Marine Mammals Affected Environment

North Pacific Right Whales (listed as Endangered under the ESA): North Pacific right whales remain in the southeastern Bering Sea from May through December with peak call detection in September (see Muto et al. 2021). No North Pacific right whale calls were detected from January to April in the southeastern Bering Sea, which supports the theory that North Pacific right whales migrate out of the Bering Sea during winter months (Wright 2017). Outside of the Bering Sea and Gulf of Alaska, from 1950 to present, there have been at least four sightings of North Pacific right whales from the eastern population, two sightings of individual right whales occurred off British Columbia in 2013, one in June and one in October (Ford et al. 2016). The two different individuals represent the first right whale sightings in Canadian waters since the 1950s. The Canadian Coast Guard had a sighting of another individual in the same area in June 2018. Most recently, a right whale was sighted off Vancouver Island in May 2020. One North Pacific right whale was seen off La Jolla, California in April 2017, and a different animal was sighted off the Channel Islands in May 2017. Sightings have occurred in Mexican waters and thus there is some evidence that North Pacific right whales travel through Oregon waters to reach Southern California or Mexico in the summer months, though by what route and in what number species utilize this unconfirmed migratory route is unknown (Muto et al. 2021). Critical habitat in the Bering Sea and Gulf of Alaska was designated in 2008 (73 FR 19000). Low numbers of sightings of individuals from a very small population makes any kind of demographic analysis challenging. Since the 1950s, there have been no sightings offshore Oregon, and the small population size (approximately 31 individuals) indicates that North Pacific right whales are unlikely to be present in the Oregon WEAs.

Southern Resident Killer Whales (SRKW) (listed and Endangered under the ESA): There are fewer than 75 animals left in the endangered SRKW DPS, and the population has been steadily declining over the last decade. Disturbance from vessels and their associated sound has been identified as one of three primary threats to SRKWs, since it can impact their behavior and feeding, increasing their energy expenditure, possibly reducing their ability to successfully find and capture prey.
Critical Habitat was revised on August 2, 2021 (86 FR 41668)22, and includes “passage conditions to allow for migration, resting, and foraging” as a habitat feature essential to the conservation of the DPS. Within the geographical area occupied by SRKW, six coastal areas (Areas 1-6) were identified as critical habitat and incorporated all three essential features and include U.S. ocean waters from Cape Flattery, Washington, south to Point Sur, California, between the 6.1-m and 200-m depth contours.
Two of three pods of SRKWs have been reported using central and southern Oregon waters in the winter months (primarily January through March). Critical habitat Area 3 is an important migratory corridor between the northern (Areas 1 and 2) and southern (Area 4) areas, which are primary feeding areas (NMFS 2021a;b). Within Critical habitat Area, SRKW may be impacted by vessels through ship strikes (Raverty et al. 2020), disturbance and noise, and chemical pollutants/contaminants. The Oregon WEAs do not overlap with SRKW critical habitat.

Blue Whales (listed as Endangered under the ESA): Two populations of blue whales exist in the eastern and western North Pacific, respectively, with some geographic overlap (Stafford et al. 2001, Stafford 2003, McDonald et al. 2006, Monnahan et al. 2014). According to the MMPA Stock Assessment Reports two stocks are currently recognized in the North Pacific: 1) the Eastern North Pacific Stock, and 2) the Central North Pacific Stock, with an unknown population trend (Carretta et al. 2022). Although increasingly, Eastern North Pacific stock feeding occurs further to the north and south of the U.S. West Coast, it remains an important feeding area for blue whales in the summer and fall. As such, nine BIAs have been identified, including six areas in southern California and three in central California. Most of this Eastern North Pacific Stock is thought to migrate south to take advantage of high productivity in the

waters of Baja California, the Gulf of California, and the Costa Rica Dome during the winter and spring. Although the BIAs are currently being updated, the best available information indicates that no blue whale BIAs or core use areas overlap with the Oregon WEAs.

Fin Whales (listed as Endangered under the ESA): Fin whales are distributed throughout the world's oceans and occur in both pelagic and coastal waters, where they feed primarily on krill and fish. The SARs recognize two stocks, the Northeast Pacific stock (Alaska) and the California, Oregon, and Washington stock (Carretta et al. 2022). The fin whales off California, Oregon, and Washington occur from the tropical Pacific up to Arctic waters (Mizroch et al. 2009). The number of fin whales off the U.S. West Coast has been increasing since the 1990s (Moore and Barlow, 2011). Current research suggests that only some fin whales undergo long-distance migrations, with some individuals remaining resident in warmer waters of the Southern California Bight. Although the BIAs are currently being updated to include fin whales, that information is not yet published. Satellite-tracked fin whales seemed to favor nearshore habitats along the mainland coast, and in the northern Catalina basin in autumn and winter, and then disperse to the outer waters of the Southern California Bight, offshore and further north in spring and summer. Across the tag data sample years, fin whale use of the NWTT Study Area occurred primarily in late summer and fall (Mate et al., 2017; U.S. Department of the Navy, 2018). Consistent with sightings from systematic ship surveys out to 300 NM off the U.S. West Coast and satellite tag data, habitat-based density models built with these data indicate that fin whales are more likely to be present seaward of the continental shelf in offshore waters of Oregon (Becker et al. 2020). Survey and acoustic data indicate that fin whale distributions shift both seasonally as well as annually (Burnham & Mouy, 2019; Calambokidis et al., 2015).

Humpback Whales (listed as Endangered under the ESA): NMFS has identified 14 distinct population segments (DPSs) of humpback whales worldwide under the Endangered Species Act (ESA) (81 FR 62259, September 8, 2016), based on genetics and movement data (Calambokidis et al. 2008, Bettridge et al. 2015). In the North Pacific, 4 DPSs are recognized: Western North Pacific, Hawai'i, Mexico, and Central America. Humpback whales undertake two migrations per year between mostly polar, cold water feeding grounds in the summer months, and sub-tropical mating and calving grounds in the winter months. During these migrations in the Pacific, concentrations of humpback whales increase with proximity to shore. Seasonal shifts in humpback distribution offshore Oregon occur both up and down the coast, as well as inshore and offshore (Derville et al. 2022). Abundance of humpback whales off California/Oregon has increased since the late 1980s (Calambokidis and Barlow, 2020).
Although the Oregon WEAs do not overlap with humpback whale feeding BIAs (Calambokidis et al. 2015), critical habitat was designated for the Central America and Mexico Distinct Population Segments (DPSs) in April 2021 (86 FR 21082), encompassing much of the West Coast of the U.S. Both the endangered Central America DPS and threatened Mexico DPS forage in relatively high densities off Oregon from May through November, and their critical habitat overlaps with the Coos Bay and Brookings Call Areas. However, feeding areas for humpbacks are generally broadly distributed and range widely in terms of latitude, they are usually over the continental shelf in shallow (~10 m) to moderate depths (~50-200 m) and cooler waters. The WEAs occur in water depths between 567 and 1531 meters and do not overlap with these core feeding areas.

Gray Whales: Gray whales are commonly found in the North Pacific. Genetic studies indicate there are distinct Eastern North Pacific (ENP) and Western North Pacific (WNP) population stocks (Muto et al. 2021). The ENP stock has recovered from whaling exploitation and was delisted under the ESA in 1994 (Swartz et al., 2006). The WNP stock is listed under the ESA as endangered and there has been no critical habitat designated for this stock (Muto et al. 2021). Gray whale feeding BIAs occur on the OCS and in

coastal nearshore waters further north of the Oregon Wind Energy Areas (Calambokidis et al. 2015). Similarly, migratory corridors occur close to shore (within 5.4 nmi). It is important to note that in defining migratory BIAs, Calambokidis et al. (2015) included a 25.4 nmi buffer for gray whales. The buffer represents the potential path of some individuals that move farther offshore during annual gray whale migrations.

Sperm Whales: Sperm whales are found throughout the north Pacific Ocean, with year-round occurrence off California, and occurrence off Oregon and Washington during every season except winter. Off California they reach peak abundance from April through mid-June, and then from the end of August through mid-November (Carretta et al. 2022). Sperm whales are typically found foraging in deep water, canyons and escarpments and could be found in both the action area for the Humboldt WEA and the Morro Bay WEA, although they are generally found offshore. Using a trend-based model, Moore and Barlow (2014) estimated the abundance of the California/Oregon/Washington stock of sperm whales to be 1,997 animals, with an uncertain but presumed stable trend. With a minimum estimate of 1,270 whales, PBR for this sperm whale stock is currently 2.5 animals (Carretta et al. 2022).

Steller Sea Lions

NMFS has designated two Steller sea lion stocks in the North Pacific corresponding to two DPSs (Muto et al., 2017; Muto et al., 2018b; Muto et al., 2019a; Muto et al., 2019b). The eastern stock (or DPS) (southeast Alaska, British Columbia, California, and Oregon) is defined as the population occurring east of 144°W longitude and the western stock (or DPS) consists of sea lions occurring west of 144°W longitude (DeLong, 2018; Fritz et al., 2016; Jemison et al., 2013; Raum-Suryan et al., 2004).

The eastern stock increased at a rate of 4.25 percent per year (95 percent credible intervals of 3.77-4.72 percent) between 1987 and 2017, based on an analysis of pup counts in California, Oregon, Washington, British Columbia, and Southeast Alaska (Muto et al., 2020). The eastern stock of Steller sea lions is currently listed as depleted under the MMPA and in recognition of their recovery, Steller sea lions in this stock were removed from the List of Endangered and Threatened Wildlife in October 2013 (Muto et al., 2020). The western stock is listed as depleted under the MMPA and endangered under the ESA (Muto et al., 2020) but sea lions from the western stock are not expected to be present offshore Oregon (Muto et al., 2020).

In Oregon, Steller sea lion critical habitat includes all major rookeries and associated air and aquatic zones. Similar to Alaska, critical habitat includes an air zone that extends 3,000 feet (0.9 km) above areas historically occupied by sea lions, measured vertically from sea level, and an aquatic zone that extends 3,000 feet (0.9 km) seaward in State and Federally managed waters from the basepoint of each major rookery. Major rookeries in Oregon include Pyramid Rock (Rogue Reef), and Long Brown Rock and Seal Rock (Orford Reef).

Leatherback Sea Turtles (listed as Endangered under the ESA): When the ESA was enacted in 1973, the species was listed as endangered, wherever found (50 CFR 17.11). Leatherback sea turtles have the most extensive range of any living reptile and have been reported circumglobally throughout the oceans of the world. There are two distinct populations in the Pacific, the West Pacific population of leatherbacks have declined more than 80 percent and the East Pacific population of leatherbacks by more than 97 percent (NMFS and USFWS 2020). They face significant threats from bycatch in fisheries (entanglement and/or hooking), direct harvest of both eggs and turtles, coastal development, and the effects of climate change (habitat loss due to sea level rise, alteration of hatchling sex ratios, and decreased nest success).

Additional threats include vessel strikes, ingestion of plastics, and entanglement in marine debris, including lost or discarded fishing gear (Benson et al. 2021). Migratory routes of leatherbacks are not entirely known. However, turtles tagged after nesting in July at Jamursba-Medi, Indonesia, arrived in waters off California and Oregon during July–August coincident with the development of seasonal aggregations of jellyfish. Other studies similarly have documented leatherback sightings along the Pacific coast of North America during the summer and fall months, when large aggregations of jellyfish form. NMFS published a final rule designating critical habitat for leatherback sea turtles in 2012 (77 FR 4169). This critical habitat contains the observed and likely suitable feeding habitat for leatherback sea turtles and stretches along the California coast from Point Arena to Point Arguello east of the 3,000-meter depth contour; and 25,004 mi^2 (64,760 km^2) stretching from Cape Flattery, Washington to Cape Blanco, Oregon east of the 2,000-m depth contour. The Oregon Coos Bay WEA overlaps with a small portion of critical habitat (feeding) for leatherback sea turtles. Vessels transiting to and from the Proposed Action Area would likely intersect with leatherback critical habitat; however, the proposed activities are not anticipated to affect feeding habitat and this area has few recorded sightings of leatherback sea turtle occurrence (NMFS and USFWS 2020).