Whales and Offshore Wind Development

US Wind's plans to protect marine mammals before, during, and after construction

Whales are highly intelligent and some of the most revered creatures on the planet. Protecting these marine mammals is of the highest priority for US Wind, and we are committed to going above and beyond existing federal regulations to protect whales and other cetaceans, including dolphins and porpoises.

What whales are in the Lease area?

Whales migrate along the length of the U.S. Atlantic coast and are known to pass through US Wind's Lease area in seasonal patterns. Humpback, minke and endangered fin, sei and North Atlantic right whales are known to occur at least occasionally in the Mid-Atlantic region and have been detected in US Wind's Lease area by trained observers and through several studies. One study completed by the University of Maryland Center for Environmental Science (UMCES)[1] sought to detect vocalizations of whales and dolphins within and around the Lease area over three years (2014–2017) using passive acoustic monitors (PAM). UMCES plans to conduct a similar follow-up study before, during, and after construction of US Wind's turbines. (See US Wind's Construction and Operations Plan Volume II, Section 9.1 for a complete list and description of studies).

North Atlantic Right Whale

The critically endangered North Atlantic right whale (NARW) is among the rarest of all marine mammal species. NARWs average approximately 50 feet in length and can weigh about 70 tons, according to the National Oceanic and Atmospheric Administration National Marine Fisheries Service (NOAA Fisheries). Historically, this population has suffered from overharvesting and, more recently, has been threatened by commercial fishing gear entanglement and ship strikes. The NARW is a migratory species that undertakes well-defined seasonal movements from northeast feeding grounds in the spring, summer, and fall to the only known calving and wintering grounds in the waters off the southeastern U.S. coast.

Photo Courtesy of RPS Protected Species Observer Team

Protected Species Observers (PSOs) monitoring whales

To protect these endangered creatures, NOAA Fisheries has established vessel speed restrictions in particular areas to reduce ship strikes. The closest Seasonal Management Area is located at the mouth of Delaware Bay, approximately seven nautical miles from US Wind's Lease area, where all large vessels are limited to 10 knots between November 1 and April 30 each year. NOAA Fisheries may also establish Right Whale Slow Zones when the presence of a NARW has been detected.

Potential Impacts

US Wind is fully committed to avoiding, minimizing and mitigating any potential risks to whales in the Lease area. The following is a list of potential impacts that could be caused by the construction and operations of offshore wind projects, along with measures US Wind intends to employ to avoid and minimize these impacts.

[1] *Determining Habitat Use by Marine Mammals and Ambient Noise Levels Using Passive Acoustic Monitoring Offshore of Maryland (2018): https://espis.boem.gov/final%20reports/BOEM_2019-018.pdf.*

Further Studies/Monitoring

US Wind recently partnered with UMCES on two efforts to further understand whale presence in the Lease area and potential impacts. These include a real-time whale detection system to provide timely alerts on the presence of baleen whales (North Atlantic right whales, and humpback, fin and sei whales) using specialized quiet mooring technology, whale vocalization detection algorithms, and telecommunications to transmit frequent alerts on the presence of baleen whales. A Passive Acoustic Monitoring (PAM) Array will also utilize two types of listening devices to determine the presence and migration patterns of large whales, dolphins, and porpoises.

Additional information on whales can be found in the following section of US Wind's Construction & Operations Plan (COP): Construction and Operations Plan, Volume II, Section 9: Marine Mammals.

POTENTIAL IMPACT	MITIGATION MEASURES
Noise - Marine mammals rely on sound for navigation, communication, reproduction, prey location, and predator avoidance. Marine mammal responses to sound exposure can range from indifference to behavioral changes or physical injury, depending upon the sound source and species. Increased vessel traffic or pile driving associated with installation activities could impact marine mammals, though US Wind has set forth a variety of proven mitigation measures to reduce any potential negative effects.	• Prepare a pile driving monitoring plan, to include details about the measures listed below, prior to construction activities. • Implement double bubble curtains and nearfield reduction devices to reduce underwater pile driving noise by 10 decibels (dB), with a target of 20 dB, at the source. • Monitor a clearance zone prior to pile driving using a combination of visual and acoustic monitoring for large whales. Once pile driving begins, establish an exclusion zone where pile driving will be halted if species enters. • Additional restrictions on pile driving will include: - No simultaneous pile driving; - No more than one monopile driven per day; - Daylight pile driving only unless health and safety issues require completion of a pile at dusk; - And restricting initiation to outside 1.5 hours of sunset or times of low visibility.
Vessel Strike - Vessel collisions with marine mammals can cause serious injury or death and are a leading cause of mortality for certain species. US Wind has developed several mitigation measures to reduce this risk.	• Protected Species Observers (PSOs) or trained observers will be present on crew vessels and other project vessels when they are passing through the area. • Vessels will maintain a minimum separation distance of 1,640 feet or greater from any sighted NARW and 328 feet or greater from any sighted cetacean (whale, dolphin or porpoise). • For vessels operating between November 1 through April 30, vessel operators will monitor NOAA Fisheries NARW reporting systems for the presence of NARW.