



DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

50 CFR Parts 223 and 226

[Docket No.: 201228-0357]

RIN 0648-BC56

Endangered and Threatened Species; Designation of Critical Habitat for the Arctic Subspecies of the Ringed Seal

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

ACTION: Revised proposed rule; reopening of comment period.

SUMMARY: We, the National Marine Fisheries Service (NMFS), announce revisions to our December 9, 2014, proposed designation of critical habitat for the Arctic subspecies of the ringed seal (*Pusa hispida hispida*) under the Endangered Species Act (ESA). The revised proposed designation comprises an area of marine habitat in the Bering, Chukchi, and Beaufort seas. Based on consideration of national security impacts, we also propose to exclude a particular area north of the Beaufort Sea shelf from the designation. We seek comments on all aspects of the revised proposed critical habitat designation and will consider information received before issuing a final designation.

DATES: Comments must be received by [*INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER*]. Public hearings on the revised proposed rule will be held in Alaska. The dates and times of these hearings will be provided in a subsequent **Federal Register** notice.

ADDRESSES: You may submit data, information, or comments on this document, identified by NOAA-NMFS-2013-0114, and on the associated Draft Impact Analysis Report (*i.e.*, report titled “Draft RIR/ESA Section 4(b)(2) Preparatory Assessment/ IRFA

of Critical Habitat Designation for the Arctic Ringed Seal”) for the revised proposed rule by either of the following methods:

- *Electronic Submission:* Submit all electronic comments via the Federal eRulemaking Portal. Go to www.regulations.gov/#!docketDetail;D=NOAA-NMFS-2013-0114, click the “Comment Now!” icon, complete the required fields, and enter or attach your comments.

- *Mail:* Submit written comments to Jon Kurland, Assistant Regional Administrator for Protected Resources, Alaska Region NMFS, Attn: James Bruschi, P.O. Box 21668, Juneau, AK 99082-1668.

Instructions: NMFS may not consider comments sent by any other method, to any other address or individual, or received after the end of the comment period. All comments received are a part of the public record and will generally be posted for public viewing on www.regulations.gov without change. All personal identifying information (e.g., name, address), confidential business information, or otherwise sensitive information submitted voluntarily by the sender will be publicly accessible. NMFS will accept anonymous comments (enter “N/A” in the required fields if you wish to remain anonymous).

Electronic copies of the Draft Impact Analysis Report for this revised proposed rule and a complete list of references cited in this revised proposed rule are available on the Federal eRulemaking Portal at www.regulations.gov/#!docketDetail;D=NOAA-NMFS-2013-0114.

FOR FURTHER INFORMATION CONTACT: Tammy Olson, NMFS Alaska Region, (907) 271-5006; Jon Kurland, NMFS Alaska Region, (907) 586-7638; or Heather Austin, NMFS Office of Protected Resources, (301) 427-8422.

SUPPLEMENTARY INFORMATION: Section 3(5)(A) of the ESA defines critical habitat as (1) the specific areas within the geographical area occupied by the species, at

the time it is listed, on which are found those physical or biological features essential to the conservation of the species and which may require special management considerations or protection; and (2) specific areas outside the geographical area occupied by the species at the time it is listed, upon a determination by the Secretary of Commerce (Secretary) that such areas are essential for the conservation of the species (16 U.S.C. 1532(5)(A)). Conservation is defined in section 3(3) of the ESA as the use of all methods and procedures which are necessary to bring any endangered species or threatened species to the point at which the measures provided pursuant to this Act are no longer necessary (16 U.S.C. 1532(3)). Section 3(5)(C) of the ESA provides that, except in those circumstances determined by the Secretary, critical habitat shall not include the entire geographical area which can be occupied by the threatened or endangered species. Also, by regulation, critical habitat shall not be designated within foreign countries or in other areas outside U.S. jurisdiction (50 CFR 424.12(g)).

Section 4(b)(2) of the ESA requires the Secretary to designate critical habitat for threatened and endangered species on the basis of the best scientific data available and after taking into consideration the economic impact, the impact on national security, and any other relevant impact of specifying any particular area as critical habitat. This section also grants the Secretary discretion to exclude any area from critical habitat if he determines the benefits of such exclusion outweigh the benefits of specifying such area as part of the critical habitat. However, the Secretary may not exclude areas if such exclusion will result in the extinction of the species (16 U.S.C. 1533(b)(2)).

Once critical habitat is designated, section 7(a)(2) of the ESA requires Federal agencies to ensure that actions they authorize, fund, or carry out are not likely to destroy or adversely modify that habitat (16 U.S.C. 1536(a)(2)). This requirement is additional to the section 7(a)(2) requirement that Federal agencies ensure that their actions are not likely to jeopardize the continued existence of ESA-listed species. Specifying the

geographic location of critical habitat also facilitates implementation of section 7(a)(1) of the ESA by identifying areas where Federal agencies can focus their conservation programs and use their authorities to further the purposes of the ESA. *See* 16 U.S.C. 1536(a)(1). Critical habitat requirements do not apply to citizens engaged in actions on private land that do not involve a Federal agency.

This revised proposed rule describes our revised proposed designation of critical habitat for the Arctic ringed seal, including supporting information on Arctic ringed seal distribution and habitat use, and the methods used to develop the revised proposed designation. The Arctic ringed seal is listed with the scientific name *Phoca (=Pusa) hispida hispida*. In this revised proposed rule, we use the genus name *Pusa* to reflect currently accepted use (*e.g.*, Committee on Taxonomy (Society for Marine Mammalogy) 2019, Integrated Taxonomic Information System (online database) 2019).

Background

On December 28, 2012, we published a final rule to list the Arctic ringed seal as threatened under the ESA (77 FR 76706). Section 4(b)(6)(C) of the ESA requires the Secretary to designate critical habitat concurrently with making a determination to list a species as threatened or endangered unless it is not determinable at that time, in which case the Secretary may extend the deadline for this designation by one year. At the time of listing, we announced our intention to designate critical habitat for the Arctic ringed seal in a separate rulemaking, as its critical habitat was not then determinable.

Concurrently, we solicited information to assist us in (1) identifying the physical or biological features essential to the conservation of Arctic ringed seals, and (2) assessing the economic consequences of designating critical habitat for this species. Subsequently we researched, reviewed, and compiled the best scientific data available to develop a critical habitat proposal for the Arctic ringed seal.

On December 3, 2014, we published a proposed rule to designate critical habitat

for the Arctic ringed seal under the ESA (79 FR 71714). Due to a clerical error, that document contained mistakes, and we therefore published a corrected proposed rule on December 9, 2014 (79 FR 73010). We requested public comment on this proposed designation through March 9, 2015. In response to comments, we extended the public comment period through March 31, 2015 (80 FR 5498, February 2, 2015). We held five public hearings in Alaska on the proposed rule (80 FR 1618, January 13, 2015; 80 FR 5498, February 2, 2015).

Subsequently, on March 17, 2016, the listing of Arctic ringed seals as a threatened species was vacated by the U.S. District Court for the District of Alaska (*Alaska Oil & Gas Ass'n v. Nat'l Marine Fisheries Serv.*, Case Nos. 4:14-cv-29-RRB, 4:15-cv-2-RRB, 4:15-cv-5-RRB, 2016 WL 1125744 (D. Alaska Mar. 17, 2016)). This decision was reversed by the U.S. Court of Appeals for the Ninth Circuit on February 12, 2018 (*Alaska Oil & Gas Ass'n v. Ross*, 722 F. App'x 666 (9th Cir. 2018)), and the listing was reinstated on May 15, 2018.

On June 13, 2019, the Center for Biological Diversity filed a complaint in the U.S. District Court for the District of Alaska alleging that NMFS had failed to timely designate critical habitat for the Arctic ringed seal. Under a court-approved stipulated settlement agreement between the parties (which was subsequently amended to extend the dates specified in the original order), NMFS agreed to submit a proposed determination concerning the designation of critical habitat for Arctic ringed seals to the **Federal Register** by March 15, 2021, and (to the extent a proposed rule has been published) a final rule by March 15, 2022. NMFS decided to issue this revised proposed rule rather than proceeding directly with a final rule because we are also considering the designation of critical habitat for the Beringia distinct population segment (DPS) of the Pacific bearded seal subspecies *Erignathus barbatus nauticus* (for which no proposed rule has been issued), and we expect that stakeholders will want to comment on both

proposals simultaneously, because both species are ice-dependent and their habitats overlap. A revised proposed rule also affords an opportunity for additional public comment to help ensure that our decision is based on the best scientific data available, considering that several years have elapsed since our December 9, 2014, proposal. We are therefore issuing this revised proposed rule in tandem with a proposed rule for bearded seal critical habitat.

Summary of Revisions to Proposed Critical Habitat

In this revised proposed critical habitat designation, we incorporate additional relevant information that became available since the publication of our 2014 proposed rule. Based on the best scientific data currently available, our understanding of the physical and biological features essential to the conservation of the Arctic ringed seal and the specific areas where those features occur has not changed markedly since 2014. However, in the preamble of this revised proposed rule we provide updated information in the **Description and Natural History** section about the Arctic ringed seal's distribution and habitat use, and we include more details in the **Specific Areas Containing the Essential Features** section regarding the information considered in determining the areas that meet the definition of critical habitat for this species. After updating and evaluating the best scientific information available, we have also made the following changes from the December 9, 2014, proposed rule (79 FR 73010):

(1) We refined our descriptions of the essential features associated with sea ice, including the essential feature of sea ice suitable for the formation and maintenance of birth lairs. We now refer to "snow-covered sea ice" to underscore that this essential feature consists of a combination of sea ice and the on-ice snow layer within which subnivean birth lairs (snow caves) are constructed. In recognition of the limits of the data available on snow drift depths sufficient for these subnivean lairs, we clarify that such snow drifts are "typically" at least 54 centimeters (cm) deep.

(2) We modified the southern boundary of the proposed critical habitat designation to more accurately reflect where one or more of the essential features occur. Consistent with our 2014 proposed rule, in this revised proposed rule we primarily determined this boundary by identifying the southern extent of snow-covered sea ice essential for birth lairs. Birth lairs are used to shelter pups during whelping and nursing. We propose to define this essential feature as areas of seasonal landfast (shorefast) ice and dense, stable pack ice, excluding any bottom-fast ice extending seaward from the coastline (typically in waters less than 2 meters (m) deep), that have undergone deformation (*i.e.*, rafting, ridging, or hummocking due to wind and ocean currents) and contain snowdrifts of sufficient depth, typically at least 54 cm deep (see **Physical and Biological Features Essential to the Conservation of the Species** section). We relied on the birth lair essential feature to determine the southern boundary of this proposed critical habitat designation because peak molting (for adults) takes place later in the spring as sea ice retreats northward, and also because the annual extent and timing of sea ice is especially variable in the southern periphery of the Arctic ringed seal's habitat in the Bering Sea (Boveng *et al.* 2009, Stabeno *et al.* 2012b, Frey *et al.* 2015). Consequently, we concluded that the southern extent of sea ice suitable for birth lairs also provides the best estimate of the southern extent of sea ice suitable for basking and molting.

As discussed in detail below, because existing information is limited on whelping locations and the distribution of Arctic ringed seals in the Bering Sea during spring, a precise southern boundary for the critical habitat cannot be determined based on such information. Available estimates of snow-depth on Arctic sea ice derived from satellite remote-sensing data are spatially and temporally limited and are subject to a variety of sources of uncertainty (Spren and Kern 2017, Sturm and Massom 2017, Webster *et al.* 2018). Further, there is a high degree of variability evident in snow depths on sea ice and

the spatial distribution of those depths within and between years (Sturm and Massom 2017, Webster *et al.* 2018). We therefore turned to Sea Ice Index data maintained by the National Snow and Ice Data Center (NSIDC) (Fetterer *et al.* 2017, Version 3.0; accessed November 2019) for information on the estimated monthly position of the ice edge in the Bering Sea during spring based on a time series of satellite records.

In our 2014 proposed rule, we based the southern boundary of proposed critical habitat on the estimated median ice edge position in April, which is the peak month for Arctic ringed seal whelping (Kelly *et al.* 2010a). We interpreted the limited information available at that time on whelping locations and the spring distribution of Arctic ringed seals in the Bering Sea as suggesting that snow-covered sea ice essential for birth lairs extends to some point south of St. Matthew Island and Nunivak Island. After verifying that the estimated position of the April median ice edge contour appeared generally consistent with this information, we defined the southern boundary in that proposed rule based on a simplified version of this contour.

However, while developing this revised proposed rule, we recognized that suitable snow-covered sea ice would need to persist for several weeks for pups to be sheltered and nursed in birth lairs. We therefore considered whether the position of the ice edge during May (rather than April) would more accurately represent the southern extent of where snow-covered sea ice persists sufficiently to provide suitable conditions for pup development within birth lairs (and as noted above, potentially for basking and molting). We examined the estimated position of the May median ice edge for both the 30-year 1981 to 2010 reference period currently used by NSIDC for the Sea Ice Index (Fetterer *et al.* 2017, Version 3.0; accessed November 2019), and for the more recent 30-year period of 1990 to 2019, which was calculated using methods and data types similar to those used for the Sea Ice Index. We note that the two most recent years included in the 1990 to 2019 period had record low ice extent in the Bering Sea (Stabeno and Bell

2019). The May median ice edge from the Sea Ice Index is located about 22 kilometers (km) southwest of St. Matthew Island and about 85 km north of Nunivak Island; and for the more recent 1990 to 2019 period, is generally similar to that of the Sea Ice Index, except that east of St. Matthew Island the ice edge for the more recent period has a more variable shape. As a result, although the median ice edge for both 30-year periods reaches the coast at a similar location south of Hooper Bay, between that location and St. Matthew Island, the median ice edge for the more recent period is primarily located north of Hooper Bay.

After our 2014 proposed rule was issued, additional data also became available on the spring distribution of ice-associated seals (including ringed seals) in the Bering Sea from aerial surveys conducted in 2012 and 2013 (NMFS Marine Mammal Laboratory, unpublished data). We used these data to inform our determination of the southern boundary in this revised proposed rule. Overall, ringed seal observations appeared to be more frequent along transect segments flown north of St. Matthew and Nunivak Islands than those flown farther south (*i.e.*, habitat we proposed for designation in 2014 based on the estimated median position of the ice edge in April). Although relatively few ringed seal pups were documented during these surveys (likely reflecting, at least in part, that pups were sheltered in subnivean lairs and thus would not have been detected), the majority of the limited detections of pups were located in Norton Sound, and few observations of pups were documented south of St. Matthew Island and Nunivak Islands.

Taken as a whole, we concluded that the data currently available on whelping locations and the spring distribution of ringed seals in the Bering Sea suggest that information on the estimated position of the ice edge for May provides the best estimate of the southern extent of snow-covered sea ice that persists sufficiently to provide suitable conditions for pup development within birth lairs. As we explained above, we also concluded that this southern boundary most accurately defines the southern extent of

sea ice essential for basking and molting. Therefore, in this revised proposed rule we use information on the position of the ice edge for May, rather than for April, to delineate the southern boundary of Arctic ringed seal critical habitat. Specifically, given the reduction in sea ice east of St. Matthew Island between the reference period used for the Sea Ice Index and the more recent 30-year period described above, we elected to delineate the southern boundary to reflect the estimated position of the May median ice edge for the more recent 1990 to 2019 period. This revised proposed southern boundary is located roughly 125 km (western portion) to 325 km (eastern portion) north of the southern boundary we proposed in 2014.

In our 2014 proposed rule, we referred to the estimated position of the April median ice edge for the 22-year 1979 to 2000 reference period previously used (from 2002 through June 2013) for the Sea Ice Index. At that time, we reasoned that several of the more recent years included in the 1981 to 2010 reference period had above-average ice extent in the Bering Sea (*e.g.*, Stabeno *et al.* 2012a), and we inferred that use of these data would have resulted in the inclusion of areas (farther south and east in the Bering Sea) that are unlikely to contain the sea ice essential features on a consistent basis in more than a few scattered portions of those areas. However, upon further review, we concluded that the 30-year periods considered in this revised proposed rule provide a more appropriate basis for our analysis, in that more recent data on sea ice conditions are included and the median calculated over a lengthened 30-year period of record, which is commonly used in climatologies, incorporates more of the year-to-year variation in the sea ice extent.

(3) We modified the textual description of the shoreward boundary of the proposed critical habitat designation. In our 2014 proposed rule, we described the shoreward boundary as the “coast line” of Alaska as that term has been defined in the Submerged Lands Act (“the line of ordinary low water along that portion of the coast

which is in direct contact with the open sea and the line marking the seaward limit of inland waters”) (43 U.S.C. 1301(c)). Upon further review, we concluded that delineating the shoreward boundary on this basis results in the omission of some smaller bays and shallow nearshore waters that contain the essential physical and biological features of habitat for Arctic ringed seals. Given the occurrence of Arctic ringed seal primary prey in shallow nearshore waters and evidence of ringed seal use of such waters during the open-water foraging period, in this revised proposed rule we delineate the shoreward boundary as the line that marks mean lower low water (MLLW). This proposed critical habitat does not extend into tidally-influenced channels of tributary waters of the Bering, Chukchi, or Beaufort seas.

(4) We revised our analysis of the impacts of designating the proposed critical habitat for the Arctic ringed seal to reflect the revisions summarized above, and to incorporate the best data currently available. This analysis is summarized in this revised proposed rule and described in detail in the associated Draft Impact Analysis Report.

(5) In response to information submitted by the U.S. Navy, we propose to exclude one particular area north of the Beaufort Sea shelf from the designation based on national security impacts because the benefits of exclusion outweigh the benefits of inclusion of this area.

Description and Natural History

The Arctic ringed seal is the smallest of the northern seals, with typical adult body size of 1.5 m in length and 70 kilograms in weight (Kelly *et al.* 2010a). Age of sexual maturity for female Arctic ringed seals generally ranges from 3 to 7 years (Smith 1987, Holst *et al.* 1999, Quakenbush *et al.* 2011, Crawford *et al.* 2015), and for males ranges from 5 to 7 years (Frost and Lowry 1981), but with geographic and temporal variability depending on animal condition and population structure (Kelly *et al.* 2010a). The average life span of ringed seals is about 15 to 28 years (Kelly *et al.* 2010a).

Distribution and Habitat Use

Arctic ringed seals are circumpolar and are found throughout ice-covered waters of the Arctic Ocean Basin and southward into adjacent seas, including the Bering, Chukchi, and Beaufort seas off Alaska's coast (Frost and Lowry 1981, Frost 1985, Kelly 1988, Rice 1998). Ringed seals are adapted to remaining in heavily ice-covered areas throughout the fall, winter, and spring by using the stout claws on their foreflippers to maintain breathing holes in the ice. Arctic ringed seals are highly associated with sea ice, and use the ice as a substrate for resting, whelping (birthing), nursing, and molting (shedding and regrowing hair and outer skin layers). The seasonality of ice cover strongly influences Arctic ringed seal movements, foraging, reproductive behavior, and vulnerability to predation. Kelly *et al.* (2010b) referred to three periods important to Arctic ringed seal seasonal movements and habitat use: the winter through early spring "subnivean period" when the seals rest primarily in subnivean lairs (snow caves on top of the ice); the late spring to early summer "basking period" between abandonment of the lairs and melting of the seasonal sea ice when the seals undergo their annual molt; and the open-water "foraging period" from ice break-up to freeze-up in the fall, when feeding occurs most intensively.

Subnivean Period: With the onset of freeze-up in the fall, many Arctic ringed seals that summer in the Beaufort and Chukchi seas are thought to move generally southward with the advancing ice, while others remain in these waters over winter (Frost 1985). Adult movements during the subnivean period have been reported as typically limited, especially where ice cover is extensive (Kelly and Quakenbush 1990, Harwood *et al.* 2007, Kelly *et al.* 2010b, Crawford *et al.* 2012b, Luque *et al.* 2014), likely due to maintenance of breathing holes and social behavior during the breeding season (Kelly *et al.* 2010b). However, some adult males have been found to make long-distance movements in the Chukchi and Beaufort seas during January to March (Quakenbush *et*

al. 2019). In contrast, subadult Arctic ringed seals have been observed to travel relatively long distances in winter to near the ice edge in the Bering Sea (Crawford *et al.* 2012a, 2019).

During freeze-up, ringed seals surface to breathe in the remaining open water of cracks and leads, and as these openings in the ice freeze over, the seals open breathing holes that they maintain as the ice thickens by abrading the ice with the claws on their foreflippers (Smith and Stirling 1975). Ringed seals excavate lairs in snowdrifts over their breathing holes where snow depth is sufficient (*e.g.*, McLaren 1958, Smith and Stirling 1975, Smith 1987). These subnivean lairs are occupied for resting, whelping, and nursing pups in areas of annual landfast (shorefast) ice (McLaren 1958, Burns 1970, Kelly *et al.* 1986, Frost and Burns 1989, Smith *et al.* 1991, Oceana and Kawerak 2014) and stable pack ice (Finley *et al.* 1983, Fedoseev *et al.* 1988, Wiig *et al.* 1999, Pilfold *et al.* 2014). Snowdrifts of sufficient depth typically occur only where the ice has undergone a low to moderate amount of deformation and where snow on the ice has drifted along pressure ridges or ice hummocks (Smith and Stirling 1975, Lydersen and Gjertz 1986, Furgal *et al.* 1996, Lydersen 1998).

Females give birth to a single pup in their lairs generally from mid-March through April, and the pups are nursed in the lairs for an average of 39 days (Hammill and Smith 1991), with considerable variation (Kelly *et al.* 2010a). Females continue to forage throughout lactation while making frequent visits to birth lairs (Hammill 1987, Kelly and Wartzok 1996, Simpkins *et al.* 2001). The pups develop foraging skills before weaning (Lydersen and Hammill 1993), and are normally weaned before break-up of spring ice (McLaren 1958, Smith 1973, Smith *et al.* 1991, Hammill *et al.* 1991, Kelly 1988).

Subnivean lairs provide protection from cold and predators throughout the winter months, but they are especially important for protecting newborn ringed seals. The lairs conceal ringed seals from predators, an advantage especially important to the small pups

that start life with minimal tolerance for immersion in cold water (Smith *et al.* 1991). Major predators of ringed seals include polar bears (*Ursus maritimus*) and Arctic foxes (*Alopex lagopus*) (e.g., Smith 1976, Frost and Burns 1989, Derocher *et al.* 2004, Thiemann *et al.* 2008). Pups in lairs with thin snow cover are more vulnerable to polar bear predation than pups in lairs with thick snow cover (Hammill and Smith 1989, Ferguson *et al.* 2005). For example, Hammill and Smith (1991) noted that polar bear predation on ringed seal pups increased four-fold in a year when average snow depths in their study area decreased from 23 to 10 cm. Stirling and Smith (2004) surmised that most pups that survived exposure to cold after their subnivean lairs collapsed during unseasonal rains were eventually killed by polar bears, Arctic foxes, or gulls.

Subnivean lairs also provide refuge from air temperatures too low for survival of ringed seal pups. When forced to flee into the water to avoid predators, the ringed seal pups that survive depend on the subnivean lairs to subsequently warm themselves (Smith *et al.* 1991). When snow depth is insufficient, pups can freeze in their lairs, as documented when roofs of lairs in the White Sea were only 5 to 10 cm thick (Lukin and Potelov 1978). Stirling and Smith (2004) also documented exposure of ringed seals to hypothermia following the collapse of subnivean lairs during unseasonal rains near southeastern Baffin Island.

During winter and spring, ringed seals are found throughout the Chukchi and Beaufort seas (Frost 1985, Kelly 1988). In the Bering Sea, surveys indicate that ringed seals use nearly the entire ice field over the Bering Sea shelf. During an exceptionally high ice year (1976), Braham *et al.* (1984) found ringed seals present in the southeastern Bering Sea north of the Pribilof Islands to outer Bristol Bay, primarily north of the ice front. But the authors noted that most of these seals were likely immature or nonbreeding animals. Frost (1985) indicated that ringed seals “occur as far south as Nunivak Island and Bristol Bay, depending on ice conditions in a particular year, but generally are not

abundant south of Norton Sound except in nearshore areas.” More recently, surveys conducted in the Bering Sea during spring documented numerous ringed seals in both nearshore and offshore habitat, including south of Norton Sound (NMFS Marine Mammal Laboratory, 2012-2013, unpublished data). Relatively few ringed seal pups were documented during these surveys, likely reflecting, at least in part, that pups were sheltered in subnivean lairs and thus would not have been detected during the surveys. Although the majority of the limited detections of pups were located in Norton Sound, pups were also documented in offshore habitat farther south. Satellite tracking data for ringed seals tagged in Kotzebue Sound, Alaska, showed that adults remained, for the most part, in the Chukchi Sea and Bering Sea north of St. Lawrence Island during winter and spring (Crawford *et al.* 2012a). However, movement data for ringed seals tagged near Utqiagvik, Alaska, in 2011 indicated that some adults overwintered toward the shelf break in the Bering Sea (North Slope Borough, 2012, unpublished data). Ringed seals tagged more recently in the Chukchi and Beaufort seas (primarily adults) used areas as far south as Nunivak Island during December to May, but the core-use area was located in southern Kotzebue Sound (Quakenbush *et al.* 2019). Finally, the subsistence harvest of ringed seal pups by hunters in Quinhagak, Alaska (Coffing *et al.* 1998), suggests that some ringed seals may whelp south of Nunivak Island.

Basking Period: Numbers of ringed seals hauled out on the surface of the ice typically begin to increase during spring as the temperatures warm and the snow covering the seals’ lairs melts. Although the snow cover can melt rapidly, the ice remains largely intact and serves as a substrate for annual molting, during which time seals spend many hours basking in the sun (Smith 1973, Finley 1979, Smith and Hammill 1981, Kelly and Quakenbush 1990, Kelly *et al.* 2010b). Adults generally molt from mid-May to mid-July (McLaren 1958), although there is regional variation (Ryg and Øritsland 1991), and pups molt at or shortly after weaning (Kelly 1988, Lydersen and Hammill 1993). Subadult

harbor seals (*Phoca vitulina*) and spotted seals (*Phoca largha*) tend to molt earlier than adults (Ashwell-Erickson *et al.* 1986, Burns 2002, Daniel *et al.* 2003), and this may also be the case for subadult ringed seals (Kelly and Quakenbush 1990). Usually the largest numbers of basking seals are observed in June (Smith 1973, Finley 1979, Smith *et al.* 1979, Smith and Hammill 1981, Moulton *et al.* 2002). Feeding is reduced and the seals' metabolism declines during the molt (Ashwell-Erickson *et al.* 1986). As seals complete this phase of the annual pelage cycle and the seasonal sea ice melts during the summer, ringed seals spend increasing amounts of time in the water feeding (Kelly *et al.* 2010b).

Most Arctic ringed seals that winter in the Bering and southern Chukchi seas are believed to migrate northward in spring as the ice edge recedes and spend the summer open-water foraging period in the pack ice of the northern Chukchi and Beaufort seas (Frost 1985). Existing information on the distribution and abundance of Arctic ringed seals in the U.S. Chukchi and Beaufort seas during the molting period comes largely from aerial surveys conducted for the most part over the continental shelf within about 25 to 40 km of the Alaska coast. However, Bengtson *et al.* (2005) reported results for spring aerial surveys conducted during two successive years in the Chukchi Sea that included a limited number of offshore (beyond 43 km from the coast) transect lines flown perpendicular from the coast up to 185 km. Ringed seals were observed along these offshore transects, albeit at lower densities than transects flown closer to the coast. Aerial surveys conducted in spring to early summer (coincident with the periods of Arctic ringed seal reproduction and molting) in the U.S. Beaufort Sea to investigate bowhead whale density and distribution were concentrated over the continental shelf, but less extensive surveys were also conducted over the adjacent shelf slope and deeper waters up to about 100 km north of the shelf (Ljungblad 1981, Ljungblad *et al.* 1982, Ljungblad *et al.* 1983, Ljungblad *et al.* 1984, Ljungblad *et al.* 1985, Ljungblad *et al.* 1986, Ferguson 2013). Incidental sightings of ringed seals were recorded throughout the survey area, including in the

limited areas surveyed north of the shelf.

Open-Water Foraging Period: Arctic ringed seals typically lose a significant proportion of their blubber mass in late winter through early summer and then replenish their blubber reserves during the open-water period, when the seals spend much of their time feeding (Ryg *et al.* 1990, Ryg and Øritsland 1991, Belikov and Boltunov 1998, Goodyear 1999, Young and Ferguson 2013).

Most Arctic ringed seals that winter in the Bering and southern Chukchi seas are believed to migrate northward in spring as the ice edge recedes and spend the summer open-water foraging period in the pack ice of the northern Chukchi and Beaufort seas (Frost 1985). Arctic ringed seals are also dispersed in ice-free areas of the Bering, Chukchi, and Beaufort seas during this period. Tracking data indicate that tagged ringed seals made extensive use of the continental shelf waters of the U.S. Chukchi and Beaufort seas during the open-water period (Crawford *et al.* 2012a, Quakenbush *et al.* 2019, Von Duyke *et al.* 2020). Quakenbush *et al.* (2019) identified a high-use area for tagged ringed seals during the open-water period that included Barrow Canyon and the western Beaufort Sea over the continental shelf similar to where Citta *et al.* (2018) mapped a relatively high density of locations of tagged ringed seals during summer. Although tagged ringed seals tracked in U.S. waters tended to remain over the continental shelf, several individuals also made trips into the deep waters north of the shelf (Crawford *et al.* 2019, Quakenbush *et al.* 2019; Alaska Department of Fish and Game (ADF&G) and North Slope Borough, 2019, unpublished data, Von Duyke *et al.* 2020). Von Duyke *et al.* (2020) reported that most of the forays by tagged ringed seals north of the shelf involved movements to retreating pack ice and included days when the seals hauled out on the ice. Dive recorders indicated that foraging-type movements occurred over both the continental shelf and north of the shelf, suggesting that both areas may be important during the open-water period. Similarly, during the open-water period, some, primarily

subadult, ringed seals satellite-tagged in Svalbard, Norway, made forays into the Arctic Ocean Basin, and that time spent there increased after a major collapse of sea ice in this region, when the seals traveled farther to find sea ice (Hamilton *et al.* 2015, Hamilton *et al.* 2017). Observations of ringed seals near and beyond the outer extent of the U.S. Exclusive Economic Zone (EEZ) north of the shelf were also documented by marine mammal observers during a research geophysical survey conducted in the summer of 2010 (Beland and Ireland 2010).

Diet

High-quality abundant food is important to the annual energy budgets of Arctic ringed seals (Kelly *et al.* 2010a). The seals eat a wide variety of prey spanning several trophic levels; however, most prey are small, and preferred fishes tend to be schooling species that form dense aggregations (Kovacs 2007). Arctic ringed seals rarely prey upon more than 10 to 15 species in any specific geographic location, and not more than 2 to 4 of those species are considered to be key prey (Węśławski *et al.* 1994). Despite regional and seasonal variations in the diets of Arctic ringed seals, fishes of the cod family tend to dominate their diet in many areas from late autumn through early spring (Kelly *et al.* 2010a). Arctic cod (*Boreogadus saida*) is often reported to be among the primary prey species, especially during the ice-covered periods of the year (*e.g.*, Lowry *et al.* 1980, Bradstreet and Finley 1983, Smith 1987, Belikov and Boltunov 1998, Siegstad *et al.* 1998, Labansen *et al.* 2007, Quakenbush *et al.* 2011). Crustaceans are also commonly found in the diet of ringed seals and can be important in some regions, at least seasonally (*e.g.*, Lowry *et al.* 1980, Bradstreet and Finley 1983, Smith 1987, Belikov and Boltunov 1998, Siegstad *et al.* 1998, Quakenbush *et al.* 2011).

Critical Habitat Identification

In the following sections, we describe the relevant definitions and requirements in the ESA and implementing regulations at 50 CFR part 424, and the key information and

criteria used to prepare this revised proposed critical habitat designation. In accordance with section 4(b)(2) of the ESA, this revised proposed critical habitat designation is based on the best scientific data available. Our primary sources of information include the status review report for the ringed seal (Kelly *et al.* 2010a), our proposed and final rules to list four subspecies of ringed seals, including the Arctic ringed seal, under the ESA (75 FR 77476, December 10, 2010; 77 FR 76706, December 28, 2012), articles in peer-reviewed journals, other scientific reports, and relevant Geographic Information System (GIS) and satellite data (*e.g.*, shoreline data, U.S. maritime limits and boundaries data, sea ice extent) for geographic area calculations and mapping.

To identify specific areas that may qualify as critical habitat for Arctic ringed seals, in accordance with 50 CFR 424.12(b), we followed a five-step process: (1) Identify the geographical area occupied by the species at the time of listing; (2) identify physical or biological habitat features essential to the conservation of the species; (3) determine the specific areas within the geographical area occupied by the species that contain one or more of the physical or biological features essential to the conservation of the species; (4) determine which of these essential features may require special management considerations or protection; and (5) determine whether a critical habitat designation limited to geographical areas occupied would be inadequate to ensure the conservation of the species. Our evaluation and conclusions are described in detail in the following sections.

Geographical Area Occupied by the Species

The phrase “geographical areas occupied by the species,” which appears in the statutory definition of critical habitat, is defined by regulation as an area that may generally be delineated around species’ occurrences as determined by the Secretary (*i.e.*, range) (50 CFR 424.02). Such areas may include those areas used throughout all or part of the species’ life cycle, even if not used on a regular basis, such as migratory corridors,

seasonal habitats, and habitats used periodically, but not solely, by vagrant individuals (*Id.*).

Based on existing literature, including available information on Arctic ringed seal sightings and movements, the range of the Arctic ringed seal was identified in the final ESA listing rule (77 FR 76706; December 28, 2012) as the Arctic Ocean and adjacent seas, except west of 157°00' E. (the Kamchatka Peninsula), where the Okhotsk subspecies of the ringed seal occurs, or in the Baltic Sea where the Baltic subspecies of the ringed seal is found. As noted previously, we cannot designate areas outside U.S. jurisdiction as critical habitat. Thus, the geographical area under consideration for this designation is limited to areas under the jurisdiction of the United States that Arctic ringed seals occupied at the time of listing. This area extends to the outer boundary of the U.S. EEZ in the Chukchi and Beaufort seas, and as far south as Bristol Bay in the Bering Sea (Kelly *et al.* 2010a).

Physical and Biological Features Essential to the Conservation of the Species

The statutory definition of occupied critical habitat refers to “physical or biological features essential to the conservation of the species,” but the ESA does not specifically define or further describe these features. Implementing regulations at 50 CFR 424.02, however, define such features as those that occur in specific areas and that are essential to support the life-history needs of the species. The regulations provide additional details and examples of such features.

Based on the best scientific information available regarding the natural history of the Arctic ringed seal and the habitat features that are essential to support the species’ life-history needs, we have identified the following physical or biological features that are essential to the conservation of the Arctic ringed seal within U.S. waters occupied by the species.

- (1) *Snow-covered sea ice habitat suitable for the formation and maintenance of*

subnivean birth lairs used for sheltering pups during whelping and nursing, which is defined as areas of seasonal landfast (shorefast) ice and dense, stable pack ice, excluding any bottom-fast ice extending seaward from the coastline (typically in waters less than 2 m deep), that have undergone deformation and contain snowdrifts of sufficient depth, typically at least 54 cm deep.

Snow-covered sea ice habitat suitable for the formation and maintenance of subnivean birth lairs used for sheltering pups during whelping and nursing is essential to conservation of the Arctic ringed seal because without the protection of lairs, ringed seal pups are more vulnerable to freezing and predation (Lukin and Potelov 1978, Smith 1987, Hammill and Smith 1991, Smith *et al.* 1991, Smith and Lydersen 1991, Stirling and Smith 2004, Ferguson *et al.* 2005).

Snowdrifts of sufficient depth for birth lair formation and maintenance typically occur in deformed ice where drifting has taken place along pressure ridges or ice hummocks (Smith and Stirling 1975, Lydersen and Gjertz 1986, Smith 1987, Kelly 1988, Furgal *et al.* 1996, Lydersen 1998). For purposes of assessing potential impacts of projected changes in April Northern Hemisphere snow conditions on ringed seals, Kelly *et al.* (2010a) considered 20 cm to be the minimum average snow depth required on areas of flat ice to form drifts of sufficient depth to support birth lair formation. Further, Kelly *et al.* (2010a) discussed that ringed seals require snowdrift depths of 50 to 65 cm or more to support birth lair formation. To identify the typical snowdrift depth for snow-covered sea ice habitat that we consider sufficient for Arctic ringed seal birth lair formation and maintenance, we derived a specific depth threshold as follows. At least seven studies have reported minimum snowdrift depth measurements at Arctic ringed seal birth lairs (typically measured near the center of the lairs or over the breathing holes) off the coasts of Alaska (Kelly *et al.* 1986, Frost and Burns 1989), the Canadian Arctic Archipelago (Smith and Stirling 1975, Kelly 1988, Furgal *et al.* 1996), Svalbard (Lydersen and Gjertz

1986), and in the White Sea (Lukin and Potelov 1978). The average minimum snowdrift depth measured at birth lairs was 54 cm across all of the studies combined, and 64 cm in the Alaska studies only. The average from studies in Alaska is based on data from fewer years over a shorter time span than from all seven studies combined (3 years during 1982-1984 versus 11 years during 1971-1993, respectively); consequently, the Alaska-specific average is more likely to be biased if an anomalous weather pattern occurred during its more limited timeframe. For this reason, we conclude that the average minimum snowdrift depth based on all studies combined (54 cm) provides the best estimate of the typical minimum snowdrift depth that is sufficient for birth lairs.

Arctic ringed seals favor landfast ice as whelping habitat (*e.g.*, Smith and Stirling 1975, 1978, Smith and Hammill 1981, Lydersen and Gjertz 1986, Smith and Lydersen 1991, Pilfold *et al.* 2014). However, landfast ice extending seaward from shore may freeze to the sea bottom in very shallow water (typically less than about 1.5 to 2 m deep) during the course of winter (commonly referred to as "bottom-fast" ice; Reimnitz *et al.* 1977, Newbury 1983, Hill *et al.* 1991, Dammann *et al.* 2018, Dammann *et al.* 2019), rendering it unsuitable for ringed seal birth lairs. Arctic ringed seal whelping has also been observed on both nearshore and offshore drifting pack ice. As Reeves (1998) noted, nearly all research on Arctic ringed seal reproduction has been conducted in landfast ice, and the potential importance of stable but drifting pack ice has not been adequately investigated. Studies in the Barents Sea (Wiig *et al.* 1999), Baffin Bay (Finley *et al.* 1983) and the Canadian Beaufort Sea (Pilfold *et al.* 2014) have documented pup production in pack ice, and Smith and Stirling (1975), citing unpublished data from the "Western Arctic" (presumably the Canadian Beaufort Sea), also indicated that "the offshore areas of shifting but relatively stable ice are an important part of the breeding habitat." Lentfer (1972) reported "a significant amount of ringed seal denning and pupping on moving heavy pack ice north of Barrow [*i.e.*, Utqiagvik]." Moreover, surveys

conducted in the Bering and Chukchi seas during spring have documented ringed seals, including observations of pups, in offshore areas (NMFS Marine Mammal Laboratory, 2012-2013 and 2016, unpublished data). Ringed seal vocalizations detected throughout the winter and spring in long-term autonomous acoustic recordings collected along the shelf break north-northwest of Utqiagvik, along with a seasonal change in the repertoire during the breeding season, also suggest that some Arctic ringed seals overwinter and breed in offshore pack ice (Jones *et al.* 2014). We therefore conclude that the best scientific information available indicates that snow-covered sea ice habitat essential for the formation and maintenance of birth lairs includes areas of both landfast ice (except for any bottom-fast ice extending seaward from the coastline) and dense, stable pack ice that have undergone deformation and contain snowdrifts of sufficient depth, typically at least 54 cm deep.

(2) Sea ice habitat suitable as a platform for basking and molting, which is defined as areas containing sea ice of 15 percent or more concentration, excluding any bottom-fast ice extending seaward from the coastline (typically in waters less than 2 m deep).

Sea ice habitat suitable as a platform for basking and molting is essential to conservation of the Arctic ringed seal because molting is a biologically-important, energy-intensive process that could incur increased energetic costs if it were to occur in water, or increased risk of predation if it were to occur on land due to the absence of readily accessible escape routes to avoid predators (*i.e.*, breathing holes or natural openings in sea ice). Moreover, we are unaware of any studies establishing whether Arctic ringed seals can molt successfully in water, or reports of healthy Arctic ringed seals hauled out on land during the molt (they are known to come ashore during this period when sick). Traditional ecological knowledge indicates that ringed seals, mostly young individuals, have been occasionally seen hauled out on land in spring near Elim,

Alaska, although molt status was not addressed (Huntington *et al.* 2015a). If Arctic ringed seals were unable to complete their annual molt successfully, they would be at increased risk from parasites and disease.

During their annual molt, Arctic ringed seals transition from lair use to basking on the surface of the ice for long periods of time near breathing holes, lairs, or cracks in the ice (Kelly *et al.* 2010a). The relatively long periods of time that ringed seals spend out of the water during the molt (*e.g.*, Smith 1973, Smith and Hammill 1981, Kelly *et al.* 2010b) have been ascribed to the need to maintain elevated skin temperatures during new hair growth (Feltz and Fay 1966, Kelly and Quakenbush 1990). Higher skin temperatures are facilitated by basking on the ice and this may accelerate shedding and regrowth of hair and skin (Feltz and Fay 1966).

Limited data are available on ice concentrations (percentage of ocean surface covered by sea ice) favored by Arctic ringed seals during the basking period, in particular for the period following ice breakup. Although a number of studies have reported an apparent preference for consolidated stable ice (*i.e.*, landfast ice and consolidated pack ice), at least during the initial weeks of the basking period, some of these studies have also reported observations of Arctic ringed seals hauled out at low densities in unconsolidated ice (*e.g.*, Stirling *et al.* 1982, Kingsley *et al.* 1985, Kingsley and Stirling 1991, Lunn *et al.* 1997, Chambellant *et al.* 2012). Crawford *et al.* (2012a) reported that the average ice concentrations (plus or minus standard error (SE), a measure of variability in the data) used by ringed seals in the Chukchi and Bering seas during the basking period in June was 20 percent (SE = 7.8 percent) for subadults and 38 percent (SE = 21.4 percent) for adults. Arctic ringed seals in the Chukchi Sea have also been observed basking in high densities on the last remnants of the seasonal sea ice during late June to early July, near the end of the molting period (S. Dahle, NMFS, personal communication, 2013). As discussed above, landfast ice extending seaward from shore may freeze to the

sea bottom in very shallow water (typically less than about 1.5 to 2 m deep) during the course of winter and remain so into spring, potentially during part of the basking and molting period. There is also some evidence that ringed seal densities are lower in very shallow waters, at least in the Beaufort Sea during late May to early June (Moulton *et al.* 2002, Frost *et al.* 2004). Based on the best scientific information available, we therefore conclude that sea ice habitat essential for basking and molting is of at least 15 percent ice concentration, but does not include bottom-fast ice extending from the coastline.

(3) *Primary prey resources to support Arctic ringed seals, which are defined to be Arctic cod, saffron cod, shrimps, and amphipods.*

Primary prey resources are essential to conservation of the Arctic ringed seal because the seals likely rely on these prey resources the most to meet their annual energy budgets. Although Arctic ringed seals feed on a wide variety of vertebrate and invertebrate prey species, certain prey species appear to occupy a prominent role in their diets in waters along the Alaskan coast. Quakenbush *et al.* (2011; Tables 4-6) reported that prey items frequently consumed by ringed seals (considered here to be prey items identified in at least 25 percent of ringed seal stomachs collected) within the 1961 to 1984 and 1998 to 2009 periods in the Bering and Chukchi seas included Arctic cod, saffron cod (*Eleginus gracilis*), shrimps (from the families Hippolytidae, Pandalidae, and Crangonidae), and amphipods (primarily from the families Gammaridae and Hyperiididae). Results reported by Crawford *et al.* (2015; Tables 1 and 2) indicated that prey items frequently consumed by ringed seals during May through July within the 1975 to 1984 and 2003 to 2012 periods in the Bering Strait near Diomedede included Arctic cod and shrimps (for seals ≥ 1 year of age); and in the Chukchi Sea near Shishmaref included saffron cod and shrimps (for both pups and seals ≥ 1 year of age). Dehn *et al.* (2007; Table 2) reported that in the Utqiagvik vicinity, prey items frequently consumed by ringed seals between 1996 and 2001 (primarily during summer) included euphausiids

(*Thysanoessa* spp.), cods (primarily Arctic and saffron cod), mysids (*Mysis* and *Neomysis* spp.), amphipods, and pandalid shrimps. Finally, Lowry *et al.* (1980; Table 2) found that prey items frequently consumed by ringed seals (considered here to be at least 25 percent of the total food volume in ringed seal stomachs collected in any of the five seasonal samples) in the Bering and Chukchi seas included Arctic cod, saffron cod, shrimps, and amphipods, and in the central Beaufort Sea (approximately 80 km northwest of Prudhoe Bay) included Arctic cod, as well as gammarid and hyperiid amphipods.

In summary, Arctic cod, saffron cod, shrimps, and amphipods were identified as prominent prey species for the studies conducted in both the Bering Sea and the Chukchi Sea, and Arctic cod and amphipods were also identified as prominent prey species for ringed seals sampled in the central Beaufort Sea. Therefore, based on these studies, we conclude that Arctic cod, saffron cod, shrimps, and amphipods are the primary prey resources of Arctic ringed seals in U.S. waters. Because Arctic ringed seals feed on a variety of prey items and regional and seasonal differences in diet have been reported, we conclude that areas in which the primary prey essential feature occurs are those that contain one or more of these particular prey resources.

Specific Areas Containing the Essential Features

To determine which areas qualify as critical habitat within the geographical area occupied by the species, we are required to identify “specific areas” that contain one or more of the physical or biological features essential to the conservation of the species (and that may require special management considerations or protection, as described below) (50 CFR 424.12(b)(1)(iii)). Delineation of the specific areas is done at a scale determined by the Secretary to be appropriate (50 CFR 424.12(b)(1)). Regulations at 50 CFR 424.12(c) also require that each critical habitat area be shown on a map.

In determining the scale and boundaries for the specific areas, we considered, among other things, the scales at which biological data are available and the availability

of standardized geographical data necessary to map boundaries. Because the ESA implementing regulations allow for discretion in determining the appropriate scale at which specific areas are drawn (50 CFR 424.12(b)(1)), we are not required, nor was it possible, to determine that each square inch, acre, or even square mile independently meets the definition of “critical habitat.” A main goal in determining and mapping the boundaries of the specific areas is to provide a clear description and documentation of the areas containing the identified essential features. This is ultimately fundamental to ensuring that Federal action agencies are able to determine whether their particular actions may affect the critical habitat.

As we explain below, the essential features of Arctic ringed seal critical habitat, in particular the sea ice essential features, are dynamic and variable on both spatial and temporal scales. As climatic conditions change there may be increased variability in sea ice characteristics and spatial/temporal coverage, including with respect to the southern extent of sea ice in the spring and the timing and rate of the retreat of sea ice during spring and early summer. Arctic ringed seal movements and habitat use are strongly influenced by the seasonality of sea ice and the seals can range widely in response to the specific locations of the most suitable habitat conditions. We have therefore identified one specific area to propose as critical habitat in the Bering, Chukchi, and Beaufort seas based on the expected occurrence of the identified essential features.

We first focused on identifying where sea ice essential features that support the species’ life history functions of whelping and nursing (when birth lairs are constructed and maintained), and molting occur. As discussed above, Arctic ringed seals are highly associated with sea ice, and the seals tend to migrate seasonally to maintain access to the ice. Arctic ringed seal whelping, nursing, and molting takes place in the Bering, Chukchi, and Beaufort seas. Therefore, we considered where the sea ice essential features occur in all of these waters.

The dynamic nature of sea ice and the spatial and temporal variations in sea ice and on-ice snow cover conditions constrain our ability to map with precision the specific geographic locations where the sea ice essential features will occur. Sea ice characteristics such as ice extent, ice concentration, and ice surface topography vary spatiotemporally (*e.g.*, Iacozza 2011). Snowdrift depths on sea ice are also spatiotemporally variable, as drifting of snow is determined by characteristics of the ice, such as surface topography and weather conditions (*e.g.*, wind speed/direction and snowfall amounts), among other factors (Iacozza and Ferguson 2014). The specific geographic locations where essential sea ice habitat used by Arctic ringed seals occur vary from year to year, or even day to day, depending on many factors, including time of year, local weather, and oceanographic conditions (*e.g.*, Frost *et al.* 1988, Frost *et al.* 2004, Gadamus *et al.* 2015). In addition, the duration that sea ice habitat essential for birth lairs, or for basking and molting, is present in any given location can vary annually depending on the rate of ice melt and other factors. The temporal overlap of Arctic ringed seal molting with whelping and nursing, combined with the dynamic nature of sea ice and on-ice snow depths, also makes it impracticable to separately identify specific areas where each of these essential features occur. However, it is unnecessary to distinguish between specific areas containing sea ice essential for birth lairs and sea ice essential for basking and molting because the ESA permits the designation of critical habitat where one or more essential features occur.

Arctic ringed seals can range widely, which, combined with the dynamic variations in sea ice and on-ice snow depths, results in individuals distributing broadly and using sea ice habitats within a range of suitable conditions. We integrated these physical and biological factors into our identification of specific areas where one or both sea ice essential features occur by considering the information currently available on the seasonal distribution and movements of Arctic ringed seals during the annual period of

reproduction and molting, along with satellite-derived estimates of the position of the sea ice edge over time. Although this approach allowed us to identify specific areas that contain one or both of the sea ice essential features at certain times, the available data supported delineation of specific areas only at a coarse scale. Consequently, we delineated a single specific area that contains the sea ice features essential to the conservation of Arctic ringed seals, as follows.

We first identified the southern boundary of this specific area. As explained in detail previously in the **Summary of Revisions to Proposed Critical Habitat** section, we delineated the southern boundary of where one or both of the sea ice essential features occur to reflect the estimated position of the May median ice edge for the 1990 to 2019 period. To simplify the southern boundary for purposes of delineation on maps, we modified this ice edge contour line as follows: (1) intermediate points along the contour line between its intersection point with the seaward limit of the U.S. EEZ ($61^{\circ}18'15''$ N/ $177^{\circ}45'56''$ W) and the point southwest of St. Matthew Island where the contour line turns northeastward ($60^{\circ}7'$ N/ $172^{\circ}1'$ W) were removed to form the segment of the southern boundary that extends from the seaward limit of the U.S. EEZ southeastward approximately 340 km; and (2) intermediate points along the contour line between the point southwest of St. Matthew Island and the point where the contour line reaches the coast near Cape Romanzof were removed and connected to the coast to form the second segment of the southern boundary that extends northeastward approximately 370 km (at $61^{\circ}48'42''$ N/ $166^{\circ}6'5''$ W). This editing produced a simplified southern boundary that retains the general shape of the original ice edge contour line.

Because Arctic ringed seals use nearly the entire ice field over the Bering Sea shelf in the spring, depending upon ice conditions in a given year, some ringed seals may use sea ice for whelping south of the southern boundary described above. But we concluded that the variability in the annual extent and timing of sea ice in this

southernmost portion of the Arctic ringed seal's range in the Bering Sea (*e.g.*, Boveng *et al.* 2009, Stabeno *et al.* 2012b, Frey *et al.* 2015) renders these waters unlikely to contain the sea ice essential features on a consistent basis in more than limited areas.

We then identified the northern boundary of the specific area that contains one or both of the sea ice essential features. As discussed above, Arctic ringed seals have a widespread distribution, including in offshore pack ice. The period during which ringed seals bask and molt overlaps with when many ringed seals also migrate north with the receding ice edge, sea ice and on-ice snow depths are dynamic and variable on both spatial and temporal scales, and sea ice suitable for basking and molting, and potentially for birth lairs, occurs over waters extending up to and beyond the seaward limit of the U.S. EEZ (see, *e.g.*, Fetterer *et al.* 2017, Sea Ice Index Version 3.0, accessed November 2019, Blanchard-Wrigglesworth *et al.* 2018). We therefore concluded that the outer extent of the U.S. EEZ to the north, west, and east best defines the remaining boundaries of the area containing the sea ice essential features. We note that Canada contests the limits of the U.S. EEZ in the eastern Beaufort Sea, asserting that the line delimiting the two countries' EEZs should follow the 141st meridian out to a distance of 200 nautical miles (nm) (as opposed to an equidistant line that extends seaward perpendicular to the coast at the U.S.-Canada land border).

The primary prey species essential to Arctic ringed seals are found in a range of habitats in U.S. waters occupied by these seals. Amphipods documented in the diet of Arctic ringed seals in U.S. waters include the pelagic hyperiid amphipod *Parathemisto libellula*; gammarid amphipod species that inhabit the underside of sea ice; and benthic amphipods and shrimps, which were well represented in sampling conducted for benthic assessments in the Beaufort and Chukchi seas (*e.g.*, Bluhm *et al.* 2009, Grebmeier *et al.* 2015, Ravelo *et al.* 2015, Sigler *et al.* 2017). Notably, Arctic cod and saffron cod make up a substantial portion of the fish biomass in the U.S. Chukchi Sea and Arctic cod

dominates the fish biomass in the U.S. Beaufort Sea (North Pacific Fishery Management Council 2009, Logerwell *et al.* 2015). Arctic cod are regularly observed in association with sea ice, but they are also found in seasonally ice-free waters (*e.g.*, Bradstreet *et al.* 1986, Parker-Stetter *et al.* 2011, Logerwell *et al.* 2015). The southern extent of the distribution of Arctic cod and its abundance in the northern and eastern Bering Sea are more limited and linked to the extent of ice cover and associated cold bottom temperatures (Love *et al.* 2016, Mecklenburg *et al.* 2016, Forster 2019, Marsh and Mueter 2019). The distribution of saffron cod overlaps to some extent with that of Arctic cod in the Chukchi and Beaufort seas, but this species is typically found in warmer water and has a more shallow coastal distribution that extends farther south in the Bering Sea (Love *et al.* 2016, Mecklenburg *et al.* 2016). The movements and foraging activities of Arctic ringed seals are strongly influenced by the seasonality of ice cover, the seals forage throughout the year (albeit with reduced feeding during molting), and they are broadly distributed and can range widely. Thus, although Arctic ringed seals may forage seasonally in some particular areas, such as Barrow Canyon, the seals also make extensive use of a diversity of habitats for foraging across much broader areas in the Bering, Chukchi, and Beaufort seas. Although tagged ringed seals tracked in U.S. waters tended to remain over the continental shelf, several individuals also made trips into the deep waters north of the shelf during the open-water period, where dive recorders indicated that the seals showed foraging-type movements (see *Distribution and Habitat Use* section). Because of these considerations, as well as the limits of the currently available information on habitat use of foraging Arctic ringed seals, we conclude that the seaward boundaries delineated above for the sea ice essential features are also appropriate for defining the specific area where the primary prey essential feature occurs.

Crawford *et al.* (2012b) suggested that southern ice edge habitat in the Bering Sea near the shelf break south of the southern boundary specified above may be important for

overwintering of subadult ringed seals, including for foraging. But aside from the limited data on subadult movements and dive behavior during winter near the ice edge and shelf break in the Bering Sea, we lack specific information on the significance of this habitat to the conservation of the species. We therefore conclude that it is appropriate to delineate the southern boundary as described above.

Finally, we considered the shoreward extent of where one or more of the essential features occur. Essential fish habitat (EFH) has been described and identified for certain life stages of both Arctic cod and saffron cod, which are two of the essential Arctic primary prey species (North Pacific Fishery Management Council 2009; 83 FR 31340, July 5, 2018). EFH for late juvenile and adult Arctic cod includes shallow nearshore areas of the continental shelf in the Chukchi and Beaufort seas, and EFH for late juvenile and adult saffron cod also includes a substantial portion of the shallow nearshore shelf habitat in the Chukchi Sea. Studies conducted in very shallow nearshore waters have documented the presence of one or both species at sampling sites in the Alaskan Beaufort Sea (Craig *et al.* 1982, Underwood *et al.* 1995, Wiswar *et al.* 1995, Johnson *et al.* 2010, Logerwell *et al.* 2015) and in Norton Sound (Barton 1978). There have been limited ringed seal surveys conducted in areas with very shallow waters (less than 3 to 5 m in depth). Nevertheless, there is some evidence that ringed seal densities are lower in such areas, at least in the Beaufort Sea during late May to early June (Moulton *et al.* 2002, Frost *et al.* 2004). Still, during the open-water foraging period and into early winter, satellite tracking data indicate some tagged ringed seals used shallow nearshore waters, for example, in Harrison Bay and Smith Bay (Quakenbush *et al.* 2019), and we infer that this nearshore habitat use is due to the availability of suitable prey. Similarly, information from traditional ecological knowledge indicates that some, primarily juvenile, ringed seals use shallow nearshore waters, including river mouths, for feeding during the summer in the Bering Strait region (Oceana and Kawerak 2014), and that in the fall,

ringed seals return to and feed in Kotzebue Sound, including the relatively shallow waters of Hotham Inlet (Gadamus *et al.* 2015, Northwest Arctic Borough 2016). After considering the information currently available as a whole, principally based on occurrence of the primary prey essential feature, we are proposing to define the shoreward boundary of critical habitat as the line that marks MLLW. This specific area does not extend into tidally-influenced channels of tributary waters of the Bering, Chukchi, or Beaufort seas.

Data to determine the boundaries of the specific area containing the essential features are limited. We specifically seek additional data and comments on our proposed delineation of these boundaries (see **Public Comments Solicited** section).

Special Management Considerations or Protection

A specific area within the geographic area occupied by a species may only be designated as critical habitat if the area contains one or more essential physical or biological feature that may require special management considerations or protection (16 U.S.C. 1532(5)(A)(ii); 50 CFR 424.12(b)(iv)). “Special management considerations or protection” is defined as methods or procedures useful in protecting the physical or biological features essential to the conservation of listed species (50 CFR 424.02). Courts have indicated that the “may require” standard requires that NMFS determine that special management considerations or protection of the essential features might be required either now or in the future (*i.e.*, such considerations or protection need not be immediately required). *See Cape Hatteras Access Pres. Alliance v. U.S. Dep’t of Interior*, 344 F. Supp. 2d 108, 123–24 (D.D.C. 2004); *Home Builders Ass’n of N. Cal. v. U.S. Fish & Wildlife Serv.*, 268 F. Supp. 2d 1197, 1218 (E.D. Cal. 2003). The relevant management need may be “in the future based on possibility.” *See Bear Valley Mut. Water Co. v. Salazar*, No. SACV 11–01263–JVS, 2012 WL 5353353, at *25 (C.D. Cal. Oct. 17, 2012); *see also Ctr. for Biological Diversity v. Norton*, 240 F. Supp. 2d 1090, 1098–99

(D. Ariz. 2003) (noting that the “may require” phrase can be rephrased and understood as “can require” or “possibly requires”).

We have identified four primary sources of potential threats to each of the habitat features identified above as essential to the conservation of Arctic ringed seals: climate change; oil and gas exploration, development, and production; marine shipping and transportation; and commercial fisheries. As further detailed below, both sea ice essential features and the primary prey essential feature may require special management considerations or protection as a result of impacts (either independently or in combination) from these sources. We note that our evaluation does not consider an exhaustive list of threats that could have impacts on the essential features, but rather considers the primary potential threats that we are aware of at this time that support our conclusion that special management considerations or protection of each of the essential features may be required. Further, we highlight particular threats associated with each source of impacts while recognizing that certain threats are associated with more than one source (*e.g.*, marine pollution and noise).

Climate Change

The principal threat to the persistence of the Arctic ringed seal is anticipated loss of sea ice and reduced on-ice snow depths stemming from climate change. Climate-change-related threats to the Arctic ringed seal’s habitat are discussed in detail in the ringed seal status review report (Kelly *et al.* 2010a), as well as in our proposed and final rules to list the Arctic ringed seal as threatened. Total Arctic sea ice extent has been showing a decline through all months of the satellite record since 1979 (Meier *et al.* 2014). Although there will continue to be considerable annual variability in the rate and timing of the breakup and retreat of sea ice, trends in climate change are moving toward ice that is more susceptible to melt (Markus *et al.* 2009), and areas of earlier spring ice retreat (Stammerjohn *et al.* 2012, Frey *et al.* 2015). Notably, February and March ice

extent in the Bering Sea in 2018 and 2019 were the lowest on record (Stabeno and Bell 2019), and in the spring of 2019, melt onset in the Chukchi Sea occurred 20 to 35 days earlier than the 1981 to 2010 average (Perovich *et al.* 2019). Activities that release carbon dioxide and other heat-trapping greenhouse gases (GHGs) into the atmosphere, most notably those that involve fossil fuel combustion, are a major contributing factor to climate change and loss of sea ice (Intergovernmental Panel on Climate Change 2013, U.S. Global Climate Change Research Program 2017). Such activities may adversely affect the essential features of Arctic ringed seal habitat by diminishing snow-covered sea ice suitable for birth lairs and sea ice suitable for basking and molting, and by causing changes in the distribution, abundance, and/or species composition of prey resources (including Arctic ringed seal primary prey resources) (*e.g.*, Kortsch *et al.* 2015, Alabia *et al.* 2018, Holsman *et al.* 2018, Thorson *et al.* 2019, Huntington *et al.* 2020). Declines in the extent and timing of sea ice cover may also lead to increased shipping activity (discussed below) and other changes in anthropogenic activities, with the potential for increased risks to the habitat features essential to Arctic ringed seal conservation (Kelly *et al.* 2010a). The best scientific data available do not allow us to identify a causal linkage between any particular single source of GHG emissions and identifiable effects on the sea ice and primary prey features essential to the conservation of the Arctic ringed seal. Regardless, given that the quality and quantity of these essential features, in particular sea ice, may be diminished by the effects of climate change, we conclude that special management considerations or protection may be necessary, either now or in the future, although the exact focus and nature of that management is presently undeterminable.

Oil and Gas Activity

Oil and gas exploration, development, and production activities in the U.S. Arctic may include: seismic surveys; exploratory, delineation, and production drilling

operations; construction of artificial islands, causeways, ice roads, shore-based facilities, and pipelines; and vessel and aircraft operations. These activities have the potential to affect the essential features of Arctic ringed seal critical habitat, primarily through pollution (particularly in the event of a large oil spill), noise, and physical alteration of the species' habitat.

Large oil spills (considered in this section to be spills of relatively great size, consistent with common usage of the term) are generally considered to be the greatest threat associated with oil and gas activities in the Arctic marine environment (Arctic Monitoring and Assessment Programme (AMAP) 2007). In contrast to spills on land, large spills at sea, especially when ice is present, are difficult to contain or clean up (National Research Council 2014, Wilkinson *et al.* 2017). Responding to a sizeable spill in the Arctic environment would be particularly challenging. Reaching a spill site and responding effectively would be especially difficult, if not impossible, in winter when weather can be severe and daylight extremely limited. Oil spills under ice or in ice-covered waters are the most challenging to deal with due to, among other factors, limitations on the effectiveness of current containment and recovery technologies when sea ice is present. The extreme depth and the pressure that oil was under during the 2010 oil blowout at the Deepwater Horizon well in the Gulf of Mexico may not exist in the shallow continental shelf waters of the Beaufort and Chukchi seas. Nevertheless, the difficulties experienced in stopping and containing the Deepwater Horizon blowout, where environmental conditions, available infrastructure, and response preparedness were comparatively good, point toward even greater challenges in containing and cleaning a large spill in a much more environmentally severe and geographically remote Arctic location.

Although planning, management, and use of best practices can help reduce risks and impacts, the history of oil and gas activities indicates that accidents cannot be

eliminated (AMAP 2007). Data on large spills (e.g., operational discharges, spills from pipelines, blowouts) in Arctic waters are limited because oil exploration and production there has been limited. The Bureau of Ocean Energy Management (BOEM) (BOEM 2011) estimated the chance of one or more oil spills greater than or equal to 1,000 barrels occurring if development were to take place in the Beaufort Sea or Chukchi Sea Planning Areas as 26 percent for the Beaufort Sea over the estimated 20 years of production and development, and 40 percent for the Chukchi Sea over the estimated 25 years of production and development.

Icebreaking vessels, which may be used for in-ice seismic surveys or to manage ice near exploratory drilling ships, also have the potential to affect the sea ice essential features of Arctic ringed seal critical habitat through physical alteration of the sea ice (also see *Marine Shipping and Transportation* section). Other examples of activities associated with oil and gas activities that may physically alter the essential sea ice features include construction and maintenance of offshore ice roads, ice pads, and camps; as well as other offshore through-ice activities such as trenching and installation of pipelines. In addition, there is evidence that noise associated with activities such as seismic surveys can result in behavioral and other effects on fishes and invertebrate species (Carroll *et al.* 2017, Slabbekoorn *et al.* 2019), although the available data on such effects are currently limited, in particular for invertebrates (Hawkins *et al.* 2015, Hawkins and Popper 2017), and the nature of potential effects specifically on the primary prey resources of Arctic ringed seals are unclear.

In summary, a large oil spill could render areas containing the identified essential features unsuitable for use by Arctic ringed seals. In such an event, sea ice habitat suitable for whelping, nursing, and/or for basking and molting could be oiled. The primary prey resources could also become contaminated, experience mortality, or be otherwise adversely affected by spilled oil. In addition, disturbance effects (both physical

alteration of habitat and acoustic effects) could alter the quality of the essential features of Arctic ringed seal critical habitat, or render habitat unsuitable. We conclude that the essential features of the habitat of the Arctic ringed seal may require special management considerations or protection in the future to minimize the risks posed to these features by oil and gas exploration, development, and production.

Marine Shipping and Transportation

The reduction in Arctic sea ice that has occurred in recent years has renewed interest in using the Arctic Ocean as a potential waterway for coastal, regional, and trans-Arctic marine operations and in extension of the navigation season in surrounding seas (Brigham and Ellis 2004, Arctic Council 2009). Marine traffic along the western and northern coasts of Alaska includes tug, towing, and cargo vessels, tankers, research and government vessels, vessels associated with oil and gas exploration and development, fishing vessels, and cruise ships (Adams and Silber 2017, U.S. Committee on the Marine Transportation System 2019). Automatic Identification System data indicate that the number of unique vessels operating annually in U.S. waters north of the Bering Sea in 2015 to 2017 increased 128 percent over the number recorded in 2008 (U.S. Committee on the Marine Transportation System 2019). Climate models predict that the warming trend in the Arctic will accelerate, causing the ice to begin melting earlier in the spring and resume freezing later in the fall, resulting in an expansion of potential transit routes and a lengthening of the potential navigation season, and a continuing increase in vessel traffic (Khon *et al.* 2010, Smith and Stephenson 2013, Stephenson *et al.* 2013, Huntington *et al.* 2015b, Melia *et al.* 2016, Aksenov *et al.* 2017, Khon *et al.* 2017). For instance, analysis of four potential growth scenarios (ranging from reduced activity to accelerated growth) suggests from 2008 to 2030, the number of unique vessels operating in U.S. waters north of 60° N (*i.e.*, northern Bering sea and northward) may increase by 136 to 346 percent (U.S. Committee on the Marine Transportation System 2019).

The fact that nearly all vessel traffic in the Arctic, with the exception of icebreakers, purposefully avoids areas of ice, and primarily occurs during the ice-free or low-ice seasons, helps to mitigate the risks of shipping to the essential habitat features identified for Arctic ringed seals. However, icebreakers pose greater risks to these features since they are capable of operating year-round in all but the heaviest ice conditions and are often used to escort other types of vessels (*e.g.*, tankers and bulk carriers) through ice-covered areas. Furthermore, new classes of ships are being designed that serve the dual roles of both tanker/carrier and icebreaker (Arctic Council 2009). Therefore, if icebreaking activities increase in the Arctic in the future, as expected, the likelihood of negative impacts (*e.g.*, habitat alteration and risk of oil spills) occurring in ice-covered areas where Arctic ringed seals reside will likely also increase. We are not aware of any data currently available on the effects of icebreaking on the habitat of Arctic ringed seals during the reproductive and molting periods. Although impacts of icebreaking are likely to vary between species depending on a variety of factors, we note that Wilson *et al.* (2017) demonstrated the potential for impacts of icebreaking on Caspian seal (*Pusa caspica*) mothers and pups, including displacement, break-up of whelping and nursing habitat, and vessel collisions with mothers or pups. The authors noted that while pre-existing shipping channels were used by seals as artificial leads, which expanded access to whelping habitat, seals that whelp on the edge of such leads are vulnerable to vessel collision and repeated disturbance.

In addition to the potential effects of icebreaking on the essential features, the maritime shipping industry transports various types of petroleum products, both as fuel and cargo. In particular, if increased shipping involves the tanker transport of crude oil or oil products, there would be an increased risk of spills (Arctic Climate Impact Assessment 2005, U.S. Arctic Research Commission 2012). Similar to oil and gas activities, the most significant threat posed by shipping activities is considered to be the

accidental or illegal discharge of oil or other toxic substances carried by ships (Arctic Council 2009).

Vessel discharges associated with normal operations, including sewage, grey water, and oily wastes are expected to increase as a result of increasing marine shipping and transportation in Arctic waters (Arctic Council 2009, Parks *et al.* 2019), which could affect the primary prey of Arctic ringed seals. Increases in marine shipping and transportation and other vessel traffic is also introducing greater levels of underwater noise (Arctic Council 2009, Moore *et al.* 2012), with the potential for behavioral and other effects in fishes and invertebrates (Slabbekoorn *et al.* 2010, Hawkins and Popper 2017, Popper and Hawkins 2019), although there are substantial gaps in the understanding of such effects, in particular for invertebrates (Hawkins *et al.* 2015, Hawkins and Popper 2017), and the nature of potential effects specifically on the primary prey of Arctic ringed seals are unclear.

We conclude that the essential features of the habitat of the Arctic ringed seal may require special management considerations or protection in the future to minimize the risks posed by potential shipping and transportation activities because: (1) physical alteration of sea ice by icebreaking activities could reduce the quantity and/or quality of the sea ice essential features; (2) in the event of an oil spill, sea ice essential for birth lairs and/or for basking and molting could become oiled; and (3) the quantity and/or quality of the primary prey resources could be diminished as a result of spills, vessel discharges, and noise associated with shipping, transportation, and ice-breaking activities.

Commercial Fisheries

The specific area identified in this revised proposed rule as meeting the definition of critical habitat for the Arctic ringed seal overlaps with the Arctic Management Area and the Bering Sea and Aleutian Islands Management Area identified by the North Pacific Fishery Management Council. No commercial fishing is permitted within the

Arctic Management Area due to insufficient data to support the sustainable management of a commercial fishery there. However, as additional information becomes available, commercial fishing may be allowed in this management area. Two of the primary Arctic ringed seal prey species identified as essential to the species' conservation—Arctic cod and saffron cod—have been identified as likely initial target species for commercial fishing in the Arctic Management Area in the future (North Pacific Fishery Management Council 2009).

In the northern portion of the Bering Sea and Aleutian Islands Management Area, commercial fisheries overlap with the southernmost portion of the proposed critical habitat. Portions of the proposed critical habitat also overlap with certain state commercial fisheries management areas. Commercial catches from waters of the specific area identified as containing the features essential to the conservation of the Arctic ringed seal primarily include: Pacific halibut (*Hippoglossus stenolepis*), several other flatfish species, Pacific cod (*Gadus macrocephalus*), several crab species, walleye pollock (*Theragra chalcogramma*), and several salmon species.

Commercial fisheries may affect the primary prey resources identified as essential to the conservation of the Arctic ringed seal, through removal of prey biomass and potentially through modification of benthic habitat by fishing gear that contacts the seafloor. Given the potential changes in commercial fishing that may occur with the expected increasing length of the open-water season and distribution shifts of some economically valuable species responding to climate change (*e.g.*, Stevenson and Lauth 2019, Thorson *et al.* 2019, Spies *et al.* 2020), we conclude that the primary prey resources essential feature may require special management considerations or protection in the future to address potential adverse effects of commercial fishing on this feature.

Unoccupied Areas

Section 3(5)(A)(ii) of the ESA authorizes the designation of specific areas outside

the geographical area occupied by the species, if those areas are determined to be essential for the conservation of the species. Our regulations at 50 CFR 424.12(b)(2) require that we first evaluate areas occupied by the species, and only consider unoccupied areas to be essential where a critical habitat designation limited to geographical areas occupied would be inadequate to ensure the conservation of the species. Because Arctic ringed seals are considered to occupy their entire historical range that falls within U.S. jurisdiction, we find that there are no unoccupied areas within U.S. jurisdiction that are essential to their conservation.

Application of ESA Section 4(a)(3)(B)(i)

Section 4(a)(3)(B)(i) of the ESA precludes designating as critical habitat any lands or other geographical areas owned or controlled by the Department of Defense (DOD), or designated for its use, that are subject to an Integrated Natural Resources Management Plan (INRMP) prepared under section 101 of the Sikes Act (16 U.S.C. 670a), if the Secretary determines in writing that such plan provides a benefit to the species for which critical habitat is proposed for designation. *See* 16 U.S.C. 1533(a)(3)(B)(i); 50 CFR 424.12(h). Where these standards are met, the relevant area is ineligible for consideration as potential critical habitat. The regulations implementing the ESA set forth a number of factors to guide consideration of whether this standard is met, including the degree to which the plan will protect the habitat of the species (50 CFR 424.12(h)(4)). This process is separate and distinct from the analysis governed by section 4(b)(2) of the ESA, which directs us to consider the economic impact, the impact on national security, and any other relevant impact of designation, and affords the Secretary discretion to exclude particular areas if the benefits of exclusion outweigh the benefits of inclusion of such areas. *See* 16 U.S.C. 1533(b)(2).

Before publication of this revised proposed rule, we contacted DOD (Air Force and Navy) and requested information on any facilities or managed areas that are subject

to an INRMP and are located within areas that could potentially be designated as critical habitat for the Arctic ringed seal. In response to our request, the Air Force provided information regarding twelve radar sites with an INRMP in place, 10 of which (7 active and 3 inactive) are located adjacent to the area under consideration for designation as critical habitat: Barter Island Long Range Radar Site (LRRS), Cape Lisburne LRRS, Cape Romanzof, LRRS, Kotzebue LRRS, Oliktok LRRS, Point Barrow LRRS, Tin City LRRS, Bullen Point Short Range Radar Site (SRRS), Point Lay LRRS, and Point Lonely SRRS. The Air Force requested exemption of these radar sites pursuant to section 4(a)(3)(B)(i) of the ESA. Based on our review of the INRMP (draft 2020 update), the area being considered for designation as critical habitat, all of which occurs seaward of the MLLW line, does not overlap with DOD lands. Therefore, we conclude that there are no properties owned, controlled, or designated for use by DOD that are subject to ESA section 4(a)(3)(B)(i) for this revised proposed critical habitat designation, and thus the exemptions requested by the Air Force are not necessary because no critical habitat would be designated in those radar sites.

Analysis of Impacts Under Section 4(b)(2) of the ESA

Section 4(b)(2) of the ESA requires the Secretary to designate critical habitat for threatened and endangered species on the basis of the best scientific data available after taking into consideration the economic impact, the impact on national security, and any other relevant impact, of specifying any particular area as critical habitat. Regulations at 50 CFR 424.19(b) also specify that the Secretary will consider the probable impacts of the designation at a scale that the Secretary determines to be appropriate, and that such impacts may be qualitatively or quantitatively described. The Secretary is also required to compare impacts with and without the designation (50 CFR 424.19(b)). In other words, we are required to assess the incremental impacts attributable to the critical habitat designation relative to a baseline that reflects existing regulatory impacts in the absence

of the critical habitat.

Section 4(b)(2) also describes an optional process by which the Secretary may go beyond the mandatory consideration of impacts and weigh the benefits of excluding any particular area (that is, avoiding the economic, national security, or other relevant impacts) against the benefits of designating it (primarily, the conservation value of the area). If the Secretary concludes that the benefits of excluding particular areas outweigh the benefits of designation, the Secretary may exclude the particular area(s) so long as the Secretary concludes on the basis of the best available scientific and commercial information that the exclusion will not result in extinction of the species (16 U.S.C. 1533(b)(2)). NMFS and the U.S. Fish and Wildlife Service have adopted a joint policy setting out non-binding guidance explaining generally how we exercise our discretion under 4(b)(2). *See* Policy Regarding Implementation of Section 4(b)(2) of the Endangered Species Act (“4(b)(2) policy,” 81 FR 7226, February 11, 2016).

While section 3(5) of the ESA defines critical habitat as “specific areas,” section 4(b)(2) requires the agency to consider the impacts of designating any “particular area.” Depending on the biology of the species, the characteristics of its habitat, and the nature of the impacts of designation, “particular” areas may be -- but need not necessarily be -- delineated so that they are the same as the already identified “specific” areas of potential critical habitat. For the reasons set forth below, we have exercised the discretion delegated to us by the Secretary to conduct an exclusion analysis based on national security impacts with respect to a particular area north of the Beaufort Sea shelf that meets the definition of critical habitat for the Arctic ringed seal, and we are proposing to exclude this area from the designation because we have concluded that the benefits of exclusion outweigh the benefits of inclusion.

The primary impacts of a critical habitat designation arise from the ESA section 7(a)(2) requirement that Federal agencies ensure that their actions are not likely to result

in the destruction or adverse modification of critical habitat (*i.e.*, adverse modification standard). Determining these impacts is complicated by the fact that section 7(a)(2) contains the overlapping requirement that Federal agencies ensure that their actions are not likely to jeopardize the species' continued existence. One incremental impact of critical habitat designation is the extent to which Federal agencies change their proposed actions to ensure they are not likely to adversely modify critical habitat, beyond any changes they would make to ensure actions are not likely to jeopardize the continued existence of the species. Additional impacts of critical habitat designation include any state and/or local protection that may be triggered as a direct result of designation (we did not identify any such impacts for this proposed designation), and benefits that may arise from education of the public to the importance of an area for species conservation.

In determining the impacts of designation, we focused on the incremental change in Federal agency actions as a result of critical habitat designation and the adverse modification standard (see *Ariz. Cattle Growers' Ass'n v. Salazar*, 606 F.3d 1160, 1172–74 (9th Cir. 2010) (holding that the U.S. Fish and Wildlife Service permissibly attributed the economic impacts of protecting the northern spotted owl as part of the baseline and was not required to factor those impacts into the economic analysis of the effects of the critical habitat designation)). We analyzed the impacts of this designation based on a comparison of conditions with and without the designation of critical habitat for the Arctic ringed seal. The “without critical habitat” scenario represents the baseline for the analysis. It includes process requirements and habitat protections already extended to the Arctic ringed seal under its ESA listing and under other Federal, state, and local regulations. The “with critical habitat” scenario describes the incremental impacts associated specifically with the designation of critical habitat for the Arctic ringed seal.

Our analysis for this revised proposed rule is described in detail in the associated Draft Impact Analysis Report that is available for public review and comment (see

Public Comments Solicited). This analysis assesses the incremental costs and benefits that may arise due to the critical habitat designation, with economic costs estimated over the next 10 years. We chose the 10-year timeframe because it is lengthy enough to reflect the planning horizon for reasonably predicting future human activities, yet it is short enough to allow reasonable projections of changes in use patterns in an area, as well as of exogenous factors (*e.g.*, world supply and demand for petroleum, U.S. inflation rate trends) that may be influential. This timeframe is consistent with guidance provided in Office of Management and Budget (OMB) Circular A-4 (OMB 2003, 2011). We recognize that economic costs of the designation are likely to extend beyond the 10-year timeframe of the analysis, though we have no information indicating that such costs in subsequent years would be different from those projected for the first 10-year period. Although not quantified or analyzed in detail due to the high level of uncertainty regarding longer-term effects, the Draft Impact Analysis Report includes a discussion of the potential types of costs and benefits that may accrue beyond the 10-year time window of the analysis.

Below, we summarize our analysis of the impacts of designating the specific area identified in this revised proposed rule as meeting the definition of critical habitat for the Arctic ringed seal. Additional detail is provided in the Draft Impact Analysis Report prepared for this revised proposed rule.

Benefits of Designation

We expect that Arctic ringed seals will increasingly experience the ongoing loss of sea ice and changes in ocean conditions associated with climate change, and the significance of other habitat threats will likely increase as a result. As noted above, the primary benefit of a critical habitat designation—and the only regulatory consequence—stems from the ESA section 7(a)(2) requirement that all Federal agencies ensure that their actions are not likely to destroy or adversely modify the designated habitat. This benefit

is in addition to the section 7(a)(2) requirement that all Federal agencies ensure that their actions are not likely to jeopardize listed species' continued existence. Another benefit of critical habitat designation is that it provides specific notice of the areas and features essential to the conservation of the Arctic ringed seal. This information will focus future ESA section 7 consultations on key habitat attributes. By identifying the specific areas where the features essential to the conservation of the Arctic ringed seal occur, there may also be enhanced awareness by Federal agencies and the general public of activities that might affect those essential features. The designation of critical habitat can also inform Federal agencies regarding the habitat needs of Arctic ringed seals, which may facilitate using their authorities to support the conservation of this species pursuant to ESA section 7(a)(1), including to design proposed projects in ways that minimize adverse effects to critical habitat.

In addition, the critical habitat designation may result in indirect benefits, as discussed in detail in the Draft Impact Analysis Report, including education and enhanced public awareness, which may help focus and contribute to conservation efforts for the Arctic ringed seal and its habitat. For example, by identifying areas and features essential to the conservation of the Arctic ringed seal, complementary protections may be developed under state or local regulations or voluntary conservation plans. These other forms of benefits may be economic in nature (whether market or non-market, consumptive, non-consumptive, or passive), educational, cultural, or sociological, or they may be expressed through beneficial changes in the ecological functioning of the species' habitat, which itself yields ancillary welfare benefits (*e.g.*, improved quality of life) to the region's human population. For example, because the critical habitat designation is expected to result in enhanced conservation of the Arctic ringed seal over time, residents of the region who value these seals, such as subsistence users, are expected to experience indirect benefits. As another example, the geographic area identified in this revised

proposed rule as meeting the definition of critical habitat for the Arctic ringed seal overlaps substantially with the range of the polar bear in the United States, and the Arctic ringed seal is the primary prey species of the polar bear, so the designation may also provide indirect conservation benefits to the polar bear. Indirect conservation benefits may also extend to other co-occurring species, such as the Pacific walrus (*Odobenus rosmarus divergens*), the Beringia DPS bearded seal, and other seal species.

It is not presently feasible to monetize, or even quantify, each component part of the benefits accruing from the designation of critical habitat for the Arctic ringed seal. Therefore, we augmented the quantitative measurements that are summarized here and discussed in detail in the Draft Impact Analysis Report with qualitative and descriptive assessments, as provided for under 50 CFR 424.19(b) and in guidance set out in OMB Circular A-4. Although we cannot monetize or quantify all of the incremental benefits of the critical habitat designation, we conclude that they are not inconsequential.

Economic Impacts

Direct economic costs of the critical habitat designation accrue primarily through implementation of section 7(a)(2) of the ESA in consultations with Federal agencies to ensure that their proposed actions are not likely to destroy or adversely modify critical habitat. Those economic impacts may include both administrative costs and costs associated with project modifications. At this time, on the basis of how protections are currently implemented for Arctic ringed seals under the Marine Mammal Protection Act (MMPA) and as a threatened species under the ESA, we do not anticipate that additional requests for project modifications will result specifically from this designation of critical habitat. In other words, the critical habitat designation is not likely to result in more requested project modifications because our section 7 consultations on potential effects to Arctic ringed seals and our incidental take authorizations for Arctic activities under section 101(a) of the MMPA both typically address habitat-associated effects to the seals

even in the absence of a critical habitat designation. As a result, the direct incremental costs of this critical habitat designation are expected to be limited to the additional administrative costs of considering Arctic ringed seal critical habitat in future section 7 consultations.

To identify the types of Federal activities that may affect critical habitat for the Arctic ringed seal, and therefore would be subject to the ESA section 7 adverse modification standard, we examined the record of section 7 consultations for 2013 to 2019 to identify Federal activities that occur within the specific area being considered as critical habitat for the Arctic ringed seal and that may affect the essential features of the critical habitat. These activities include oil and gas related activities, dredge mining, navigation dredging, in-water construction, commercial fishing, oil spill response, and certain military activities. We projected the occurrence of these activities over the timeframe of the analysis (the next 10 years) using the best available information on planned activities and the frequency of recent consultations for particular activity types. Notably, all of the projected future Federal actions that may trigger an ESA section 7 consultation due to the potential to affect one or more of the essential habitat features also have the potential to affect Arctic ringed seals. In other words, none of the activities we identified would trigger a consultation solely on the basis of the critical habitat designation. We recognize there is inherent uncertainty involved in predicting future Federal actions that may affect the essential features of Arctic ringed seal critical habitat. We specifically seek comments and information regarding the types of activities that are likely be subject to section 7 consultation as a result of the proposed designation, and we will consider any relevant information received during the comment period in developing the economic analysis supporting the final rule (see **Public Comment Solicited** section).

We expect that the majority of future ESA section 7 consultations analyzing potential effects on the proposed essential habitat features will involve NMFS and BOEM

authorizations and permitting of oil and gas related activities. In assessing costs associated with these consultations, we took a conservative approach by estimating that future formal and informal consultations addressing these activities would be more complex than for other activities, and would therefore incur higher third party (*i.e.*, applicant/permittee) incremental administrative costs per consultation to consider effects to Arctic ringed seal critical habitat (see Draft Impact Analysis Report). These higher third party costs may not be realized in all cases because the administrative effort required for a specific consultation depends on factors such as the location, timing, nature, and scope of the potential effects of the proposed action on the essential features. There is also considerable uncertainty regarding the timing and extent of future oil and gas exploration and development in Alaska's Outer Continental Shelf (OCS) waters, as indicated by Shell's 2015 withdrawal from exploratory drilling in the Chukchi Sea and BOEM's 2017-2022 OCS Oil and Gas Leasing Program. Although NMFS completed formal consultations for oil and gas exploration activities in the Chukchi Sea in all but two years between 2006 and 2015, no such activities or related consultations with NMFS have occurred since that time.

As detailed in the Draft Impact Analysis Report, the total incremental costs associated with designating the entire area identified in this revised proposed rule as meeting the definition of critical habitat for the Arctic ringed seal over the next 10 years, in discounted present value terms, are estimated to be \$800,000 (discounted at 7 percent). In annual terms, the estimated range of discounted incremental costs is \$58,000 to \$106,000. About 80 percent of these incremental costs are expected to accrue from ESA section 7 consultations associated with oil and gas related activities in the Chukchi and Beaufort seas and adjacent onshore areas. Although not quantifiable at this time, the Draft Impact Analysis Report acknowledges that the oil and gas industry may also incur indirect costs associated with the critical habitat designation if future third-party litigation

over specific section 7 consultations creates delays or other sources of regulatory uncertainty.

We have preliminarily concluded that the potential economic impacts associated with the critical habitat designation are modest both in absolute terms and relative to the level of economic activity expected to occur in the affected area, which is primarily associated with oil and gas activities that may occur in the Beaufort and Chukchi seas. As a result, and in light of the benefits of critical habitat designation discussed above and in the Draft Impact Analysis Report, we are not proposing to exercise our discretion to exclude any particular area from the critical habitat designation by evaluating whether the benefits of excluding such area based on economic impacts outweighs the benefits of including such area.

National Security Impacts

Section 4(b)(2) of the ESA also requires consideration of national security impacts. As noted in the **Application of ESA Section 4(a)(3)(B)(i)** section above, before publication of our 2014 proposed rule, we contacted DOD regarding any potential impacts of designating critical habitat for the Arctic ringed seal on military operations. In a letter dated June 3, 2013, the DOD Regional Environmental Coordinator indicated that no impacts on national security were foreseen from such a designation. As a result, in that proposed rule we did not identify any direct impacts from the critical habitat designation on activities associated with national security.

Following publication of our 2014 proposed rule, by a letter dated April 17, 2015, DOD indicated that upon further review, it had identified national security concerns with the designation due to overlap of the proposed critical habitat with the area north of Prudhoe Bay to the Canadian border extending seaward from approximately 125 to 200 nm that is used by the U.S. Navy for training and testing activities. DOD requested that NMFS exclude this area from the critical habitat designation due to national security

impacts, expressing the view that designation of this area will impact national security if training and testing activities are prohibited or severely degraded, as detailed in a comment letter from the Navy dated March 30, 2015. More recently, by letter dated March 17, 2020, the Navy reiterated its request for this exclusion due to national security impacts, but modified the description of the particular area to extend seaward from approximately 100 to 200 nm (noting that ice conditions have required a shift closer to shore).

The Navy indicated in its written communications that it conducts Arctic training and testing exercises, referred to by the Navy as Ice Exercises (ICEXs), on and below the sea ice within the particular area requested for exclusion. ICEXs and the accompanying base camps are established anywhere from 100 to 200 nm north of Prudhoe Bay, Alaska. These exercises are planned to occur every 2 years and typically last 25 to 45 days. ICEX camps include approximately 15 to 20 temporary shelters which support 30 to 65 personnel. Training and testing activities include: submarine activities; submarine surfacing, in which submarines avoid pressure ridges and conduct surfacings in first year ice or in polynyas; aircraft operations; building of runways; and other on-ice activities. The Navy noted that ICEX activities alter the ice by creating holes to deploy training and testing equipment and surfacing submarines. The Navy explained that due to the need for stable ice, flights are conducted immediately prior to buildup of the ICEX camp to determine the final location.

The Navy also noted that the Office of Naval Research conducts research testing activities in the deep waters of the Beaufort Sea with acoustic sources and the use of icebreaking ships to deploy and retrieve these sources, which it plans to continue in the future, and expressed concern that the designation of critical habitat could impact these activities. The Navy indicated that it also conducts other training and testing activities in the Arctic region in support of gaining and maintaining military readiness in this region,

and expects additional training and testing activities to occur in this region. The activities may be similar to those identified for ICEXs, and likely also would include vessel movements, icebreaking, and support transport by air and sea. Testing activities may include air platform/vehicle tests, missile testing, gunnery testing, and anti-submarine warfare tracking testing.

The Navy expressed the concern that the critical habitat may impact national security if training and testing activities are prohibited or are required to be mitigated (for the protection of critical habitat) to the point where training and testing value is severely degraded, or if the Navy is unable to access certain locations within the Arctic region. The Navy indicated that if the critical habitat designation maintains the same boundaries identified in our 2014 proposed designation, it does not foresee a way that its training and testing activities will be able to be conducted without significant impacts on those activities. In support of this assertion the Navy noted that through consultation with NMFS under section 7 of the ESA for training on the east coast of the United States, the Navy agreed to restrict certain training activities in North Atlantic right whale critical habitat during the calving season, noting that those training activities can be conducted in nearby areas that are not designated as critical habitat during the calving season. The Navy indicated that due to the size of the area proposed in 2014 as critical habitat for the Arctic ringed seal and the uniqueness of Arctic conditions, the Navy would not be able to shift its training activities to other areas or to different times of the year.

In addition to the information provided by the Navy, by letter dated April 30, 2020, the Air Force provided information concerning its activities at radar sites located adjacent to the area under consideration for designation as critical habitat (relevant sites identified above in the **Application of ESA Section 4(a)(3)(B)(i)** section). The Air Force requested that we consider excluding critical habitat near these sites under section 4(b)(2) of the ESA due to impacts on national security. Although we are not proposing to exempt

the radar sites pursuant to section 4(a)(3)(B)(i) of the ESA, as discussed above, here we consider whether to propose excluding critical habitat located adjacent to these sites under section 4(b)(2).

The Air Force noted that annual fuel and cargo resupply activities occur at these radar sites primarily in the summer and installation beaches are used for offload. The Air Force indicated that coastal operations at these installations are limited, and when barge operations occur, protective measures are implemented per the Polar Bear and Pacific Walrus Avoidance Plan (preliminary final 2020) associated with the INRMP in place for these sites. The Air Force discussed that it also conducts sampling and monitoring at these sites as part of the department's Installation Restoration Program, and conducts larger scale contaminant or debris removal in some years that can require active disturbance of the shoreline. Coastal barge operations are a feature of both monitoring and removal actions.

Federal agencies have an existing obligation to consult with NMFS under section 7(a)(2) of the ESA to ensure the activities they fund or carry out are not likely to jeopardize the continued existence of the Arctic ringed seal, regardless of whether or where critical habitat is designated for the species. The activities described in the Air Force's exclusion request are localized and small in scale, and it is unlikely that modifications to these activities would be needed to address impacts to critical habitat beyond any modifications that may be necessary to address impacts to Arctic ringed seals. We therefore anticipate that the time and costs associated with consideration of the effects of future Air Force actions on Arctic ringed seal critical habitat under section 7(a)(2) of the ESA would be limited if any, and the consequences for the Air Force's activities, even if we do not exempt or exclude the requested areas from critical habitat designation, would be negligible.

As a result, and in light of the benefits of critical habitat designation discussed

above and in the Draft Impact Analysis Report, we have preliminarily concluded that the benefits of exclusion do not outweigh the benefits of designation and are therefore not proposing to exercise our discretionary authority to exclude these particular areas pursuant to section 4(b)(2) of the ESA with respect to the Air Force's request based on national security impacts. However, given the specific national security concerns identified by the Navy, below we provide an analysis of our decision to exercise our discretionary authority under section 4(b)(2) of the ESA to propose excluding the area requested by the Navy based on national security impacts. We will continue to coordinate with DOD regarding the identification of potential national security impacts that could result from the critical habitat designation to further inform our determinations regarding exclusions from the designation under section 4(b)(2) based on national security impacts.

Other Relevant Impacts

Finally, under ESA section 4(b)(2) we consider any other relevant impacts of critical habitat designation to inform our decision as to whether to exclude any areas. For example, we may consider potential adverse effects on existing management or conservation plans that benefit listed species, and we may consider potential adverse effects on tribal lands or trust resources. In preparing this revised proposed designation, we have not identified any such management or conservation plans, tribal lands or resources, or anything else that would be adversely affected by the critical habitat designation. Some Alaska Native organizations and tribes have expressed concern that the critical habitat designation might restrict subsistence hunting of ringed seals or other marine mammals, such that important hunting areas should be considered for exclusion, but no restrictions on subsistence hunting are associated with this designation. Accordingly, we are not exercising our discretion to conduct an exclusion analysis pursuant to section 4(b)(2) of the ESA based on other relevant impacts.

Proposed Exclusion Based on National Security Impacts

Based on the written information provided by the Navy (summarized in the *National Security Impacts* section above), and clarifications provided through subsequent communications with the Navy regarding the location of the particular area requested for exclusion, we evaluated whether there was a reasonably specific justification indicating that designating certain areas as critical habitat would have a probable incremental impact on national security. In accordance with our 4(b)(2) policy (81 FR 7226, February 11, 2016), when the Navy provides a reasonably specific justification, we will defer to its expert judgment as to: (1) Whether activities on its lands or waters, or its activities on other lands or waters, have national security or homeland-security implications; (2) the importance of those implications; and (3) the degree to which the cited implications would be adversely affected by the critical habitat designation. In conducting our review of this exclusions request under section 4(b)(2) of the ESA, we also gave great weight to the Navy's national security concerns. To weigh the national security impacts against conservation benefits of a potential critical habitat designation, we considered the following: (1) The size of the area requested for exclusion compared with the total size of the specific area that meets the definition of critical habitat for the Arctic ringed seal; (2) the conservation value of the area requested for exclusion; (3) the likelihood that the Navy's activities would affect the area requested for exclusions and trigger ESA section 7 consultations, and the likelihood that Navy activities would need to be modified to avoid adverse modification or destruction of critical habitat; and (4) the likelihood that other Federal actions may occur that would no longer be subject to the ESA's critical habitat provisions if the particular area were excluded from the designation.

The area requested for exclusion comprises approximately 12 percent of the marine habitat that meets the definition of critical habitat for the Arctic ringed seal, and approximately 41 percent of the portion of this marine habitat north of the Beaufort Sea shelf (north of the 200-m isobath). As noted by the Navy in its exclusion request, and as

discussed above in the *Distribution and Habitat Use* and **Specific Areas Containing the Essential Features** sections, data currently available on ringed seal use of the requested exclusion area, particularly for the northernmost portion, are limited. As we discussed above (see **Specific Areas Containing the Essential Features** section), aerial surveys of ringed seals during the periods of reproduction and molting have been conducted for the most part over the continental shelf within about 25 to 40 km of the Alaska coast. However, incidental sightings of ringed seals were documented up to about 100 km north of the Beaufort Sea shelf during bowhead whale aerial surveys conducted during spring and early summer. Although we are not aware of any similar data for U.S. waters farther north, the trend toward areas of earlier spring ice retreat lends support for our decision to propose defining the northern boundary of the specific area that meets the definition of critical habitat for the Arctic ringed seal as the outer extent of the U.S. EEZ. In addition, recent satellite telemetry data for ringed seals tagged on the Alaska coast show that during the open-water season, some of these seals made forays north of the Beaufort Sea shelf, including into parts of the area requested for exclusion (Crawford *et al.* 2019, Quakenbush *et al.* 2019; Alaska Department of Fish and Game (ADF&G) and North Slope Borough, 2019, unpublished data, Von Duyke *et al.* 2020). We note that the telemetry data for these seals are unlikely to fully reflect the distribution of this species in U.S. waters, for instance because, as discussed by Citta *et al.* (2018), the distribution of telemetry locations for tagged ringed seals is influenced by the location and season of tagging. Thus, although the area requested for exclusion contains one or more of the essential features of the Arctic ringed seal's critical habitat, data are limited to inform our assessment of the relative value of this area to the conservation of the species. Dive recorders indicated that foraging-type movements of some of these tagged seals occurred over both the continental shelf and north of the shelf, suggesting that both areas may be important to ringed seals during the open-water period. Observations of ringed seals near

and beyond the outer extent of the U.S. EEZ in the Arctic Ocean Basin were also documented by marine mammal observers during a research geophysical survey conducted in the summer of 2010.

The testing and training activities described in the Navy's exclusion request are temporally limited, localized, and small in scale, and it is very unlikely that modifications to these activities would be needed to address impacts to critical habitat beyond any modifications that may be necessary to address impacts to Arctic ringed seals. Moreover, the Navy has an existing obligation to consult with NMFS under section 7(a)(2) of the ESA to ensure the activities it funds or carries out are not likely to jeopardize the continued existence of the Arctic ringed seal, regardless of whether or where critical habitat is designated for the species. Aside from the Navy's training and testing activities, we are aware of few other Federal actions that would be expected to affect the particular area requested for exclusion.

We recognize that there are limited data currently available to inform our evaluation of the conservation value to the Arctic ringed seal of the particular area requested for exclusion. Therefore, given the Navy's specific justification regarding potential impacts on national security stemming from the potential designation of critical habitat for the Arctic ringed seal in the particular area requested for exclusion, and the fact that few other Federal actions are expected to occur that would no longer be subject to consideration of effects on Arctic ringed seal critical habitat if the particular area were excluded from the designation, we have concluded that the benefits of excluding this particular area due to national security impacts outweigh the benefits of designating this area as critical habitat for the Arctic ringed seal. Moreover, failure to designate this area as critical habitat is not expected to result in the extinction of the species because the area is small in comparison to the entirety of the proposed critical habitat, we have no reason to believe it is more valuable for Arctic ringed seals than other portions of the proposed

critical habitat, and threats to Arctic ringed seals in this area (including habitat-related threats) from Federal actions would continue to be subject to section 7 consultations. Consequently, we are proposing to exclude this area from the designation of critical habitat for the Arctic ringed seal, and we adjusted the proposed boundaries accordingly. We modified the curvilinear southern boundary of the proposed exclusion area recommended by the Navy to simplify its delineation while still including the full area the Navy recommended, resulting in a slightly larger area (about 1 percent more area) being proposed for exclusion.

As explained in the Draft Impact Analysis Report, the total incremental costs associated with the particular area we are proposing to exclude, which stem from administrative costs of adding critical habitat analyses to consultations on the Navy's ICEX activities over the next 10 years, are estimated to be \$13,300 (discounted at 7 percent). Thus, the total incremental costs associated with the revised proposed critical habitat designation over the next 10 years, if this area is excluded, are estimated to be \$786,000 (discounted at 7 percent). In annual terms, the estimated range of discounted incremental costs is \$57,000 to \$105,000.

Revised Proposed Critical Habitat Designation

We propose to designate as critical habitat a specific area of marine habitat in Alaska and offshore Federal waters of the Bering, Chukchi, and Beaufort seas, within the geographical area presently occupied by the Arctic ringed seal. This critical habitat area contains physical or biological features essential to the conservation of Arctic ringed seals that may require special management considerations or protection. Based on national security impacts, we propose to exclude a particular area of marine habitat north of the Beaufort Sea shelf that is used by the Navy for training and testing activities because we determined that the benefits to national security of exclusion outweigh the benefits of designation. We have not identified any unoccupied areas that are essential to

the conservation of the Arctic ringed seal, and thus we are not proposing any such areas for designation as critical habitat. In accordance with our regulations regarding critical habitat designation (50 CFR 424.12(c)), the map included in the proposed regulation, as clarified by the accompanying regulatory text, would constitute the official boundary of the proposed designation.

Effects of Critical Habitat Designation

Section 7(a)(2) of the ESA requires Federal agencies, including NMFS, to ensure that any action authorized, funded, or carried out by the agency is not likely to jeopardize the continued existence of any threatened or endangered species or destroy or adversely modify designated critical habitat. Federal agencies must consult with us on any agency action that may affect listed species or critical habitat. During interagency consultation, we evaluate the agency action to determine whether the action is likely to adversely affect listed species or critical habitat. The potential effects of a proposed action may depend on, among other factors, the specific timing and location of the action relative to the seasonal presence of essential features or seasonal use of critical habitat by listed species for essential life history functions. Although the requirement to consult on an action that may affect critical habitat applies regardless of the season, NMFS addresses spatial-temporal considerations when evaluating the potential impacts of a proposed action during the ESA section 7 consultation process. For example, if an action with short-term effects is proposed during a time of year that sea ice is not present, we may advise that consequences to critical habitat are unlikely. If we conclude in a biological opinion pursuant to section 7(a)(2) of the ESA that the agency action would likely result in the destruction or adverse modification of critical habitat, we would recommend reasonable and prudent alternatives to the action that avoid that result.

Reasonable and prudent alternatives are defined in 50 CFR 402.02 as alternative actions identified during formal consultation that can be implemented in a manner

consistent with the intended purpose of the action, that are consistent with the scope of the Federal agency's legal authority and jurisdiction, that are economically and technologically feasible, and that would avoid the destruction or adverse modification of critical habitat. NMFS may also provide with the biological opinion a statement containing discretionary conservation recommendations. Conservation recommendations are advisory and are not intended to carry any binding legal force.

Regulations at 50 CFR 402.16 require Federal agencies that have retained discretionary involvement or control over an action, or where such discretionary involvement or control is authorized by law, to reinitiate consultation on previously reviewed actions in instances where: (1) Critical habitat is subsequently designated; or (2) new information or changes to the action may result in effects to critical habitat not previously considered (among other reasons for reinitiation). Consequently, some Federal agencies may request reinitiation of consultation or conference with us on actions for which consultation has been completed, if those actions may affect designated critical habitat for the Arctic ringed seal. Activities subject to the ESA section 7 consultation process include activities on Federal lands as well as activities requiring a permit or other authorization from a Federal agency (*e.g.*, a section 10(a)(1)(B) permit from NMFS), or some other Federal action, including funding (*e.g.*, Federal Highway Administration or Federal Emergency Management Agency funding). Consultation under section 7 of the ESA would not be required for Federal actions that do not affect listed species or designated critical habitat, and would not be required for actions on non-Federal and private lands that are not carried out, funded, or authorized by a Federal agency.

Activities That May Be Affected by Critical Habitat Designation

Section 4(b)(8) of the ESA requires, to the maximum extent practicable, in any proposed regulation to designate critical habitat, an evaluation and brief description of those activities that may adversely modify such habitat or that may be affected by such

designation. A variety of activities may affect Arctic ringed seal critical habitat and, if carried out, funded, or authorized by a Federal agency, may be subject to ESA section 7 consultation. Such activities include: in-water and coastal construction; activities that generate water pollution; dredging; commercial fishing; oil and gas exploration, development, and production; oil spill response; and certain military readiness activities. As explained above, at this time, on the basis of how protections are currently implemented for Arctic ringed seals under the MMPA and as a threatened species under the ESA, we do not anticipate that additional requests for project modifications will result specifically from this proposed designation of critical habitat.

Private or non-Federal entities may also be affected by the proposed critical habitat designation if a Federal permit is required, Federal funding is received, or the entity is involved in or receives benefits from a Federal project. These activities would need to be evaluated with respect to their potential to destroy or adversely modify Arctic ringed seal critical habitat. As noted in the **Public Comments Solicited** section below, NMFS also requests information on the types of non-Federal activities that may be affected by this rulemaking.

Public Comments Solicited

To ensure the final action resulting from this revised proposal will be as accurate and effective as possible, we solicit comments and information from the public, other concerned government agencies, Alaska Native tribes and organizations, the scientific community, industry, non-governmental organizations, and any other interested parties concerning our revised proposed designation of critical habitat for the Arctic ringed seal. In particular, we are interested in data and information regarding the following: (1) The distribution and habitat use of Arctic ringed seals; (2) the identification, location, and quality of physical or biological features essential to the conservation of the Arctic ringed seal, including in particular, the delineation of the northern, southern, and shoreward

boundaries of where one or more of these features occur; (3) the potential impacts of designating the proposed critical habitat, including information on the types of Federal activities that may trigger an ESA section 7 consultation; (4) current or planned activities in the area proposed for designation and their possible impacts on the proposed critical habitat; (5) the potential effects of the designation on Alaska Native cultural practices and villages; (6) any foreseeable economic, national security, Tribal, or other relevant impacts resulting from the revised proposed designation; (7) whether any data used in the economic analysis needs to be updated; (8) foreseeable additional costs arising specifically from the designation of critical habitat for the Arctic ringed seal that have not been identified in the Draft Impact Analysis Report; (9) additional information regarding impacts on small businesses and federally recognized tribes not identified in the Draft Impact Analysis Report; and (10) whether any particular areas that we are proposing for critical habitat designation should be considered for exclusion under section 4(b)(2) of the ESA and why. For these described impacts or benefits, we request that the following specific information (if relevant) be provided to inform our ESA section 4(b)(2) analysis: (1) A map and description of the affected area; (2) a description of the activities that may be affected within the area; (3) a description of past, ongoing, or future conservation measures conducted within the area that may protect Arctic ringed seal habitat; and (4) a point of contact.

You may submit your comments and information concerning this revised proposed rule by any one of the methods described under **ADDRESSES** above. The revised proposed rule and supporting documentation can be found on the Federal eRulemaking Portal at www.regulations.gov/#!docketDetail;D=NOAA-NMFS-2013-0114. We will consider all comments and information received during the reopened comment period for this revised proposed rule in preparing the final rule. Accordingly, the final decision may differ from this revised proposed rule.

References Cited

A complete list of all references cited in this revised proposed rule can be found on the Federal eRulemaking Portal and is available upon request from the NMFS office in Juneau, Alaska (see **ADDRESSES**).

Classifications

National Environmental Policy Act

We have determined that an environmental analysis as provided for under the National Environmental Policy Act of 1969 for critical habitat designations made pursuant to the ESA is not required. *See Douglas Cnty. v. Babbitt*, 48 F.3d 1495, 1502–08 (9th Cir. 1995).

Regulatory Flexibility Act

Under the Regulatory Flexibility Act (RFA) (5 U.S.C. 601 *et seq.*), as amended by the Small Business Regulatory Enforcement Fairness Act (SBREFA) of 1996, whenever an agency publishes a notice of rulemaking for any proposed or final rule, it must prepare and make available for public comment a regulatory flexibility analysis that describes the effects of the rule on small entities (*i.e.*, small businesses, small not-for-profit organizations, and small government jurisdictions). We have prepared an initial regulatory flexibility act analysis (IRFA) that is included as part of the Draft Impact Analysis Report for this revised proposed rule. The IRFA estimates the potential number of small businesses that may be directly regulated by this revised proposed rule, and the impact (incremental costs) per small entity for a given activity type. Specifically, based on an examination of the North American Industry Classification System (NAICS), this analysis classifies the economic activities potentially directly regulated by the proposed action into industry sectors and provides an estimate of their number in each sector, based on the applicable NAICS codes. A summary of the IRFA follows.

A description of the action (*i.e.*, revised proposed designation of critical habitat),

why it is being considered, and its legal basis are included in the preamble of this revised proposed rule. This proposed action does not impose new recordkeeping or reporting requirements on small entities. The analysis did not reveal any Federal rules that duplicate, overlap, or conflict with the proposed action. Existing Federal laws and regulations overlap with the revised proposed rule only to the extent that they provide protection to natural resources within the area proposed as critical habitat generally. However, no existing regulations specifically prohibit destruction or adverse modification of critical habitat for the Arctic ringed seal.

This revised proposed critical habitat rule does not directly apply to any particular entity, small or large. The regulatory mechanism through which critical habitat protections are enforced is section 7 of the ESA, which directly regulates only those activities carried out, funded, or permitted by a Federal agency. By definition, Federal agencies are not considered small entities, although the activities they fund or permit may be proposed or carried out by small entities. In some cases, small entities may participate as third parties (*e.g.*, permittees, applicants, grantees) during ESA section 7 consultations (the primary parties being the Federal action agency and NMFS) and thus they may be indirectly affected by the critical habitat designation.

Based on the best information currently available, the Federal actions projected to occur within the time frame of the analysis (*i.e.*, the next 10 years) that may trigger an ESA section 7 consultation due to the potential to affect one or more of the essential habitat features also have the potential to affect Arctic ringed seals. Thus, as discussed above, we expect that none of the activities we identified would trigger a consultation solely on the basis of this critical habitat designation; in addition, we do not anticipate that additional requests for project modifications will result specifically from this designation of critical habitat. As a result, the direct incremental costs of this critical habitat designation are expected to be limited to the additional administrative costs of

considering Arctic ringed seal critical habitat in future section 7 consultations that would occur regardless based on the listing of Arctic ringed seals.

As detailed in the Draft Impact Analysis Report, the oil and gas exploration, development, and production industries participate in activities that are likely to require consideration of critical habitat in ESA section 7 consultations. The Small Business Administration size standards used to define small businesses in these cases are: (1) an average of no more than 1,250 employees (crude petroleum and natural gas extraction industry); or (2) average annual receipts of no more than \$41.5 million (support activities for oil and gas operations industry). Only two of the parties identified in the oil and gas category appear to qualify as small businesses based on these criteria. Based on past ESA section 7 consultations, the additional third party administrative costs in future consultations involving Arctic ringed seal critical habitat over the next 10 years are expected to be borne principally by large oil and gas operations. The estimated range of annual third party costs over this 10 year period is \$32,000 to \$59,000 (discounted at 7 percent), virtually all of which is expected to be associated with oil and gas activities. It is possible that a limited portion of these administrative costs may be borne by small entities (based on past consultations, an estimated maximum of two entities). Two government jurisdictions with ports appear to qualify as small government jurisdictions (serving populations of fewer than 50,000). The total third party costs that may be borne by these small government jurisdictions over 10 years are less than \$1,000 (discounted at 7 percent) for the additional administrative effort to consider Arctic ringed seal critical habitat as part of a future ESA section 7 consultation involving one port.

As required by the RFA (as amended by the SBREFA), we considered alternatives to the proposed critical habitat designation for the Arctic ringed seal. We considered and rejected the alternative of not designating critical habitat for the Arctic ringed seal, because such an alternative does not meet our statutory requirements under

the ESA. We also considered and rejected the alternative of designating as critical habitat the entire specific area that contains at least one identified essential feature (*i.e.*, no areas excluded), because the alternative does not allow the agency to take into account circumstances in which the benefits of exclusion for national security impacts outweigh the benefits of critical habitat designation. Finally, through the ESA 4(b)(2) exclusion analysis process, we identified and selected an alternative under which a particular area is proposed for exclusion based on national security impacts after determining that the benefits of exclusion outweigh the conservation benefits to the species, while the remainder of the specific area that contains at least one identified essential feature would be designated as critical habitat. We selected this alternative because it would result in a critical habitat designation that provides for the conservation of the species and is consistent with the ESA and joint NMFS and U.S. Fish and Wildlife Service regulations concerning critical habitat at 50 CFR part 424 while potentially reducing national security impacts. Based on the best information currently available, we concluded that this alternative would result in minimal impacts to small entities and the economic impacts associated with the critical habitat designation would be modest.

Paperwork Reduction Act

The purpose of the Paperwork Reduction Act is to minimize the paperwork burden for individuals, small businesses, educational and nonprofit institutions, and other persons resulting from the collection of information by or for the Federal government. This revised proposed rule does not contain any new or revised collection of information. This rule, if adopted, would not impose recordkeeping or reporting requirements on State or local governments, individuals, businesses, or organizations.

Unfunded Mandates Reform Act (2 U.S.C. 1501 et seq.)

In accordance with the Unfunded Mandates Reform Act, we make the following findings:

(1) This revised proposed rule will not produce a Federal mandate. In general, a Federal mandate is a provision in legislation, statute or regulation that would impose an enforceable duty upon State, local, tribal governments, or the private sector and includes both “Federal intergovernmental mandates” and “Federal private sector mandates.” The designation of critical habitat does not impose an enforceable duty on non-Federal government entities or private parties. Under the ESA, the only regulatory effect of a critical habitat designation is that Federal agencies must ensure that their actions are not likely to destroy or adversely modify critical habitat under section 7. Non-Federal entities that receive Federal funding, assistance, permits, or otherwise require approval or authorization from a Federal agency for an action, may be indirectly affected by the designation of critical habitat, but the legally binding duty to avoid destruction or adverse modification of critical habitat rests squarely on the Federal agency. Furthermore, to the extent that non-Federal entities are indirectly affected because they receive Federal assistance or participate in a voluntary Federal aid program, the Unfunded Mandate Reform Act would not apply, nor would critical habitat shift to state governments the costs of the large entitlement programs listed above.

(2) This revised proposed rule will not significantly or uniquely affect small governments because it is not likely to produce a Federal mandate of \$100 million or greater in any year; that is, it is not a “significant regulatory action” under the Unfunded Mandates Reform Act. In addition, the designation of critical habitat imposes no obligations on local, state, or tribal governments. Therefore, a Small Government Agency Plan is not required.

Information Quality Act and Peer Review

The data and analyses supporting this proposed action have undergone a pre-dissemination review and have been determined to be in compliance with applicable information quality guidelines implementing the Information Quality Act (Section 515 of

Pub. L. 106–554).

On December 16, 2004, the OMB issued its Final Information Quality Bulletin for Peer Review (Bulletin) establishing minimum peer review standards, a transparent process for public disclosure of peer review planning, and opportunities for public participation. The Bulletin was published in the **Federal Register** on January 14, 2005 (70 FR 2664). The primary purpose of the Bulletin, which was implemented under the Information Quality Act, is to improve the quality and credibility of scientific information disseminated by the Federal government by requiring peer review of “influential scientific information” and “highly influential scientific information” prior to public dissemination. Influential scientific information is defined as information the agency reasonably can determine will have or does have a clear and substantial impact on important public policies or private sector decisions. The Bulletin provides agencies broad discretion in determining the appropriate process and level of peer review. Stricter standards were established for the peer review of “highly influential scientific assessments,” defined as information whose dissemination could have a potential impact of more than \$500 million in any one year on either the public or private sector or that the information is novel, controversial, or precedent-setting, or has significant interagency interest.

The evaluation of critical habitat presented in this revised proposed rule and the information presented in the supporting Draft Impact Analysis Report are considered influential scientific information subject to peer review. To satisfy our requirements under the OMB Bulletin, we obtained independent peer review of the critical habitat analysis contained in our 2014 proposed rule from five reviewers, and of the information used to prepare the associated impact analysis report from three reviewers. We reviewed the comments received from these reviewers for substantive issues and new information regarding critical habitat for the Arctic ringed seal, and we used this information as

applicable in the development of this revised proposed rule and the associated Draft Impact Analysis Report. The peer review comments are compiled in two reports that are available on the Federal eRulemaking Portal or upon request (see **ADDRESSES**). We are obtaining additional independent peer review of the information used to prepare this revised proposed rule, and will address all comments received in developing the final rule.

Executive Order 13175, Consultation and Coordination with Indian Tribal Governments

The longstanding and distinctive relationship between the Federal and tribal governments is defined by treaties, statutes, executive orders, judicial decisions, and co-management agreements, which differentiate tribal governments from the other entities that deal with, or are affected by, the Federal Government. This relationship has given rise to a special Federal trust responsibility involving the legal responsibilities and obligations of the United States toward Indian tribes and the application of fiduciary standards of due care with respect to Indian lands, tribal trust resources, and the exercise of tribal rights. Executive Order 13175 on Consultation and Coordination with Indian Tribal Governments outlines the responsibilities of the Federal Government in matters affecting tribal interests. Section 161 of Pub. L. 108-199 (188 Stat. 452), as amended by section 518 of Pub. L. 108-447 (118 Stat. 3267), directs all Federal agencies to consult with Alaska Native corporations on the same basis as Indian tribes under E.O. 13175.

As the entire proposed critical habitat area is located seaward of the line of MLLW and does not extend into tidally-influenced channels of tributary waters, no tribal-owned lands overlap with the revised proposed designation. However, we seek comments and information concerning tribal and Alaska Native corporation activities that are likely to be affected by the proposed designation (see **Public Comments Solicited** section). Although this revised proposed designation overlaps with areas used by Alaska Natives for subsistence, cultural, and other purposes, no restrictions on subsistence

hunting are associated with the critical habitat designation. We coordinate with Alaska Native hunters regarding management issues related to Arctic ringed seals through the Ice Seal Committee (ISC), a co-management organization under section 119 of the MMPA. We discussed the designation of critical habitat for Arctic ringed seals with the ISC and provided updates regarding the timeline for publication of this revised proposed rule. We will also contact potentially affected tribes and Alaska Native corporations by mail and offer them the opportunity to consult on the revised designation of critical habitat for the Arctic ringed seal and discuss any concerns they may have. If we receive any such requests in response to this revised proposed rule, we will respond to each request before issuing a final rule.

Executive Order 12630, Takings

Under E.O. 12630, Federal agencies must consider the effects of their actions on constitutionally protected private property rights and avoid unnecessary takings of property. A taking of property includes actions that result in physical invasion or occupancy of private property, and regulations imposed on private property that substantially affect its value or use. In accordance with E.O. 12630, the revised proposed rule does not have significant takings implications. The designation of critical habitat directly affects only Federal agency actions (*i.e.*, those actions authorized, funded, or carried out by Federal agencies). Further, no areas of private property exist within the revised proposed critical habitat and hence none would be affected by this action.

Therefore, a takings implication assessment is not required.

Executive Order 12866, Regulatory Planning and Review, and Executive Order 13771, Reducing Regulation and Controlling Regulatory Costs

OMB has determined that this revised proposed rule is significant for purposes of E.O. 12866 review. A Draft Impact Analysis Report has been prepared that considers the economic costs and benefits of the revised proposed critical habitat designation and

alternatives to this rulemaking as required under E.O. 12866. To review this report, see the **ADDRESSES** section above.

Based on the Draft Impact Analysis Report, the total estimated present value of the incremental impacts of the revised proposed critical habitat designation is approximately \$786,000 over the next 10 years (discounted at 7 percent). Assuming a 7 percent discount rate, the range of annual impacts is estimated to be \$57,000 to \$105,000. Overall, economic impacts are expected to be small and Federal agencies are anticipated to bear at least 45 percent of these costs. While there are expected beneficial economic impacts of designating critical habitat for the Arctic ringed seal, there are insufficient data available to monetize those impacts (see *Benefits of Designation* section).

This proposed rulemaking is expected to be regulatory under E.O. 13771.

Executive Order 13132, Federalism

Executive Order 13132 requires agencies to take into account any federalism impacts of regulations under development. It includes specific consultation directives for situations in which a regulation may preempt state law or impose substantial direct compliance costs on state and local governments (unless required by statute). Pursuant to E.O. 13132, we determined that this revised proposed rule does not have significant federalism effects and that a federalism assessment is not required. The designation of critical habitat directly affects only the responsibilities of Federal agencies. As a result, the revised proposed rule does not have substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government, as specified in the Order. State or local governments may be indirectly affected by the revised proposed designation if they require Federal funds or formal approval or authorization from a Federal agency as a prerequisite to conducting an action. In these cases, the State or local government agency may participate in the ESA section 7 consultation as a third party.

However, in keeping with Department of Commerce policies and consistent with ESA regulations at 50 CFR 424.16(c)(1)(ii), we will request information for this revised proposed rule from the appropriate state resource agencies in Alaska.

Executive Order 13211, Energy Supply, Distribution, and Use

Executive Order 13211 requires agencies to prepare Statements of Energy Effects when undertaking a significant energy action. Under E.O. 13211, a significant energy action means any action by an agency that is expected to lead to the promulgation of a final rule or regulation that is a significant regulatory action under E.O. 12866 and is likely to have a significant adverse effect on the supply, distribution, or use of energy. We have considered the potential impacts of this revised proposed critical habitat designation on the supply, distribution, or use of energy (see Draft Impact Analysis Report for this revised proposed rule). This proposed critical habitat designation overlaps with five BOEM planning areas for Outer Continental Shelf oil and gas leasing; however, the Beaufort and Chukchi Sea planning areas are the only areas with existing or planned leases.

Currently, the majority of oil and gas production occurs on land adjacent to the Beaufort Sea and the proposed critical habitat area. Any proposed offshore oil and gas projects would likely undergo an ESA section 7 consultation to ensure that the project would not likely destroy or adversely modify designated critical habitat. However, as discussed in the Draft Impact Analysis Report for this revised proposed rule, such consultations will not result in any new and significant effects on energy supply, distribution, or use. ESA section 7 consultations have occurred for numerous oil and gas projects within the area of the critical habitat designation (*e.g.*, regarding possible effects on endangered bowhead whales, a species without designated critical habitat) without adversely affecting energy supply, distribution, or use, and we would expect the same relative to critical habitat for Arctic ringed seals. We have, therefore, determined that the

energy effects of this revised proposed rule are unlikely to exceed the impact thresholds identified in E.O. 13211, and that this rulemaking is not a significant energy action.

List of Subjects

50 CFR Part 223

Endangered and threatened species.

50 CFR Part 226

Endangered and threatened species.

Dated: December 28, 2020.

Samuel D. Rauch III,
Deputy Assistant Administrator for Regulatory Programs,
National Marine Fisheries Service.

For the reasons set out in the preamble, 50 CFR parts 223 and 226 are proposed to be amended as follows:

PART 223—THREATENED MARINE AND ANADROMOUS SPECIES

1. The authority citation for part 223 continues to read as follows:

Authority: 16 U.S.C. 1531-1543; subpart B, § 223.201-202 also issued under 16 U.S.C. 1361 *et seq.*; 16 U.S.C. 5503(d) for § 223.206(d)(9).

2. In § 223.102, amend the table in paragraph (e), under Marine Mammals, by revising the entry for the “Seal, ringed (Arctic subspecies)” to read as follows:

§ 223.102 Enumeration of threatened marine and anadromous species.

* * * * *

(e) * * *

Species ¹			Citation(s) for listing determination(s)	Critical habitat	ESA rules
Common name	Scientific name	Description of listed entity			
Marine Mammals					
* * * * *					
Seal, ringed (Arctic subspecies)	<i>Phoca (=Pusa) hispida hispida</i>	Entire subspecies	77 FR 76706, Dec. 28, 2012	226.229	NA.
* * * * *					

¹Species includes taxonomic species, subspecies, distinct population segments (DPSs) (for a policy statement, see 61 FR 4722; February 7, 1996), and evolutionarily significant units (ESUs) (for a policy statement, see 56 FR 58612; November 20, 1991).

* * * * *

PART 226—DESIGNATED CRITICAL HABITAT

3. The authority citation for part 226 continues to read as follows:

Authority: 16 U.S.C. 1533.

4. Add § 226.229 to read as follows:

§ 226.229 Critical Habitat for the Arctic Subspecies (*Pusa hispida hispida*) of the Ringed Seal.

Critical habitat is designated for the Arctic subspecies of the ringed seal as depicted in this section. The map, clarified by the textual descriptions in this section, is the definitive source for determining the critical habitat boundaries.

(a) *Critical habitat boundaries.* Critical habitat for the Arctic subspecies of the ringed seal includes marine waters within one specific area in the Bering, Chukchi, and Beaufort seas, extending from the line of mean lower low water (MLLW) to an offshore limit within the U.S. Exclusive Economic Zone (EEZ). Critical habitat does not extend

into tidally-influenced channels of tributary waters of the Bering, Chukchi, or Beaufort seas. The boundary extends offshore from the northern limit of the United States-Canada border approximately 190 km to 71°17'29'' N/139°28'8'' W, and from this point runs generally westward along the line connecting the following points: 71°43'32'' N/141°59'29'' W, 71°46'18'' N/144°31'13'' W, 71°50'25'' N/145°53'17'' W, 72°10'39'' N/149°10'58'' W, 72°20'4'' N/150° W, and 72°20'4'' N/152° W. From this point (72°20'4'' N/152° W) the boundary follows longitude 152° W northward to the seaward limit of the U.S. EEZ, and then follows the limit of the U.S. EEZ northwestward; then southwestward and south to the intersection of the southern boundary of the critical habitat in the Bering Sea at 61°18'15'' N/177°45'56'' W. The southern boundary extends southeastward from this intersection point to 60°7' N/172°1' W, then northeastward along a line extending to near Cape Romanzof at 61°48'42'' N/166°6'5'' W, with the shoreward boundary defined by line of MLLW. Critical habitat does not include permanent manmade structures such as boat ramps, docks, and pilings that were in existence within the legal boundaries on or before the effective date of this rule.

(b) *Essential features.* The essential features for the conservation of the Arctic subspecies of the ringed seal are:

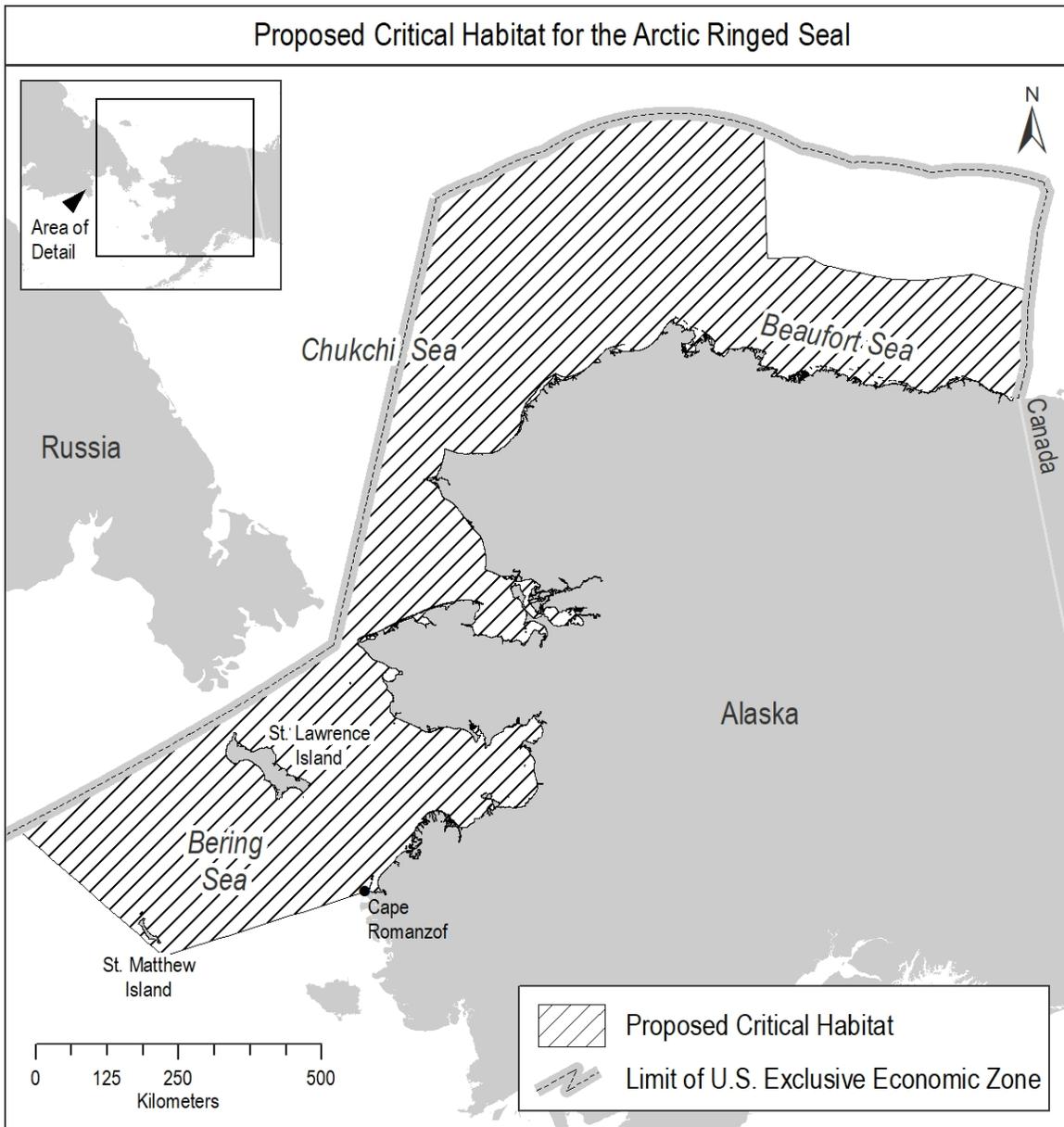
(1) Snow-covered sea ice habitat suitable for the formation and maintenance of subnivean birth lairs used for sheltering pups during whelping and nursing, which is defined as areas of seasonal landfast (shorefast) ice and dense, stable pack ice, excluding any bottom-fast ice extending seaward from the coastline (typically in waters less than 2 m deep), that have undergone deformation and contain snowdrifts of sufficient depth, typically at least 54 cm deep.

(2) Sea ice habitat suitable as a platform for basking and molting, which is defined as areas containing sea ice of 15 percent or more concentration, excluding any bottom-fast ice extending seaward from the coastline (typically in waters less than 2 m

deep).

(3) Primary prey resources to support Arctic ringed seals, which are defined to be Arctic cod (*Boreogadus saida*), saffron cod (*Eleginus gracilis*), shrimps, and amphipods.

(c) *Map of Arctic ringed seal critical habitat.*



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