

Revision of Critical Habitat for
Hawaiian Monk Seals

Draft ESA Section 4(b)(2) Report
(To accompany the Proposed Rule)

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List of Acronyms

CHRT	Critical Habitat Review Team
BARSTUR	Barking Sands Tactical Underwater Range
DOD	Department of Defense
EPA	Environmental Protection Agency
ESA	Endangered Species Act
USFWS	U.S. Fish and Wildlife Service
INRMP	Integrated Natural Resource Management Plan
MHI	Main Hawaiian Islands
MCBH	Marine Corps Base Hawaii
MCTAB	Marine Corps Training Area Bellows
NMFS	National Marine Fisheries Service
NPDES	National Pollutant Discharge Elimination System
NPS	National Parks Service
NWHI	Northwest Hawaiian Islands
PIFSC	Pacific Islands Fisheries Science Center
PIRO	Past Pacific Island Regional Office
PMRF	Pacific Missile Range Facility
PRD	Protected Species Division
SWTR	Shallow Water Training Range
USMC	U.S. Marine Corps

Background and Summary

Purpose and Structure of the Report

This report contains the National Marine Fisheries Service (NMFS), Pacific Islands Regional Office (PIRO), Hawaiian monk seal Critical Habitat Review Team's (CHRT) recommendations for the proposed revision of critical habitat under section 4 of the Endangered Species Act (ESA), for the Hawaiian monk seal, which was listed under the ESA on November 23, 1976 (41 FR 51611). This report documents NMFS' compliance with section 4(b)(2) of the ESA regarding the impacts of proposing to designate critical habitat for the Hawaiian monk seal. The report describes the process followed, methods used, and conclusions reached for each step leading to the proposed critical habitat designation along with the applicable laws, court rulings, executive orders, policies. In this document the use of "we" and "our" refers to the CHRT.

Background

The Hawaiian monk seal (*Monachus schauinslandi*) was listed as endangered throughout its range under the ESA in 1976 (41 FR 51611; November 23, 1976). In 1986, critical habitat for the Hawaiian monk seal was designated at all beach areas, sand spits and islets, including all beach crest vegetation to its deepest extent inland, lagoon waters, inner reef waters, and ocean waters out to a depth of 10 fathoms (18.3 m) around Kure Atoll, Midway Islands (except Sand Island), Pearl & Hermes Reef, Lisianski Island, Laysan Island, Gardner Pinnacles, French Frigate Shoals, Necker Island, and Nihoa Island in the NWHI (51 FR 16047; April 30, 1986). In 1988, critical habitat was expanded to include Maro Reef and waters around previously designated areas out to the 20 fathom (36.6 m) isobaths (53 FR 18988; May 26, 1988).

On July 9, 2008, NMFS received a petition, dated July 2, 2008, from the Center for Biological Diversity, Kahea, and the Ocean Conservancy (Petitioners) to revise the Hawaiian monk seal critical habitat designation (Center for Biological Diversity 2008) under the ESA. The Petitioners sought to revise critical habitat by adding the following areas in the main Hawaiian Islands (MHI): key beach areas, sand spits and islets, including all beach crest vegetation to its deepest extent inland, lagoon waters, inner reef waters, and ocean waters out to a depth of 200 meters (m). In addition, the Petitioners requested that designated critical habitat in the Northwestern Hawaiian Islands (NWHI) be extended to include Sand Island at Midway, as well as ocean waters out to a depth of 500 m (Center for Biological Diversity 2008). On October 3, 2008, NMFS announced in its 90-day finding that the petition presented substantial scientific information indicating that a revision to the current critical habitat designation may be warranted (73 FR 57583; October 3, 2008). Having reviewed current scientific information available, NMFS announced its intention to move forward with the revision to critical habitat on June 12, 2009 in the 12-month finding (74 FR 27988; June 12, 2009). The decision to revise was based on new information available on Hawaiian monk seal use of foraging habitat and the apparent re-colonization of the MHI by seals since the 1988 designation (74 FR 27988; June 12, 2009). To determine the appropriate areas for consideration for the revision NMFS convened a critical habitat review team (CHRT) consisting of 7 biologists with experience working on issues related to Hawaiian monk seal research and management.

When initially evaluating the petition, we reviewed a variety of data sources to identify specific areas within and adjacent to the petitioned area to determine areas that might warrant consideration as critical habitat. In the 12-month finding (74 FR 27988; June 12, 2009), NMFS identified the range of

the species as throughout the Hawaiian Archipelago and Johnston Atoll. Due to the wide ranging nature of the species and the recovery goals established for the species, it was found that additional area outside of those areas petitioned should also be considered. The decision to consider additional area is also supported by the criteria established for critical habitat in the ESA. Although petitioned to designate area in the MHI out to a depth of 200 m, we evaluated habitat needs for the species, including all areas within the identified range to meet the conservation goals and needs of the species. Sixteen specific areas incorporating terrestrial and marine habitat were identified throughout the Hawaiian Archipelago; ten in the NWHI and 6 in the MHI. Areas in the NWHI include all beach areas, sand spits and islets including all beach crest vegetation to its deepest extent inland, lagoon waters, inner reef waters and ocean waters out to the 500-m depth contour around the following islands, atolls and reef: Kure Atoll, Midway Islands (not including Midway Harbor), Pearl and Hermes Reef, Lisianski Island, Maro Reef, Gardner Pinnacles, French Frigate Shoals, Necker Island, and Nihoa Island. Areas in the MHI includes all the terrestrial environment extending 5 m inland (in length) from the shoreline described by the upper reaches of the wash of the waves, other than storm or seismic waves, at high tide during the season in which the highest wash of the waves occurs, usually evidenced by the edge of vegetation growth or the upper limit of debris and all marine habitat from the waters edge to the 500-m depth contour around the following areas (except those areas indicated as not included for each island): Kaula Island, Niihau, Kauai, Oahu, Mai Nui (including Molokai, Lanai, Maui, and Kahoolawe), and Hawaii. Within these areas smaller areas have been identified as not included in the proposed designation due to the low quality or lack of essential features present. These areas include highly developed areas with hardened shorelines and are identified under the “*Specific Areas*” within the *Occupied Geographical Area* section of this report and depicted in Appendix B. Subsequent sections of this report will also provide further information on the areas evaluated and the analysis of impacts to the identified specific areas. Additional information regarding Hawaiian monk seal natural history and status, and our determination of essential features and specific areas identified may be found in the biological report or in the *Federal Register* in the proposed rule.

Alternatives Considered

Various alternatives to the revision of designated critical habitat designation for the Hawaiian monk seal were considered. The alternative of not revising the designated critical habitat for Hawaiian monk seals would impose no additional economic, national security, or other relevant impacts, but would not provide any additional conservation benefit to the species. This alternative was considered and rejected because such an approach does not meet the legal requirements of the ESA and would not provide for the conservation of the species based on the best available science.

The alternative of designating all potential critical habitat areas (i.e., no areas excluded) also was considered and rejected because, for several areas, the benefits of exclusion outweighed the benefits of inclusion, and we determined that exclusion of these areas would not significantly impede conservation or result in extinction of the species.

An alternative to designating critical habitat within all of the areas considered for designation is the designation of critical habitat within a subset of those areas. Under section 4(b)(2) of the ESA, we must consider the economic impacts, impacts to national security, and other relevant impacts of designating any particular area as critical habitat. NMFS has the discretion to exclude an area from designation as critical habitat if the benefits of exclusion (i.e., the impacts that would be avoided if an area was excluded from the designation) outweigh the benefits of designation (i.e., the conservation

benefits to the Hawaiian monk seal if an area was designated), so long as exclusion of the area will not result in extinction of the species. Exclusion under section 4(b)(2) of the ESA of one or more of the particular areas considered for designation would reduce the total impacts of designation. The determination of which particular areas and how many to exclude is subject to the Secretary's discretion after the impacts have been evaluated in accordance with section 4(b)(2) of the ESA. This report describes the 4(b)(2) analysis conducted for each area. We selected this alternative because it would result in a critical habitat designation that provides for the conservation of the species while potentially reducing the economic, national security and other relevant impacts on entities. This alternative also meets ESA and joint NMFS and United States Fish and Wildlife Services (USFWS) (collectively known as the Services) regulations concerning critical habitat at 50 CFR 424.

Under the above mentioned preferred alternative, we propose to exclude 5 particular areas located within the proposed 16 specific areas because we believe the benefits of exclusion for the purposes of national security outweigh the benefits of designation. We believe that the exclusion of these areas would not significantly impede conservation or result in the extinction of the Hawaiian monk seal. Based on our consideration of national security impacts of the proposed critical habitat designation we propose to exclude the following particular areas located within the identified specific areas: Kingfisher Underwater Training Area off of Niihau, located in Area 12 – Niihau; Pacific Missile Range Facility (PMRF) Main Base at Barking Sands, Kauai, located in Area 13 – Kauai; Pacific Missile Range Facility Offshore areas (Barking Sands Tactical Underwater Range (BARSTUR), the Shallow Water Training Range (SWTR), and PMRF Restricted area), located in Area 13 – Kauai; Naval Defensive Sea Area and Puuloa Underwater Training Range, located in Area 14 – Oahu; and Shallow Water Minefield Sonar Training Range off Kahoolawe, located in Area 15 – Maui Nui.

We acknowledge, as summarized in the Draft Economic Analysis (ECONorthwest 2010), that the proposed designation is likely to have economic impacts through ESA section 7 consultations, where federal action agencies must insure that their proposed actions are not likely to destroy or adversely modify designated critical habitat. Although we have projected the annual number of section 7 consultations required by the proposed designation based on the Pacific Islands Regional Office's consultation history, the lack of information on the specifics of future projects limits our ability to forecast the exact type and amount of project modifications required along with these administrative costs. Additionally, we acknowledge that uncertainty associated with the impacts that activities may have on Hawaiian monk seal essential features limits our ability to forecast the exact type and the extent of project modifications that may be required. We have included various activities in the evaluations, despite this uncertainty, in order to consider the potential for economic impacts. Future scientific information may provide a better understanding of the impacts that various activities have on Hawaiian monk seal essential features, thus revealing project modifications that are necessary to avoid or minimize those impacts. These future project modifications will result in economic impacts that can not currently be quantified with the information available. Given the abundance of essential features present throughout the proposed specific areas, consultation and project modifications are expected to occur as a result of this designation with incurred economic costs; however, at this time, we have not identified a particular area where the benefits of exclusion from the designation due to economic impacts outweigh the benefits of designation.

Approach to the Designation

Based on this statutory and regulatory direction, our approach to designation included the following steps:

- I. Identify specific areas eligible for critical habitat designation
 - Identify areas meeting the definition of critical habitat
 - Identify military areas ineligible for designation (4(a)(3) considerations)
- II. Conduct a Section 4(b)(2) exclusion analysis:
 - Determine coextensive vs. incremental impacts
 - Determine the benefits of designation
 - Determine the benefits of exclusion
 - Determine whether benefits of exclusion of any particular area outweigh benefits of designation
 - Determine whether the eligible exclusions will result in extinction of the species
 - Determine whether the eligible exclusions will impede the conservation of the species
 - Recommend exclusions if appropriate

I. Identify Specific Areas Eligible for Critical Habitat Designation

To identify the specific areas for critical habitat we developed our recommendations consistent with statutory requirements and agency regulations, which are summarized prior to the appropriate sections of this report.

Findings and Purposes of the Act Emphasize Habitat Conservation

In section 2(a) of the ESA, “Findings,” (16 U.S.C. 1531 (a)(1)) Congress declared that:

“Various species of fish, wildlife and plants in the United States have been rendered extinct as a consequence of economic growth and development untempered by adequate concern and conservation.”

Section 2(b) of the ESA sets forth the purposes of the Act, beginning with habitat protection:

“The purposes of this chapter are to provide a means whereby the ecosystems upon which endangered species and threatened species depend may be conserved, to provide a program for the conservation of such endangered species and threatened species, and to take such steps as may be appropriate to achieve the purposes of the treaties and conventions set forth in subsection (a) of this section.”

Authority to Designate Critical Habitat is Delegated to NMFS

The authority to designate critical habitat, including the authority to consider the impacts of designation, the authority to weigh those impacts against the benefit of designation, and the authority to exclude particular areas, has been delegated to the Assistant Administrator of the National Marine Fisheries Service (Department Organization Order 10-15 (May 24, 2004). NOAA Organization Handbook, Transmittal #34, May 31, 1993).

“Critical Habitat” is Specifically Defined

Section 3(5)(A) of the ESA (16 U.S.C. 1532 (5)) defines critical habitat in some detail;

(5)(A) “The term ‘critical habitat’ for a threatened or endangered species means –

(i) the specific areas within the geographical area occupied by the species, at the time it is listed in accordance with the provisions of section 1533 of this title, on which are found those physical or biological features (I) essential to the conservation of the species and (II) which may require special management considerations or protection; and

(ii) specific areas outside the geographical area occupied by the species at the time it is listed in accordance with the provisions of section 1533 of this title, upon a determination by the Secretary that such areas are essential for the conservation of the species.”

(B) “Critical habitat may be established for those species now listed as threatened or endangered species for which no critical habitat has heretofore been established as set forth in subparagraph (A) of this paragraph.”

(C) “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.”

“Conservation” is Specifically Defined

Section 3(3) of the Act defines conservation (16 U.S.C. 1532(3)):

(3) “The terms “conserve”, “conserving”, and “conservation” mean to use and 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 chapter are no longer necessary.”

Federal Agencies Must Insure Their Actions Are Not Likely to Destroy or Adversely Modify Critical Habitat

The regulatory intent of critical habitat is realized through section 7(a)(2) of the Act. This section requires federal agencies to insure any actions they authorize, fund or carry out are not likely to result in the destruction or adverse modification of designated critical habitat (16 U.S.C. 1536(a)(2)).

Section 7 also requires federal agencies to insure such actions do not jeopardize the continued existence of the listed species:

“Each Federal agency shall, in consultation with and with the assistance of the Secretary, insure that any action authorized, funded, or carried out by such agency (hereinafter in this section referred to as an “agency action”) is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of habitat of such species which is determined by the Secretary, after consultation as appropriate with affected States, to be critical, unless such agency has been granted an exemption for such action by the Committee pursuant to subsection (h) of this section. In fulfilling the requirements of this paragraph each agency shall use the best scientific and commercial data available.”

Designations of Critical Habitat and Revisions

Section 4(a)(3) requires NMFS to make critical habitat designations concurrently with the listing determination, to the maximum extent prudent and determinable and goes on to describe how designations may be revised as appropriate:

- (3) “The Secretary, by regulation promulgated in accordance with subsection (b) of this section and to the maximum extent prudent and determinable -
- (A) shall, concurrently with making a determination under paragraph (1) that a species is an endangered species or a threatened species, designate any habitat of such species which is then considered to be critical habitat; and
 - (B) may, from time-to-time thereafter as appropriate, revise such designation.”

Identify Areas Meeting the Definition of Critical Habitat for the Hawaiian Monk Seal

The petition to revise critical habitat for the Hawaiian monk seal specifically requested that critical habitat be expanded to include key beach areas, sand spits and islets, including all beach crest vegetation to its deepest extent inland, lagoon waters, inner reef waters, and ocean waters out to a depth of 200 m around the MHI, and to extend critical habitat in the NWHI to include Sand Island and ocean waters out to a depth of 500 m (Center for Biological Diversity 2008). Areas that meet the ESA definition of critical habitat include specific areas:

- 1) within the geographical area occupied by the species at the time of listing, if they contain physical or biological features essential to conservation of the species, and those features may require special management considerations or protection; and
- 2) outside the geographical area occupied by the species if the agency determines that the area itself is essential for conservation of the species.

Therefore, pursuant to section 3(5)(A), our first task was to determine “the geographical area occupied by the species at the time of listing.” In the 12-month finding, NMFS identified the Hawaiian Archipelago, and Johnston Atoll as the range for the Hawaiian monk seal due to the current and/or historical use of these areas for hauling out and parturition (74 FR 27988; June 12, 2008). In a separate Draft Biological Report (NMFS 2010), we have documented our conclusions regarding which specific areas meet the definition of critical habitat and may therefore be eligible for designation (NMFS 2010).

Geographical Area Occupied by the Species

The genus *Monachus*, of which the Hawaiian monk seal is a member, is known to be exclusive to temperate subtropical waters. Specifically Hawaiian monk seals are found throughout the Hawaiian Archipelago where the species is most often described for management and research purposes based on reproductive sites. The majority of the population is located throughout the NWHI, where six main reproductive sites are described as: Kure Atoll, Midway Islands, Pearl and Hermes Reef, Lisianski Island, Laysan Island, and French Frigate Shoals. Smaller reproductive sites occur on Necker Island and Nihoa Island. Additionally, monk seals have been acknowledged to utilize Maro Reef and Gardner Pinnacles regularly; both were included in the 1988 critical habitat designation. Monk seals also occur (haul out) throughout all of the main Hawaiian Islands (MHI), and births have been documented on Niihau, Kauai, Oahu, Molokai, Kahoolawe, Maui and Hawaii. While birth sites

and haul out sites are well described for the species, specific boundaries in the marine environment are not. Travel in the marine environment for a wide ranging species, such as the monk seal, is most likely dependent on foraging and reproductive preferences within this small population. Considerations regarding the extent of the marine habitat therefore incorporated knowledge regarding known diving capabilities (depths greater than 500 m (Parrish et al., 2002; Stewart 2006)), recorded foraging behavior and observations of movement throughout the Archipelago. In addition to considerations within the Hawaiian Archipelago, past observations from Johnston atoll (one birth and several seal sightings) have confirmed this site as an area once utilized by the species ((NMFS) 2001). Probable sightings for the species at Palmyra Atoll, Wake Island, Bikini Atoll and Mejit Island have not been confirmed, and no additional births have been documented outside of the Archipelago and Johnston Atoll. Thus, the occupied geographical area under consideration for this designation was limited to areas surrounding the Hawaiian Archipelago and Johnston Atoll.

Joint Regulations on Habitat Features Govern Designation

Joint regulations of the Services elaborate on those physical and biological features essential to conservation of the species, and set criteria for the delineation of critical habitat.

50 CFR Sec. 424.12 *Criteria for designating critical habitat.*

(b) In determining what areas are critical habitat, the Secretary shall consider those physical and biological features that are essential to the conservation of a given species and that may require special management considerations or protection. Such requirements include, but are not limited to, the following:

- (1) Space for individual and population growth, and for normal behavior;
- (2) Food, water, air, light, minerals, or other nutritional or physiological requirements;
- (3) Cover or shelter;
- (4) Sites for breeding, reproduction, rearing of offspring, germination, or seed dispersal; and generally;
- (5) Habitats that are protected from disturbance or are representative of the historic geographical and ecological distributions of a species.

When considering the designation of critical habitat, the Secretary shall focus on the principal biological or physical constituent elements within the defined area that are essential to the conservation of the species. Known primary constituent elements shall be listed with the critical habitat description. Primary constituent elements may include, but are not limited to, the following: roost sites, nesting grounds, spawning sites, feeding sites, seasonal wetland or dryland, water quality or quantity, host species or plant pollinator, geological formation, vegetation type, tide, and specific soil types.

(c) Each critical habitat will be defined by specific limits using reference points and lines as found on standard topographic maps of the area. Each area will be referenced to the State(s), county(ies), or other local governmental units within which all or part of the critical habitat is located. Unless otherwise indicated within the critical habitat descriptions, the names of the State(s) and county(ies) are provided for information only and do not constitute the boundaries of the area. Ephemeral reference points (e.g., trees, sand bars) shall not be used in defining critical habitat.

(d) When several habitats, each satisfying the requirements for designation as critical habitat, are located in proximity to one another, an inclusive area may be designated as critical habitat.

The regulations confine designation to areas within United States jurisdiction:

h) Critical habitat shall not be designated within foreign countries or in other areas outside of United States jurisdiction. Sec. 424.12

The regulations define “special management considerations or protection.”

(j) Special management considerations or protection means any methods or procedures useful in protecting physical and biological features of the environment for the conservation of listed species. Sec. 424.02

Physical or Biological Features Essential to Conservation of Hawaiian Monk Seals

We determined the physical or biological habitat features essential to the conservation of the Hawaiian monk seal based on their biology and life history, focusing on the essential features as directed by our regulations. In the 12-month finding, NMFS published preliminary essential features to identify to the public areas that may be considered for critical habitat. While these features were considered by the team, we proposed essential features that differ slightly from those preliminary essential features to incorporate the best available scientific information. In doing so, we recognized that Hawaiian monk seals spend a majority of their time in the water, utilizing the aquatic portion of their habitat for thermoregulation, resting, interacting, mating and foraging. Additionally, Hawaiian monk seals utilize terrestrial habitat to haul out for resting, molting, parturition (birth), nursing and avoiding predators. Thus, based on the best available scientific information, we identified essential features that incorporate Hawaiian monk seal essential needs for coastal terrestrial and marine areas.

In light of available scientific information and regulatory direction, we identified the following essential features for the conservation of Hawaiian monk seals in coastal terrestrial and marine areas in the Hawaiian Archipelago and Johnston Atoll:

1. Areas with characteristics preferred by monk seals for pupping and nursing.
2. Shallow, sheltered aquatic areas adjacent to coastal locations preferred by monk seals for pupping and nursing.
3. Marine areas from 0 to 500 m in depth preferred by juvenile and adult monk seals for foraging.
4. Areas with low levels of anthropogenic disturbance.
5. Marine areas with adequate prey quantity and quality.
6. Significant areas used by monk seals for hauling out, resting or molting.

Full descriptions of the essential features can be found in the Proposed Rule published in the Federal Register and the Draft Biological Report (NMFS 2010). Both documents are available at the Pacific Islands Regional Office Web site at <http://www.fpir.noaa.gov/> or at the Federal eRulemaking Web site at <http://www.regulations.gov>.

“Specific Areas” Within the Occupied Geographical Area

We identified the specific areas within the geographical area occupied by the species by examining whether each specific area is presently occupied by the Hawaiian monk seal and contains at least one essential feature that may require special management considerations or protections. To satisfy the first criterion, we determined for each specific area whether data confirmed that Hawaiian monk seals

were present. Information confirming Hawaiian monk seal presence throughout the Hawaiian Archipelago is kept by the NMFS Pacific Islands Fisheries Science Center (PIFSC), Protected Species Division (PSD) and includes systematic surveys in the NWHI and MHI by staff as well as nonsystematic observations reported by cooperating agencies' personnel, and the general public. Further information regarding monk seal status and distribution may be found in the Draft Biological Report (NMFS 2010). To satisfy the second criterion, we used additional data and NMFS expert knowledge regarding Hawaiian monk seal partition sites, distribution, sighting information, foraging habits, and bathymetry to confirm the presence of the essential features that may require special management considerations or protections. The boundaries chosen to define each specific area represent our best estimate of the areas necessary for Hawaiian monk seals to forage in marine habitat and haul out in terrestrial habitat.

In identifying specific areas for critical habitat, we first evaluated the 1988 designation of critical habitat for the species, and recognized that all of the areas in the NWHI originally identified for critical habitat still exhibit at least one of the essential features that fit the definition for Hawaiian monk seal critical habitat. We identified two revisions that were necessary to Hawaiian monk seal critical habitat in the NWHI. The first revision we identified was to extend the marine boundary surrounding each identified area from the 1988 designation out to a depth of 500 m. This revision employs the foraging information that has become available since the 1988 designation and acknowledges the monk seal's use of this deeper habitat. The second revision we identified was the inclusion of Sand Island at Midway Islands. Sand Island, at Midway, supports pupping and nursing, as well as terrestrial haul-out habitat, which requires special management; thus, this area meets the definition of critical habitat. While Sand Island was identified as having the essential features, Midway Harbor, on Sand Island, was identified as failing to meet those essential features due to the hardened shoreline and activity within the harbor. Specific areas identified for the proposed critical habitat for the Hawaiian monk seal in the NWHI includes all beach areas, sand spits and islets, including all beach crest vegetation to its deepest extent inland, lagoon waters, inner reef waters, and ocean waters out to the 500-m depth contour around the following numbered islands, atolls and reef (see the Draft Biological Report for more details):

- Area 1. Kure Atoll (28°24' N, 178°20' W)
- Area 2. Midway Islands (28°14' N, 177°22' W) (not including Midway harbor)
- Area 3. Pearl and Hermes Reef (26°46' N, 173°58' W)
- Area 4. Lisianski Island (26°46' N, 173°58' W)
- Area 5. Laysan Island (25°46' N, 171°44' W)
- Area 6. Maro Reef (25°25' N, 170°35' W)
- Area 7. Gardner Pinnacles (25°00' N, 168°00' W)
- Area 8. French Frigate Shoals (23°45' N, 168°00' W)
- Area 9. Necker Island (23°34' N, 164°42' W)
- Area 10. Nihoa Island (23°03.5' N, 161°55.5' W)

Looking at additional areas occupied by the species, we recognized that data (including birth records and sighting information) indicates that each of the islands located within the MHI chain offers at least one of the essential features that fit the criteria for Hawaiian monk seal critical habitat. As in the NWHI, areas necessary for Hawaiian monk seal conservation must include both terrestrial and marine areas. In considering marine areas, we aimed to incorporate what is known from extensive research of the NWHI populations and the conservation goals for the species in the MHI.

While defining terrestrial boundaries, we acknowledged that terrestrial habitat in the developed MHI

is not all equal in seal accessibility, and use, and determined that some highly developed areas, and hardened shorelines, along these coasts do not have the essential features of critical habitat. To address this we identified sites within the MHI such as boat harbors, and large bays with extensive runoff, which we lack the essential features of critical habitat. These areas are indicated as areas not included in the critical habitat designation under the specific areas identified below. Specific areas identified for the proposed critical habitat for the Hawaiian monk seal in the MHI includes all terrestrial habitat 5 m inland (in length) from the shoreline, described by the upper reaches of the wash of the waves, other than storm or seismic waves, at high tide during the season in which the highest wash of the waves occurs, usually evidenced by the edge of vegetation growth or the upper limit of debris, and all marine habitat from the waters edge to the 500-m depth contour (except those areas indicated as not included for each island).

- Area 11. Kaula Island
- Area 12. Niihau
- Area 13. Kauai
- Area 14. Oahu
- Area 15. Maui Nui
- Area 16. Hawaii

Areas within the specific areas that do not meet the definition of critical habitat and are not included in the designation include:

Kauai:

- KA1. Hanalei Bay and Pier
- KA2. Kikiaola Harbor
- KA3. Kilauea Pt.cliff area
- KA4. Na Pali coast cliff region
- KA5. Nawiliwili Harbor
- KA6. Hanapepe Bay and Port Allen Harbor
- KA7. Waikaea Canal
- KA8. Wailua Ramp

Oahu:

- OA1. Area from Pearl Harbor to Kapua Channel (includes areas listed below)
 - a. Ala Wai Harbor
 - b. Honolulu Harbor
 - c. Keehi Harbor/Lagoon
 - d. Kewalo Basin
 - e. Pearl Harbor
 - f. Sand Island Launch Ramp Facility
 - g. Waikiki Beach Waters (aka Kapua Channel moorings)
- OA2. Haleiwa Harbor
- OA3. Hawaii Kai Harbor and Maunalua Bay
- OA4. Kalaehoa Barbers Point Harbor and Koolina Harbor
- OA5. Kaneohe Bay and Heeia Kea Harbor
- OA6. Waianae small Boat Harbor

Molokai:

- MO1. Haleolono Harbor
- MO2. Kaunakakai Pier

MO3. Kalaupapa Harbor

Lanai:

LA1. Nakalahale Cliff
LA2. Kaholo Pali
LA3. Manele Harbor
LA4. Kamalapau Harbor

Maui:

MA1. Hana Wharf and Ramp
MA2. Kahului Harbor and Ramp
MA3. Kihei Ramp
MA4. Lahaina Harbor
MA5. Maalaea Harbor
MA6. Mala Wharf and Ramp

Hawaii:

HA1. Hilo Harbor (includes areas listed below)
 a. Reed's Bay
 b. Wailoa Sampan Bason and Boat Harbor
HA2. Honokohau Boat Harbor
HA3. Kailua-Kona Wharf
HA4. Kawaihae Harbor
HA5. Keauhou Boat Harbor
HA6. Mahukona Harbor
HA7. Kau Coast including lava flow area (current active flow areas)

Special Management Considerations or Protection

An occupied area may be designated as critical habitat if it contains essential features that “may require special management considerations or protection.” Joint NMFS and USFWS (50 CFR 424.02(j)) regulations define “special management considerations or protection” to mean “any methods or procedures useful in protecting physical and biological features of the environment for the conservation of listed species.” In this analysis a number of activities that may threaten the identified essential features were revealed using past consultation history in the Hawaiian Islands, and available scientific and commercial knowledge regarding potential impacts to these features. We grouped these activities into activity types as follows: (1) in-water and coastal construction, (2) dredging and disposal of dredged materials, (3) energy projects, (4) activities that generate water pollution, (5) aquaculture, (6) fisheries, (7) oil-spill and vessel groundings response activities, and (8) military activities. All of these activities have the potential to affect the essential features by altering one or more of the essential features by reducing available preferred Hawaiian monk seal pupping and haul out areas, reducing available marine areas adjacent to preferred Hawaiian monk seal pupping areas, reducing available foraging habitat, increasing the potential for anthropogenic disturbance, or altering available prey quantity or quality. The Draft Biological Report (NMFS 2010) and the Draft Economic Analysis Report (ECONorthwest 2010) provide a description of the potential effects of each category of activities on the essential features.

We also considered impacts to essential features presented by the petitioner, specifically the threat of global warming as described in the petition by the processes including sea level rise, warming ocean

temperatures and ocean acidification. A discussion of these threats may be found in the Draft Biological Report (NMFS 2010). We acknowledge that global climate change is a threat to the survival and conservation of the Hawaiian monk seal and as such, special management considerations or protections may be necessary for successful conservation of the species. However, the complex nature of the threat of global climate change is not specific to one activity or action that would be consulted on in section 7 consultations. Additionally, uncertainty exists with regard to the time scale and extremity in which impacts to marine ecosystems will be realized. This does not negate the need for consideration of this threat; however, this threat is best addressed during the individual consultation process across all activities undergoing consultation. In this manner NMFS will be able to incorporate special management considerations to specific activities as the extent of impacts from these threats are demonstrated or better understood.

Unoccupied Areas

Section 3(5)(A)(ii) of the ESA authorizes the designation of “specific areas outside the geographical area occupied at the time [the species] is listed” if these areas are essential for the conservation of the species. Regulations at 50 CFR 424.12(e) emphasize that the agency “shall designate as critical habitat areas outside the geographical area presently occupied by a species only when a designation limited to its present range would be inadequate to ensure the conservation of the species.” At the present time, we have not identified additional specific areas outside the geographical area occupied by Hawaiian monk seals that may be essential for the conservation of the species.

Certain Military Lands are Precluded from Designation

In 2003 Congress amended section 4(a)(3)(B)(i) of the ESA to limit the designation of land controlled by the Department of Defense (DOD) (National Defense Authorization Act, P.L. No. 108-136):

The Secretary shall not designate as critical habitat any lands or other geographical areas owned or controlled by the Department of Defense, or designated for its use, that are subject to an integrated natural resources management plan 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.

As described above, these amendments to the ESA preclude the Secretary from designating military lands as critical habitat if those lands are subject to an Integrated Natural Resource Management Plan (INRMP) under the Sikes Act and the Secretary certifies in writing that the plan benefits the listed species (Section 4(a)(3), Public Law. No. 108-136). Prior to publication of the proposed rule, we contacted DOD military departments on Hawaii and requested information on all INRMPs for DOD facilities that overlap with the specific areas considered for designation as critical habitat and that might provide benefits to Hawaiian monk seals. The INRMPs for one facility on Kauai and two facilities on Oahu were provided to us. All three facilities with INRMPs (Marine Corp Base Hawaii (MCBH), Naval Station Pearl Harbor and Pacific Missile Range Facility (PMRF)) were determined to overlap with the specific areas under consideration for critical habitat designation.

The MCBH INRMP has 3 locations of overlap on Oahu including the MCBH –Kaneohe Bay (including the 500 yard buffer zone in marine waters surrounding Mokapu Peninsula); Marine Corps Training Area Bellows (MCTAB), Waimanalo; and Puuloa Training Facility, on the Ewa coastal plain. In review, we found that the MCBH INRMP demonstrates conservation benefits for the Hawaiian monk seal and its habitat, a history of plan implementation, and a method to ensure

management effectiveness; thus, the plan was determined to be a benefit to the Hawaiian monk seal. Areas subject to the MCBH INRMP are therefore ineligible for designation as critical habitat.

The Naval Station Pearl Harbor has 2 locations of overlap on Oahu including Navy Defensive Sea Area (NDSA), marine reserved zone outside of Pearl Harbor; and Navy retained lands at Kalaeloa (Nimitz Beach and White Plains Beach). The PMRF has 1 location of overlap on Kauai, the PMRF Main Base at Barking Sands and 1 location of overlap on Kaula Island. The two INRMPs presented by the Navy were draft forms of INRMPs that are meant to replace the INRMPs previously drafted for the facilities for the period of 2001-2006. Although much of the structure and conservation efforts are similar across these two facilities, there remain differences in conservation efforts at these facilities and as such we reviewed these documents separately as of April 23, 2010. In review of both documents we found that both plans similarly lacked a well organized and implemented performance monitoring element in which the plans objectives were clearly outlined, and scheduled; along with reports and species monitoring efforts. As renewal documents, the plans fail to identify the achievement of past goals, areas necessary for improvement, or acknowledge measures necessary to the advance management efforts. In addition to these concerns, we found that the Naval Station Pearl Harbor Plan lacked consistent implementation of stated conservation efforts at sites acknowledged to be used consistently by Hawaiian monk seals. While a review process has been ongoing for both of these draft documents, from our analysis the current structure lacks necessary performance monitoring elements. Considering the inadequate implementation history we were not able to conclude that these INRMPs provide a benefit to the species. Therefore these areas remain eligible for consideration or designation of critical habitat. Note that this review does not negate conservation efforts made by the Navy at these sites and NMFS is committed to continue working with the Navy in efforts to strengthen conservation efforts and management initiatives.

II. Conduct a Section 4(b)(2) Analysis

Impacts of Designation Must be Considered and Areas May Be Excluded

Specific areas that fall within the definition of critical habitat are not automatically designated as critical habitat. Section 4(b)(2) (16 U.S.C. 1533(b)(1)(A)) requires the Secretary to first consider the impact of designation and permits the Secretary to exclude areas from designation under certain circumstances. Exclusion is not required for any areas.

The Secretary shall designate critical habitat, and make revisions thereto, under subsection (a)(3) of this section on the basis of the best scientific data available and after taking into consideration the economic impact, the impact to national security and any other relevant impact, of specifying any particular area as critical habitat. The Secretary may exclude any area from critical habitat if he determines that the benefits of such exclusion outweigh the benefits of specifying such area as part of the critical habitat, unless he determines, based on the best scientific and commercial data available, that the failure to designate such area as critical habitat will result in the extinction of the species concerned.

Section 4(b)(2) of the ESA requires us to use the best scientific information available in designating critical habitat. It also requires that before we may designate any “particular area”, we must consider the economic impact, impact on national security, and any other relevant impact. Once impacts are determined, the agency is to weigh the benefits of excluding any particular area (that is, avoiding the economic, national security or other costs) against the benefits of designating it (that is, the

conservation benefits to the species). If the agency concludes that the benefits of the exclusion outweigh the benefits of designation, it has discretion to exclude, so long as exclusion will not result in extinction of the species.

Identify “Particular” Areas

The first step in conducting the ESA section 4(b)(2) analysis is to identify the “particular areas” to be analyzed. The “particular areas” considered for exclusion are defined based on the impacts identified. Where we considered economic impacts and weighed the economic benefits of exclusion against the conservation benefits of designation, we used the same biologically-based “specific areas” we had identified under section 3(5)(A) (e.g., Niihau, Kauai, Oahu). Delineating the “particular areas” as the same units as the “specific areas” allowed us to most effectively consider the conservation value of the designation. We also considered exclusions based on impacts on national security and other relevant impacts (i.e., for this designation, impacts on USFWS). Delineating particular areas based on impacts on national security or other relevant impacts was based on land ownership or control (e.g., land controlled by the DOD within which national security impacts may exist or land owned or controlled by the USFWS).

Determining Incremental Impacts

Section 4(b)(2) of the ESA provides that the Secretary shall consider “the economic impact, impact to national security, and any other relevant impact of specifying any particular area as critical habitat.” The primary impact of a critical habitat designation stems from the requirement under section 7(a)(2) of the ESA that Federal agencies insure that their actions are not likely to result in the destruction or adverse modification of critical habitat. Determining this impact is complicated by the fact that section 7(a)(2) contains the overlapping requirement that Federal agencies must also insure their actions are not likely to jeopardize the species’ continued existence. The true impact of designation is the extent to which Federal agencies modify their actions to insure their actions are not likely to destroy or adversely modify the critical habitat of the species, beyond any modifications they would make because of the listing and the jeopardy requirement. Additional impacts of designation include state and local protections that may be triggered as a result of the designation and the benefits from educating the public about the importance of each area for species conservation. We discuss the benefits of designation in the “Benefits of Designation” section below.

The Ninth Circuit recently approved the use of the “baseline approach” in evaluating the economic impacts of critical habitat designation. See *Arizona Cattle Growers Association v. Salazar* 606 F. 3d 1160 (9th Cir. 2010) (*Arizona Cattle Growers*) and *Home Builders Association of Northern California et al. v. U.S. Fish and Wildlife Service* No. 07-16732, 2010 U.S. App. LEXIS 16439, (9th Cir. June 14, 2010) (*Home Builders*). Under the baseline approach, economic impacts that occur regardless of the critical habitat designation are treated as part of the regulatory baseline and are not factored into the analysis of the effects of the critical habitat designation. The Ninth Circuit concluded that since ESA requires that listing decisions not consider economic costs, it would be inconsistent to require that the critical habitat designation process consider the previously irrelevant costs of listing the species.

In the analysis of economic impacts (see Draft Economic Analysis Report, ECONorthwest 2010), we attempted to estimate and analyze the incremental economic impacts of designation beyond the impacts that would result from the listing and jeopardy provision, consistent with the *Arizona Cattle*

Growers, and the *Home Builders* decision. Uncertainties exist, however, with regard to future management actions associated with Hawaiian monk seal critical habitat; specifically, past consultations regarding habitat protections have been limited to the relatively undeveloped islands of the northwestern portion of the chain, thus history of project modifications that incorporate habitat concerns are limited. Additionally, protections provided under the listing of the species may overlap slightly with protections that have been identified with the designation of critical habitat especially involving essential features of preferred haul out areas and preferred pupping areas, since the presence of these essential features generally coincide with the presence of animals. While these uncertainties do exist, we acknowledged that the additional consideration of essential features at these sites implies an additional layer of analysis, and the potential for more stringent management efforts that have not yet been realized in the consultation process in the MHI due in part to the lower number of seals. Due to these uncertainties, it was difficult to exclude all potential impacts that may be required under the baseline (i.e., protections already afforded Hawaiian monk seals under its listing, or under other Federal, State, and local regulations). Thus, the analysis included consideration of some impacts or project modifications that may have been required under the baseline regardless of the critical habitat rule. As such, the economic impacts are not exclusively incremental impacts of the critical habitat designation. The Draft Economic Analysis Report (ECONorthwest 2010) describes in more detail the types of activities that may be affected by the designation, the potential range of changes we might seek in those actions, and the estimated relative level of economic impacts that might result from administrative costs of such changes. Our considerations of economic impacts are described in the next three sections of this report.

For consideration of national security and other relevant impacts, we weighed the benefits of the designation against the benefits of exclusion by using information gathered for 7 factors. During this process we strived to consider incremental impacts of the designation, beyond the baseline protections afforded the Hawaiian monk seal. However, as discussed earlier, it is difficult to separate the potential conservation efforts expected under the critical habitat rule, from those that would already be expected to occur for Hawaiian monk seals due to the listing of the species or to other Federal, State, and local regulations (e.g., protections for other listed species or protections associated with the Marine Mammal Protection Act). As a result, our consideration of impacts on national security and other relevant impacts cannot be characterized as exclusively incremental impacts of the critical habitat designation. Factors used in the weighing process thus may be more appropriately characterized as Hawaiian monk seal conservation impacts. Appendix A provides more detail regarding the areas considered for exclusion based on impacts on national security and the weighing of benefits for these areas.

Determine the Benefits of Designation

The primary benefit of designation is the protection afforded under section 7 of the ESA, requiring all Federal agencies to insure their actions are not likely to destroy or adversely modify designated critical habitat. This is in addition to the requirement that all Federal agencies insure their actions are not likely to jeopardize the continued existence of the species. Additional to the protections described above, the designation may also result in other forms of benefits as discussed in detail in the Draft Economic Analysis (ECONorthwest 2010), including, but not limited to: conservation benefits for the species, educational awareness and outreach benefits, benefits to tourism and recreation, and improved or sustained habitat quality.

As discussed earlier in this report, the ESA focuses on habitat as a fundamental tool in recovery of a species. By identifying the essential features that are described in the ESA as “essential to the conservation” of the species, we are in turn identifying those features without which conservation of the species would not be possible. The proposed designation of Hawaiian monk seal critical habitat would revise the previous designation to incorporate habitat within the species range that currently represents the best prospect for the species conservation. Thus, by revising critical habitat and preventing adverse modification in the proposed areas, we seek to provide the potential for conservation and potentially the recovery of the Hawaiian monk seal; the benefits of which, in the future, would be realized in the potential increase in abundance and successful conservation of the species.

Revising the designation of critical habitat may provide educational and outreach benefits by informing both the entities engaged in section 7 consultations, and the general public about the status of the species, including the areas and features important to the species’ conservation. While the Hawaiian monk seal has been listed as endangered since 1976, only those consultations in the NWHI specifically address issues regarding essential features of Hawaiian monk seal habitat; the introduction of this information in the MHI provides potential for increased education and awareness. Potential benefits from this educational awareness may be attained if either party engages in activities to benefit the species or the essential features that they were made aware of through the critical habitat designation process.

The essential features of Hawaiian monk seal habitat are tied to the recovery of the species because they provide the appropriate habitat for increasing the species abundance. The protection of this habitat also provides benefits to the surrounding ecosystem where the essential features of the endangered Hawaiian monk seals are found. Thus, prey species and any species utilizing these areas are likely to benefit. Additionally, indirect benefits may be realized by recreational visitors utilizing the habitat. By preserving or protecting the critical habitat’s essential features, the quality of these natural areas, at a minimum, should be sustained for the continued use by all users.

The Draft Economic Analysis (ECONorthwest 2010) describes a number of economic benefits that can be attributed to the value that people place on the conservation of Hawaiian monk seals. These values include: the value that eco-tourists place on being able to see the species; the existence value that people place on threatened and endangered species; the bequest value that people place on preserving a species for future generations; and the option value that people place on their ability to choose to see the species in the future.

Most of these benefits are not directly comparable to the costs of designation for purposes of conducting the section 4(b)(2) analysis described below. Ideally, benefits and costs should be compared on equal terms (e.g., apples to apples); however, there is insufficient information regarding the extent of the benefits and the associated values to monetize all of these benefits. We have not identified any available data to monetize the benefits of designation (e.g., estimates of the monetary value of the essential features within areas designated as critical habitat, or of the monetary value of education and outreach benefits). Further, section 4(b)(2) also requires that we consider and weigh impacts other than economic impacts that are equally difficult to monetize, such as the benefits to national security of excluding areas from critical habitat. Given the lack of information that would allow us either to quantify or monetize the benefits of the designation for Hawaiian monk seals discussed above, we determined that conservation benefits should be considered from a qualitative stand point.

In determining the benefits of designation, we considered a number of factors. We took into account the essential features present in the area, the habitat functions provided by each area, and the importance of protecting the habitat for the overall conservation of the species. In doing so, we recognized that their habitat throughout the Hawaiian Archipelago is irreplaceable due to the remote nature of the Hawaiian Islands from other areas of suitable habitat. This is especially true of the newly proposed areas within the MHI, since these areas represent not only habitat where the species is currently thriving, but also a geologically younger area that is under less threat from natural erosion processes and rising sea levels in comparison to available habitat in the NWHI. Therefore, factors attributed to the benefits of the designation of areas were individually considered within each particular area during the exclusion discussions and are described in detail as exclusion considerations were raised (an example of which may be seen in Appendix A - the discussion of national security exclusions).

Determine the Benefits of Exclusion

To determine the benefits of excluding particular areas from designation, we considered the Federal activities that may be subject to a section 7 consultation and the range of potential changes that may be required for each of these activities under the adverse modification provision. Where possible, we focused on changes beyond those that may be required under the jeopardy provision or established as environmental baselines. However, as discussed earlier, we acknowledge that some protections to prevent jeopardy are likely to overlap with those protections that may be put in place to prevent adverse modification, especially at preferred haul out areas and preferred pupping areas. These consultation and project modification impacts represent the benefits of excluding each particular area (that is, the impacts that would be avoided if an area were excluded from the designation).

Federal activities that occur within each of the specific areas and that may affect the Hawaiian monk seal critical habitat were identified using the PIRO's records of section 7 consultations within the Hawaiian Archipelago. Because the Hawaiian monk seal critical habitat of 1988 occurs in relatively undeveloped portions of the NWHI, we lack an extensive consultation history with regards to projects that specifically analyze the impacts to the essential features of Hawaiian monk seal critical habitat. However, from PIRO's consultation history we were able to identify projects considered under the jeopardy provision of the Act from the developed MHI. The *2007 Recovery Plan for the Hawaiian monk seal* ((NMFS) 2007a) addresses those threats that are likely to impact many of the essential features of the species. Using these sources as a tool and relying on NMFS' experience and professional judgment with regards to section 7 consultations, the Federal activities that might trigger section 7 consultations were identified. These include: (1) in-water and coastal construction, (2) dredging and disposal of dredged materials, (3) energy projects, (4) activities that generate water pollution, (5) aquaculture, (6) fisheries, (7) oil-spill and vessel groundings response activities, and (8) military activities. The identification of these activities and the associated threats are further discussed in the Draft Biological Report (NMFS 2010) and the Draft Economic Analysis (ECONorthwest 2010).

The range of modifications that may be sought to avoid destruction or adverse modification of critical habitat of the Hawaiian monk seal were identified not only for the impacted activities but also for the impacted essential features. The baseline level of protection afforded Hawaiian monk seals by area and activity type were also identified. For each identified type of activity information was sought from federal agencies and or action agencies that might fund, authorize, or carry out the activity.

Information requested included the extent of the activity in the specific areas as well as potential costs or impacts associated with project modifications. These investigative efforts produced little information since most contacted agencies had little or no experience with the critical habitat designation in the marine environment of the MHI. Additionally, most agencies were not able to predict the number and scope of future projects that were certain to take place within the critical habitat boundaries. Some agencies identified that projects are site-specific with regards to project modifications, thus estimating the designation's economic impacts would have to be on a project-specific basis. Thus, the review of economic costs was mostly reliant on estimates produced from NMFS' records of past involvement with agencies within the specified areas.

Review of the NMFS' records revealed that a majority of consultations in the MHI occur in areas that are not included in the proposed critical habitat designation. A high number of these historic consultations involve routine maintenance in areas that are highly developed; including areas with hardened shorelines where monk seals would be either unable or less likely to haul out. Assessments of historic consultations that occurred within the proposed critical habitat area were utilized to estimate a range of administrative costs that may be associated with the proposed designation. Two scenarios were used to represent a range of anticipated administrative costs. The first presented the cost associated with each consultation treated individually. Using the consultation history from 2009 to represent the PIRO's growing number of consultations, scenario one presented an administrative cost of \$30,950 per year. The second scenario identified consultations that were likely to fall under criteria recently established under a programmatic consultation with the Army Corps of Engineers. This scenario attempted to present the cost savings that may be associated with the implementation of this programmatic consultation with the expectation that the programmatic consultation would be reinitiated following the designation of critical habitat. The cost of the second scenario was averaged out to be \$12,890 annually over the five-year duration of the programmatic consultation. We identified that actual administrative costs of this designation are likely to fall between these amounts, since the possibility exists that re-initiation of the programmatic consultation could result in changes to the terms or criteria originally established. This would result in a slightly lower number of projects that would be covered by the programmatic criteria, or in other words a higher number of projects whose consultation cost would be determined individually. Distribution of the consultation history revealed the following number of consultations in the following areas:

- 1 – Area #13. Kauai
- 6 – Area #14. Oahu
- 2 – Area #15. Maui Nui
- 4 – Area #16. Hawaii
- 1 – Encompassed all areas of the MHI

We recognize that estimates of administrative costs do not reflect an appropriate monetary estimate for determining the impacts of the designation; however, with insufficient data the benefits of exclusion were best considered from a qualitative view. Similar to determining the benefits of designation, in determining the benefits of exclusion, we considered the factors discussed in detail in the Draft Economic Analysis Report (ECONorthwest 2010). These included the estimated annual number and cost of section 7 consultations for each area, the types of activities impacted, the potential project modifications associated with various activities, and the likelihood that these activities would be impacted immediately or in the future by this designation.

Exclusions Based on Economic Impacts

The Draft Economic Analysis report (ECONorthwest 2010) describes in detail the actions we identified that may be affected by the critical habitat designation, and the potential range of changes we might seek in those actions. However, little information was gained from potentially impacted parties to quantify the true extent of the economic impacts to each specific area.

The conservation benefits to the species resulting from the designation of a particular area as critical habitat is not directly comparable to the economic benefit, benefit to national security, or other relevant benefits resulting from the exclusion of a particular area from designation. As explained above, we did not find sufficient information to accurately monetize the estimated economic benefits of exclusion beyond the administrative costs of the section 7 consultation, but recognize that additional economic costs exist. These costs may vary widely dependent on the scope, location of the project, number of essential features present, as well as the extent of the anticipated impact from the activity. We contacted several agencies that have been involved in past section 7 consultations with NMFS; however, none of the agencies contacted were able to demonstrate projects in the areas of overlap where incremental economic impacts were imminent. This may be in part because most highly developed areas where projects occur were not included in the designation (e.g., Pearl Harbor). This may also be due to the lack of experience with marine critical habitat designations in our region. The proposed Hawaiian monk seal designation represents the first critical habitat designation in the marine environment of the highly developed areas of the main Hawaiian Islands. In reviewing the factors associated with economic costs of the designation, we considered that the economic administrative costs of designation appear relatively low across the MHI where the incremental effects of the designation will be felt. The economic costs of designation in the NWHI are expected to remain similar, since consultations in this area (where critical habitat is already designated for the Hawaiian monk seal) have been subject to adverse modification considerations since 1988, and additional marine areas are not expected to increase the number of consultations for this region. An exception to this may be activities at Sand Island, at Midway Islands (which was not included in the original designation); however, we have not been made aware of activity planned for Sand Island that may impact essential features. A discussion of impacts at Sand Island may be found under Consideration of Exclusion for Other Relevant Impacts. Throughout the proposed areas, we found that the activities of concern are already subject to multiple environmental laws, regulations, and permits which afford the proposed essential features a high level of baseline protections, but determined that despite these protections, uncertainty remains regarding the true extent of the impacts that some activities may have on the essential features. This uncertainty makes estimating economic impacts of the designation difficult to determine, since project modifications may be considered speculative. The Economic Analysis presented indicates that impacts may be felt most strongly by in-water and coastal construction activities and the disposal of dredge materials. Beyond these impacts, the potential exists for greater economic impacts to activities associated with water quality control and fishing activities as we better understand the impacts that these activities have on the essential features of Hawaiian monk seal critical habitat. In considering these factors, we also deliberated over the benefits of designating critical habitat for the Hawaiian monk seal in these areas. The Economic Analysis demonstrates the potential for benefits in the tourism industry, and benefits that people derive from value placed on Hawaiian monk seals and the environment in Hawaii, but we focused on what this designation means for the Hawaiian monk seal. In doing so, we acknowledged first that the Hawaiian monk seal population is on the decline ((NMFS) 2009). Secondly, we acknowledged that rises in sea level continue to present a threat to the species, especially in the habitat previously designated in the NWHI, and we recognized that the growing population in the MHI represents the best hope for conserving the population. As discussed earlier, the benefits associated with the designation of critical habitat stem from our ability to identify the features that are essential not only

for the conservation of the species but also for its recovery. The proposed rule, if finalized as proposed, will in turn provide protections for those essential features through ESA section 7(a)(2) consultations. Designating critical habitat within the MHI provides a means to protect those essential features in an area where the features are most threatened by expansion and development; this will be especially important as the population of seals increases in the MHI. In Summary, at this time, we have not identified a particular area where the benefits of exclusion from the designation, due to economic impacts, outweigh the benefits of designation.

Exclusions Based on National Security

The Secretary must consider possible impacts on national security when determining critical habitat. In preparation for the proposed rule, we contacted the DOD and the US Coast Guard with information regarding the areas under consideration for the revision to Hawaiian monk seal critical habitat, and requested the various organizations to identify areas they own or control which may overlap with the areas under consideration. These organizations were also asked to identify if those areas of overlap are subject to an INRMP, or if NMFS should consider any particular area for exclusion from critical habitat based on the impacts to national security. No areas of overlap were identified by the U.S. Air Force. The U.S. Army and U.S. Coast Guard acknowledged areas of overlap, but did not request to be excluded from the critical habitat areas under consideration. Both the U.S. Navy and the U.S. Marine Corps (USMC) identified sites that overlap with the areas, and both requested that NMFS exclude all areas of overlap that were not precluded from the critical habitat designation. The Navy and USMC provided information regarding the activities that take place in each area and the organizations assessed the potential for a critical habitat designation to adversely affect their ability to conduct operations, tests, training, and other essential military activities. The possible impacts to national security summarized from both groups included: restraints and constraints on military operations, training, research and development, and preparedness vital for combat operations for around the world. Consultation and discussion with the various organizations resulted in the final determination of 13 areas requested for exclusion listed in Table 1 below.

DOD Sites & Agency	Overlap of Specific Area
Kaula Island and the 3-mile danger zone	Area 11 - Kaula
Niihau 0-12nm offshore	Area 12 - Niihau
Kingfisher Underwater Training Area off of Niihau	Area 12 - Niihau
Pacific Missile Range Facility (PMRF) Main Base at Barking Sands, Kauai	Area 13 - Kauai
Pacific Missile Range Facility offshore areas (overlap areas include BARSTUR, SWTR, and PMRF restricted area)	Area 13 - Kauai
Barbers Point/Kalauloa (White Plains & Nimitz Beaches)	Area 14 - Oahu
Naval Defensive Sea Area & Puuloa Underwater Training Range	Area 14 - Oahu
Anchorage B, C, D	Area 14 - Oahu
Fleet Operational Readiness Accuracy Check Site (FORACS)	Area 14 - Oahu
Barbers Point Underwater Range (Danger Zone) & Ewa Training Minefield (Danger Zone)	Area 14 - Oahu
Marine Corps Training Area Bellows Offshore	Area 14 - Oahu
Shallow Water Minefield Sonar Training Range off Kahoolawe	Area 15 - Maui & Kalawao Counties
Kahoolawe Danger Zone	Area 15 - Maui & Kalawao Counties

Table 1. Areas requested for Exclusion and the Specific Area of Overlap

We corresponded with DOD representatives throughout the analysis of the impacts on national security to delineate the particular areas requested for exclusion, and to identify the potential impacts on national security that may occur if the areas are designated as critical habitat. Unlike the economic impact analysis, we are unable to quantify the impacts on national security in monetary terms or in terms of some other quantitative measure. Instead, we based our analysis on an evaluation of the following factors for each particular area:

1. Relative proportion of area requested for exclusion in consideration with current monk seal use (including the number of animals using the area, how that area is utilized and relative importance to the population).
2. Likelihood that DOD activities will destroy or adversely modify habitat within the area.
3. Intensity of use of the area by DOD.
4. Likelihood of consultation with Agency in this area; ESA consultation history.
5. Level of protection provided by one or more of DOD existing safeguards.
6. Likelihood that other actions (with a federal nexus) may occur in the area, making actions no longer subject to critical habitat provisions if the area was excluded from the proposed designation.

Information gathered regarding each of the identified factors found to be in support of exclusion for national security was then weighed against the benefit of designation. Appendix A provides more information regarding our analysis and determination for each area. See Appendix B, Figures 1-15 for the maps depicting the proposed designation of critical habitat for the Hawaiian monk seal, including areas proposed for exclusion.

DOD Particular Areas Proposed for Exclusion	Proposed Specific Area of Overlap
Kingfisher Underwater Training Area off of Niihau	Area 12 - Niihau
Pacific Missile Range Facility (PMRF) Main Base at Barking Sands, Kauai	Area 13 - Kauai
Pacific Missile Range Facility Offshore areas (overlap areas include BARSTUR, SWTR, and PMRF restricted area)	Area 13 - Kauai
Naval Defensive Sea Area & Puuloa Underwater Training Range	Area 14 - Oahu
Shallow Water Minefield Sonar Training Range off Kahoolawe	Area 15 - Maui Nui

Table 2. DOD particular areas proposed for exclusion and the corresponding specific area that the particular area overlaps.

Consideration of Exclusion for Other Relevant Impacts

Section 4(b)(2) of the Act also allows for the consideration of other relevant impacts associated with the designation of critical habitat. Comments received following the 90-day finding indicated that both the NPS and the USFWS anticipated impacts as a result of the designation. Both agencies were contacted in preparation for the proposed rule with information regarding the areas under consideration for the revision to Hawaiian monk seal critical habitat and asked to identify relevant impacts to their agencies, as well as to identify measures or protections that were in place to protect the Hawaiian monk seal or the essential features. The NPS concluded that a request for exclusion was not necessary after corresponding with NMFS regarding impacts of the designation. Exclusion was requested by the USFWS for Sand Island at Midway Islands. USFWS identified economic and administrative burdens from the proposed designation and stated that the designation is an unnecessary burden since the Papahānaumokuākea Marine National Monument already afforded the Hawaiian monk seal the highest levels of protection and conservation. The USFWS did not quantify economic burdens but did identify that administrative requirements would detract from staff time. Similar to the National Security Analysis, we did not quantify the impacts on the USFWS in monetary terms or in terms of some other quantitative measure. Instead, we based our analysis on an evaluation of the following factors for each particular area:

1. Relative proportion of area requested for exclusion in consideration with current monk seal use (including the number of animals using the area, how that area is utilized and relative importance to the population).
2. Likelihood that activities will destroy or adversely modify habitat within the area.
3. Intensity of use of the area.
4. Likelihood of consultation with Agency in this area; ESA consultation history.
5. Level of protection provided by one or more existing safeguards.
6. Likelihood that other actions may occur in the area, making actions no longer subject to critical habitat provisions if the area was excluded from the proposed designation.

Sand Island at Midway Islands provides habitat with the essential features of preferred haul out areas and preferred pupping areas in the northwestern end of the chain. USFWS acknowledged that their management plans provide protections for Hawaiian monk seals from disturbance and revealed no

additional plans to encroach on haul out areas. In considering the above listed factors we were not able to identify any activities that the USFWS wished to engage in at this site that would impact the essential features of Hawaiian monk seal critical habitat. We acknowledge that consultation of activities on site will continue to be necessary due to listing of the species, but can not anticipate additional burdens on the agency without the identification of activities that may generate impacts to the essential features. Thus, there appears to be no benefit of exclusion. At this time, and with the present information, we do not recommend Sand Island at Midway Islands for exclusion.

CHRT Final Recommendation

We, the CHRT, recommend revising the current critical habitat for the Hawaiian monk seal (*Monachus schauinslandi*) by designating additional areas within the Hawaiian Archipelago and its surrounding marine habitat. Specific areas proposed for designation include all beach areas, sand spits and islets, including all beach crest vegetation to its deepest extent inland, lagoon waters, inner reef waters, and ocean waters out to the 500-m depth contour around the following ten areas in the NWHI: Kure Atoll, Midway Islands (not including Midway Harbor), Pearl and Hermes Reef, Lisianski Island, Laysan Island, Maro Reef, Gardner Pinnacles, French Frigate Shoals, Necker Island, and Nihoa Island. Additionally, specific areas proposed for designation shall include terrestrial and marine habitat in the MHI for the following island areas: Kaula, Niihau, Kauai, Oahu, Maui Nui (Including Maui, Molokai, Lanai, and Kahoolawe), and Hawaii. Terrestrial habitat at these specific sites will be established 5 m inland (in length) from the shoreline described by the upper reaches of the wash of the waves, other than storm or seismic waves, at high tide during the season in which the highest wash of the waves occurs, usually evidenced by the edge of vegetation growth or the upper limit of debris and marine habitat is established from the waters edge out to the 500-m depth contour in the MHI. Within these specific areas sections of coastal and marine habitat have been identified as not meeting the definition of critical habitat and are not included in the designation due to the lack of, or poor quality of essential features at these sites. In Area 14 – Oahu, additional habitat was identified as ineligible for designation at the MCBH –Kaneohe Bay (including the 500 yard buffer zone in marine waters surrounding Mokapu Peninsula); MCTAB, Waimanalo; and Puuloa Training Facility, on the Ewa coastal plain. We propose excluding the following areas due to impacts to national security: approximately 2 square miles (mi²) or 5 square kilometers (km²) of marine habitat within Area 12 – Niihau; approximately 99 mi² or 256 km² of marine habitat and a 7.5 mi or 12 km stretch of terrestrial habitat within Area 13 – Kauai; approximately 20 mi² or 52 km² of marine habitat within Area 14 – Oahu; and approximately 4 mi² or 10 km² of marine habitat in the Area 15 – Maui Nui, because the benefits of exclusion outweigh the benefits of designation. Based on our best scientific judgment and acknowledging other safeguards that are in place (e.g., protections already afforded Hawaiian monk seals under its listing), we believe that exclusion of these areas will not result in the extinction of the species.

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IV. Appendices

APPENDIX A – Considerations for National Security Exclusions

MEMO

MAY 24, 2010

TO: PRD FILE FOR PROPOSED RULE FOR THE REVISION TO HAWAIIAN MONK SEAL CRITICAL HABITAT

FROM: NOAA-NMFS

RE: DESIGNATING CRITICAL HABITAT FOR THE HAWAIIAN MONK SEAL – CONSIDERATIONS FOR DEPARTMENT OF DEFENSE LANDS AND IMPACTS ON NATIONAL SECURITY

As required under section 4(b)(2) of the federal Endangered Species Act (ESA), NMFS considered the impacts on national security in the development of the proposed critical habitat designation for the endangered Hawaiian monk seal. This memorandum summarizes NMFS' consideration for the impacts on national security and determination on areas eligible for exclusion from designation based on impacts on national security.

Background:

Section 3(5)(A) defines critical habitat as “the specific areas within the geographical area occupied by the species,.... on which are found those physical or biological features essential for conservation and specific areas outside the geographical area occupied if the area is essential to the conservation of the species.” Section 4(b)(2) of the ESA provides that the Secretary shall designate critical habitat “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.” [Emphasis added] The Secretary has discretion to exclude an area from critical habitat if the benefits of exclusion outweigh the benefits of designation, so long as the failure to designate such area as critical habitat will not result in the extinction of the species.

On January 13, 2010, NMFS contacted DOD and the U.S. Coast Guard by letter with information regarding the areas under consideration for the revision to Hawaiian monk seal critical habitat. The letter requested each organization to identify areas that they own or control which may overlap with the areas under consideration. For those areas of overlap, NMFS requested additional information regarding whether that area was subject to an Integrated National Resources Management Plan¹ (INRMP), and/or if the organization federal organization requested that NMFS consider the area for

¹ In 2003 Congress amended the ESA to provide that “[t]he Secretary shall not designate as critical habitat any lands or other geographical areas owned or controlled by the Department of Defense or designated for its use, that are subject to an integrated natural resources management plan 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.” This information gathered from this section of the request was utilized in the exemption determination as described in 4(a)(3)(B)(i) of the Act. A discussion of this determination is summarized in the *Federal Register* in the Proposed Rule.

exclusion from critical habitat based on the impacts to national security. To assist in determining the impacts to national security, NMFS requested that the organization clearly outline the activities that take place on the site, how those activities might impact the essential features of critical habitat, and the potential impacts on the activity if critical habitat was to be designated within the area. No areas of overlap were demonstrated by the U.S. Air Force. The U.S. Army and U.S. Coast Guard acknowledged areas of overlap, but did not request to be excluded from the critical habitat areas under consideration. Both the U.S. Navy and the U.S. Marine Corps confirmed sites that are subject to an INMRP, as well as sites that are actively used and overlap with the areas under consideration. Both organizations identified that they wanted NMFS to exclude all areas of overlap that were not precluded from the critical habitat designation. Information was provided regarding the activities that take place in each area and the organizations assessed the potential for a critical habitat designation to adversely affect their ability to conduct operations, tests, training and other essential military activities. The possible impacts to national security summarized from both groups included: restraints and constraints on military operations, training, research and development, and preparedness vital for combat operations for around the world.

INRMP evaluation was discussed separate from the exclusion process, thus areas that were determined to be ineligible for critical habitat designation were removed from the exclusion discussion². Some areas initially requested for exclusion did not overlap with the proposed areas for critical habitat and were removed from the exclusion discussion. To better understand the activities taking place in areas that overlap with areas under consideration for Hawaiian monk seal critical habitat, NMFS consulted with DOD on several occasions. Consultation and discussion with the various organizations resulted in the final determination of 13 areas requested for exclusion by DOD.

The following describes what is known about Hawaiian monk seal use of each military site that was requested for exclusion, DOD's description of activities and national security impacts, and our recommendations as to whether such impacts outweigh the benefits of designating the site as critical habitat. We based our recommendations on an evaluation of the following factors for each military site:

- 1) The relative proportion of area of the DOD site to the area of the proposed specific area in which it occurs, in comparison to the best available information regarding Hawaiian monk seal use.
- 2) The likelihood of a consultation with the DOD in this site; based on ESA consultation history.
- 3) The intensity of use of the site by the DOD.
- 4) The likelihood that DOD activities would destroy or adversely modify critical habitat; based on the DOD's activities at the site.
- 5) The level of protection provided to one or more essential feature by existing DOD safeguards (e.g., management or protection already in place).
- 6) The likelihood that other Federal actions may occur in the site that would no longer be subject to the critical habitat provision if the particular area were excluded from the designation.

² INRMP considerations are discussed in the April 23, 2010 Memo regarding review of Integrated Natural Resource Management Plans for Hawaii. A discussion of this determination is summarized in the *Federal Register* in the Proposed Rule.

Dependent on available information, each of these factors may weigh either in favor of exclusion of the area or in favor of designation of the area. Information regarding Hawaiian monk seal use and conservation needs for the habitat, and impacts to DOD activities should the designation occur at the site were given priority in discussion; but all factors discussed played a role in the determination.

Note for Descriptions of Hawaiian monk seal use of the area: The Pacific Islands Fisheries Science Center (PIFSC) records both systematic and nonsystematic sightings of Hawaiian monk seals received by NMFS for the entire Hawaiian Archipelago. Sections titled “Hawaiian monk seal use of the area” describes or summarizes PIFSC information available regarding the identified location or the best representative information available for that location. Systematic survey effort in the main Hawaiian Islands (MHI) is limited, but information regarding monk seal use of areas throughout the Hawaiian Islands is supplemented by reporting from the general public through an information sighting³ line. With this in mind information referenced in this memo as gained from the general public should be considered to be biased by several variables that may influence the appearance of the data. Included in these biases, but not limited to, are some of the following considerations: 1) sites less accessible to humans will have less reporting, but still may be favorable to seals due to the remote location; 2) sites with high human use are likely to have a large number of sightings, but these sightings may be specific to an individual or a small number of animals; 3) not all sightings are able to distinguish unique individuals, therefore a sighting from a nearby area within the same day could be the same individual; 4) sightings may be more commonly reported from areas where the public has become enthusiastic about the appearance of seals versus areas where seal presence is less embraced.

Assessment of DOD Areas

Site #1 Kaula Island and the 3-mile danger zone surrounding

Hawaiian monk seal use of area: This DOD site is located 23 miles (mi) or 37 kilometers (km) west-southwest of Kawaihoa Point on Niihau within the proposed specific area #11 Kaula Island. The Island is the second largest offshore islet after Lehua and is the eroded result of a tuff crater. The eroded crater walls create a small bay along the inside curve and a rock terrace or bench sits along this inner edge ranging in width from 3.1 to 24 m wide providing haul out habitat. Near the outer side of the crater along the northern “horn” of the island is a large sea cave, approximately 30 m or 98 ft deep with a 15 m or 49 ft ceiling. The islet is surrounded by 39 mi² or 101 km² of marine habitat that is within the 500-m depth contour on a shoal that supports a large variety of marine life. Access to the site is limited due to the remote nature and landing restrictions; however, the Pacific Islands Fisheries Science Center (PIFSC) reported that information gathered from opportunistic sightings, aerial surveys, and PIFSC personnel surveys from 1991-2009 totaled 41 seal sightings. The number of seals recorded in these sightings range from 1-15 individuals, including a sighting of 8 individuals in 1999, 15 individuals in 2006, and 6 individuals in 2009. The presence of features at this site includes accessible and preferred haul-out area, low anthropogenic disturbance, and foraging area. There have been no monk seal births documented for Kaula Island.

Description of DOD area and activities: Kaula Islands is 108 acres or 44 hectares of uninhabited island located 35 nautical miles (nm) or 65 km southwest of Kauai and is owned by the U.S. Government. The Navy has jurisdictional control over the island, including a 3 mile or 5 km radius in waters surrounding the island. Past use of the area included military bombing and strafing with live

³ A sighting was defined by PIFSC as “a calendar day during which an individual seal is documented as present.”

ordinance; as such, hazards may remain in the area. Current activities include bombing exercises using non-explosive ordnance and air to ground gunnery. No Hawaii Range Complex (HRC) training events are performed offshore of Kaula; however, onshore activities may affect offshore resources.

National security concerns: The Navy commented that bombing exercises, including the use of inert bombs and air to ground gunnery, are both activities that occur here that might be restricted due to a critical habitat designation.

Recommendation: We recommend that this area not be excluded from the critical habitat designation because the critical habitat designation is not likely to result in impacts to national security. Thus there would be no benefit of exclusion. Kaula Island is surrounded by approximately 39 mi² or 101 km² of water that is within the foraging depth of the Hawaiian monk seal; the overlap requested by the Navy would incorporate approximately 20 mi² or 52 km² of that specific area. Although regular data is not procured from this site, the information gathered regarding seal use indicates that multiple animals are using this area and the larger groupings of animals indicate a preference for this remote site. The island itself represents the only refuge within this specific area for Hawaiian monk seals that are foraging to haul out for rest or predator avoidance. Past monitoring reports from Navy exercises are not adequate to determine seasonal use patterns nor do they indicate when this site may not be used by seals. Incidental and systematic observations from Critical Habitat Review Team (CHRT) members indicate regular monk seal use of available ledge habitat and cave features on the island. The continued Hawaiian monk seal use of the site does not indicate that the Navy's current activities on the island create a disturbance for seals and it is unclear that any other exercises or activities demonstrated by the Navy would impact any other essential features of Hawaiian monk seal critical habitat. While the Navy does have jurisdiction over this site, past monitoring efforts indicated in the INRMP for the Pacific Missile Range Facility were implemented in a manner that only facilitated the exercise goals of the Navy and failed to record data that could be reliably used to indicate monk seal presence and use for management and conservation goals. The NMFS consultation history does indicate that other organizations have participated in activities on the island including predator control work. The exclusion of this area from critical habitat would remove habitat related issues from the consultation. Having reviewed the available information, we conclude that the benefits of excluding this site do not outweigh the benefits of designation.

Site #2 Niihau Offshore (0-12 nmi)

Hawaiian monk seal use of area: This area encompasses all marine areas from 0-12 nmi offshore of Niihau Island. Monk seal use of the marine environment is likely best demonstrated by haul out sightings or patterns at adjacent terrestrial areas. Seal use of Niihau and the adjacent offshore islet Lehua are discussed to reflect seal use of this area. Niihau is a privately owned island located approximately 17 mi or 27 km off the southwest coast of Kauai. Access to Niihau is limited to Niihau residents, the U.S. Navy, and invited guests. Lehua is a tuff crater located .5 mi or .8 km north of Niihau and approximately 18 mi or 29 km west of Kauai. The eroded crater provides wave-cut benches for hauling out. Island access is restricted by the U.S. Coast Guard and activities are subject to Hawaii Department of Land and Natural Resources because it is a Hawaii State Seabird Sanctuary. Due to the restricted access to both areas most seal sightings in this area have come from aerial and boat surveys conducted by PIFSC. The PIFSC has conducted nine complete aerial surveys of Niihau and Lehua from 2000 to 2009. In addition to these surveys, there have also been sightings reported by agency partners and the general public. In total, 500 sightings have been recorded from these areas (1980-2009): 396 on Niihau and 104 on Lehua. More than half (256) of the sightings were recorded

during aerial surveys, with numbers at Niihau accounting for 249 of those sightings. An aerial survey in October 2008 provided the highest single day count (47) on any MHI to date and a total of 24 births have been documented on the island. Coastal habitat on Niihau provides accessible and preferred haul-out area, low anthropogenic disturbance, pupping areas, and foraging areas. Lehua presents similar characteristics in providing haul-out area and low anthropogenic disturbance. There have been no monk seal births documented for Lehua Island.

Description of DOD area and activities: Niihau is a privately owned island approximately 8 mi or 13 km wide by 18 mi or 29 km long. PMRF leases 1,170 acres or 473 hectares of land in the northeastern corner of the island and operates radar units, optics, and electronic warfare sites. Niihau Offshore includes proposed HRC ranges and training areas 0 to 12 nmi or 22 km from Niihau. In the Niihau Offshore Areas, training events consist of Electronic Combat Operations, Special Warfare Operations, Mine Countermeasures Exercise, and the Flare Exercises. Use of the area offshore of Niihau could require control of the airspace. The training and major exercises also include PMRF's remote operation of a radar unit at Paniau (northeast corner of the island) and the Niihau Perch site electronic warfare system. In addition, PMRF flies AEGIS drone targets along the east coast of the island away from inhabited areas. MFA/HFA SONAR use may also occur in underwater offshore areas.

National security concerns: The Navy commented that Mine Countermeasure exercises with sonar and Special Warfare Operations may be impacted by the critical habitat designation.

Recommendation: We recommend that this area not be excluded from the proposed critical habitat designation because the benefits of exclusion do not appear to outweigh the benefits of designation. The extent of the area requested encompasses the entire Niihau area (approximately 200 mi² or 518 km²) proposed for critical habitat. Hawaiian monk seal aerial surveys indicate that Niihau is the most highly used area in the MHI and communication from past residents affirm that seals have been regularly seen on island since the 1970s (Baker and Johanos 2004). Niihau terrestrial habitat provides area for pupping and nursing as well as hauling out and the continued use of these terrestrial areas is indicative of a marine habitat that is utilized regularly by Hawaiian monk seals. The private access and underdeveloped nature of the island provides an area with low anthropogenic disturbance for the seals and marine development and traffic is likely to be less in this underdeveloped area as well. Although the Navy has a strong history of consulting on activities that occur on site, this area is neither owned nor controlled by the Navy; therefore, other activities may occur in these waters that may impact essential features of critical habitat. Therefore, we conclude that the benefits of excluding this area do not outweigh the benefits of including this area.

Site #3 Kingfisher Underwater Training Area off of Niihau

Hawaiian monk seal use of area: Monk seal use of the marine environment is likely best demonstrated by haul out sightings or patterns at adjacent terrestrial areas. The description listed above at site #2 Niihau offshore best describes Hawaiian monk seal use of the Kingfisher Underwater Training Area. Hawaiian monk seal use of marine areas surrounding Niihau is expected to be high due to the seal use sightings at Niihau and Lehua.

Description of DOD area and activities: The Kingfisher range consists of an underwater range 3 x 3 nmi or 5.6 x 5.6 km wide and long, in 300-1200 ft or 91 – 366 m of water, about 2 mi or 3 km off the southeast coast of Niihau. The training area consists of a maximum of 20 tethered steel buoys anchored to the ocean floor by chain assemblies. The training area is utilized as a simulated

underwater minefield where it employs the Kingfisher mine detection system. Mine countermeasure exercises train forces to detect, identify, and mark mines using a variety of methods including sonar.

National security concerns: The Navy's primary concern is having the ability to actively utilize sonar in this area for training in detection of underwater mines. The activity levels associated with events on site may be attributed to anthropogenic disturbance and a decrease in training capabilities would be a decrease in troop preparedness.

Recommendation: We conclude that the benefit to national security of excluding this area outweighs the conservation benefit of designation, and recommend that Kingfisher range off of Niihau be excluded from the areas under consideration from critical habitat designation. While DOD must still insure that activities in this area do not jeopardize the continued existence of the Hawaiian monk seal, the exclusion of this area means DOD will not be required to insure that its activities do not adversely modify habitat or essential features within this area. Exclusion will thus benefit national security by restricting military activities at this site only to the extent necessary to avoid jeopardizing the species' continued existence. Although this area is likely utilized by Hawaiian monk seals on a regular basis, several factors reduce the benefit of designating this site as critical habitat, the following of which is a description. The Kingfisher area is 2 mi² or 5 km² of the specific area's 200 mi² or 518 km² area, which is only 1 percent of the proposed specific area. The HRC monitoring plan is set in place in efforts to better understand marine mammal use of the area and response to activities taking place within these areas. These efforts include visual monitoring (vessel, aerial, and shore-based), passive acoustic monitoring, and marine mammal tagging. The Navy has a strong history of consulting on activities that occur on site, and consultation occurs through a programmatic effort that undergoes annual review. While it is not clear that sonar activities on site may impact the essential features of the habitat, construction or maintenance of the buoys system has the potential to cause impacts. However, once in place the buoys may in some senses enhance prey, since such devices are known to act as prey aggregating devices. Naval use of this more discrete area is likely to deter other federal activities requiring consultation from occurring on site. Thus, the benefits of exclusion outweigh the benefits of designating this area for critical habitat. Based on our best scientific judgment and acknowledging the small size of this area, and other safeguards that are in place (e.g., protections already afforded Hawaiian monk seals under its listing) we conclude that exclusion of this area will not result in the extinction of the species.

Site #4 Pacific Missile Range Facility (PMRF) Main Base at Barking Sands, Kauai

Hawaiian monk seal use of area: This DOD site is located on the west shore of Kauai and stretches 7.5 mi or 12 km along the coastline. Systematic monk seal count data from aerial surveys were conducted in 2000, 2001, and 2008; two seals were sighted at PMRF during the 2000 survey. No seals were sighted during the other two surveys. Monk seal sightings within this area have been reported by base personnel, biologists, and members of the public with base access. Since 1999 there have been 120 sightings of monk seals reported in the PMRF area. Nine known individuals were sighted and accounted for 24 of the total sightings. One birth was documented in 1999, near the south end of the runway. The pup weaned in August but died shortly after in September of the same year. Personal communication with Navy staff biologists indicated that seals most often haul out in beach pockets adjacent to the runway, and occasionally at Rocket Reef or Major's beach. The biologist also indicated that it was not uncommon to have sightings of young untagged or unknown seals in these areas. The presence of features at this site includes accessible and preferred haul-out area. While one birth has been documented at this site, no current information indicates that this is or will be a

preferred area for parturition. Restricted access to portions of this facility may supply areas with low anthropogenic disturbance.

Description of DOD area and activities: Barking Sands consists of a land-based facility located on the western shore of Kauai. The site is a long narrow site of 2,060 acres or 834 hectares bordered by agricultural land with a coastline of 7.5 mi or 12 km and a width of 0.6 mi or 1 km on the northern and southern boundaries. The coastal shoreline overlaps with the proposed critical habitat designation. Onshore facilities provide radar tracking and surveillance, global position system data processing, the communications network, and command and control from the range operations center. The airfield supports cargo planes, tactical aircraft, and helicopters. Barking Sands provides a target support and red-label (live ordnance) area, ordnance and launching area, and a torpedo shop for torpedo operations and recovery. The entire beach boundary of the range is unfenced and open to the ocean. Security here is solely provided by manned patrol. Activities outlined in the HRC EIS include: Anti-Air Warfare, Amphibious Warfare, Anti-Surface Warfare, Anti-submarine Warfare, Mine Warfare, Naval Special Warfare, Special Warfare Operations, and other training operations.

National security concerns: Activities associated with Amphibious Warfare exercises, Naval Special Warfare exercises, Humanitarian Assistance/Non-combatant Evacuation Operations and 4-wheel drive security patrols may affect anthropogenic disturbance of these areas in such a manner that the remote features of these beaches may no longer be preferred by Hawaiian monk seals for hauling-out. The Navy's primary concern is that the critical habitat designation will restrict or prohibit any of the activities that PMRF supports. The Navy stated their concerns regarding operational loss at the facility and communicated that PMRF is considered to be the only facility in the county capable of near real time surveillance and play back of training exercises and as such it plays a pivotal role in RIMPAC and the Undersea Warfare Exercises supporting not only national troop's preparedness, but also international relationships. At this time virtually all Navy forces entering the Pacific use Hawaii as their final training ground to ensure their readiness for combat making the roles at PMRF increasingly important due to encroachment from development and air traffic in other areas of the country.

Recommendation: We conclude that the benefit to national security of excluding this area outweighs the conservation benefit of designation, and recommend that PMRF Main Base at Barking Sands is excluded from the proposed critical habitat designation. While DOD must still insure that activities in this area do not jeopardize the continued existence of the Hawaiian monk seal, the exclusion of this area means DOD will not be required to insure that its activities do not adversely modify habitat or essential features within this area. Exclusion will thus benefit national security by restricting military activities at this site only to the extent necessary to avoid jeopardizing the species' continued existence. Although this area is utilized by Hawaiian monk seals, several factors reduce the benefit of designating this site as critical habitat, the following of which is a description. Kauai's full coastline is approximately 90 mi or 145 km long; PMRF is located on 7.5 mi or 12 km of the areas under consideration. The Navy has a strong history of consulting on activities that occur on site and it is unlikely that other federal activities will occur on site due to the restricted access to the base. Guidelines are already set in place on site to insure that Hawaiian monk seals are not disturbed during training exercises, or other activities⁴. While the draft INRMP was not determined to be a benefit to the species⁵, team members and the Kauai Island monk seal coordinator did indicate that the main

⁴ Hawaii Range Complex Final EIS

⁵ INRMP considerations are discussed in the April 23, 2010 Memo regarding review of Integrated Natural Resource Management Plans for Hawaii. A discussion of this determination is summarized in the *Federal Register* in the Proposed Rule.

base of this facility has cooperated in reporting efforts. Additionally, recent efforts to strengthen monitoring efforts, to incorporate future performance monitoring, and to increase organization and cooperation between agencies (Navy and NMFS) demonstrates an intention to focus on natural resource goals and conservation needs. Therefore, we conclude that the benefits of excluding this site outweigh the benefits of designation. Based on our best scientific judgment and acknowledging other safeguards that are in place (e.g., protections already afforded Hawaiian monk seals under its listing), we believe that exclusion of this area will also not result in the extinction of the species.

Site #5 Pacific Missile Range Facility Offshore areas (overlap areas include portions of BARSTUR, SWTR, and PMRF Restricted area)

Hawaiian monk seal use of area: This area is located offshore of the PMRF main base at Barking Sands. Monk seal use of the marine environment is likely best demonstrated by haul out sightings or patterns of adjacent terrestrial areas. As such, Hawaiian monk seal use of the PMRF main base at Barking Sands as described above indicates that Hawaiian monk seals are regularly using areas off of the coast of PMRF; this use likely indicates that monk seals forage in marine areas located off of PMRF.

Description of DOD area and activities: PMRF Offshore includes ranges and training areas 0-12nmi from PMRF Main Base. The areas considered for exclusion within this range that overlap with proposed Hawaiian monk seal critical habitat include the PMRF restricted area, Barking Sands Tactical Underwater Range (BARSTUR) and the Shallow Water Training Range (SWTR). BARSTUR is an underwater range within 300-1000 fathoms 549 – 1829 m offshore of PMRF a small portion of which overlaps with the proposed critical habitat area. The 120 mi² or 311 km² area has an arrangement of hydrophones positioned along the sea floor. SWTR is an underwater range within 20-300 fathoms 37 – 549 m offshore of PMRF and the 80 mi² or 207 km² also supports an arrangement of hydrophones. Hydrophone arrays in conjunction with operations at PMRF main base allow for the almost real time tracking of training exercises. Activities and exercises taking place here as outlined in the HRC EIS Anti-Air Warfare, Amphibious Warfare, Anti-Surface Warfare, Anti-Submarine Warfare, Electronic combat, Mine Warfare, Naval Special Warfare, Strike Warfare, along with other training events.

National security concerns: The Navy commented that the following activities may be impacted by the designation: surface-to-surface gunnery exercises, surface-to-surface missile exercises, bombing exercises, anti-submarine warfare tracking exercises, anti-submarine warfare torpedo exercises, sinking exercises, mine warfare, naval special warfare, explosive ordnance disposal, sonar used for mine detection systems, and other uses of sonar. Also discussed during meetings, was the replacement of hydrophones along any of these arrays. Such replacement may require laying new arrays along the seafloor. The impact from these continued activities within this area may be seen as impacting Hawaiian monk seal critical habitat by impacting prey species or by causing anthropogenic disturbance to the area.

Recommendation: We conclude that the benefit to national security of excluding this area outweighs the conservation benefit of designation, and recommend that PMRF Offshore areas (described as PMRF restricted area, SWTR, and BARSTUR) be excluded from the areas under consideration from critical habitat designation. While DOD must still insure that activities in this area do not jeopardize the continued existence of the Hawaiian monk seal, the exclusion of this area means DOD will not be required to insure that its activities do not adversely modify habitat or essential features within this

area. Exclusion will thus benefit national security by restricting military activities at this site only to the extent necessary to avoid jeopardizing the species' continued existence. Although this area is utilized by Hawaiian monk seals, several factors reduce the benefit of designating this site as critical habitat, the following of which is a description. PMRF offshore areas that overlap with critical habitat include approximately 123 mi² or 319 km² of the approximate 326 mi² or 844 km² of the specific Area 13, Kauai. The Navy has a strong history of consulting on activities that occur on site, and consultation occurs through a programmatic effort that undergoes annual review. The HRC monitoring plan that was developed in conjunction with the consultation effort is set in place in efforts to better understand marine mammal use of the area and response to activities taking place within these areas. These efforts include visual monitoring (vessel, aerial, and shore-based), passive acoustic monitoring, and marine mammal tagging. Information from these efforts is likely to provide data in support of management and conservation efforts in this area and around the Hawaiian Islands. The complex nature of the hydrophones and testing that occurs in these waters may provide additional protection by discouraging additional federal activities that have the potential to impact benthic prey resources in this area. Therefore, we conclude that the benefits of excluding this site outweigh the benefits of designation. Based on our best scientific judgment and acknowledging other safeguards that are in place (e.g., protections already afforded Hawaiian monk seals under its listing), we believe that exclusion of these areas will not result in the extinction of the species.

Site #6 Fleet Operational Readiness Accuracy Check Site (FORACS)

Hawaiian monk seal use of area: This area is located offshore of the west coast of Oahu. Monk seal use of the marine environment is likely best demonstrated by haul out sightings or patterns at adjacent terrestrial areas. Monk seal sightings between Kahe Point Beach Park and Maili Beach Park on the west coast of Oahu were chosen to reflect seal use of this area due to proximity, but the team recognized that the location of FORACS is situated between two areas of Oahu that are regularly used by seals, including Kaena point and the Barber's Point area. Aerial surveys in 2000, 2001, and 2008 represent the only systematic surveys for monk seals from this area; however, no monk seals were sighted during these aerial surveys. Reports from the general public have been collected 217 sightings from 2000-2009. From these sightings 135 are attributed to 16 uniquely identifiable seals: 5 adult females, 10 adult males and 1 juvenile male. No monk seal births have been documented from Kahe Point Beach Park to Maile Beach Park.

Description of DOD area and activities: Fleet Operational Readiness Accuracy Check Site (FORACS) is located off the west coast of Oahu where Naval Undersea Warfare Center provides underwater target services and range pinger installation services. The purpose of the FORACS tests are to provide accuracy checks of ship and submarine sonar, both in active and passive modes, and to evaluate the accuracy of a ship's radar. The ship will conduct a series of runs on the range, each taking approximately 1.5 hours. Both active and passive sonar can be checked on a single run. Thousands of events occur here annually.

National security concerns: The Navy commented that they were concerned that the use of sonar at this site would be impacted by the critical habitat designation. This area is vital to determine operational preparedness of equipment and thus import for national security.

Recommendation: We recommend that this area not be excluded because the proposed critical habitat designation is not likely to result in impacts on national security. Thus, there would be no benefit of exclusion. Sonar as a form of habitat disturbance has not been established in literature for Hawaiian

monk seals. Additionally, the FORACS area has been utilized for accuracy checking off of the coast of Oahu since 1964 and despite Navy activities, monk seals have continued to utilize this area with sightings increasing in recent years. The FORACS area covers 12 mi² or 31 km² of the marine area off the west coast of Oahu, which appears to be frequently utilized by adult monk seals. Along with these considerations, the Navy does not have strict control over this site; therefore, other federally associated activities requiring consultation may occur within this area that could impact other essential features of critical habitat. Therefore, we conclude that the benefits of excluding this area do not outweigh the benefits of including this area.

Site #7 Barbers Point/Kalaeloa (White Plains and Nimitz Beaches)

Hawaiian monk seal use of area: Due to discrepancies in public reporting regarding boundaries of beaches, Hawaiian monk seal use of areas from Iroquois Point to Barber's Point on the Island of Oahu are described to give a generalized view of Hawaiian monk seal use of the surrounding areas. The only true systematic monk seal surveys include aerial surveys in 2000, 2001, and 2008. One Hawaiian monk seal was sighted in near shore waters off of White Plains beach in 2008; no monk seals were sighted in this area in 2000 or 2001. Nonsystematic reports from the general public have been collected since the early 1980s. For the purposes of this document sightings were gathered from 2000-2009 and totaled 1,050 sightings. From these sightings 768 of the reported sightings were attributed to 11 uniquely identifiable seals. Categorized by specific locations 183 sightings occurred at Nimitz Beach and 442 sightings occurred on White Plains Beach. White Plains and Nimitz Beach provide preferred haul out areas for the Hawaiian monk seal.

Description of DOD area and activities: Nimitz Beach and White Plains Beach are located on the southern shore of Oahu and are managed under the Naval Station Pearl Harbor Complex INRMP. Nimitz Beach is 21 acres or 8.5 hectares and Morale Welfare and Recreation (MWR) department of the Navy manages the beach and cottages. The beach is open to MWR-authorized patrons as well as the general public. White Plains Beach is 15 acres or 6 hectares and is similarly managed by MWR. These sites are no longer used for training.

National security concerns: No national security concerns were presented.

Recommendation: We recommend that this area not be excluded because the critical habitat designation is not likely to result in impacts on national security. With no training events occurring on site, there would be no benefit of exclusion for the purposes of national security.

Site #8 Barbers Point Underwater Range (Danger Zone) & Ewa Training Minefield (Danger Zone)

Hawaiian monk seal use of area: Monk seal use of the marine environment is likely best demonstrated by haul out sightings or patterns of adjacent terrestrial areas. The description listed above at site #5 Barbers Point/Kalaeloa (White Plains and Nimitz Beaches) best describes Hawaiian monk seal use of this area. Hawaiian monk seals regularly use areas off of the coast of Barbers Point/Kalaeloa; this use likely indicates that monk seals forage in the surrounding marine areas, possibly out to a depth of 500 m.

Description of DOD area and activities: The Barbers Point Underwater Range is a restricted area on the southern shore of Oahu, established by 33 CFR 334. The range encompasses a narrow offshore

strip of water directly in front of the U.S. Coast Guard Air Station/Kalaeloa Airport. Activities occurring at this site include mine neutralization, special warfare operations, and surface ship minefield avoidance. The Barbers Point Underwater Range overlaps with the Ewa Training Minefield and sites were combined and treated as a singular site. Ewa Training Minefield is an offshore area extending from Ewa Beach approximately 2 nmi or 3.7 km toward Barbers Point, and out to sea approximately 4 nmi or 7.4 km. Both of these sites incorporate areas up to the high-water mark. This area is defined and restricted by 33 CFR 334.1400 and is used for surface ship mine avoidance training. Activities occurring at this site include mine neutralization, special warfare operations, and surface ship minefield avoidance.

National security concerns: The Navy was concerned that mine neutralization exercises and special warfare operations may be impacted by the critical habitat designation, thus impacting preparedness and national security.

Recommendation: We recommend that this area not be excluded from the critical habitat designation. While the CHRT was able to determine that activities on site may impact essential features such as prey abundance or possibly disturbance, the location of these sites adjacent to important haul-out areas for Hawaiian monk seals makes exclusion of these sites particularly difficult. NMFS acknowledges that the Navy regularly consults with NMFS on activities at these sites, and follows best management practices to minimize impacts to the species. However, the location of these activities next to preferred monk seal habitat increases the need for protection of the essential features at these sites. Monitoring of all potential impacts to essential features from any activities should be considered at this location, due to the heightened monk seal use of this area. It is not clear from communication or reporting that impacts on the habitat or prey species of Hawaiian monk seal are clearly understood. There is no indication that disturbances from activities in this area have resulted in abandonment by monk seals. Insufficient information regarding the impacts from activities on essential features, and the high use of this area by seals requires that we err on the side of conservation for the species habitat. We conclude that the benefits of excluding this site do not outweigh the benefits of designation, but resolve to work cooperatively with the Navy to better understand the potential if any for impacts to this area.

Site #9 Naval Defensive Sea Area (NDSA) & Puuloa Underwater Training Range

Hawaiian monk seal use of area: This DOD site is located within specific area # 14 Oahu, in the waters just outside the entrance to Pearl Harbor. Three systematic aerial surveys incorporate this site into observational data in 2000, 2001, and 2008. From these efforts one seal was observed in the water off the western entrance of Pearl Harbor in 2008 and no seals were observed in 2000 and 2001. Site #7 is located in water, Hawaiian monk seal use of marine areas is best described by terrestrial sightings at adjacent or nearby areas. Sightings from generalized areas including the adjacent areas at Pearl Harbor, Iroquois Point and Hickam Air Force Base were summarized from 1989 – 2009. A total of 91 sightings were recorded with 17 at Pearl Harbor, 71 at Iroquois Point and 3 at Hickam Air Force Base. Eight uniquely identified individuals were attributed to 32 of the total sightings with about one third of the total sightings attributed to six individuals.

Description of DOD area and activities: The NDSA is a restricted area established by Executive Order 8143 of May 26, 1939 and controlled by the Navy. The NSDA restricts access to NAVSTA Pearl Harbor and extends outward from the mouth of the harbor into a rectangular-shaped boundary. This area was designated to allow the safe transit of surface ships and submarines in and out of

harbor. Some areas of the NDSA were conveyed to the State for construction of the reef runway but the vast majority remains within an area used by ships and submarines entering and exiting Pearl Harbor and by other military entities engaged in training. The NDSA includes about half of the Puuloa Underwater Training Range. The Puuloa Underwater Range is 2 nmi² and oriented parallel to the shore at Ewa Beach, west of the mouth of Pearl Harbor. Water depths range from about 9 ft or 2.7 m near shore to a maximum depth approaching 228 ft or 69.5 m in the southwest corner. The majority of the range is less than 39 ft or 11.9 m in depth. The Puuloa Underwater Range supports the majority of the underwater demolition activities and training for the Mobile Dive and Salvage Unit ONE, Explosive Ordnance Disposal Mobile Unit Three Detachment MIDPAC and SEAL Delivery Vehicle Team ONE.

National security concerns: The Navy expressed concerns that mine neutralization exercises at these sites as well as activities supporting Mobile Dive and Salvage Unit ONE, Explosive Ordnance Disposal Mobile Unit Three Detachment MIDPAC, and SEAL Delivery Vehicle Team ONE would be restricted by the critical habitat designation. The Mobile Dive Salvage Unit presented information to indicate that exercises on site supported training for national and international events. The Mobile Dive Salvage Unit is able to respond to underwater salvage and rescue events that few other groups globally are trained for, due to the training they receive in Hawaii. The unit is one of two in the country. The other units that utilize this area are also unique in capabilities; the inability to conduct those activities in this location would require personnel from those units to travel to California and thus would have a significant negative impact on readiness.

Recommendation: We conclude that the benefit to national security of excluding this area outweighs the conservation benefit of designation, and recommend that NDSA & Puuloa Underwater Training range are excluded from the areas under consideration from critical habitat designation. While DOD must still insure that activities in this area do not jeopardize the continued existence of the Hawaiian monk seal, the exclusion of this area means DOD will not be required to insure that its activities do not adversely modify habitat or essential features within this area. Exclusion will thus benefit national security by restricting military activities at this site only to the extent necessary to avoid jeopardizing the species' continued existence. Several factors reduce the benefit of designating this site as critical habitat, the following of which is a description. The NDSA and Puuloa site encompasses approximately 20 mi² or 52 km² of the 697 mi² or 1,805 km² of marine habitat surrounding the Island of Oahu, or less than 3 percent of the total specific area. CHRT team members agreed that while seals may use the site for transiting; the location next to the industrialized harbor in an area of high disturbance would indicate that features at this site might be of poor quality and low importance to the overall population. The Navy has a strong history of consulting on activities that occur on site and it is unlikely that other federal activities will occur without Navy knowledge and consultation due to the restricted access to the nearby Pearl Harbor. While the draft INRMP was not determined to be a benefit to the species⁶, recent efforts to strengthen monitoring efforts, to incorporate future performance monitoring, and to increase organization and cooperation between agencies (Navy and NMFS) demonstrates an intention to focus on natural resource goals and conservation needs. Therefore, we conclude that the benefits of excluding this site outweigh the benefits of designation. Based on our best scientific judgment and acknowledging other safeguards that are in place (e.g., protections already afforded Hawaiian monk seals under its listing), we believe that exclusion of these areas will not result in the extinction of the species.

⁶ INRMP considerations are discussed in the April 23, 2010 Memo regarding review of Integrated Natural Resource Management Plans for Hawaii.

Site #10 Commercial Anchorages B, C, D

Hawaiian monk seal use of area: Anchorages B, C, D are located just outside the Pearl Harbor NDSA to the east and provide safe locations for surface ships to train in anchoring evolutions. Hawaiian monk seal use of marine areas such as this are best detailed by describing adjacent or nearby terrestrial habitat used by seals. As such sightings described above under *Hawaiian monk seal use of area* site #7 would best indicate potential monk seal use of these areas.

Description of DOD area and activities: Anchorages B, C, D are located just outside the Pearl Harbor NDSA to the east and provide safe locations for surface ships to train in anchoring evolutions. This area is also used for training for basic navigation and seamanship skills.

National security concerns: The Navy commented that restrictions on use of these designated anchorages would degrade the ability of ships stationed at Pearl Harbor to train in these core seamanship skills. These skills are vital for protecting vessels overseas.

Recommendation: We recommend that this area not be excluded because the critical habitat designation is not likely to result in impacts on national security. Thus, there would be no benefit of exclusion. Anchoring activities at these sites are not limited to Navy vessels, but may be used by commercial vessels as well. Given the high use of this area, it is unlikely that prey features are supported directly on the seafloor of this habitat; as such, the act of anchoring within this designated zone is not likely to impact Hawaiian monk seal critical habitat. The exclusion of this area from critical habitat would be similar to trying to piece meal terrestrial components of the coastline that Hawaiian monk seals are unable to access for hauling-out (for example each piece of hardened shoreline or cliff). As such, NMFS acknowledges that not every small area within these larger proposed areas will have the essential features, but that those determinations may be made on a project by project basis. The Navy does not have control over these sites, and other activities have the potential to occur at these sites that may impact surrounding resources. Therefore, we conclude that the benefits of excluding this area do not outweigh the benefits of including this area.

Site #11 Marine Corps Training Area Bellows Offshore (MCTAB offshore)

Hawaiian monk seal use of area: Marine Corps Training Area Bellow is located on the eastern coast of Oahu. Areas offshore of this beach and connecting to the Mokapu Peninsula were indicated as a transit route for amphibious vehicles. As such, monk seal activity between Mokapu Peninsula and Bellows Beach are described. Systematic aerial surveys in 2000, 2001, and 2008 recorded no seals in this area. Reports from the general public, from 1987 – 2009, revealed 129 seal sightings. Sightings were divided into seven different areas based on reported locations; of these 7 locations no seals were sighted at Bellows Beach. Fourteen uniquely identifiable seals were associated with 64 of the 129 reported sightings. One birth was reported on the north side of the Peninsula in the spring of 1996.

Description of DOD area and activities: Marine Corps Training Area Bellow is located on the eastern coast of Oahu. Offshore areas are utilized in training events including Expeditionary Assault activities, Swimmer Insertion/Extraction, SPECWAROPS, and Mine Neutralization training events involving relatively small (20 lb net explosive weight) explosive detonations, landings by craft, multiple strike group training, and major training exercises including USWEX and RIMPAC, which may also expose offshore underwater areas to MFA/HFA sonar.

National security concerns: The Navy and USMC were concerned that participation in activities associated with Amphibious Warfare would be impacted by the critical habitat designation.

Recommendation: We recommend that this area not be excluded because the critical habitat designation is not likely to result in impacts on national security. Hawaiian monk seal use of adjacent beach area indicates that monk seals may be feeding and utilizing areas offshore. The Navy has a strong history of consulting on activities that occur on site, and consultation occurs through a programmatic effort that undergoes annual review. Activities that happen on the adjacent beach may have the potential to impact essential features onshore; however, the site under consideration is the offshore area at MCTAB. It is not clear that activities associated with amphibious exercises onshore would impact essential features in the offshore habitat. Routes for transportation do not seem to present a clear impact to essential features in this area. Furthermore, these routes are not controlled by DOD, and other activities could potentially occur in this area that may impact essential features. Therefore, we conclude that the benefits of excluding this area do not outweigh the benefits of including this area.

Site #12 Shallow Water Minefield Sonar Training Range off Kahoolawe

Hawaiian monk seal use of area: The island of Kahoolawe is located in Area #15, the Maui Nui proposed specific area. The Shallow-Water Minefield is 4 mi² or 10 km² of marine area off the west coast of the Island of Kahoolawe. Monk seal use of the marine environment is likely best demonstrated by haul out sightings or patterns at adjacent terrestrial areas; in this case monk seal use of Kahoolawe is described. The Kahoolawe Island Reserve Commission (KIRC), established in 1993, is responsible for the management of the Kahoolawe Island Reserve. Access to the island and the 2 mi of ocean surrounding Kahoolawe is restricted because of the continued danger of unexploded ordnance. Access to the Reserve is permitted only with authorization of KIRC in support of its cultural and natural resource projects. KIRC personnel have been collecting monk seal sighting information since 2001. Sighting data is collected from boat, land, and aerial surveys of the islands coastline. Between the years 2001-2008, 304 sightings of monk seals have been recorded. Nine known individuals have been attributed to 88 of these sightings. Four confirmed monk seal births have been recorded on Kahoolawe.

Description of DOD area and activities: The Shallow-Water Minefield Sonar Training Area provides Pearl Harbor-based submarines with the capability to conduct mine sonar training. This training area, located just off the southeastern coast of Kahoolawe, is used by submarines using high-frequency active sonar (not mid-frequency active sonar). Similar to the Kingfisher area mentioned earlier, the training area consists of steel buoys anchored to the ocean floor by chain assemblies. The training area is utilized as a simulated underwater minefield. Mine countermeasure exercises train forces to detect, identify, and mark mines using a variety of methods including sonar.

National security concerns: The Navy's primary concern is having the ability to actively utilize sonar in this area for training in detection of underwater mines. The activity levels associated with events on site may be attributed to anthropogenic disturbance and a decrease in training capabilities would be a decrease in troop preparedness.

Recommendation: We conclude that the benefit to national security of excluding this area outweighs the conservation benefit of designation, and recommend that Shallow Water Minefield Sonar Training Range off Kahoolawe is excluded from the proposed areas for critical habitat designation. While

DOD must still insure that activities in this area do not jeopardize the continued existence of the Hawaiian monk seal, the exclusion of this area means DOD will not be required to insure that its activities do not adversely modify habitat or essential features within this area. Exclusion will thus benefit national security by restricting military activities at this site only to the extent necessary to avoid jeopardizing the species' continued existence. Several factors reduce the benefit of designating this site as critical habitat, the following of which is a description. The HRC monitoring plan is set in place in efforts to better understand marine mammal use of the area and response to activities taking place within these areas. These efforts include visual monitoring (vessel, aerial, and shore-based), passive acoustic monitoring, and marine mammal tagging. The Navy has a strong history of consulting on activities that occur on site, and consultation occurs through a programmatic effort that undergoes annual review. While it is not clear that sonar activities on site may impact the essential features of the habitat, construction or maintenance of the buoys system has the potential to cause impacts. However, once in place the buoys may enhance prey, since such devices are known to act as prey aggregating devices. Thus, the benefits of exclusion outweigh the benefits of designating this area for critical habitat. Based on our best scientific judgment and acknowledging other safeguards that are in place (e.g., protections already afforded Hawaiian monk seals under its listing), we believe that exclusion of these areas will not result in the extinction of the species.

Site #13 Kahoolawe Danger Zone

Hawaiian monk seal use of area: Monk seal use of the marine environment is likely best demonstrated by haul out sightings or patterns at adjacent terrestrial areas; in this case monk seal use of Kahoolawe is described. KIRC is responsible for the management of the Kahoolawe Island Reserve. Access to the island and the 2 mi or 3 km of ocean surrounding Kahoolawe is restricted because of the continued danger of unexploded ordnance. Access to the Reserve is permitted only with authorization of KIRC in support of its cultural and natural resource projects. KIRC personnel have been collecting monk seal sighting information since 2001. Sighting data is collected from boat, land and aerial surveys of the islands coastline. Between the years 2001-2008, 304 sightings of monk seals have been recorded. Nine known individuals have been attributed to 88 of these sightings. Four confirmed monk seal births have been recorded on Kahoolawe.

Description of DOD area and activities: The danger zone surrounding Kahoolawe is a polygon established and described in 33CFR Part 334 that is set up from shore outward around the entire island. The site was restricted for public safety due to the continued dangers of unexploded ordnances in the area. Typical danger zones are defined water area (or areas) used for target practice, bombing, missile firing or other especially hazardous operations, normally for the armed forces. The danger zones may be closed to the public on a full-time or intermittent basis, as stated in the regulations. No activities were described for this site.

National security concerns: During early conversations, the Navy commented that the danger zone surrounding Kahoolawe may require ordnance removal if unexploded ordnances were discovered. No other activities were demonstrated for this site.

Recommendation: We recommend that this area not be excluded because the critical habitat designation is not likely to result in impacts on national security. Thus, there would be no benefit of exclusion. The area requested for exclusion encompasses approximately 68 mi² or 176 km² surrounding Kahoolawe. Habitat at Kahoolawe provides all of the essential features for the Hawaiian monk seal including important monk seal pupping and nursing area, haul out area, areas with low

anthropogenic disturbance, and marine foraging grounds. Although the removal of unexploded ordnance from the environment may provide experience for forces, unexploded ordnance removal is a matter of public and perhaps even environmental safety, and should be considered separately from impacts to national security that includes training activities and troop preparedness. Removal of such objects should be executed in accordance with approved protocol in such a manner that impacts to resources are mitigated to the best extent possible. Consultation processes associated with this activity are meant to realistically consider the safest alternative for all parties involved. While the Navy has control over the marine area via executive order, this control is only demonstrated in response to the described activity of ordnance removal. Any future plans and activities that may include construction of facilities or perhaps even landing areas for the island may have the potential to impact essential features and as such would not be considered during the consultation process if this area was excluded. We conclude that the benefits of excluding this site do not outweigh the benefits of designation, but resolve to work cooperatively with the Navy to better understand the potential if any for impacts to this area as a result of the described activity.

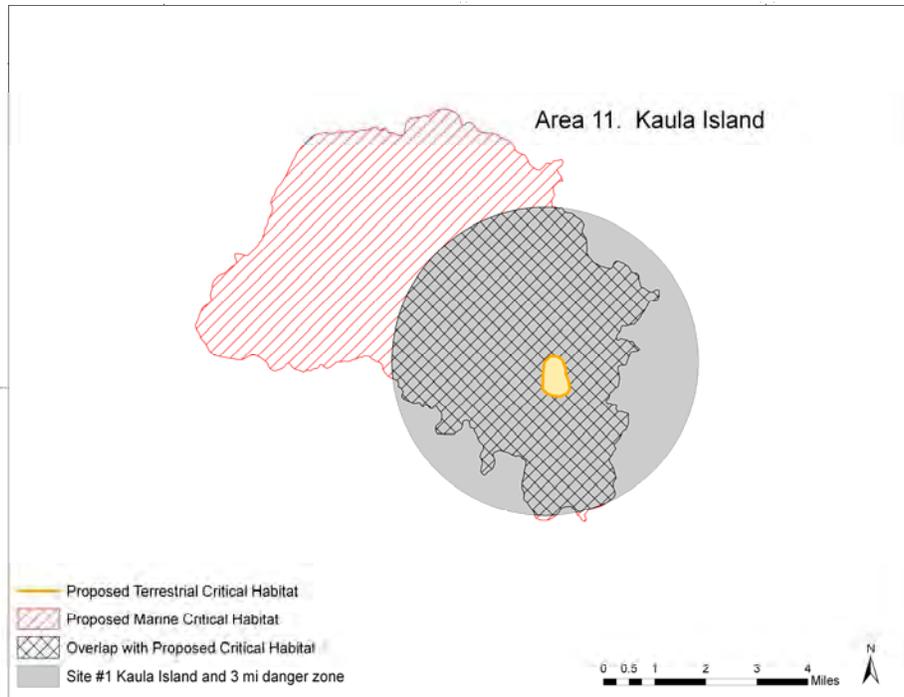


Figure 1. Depicts Navy requests for exclusion for Area 11 Kaula Island.

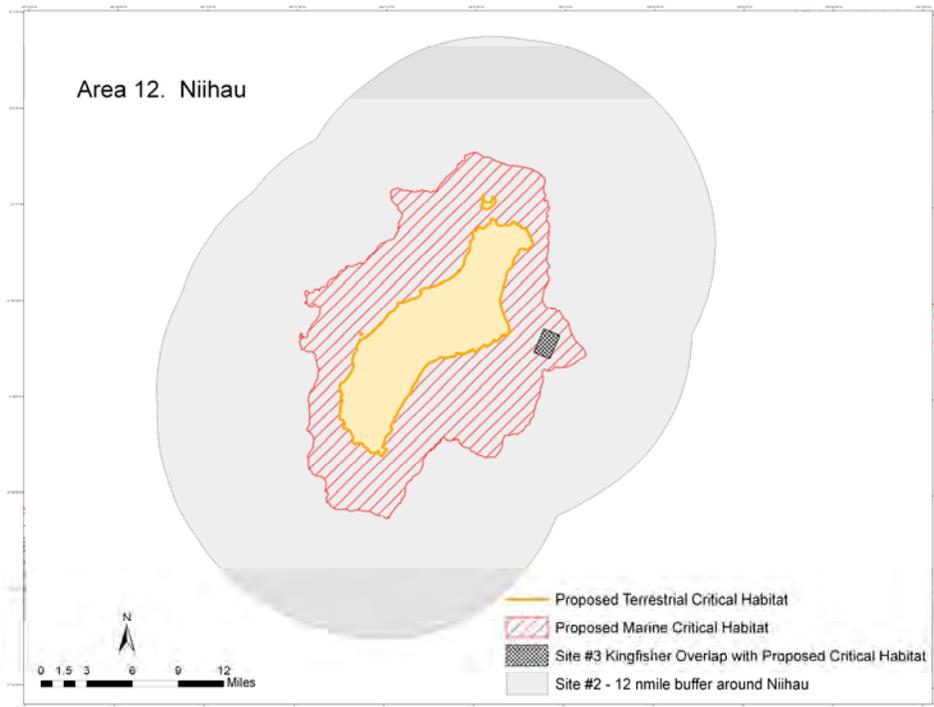


Figure 2. Depicts Navy requests for exclusion for Area 12 Niihau. Site #2 encompasses the entire 500-m depth contour surrounding the Island.

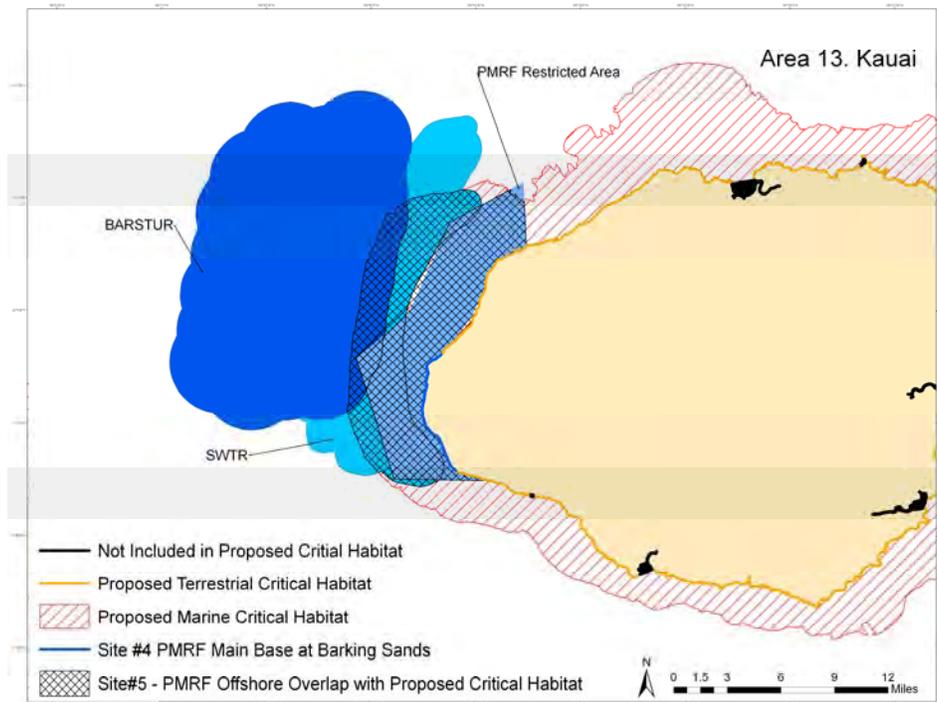


Figure 3. Depicts Navy requests for exclusion for Area 13 Kauai.

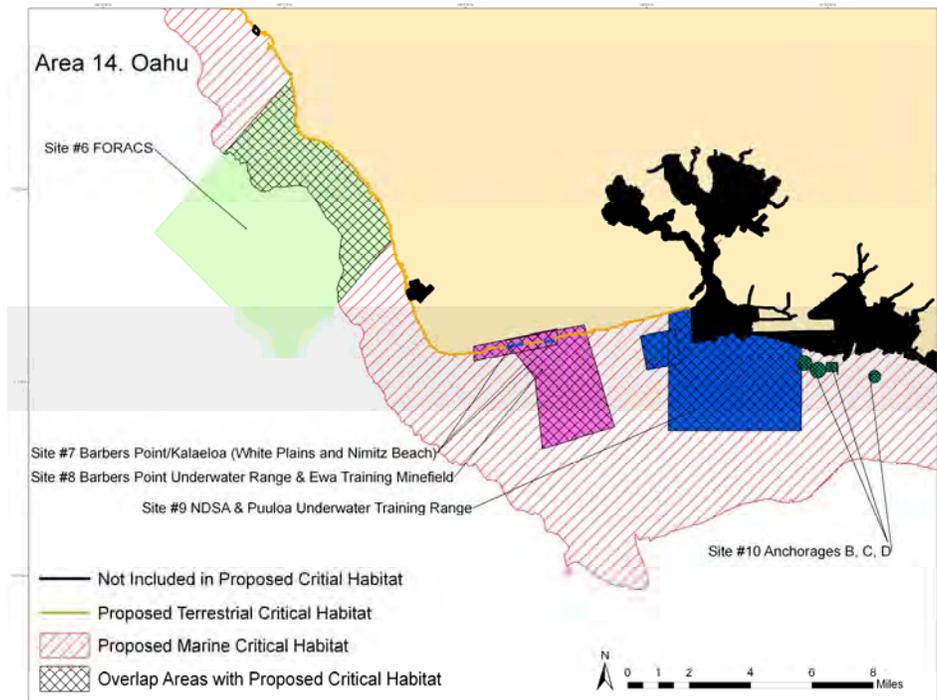


Figure 4. Depicts Navy requests for exclusion for Area 14 Oahu.

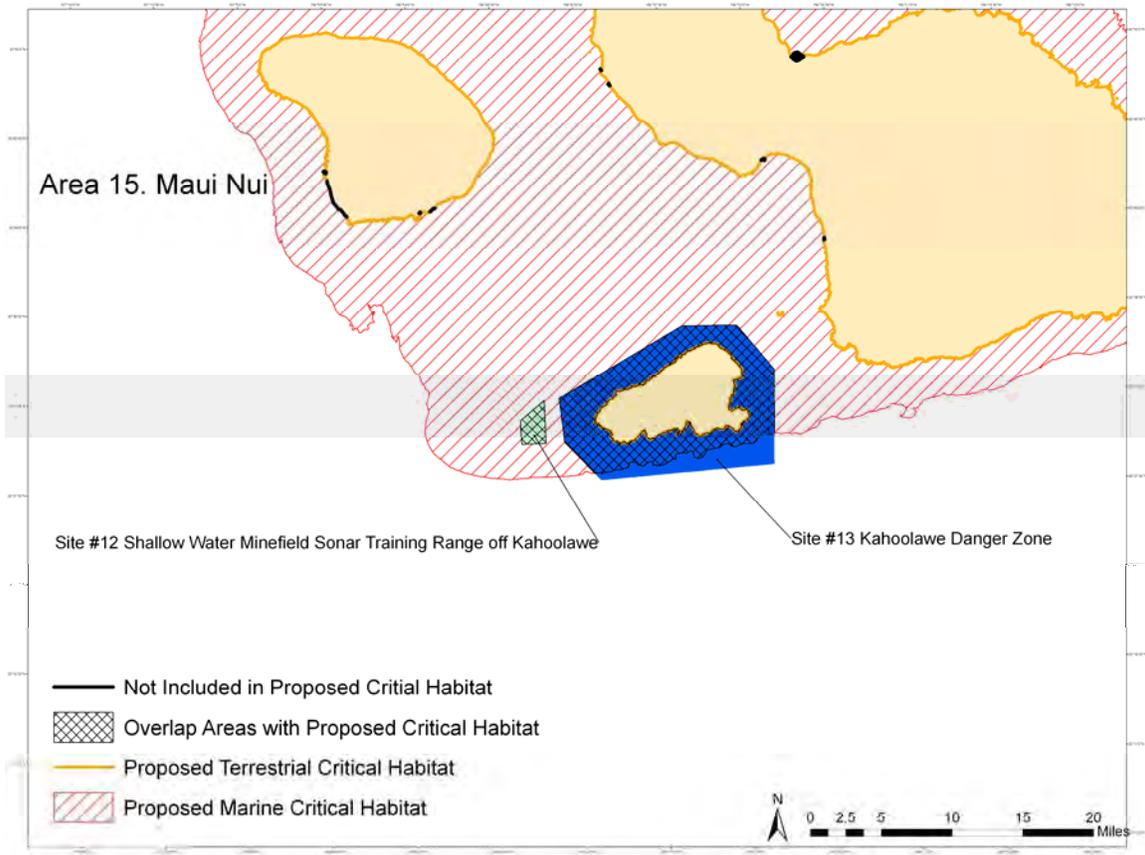


Figure 5. Depicts Navy requests for exclusion for Area 15 Maui Nui.

Table 1. Summary of DOD sites ⁷ and recommendations as to whether they warrant exclusion from designation as critical habitat for the Hawaiian monk seal.

Sit e	DOD Sites & Agency	Overlap of Specific Area	Specific Area Size	Overlap size	Exclud e?
1	Kaula Island and the 3-mile danger zone	Area 11 - Kaula	39 mi ² , 101 or km ²	20 mi ² , or 52 km ²	No
2	Niihau 0-12nm offshore	Area 12 - Niihau	200 mi ² , or 518 km ²	200 ⁺ mi ² , or 518 ⁺ km ²	No
3	Kingfisher Underwater Training Area off of Niihau	Area 12 - Niihau	200 ⁺ mi ² , or 518 ⁺ km ²	2 mi ² , or 5 km ²	Yes
4	Pacific Missile Range Facility (PMRF) Main Base at Barking Sands, Kauai	Area 13 - Kauai	90 mi, or 145 km	8 mi or 13 km	Yes
5	Pacific Missile Range Facility Offshore areas (Overlap areas include BARSTUR, SWTR and PMRF Restricted area)	Area 13 - Kauai	326 mi ² , or 844 km ²	99 mi ² , or 256 km ²	Yes
6	Barbers Point/Kalauloa (White	Area 14 - Oahu	697 mi ² , or 1,805 km ²	21 acres, or 8.5 hectares	No

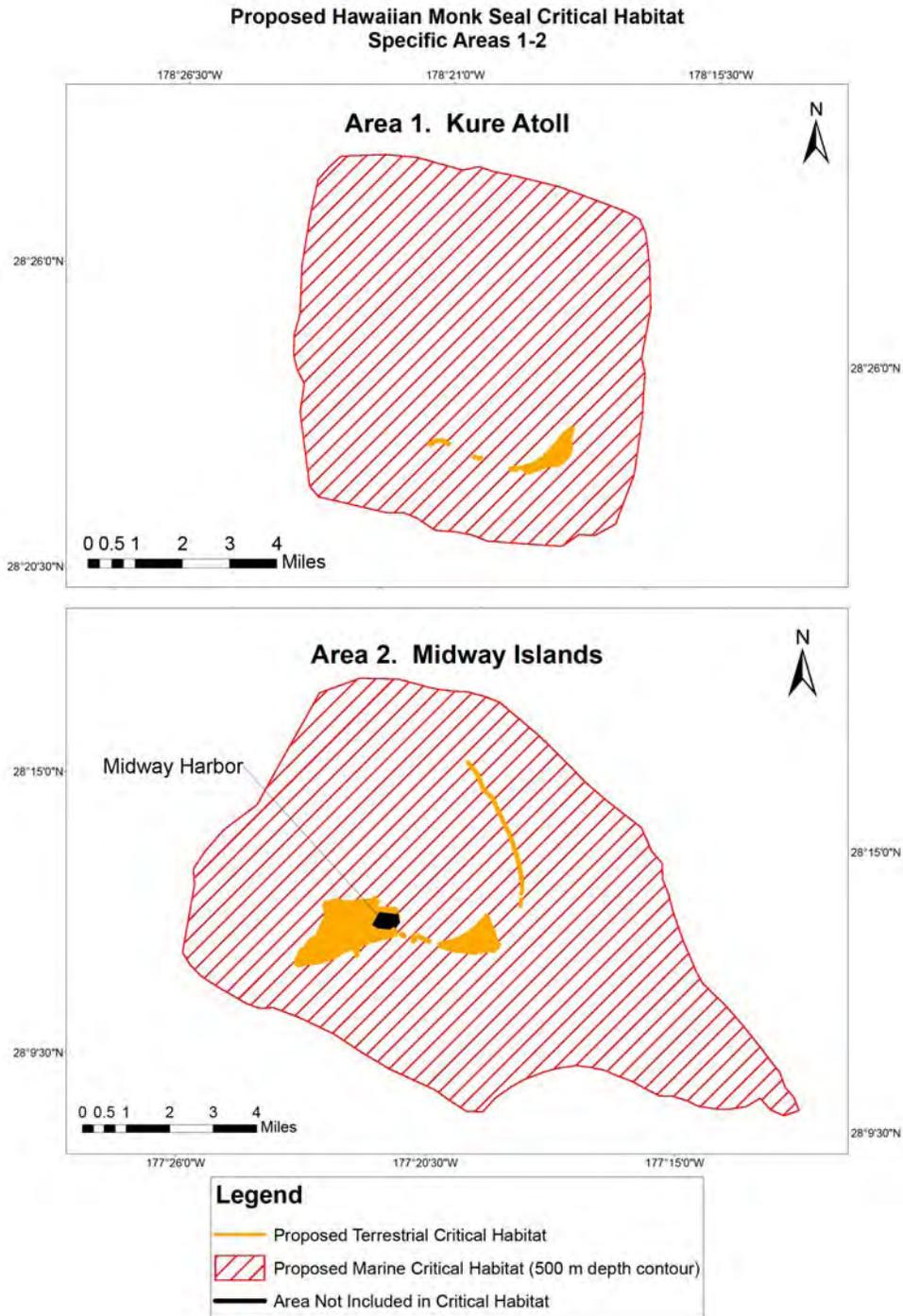
⁷ Several other sites were identified by DOD, including Naval Station Pearl Harbor, Naval Undersea Warfare Center Shipboard Electronic Systems Evaluation Facility (SESEF), Kawaihae Pier. However none of these sites overlap with areas proposed for designation for the Hawaiian monk seal and we did not include them in this assessment of impacts on national security. Similarly, DOD identified the Submarine Operations in and around the Hawaiian Islands; after discussion with the Navy this activity could not be defined to a particular area and as such we did not include it in the assessment.

	Plains & Nimitz Beaches)				
7	Naval Defensive Sea Area & Puuloa Underwater Training Range	Area 14 - Oahu	697 mi ² , or 1,805 km ²	20 mi ² , or 52 km ²	Yes
8	Anchorage B, C, D	Area 14 - Oahu	697 mi ² , or 1,805 km ²	1 mi ² , or 2.6 km ²	No
9	Fleet Operational Readiness Accuracy Check Site (FORACS)	Area 14 - Oahu	697 mi ² , or 1,805 km ²	12 mi ² , 31 km ²	No
10	Barbers Point Underwater Range (Danger Zone) & Ewa Training Minefield (Danger Zone)	Area 14 - Oahu	697 mi ² , or 1,805 km ²	9 mi ² , or 23 km ²	No
11	Marine Corps Training Area Bellows Offshore	Area 14 - Oahu	697 mi ² , or 1,805 km ²	Travel route from MCBH to Bellows	No
12	Shallow Water Minefield Sonar Training Range off Kahoolawe	Area 15 - Maui Nui	2,510 mi ² , or 6,500 km ²	4 mi ² or 10 km ²	Yes
13	Kahoolawe Danger Zone	Area 15 - Maui Nui	2,510 mi ² , or 6,500 km ²	68 mi ² or 176 km ²	No

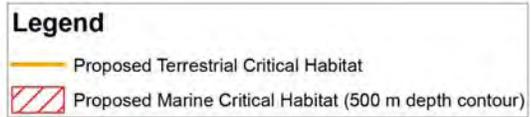
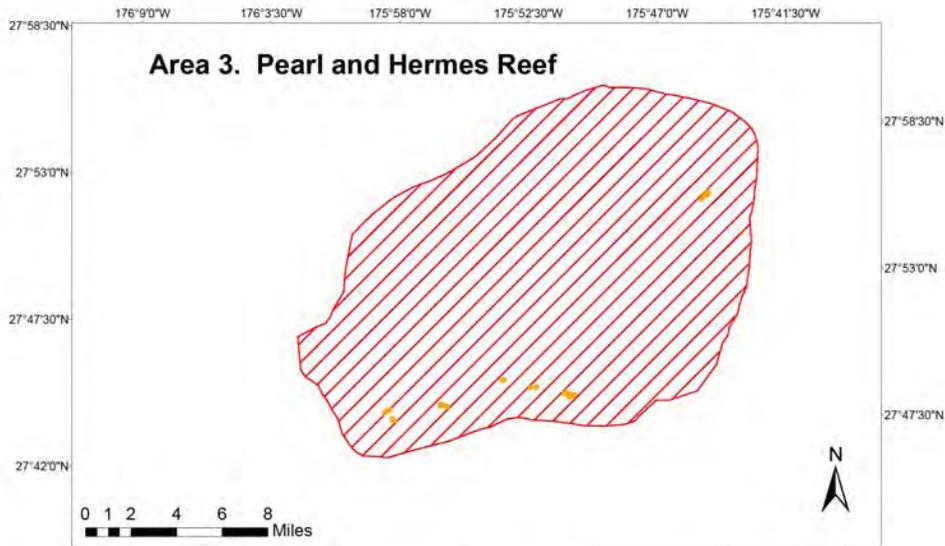
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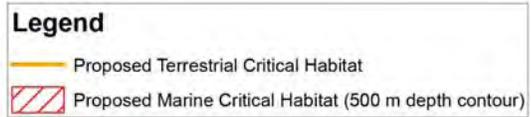
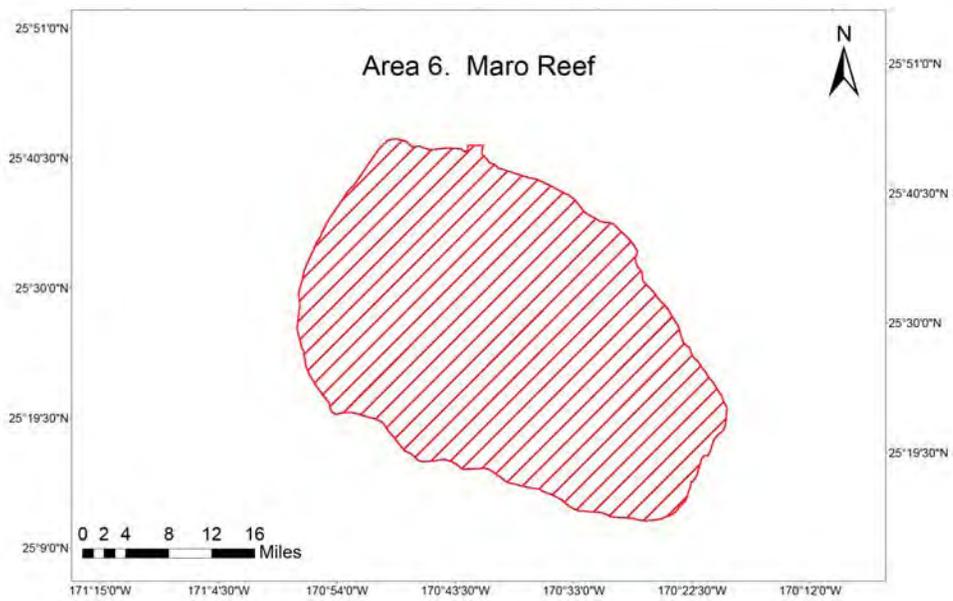
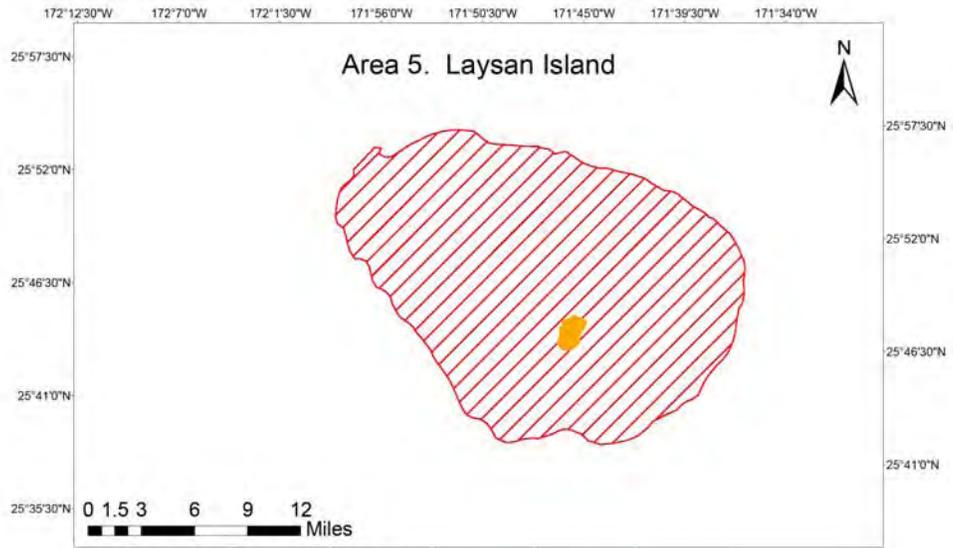
APPENDIX B – Maps Depicting Proposed Critical Habitat



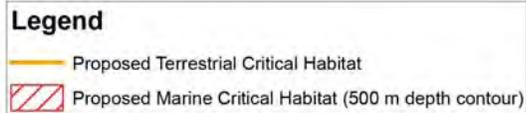
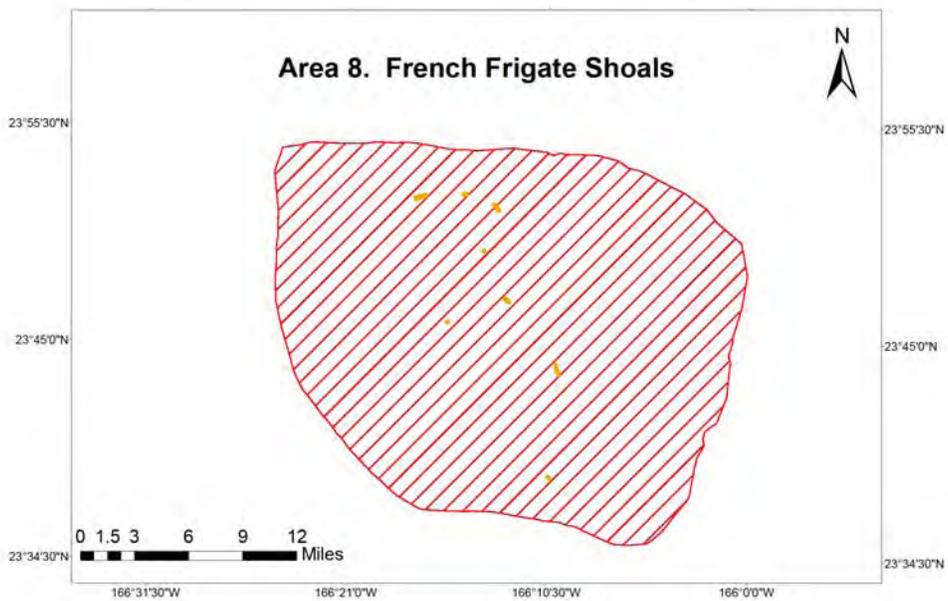
**Proposed Hawaiian Monk Seal Critical Habitat
Specific Areas 3-4**



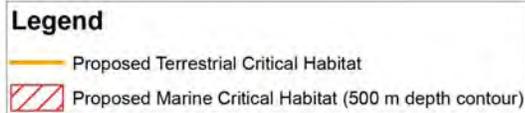
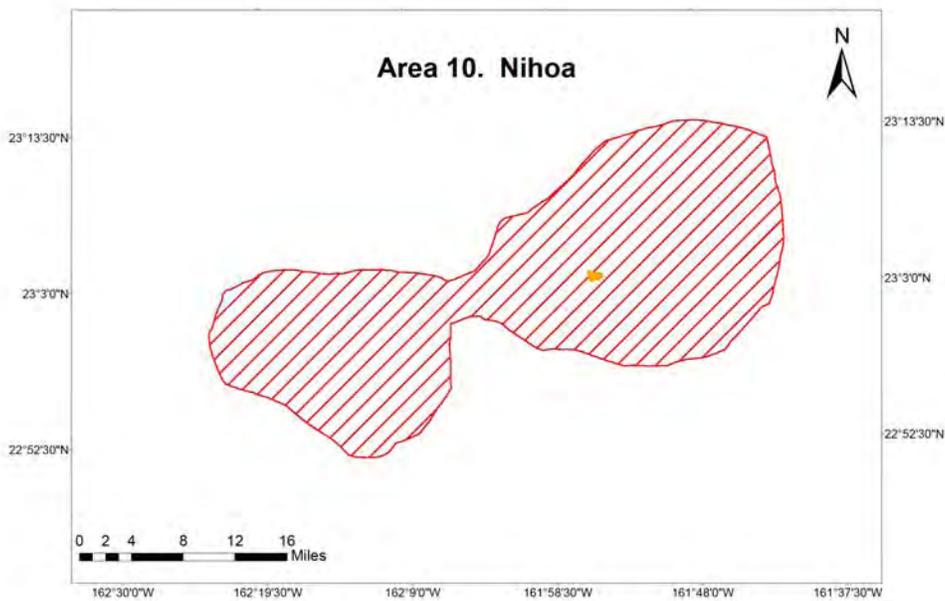
**Proposed Hawaiian Monk Seal Critical Habitat
Specific Areas 5-6**



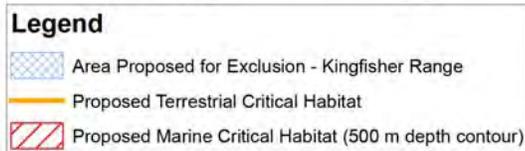
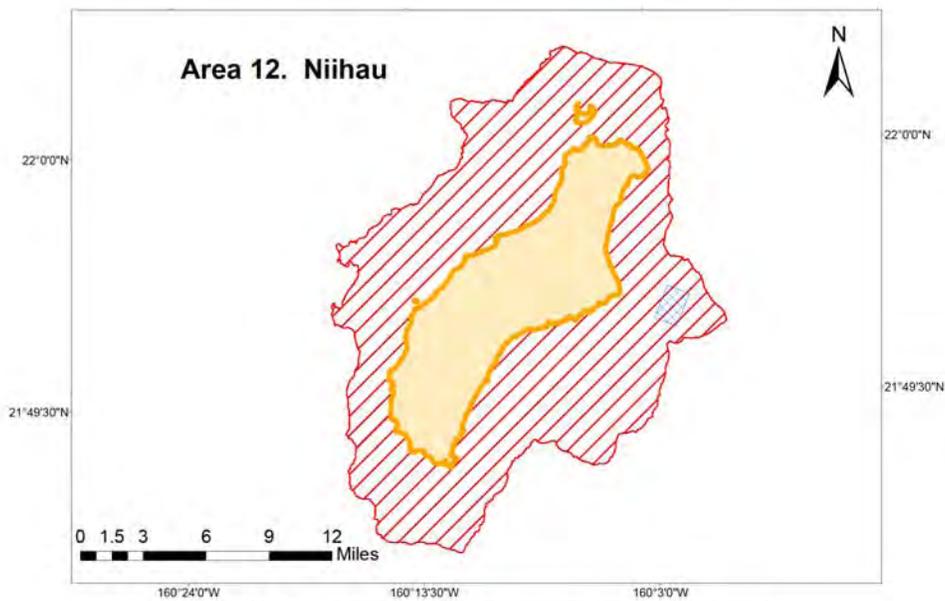
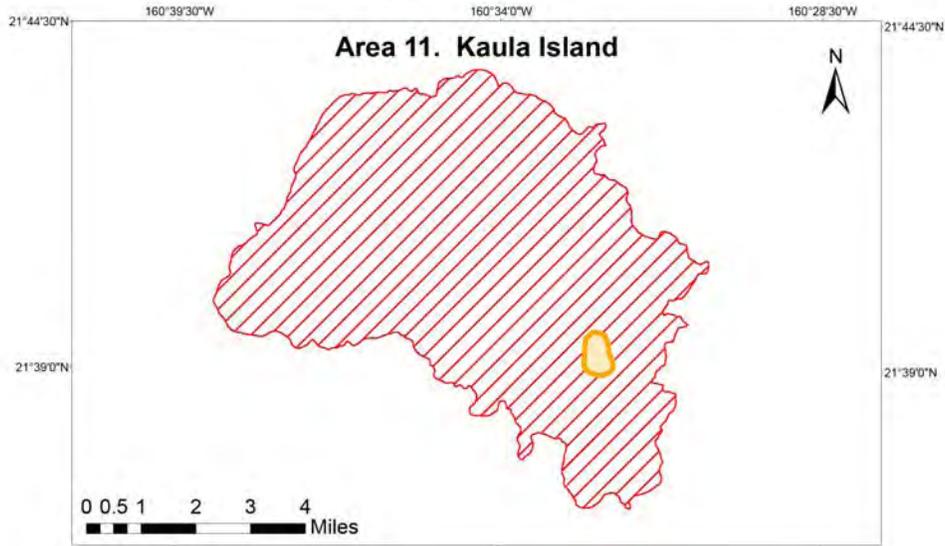
**Proposed Hawaiian Monk Seal Critical Habitat
Specific Areas 7-8**



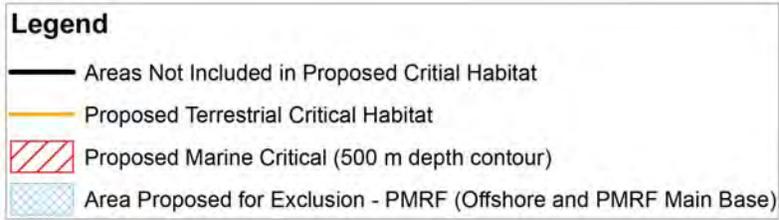
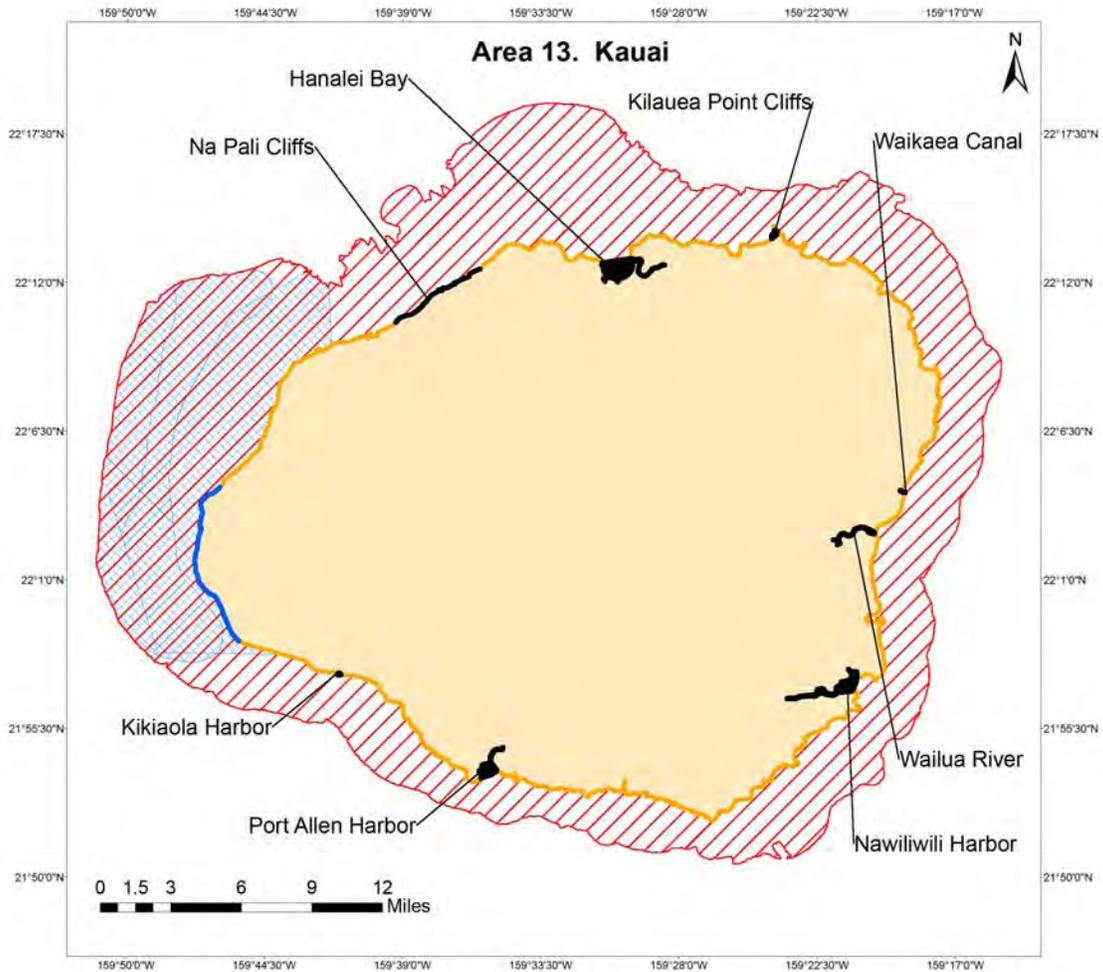
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Specific Areas 9-10**



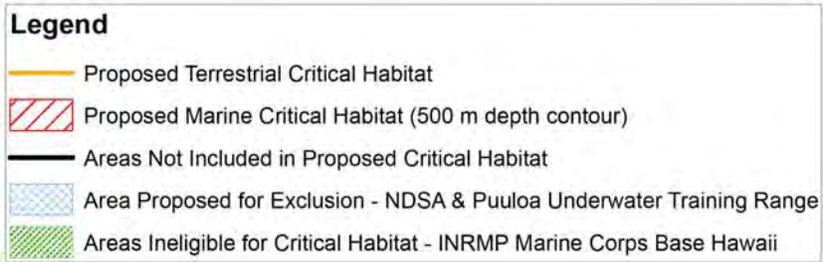
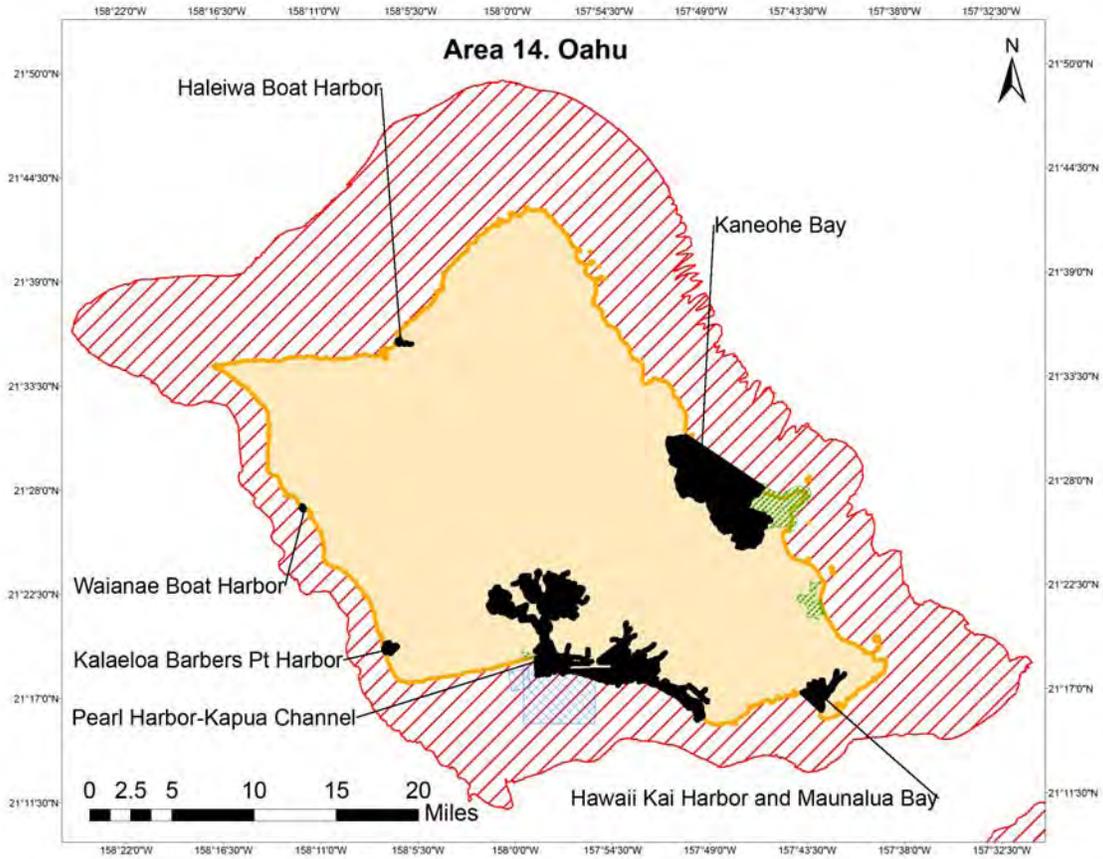
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Specific Areas 11-12**



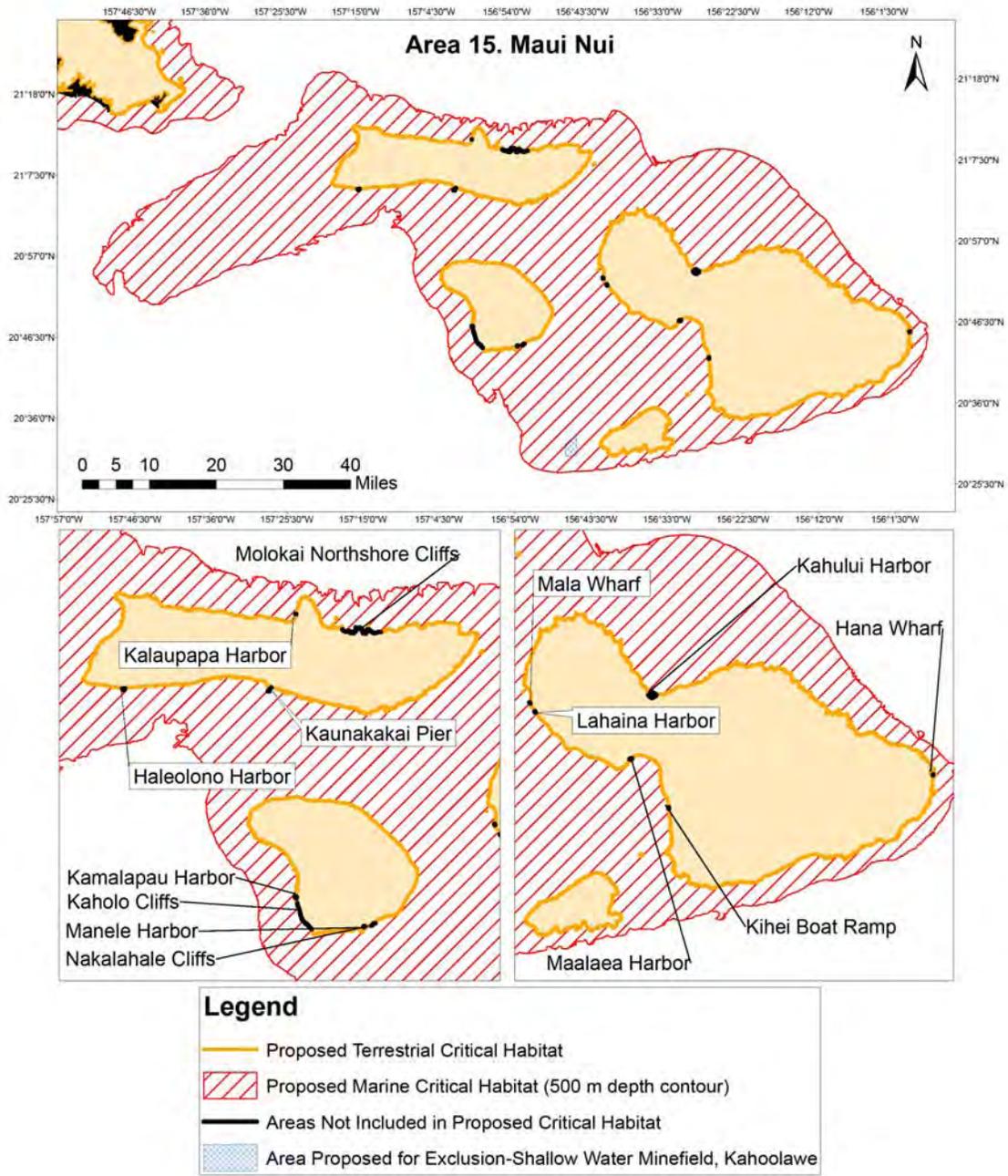
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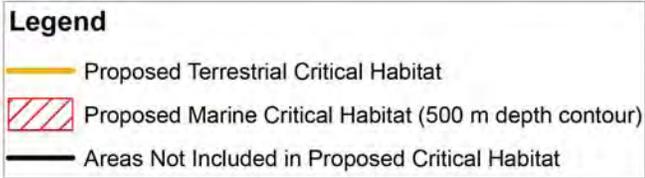
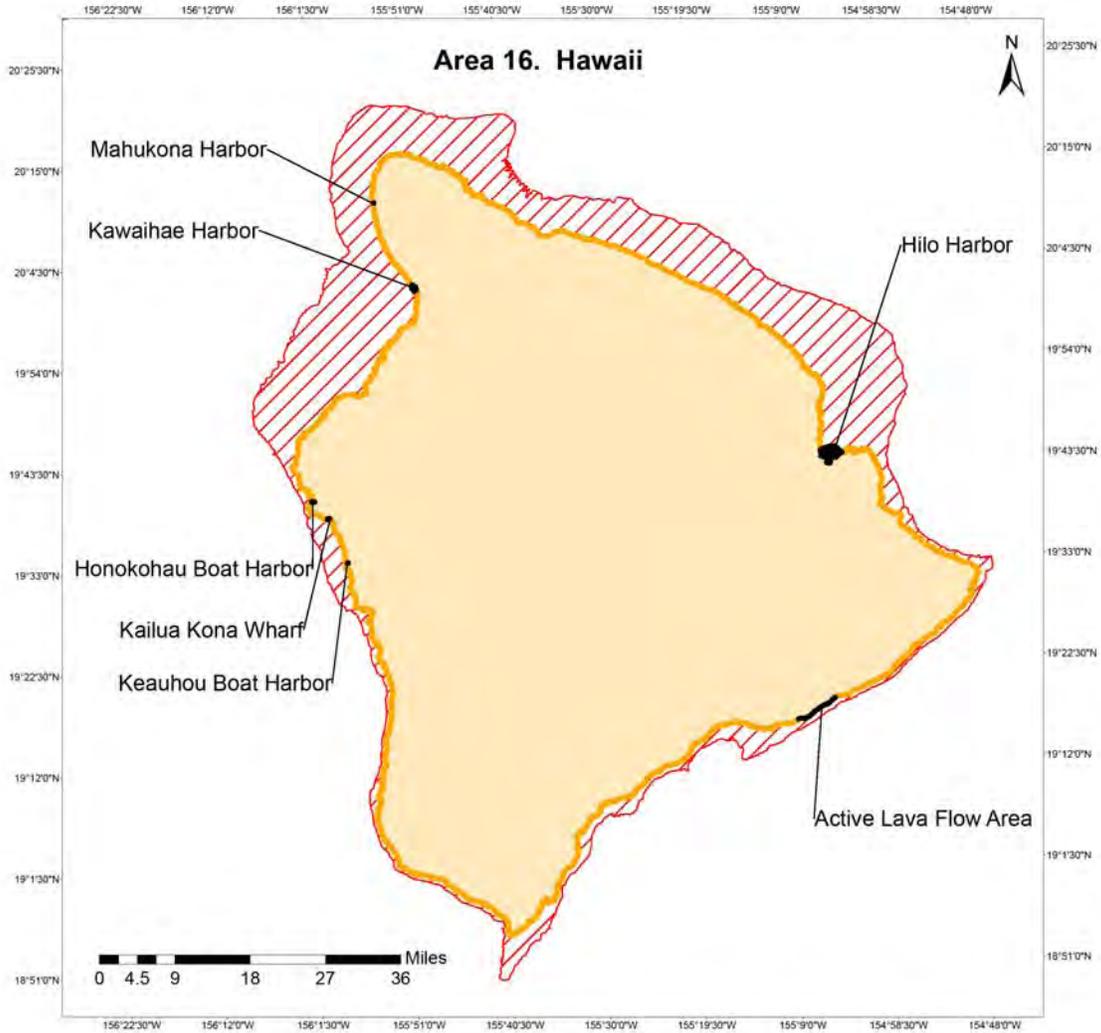
Proposed Hawaiian Monk Seal Critical Habitat Specific Area 14



Proposed Hawaiian Monk Seal Critical Habitat Specific Area 15



Proposed Hawaiian Monk Seal Critical Habitat Specific Area 16



APPENDIX C – Initial Regulatory Flexibility Analysis

Initial Regulatory Flexibility Analysis

This analysis considers the extent to which the potential economic impacts associated with the designation of critical habitat for the Hawaiian monk seal could be borne by small businesses. The analysis presented is conducted pursuant to the Regulatory Flexibility Act (RFA) as amended by the Small Business Regulatory Enforcement Fairness Act (SBREFA) of 1996. Information for this analysis was gathered from the Small Business Administration (SBA) and U.S. Census Bureau.

Introduction

First enacted in 1980, the RFA was designed to ensure that the government considers the potential for its regulations to unduly inhibit the ability of small entities to compete. The goals of the RFA include increasing the government’s awareness of the impact of regulations on small entities and encouraging agencies to exercise flexibility to provide regulatory relief to small entities.

When a Federal agency proposes regulations, the RFA requires the agency to prepare and make available for public comment an analysis that describes the effect of the rule on small entities (i.e., small businesses, small organizations, and small government jurisdictions). For this rulemaking, this analysis takes the form of an initial regulatory flexibility analysis (IRFA). Under 5 U.S.C., Section 603(b) of the RFA, an IRFA is required to contain:

- i. A description of the reasons why action by the agency is being considered;
- ii. A succinct statement of the objectives of, and legal basis for, the proposed rule;
- iii. A description of and, where feasible, an estimate of the number of small entities to which the proposed rule will apply;
- iv. A description of the projected reporting, recordkeeping and other compliance requirements of the proposed rule, including an estimate of the classes of small entities which will be subject to the requirement and the type of professional skills necessary for preparation of the report or record;
- v. An identification, to the extent practicable, of all relevant Federal rules which may duplicate, overlap or conflict with the proposed rule;
- vi. Each initial regulatory flexibility analysis shall also contain a description of any significant alternatives to the proposed rule which accomplish the stated objectives of applicable statutes and which minimize any significant economic impact of the proposed rule on small entities.

Needs and Objective of the Rule

Why Action by the Agency is Being Considered

The Hawaiian monk seal (*Monachus schauinslandi*) was listed as endangered throughout its range under the ESA in 1976 (41 FR 51611; November 23, 1976). Critical habitat for

the Hawaiian monk seal was last revised in 1988 to include specific areas located throughout the Northwestern Hawaiian Islands (NWHI). Since the 1988 designation, new information has become available with regard to monk seal foraging in the marine environment and use of the main Hawaiian Islands (MHI). NMFS was petitioned in 2008 to incorporate this new information into a revision of critical habitat for the Hawaiian monk seal to enhance the conservation of the species. Based on the new information available, NMFS found the Petitioners' request to be warranted in the 12-month finding (74 FR 27988; June 12, 2009). This action is being considered in compliance with section 4 of the ESA and in efforts to best meet the conservation mandates that the ESA provides for the listed Hawaiian monk seal.

Objectives of, and Legal Basis for, the Proposed Rule

The objective of the proposed rule is to utilize the best scientific and commercial information available to revise critical habitat for the Hawaiian monk seal to best meet the conservation needs of the species in order to meet recovery goals. Section 4(b)(ii) of the ESA allows NMFS to revise designations to critical habitat as appropriate and is the legal basis for this rule. Section 4(b)(2) of the ESA requires NMFS 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, impact on national security, and any other relevant impact, of specifying any particular area as critical habitat."

The ESA defines critical habitat under Section 3(5)(A) as:

- “(i) 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 (I) essential to the conservation of the species and (II) which may require special management considerations or protection; and
- (ii) specific areas outside the geographical area occupied by the species at the time it is listed...upon a determination by the Secretary that such areas are essential for the conservation of the species.”

Description and Estimate of the Number of Small Entities to Which the Rule Applies

Definition of a Small Entity

Three types of small entities are defined in the RFA:

- i. **Small Business.** Section 601(3) of the RFA defines a small business as having the same meaning as small business concern under section 3 of the Small Business Act. A small business is generally one that has relatively low receipts or employment and includes any firm that is independently owned and operated and is not dominant in its field of operation. The U.S. Small Business Administration (SBA) has developed size standards to carry out the purposes of the Small Business Act, and those size standards can be found in 13 CFR 121.201. The size standards are matched to North American Industry Classification System (NAICS) industries. The SBA definition of a small business applies to a firm's parent company and all affiliates as a single entity.

ii. **Small Governmental Jurisdiction.** Section 601(5) defines small governmental jurisdictions as governments of cities, counties, towns, townships, villages, school districts, or special districts with a population of less than 50,000. Special districts may include those servicing irrigation, ports, parks and recreation, sanitation, drainage, soil and water conservation, road assessment, etc. When counties have populations greater than 50,000, those municipalities of fewer than 50,000 can be identified using population reports. Other types of small government entities are not as easily identified under this standard, as they are not typically classified by population.

iii. **Small Organization.** Section 601(4) defines a small organization as any not-for-profit enterprise that is independently owned and operated and not dominant in its field. Small organizations may include private hospitals, educational institutions, irrigation districts, public utilities, agricultural co-ops, etc.

Description of Economic Activities for Which Impacts are Most Likely

As described in the main text of this document and the Draft Economic Report⁸ (ECONorthwest 2010), NMFS identified eight categories of economic activity as potentially requiring modification to avoid destruction or adverse modification of Hawaiian monk seal critical habitat. The following are the economic activities that have been considered:

- i. In-Water and Coastal Construction
- ii. Dredging and Disposal of Dredged Materials
- iii. Energy Projects
- iv. Activities that Generate Water Pollution
 - v. Aquaculture
 - vi. Fisheries
- vii. Oil-Spill and Vessel-Grounding Activities
- viii. Military Activities

As discussed earlier in this report and the Draft Economic Report (ECONorthwest 2010), a great deal of uncertainty exists with regard to the how potentially regulated entities will attempt to avoid the destruction or adverse modification of critical habitat. This uncertainty may stem from several factors including: the lack of experience with critical habitat in the marine environment of the MHI; the lack of information regarding impacts to specific features by various activities (e.g., impacts of water quality on prey resources); and the inability to predict the location and scope of future projects such that a true approximation may be made regarding the costs of the various project modifications (i.e., the complexities of recommendations associated with a Section 7 consultation may not be properly represented without knowing the specifics of a project such as the size, location, or number of essential features present). Despite these uncertainties, the economic analysis associated with the 4(b)(2) report attempts to discuss the incremental impacts of

⁸ Report prepared by ECONorthwest and available at http://www.fpir.noaa.gov/PRD/prd_critical_habitat.html

the proposed designation. In the same manner, this IRFA evaluates the potential impacts of the proposed designation on small entities. Table C1 presents a list of the major relevant activities and descriptions of the industry sectors involved in those activities, using the NAICS codes, and the SBA thresholds for determining whether a business is small. This IRFA does not consider all types of small entities that potentially could be affected by the critical habitat designation due to lack of information. Military activities were considered under impacts to National Security and are discussed in Appendix A; we did not receive sufficient information to determine that additional economic impacts may be incurred by small businesses as a result of impacts from the proposed designation to military activities. Small entities are encouraged to provide comment on whether they may be affected by this rulemaking to help us provide an accurate estimate of the number of small entities to which the final rule will apply.

Table C 1⁹: Major Relevant Activities and a Description of the Industry Sectors Engaged in those Activities

Activity	Description of included industry sectors	NAICS code	SBA size standards
In-Water and Coastal Construction & Dredging and the Disposal of Dredged Materials	Sand, Gravel, Clay and Ceramic Mining and Quarrying - This industry comprises (1) establishments primarily engaged in developing the mine site and/or mining, quarrying, dredging for sand and gravel, or mining clay, (e.g., china clay, paper clay and slip clay) and (2) preparation plants primarily engaged in beneficiating (e.g., washing, screening, and grinding) sand and gravel, clay, and ceramic and refractory minerals.	21232	500 employees
	Construction of Buildings - The Construction of Buildings subsector comprises establishments primarily responsible for the construction of buildings.	236	\$33.5 million average annual receipts
	Water and Sewer Line and Related Structures Construction - This industry comprises establishments primarily engaged in the construction of water and sewer lines, mains, pumping stations, treatment plants, and storage tanks.	237110	
	Oil and Gas Pipeline and Related Structures Construction - This industry comprises establishments primarily engaged in the construction of oil and gas lines, mains, refineries, and storage tanks.	237120	
	Power and Communication Line and Related Structures Construction - This industry comprises establishments primarily engaged in the construction of power lines and towers, power plants, and radio, television, and telecommunications transmitting/receiving towers.	237130	
	Highway, Street, and Bridge Construction - This industry comprises establishments primarily engaged in the construction of highways (including elevated), streets, roads, airport runways, public sidewalks, or bridges.	237310	
	Other Heavy and Civil Engineering Construction - This industry comprises establishments primarily engaged in heavy and engineering construction projects (excluding highway, street, bridge, and distribution line construction).	237990	

⁹ Source for Data includes the SBA size Standards: http://www.sba.gov/sites/default/files/Size_Standards_Table.pdf And the U.S. Census Bureau, NAICS and American FactFinder: <http://www.census.gov/eos/www/naics/index.html> ; http://factfinder.census.gov/home/saff/main.html?_lang=en

Table C 1: Major Relevant Activities and a Description of the Industry Sectors Engaged in those Activities

Activity	Description of included industry sectors	NAICS code	SBA size standards
Energy Projects	<p>Other Electric Power Generation - This U.S. industry comprises establishments primarily engaged in operating electric power generation facilities (except hydroelectric, fossil fuel, nuclear). These facilities convert other forms of energy, such as solar, wind, or tidal power, into electrical energy. The electric energy produced in these establishments is provided to electric power transmission systems or to electric power distribution systems.</p>	221119	Electrical output for the preceding fiscal year did not exceed 4 million megawatt hours
	<p>Electric Bulk Power Transmission, Control, and Distribution - This industry comprises establishments primarily engaged in operating electric power transmission systems, controlling (i.e., regulating voltages) the transmission of electricity, and/or distributing electricity. The transmission system includes lines and transformer stations. These establishments arrange, facilitate, or coordinate the transmission of electricity from the generating source to the distribution centers, other electric utilities, or final consumers. The distribution system consists of lines, poles, meters, and wiring that deliver the electricity to final consumers.</p>	22112	
Activities that Generate Water Pollution	<p>Water Supply and Irrigation Systems - This industry comprises establishments primarily engaged in operating water treatment plants and/or operating water supply systems. The water supply system may include pumping stations, aqueducts, and/or distribution mains. The water may be used for drinking, irrigation, or other uses.</p>	221310	\$7 million average annual receipts
	<p>Sewage Treatment Facilities - This industry comprises establishments primarily engaged in operating sewer systems or sewage treatment facilities that collect, treat, and dispose of waste.</p>	221320	
	<p>Manufacturing - The Manufacturing sector comprises establishments engaged in the mechanical, physical, or chemical transformation of materials, substances, or components into new products. The assembling of component parts of manufactured products is considered manufacturing, except in cases where the activity is appropriately classified in Sector 23, Construction.</p>	31-33	500- 1500 employees (industry specific)

Table C 1: Major Relevant Activities and a Description of the Industry Sectors Engaged in those Activities

Activity	Description of included industry sectors	NAICS code	SBA size standards
Aquaculture	Finfish Farming and Fish Hatcheries - This U.S. industry comprises establishments primarily engaged in (1) farm raising finfish (e.g., catfish, trout, goldfish, tropical fish, minnows) and/or (2) hatching fish of any kind.	112511	\$0.75 million average annual receipts
	Shellfish Farming - This U.S. industry comprises establishments primarily engaged in farm raising shellfish (e.g., crayfish, shrimp, oysters, clams, mollusks).	112512	
	Other Aquaculture - This U.S. industry comprises establishments primarily engaged in (1) farm raising of aquatic animals (except finfish and shellfish) and/or (2) farm raising of aquatic plants. Alligator, algae, frog, seaweed, or turtle production is included in this industry.	112519	
Fisheries	Finfish Fishing - This U.S. industry comprises establishments primarily engaged in the commercial catching or taking of finfish (e.g., bluefish, salmon, trout, tuna) from their natural habitat.	114111	\$4 million average annual receipts
Oil-Spill and Vessel-Grounding Activities	Deep Sea, Coastal and Great Lakes Transportation - This industry comprises establishments primarily engaged in providing deep sea, coastal, Great Lakes, and St. Lawrence Seaway water transportation.	48311	500 employees
	Marinas - This industry comprises establishments, commonly known as marinas, engaged in operating docking and/or storage facilities for pleasure craft owners, with or without one or more related activities, such as retailing fuel and marine supplies; and repairing, maintaining, or renting pleasure boats.	713930	\$7 million average annual receipts

NAICS code 237990 - Dredging: To be considered small for purposes of Government procurement, a firm must perform at least 40% of the volume dredged with its own equipment or equipment owned by another small dredging concern.

Consideration and Discussion of Small Entities

Any activity conducted by a small entity that may affect the habitat or habitat features essential to the Hawaiian monk seal has the potential to be affected by the proposed critical habitat designation, if that activity is funded, authorized or carried out by a Federal agency. For example, if a small entity receives funding or authorization from a Federal agency for a specific activity, Section 7 consultation requirements are triggered if the action may affect the habitat or habitat features. The small entity may then incur the administrative costs associated with the Section 7 consultation and/or may be responsible for implementing project modifications that are recommended for the proposed activities to avoid destruction or adverse modification of the critical habitat. In addition, small entities may be affected by the proposed designation if these entities are contracted by Federal agencies to accomplish specific activities. Economic impacts felt by small entities associated with such contract relationships may be either adverse or beneficial depending on the recommended project modifications. Adverse economic impacts may be realized by a small entity if the Federal agency chose not to pursue a project or the project scope is decreased to prevent adverse impacts to the critical habitat. Conversely, a small entity may benefit from the proposed designation if billable hours increase as a result of including project modifications necessary to prevent adverse modification. Small businesses that specialize in providing certain services associated with any project modifications (e.g., environmental monitoring) may benefit from the proposed designation. In addition, small businesses associated with the tourist industry may benefit from the rule. Benefits may be realized as conservation of critical habitat and its features is expected to at a minimum prevent loss of current direct and indirect use of and values already derived from these habitats (e.g., water quality may be maintained).

Ideally this analysis would directly identify the number of small entities that are located within the coastal areas which may engage in activities that overlap with the proposed designation; however the NMFS consultation database tracks the federal agency that is involved in the consultation process, it does not track the identity of past permit recipients (outside of our own agency) or the particulars that would allow NMFS to determine whether the recipients were small entities. Nor does the database include information that would determine how often federal agencies have hired small entities to complete various actions associated with these consultations. Thus, there is no basis to estimate the number or percentage of future grantees, permittees or action participants that may be small businesses.

The SBA Office of Advocacy reports small business profiles for each state. In 2006 small businesses accounted for 96.9% of Hawaii's employers and 56.1% of its private-sector employment (See Tables C2 and C3)¹⁰. The accommodation and food services industry was reported as the state's largest small business and overall employer in 2006, but this industry is not expected to be directly impacted by this proposed designation. As depicted in Table C 1 there are several industries that may have the potential to be impacted by this rule as a result of meeting federal Section 7 obligations. Many of these industries have small businesses located within Hawaii. Generalized information may be gathered from the U.S. Census Bureau regarding some of the small businesses located in

¹⁰ SBA Office of Advocacy Small Business Profile for the State of Hawaii – www.sba.gov/advo

these industries for the purposes of demonstrating the existence of small businesses in Hawaii that correspond with the various industries recognized under the various types of economic activities that are most likely to be impacted; however, these generalized industry codes do not allow us to determine how many of these businesses are engaged in these activities coastally. In other words categories that are broadly described may include some industries or businesses that will not be impacted by the rule (Table C4).

**Table C 2. Hawaii Small Business Profile
(Information from U.S. SBA, Office of Advocacy: published 2009)**

	2006	2000
Number of Businesses		
Small employers (<500 employees)	25,883	23,526
Large employers (500+ employees)	840	799
Nonemployers	90,3535	73,810

Table C 3¹¹. State of Hawaii Number of Establishments for 2007

	ENTERPRISE	
	EMPLOYMENT	NUMBER
COUNTY	SIZE	OF FIRMS
HAWAII	1: Total	3,734
HAWAII	2: <500	3,529
HAWAII	3: 500+	205
HONOLULU	1: Total	18,421
HONOLULU	2: <500	17,633
HONOLULU	3: 500+	788
KAUAI	1: Total	1,778
KAUAI	2: <500	1,629
KAUAI	3: 500+	149
MAUI	1: Total	4,036
MAUI	2: <500	3,791
MAUI	3: 500+	245
STATEWIDE ¹²	1: Total	41
STATEWIDE	2: <500	3
STATEWIDE	3: 500+	38

¹¹ SOURCE: 2007 County Business Patterns and 2007 Economic Census. For information on confidentiality protection, sampling error, nonsampling error, and definitions, see <http://www.census.gov/econ/susb/introduction.html> and <http://www.census.gov/econ/susb/definitions.html>

¹² STATEWIDE – refers to businesses that are not specific to one county.

Table C 4¹³. Distribution of Business Size in Hawaii Based on Broad Category NAICS Descriptions as relevant to the Impacted Activities

NAICS CODE	NAICS DESCRIPTION	ENTERPRISE EMPLOYMENT SIZE	NUMBER OF FIRMS	NUMBER OF ESTABLISHMENTS	EMPLOYMENT	ESTIMATED RECEIPTS (\$1000)
--	Total	1: Total	26,889	33,388	519,060	97,366,729
--	Total	8: <500	26,034	28,693	287,950	42,323,520
--	Total	9: 500+	855	4,695	231,110	55,043,209
11	Forestry, Fishing, Hunting, and Agriculture Support	1: Total	43	43	316	32,027
11	Forestry, Fishing, Hunting, and Agriculture Support	8: <500	43	43	316	32,027
21	Mining	1: Total	8	9	161	57,586
21	Mining	8: <500	6	6	0	0
21	Mining	9: 500+	2	3	0	0
22	Utilities	1: Total	27	56	3,038	2,831,239
22	Utilities	8: <500	19	37	0	0
22	Utilities	9: 500+	8	19	0	0
23	Construction	1: Total	2,968	3,005	34,235	10,544,541
23	Construction	8: <500	2,928	2,947	29,871	8,106,195
23	Construction	9: 500+	40	58	4,364	2,438,346
31-33	Manufacturing	1: Total	931	971	14,776	8,801,235
31-33	Manufacturing	8: <500	902	926	10,805	1,488,913
31-33	Manufacturing	9: 500+	29	45	3,971	7,312,322
48-49	Transportation and Warehousing	1: Total	730	902	31,124	4,395,653
48-49	Transportation and Warehousing	8: <500	663	733	10,680	1,058,816
48-49	Transportation and Warehousing	9: 500+	67	169	20,444	3,336,837
71	Arts, Entertainment, and Recreation	1: Total	478	516	11,582	804,785
71	Arts, Entertainment, and Recreation	8: <500	463	489	9,353	682,478
71	Arts, Entertainment, and Recreation	9: 500+	15	27	2,229	122,307

¹³ SOURCE: 2007 County Business Patterns and 2007 Economic Census. For information on confidentiality protection, sampling error, nonsampling error, and definitions, see <http://www.census.gov/econ/susb/introduction.html> and <http://www.census.gov/econ/susb/definitions.html>

The NMFS consultation record, used for the draft economic analysis, to consider the likely actions occurring within the proposed critical habitat indicated that 14 actions of 41 annual projects would have to consider critical habitat-related concerns as a result of the proposed designation¹⁴. Of these consultations 11 were reported as initiated by the Army Corps of Engineers (USACE), and one each by the U.S. Coast Guard, NMFS, and the USDA Natural Resources Conservation Service. NMFS recognizes that these consultations included activities that likely incorporated small entities. For example, marine contractors may have been the recipients of USACE permits for pier or wharf construction; some of these contractors may have been small entities. Project modifications that may be required of these types of projects may include date restrictions, project time constraints, or area constraints. See Table C 5 for project modifications associated with the various essential features present.

Even though NMFS was not able to determine the relative number of small and large entities that may be affected by this rule, the economic analysis recognizes, and the NMFS consultation history suggests, that activities associated with in-water and coastal construction and the dredging and disposal of dredged materials are most likely to be impacted by this proposed rule. Entities involved in the construction of facilities such as new energy projects or new aquaculture facilities are likely to experience similar impacts from the designation. Impacts resultant from the consultation process will include both administrative costs as well as the costs of implementing project modifications. Table 8 in the Draft Economic Analysis gives examples of the administrative costs of Section 7 Consultations. Third party costs of the consultation process were estimated for formal consultations: \$900 for the additional effort to address adverse modification in new consultations; \$1,750 for efforts associated with re-initiating consultation to address adverse modification; and \$3,500 for efforts to address the incremental consultation resulting entirely from critical habitat designation. These costs may be realized by any third party involved in the formal consultation process including any small entity. Uncertainties remained regarding the location and scope of future projects, and these uncertainties in turn could create a broad range of costs associated with any modifications. Thus, project modification costs were not determined for the economic analysis.

Impacts realized to other industries (e.g., Fisheries, or Activities that Generate Water Pollution) outside of activities associated with construction are less clear at this time. As discussed in the draft economic analysis, this uncertainty stems from a lack of information with regards to the impacts that a particular activity may have on the essential features of Hawaiian monk seal critical habitat. For example, while it is clear that there is the potential for activities that create water pollution such as those businesses that require National Pollutant Discharge Elimination System (NPDES) permits to impact the essential features, such as prey quantities, there is no information available at this time to indicate that pollutant levels are indeed impacting Hawaiian monk seal prey quantity or quality. If information was gained later to indicate that

¹⁴ The Draft Economic Report (ECONorthwest, 2010) provides additional discussion regarding administrative impacts.

essential features were impacted, then project modifications could include efforts necessary to reduce concentrations of a substance being released. The cost of modifying systems to meet these standards would likely be borne by the facility, which could in turn be a small entity.

Table C 5. Potential Project Modifications Based on the Presence of Essential Features

Potential Project Modifications Based on the Presence of Essential Features	
Essential Features	Project Modifications
Preferred Pupping Beaches & Marine Areas Adjacent to Pupping Beaches	<ul style="list-style-type: none"> • Date restrictions, project time constraints or area constraints • Limitations on the size, and numbers of heavy equipment brought into the area • Increased monitoring efforts regarding seal behavior and response to disturbance • Increased education efforts for the public • Increased education efforts for the project personnel • Monitoring efforts to identify impacts to benthic community or prey species
Preferred Haul Out Areas	<ul style="list-style-type: none"> • Date restrictions, project time constraints or area constraints • Limitations on the size, and numbers of heavy equipment brought into the area • Monitoring efforts regarding seal behavior and response to disturbance • Increased education efforts for the public • Increased education efforts for the project personnel
Marine Foraging Areas & Prey Quantity and Quality	<ul style="list-style-type: none"> • Monitoring efforts to identify impacts to benthic community or prey species • Monitoring efforts regarding seal foraging behavior • Area constraints • Efforts to reduce concentrations of identified hazardous substance(s)
Areas with Low Levels of Anthropogenic Disturbance	<ul style="list-style-type: none"> • Date restrictions, project time constraints or area constraints • Limitations on the size, and numbers of heavy equipment brought into the area • Limitations on access to and from the area • Increased monitoring efforts regarding seal behavior and response to disturbance • Increased education efforts with regards to crew access and response

Description of projected reporting, record keeping, and other compliance requirements of the final rule

The critical habitat rule will require that Federal agencies insure their actions do not destroy or adversely modify critical habitat through a Section 7 consultation. During formal Section 7 consultation under the ESA, NMFS, the Action agency (Federal agency) and a third party participant applying for Federal funding or permitting, may communicate in efforts to minimize potential adverse impacts to the habitat and/or the essential features. Communication may include written letters, phone calls, and/or meetings. Project variables such as the type of consultation, the location, impacted essential features, and activity of concern, may in turn dictate the complexity of these interactions. Third party costs may include administrative work, such as cost of time and materials to prepare for letters, calls, or meetings. The cost of analyses related to the activity and associated reports may be included in these administrative costs. In addition, following the Section 7 consultation process, entities may be required to monitor progress during the said activity to ensure that impacts to the habitat and features have been minimized. The rule does not impose record keeping or reporting requirements on small entities.

Identification of all Relevant Federal Rules which May Duplicate, Overlap, or Conflict with the Proposed Rule

NMFS has identified no Federal Rules or regulations that duplicate, overlap, or conflict with the proposed rule.

Description of Significant Alternatives

In accordance with the requirements of the RFA (as amended by SBREFA, 1996) this analysis considered various alternatives to the critical habitat designation for the Hawaiian monk seal.

Alternative 1: No Action Alternative

The alternative of not revising the critical habitat designation for the Hawaiian monk seal was considered because it would impose no additional economic, national security or other relevant impacts. Under this alternative Hawaiian monk seals would continue to receive protection provided under the “jeopardy” provisions of Section 7 of the ESA throughout their range; however, protections provided by the “habitat” provisions of Section 7 would be limited to those areas and features in the NWHI that were identified in the 1988 designation. The essential features that form the basis for critical habitat designations are also essential to the conservation of the species, and conservation of the species is meant to bring about recovery. As discussed earlier in this report and the draft Biological Report Hawaiian monk seal numbers have been declining in the NWHI, but monk seal numbers are increasing in the MHI. Favorable conditions in the MHI may be the key to preservation and possibly recovery of this endangered species. The no action alternative would fail to provide any additional conservation benefit to the species that is experiencing a continued decline. This alternative was considered and rejected because this alternative is not consistent with the requirement of the ESA to designate critical habitat to the maximum extent prudent and determinable and would not provide for the conservation of the species based on the best available science.

Alternative 2: Designating all specific areas

Although the benefits of exclusion for particular areas appear to outweigh the benefits of designation, NMFS is considering the alternative of designating all specific areas (i.e., no area excluded), and will evaluate comments received. The designation of all specific areas would likely increase the impacts that this rule may have on small businesses. The extent of these economic impacts would be difficult to determine without further information regarding the number of small entities engaged in activities that include Federal authorization, Federal funding. Should NMFS determine to exercise its discretion to designate all areas; the Final Regulatory Flexibility Analysis will address the appropriate impacts and the reasoning behind this decision.

Alternative 3: Preferred Alternative

An alternative to designating critical habitat within all of the areas considered for designation is the designation of critical habitat within a subset of those 16 areas. Under section 4(b)(2) of the ESA, NMFS must consider the economic impacts, impacts to national security, and other relevant impacts of designating any particular area as critical habitat. NMFS has the discretion to exclude an area from designation as critical habitat if the benefits of exclusion (i.e., the impacts that would be avoided if an area was excluded from the designation) outweigh the benefits of designation (i.e., the conservation benefits to the Hawaiian monk seal if an area was designated), so long as exclusion of the area will not result in extinction of the species. Exclusion under section 4(b)(2) of the ESA of one or more of the particular areas considered for designation would reduce the total impacts of designation. This is the preferred alternative because it would result in a critical habitat designation that provides for the conservation of the species while potentially reducing the economic, national security and other relevant impacts on entities. As discussed early in this report, 5 areas have been identified for the purposes of exclusion under this alternative because the benefits of exclusion due to national security appear to outweigh the benefits of designation. Although these areas are being considered due to national security concerns, the exclusion of these areas from the designation may also in turn lessen the economic impacts on small businesses that may be contracted for work in these areas by the Department of Defense or on small businesses that plan on utilizing parts of these areas for other activities. The extent to which the economic impact to small entities would be reduced has not been determined based on the available information. At this time, NMFS has no additional information to indicate that small businesses will be disproportionately impacted by this designation. However, information received during the public comment period of the proposed rule may indicate that additional areas should be considered for exclusion. This may in turn alter the number of particular areas considered under this alternative. Should NMFS determine to exercise its discretion to exclude additional areas from the designation; the Final Regulatory Flexibility Analysis will address the appropriate impacts.

