from issuing seven leases in the Atlantic OCS for purposes of constructing, operating, and decommissioning a MDCF in each lease block. The MDCFs proposed by Bluewater are included in that analysis. NMFS will either adopt MMS's EA or conduct a separate NEPA analysis, as necessary, prior to making a final determination of the issuance of the IHA. The EA is available for comment on NMFS' Web site (<http://www.nmfs.noaa.gov/pr/permits/incidental.htm>) for the duration of the

public comment period of the proposed IHA.

Dated: July 15, 2010.  
**James H. Lecky**,  
*Director, Office of Protected Resources,  
National Marine Fisheries Service.*  
[FR Doc. 2010-17968 Filed 7-21-10; 8:45 am]  
**BILLING CODE 3510-22-P**

to fulfill the requirements of section 155 of Public Law 104-164, dated 21 July 1996.

**FOR FURTHER INFORMATION CONTACT:** Ms. B. English, DSCA/DBO/CFM, (703) 601-3740.

**SUPPLEMENTARY INFORMATION:** The following are copies of letters to the Speaker of the House of Representatives, Transmittals 10-09, 10-33, and 10-37 with associated attachments.

Dated: July 19, 2010.  
**Mitchell S. Bryman**,  
*Alternate OSD Federal Register Liaison  
Officer, Department of Defense.*

**Transmittal No. 10-09**

The following is a copy of a letter to the Speaker of the House of Representatives, Transmittal 10-09 with attached transmittal, and policy justification.

**BILLING CODE 5000-06-P**

**DEPARTMENT OF DEFENSE**

**Office of the Secretary**

[Transmittal Nos. 10-09, 10-33, and 10-37]

**36(b)(1) Arms Sales Notifications**

**AGENCY:** Defense Security Cooperation Agency, DoD.

**ACTION:** Notice.

**SUMMARY:** The Department of Defense is publishing the unclassified text of three section 36(b)(1) arms sales notifications



**DEFENSE SECURITY COOPERATION AGENCY  
201 12TH STREET SOUTH, STE 203  
ARLINGTON, VA 22202-5408**

JUL 13 2010

The Honorable Nancy Pelosi  
Speaker  
U.S. House of Representatives  
Washington, DC 20515

Dear Madam Speaker:

Pursuant to the reporting requirements of Section 36(b)(1) of the Arms Export Control Act, as amended, we are forwarding herewith Transmittal No. 10-09, concerning the Department of the Army's proposed Letter(s) of Offer and Acceptance to Chile for defense articles and services estimated to cost \$105 million. After this letter is delivered to your office, we plan to issue a press statement to notify the public of this proposed sale.

Sincerely,

**Jeanne L. Farmer  
Acting Deputy Director**

- Enclosures:  
1. Transmittal  
2. Policy Justification