

Proposed Designation of  
Critical Habitat for the Endangered  
Main Hawaiian Islands  
Insular False Killer Whale  
Distinct Population Segment

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

Prepared by:  
National Marine Fisheries Service  
Protected Resources Division  
Pacific Islands Regional Office  
1845 Wasp Blvd., Building 176  
Honolulu, HI 96818

October 2017

U.S. Department of Commerce  
National Oceanic and Atmospheric Administration

## Table of Contents

|   |    |
|---|----|
| BACKGROUND AND SUMMARY .....  | 6  |
| Purpose and Structure of the Report .....   | 6  |
| Background .....  | 6  |
| I. Statute and Regulations .....  | 8  |
| Findings and purposes of the Act emphasize habitat conservation .....   | 8  |
| “Critical Habitat” is specifically defined .....  | 8  |
| “Conservation” is specifically defined .....  | 9  |
| Specific information required for making designations and revisions .....   | 9  |
| Impacts of Designation Must be Considered and Areas May Be Excluded .....   | 9  |
| Federal Agencies Must Insure Their Actions Are Not Likely to Destroy or Adversely<br>Modify Critical Habitat .....  | 10 |
| Authority to designate critical habitat is delegated to NMFS .....  | 10 |
| Approach to the designation .....   | 10 |
| Identify Areas Meeting the Definition of Critical Habitat .....   | 11 |
| Geographical Area Occupied by the Species .....   | 11 |
| Physical or Biological Features Essential to Conservation of MHI IFKWs .....  | 12 |
| “Specific Areas” Within the Occupied Geographical Area .....  | 13 |
| Special Management Considerations or Protection .....   | 13 |
| Unoccupied Areas .....  | 14 |
| Certain Military Lands are Precluded from Designation .....   | 14 |
| II. Conduct a Section 4(b)(2) Analysis .....  | 17 |
| Identify “Particular” Areas .....   | 17 |
| Determine Incremental Impacts .....   | 18 |
| Determine the Benefits of Designation .....   | 19 |
| Determine the Benefits of Exclusion Based on Economic Impacts .....   | 22 |
| Exclusions Based on Economics .....   | 25 |
| Exclusions Based on National Security .....   | 29 |
| The entire area under consideration for critical habitat .....  | 36 |
| Pacific Missile Range Facility (PMRF) Offshore Areas; including Shallow Water Training<br>Range (SWTR), Restricted Area R3101, Barking Sands Tactical Underwater Range<br>(BARSTUR), Barking Sands Underwater Range Extension (BSURE) ..... | 41 |
| Waters en-route to PMRF from the Port Allen Harbor .....  | 44 |
| Kingfisher Range .....  | 46 |

|  |    |
|--|----|
| Warning Area 188 .....   | 48 |
| Kaula and Warning Area 187 .....                                     | 50 |
| Warning Area 189, HELO Quickdraw Box and Oahu Danger Zone .....      | 54 |
| Fleet Operational Readiness Accuracy Check Site Range (FORACS) ..... | 56 |
| Shipboard Electronic Systems Evaluation Facility Range (SESEF) ..... | 58 |
| Warning Areas 196 and 191 .....                                      | 60 |
| Warning Areas 193 and 194 .....                                      | 62 |
| Four Island Region (Maui, Lanai, Molokai, Kahoolawe) .....           | 65 |
| Hawaii .....   | 69 |
| Consideration of Exclusion for Other Relevant Impacts .....          | 72 |
| Proposed Designation Maps .....                                      | 73 |
| References .....   | 78 |

### List of Figures

|   |    |
|---|----|
| Figure 1. Area under consideration for MHI IFKW Critical Habitat. ....  | 7  |
| Figure 2. Range of the MHI IFKW as described in the 2012 and 2015 SARs. ....  | 12 |
| Figure 3. JBPHH INRMP areas that overlap with the areas under consideration. ....   | 17 |
| Figure 4. MHI IFKW high use areas .....   | 22 |
| Figure 5. Areas considered for economic exclusion. ....   | 26 |
| Figure 6. The entire designation and overlapping military areas of significance. ....   | 37 |
| Figure 7. Areas requested for exclusion near Niihau and Kauai. ....   | 41 |
| Figure 8. Areas requested for exclusion near Oahu. ....   | 53 |
| Figure 9. Four Island Region requested for exclusion. ....  | 65 |
| Figure 10. Hawaii Island request for exclusion. ....  | 68 |
| Figure 11. Area proposed for MHI IFKW critical habitat. ....  | 73 |
| Figure 12. Areas proposed for MHI IFKW critical habitat near Niihau and Kauai. ....   | 74 |
| Figure 13. Areas proposed for MHI IFKW critical habitat near Oahu. ....   | 75 |
| Figure 14. Areas proposed for MHI IFKW critical habitat around the four islands of<br>Molokai, Lanai, Kahoolawe, and Maui. .... | 76 |
| Figure 15. Areas proposed for MHI IFKW critical habitat near Hawaii. ....   | 77 |

### List of Tables

|  |    |
|--|----|
| Table 1. Summary of Economic Impacts.....  | 24 |
| Table 2. Summary of National Security 4(b)(2) weighing and exclusion process. .... | 31 |

## **List of Acronyms**

|         |  |
|---------|--|
| CHRT    | Critical Habitat Review Team                     |
| BARSTUR | Barking Sands Tactical Underwater Range          |
| BSURE   | Barking Sands Underwater Range Extension         |
| DPS     | Distinct Population Segment                      |
| DOD     | Department of Defense                            |
| ESA     | Endangered Species Act                           |
| FORACS  | Fleet Operational Readiness Accuracy Check Site  |
| FWS     | Fighter Weapon Squadron                          |
| IFKW    | Insular False Killer Whale                       |
| INRMP   | Integrated Natural Resources Management Plan     |
| JBPHH   | Joint Base Pearl Harbor-Hickam                   |
| LRS     | Long Range Strike                                |
| MHI     | Main Hawaiian Islands                            |
| NDSA    | Naval Defensive Sea Area                         |
| NMFS    | National Marine Fisheries Service                |
| PIRO    | Pacific Islands Regional Office                  |
| PMRF    | Pacific Missile Range Facility                   |
| SESEF   | Shipboard Electronic Systems Evaluation Facility |
| SWTR    | Shallow Water Training Range                     |
| W-      | Warning Area                                     |
| WSEP    | Weapon System Evaluation Program                 |

## BACKGROUND AND SUMMARY

### *Purpose and Structure of the Report*

This report contains the National Marine Fisheries Service (NMFS), Pacific Islands Regional Office (PIRO) recommendations for critical habitat under section 4 of the Endangered Species Act (ESA), for the main Hawaiian Islands (MHI) insular false killer whale (IFKW) distinct population segment (DPS), which was listed under the ESA on December 28, 2012 (77 FR 70915; November 28, 2012). This report documents NMFS' compliance with section 4(b)(2) of the ESA regarding the impacts of designating critical habitat for the MHI IFKW DPS. The report also describes the process followed, methods used, and conclusions reached for each step leading to the critical habitat designation along with the applicable laws, court rulings, executive orders, and policies.

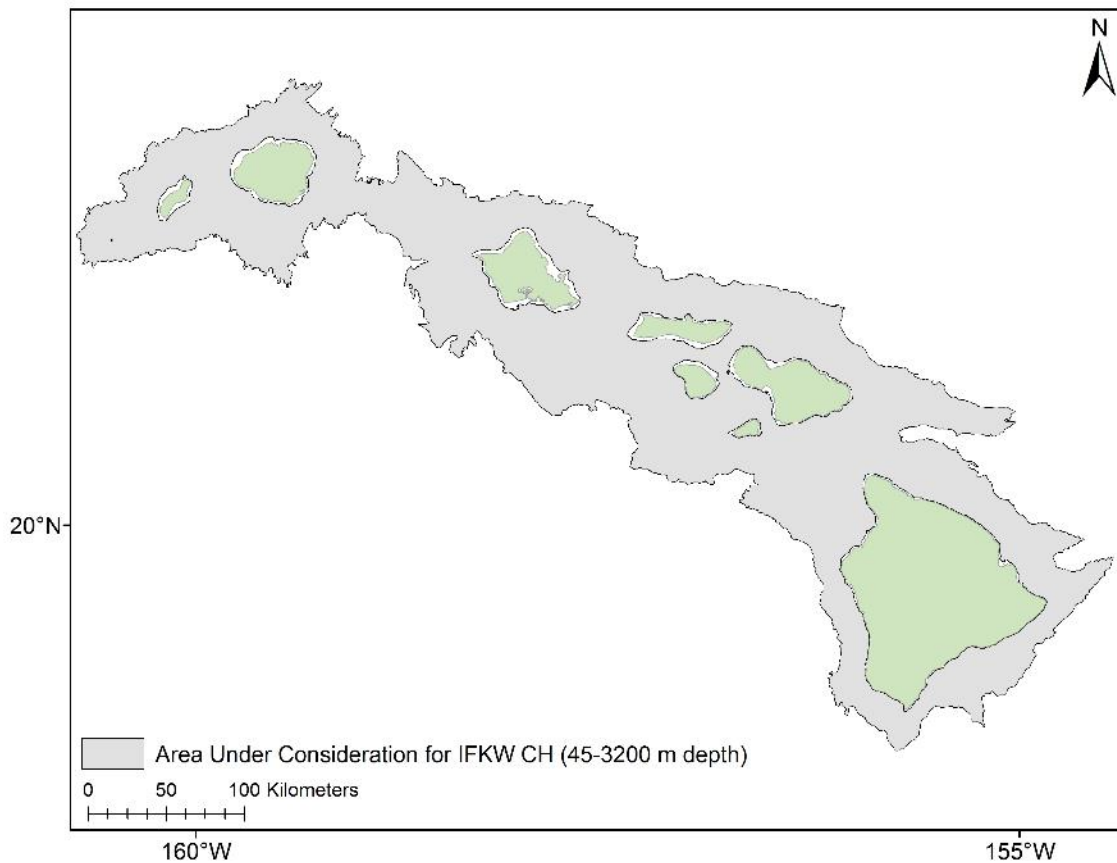
We have considered 14 particular areas for exclusion which are discussed in this report. One area was considered for exclusion based on economic impacts and 13 were considered for exclusion based on national security impacts. Based on the considerations of economic and national security impacts of the proposed critical habitat designation we recommend excluding the following 9 particular areas from the areas under consideration for critical habitat: 1) BOEM's Call Area offshore of the Island of Oahu, 2) the Pacific Missile Range Facilities (PMRF) Offshore ranges (including the Shallow Water Training Range (SWTR), the Barking Sands Tactical Underwater Range (BARSTUR), and the Barking Sands Underwater Range Extension (BSURE)), 3) the Kingfisher Range, 4) Warning area 188, 5) Kaula and Warning area 187, 6) Fleet Operational Readiness Accuracy Check Site (FORACS) Range, 7) the Shipboard Electronic Systems Evaluation Facility (SESEF), 8) Warning areas 196 and 191, and 9) Warning areas 193 and 194. In addition, the Ewa Training Minefield and the Naval Defensive Sea Area are precluded from designation under section 4(a)(3) of the ESA because they are managed under the Joint Base Pearl Harbor Hickam Integrated Natural Resource Management Plan that we find provides a benefit to the MHI IFKW.

### *Background*

On November 28, 2012, the National Marine Fisheries Service (NMFS) published a final rule listing the MHI IFKW DPS under the Endangered Species Act (77 FR 70915). The ESA requires NMFS to designate critical habitat (within the U.S.) for threatened and endangered species, to the maximum extent prudent and determinable (16 U.S.C. 1533). In considering information that would support this designation, NMFS reviewed available information on false killer whales, including but not limited to the following: recent satellite tracking information, peer-reviewed literature, NMFS' status review for false killer whales (Oleson *et al.* 2010), information considered in the proposed and final listing rules for the MHI IFKW DPS (75 FR 70169, November 17, 2011; and 77 FR 70915, November 28, 2012), and information received from a [Recovery Planning Threats Workshop](#) for MHI IFKWs held on October 25-28, 2016. NMFS also convened a Critical Habitat Review Team (CHRT) consisting of five NMFS staff members with

experience working on issues related to MHI IFKWs and Hawaii’s pelagic ecosystem (see the draft Biological Report for more information, NMFS 2017).

The CHRT identified one area as including the features essential to the conservation of the MHI IFKW DPS; this area ranges from the 45-m depth contour to the 3200-m depth contour in waters that surround the main Hawaiian Islands from Niihau east to Hawaii (see Figure 1). Subsequent sections of this report will provide information about the process NMFS used to identify those areas meeting the definition of MHI IFKW critical habitat, and the process used to analyze the impacts of designating those areas in accordance with 4(b)(2) of the ESA. Additional information regarding MHI IFKW life history and status, and the determination of essential features and specific areas identified may be found in the draft biological report (NMFS 2017).



**Figure 1. Area under consideration for MHI IFKW Critical Habitat.**

## I. Statute and Regulations

We developed our recommendations consistent with statutory requirements and agency regulations, which are summarized below.

### *Findings and purposes of the Act emphasize habitat conservation*

In section 1 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 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. [Emphasis added]

### *“Critical Habitat” is specifically defined*

Section 3(5)(A) of the ESA (16 U.S.C. 1532 (5)) defines critical habitat as follows;

(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.”

### ***Specific information required for making designations 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.”

### ***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.*

### ***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 are not likely to 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.*

### ***Authority to designate critical habitat is delegated to NMFS***

The authority to designate critical habitat, including the authority to consider the impacts of designation, weigh the benefits of exclusion against the benefits of designation, and exclude particular areas, has been delegated to the Assistant Administrator of the NMFS ([Department Organization Order 10-15 \(5/24/04\)](#)). NOAA Organization Handbook, Transmittal #34, May 31, 1993).

### ***Approach to the designation***

Based on this statutory direction and our discretion on whether to enter into a section 4(b)(2) exclusion analysis, our approach to designation included the following steps:

- 1) Identify specific areas eligible for critical habitat designation
  - a. Identify areas meeting the definition of critical habitat.
  - b. Identify military areas ineligible for designation.
- 2) Determine the impacts of designation
- 3) Conduct an ESA section 4(b)(2) analysis:
  - a. Determine the benefits of designation.
  - b. Determine the benefits of exclusion.
  - c. Determine whether benefits of exclusion of any particular area outweigh benefits of designation and recommend exclusion if appropriate.

### *Identify Areas Meeting the Definition of Critical Habitat*

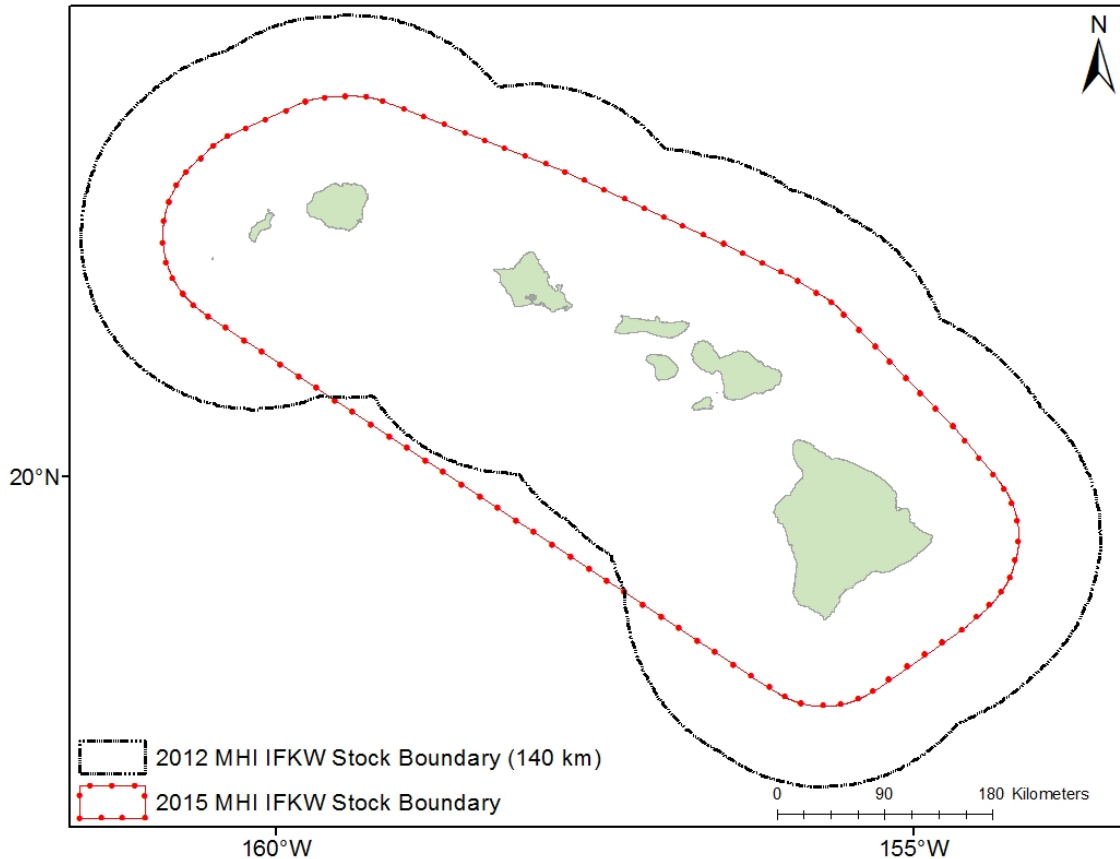
Areas that meet the ESA definition of critical habitat include specific areas:

- 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.

To identify these specific areas, a CHRT was convened. The CHRT consisted of five biologists with experience working on issues related to MHI IFKWs and Hawaii's pelagic ecosystem. The CHRT identified one specific area that meets the definition of critical habitat for this DPS. This specific area ranges from the 45-m depth contour to the 3200-m depth contour in waters that surround the main Hawaiian Islands from Niihau east to Hawaii (see [Figure 1](#)). The CHRT analysis and conclusions regarding how this specific area meets the definition of critical habitat, and may therefore be eligible for designation, is documented in a separate draft Biological Report (NMFS 2017), below we provide a summary.

### *Geographical Area Occupied by the Species*

Pursuant to section 3(5)(A), the CHRT's first task was to determine "the geographical area occupied by the DPS at the time of listing." The CHRT identified that at the time of listing the range of the MHI IFKW DPS was conservatively estimated to extend from nearshore of the MHI out to 140 km (approximately 75 nautical miles) consistent with the description of the range for this population in NMFS 2012 Stock Assessment Report (SAR) (Carretta *et al.* 2013). However, new satellite-tracking data have improved NMFS' understanding of this DPS' habitat use and the range of this population was revised in NMFS' 2015 SAR (in accordance with a review and reevaluation of satellite tracking data by Bradford *et al.* (2015)) (Carretta *et al.* 2016) (see [Figure 2](#)). The CHRT agreed that the revised range in the 2015 SAR (established in Bradford *et al.* (2015)) provides the best available information to describe the areas occupied by this DPS at the time of listing, because this revised range includes all locations that tagged animals have visited in Hawaii's surrounding waters and accommodates for uncertainty in the data (limited data from certain months of the year and limited data from certain social clusters). Accordingly, areas under consideration for this designation that met the definition of the geographical area occupied by the DPS were limited to the range described in Bradford *et al.* (2015) and established for this population in the 2015 SAR (Carretta *et al.* 2016), as seen in [Figure 2](#) (below).



**Figure 2. Range of the MHI IFKW as described in the 2012 and 2015 SARs.**

***Physical or Biological Features Essential to Conservation of MHI IFKWs***

The CHRT determined the physical or biological features essential to the conservation of the MHI IFKW DPS based on their biology and life history (NMFS 2017).

Based on the best available scientific information, the CHRT identified specific biological and physical features essential for the conservation of the Hawaiian IFKW DPS to include the following:

1. *Island-associated marine habitat for MHI insular false killer whales.*
2. *Prey species of sufficient quantity, quality, and availability to support individual growth, reproduction, and development, as well as overall population growth.*
3. *Waters free of pollutants of a type and amount harmful to MHI insular false killer whales.*
4. *Habitat free of anthropogenic noise that would significantly impair the value of the habitat for false killer whales' use or occupancy.*

Full descriptions of the above essential features can be found in the draft Biological Report (NMFS 2017), which is available at the PIRO's Web site at [http://www.fpir.noaa.gov/PRD/prd\\_mhi\\_false\\_killer\\_whale.html#fwk\\_esa\\_listing](http://www.fpir.noaa.gov/PRD/prd_mhi_false_killer_whale.html#fwk_esa_listing).

### *“Specific Areas” Within the Occupied Geographical Area*

One area was identified as including the essential features for the MHI IFKW DPS. This area ranges from the 45-m depth contour to the 3200-m depth contour in waters that surround the main Hawaiian Islands from Niihau east to Hawaii (see [Figure 1](#)). To be eligible for designation as critical habitat under the ESA's definition of occupied areas, each specific area must contain at least one essential feature that may require special management considerations or protection. To meet this standard, the CHRT concluded that false killer whale tracking data would provide the best available information to identify habitat use patterns by these whales and to recognize where the physical and biological features (essential to their conservation) exist. Cascadia Research Collective provided access to MHI IFKW tracking data for the purposes of identifying critical habitat for this DPS. Due to the unique ecology of this island-associated population, habitat use is largely driven by depth. Thus, the features essential to the species' conservation are found in those depths that allow the whales to travel throughout a majority of their range seeking food, and that provide opportunities to socialize and reproduce.

Because MHI IFKW individuals are generally found in deeper water offshore, the CHRT reviewed MHI IFKW location data and selected an inner boundary for this designation at the 45-m depth contour. This depth represents a point in the data where the frequency of MHI IFKW locations increase and appear to show more consistent use of deeper depths. The 3200-m depth contour was selected as the outer boundary to incorporate those areas of island-associated habitat where MHI false killer whales are known to spend a larger proportion of their time (see *Movement and Habitat Use* in the draft Biological Report (NMFS 2017)) and to include island-associated habitat that allows for movement between and around each Island.

Further information regarding MHI IFKW distribution may be found in the draft Biological Report (NMFS 2017). The boundaries chosen to define the specific area represent the best estimate of the areas necessary for the MHI IFKW DPS to seek food, and that provide opportunities to socialize and reproduce.

### *Special Management Considerations or Protection*

An occupied specific area may be designated as critical habitat if it contains essential features that “may require special management considerations or protection.” Joint NMFS and United State Fish and Wildlife Service (50 CFR 424.02) regulations define “special management considerations or protection” to mean “methods or procedures useful in protecting the physical or biological features essential to the conservation of listed species.” In determining whether an area has essential features that may require

special management considerations or protection, the Services do not base their decision on whether management is currently in place or whether that management is adequate.

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 construction (including dredging); (2) energy development (including renewable energy projects); (3) activities that affect water quality; (4) aquaculture/mariculture; (5) fisheries; (6) environmental restoration and response activities (to oil spills, vessel groundings response, and marine debris clean-up activities); and (7) military activities. Because all of these activities have the potential to affect the essential features by altering one or more of the essential features and thereby reducing the quantity, quality, or the availability of the features essential to the conservation of the MHI IFKW DPS, NMFS concludes that they may require special management consideration or protection. The draft Biological Report (NMFS 2017) and the draft Economic Analysis Report (Cardo 2017) provide a description of the potential effects of each category of activities on the essential features.

### *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. At the present time, we have not identified any unoccupied areas for designation.

### *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 critical habitat on 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.*

Regulations at 50 CFR 424.12(h) provide that in determining whether an applicable benefit is provided by a “compliant or operational” plan, NMFS will consider:

- (1) The extent of the area and features present;*
- (2) The type and frequency of use of the area by the species;*
- (3) The relevant elements of the INRMP in terms of management objectives, activities covered, and best management practices, and the certainty that the relevant elements will be implemented; and*

(4) *The degree to which the relevant elements of the INRMP will protect the habitat from the types of effects that would be addressed through a destruction-or-adverse-modification analysis.*

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 Resources Management Plan (INRMP) under the Sikes Act and the Secretary certifies in writing that the plan provides a benefit to the listed species (Section 4(a)(3), Public Law. No. 108-136).

NMFS contacted DOD in May 2017 to help identify INRMPs that may overlap with areas under consideration for critical habitat. The Navy's Joint Base Pearl Harbor-Hickam (JBPHH) INRMP was the only plan that overlaps with some of the area under consideration for MHI IFKW critical habitat. The JBPHH INRMP provided by the Navy was signed in 2012. The Naval Defensive Sea Area (NDSA), and the Ewa Training Minefield are subject to the JBPHH INRMP and overlap in part with the areas under consideration for MHI IFKW critical habitat (see [Figure 3](#)). The overlap areas include approximately 27 km<sup>2</sup> (~10 mi<sup>2</sup>) of area. Satellite-tracking information indicates that these areas are low-use or (low-density) areas for MHI IFKWs (Baird *et al.* 2012) (see [Figure 4](#)). The JBPHH INRMP currently does not incorporate conservation measures that are specific to MHI IFKWs; this DPS was listed in 2012 after this INRMP was drafted. This plan is compliant through the end of 2017 and the Navy will review and update the JBPHH INRMP starting in 2018, which will include additional information about how on-going conservation measures at JBPHH support MHI IFKWs and their habitat.

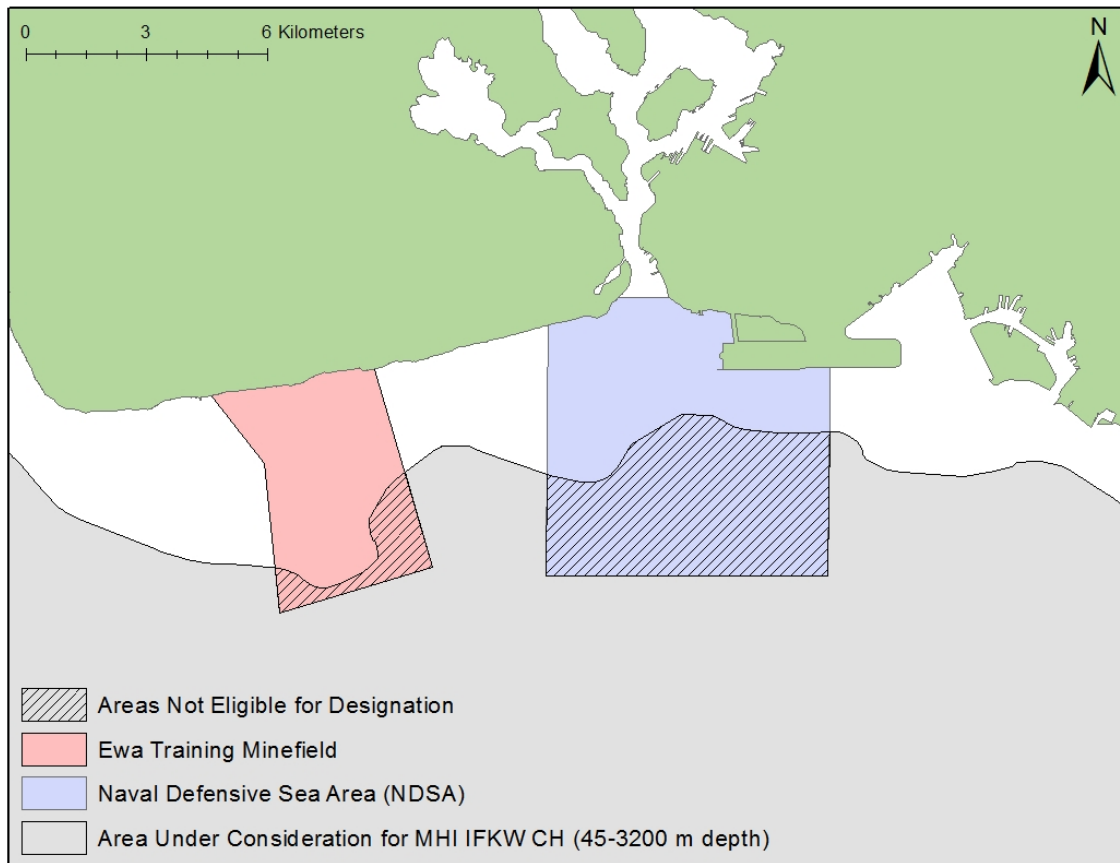
The Navy notes that the plan benefits the MHI IFKW and their habitat in the following ways: fishing restrictions adjacent to and within areas that overlap the potential designation, creel surveys that provide information about fisheries in unrestricted areas of Pearl Harbor, restrictions on free roaming cats and dogs in residential areas, feral animal removal, participation in the Toxoplasmosis and At-large Cat Technical Working Group (which focuses on providing technical information to support policy decisions to address the effects of toxoplasmosis on protected wildlife and provides education and outreach materials on the impacts that free-roaming cats have on Hawaii's environment), efforts taken to prevent and reduce the spread of biotoxins and contaminants from Navy lands (including best management practices, monitoring for contamination, restoration of sediments, and spill prevention), a Stormwater Management Plan and a Stormwater Pollution Control Plan associated with their National Pollutant Discharge Elimination System, as well as coastal wetland habitat restoration projects (DoN 2017a).

Although the JBPHH INRMP does not specifically address the MHI IFKW, we agree that several of the above measures support the protection of the MHI IFKW and the physical and biological features identified for this designation. Specifically, the Navy's efforts focused on preventing the spread of toxoplasmosis, biotoxins, and other contaminants to the marine environment provides protections for MHI IFKW water quality and addresses threats to this feature, which are identified in our draft Biological Report (NMFS 2017).

Efforts to support coastal wetland habitat restoration provide further protections for water quality and provide ancillary benefits to MHI IFKW prey that also rely on these marine ecosystems. Additionally, fishery restrictions in the NDSA and Ewa Training Minefield provide protections to MHI IFKW prey within the limited overlap area. Some of the protections associated with the management of stormwater and pollution address effects that would otherwise be addressed through an adverse modification analysis (provided they are not already addressed through baseline protections). Other conservation measures associated with preventing the spread of toxoplasmosis to the marine environment or that enhance quantity or quality of prey, address effects to MHI IFKW habitat that otherwise may not be subject to a section 7 consultation or an adverse modification analysis because the activities associated with these stressors are not funded, carried out, or authorized by a federal agency. In these instances, the Navy's INRMP provides protections aligned with 7(a)(1) of the ESA, which instructs federal agencies to aid in the conservation of listed species.

After consideration of the above factors, we have determined that the Navy's JBPHH INRMP provides a benefit to the MHI IFKW and its habitat. In accordance with 4(a)(3)(B)(i) of the ESA, the Ewa Training Minefield, and the Naval Defense Sea Area, both found south of Oahu, are not eligible for designation of MHI IFKW critical habitat (see [Figure 3](#)).





**Figure 3. JBP HH INRMP areas that overlap with the areas under consideration for MHI IFKW Critical Habitat and that are not eligible for designation.**

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

Section 4(b)(2) of the ESA requires us to use the best scientific information available in designating critical habitat. It also provides that before we designate any “particular area,” we are to consider the economic impact, national security impact, and any other relevant impact. Once impacts are determined, the agency has the discretion 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 (i.e., “may 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. As only one specific area is considered for designation, where

we considered economic impacts and weighed the economic benefits of exclusion against the conservation benefits of designation, we selected particular areas identified in the draft Economic Report (Cardno 2017), where economic impacts were noted to be administrative costs of section 7 consultation for non-federal entities. Within these areas, where the costs of designation may be higher than the cost of administrative efforts, we reviewed MHI IFKW use of the habitat, the existing baseline protections that may protect that habitat, and how essential features may be affected by activities that occur in these areas to most effectively consider the conservation value of the designation. We also considered exclusions based on impacts to national security for 15 particular areas identified by and used for training by the DOD. We did not identify other relevant impacts that would require exclusion consideration for this designation, and we will solicit additional information through the proposed rule public comment process.

### *Determine 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 associated requirement that federal agencies must also insure their actions are not likely to jeopardize the species’ [in this case the DPS’] continued existence. The true impact of this designation is the extent to which federal agencies modify their actions to ensure their actions are not likely to destroy or adversely modify the critical habitat of the DPS, beyond any modifications they would make because of the DPS’ 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. Thus, the impacts (costs and benefits) of the designation include conservation impacts for MHI IFKWs and their habitat, economic impacts, impacts on national security, and other relevant impacts that may result from the designation and the application of ESA section 7(a)(2).

In the analysis of economic impacts (see the draft Economic Report (Cardno 2017)), we attempted to estimate and analyze the incremental economic impacts of designation beyond the impacts that would result from the species’ listing and the section 7 jeopardy provision, consistent with 50 CFR 424.19. This is also consistent with [OMB’s 2003 guidelines](#) directing federal agencies to measure the costs of the regulatory action against a baseline, which it defines as “best assessment of the way the world would look absent the proposed action.” Uncertainties exist, however, with regard to future management actions associated with MHI IFKW critical habitat; specifically, protections provided under the listing of the species, as well as some existing federal, State, and local regulations, may overlap some with protections that have been identified with the designation of critical habitat. While these overlaps do exist, we acknowledge that the

additional consideration of essential features at these sites involves an additional layer of analysis, and the potential for more stringent management efforts that have not yet been realized in the consultation process thus far. Due to these uncertainties, it was difficult to exclude all potential impacts that may be required under the baseline (i.e., protections already afforded MHI IFKWs under its listing, or under other federal, State, and local regulations). The draft Economic Analysis Report (Cardno 2017) 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.

Once we determined the impacts of the designation, we then determined the benefits of designation and the benefits of exclusion based on the impacts of the designation. The benefits of designation include the conservation benefits for MHI IFKWs and their habitat that result from the critical habitat designation and the application of ESA section 7(a)(2). The benefits of exclusion include the economic impacts, national security impacts, and other relevant impacts of the designation that would be avoided if a particular area were excluded from the critical habitat designation. The following sections describe how we determined the benefits of designation and the benefits of exclusion and how these benefits were considered, as required under section 4(b)(2) of the ESA, to identify particular areas that may be eligible for exclusion from the designation. We also summarize the results of this consideration process and determinations on the areas that may be eligible for exclusion.

### *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 ensure their actions are not likely to destroy or adversely modify designated critical habitat. This is in addition to the requirement that all federal agencies ensure their actions are not likely to jeopardize the continued existence of the species. The designation is also expected to provide educational and awareness benefits to federal, State and local planning agencies engaged in protecting Hawaii's natural resources.

In addition to the protections described above, Chapter 13 of the draft Economic Report (Cardno 2017) discusses other forms of benefits that may be attributed to the designation, including but not limited to, use benefits, and non-use or passive use benefits. Direct use benefits include positive changes that protections associated with the designation may provide for resource users such as increased fishery resources, sustained or enhanced aesthetic appeal in ocean areas, or wildlife-viewing opportunities. Additionally, indirect use benefits are described as those experienced by nearby resource users, such as enhanced water or prey quality in nearshore areas that may be in some part attributable to the designation (Cardno 2017). Non-use or passive benefits include among others existence, bequest, and cultural values (Cardno 2017). More information about these types of values may be found in Chapter 13 of the draft Economic Report (Cardno 2017).

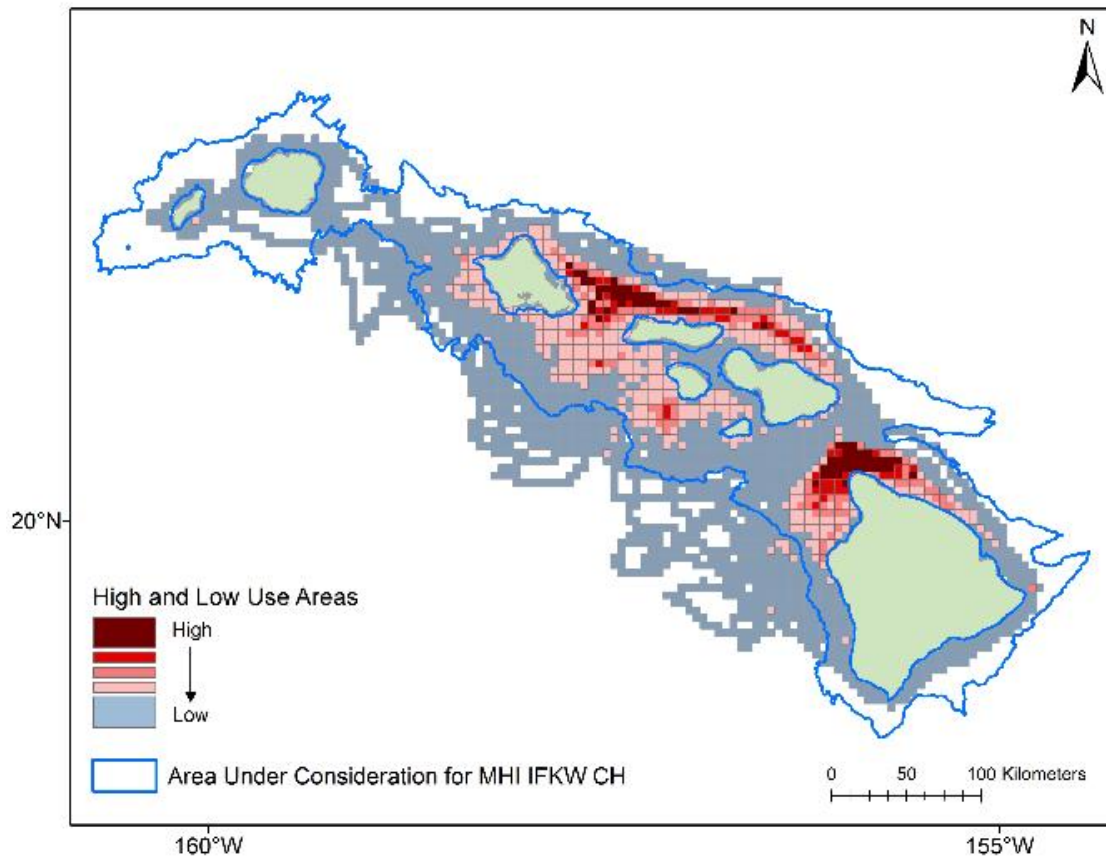
As discussed earlier in this report, the ESA focuses on habitat as a fundamental tool in recovery of a species. By identifying the essential features that are described in the ESA as “essential to the conservation” of the DPS, we are in turn identifying those features without which conservation of the DPS would not be possible. This designation of MHI IFKW critical habitat would incorporate habitat within the DPS’ range containing features that are essential for conservation (i.e., survival and recovery). Thus, by designating critical habitat and preventing adverse modification throughout these areas, we seek to provide the potential for recovery of MHI IFKWs, the benefits of which would be realized in the potential future increase in abundance and successful conservation of the DPS. It is difficult to assess the expected benefit that MHI IFKW critical habitat is likely to have on recovery of the species. This is in part because we are unable to isolate and quantify the effect that the designation would have on recovery separate from all other ongoing or planned conservation efforts for the MHI IFKW DPS. Additionally, it is difficult to accurately predict the future harm to the habitat that would have otherwise been realized without the protections associated with critical habitat.

The designation of critical habitat is also expected to provide educational and outreach benefits by informing both the entities engaged in section 7 consultations, and the general public about the status of MHI IFKWs, including the areas and features (or habitat) important to the DPS’ conservation. The introduction of this information provides potential for increased education and awareness. Potential benefits from this educational awareness may be attained if parties engage in activities to benefit the DPS or the essential features that they were made aware of through the critical habitat designation process. Additional benefits of the designation may be reflected in the overall value that people place on the conservation of MHI IFKWs.

The benefits described here 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 in the same units (e.g., apples to apples and dollars to dollars); however, there is insufficient information regarding the extent of the benefits and the associated values to monetize all of these benefits. For instance, we have not identified any available data to monetize the benefits of designation. This is in part because we cannot accurately determine the incremental benefits that a critical habitat designation may have on MHI IFKW recovery separate from other existing or future conservation efforts. Given the lack of information that would allow us either to quantify or monetize the benefits of the designation for MHI IFKWs 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 MHI IFKW use of the habitat, the existing baseline protections that may protect that habitat regardless of designation, and how essential features may be affected by activities that occur in these areas if critical habitat were not designated to provide an understanding of the importance of protecting the habitat for the overall conservation of the DPS.

Generally, we relied on density analysis of satellite-tracking data to provide information about MHI IFKW habitat use (Figure 4). The descriptions of “MHI IFKW habitat use” provided in the sections below describe habitat in terms of high and low-use areas using the density analysis described in Baird *et al.* (2012). Cascadia Research Collective supplied satellite-tracking information to support NMFS’ determination of this critical habitat designation. Density analysis of data received included information from 27 tagged individuals (18 from Cluster 1, 1 from Cluster 2, 7 from Cluster 3, and 1 from Cluster 4) (Baird pers. communication June 2017). High-use areas denote areas where satellite-tracking information indicates more frequent use by MHI IFKWs. The conservation value for high-use areas is inferred to be higher than low-use areas of the range; however, all areas support the essential features and meet the definition of critical habitat for this DPS. As noted in the draft Biological Report (NMFS 2017), there is limited representation among social clusters in the tracking data and information received does not span the full calendar year. Accordingly, the available satellite-tracking information may not be fully representative of MHI IFKW’s habitat use. While describing MHI IFKW use for the exclusion of some particular areas, we provide additional information that may supplement our current understanding of MHI IFKW habitat use patterns; in these instances, we describe how this information may enhance our understanding of the conservation value of the area. Generally, we describe high-use areas as indicating areas of higher conservation value where greater foraging and/or reproductive opportunities are believed to exist. However, within a restricted range, low-use areas continue to offer essential features and may provide unique opportunities for foraging as oceanic conditions vary seasonally or temporally.



**Figure 4. MHI IFKW high use areas by all four clusters representing 27 satellite-tagged individuals through 2015; Cluster 1 (n=18), cluster 2 (n=1), cluster 3 (n=7), and cluster 4 (n=1). (Data provided by Cascadia Research Collective. Density analysis methodology described in Baird *et al.* 2012.) See the draft Biological Report for more information (NMFS 2017).**

### *Determine the Benefits of Exclusion Based on Economic Impacts*

To determine the economic benefits of excluding particular areas from designation, the Draft Economic Report (Cardno 2017) 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, the analysis focused on changes beyond those impacts that result from the listing of the species or are established within the environmental baseline. However, as discussed above, the report acknowledges that some existing protections to prevent species jeopardy are likely to overlap with those protections that may be put in place to prevent adverse modification (Cardno 2017). The 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 the specific area and that may affect the MHI IFKW critical habitat were identified in the Draft Economic Report (Cardno 2017) using PIRO's records of section 7 consultations within the MHI. From the consultation history, we

were able to identify projects considered under the jeopardy provision of the ESA and occurring in the developed MHI. Using these sources and relying on NMFS' experience and professional judgment in conducting section 7 consultations, the federal activities that might trigger section 7 consultations were identified as indicated in the [Special Management Considerations or Protection](#) section of this report. These include (1) in-water construction (including dredging); (2) energy development (including renewable energy projects); (3) activities that affect water quality; (4) aquaculture/mariculture; (5) fisheries; (6) environmental restoration and response activities (to oil spills, vessel groundings response, and marine debris clean-up activities); and (7) military activities. The identification of these activities and the associated threats are further discussed in the Draft Biological Report (NMFS 2017) and the Draft Economic Analysis (Cardno 2017).

The range of modifications that may be sought to avoid destruction or adverse modification of critical habitat of the MHI IFKW were identified for the affected activities. The baseline level of protection afforded MHI IFKWs by activity type were also identified. The draft Economic Report (Cardno 2017) estimates the impacts based on activities that are considered reasonably foreseeable, which includes activities that are currently authorized, permitted, or funded, or for which proposed plans are currently available to the public. Projections were evaluated for the next ten-year period. They relied upon NMFS' records of section 7 consultations to estimate the average number of projects that were likely to occur within the specific area (i.e., projections were also based on past numbers of consultations) and/or to determine the level of consultation (formal, informal) that would be necessary based on the described activity.

The draft Economic Report (Cardno 2017) identifies the total estimated present value of the quantified impacts in addition to those consultation costs resulting from the listing of the species to be between approximately \$196,000 to \$213,000 dollars over the next ten years. On an annualized undiscounted basis, the impacts are equivalent to \$19,600 to \$21,300 dollars per year. These impacts only include additional administrative effort to consider critical habitat in section 7 consultations for the 7 activities identified under Special Management Considerations or Protection. Across the MHI, economic impacts are expected to be small and largely associated with the administrative costs borne by Federal agencies. However, private energy developers may also bear the administrative costs of consultation for large energy projects; these costs are estimated between 0-3,000 dollars over the next ten years (Cardno 2017).

Table 1. Summary of Economic Impacts (from 2018-2027 undiscounted).

| Sector                | Sub-sector                                   | Brief Description   | Entities Bearing the Cost                         | Costs Low        | Costs High       |
|-----------------------|--|---|---|------------------|------------------|
| In-water Construction | Dredging and dredging disposal               | Section 7 consultations - Timeline assumes 1 formal consultation over the 10-year period.   | NMFS and ACOE                                     | \$5,000          | \$5,000          |
| In-water Construction | Buoys, Moorings, and FADs                    | Section 7 consultations - Timeline assumes 6 informal consultations and 3 technical assistances over the 10-year period.  | NMFS and ACOE                                     | \$17,000         | \$17,000         |
| In-water Construction | Cable Laying                                 | Section 7 consultations - Timeline assumes 11 informal consultations and 1 technical assistance over the 10-year period.  | NMFS and ACOE                                     | \$29,000         | \$29,000         |
| Military Activities   | Department of Defense (Hawaii Range Complex) | Section 7 consultations - Timeline assumes 3 formal and 2 informal consultations over the 10-year period. The 3 formal consults are expected every 5 years given that the HI-SOCAL Training and Testing EIS is consistently re-evaluated.   | NMFS and DoD (Navy)                               | \$26,000         | \$26,000         |
| Military Activities   | U.S. Coast Guard                             | Section 7 consultations - Timeline assumes 2 informal consultations over the 10-year period.  | NMFS and USCG                                     | \$11,000         | \$11,000         |
| Energy Development    | Wind Energy                                  | Section 7 consultations - Timeline assumes 3 formal consultations over the 10-year period, one for each of the three proposed offshore wind energy development projects.  | NMFS, BOEM, and Project Developer(s) (applicants) | \$0              | \$16,000         |
| Aquaculture           | Offshore Aquaculture                         | Section 7 consultations - Timeline assumes 7 informal consultations over the 10-year period.  | NMFS, NMFS-SFD (as an action agency), and ACOE    | \$18,000         | \$18,000         |
| Fisheries             | Not applicable (NA)                          | Section 7 consultations - Timeline assumes 6 formal and 17 informal consultations over the 10-year period. Three of the formal consultations are re-initiations of consultations for each of the three-fisheries that have a federal nexus. | NMFS and NMFS-SFD (as an action agency)           | \$90,000         | \$90,000         |
| <b>TOTAL</b>          | NA   | NA  | NA  | <b>\$196,000</b> | <b>\$196,000</b> |

\*This table only reflects quantified impacts of the designation and does not take into account those impacts that are uncertain as acknowledged in the draft Economic Report (Cardno 2017).



Both the draft Biological Report and the draft Economic Report recognize that some of the future impacts of the designation are difficult to predict (NMFS 2017, Cardno 2017). Currently, federal fishery management modifications to avoid adverse modification are not expected, because current management regimes appear sufficient to address any indirect impacts that federal longline fisheries or the bottomfish fishery may have on MHI IFKW prey species. Although considered unlikely, NMFS cannot rule out future modifications because future revised management measures could result as more information is gained about foraging ecology, or as we gain a better understanding of the relative importance of certain prey species to the health and recovery of a larger MHI IFKW population. Similarly, modifications to water quality standards were not predicted as a result of this designation; however, future modifications were not ruled out, because future revised management measures could result as more information is gained about how pollutants may result in impacts to MHI IFKW critical habitat.

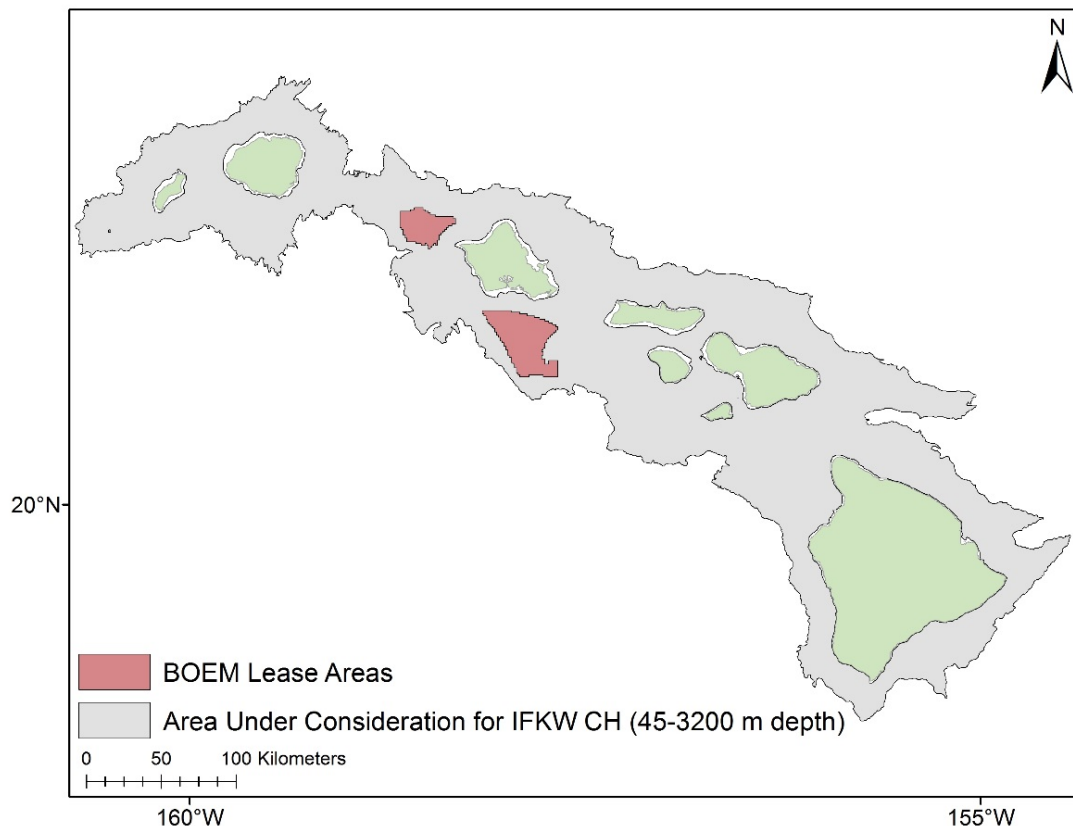
In summary, economic impacts from the designation are largely attributed to the administrative costs of consultations. Generally, the quantified economic impacts for this designation are relatively low, because in Hawaii most projects that would require section 7 consultation occur on or nearshore and would not overlap the designation. Projects with a federal nexus (i.e., funded, authorized, or carried out by a federal agency) that occur in deeper waters are already consulted on under section 7 to ensure that activities are not likely to jeopardize MHI IFKWs, and throughout the specific areas, activities of concern are already subject to multiple environmental laws, regulations, and permits which afford the essential features a high level of baseline protections. Despite these protections, significant uncertainty remains regarding the true extent of the impacts that some activities like fishing and activities affecting water quality may have on the essential features, and economic impacts of the designation may not be fully realized. Because the economic impacts of these activities are largely speculative, we lack sufficient information with which to balance them against the benefits of designation.

### *Exclusions Based on Economics*

The draft Economic Report (Cardno 2017) found that costs attributed to this designation are largely administrative in nature and that a majority of those costs are borne by Federal agencies, with only a small cost of consultation (approximately 3,000 dollars over the next ten years) borne by non-federal entities. Consistent with the unique obligations that Congress imposed for Federal agencies in conserving endangered and threatened species and our joint policy with U.S. Fish and Wildlife (81 FR 7226; February 11, 2016), we do not consider the federal administrative costs associated with the consultation process as a “benefit” for the purposes of excluding any particular areas. Rather, we only consider costs of consultation borne by non-federal entities to be a benefit of exclusion. Our economic analysis identified that costs to non-federal entities are associated with three potential wind-energy projects in two sites off Oahu, referred to as the BOEM Call Area offshore the island of Oahu, Hawaii (Cardno 2017). This currently includes an area off Kaena point and off the south shore of Oahu (81 FR 41335; June 24, 2016; see Figure 5),

NMFS is aware that the boundaries of the Oahu Call Area (noticed in 81 FR 41335) may need to be revised, as the current locations may not be compatible with Navy mission requirements (DoN 2017b). The Navy has conducted an offshore wind energy mission compatibility assessment of the waters surrounding Oahu to support BOEM and the State of Hawaii in identifying areas that will support wind energy development and be compatible with the Navy mission requirements. Revised Call Area boundaries have not yet been identified as a result of this assessment, and NMFS cannot reliably predict what boundary revisions, if any, may be made. Accordingly, for the purposes of this proposed designation, our exclusion analysis is based on the current BOEM Call Area (as published in 81 FR 41335 and depicted in Figure 5 below). NMFS will reevaluate this 4(b)(2) analysis prior to publishing a final designation, taking into account any planned boundary changes in the Call Area.

Because the economic costs were attributed to both sites combined (Cardno 2017), we consider these sites in combination for exclusion. Specifically, we considered whether the benefits of exclusion (the economic impacts) outweigh the benefits of designation for the entire Call Area.



**Figure 5. Areas considered for economic exclusion.**

**The Economic Impacts:** The economic impacts for these two wind-energy project sites are estimated to range between \$0 to \$3,000 dollars over the next ten years. Although the direct economic costs of this designation are low, NMFS also considers the potential intangible costs of designation in light of Executive Order 13795, which sets forth the nation's policy for encouraging environmentally responsible energy exploration and production, including on the Outer Continental Shelf, to maintain the Nation's position as a global energy leader and foster energy security. In particular, both Hawaii's State Energy Office and the Bureau of Ocean Energy Management expressed concerns that the designation may discourage companies from investing in offshore energy projects in areas that are identified as critical habitat. They also noted that the costs of lost opportunities could be significant in meeting Hawaii's renewable energy goals (Cardno 2017). Specifically, because Oahu has the greatest energy needs and limited areas available for this type of development, and receiving energy via interconnection between islands is too difficult, these wind projects off Oahu are considered necessary to meet the State of Hawaii's renewable energy goals of 100 percent renewable energy by 2045 (Cardno 2017).

**Conservation Benefits:** In identifying benefits to the conservation of MHI IFKWs, we consider whether designation of critical habitat in the area leads to additional conservation of the DPS above what is already provided by being listed under the ESA in the first place. For these sites we consider several factors to understand the importance of protecting the habitat including: MHI IFKW use of the habitat, the existing baseline protections that may protect that habitat regardless of designation, and how essential features may be affected by activities that occur in these areas if critical habitat were not designated.

**MHI IFKW Use of the Area:** The current Oahu Call Area (see Figure 5) overlaps with approximately 1,961 km<sup>2</sup> (757mi<sup>2</sup>) of the areas under consideration for designation, specifically 621 km<sup>2</sup> (240 mi<sup>2</sup>) in the north site and 1,341 km<sup>2</sup> (518 mi<sup>2</sup>) in the south site. This is equivalent to about 3.5 percent of the overall areas under consideration for designation. Density analysis of satellite-tracking information indicates that these sites are low-use for MHI IFKWs. Although little information is available from Cluster 2 and 4 animals, observation data and the newest tracking information suggests that Cluster 4 animals may show preferences for areas near penguin banks, southwest of Lanai or in the channel between Oahu and Molokai. Cluster 2 animals are observed more near the island of Hawaii and information suggests that this cluster may show preferences for the north Maui area (Baird, pers. communication, August 15, 2017).

**Level of Protection Already Provided by Management:** Chapter 3 of the Economic report provides information about baseline protections that support the conservation of MHI IFKWs (Cardno Inc. 2017), including provisions under the ESA and MMPA that protect this DPS from activities that may adversely affect the health of the population. Projects in these areas are likely to undergo formal section 7 consultations (under the ESA) to ensure that their activities are not likely to jeopardize MHI IFKWs and other protected species, such as monk seals and sea turtles. These reviews take into

consideration how activities as a whole may affect MHI IFKWs, and other protected species. Other regulatory efforts that are aimed at protecting Hawaii's marine resources and environment may also provide ancillary protections for MHI IFKW essential features. Most of these protections include broad regulations or restrictions associated with ensuring water quality and sustainable fish resources (e.g., the Clean Water Act as amended by the Oil Pollution Act, and fishing regulations and essential fish habitat consultations under the Magnuson-Stevens Fishery Conservation and Management Act) (Cardno Inc. 2017). The effects of large in-water construction projects, such as those involving offshore energy projects, on prey species, noise, and the availability of island-associated habitat for MHI IFKW, are not well understood and monitoring that may be recommended through a section 7 consultation process could provide important information to ensure protections for this DPS.

Because the IFKW population is relatively small and has a restricted range, similar monitoring projects are likely to be recommended during section 7 consultations to ensure that their activities are not likely to jeopardize MHI IFKWs. We anticipate that conservation measures implemented as a result of consultation to address impacts to the species will also provide incidental protections to habitat features. Accordingly, we anticipate that the additional conservation benefits gained from the consultations specifically as a result of this designation will be minimal. Further, if these areas are used for floating wind-farm structures it is unlikely that any additional Federal actions will occur in this area that would otherwise require consultation to protect essential features.

**Recommendation:** After considering the economic impacts of this designation, we find that the benefits of exclusion outweigh the benefits of designation. The extent of the area encompasses approximately 1,961 km<sup>2</sup> (757mi<sup>2</sup>) of the area under consideration for critical habitat (approximately 3.5 percent of the areas under consideration for critical habitat). Although the quantified economic impacts are estimated to be low for projects that may happen in this area, government entities have expressed concerns that a designation in areas highlighted by BOEM for wind-energy projects could discourage investors and possibly impede Hawaii's renewable energy goals. Further, designation in this area could impede the Section 2, Executive Order 13795, *Implementing an America-First Offshore Energy Strategy*, policy of encouraging environmentally responsible energy exploration and production that will foster energy security and resilience for the benefit of the American people.

This area includes mostly low-use areas for MHI IFKWs, and although the sites are adjacent to and provide pathways to high-use areas that are considered areas of high conservation value (see [Determine the Benefits of Designation](#)), NMFS is satisfied that there are sufficient pathways within proposed critical habitat to allow for unimpeded transit. Moreover, there is currently no information that suggests current high-use areas are likely to expand into these sites considered for exclusion. Although large in-water construction projects are an activity of concern for this DPS, consultations required to ensure that activities are not likely to jeopardize the MHI IFKWs are likely to achieve the same conservation benefits for this DPS and additional federal activities (which may

result in destruction or adverse modification) are not expected in this area if developed for wind energy.

Given the significance of this offshore area in supporting renewable energy goals for the State of Hawaii and the goals of Executive Order 13795, the low administrative costs of this designation, and the low-use by MHI IFKWs, we find that the benefits of exclusion of this area outweigh the benefits of designation. Based on our best scientific judgment and acknowledging the relatively small size of the area (approximately 3.5 percent of the overall designation), and other safeguards that are in place (e.g., protections already afforded MHI IFKWs under its listing and other regulatory mechanisms), we conclude that exclusion of this area will not result in the extinction of the species.

### *Exclusions Based on National Security*

The Secretary must consider possible impacts on national security when determining areas to designate as critical habitat. In developing the proposed MHI IFKW critical habitat we contacted the Department of Defense (DOD) and the Coast Guard with information regarding the areas under consideration for MHI IFKW critical habitat, and requested they identify areas they own or control which may overlap with the areas under consideration. They 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.

The national security impacts of the area under consideration for MHI IFKW critical habitat are analyzed below. These impacts were analyzed based on responses from DOD (Navy, Marine Corps, and Air Force) and Department of Homeland Security (Coast Guard) to a May 2017, letter from NMFS describing areas being considered for MHI IFKW critical habitat, and requesting identification of any national security impacts. The Navy and Coast Guard each submitted a request that all areas be excluded from critical habitat out of concerns associated with activities that introduce noise to the marine environment. Although we considered the request for exclusion of all areas proposed for critical habitat, we also separately considered specific areas and activities identified by the Navy in their responses. The Coast Guard did not provide more specific explanations with regard to particular areas. The Air Force provided a request for exclusion that included the waters leading to and from the offshore ranges of the Pacific Missile Range Facility (PMRF). As the PMRF offshore ranges were also highlighted as important to Navy activities, we included considerations associated with the Air Force's request for exclusion for the PMRF ranges with the Navy's information, due to the similarities between the activities and impacts identified for these areas (e.g., both requests in this area were associated with training and testing activities). We separately considered the waters leading to the range because activities differ from those planned for the PMRF ranges and DOD does not exert control over these areas. Although not specifically requested for exclusion, the Navy highlighted the Puuloa Underwater Detonation Range in the materials they provided; this area was not considered for exclusion because it does not overlap with the areas under consideration for critical habitat.

We considered a total of 13 sites for exclusion. The results of the impacts vs. benefits for the 13 sites are summarized in [Table 2](#), and described in detail below.

**Table 2. Summary of National Security 4(b)(2) weighing and exclusion process.**

| Area  | DOD/Coast Guard Activities  | National Security Impacts                         | Conservation Benefits  | Proposed Exclusion  | Rationale  |
|---|---|---|--|---|--|
| <b>Entire Area Under Consideration for Designation</b>    | Requested by both the Navy and Coast Guard; both expressed concerns about activities that may introduce noise to the marine environment.  | Major and minor impacts to consultations expected | Includes entire designation. Non-DOD Fed actions considered likely.        | Benefits of Inclusion > Benefits of Exclusion<br><br>No Exclusion       | Impacts from delays and possible modifications by formal consultation outweighed by benefits of protecting high quantity/ high & low use habitat from future DOD & non-DOD federal actions.  |
| <b>PMRF Offshore Areas</b>                                | Active sonar, explosives, vessel movement, and impulsive sounds typically generated in close vicinity to or at the water surface from weapons firing and inert impact of non-explosive munitions. | Major impact to consultation expected             | Low quantity and Low-use habitat. Non-DOD Fed actions considered unlikely. | Benefits of Exclusion > Benefits of Inclusion<br><br>Exclusion Proposed | Impacts from delays and possible modifications by expected formal consultation outweigh benefits of protecting low-use habitat where future non-DOD federal actions are considered unlikely. |
| <b>Waters en-route to PMRF from the Port Allen Harbor</b> | Vessel movement   | Minor impact to consultation expected             | Low quantity and low-use habitat. Non-DOD Fed actions possible.            | Benefits of Inclusion > Benefits of Exclusion<br><br>No Exclusion       | Impacts from short delays by expected informal consultation outweighed by benefits of protecting habitat from future DOD & non-DOD federal actions.  |

**Table 2 (continued). Summary of National Security 4(b)(2) weighing and exclusion process.**

| Area                                | DOD/USCG Activities  | National Security Impacts             | Conservation Benefits   | Proposed Exclusion  | Rationale  |
|-------------------------------------|--|---------------------------------------|---|---|--|
| <b>Kingfisher Range</b>             | Active sonar and vessel movement.  | Minor impact to consultation expected | Low quantity and low-use habitat. Non-DOD Fed actions considered unlikely.                  | Benefits of Exclusion > Benefits of Inclusion<br>Exclusion Proposed | Impacts from short delays by expected informal consultation outweigh benefits of protecting low-use habitat where future non-DOD federal actions are unlikely.                       |
| <b>Warning Area 188</b>             | Active sonar, explosives, vessel movement, and impulsive sounds generated in close vicinity to or at the water surface from weapons firing and inert impact of non-explosive munitions | Major impact to consultation expected | Medium quantity and low-use habitat. Non-DOD Fed actions possible in portions of this area. | Benefits of Exclusion > Benefits of Inclusion<br>Exclusion Proposed | Impacts from delays and possible modifications by expected formal consultation outweigh benefits of protecting low-use habitat where future non-DOD federal actions are less likely. |
| <b>Kaula and Warning Area W-187</b> | Non-explosive munition exercises targeting the island itself; rare miss may impact water and unlikely to be in potential designation.  | Minor impact to consultation expected | Low quantity and low-use habitat. Non-DOD Fed actions considered unlikely.                  | Benefits of Exclusion > Benefits of Inclusion<br>Exclusion Proposed | Impacts from short delays by expected informal consultation outweigh benefits of protecting low-use habitat where future non-DOD federal actions are unlikely.                       |



**Table 2 (continued). Summary of National Security 4(b)(2) weighing and exclusion process.**

| Area  | DOD/USCG Activities  | National Security Impacts             | Conservation Benefits  | Proposed Exclusion  | Rationale   |
|---|--|---------------------------------------|--|---|---|
| <b>W-189, HELO Quickdraw Box and Oahu Danger Zone</b>                 | Active sonar, explosives, vessel movement, and impulsive sounds generated in close vicinity to or at the water surface from weapons firing and inert impact of non-explosive munitions. Notes that area is "low-use" for active sonar. | Major impact to consultation expected | Medium quantity of low-use habitat; however, small portion of high-use area is included. Non-DOD Fed actions are possible. | Benefits of Inclusion > Benefits of Exclusion<br>No Exclusion       | Impacts from delays and possible modifications by possible formal consultation outweighed by benefits of protecting medium quantity/ low-use habitat and small quantity high-use habitat from future DOD & non-DOD federal actions. |
| <b>Fleet Operational Readiness Accuracy Check Site Range (FORACS)</b> | Active sonar and vessel movement   | Major impact to consultation expected | Low quantity and low-use habitat. Non-DOD Fed actions considered unlikely.   | Benefits of Exclusion > Benefits of Inclusion<br>Exclusion Proposed | Impacts from delays and possible modifications by expected formal consultation outweigh benefits of protecting low quantity/low-use habitat where future non-DOD federal actions are unlikely.                                      |
| <b>Shipboard Electronic Systems Evaluation Facility Range (SESEF)</b> | Vessel movement  | Minor impact to consultation expected | Low quantity and low-use habitat. Non-DOD Fed actions considered unlikely.   | Benefits of Exclusion > Benefits of Inclusion<br>Exclusion Proposed | Impacts from short delays by expected informal consultation outweigh benefits of protecting low-use habitat where future non-DOD federal actions are unlikely.  |

**Table 2 (continued). Summary of National Security 4(b)(2) weighing and exclusion process.**

| Area  | DOD/USCG Activities   | National Security Impacts             | Conservation Benefits  | Proposed Exclusion  | Rationale  |
|---|---|---------------------------------------|--|---|--|
| <b>W-196 and 191</b>  | Vessel movement, and impulsive sounds generated in close vicinity to or at the water surface from weapons firing and inert impact of non-explosive munitions.               | Minor impact to consultation expected | Low quantity and low-use habitat. Non-DOD Fed actions considered unlikely.     | Benefits of Exclusion > Benefits of Inclusion<br>Exclusion Proposed | Impacts from short delays by expected informal consultation outweigh benefits of protecting low quantity and low-use habitat where future non-DOD federal actions are less likely.                   |
| <b>W 193 and 194</b>  | Explosives, vessel movement, and impulsive sounds generated in close vicinity to or at the water surface from weapons firing and inert impact of non-explosive munitions.   | Major impact to consultation expected | Low quantity and low-use habitat. Non-DOD Fed actions considered unlikely.     | Benefits of Exclusion > Benefits of Inclusion<br>Exclusion Proposed | Impacts from short delays by expected informal consultation outweigh benefits of protecting low quantity and low-use habitat where future non-DOD federal actions are less likely.                   |
| <b>Four Islands Region (Maui, Lanai, Molokai Kahoolawe)</b> | Active sonar, vessel movement, and impulsive sounds generated in close vicinity to or at the water surface from weapons firing and inert impact of non-explosive munitions. | Major impact to consultation expected | High quantity and both High and low-use habitat. Non-DOD Fed actions possible. | Benefits of Inclusion > Benefits of Exclusion<br>No Exclusion       | Impacts from delays and possible modifications by expected formal consultation outweighed by benefits of protecting high quantity/ high & low-use habitat from future DOD & non-DOD federal actions. |

**Table 2 (continued). Summary of National Security 4(b)(2) weighing and exclusion process.**

| Area          | DOD/USCG Activities                            | National Security Impacts             | Conservation Benefits  | Proposed Exclusion  | Rationale  |
|---------------|--|---------------------------------------|--|---|--|
| Hawaii Island | Active sonar, explosives, and vessel movement. | Major impact to consultation expected | High quantity and both High and low-use habitat. Non-DOD Fed actions possible. | Benefits of Inclusion > Benefits of Exclusion<br><br>No Exclusion | Impacts from delays and possible modifications by expected formal consultation outweighed by benefits of protecting high quantity/ high & low-use habitat from future DOD & non-DOD federal actions. |

For each of the sites listed below, information is provided on the impacts to national security and the benefits to the conservation of MHI IFKWs of designating the site as critical habitat. Impacts to national security may arise when DOD actions at a site are required for national security and are likely to result in adverse modification or destruction of the essential feature. In these instances, section 7 consultation requirements that may cause delays or modifications to the activity, potentially impacting national security. For activities in the areas identified below, consultation under section 7 will already be required because of the listing of MHI IFKWs so consultation for critical habitat would add an additional layer of consultation rather than an entirely new consultation. If additional consultation requirements are likely due to critical habitat at a site, then consideration of other factors is needed to characterize subsequent impacts to national security, such as the type and frequency of additional consultation, potential delays and requirements resulting from the additional consultation, and how unique the DOD activities are at the site.

Benefits to the conservation of MHI IFKWs depend on whether designation of critical habitat at a site leads to additional conservation of the DPS above what is already provided by being listed under the ESA in the first place. We weighed the potential for additional conservation by considering several factors that provide an understanding of the importance of protecting the habitat for the overall conservation of the DPS including: MHI IFKW use of the habitat, the existing baseline protections that may protect that habitat regardless of designation, and the likelihood of other federal (non-DOD) actions being proposed within the site that would be subject to section 7 consultation associated with critical habitat.

Based on the information below, for each site we qualitatively compare the national security impacts to the conservation benefits in order to determine which is greater. If national security impacts outweigh conservation benefits, the site is excluded from proposed critical habitat. If conservation benefits outweigh national security impacts, the site is not excluded from critical habitat. The decision to exclude any sites from a designation of critical habitat is always at the discretion of NMFS. In no circumstances is an exclusion of any site required by the ESA (81 FR 7226; February 11, 2016).

### **The entire area under consideration for critical habitat**

The Navy requested the entire area under consideration for MHI IFKW critical habitat for exclusion because this potential designation overlaps with the Hawaii Operating Area (OPAREA), which is one of three components of the Hawaii Range Complex (HRC), that provides surface and subsurface ocean areas and special use airspace that supports military readiness activities (Figure 6). The Coast Guard additionally requested an exclusion for the entire area due to unspecified concerns associated with carrying out all of their activities in the waters that surround Hawaii. The designation includes all waters from the 45-m depth contour to the 3200-m depth contour surrounding the MHI; this request for exclusion includes all 56,821 km<sup>2</sup> (21,933 mi<sup>2</sup>) of this potential designation.

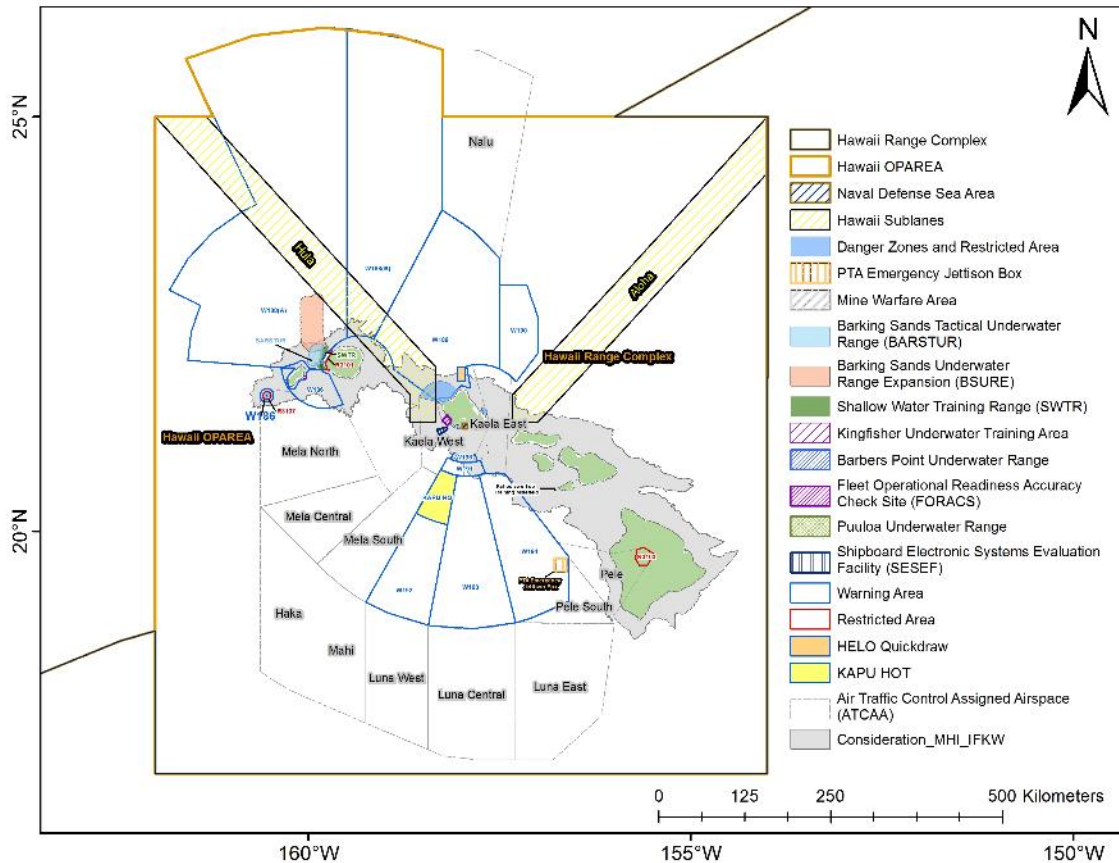


Figure 6. The entire designation and overlapping military areas of significance.

**National Security Impacts:** National security impacts depend on the effects of DOD activities on the site’s essential features, and subsequent additional section 7 consultation requirements resulting from critical habitat (i.e., above and beyond what would already be required by the fact that MHI IFKWs are listed as endangered under the ESA). The Navy describes activities in this region to include on-going training and testing activities in the Hawaii OPAREA, which they noted are also described in the HSTT FEIS (DoN 2013), and the HRC FEIS (DoN 2008). These activities include vessel movement, the use of active and passive sonar systems, or the expenditure of munitions (e.g., non-explosive exercise torpedoes or high explosive large caliber munitions) from ships, submarines, or aircraft. Activities also include explosives and weapons firing that generate in-water noise. The Navy noted that training and testing using in-water explosives is not typically conducted in areas that are not designated as underwater training ranges or within Special Use Airspace for safety reasons (DoN 2017a). The Coast Guard additionally requested an exclusion for the entire area to allow for activities associated with search and rescue, maritime transportation (maintaining aids to navigation), law enforcement, oil spill response, and training.

**The Type and Frequency of Additional Consultation:** Navy training and testing in the Hawaiian Islands is currently described by the Hawaii-Southern California Training and Testing Environmental Impact Statement/Overseas Environmental Impact Statement (HSTT EIS/OEIS) (DoN 2013), and covered by two Letters of Authorization under the Marine Mammal Protection Act (MMPA), and a Biological Opinion under the Endangered Species Act (ESA), as amended in April 2015 through reinitiation of the consultation. These documents cover Navy activities through 2018. Operations under the current MMPA Final Rule and LOAs for the HSTT are subject to the terms of a stipulated settlement agreement in *Conservation Council of Hawaii v NMFS*, 14-cv-153 (D. Haw 2015) that expire when the Final Rule lapses in December 2018 and NMFS issues a new Final Rule/LOA along with a supporting biological opinion and NEPA analysis. The Navy is currently working towards describing activities intended after 2018 in another programmatic environmental impact statement and will initiate consultation to ensure that these activities meet their obligations under the ESA and MMPA. Designation of critical habitat throughout these areas will require that the Navy consider how these activities may impact the essential features of MHI IFKW critical habitat. In particular, activities that may introduce noise that exceed thresholds that inhibit MHI IFKW's communication or foraging or result in abandonment of areas for long periods may result in additional analyses under this formal consultation to ensure that these activities are not likely to result in adverse modification or destruction of critical habitat. If activities may result in extensive effects, this process may also include requirements to modify the activity in order to minimize effects to MHI IFKW critical habitat. However, some of the activities identified may be readily addressed through this consultation because the cumulative duration of temporary changes to the habitat is not expected to alter the overall conservation value of that habitat for MHI IFKWs.

The Coast Guard similarly undergoes consultation for activities that may impact protected species in Hawaii's waters. Currently the Coast Guard is engaged with NMFS in a national programmatic consultation to address activities associated with maintaining aids to navigation. If this consultation is finished prior to the designation being finalized, reinitiation may be required to consider additional impacts to MHI IFKW critical habitat. This reinitiation is expected to be readily addressed as the activities described are not expected to adversely affect MHI IFKW essential features. The Coast Guard has also identified that they expect to undergo consultation associated with the revision of the Hawaii Area Contingency Plan to address response to oil and other hazardous spills. As this consultation has not been initiated, it is likely that any concerns associated with the impacts that these activities may have on MHI IFKW critical habitat may be incorporated into the overall consultation. Given the goal of this plan is to protect marine species and their habitats from hazards, changes to the consultation are likely to be administrative in nature to recognize the boundaries of the designation and the essential features.

**Uniqueness of DOD Activities at the Site:** The Navy identified that the mission of the HRC is to support naval operational readiness by providing a realistic, live training environment for forces assigned to the U.S. Pacific Fleet, the Fleet Marine Force, and other users. The Navy reported that the range allows training to take place using a

geographic scope that replicates possible real world events, with the channels between islands providing geography necessary for opposed transit scenarios. The presence of the instrumented tracking ranges at PMRF, as well as DOD warning areas and special use airspace, allow safe and structured training with sufficient flexibility to interject tactical challenges and enhance realism for exercise participants. The Navy also noted that access to an instrumented range is critical for testing of military systems (e.g., anti-submarine warfare sources and sensors on unmanned platforms). Without this access, capabilities of new platforms would not be adequately tested and transfer of improved technologies to the warfighter would be hindered (DoN 2017a). The Coast Guard provided no explanation as to the uniqueness of this site.

**Conservation Benefits:** Benefits to the conservation of MHI IFKWs depend on whether designation of critical habitat at a site leads to additional conservation of the species above what is already provided by being listed in the first place. The potential for additional conservation at the site is a function of MHI IKFW use of the area, the level of protection already provided by management, and the likelihood of non-DOD actions subject to critical habitat.

**MHI IKFW Use of the Area:** The area identified for designation includes both high-use and low-use areas for MHI IFKWs. High-use areas likely indicate areas of higher conservation value where greater foraging and/or reproductive opportunities exist. High use areas within this region include waters extending from north of Maui to northwest of Molokai and extending west towards Oahu and south into the channel between Molokai and Oahu; small areas are found to the west and southwest of Lanai; as well as off the west coast and around the northwest tip of Hawaii Island (see [Figure 4](#)). As noted at the beginning of this section, satellite-tracking information does not offer a full understanding of spatial habitat use, because it is limited in certain months of the year and data from social clusters 2 and 3 are limited. Therefore, other high-use areas may exist within the potential designation that are not yet recognized.

**Level of Protection Already Provided by Management:** Chapter 3 of the draft Economic report provides information about baseline protections that support the conservation of MHI IFKWs (Cardno 2017); these include provisions under the ESA and MMPA that protect this DPS from activities that may adversely affect the health of the population. As noted above the Navy and Coast Guard undergo section 7 consultations (under the ESA) to ensure that their activities are not likely to jeopardize MHI IFKWs, as well as MMPA review and authorization for activities that may result in “take” of marine mammals. These reviews take into consideration how activities as a whole may affect MHI IFKWs, among other species, and address concerns associated with how these animals may be affected by activities that create noise and/or pollution in the marine environment. To meet requirements associated with understanding the impacts of these larger activities, the Navy implements marine mammal monitoring programs that include \$1-2 million dollars per year of marine mammal research and monitoring activities in Hawaii’s waters; MHI IFKW are considered a priority species for these efforts (DoN 2017a). In addition, the Navy has indicated that they are proposing mitigation measures

in three areas in the Hawaii Island region and one area in the 4-Islands region (Maui Nui) designed to provide additional protection for MHI IFKW (among other species) in their Hawaii-Southern California Environmental Impact Statement/Overseas Environmental Impact Statement (DoN 2017b). Mitigation measures include the following: limiting the number of major training exercises using surface ship hull-mounted mid-frequency active sonar and prohibiting in-water explosives during unit-level training and major training exercises off the west coast of Hawaii; prohibiting the use of all surface ship hull-mounted mid-frequency active sonar and all in-water explosives off the east coast of Hawaii; and prohibiting surface ship hull-mounted mid-frequency active sonar from November 15 through April 15 in an area that surrounds portion of the Maui Nui area. More detail on these proposed measures can be found at the following website:

[www.hstteis.com](http://www.hstteis.com).

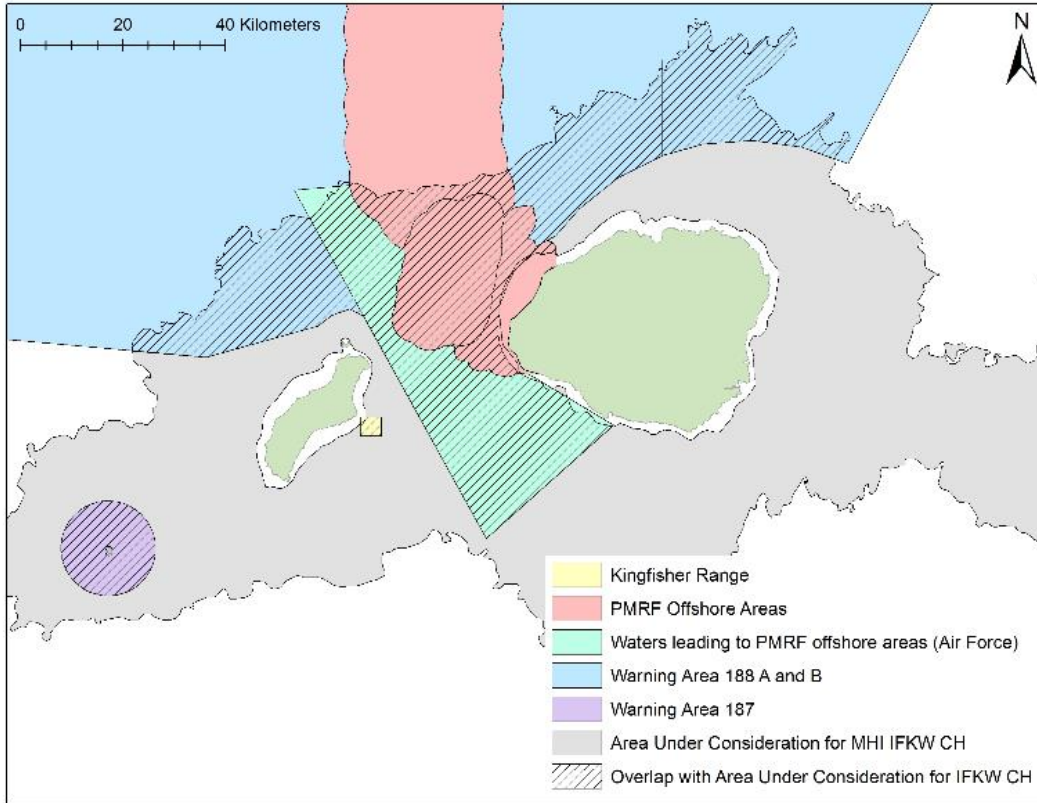
Additional protections for MHI IFKW essential features may be achieved by other regulatory efforts that are aimed at protecting Hawaii's marine resources and environment and may provide ancillary protections for MHI IFKW essential features. Most of these protections include broad regulations or restrictions associated with ensuring water quality and sustainable fish resources (e.g., in accordance with the Clean Water Act and the Magnuson-Stevens Fishery Conservation and Management Act) (see Cardno 2017); however, areas of the potential designation also overlap with other managed areas that may provide some degree of protections for water quality or prey resources. These include areas that overlap with the Hawaiian Islands Humpback Whale National Marine Sanctuary, Essential Fish Habitat, fishing restricted sites, or the two areas managed under the JBPHH INRMP (see [Certain Military Lands are Precluded from Designation](#)).

**Likelihood of Non-DOD Actions Subject to Critical Habitat:** As this request covers the entire proposed designation, some specific areas within this area may be heavily utilized or controlled by the DOD (e.g., PMRF offshore ranges, Kingfisher, or FORACs below), and activities that are non-DOD, which could otherwise affect essential features are unlikely to occur on these specific areas. However, a large portion of this request includes areas where it is possible that non-DOD federal actions will be proposed. Within these areas, projects may occur that could affect the essential features, but which would no longer be subject to the critical habitat consultation if the area was excluded from the designation. Of particular concern would be large in-water construction activities that may adversely affect island-associated habitat for MHI IFKWs such that MHI IFKW use or occupancy is significantly impaired.

**Recommendation:** We recommend that this area not be excluded from the 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 marine area (approximately 56,821 km<sup>2</sup> (21,933 mi<sup>2</sup>)) proposed for critical habitat and all benefits associated with this designation would be lost with this exclusion. Moreover, neither the DOD or the Coast Guard provided a reasonably specific justification of an incremental impact on national or homeland security such that the entire area should be



excluded. The DOD and Coast Guard do not control all of the marine waters surrounding the MHI, and other federal actions take place in these surrounding areas. Therefore, other federal activities subject to ESA section 7 may occur in these waters that may impact essential features of critical habitat.



**Figure 7. Areas requested for exclusion near Niihau and Kauai.**

**Pacific Missile Range Facility (PMRF) Offshore Areas; including Shallow Water Training Range (SWTR), Restricted Area R3101, Barking Sands Tactical Underwater Range (BARSTUR), Barking Sands Underwater Range Extension (BSURE)**

Off the southwest portion of Kauai, this area includes overlapping acoustic ranges that are used by the DOD to track training events in almost real time. The PMRF acoustic range is instrumented with bottom-mounted hydrophones and is divided into 3 sub-ranges, the Shallow Water Training Range (SWTR), the Barking Sands Tactical Underwater Range (BARSTUR), and the Barking Sands Underwater Range Extension (BSURE). The combined range extends from shallow water (SWTR, 100-1000m), to mid-water depths (BARSTUR, ~1,000-2,000m), to very deep ocean (BSURE, ~2,000-4,000m) (DoN 2017a). Because these ranges overlap geographically and the Navy’s descriptions of activities for these areas are largely similar, we grouped these areas together for the purposes of this analysis. The ranges shown in Figure 7 above overlap with approximately 843 km<sup>2</sup> (~325 mi<sup>2</sup>) or approximately 1.5 percent of the area under consideration for designation.

**National Security Impacts:** National security impacts depend on the effects of DOD activities on the site's essential features, and subsequent additional section 7 consultation requirements resulting from critical habitat (i.e., above and beyond what would already be required by the fact that MHI IFKW's are listed as endangered under the ESA). The Navy noted that the PMRF range supports training, tactics development, and testing of air, surface, and subsurface weapons systems. The instrumentation on the ranges yields a 10-ft. tracking accuracy, which is crucial for reconstruction, grading and feedback on events. Ongoing testing and evaluation programs include torpedo, torpedo defense, submarine and periscope detection, ship-defense systems, and other miscellaneous programs (such as gunnery and special weapons tests). This range supports activities for the Navy, the Air Force, and training events with foreign fleets. The Navy described activities that include temporary exposure to in-water noise (i.e., active sonar, explosives, vessel movement, and impulsive sounds generated in close vicinity to or at the water surface from weapons firing and inert impact of non-explosive munitions) (DoN 2017a). In addition to the description of activities provided by the Navy, the Air Force highlighted activities that take place in this area that support their weapons testing and evaluation, as well as training capabilities. Specifically, they noted that the 86 Fighter Weapon Squadron (FWS) requires the capability to conduct operational evaluations of long-range strike weapons with large footprints as part of the Long Range Strike (LRS) Weapon System Evaluation Program (WSEP) and to properly train units for real-world operational expectations in a time of war. The Air Force identified that these activities create in-water noise and are planned to occur up to five consecutive days annually during the summer and fall months (DoAF 2017).

**The Type and Frequency of Additional Consultation:** The Navy is currently working towards describing activities intended after 2018 in another programmatic environmental impact statement and will initiate consultation to ensure that these activities meet obligations under the ESA and MMPA. Designation of critical habitat throughout these areas will require that the Navy consider how these activities may affect the essential features of MHI IFKW critical habitat. In particular, activities that may introduce noise that exceed thresholds that inhibit MHI IFKW's communication or foraging or result in abandonment of areas for long periods may result in additional analyses under this formal consultation to ensure that these activities are not likely to result in adverse modification or destruction of critical habitat. If activities may result in adverse effects, this process may also include requirements to modify the activity in order to minimize effects to MHI IFKW critical habitat. However, some of the activities identified may be readily addressed through this consultation because the cumulative duration of temporary changes to the habitat are not expected to alter the overall conservation value of that habitat for MHI IFKW's.

The Air Force noted that they are undergoing consultations with NMFS to meet obligations under the ESA and MMPA to authorize the unintentional takes of federally protected species incidental to LRS WSEP mission activities proposed to occur in the northern portion of the BSURE area within the PMRF. This consultation is intended to

cover activities beginning in August of 2017-2021. Designation of these areas as critical habitat would require reinitiation of this consultation to consider any additional affects that these activities may have on the essential features.

**Uniqueness of DOD Activities at the Site:** The Navy noted that the existing infrastructure at and offshore of PMRF is unique and irreplaceable, and provides a full spectrum of range support, including radar, underwater instrumentation (e.g., bottom-mounted transducers and hydrophones), telemetry, electronic warfare, remote target command and control, communications, data display and processing, and target/weapon launching and recovery facilities. Because of its unique infrastructure and un-encroached geographic range, it is also the lead range for a variety of testing and evaluation events (DoN 2017a). The Air Force noted that the BSURE portion of the PMRF is currently the only range area that could support LRS WSEP activities and satisfy most of the FWS operational objectives (DoAF 2017).

**Conservation Benefits:** Benefits to the conservation of MHI IFKWs depend on whether designation of critical habitat at a site leads to additional conservation of the species above what is already provided by the species' listing. The potential for additional conservation at the site is a function of MHI IKFW use of the area, the level of protection already provided by management, and the likelihood of non-DOD actions subject to critical habitat.

**MHI IKFW Use of the Area:** Density analysis of satellite-tracking information indicates that this area of the range is low-use for MHI IFKWs. High-use areas likely indicate areas of higher conservation value where greater foraging and/or reproductive opportunities exist. However, within a restricted range low-use areas continue to offer essential features and may provide unique opportunities for foraging as oceanic conditions vary seasonally or temporally.

**Level of Protection Already Provided by Management:** Chapter 3 of the Economic report provides information about baseline protections that support the conservation of MHI IFKWs (Cardno 2017). These include provisions under the ESA and MMPA that protect this DPS from activities that may adversely affect the health of the population. As noted above, the Navy and Air Force undergo section 7 consultations (under the ESA) to ensure that their activities are not likely to jeopardize MHI IFKWs, as well as MMPA review and authorization for activities that may result in "take" of marine mammals. These reviews take into consideration how activities as a whole may affect MHI IFKWs, among other species, and address concerns associated with how these animals may be affected by activities that create noise and/or pollution in the marine environment. To meet requirements associated with understanding the impacts of these larger activities, the Navy implements marine mammal monitoring programs that include \$1-2 million dollars per year of marine mammal research and monitoring activities in Hawaii's waters; MHI IKFW are considered a priority species for these efforts (DoN 2017a).

Additional protections for MHI IFKW essential features may be achieved by other regulatory efforts that are aimed at protecting Hawaii's marine resources and environment and may provide ancillary protections for MHI IFKW essential features. Most of these protections include broad regulations or restrictions associated with ensuring water quality and sustainable fish resources (e.g., The Clean Water Act and the Magnuson-Stevens Fishery Conservation and Management Act) (Cardno 2017).

**Likelihood of Non-DOD Actions Subject to Critical Habitat:** DOD use of this area is likely to discourage additional activities that would otherwise be subject to section 7 consultation. For this reason, there is low likelihood of federal actions being proposed by non-DOD agencies that would affect MHI IFKW critical habitat at this site.

**Recommendation:** We conclude that the benefit to national security of excluding this area outweighs the conservation benefit of designation, and recommend that PMRF ranges off Kauai be excluded from the areas under consideration from critical habitat designation. The most important factors supporting this exclusion are that this area is a unique and important place for DOD activities, and potential impacts from those activities will result in modifications to the DOD consultation process and potential modifications to the DOD activities. The benefits of designating this low-use habitat is reduced somewhat by the protections already afforded to some of the essential features, and because DOD use of this area is likely to discourage other federal activities that may otherwise require consultation. While DOD must still insure that activities in this area are not likely to jeopardize the continued existence of the MHI IFKW, the exclusion of this area means DOD will not be required to consult to insure that its activities are not likely to adversely modify habitat or essential features within this area. 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 MHI IFKWs under its listing and other regulatory mechanism), we conclude that exclusion of this area will not result in the extinction of the species.

### **Waters en-route to PMRF from the Port Allen Harbor**

This includes waters leading from Port Allen Harbor and Kikiaola Harbor to the offshore areas of the PMRF ranges described above. NMFS received a request for exclusion from the U.S. Air Force for the combined PMRF ranges and this area. As the PMRF offshore areas, under Navy jurisdiction, are being assessed separately above, we have included the Air Force's information and request regarding the PMRF range in the above analysis and provide a separate determination for the waters leading to the ranges here. The area shown in [Figure 7](#) above overlaps with approximately 1,077 km<sup>2</sup> (~416 mi<sup>2</sup>) or approximately 2 percent of the area under consideration for designation.

**National Security Impacts:** National security impacts depend on the effects of DOD activities on the site's essential features, and subsequent additional section 7 consultation requirements resulting from critical habitat (i.e., above and beyond what would already be required by the fact that MHI IFKWs are listed as endangered under the ESA). This area is requested for exclusion to support vessels traveling to the PMRF offshore range to

participate in LRS WSEP mission activities, which occur in and outside the PMRF offshore range (in and beyond the potential designation for critical habitat). The Air Force identified that activities occur for up to five consecutive days annually during the summer and fall months; vessel travel to support these activities may occur before and after training events (DoAF 2017).

**The Type and Frequency of Additional Consultation:** The Air Force identified that they are currently undergoing consultation for these and other activities occurring on the PMRF offshore ranges and that the biological opinion is expected to be completed in August 2017. A critical habitat designation in this area would require reinitiation to consider impacts associated with vessel movements to and from the PMRF ranges. As vessel traffic associated with this activity is expected to result in a temporary introduction of sound to this area for brief periods annually, this activity is not expected to adversely affect MHI IFKW essential features and reinitiation of consultation is expected to be relatively simple to address.

**Uniqueness of DOD Activities at the Site:** Vessel travel through this area is unique in that it supports the Air Force's operational evaluations of long-range strike weapons with large footprints as part of LRS WSEP operations and training that occurs on the PMRF ranges.

**Conservation Benefits:** Benefits to the conservation of MHI IFKWs depend on whether designation of critical habitat at a site leads to additional conservation of the species above what is already provided by being listed in the first place. The potential for additional conservation at the site is a function of MHI IKFW use of the area, the level of protection already provided by management, and the likelihood of non-DOD actions subject to critical habitat.

**MHI IKFW Use of the Area:** Density analysis of satellite-tracking information indicates that this area of the range is low-use for MHI IFKWs. High-use areas likely indicate areas of higher conservation value where greater foraging and/or reproductive opportunities exist. However, within a restricted range low-use areas continue to offer essential features and may provide unique opportunities for foraging as oceanic conditions vary seasonally or temporally.

**Level of Protection Already Provided by Management:** Chapter 3 of the Economic report provides information about baseline protections that support the conservation of MHI IFKWs (Cardno 2017). These include provisions under the ESA and MMPA that protect this DPS from activities that may adversely affect the health of the population. As noted above, the Air Force undergoes section 7 consultations (under the ESA) to ensure that their activities are not likely to jeopardize MHI IFKWs, as well as MMPA review and authorization for activities that may result in "take" of marine mammals. These reviews take into consideration how activities as a whole may affect MHI IFKWs, among other species, and address concerns associated with how these animals may be affected by activities that create noise and/or pollution in the marine environment.

Additional protections for MHI IFKW essential features may be achieved by other regulatory efforts that are aimed at protecting Hawaii's marine resources and environment and may provide ancillary protections for MHI IFKW essential features. Most of these protections include broad regulations or restrictions associated with ensuring water quality and sustainable fish resources (e.g., The Clean Water Act and the Magnuson-Stevens Fishery Conservation and Management Act) (see Cardno 2017).

**Likelihood of Non-DOD Actions Subject to Critical Habitat:** It is possible that non-DOD federal actions will be proposed within this site that could affect the essential features, but that would no longer be subject to the critical habitat provision if the particular area were excluded from the designation.

**Recommendation:** We recommend that this area not be excluded from the critical habitat designation because the benefits of exclusion do not appear to outweigh the benefits of designation. The extent of the area requested encompasses approximately 1,077 km<sup>2</sup> (~416 mi<sup>2</sup>) or approximately 2 percent of the area under consideration for critical habitat. However, the burden associated with consultation is expected to be relatively small. The Air Force does not control these waters, and other federal actions may take place in this area that otherwise could be subject to section 7 or may impact essential features of critical habitat.

### **Kingfisher Range**

This underwater training area is approximately 2 miles off the southeast coast of Niihau at a depth of between 300 and 1,200 ft (90 and 366 m). It is a simulated underwater minefield that is used to test the kingfisher mine detection system and train operators. The area shown in [Figure 7](#) overlaps with approximately 14 km<sup>2</sup> (~6 mi<sup>2</sup>) or approximately 0.03 percent of the area under consideration for designation.

**National Security Impacts:** National security impacts depend on the effects of DOD activities on the site's essential features, and subsequent additional section 7 consultation requirements resulting from critical habitat (i.e., above and beyond what would already be required by the fact that MHI IFKWs are listed as endangered under the ESA). Kingfisher provides a simulated underwater minefield that is used to test the kingfisher mine detection system and train operators. This involves the use of active sonar. These training and testing activities may produce in-water noise (i.e., active sonar and vessel movement) in areas under consideration for critical habitat (DoN 2017a).

**The Type and Frequency of Additional Consultation:** As noted under the exclusion request for the entire area, the Navy is currently working towards describing activities intended after 2018 in another programmatic environmental impact statement and will initiate consultation to ensure that these activities meet obligations under the ESA and MMPA. Designation of critical habitat throughout these areas will require that the Navy consider how these activities may impact the essential features of critical habitat. In particular, activities that may introduce noise that exceed thresholds that inhibit MHI

IFKW's communication or foraging or result in abandonment of areas for long periods may result in additional analyses under formal consultation to ensure that these activities are not likely to result in adverse modification or destruction of critical habitat.

**Uniqueness of DOD Activities at the Site:** The Navy notes that the Kingfisher Range is unique in the HRC in that target depths support surface ship training. If units are unable to practice this skill, they will be unable to train for maneuvering in a mined environment at a safe and ideal training location. Without this critical and perishable skills training, military personnel will not be adequately trained for deployment in support of National Command Authority and Combatant Commander tasking. If the testing and evaluation community is similarly unable to test mine detection and classifications under development, military personnel will be unable to rely on these vital systems while deployed in support of National Command Authority and Combatant Commander tasking (DoN 2017a).

**Conservation Benefits:** Benefits to the conservation of MHI IFKWs depend on whether designation of critical habitat at a site leads to additional conservation of the species above what is already provided by being listed in the first place. The potential for additional conservation at the site is a function of MHI IKFW use of the area, the level of protection already provided by management, and the likelihood of non-DOD actions subject to critical habitat.

**MHI IKFW Use of the Area:** Density analysis of satellite-tracking information indicates that this area of the range is low-use for MHI IFKWs. High-use areas likely indicate areas of higher conservation value where greater foraging and/or reproductive opportunities exist. However, within a restricted range low-use areas continue to offer essential features and may provide unique opportunities for foraging as oceanic conditions vary seasonally or temporally.

**Level of Protection Already Provided by Management:** Chapter 3 of the Economic report provides information about baseline protections that support the conservation of MHI IFKWs (Cardno 2017). These include provisions under the ESA and MMPA that protect this DPS from activities that may adversely affect the health of the population. As noted above, the Navy undergoes section 7 consultations (under the ESA) to ensure that their activities are not likely to jeopardize MHI IFKWs, as well as MMPA review and authorization for activities that may result in "take" of marine mammals. These reviews take into consideration how activities as a whole may affect MHI IFKWs, among other species, and address concerns associated with how these animals may be affected by activities that create noise and/or pollution in the marine environment.

Additional protections for MHI IFKW essential features may be achieved by other regulatory efforts that are aimed at protecting Hawaii's marine resources and environment and may provide ancillary protections for MHI IFKW essential features. Most of these protections include broad regulations or restrictions associated with

ensuring water quality and sustainable fish resources (e.g., The Clean Water Act and the Magnuson-Stevens Fishery Conservation and Management Act) (see Cardno 2017).

**Likelihood of Non-DOD Actions Subject to Critical Habitat:** DOD use of this area is likely to discourage additional activities that would otherwise be subject to section 7 consultation. For this reason, there is low likelihood of federal actions being proposed by non-DOD agencies that would affect MHI IFKW critical habitat at this site.

**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 Niihau be excluded from the areas under consideration from critical habitat designation. Several factors support this exclusion. This area is a unique and important place for DOD activities and potential impacts from those activities will result in modifications to the DOD consultation process. The benefits of designating this small and low-use area are reduced somewhat by the protections already afforded to some of the essential features, and because DOD use of this area is likely to discourage other federal activities that may otherwise require consultation. While DOD must still insure that activities in this area are not likely to jeopardize the continued existence of the MHI IFKW, the exclusion of this area means DOD will not be required to consult to insure that its activities are not likely to adversely modify habitat or essential features within this area. Based on our best scientific judgment and acknowledging the small size of this area (approximately 0.03 percent of the area under consideration for designation), and other safeguards that are in place (e.g., protections already afforded MHI IFKWs under its listing and other regulatory mechanism), we conclude that exclusion of this area will not result in the extinction of the species.

### **Warning Area 188**

This includes two large offshore warning areas west and north of Kauai. This area overlaps with the submarine transit lane “Hula” northeast of Kauai. The areas shown in [Figure 7](#) overlap with approximately 2,674 km<sup>2</sup> (~1,032 mi<sup>2</sup>) or approximately 5 percent of the area under consideration for designation.

**National Security Impacts:** National security impacts depend on the effects of DOD activities on the site’s essential features, and subsequent additional section 7 consultation requirements resulting from critical habitat (i.e., above and beyond what would already be required by the fact that MHI IFKWs are listed as endangered under the ESA). Training and testing activities in this area of the range were noted to produce in-water noise (i.e., active sonar, explosives, vessel movement, and impulsive sounds generated in close vicinity to or at the water surface from weapons firing, and inert impact of non-explosive munitions) (DoN 2017a).

**The Type and Frequency of Additional Consultation:** As noted under the exclusion request for the entire area, the Navy is currently working towards describing their future activities (after 2018) in another programmatic environmental impact statement and will initiate consultation to ensure that these activities meet obligations under the ESA and



MMPA. Designation of critical habitat throughout these areas will require that the Navy consider how these activities may impact the essential features of critical habitat within these documents and within this upcoming consultation. In particular, activities that may introduce noise that exceed thresholds that inhibit MHI IFKW's communication or foraging or result in abandonment of areas for long periods may result in additional analyses under formal consultation to ensure that these activities are not likely to result in adverse modification or destruction of critical habitat. If activities may result in extensive effects, this process may also include requirements to modify the activity in order to minimize effects to MHI IFKW critical habitat. However, some of the activities identified may be resolved relatively easily through this consultation because the cumulative duration of temporary changes to the habitat would be unlikely to alter the overall conservation value of that habitat for MHI IFKWs.

**Uniqueness of DOD Activities at the Site:** The Navy noted that W-188 is one of two areas of the HRC where operators are most likely to schedule explosive events because this area allows for ease of scheduling, safety, instrumentation and airspace concerns (DoN 2017a).

**Conservation Benefits:** Benefits to the conservation of MHI IFKWs depend on whether designation of critical habitat at a site leads to additional conservation of the species above what is already provided by being listed in the first place. The potential for additional conservation at the site is a function of MHI IKFW use of the area, the level of protection already provided by management, and the likelihood of non-DOD actions subject to critical habitat.

**MHI IKFW Use of the Area:** Density analysis of satellite-tracking information indicates that this area of the range is low-use for MHI IFKWs. High-use areas likely indicate areas of higher conservation value where greater foraging and/or reproductive opportunities exist. However, within a restricted range, low-use areas continue to offer essential features and may provide unique opportunities for foraging as oceanic conditions vary seasonally or temporally.

**Level of Protection Already Provided by Management:** Chapter 3 of the Economic report provides information about baseline protections that support the conservation of MHI IFKWs (Cardno 2017). These include provisions under the ESA and MMPA that protect this DPS from activities that may adversely affect the health of the population. As noted above, the Navy undergoes section 7 consultations (under the ESA) to ensure that their activities are not likely to jeopardize MHI IFKWs, as well as MMPA review and authorization for activities that may result in "take" of marine mammals. These reviews take into consideration how activities as a whole may affect MHI IFKWs, among other species, and address concerns associated with how these animals may be affected by activities that create noise and/or pollution in the marine environment.

Additional protections for MHI IFKW essential features may be achieved by other regulatory efforts that are aimed at protecting Hawaii's marine resources and

environment and may provide ancillary protections for MHI IFKW essential features. Most of these protections include broad regulations or restrictions associated with ensuring water quality and sustainable fish resources (e.g., The Clean Water Act and the Magnuson-Stevens Fishery Conservation and Management Act) (see Cardno 2017).

**Likelihood of Non-DOD Actions Subject to Critical Habitat:** Non-DOD activities that may otherwise affect the essential features may be discouraged from portions of this area that are controlled or heavily used by DOD (e.g., PMRF ranges). However, it is possible that non-DOD federal actions will be proposed outside of the range and within this site that could affect the essential features, but that would no longer be subject to the critical habitat provision if the particular area were excluded from the designation.

**Recommendation:** We conclude that the benefit to national security of excluding this area outweighs the conservation benefit of designation, and recommend that Warning area 188 be excluded from the areas under consideration from critical habitat designation. Several factors support this exclusion. This area is a unique and important place for DOD activities and potential impacts from those activities will result in modifications to the DOD consultation process and potential modifications to the DOD activities. The benefits of designating this low-use area are reduced somewhat by the protections already afforded to some of the essential features and because DOD control over or use of portions of this area is likely to discourage other federal activities that may otherwise require consultations. While DOD must still insure that activities in this area are not likely to jeopardize the continued existence of the MHI IFKW, the exclusion of this area means DOD will not be required to consult to insure that its activities are not likely to adversely modify habitat or essential features within this area. Based on our best scientific judgment and acknowledging the size of this area, and other safeguards that are in place (e.g., protections already afforded MHI IFKWs under its listing and other regulatory mechanism), we conclude that exclusion of this area will not result in the extinction of the species.

### **Kaula and Warning Area 187**

This DOD site is located 37 km (23 mi) west-southwest of Kawaihoa Point on Niihau and includes the surrounding warning area waters. The area shown in [Figure 7](#) overlaps with approximately 266 km<sup>2</sup> (~103 mi<sup>2</sup>) or approximately 0.5 percent of the area under consideration for designation. The island and waters immediately adjacent do not overlap with the potential designation.

**National Security Impacts:** National security impacts depend on the effects of DOD activities on the site's essential features, and subsequent additional section 7 consultation requirements resulting from critical habitat (i.e., above and beyond what would already be required by the fact that MHI IFKWs are listed as endangered under the ESA). Activities at Kaula include bombing and gunnery exercises using non-explosives munitions. The non-explosive munitions expended on Kaula are targeting the island itself and would only impact the water in the case of a rare miss, and the shallowest nearshore waters around Kaula less than 45 m deep are not part of the area under consideration for

critical habitat. The Navy notes that the potential for any harm to marine mammal habitat from gunnery practice rounds is very remote. Navy modeling suggests that marine mammals may be exposed to sounds caused by the firing of weapons and inert impact of non-explosive munitions on the water's surface. However, as stated above, munitions are only targeted ashore at Kaula and are not expected to impact the water. Kaula Island averages approximately 55 scheduled events per year, which typically doubles during the years in which the OPAREA hosts the Rim of the Pacific Exercise. The Navy also noted that training and testing activities may produce in-water noise (from vessel movement and impulsive sounds from ordnance generated in close vicinity to or at the water surface) in proposed critical habitat (DoN 2017a).

**The Type and Frequency of Additional Consultation:** As noted under the exclusion request for the entire area, the Navy is currently working towards describing activities intended after 2018 in another programmatic environmental impact statement and will initiate consultation to ensure that these activities meet obligations under the ESA and MMPA. Designation of critical habitat throughout these areas will require that the Navy consider how these activities may impact the essential features of critical habitat within these documents and within this upcoming consultation. In particular, activities that may introduce noise that exceed thresholds that inhibit MHI IFKW's communication or foraging or result in abandonment of areas for long periods may result in additional analyses under formal consultation to ensure that these activities are not likely to result in adverse modification or destruction of critical habitat. The activities identified may be readily addressed through this consultation because the cumulative duration of temporary changes to the habitat would be unlikely to alter the overall conservation value of that habitat for MHI IFKWs.

**Uniqueness of DOD Activities at the Site:** The Navy notes that Kaula is an invaluable site, because the small islet is uninhabited and fully surrounded by restricted airspace, which makes it unique. It is particularly useful for smaller events because it is close to Oahu (DoN 2017a). We defer to the Navy's expert judgment concerning the importance of this area to military training and preparedness.

**Conservation Benefits:** Benefits to the conservation of MHI IFKWs depend on whether designation of critical habitat at a site leads to additional conservation of the species above what is already provided by being listed in the first place. The potential for additional conservation at the site is a function of MHI IKFW use of the area, the level of protection already provided by management, and the likelihood of non-DOD actions subject to critical habitat.

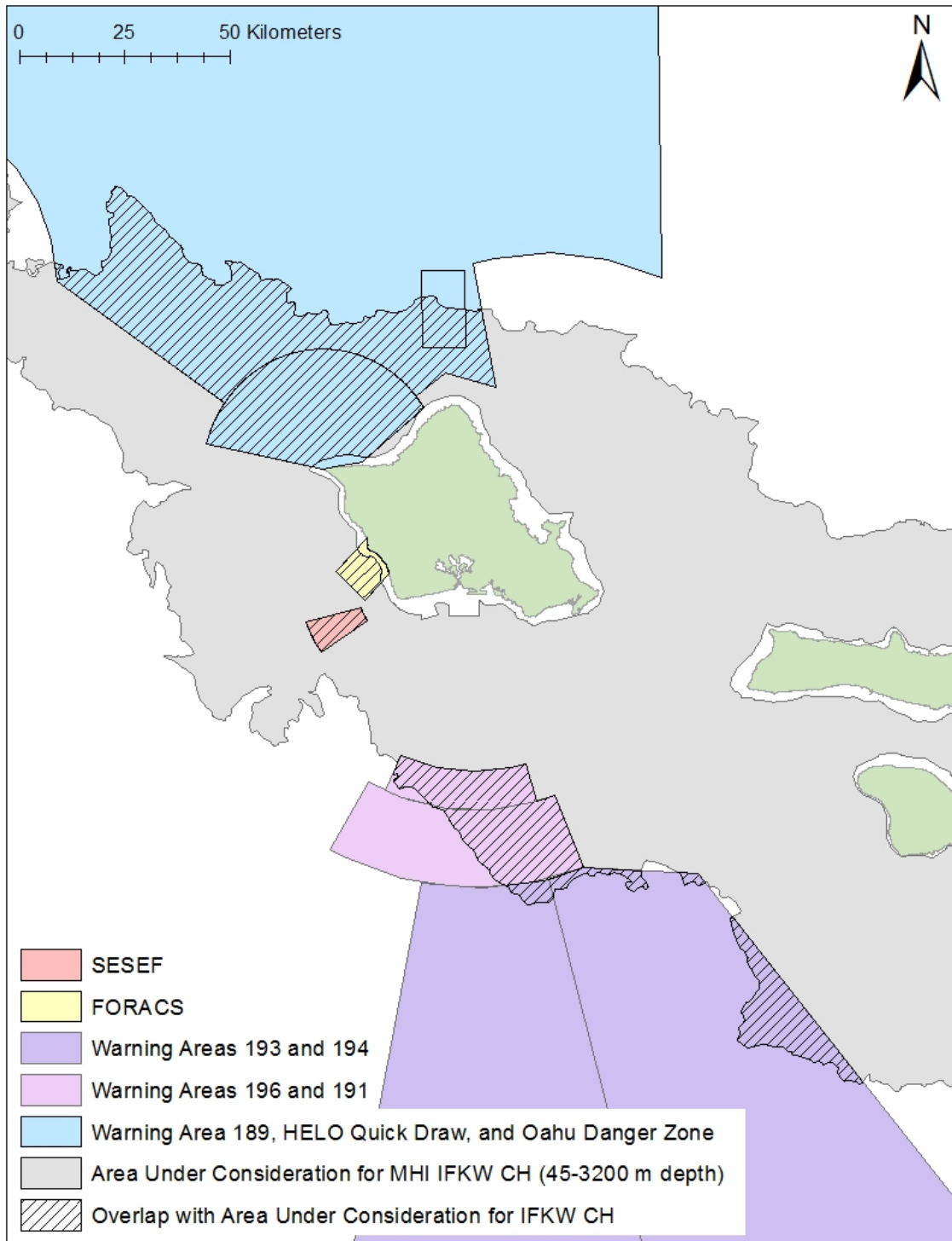
**MHI IKFW Use of the Area:** Density analysis of satellite-tracking information indicates that this area of the range is low-use for MHI IFKWs. High-use areas likely indicate areas of higher conservation value where greater foraging and/or reproductive opportunities exist. However, within a restricted range low-use areas continue to offer essential features and may provide unique opportunities for foraging as oceanic conditions vary seasonally or temporally.

**Level of Protection Already Provided by Management:** Chapter 3 of the Economic report provides information about baseline protections that support the conservation of MHI IFKW's (Cardno 2017); these include provisions under the ESA and MMPA that protect this DPS from activities that may adversely affect the health of the population. As noted above the Navy undergoes section 7 consultations (under the ESA) to ensure that their activities are not likely to jeopardize MHI IFKW's, as well as MMPA review and authorization for activities that may result in "take" of marine mammals. These reviews take into consideration how activities as whole may affect MHI IFKW's, among other species, and address concerns associated with how these animals may be affected by activities that create noise and/or pollution in the marine environment.

Additional protections for MHI IFKW essential features may be achieved by other regulatory efforts that are aimed at protecting Hawaii's marine resources and environment and may provide ancillary protections for MHI IFKW essential features. Most of these protections include broad regulations or restrictions associated with ensuring water quality and sustainable fish resources (e.g., The Clean Water Act and the Magnuson-Stevens Fishery Conservation and Management Act) (Cardno 2017).

**Likelihood of Non-DOD Actions Subject to Critical Habitat:** DOD use of this area is likely to discourage additional activities that would otherwise be subject to section 7 consultation. For this reason, there is low likelihood of federal actions being proposed by non-DOD agencies that would affect MHI IFKW critical habitat at this site.

**Recommendation:** We conclude that the benefit to national security of excluding this area outweighs the conservation benefit of designation, and recommend that Kaula and Warning Area 187 off Niihau be excluded from the areas under consideration from critical habitat designation. Several factors support this exclusion. This area is a unique and important place for DOD activities and potential impacts from those activities will result in modifications to the DOD consultation process to some degree. The benefits of designating this low-use habitat area is reduced somewhat by the protections already afforded to some of the essential features and because DOD use of this area is likely to discourage other federal activities that may otherwise require consultation. While DOD must still insure that activities in this area are not likely to jeopardize the continued existence of the MHI IFKW, the exclusion of this area means DOD will not be required to consult to insure that its activities are not likely to adversely modify habitat or essential features within this area. Based on our best scientific judgment and acknowledging the small size of this area (approximately 0.5 percent of the area under consideration for designation), and other safeguards that are in place (e.g., protections already afforded MHI IFKW's under its listing and other regulatory mechanism), we conclude that exclusion of this area will not result in the extinction of the species.



**Figure 8. Areas requested for exclusion near Oahu.**

## **Warning Area 189, HELO Quickdraw Box and Oahu Danger Zone**

W-189 includes airspace north and west of Oahu, but only the nearshore portion of it overlaps with the proposed critical habitat. Additionally, the submarine transit lane “Hula” northwest and west of Oahu, where active sonar may be used, overlaps with W-89. The areas shown in [Figure 8](#) overlap with approximately 2,886 km<sup>2</sup> (~1,114 mi<sup>2</sup>) or approximately 5 percent of the area under consideration for designation.

**National Security Impacts:** National security impacts depend on the effects of DOD activities on the site’s essential features, and subsequent additional section 7 consultation requirements resulting from critical habitat (i.e., above and beyond what would already be required by the fact that MHI IFKWs are listed as endangered under the ESA). The Navy notes that this area is used for gunnery and rockets as well as dipping sonar during anti-submarine warfare training. It is considered an area of “low use” of active sonar (DoN 2017a). The Quick Draw Box is a sub-area within W-189 identified to isolate live-fire activities and increase coordination with units using this area. A danger zone is identified in 33 CFR 335.1350 as an arc NW out from Kaena Point Light. The danger zone is closed to the public and all shipping on specific dates to be designated for actual weapons firing and no person, vessel or other craft shall enter or remain in the area during the times designated for firing except as authorized. On dates not specified for firing, the area will be open to normal maritime traffic (DoN 2017a).

**The Type and Frequency of Additional Consultation:** As noted under the exclusion request for the entire area, the Navy is currently working towards describing activities intended after 2018 in another programmatic environmental impact statement and will initiate consultation to ensure that these activities meet obligations under the ESA and MMPA. Designation of critical habitat throughout these areas will require that the Navy consider how these activities may impact the essential features of critical habitat within these documents and within this upcoming consultation. In particular, activities that may introduce noise that exceed thresholds that inhibit MHI IFKW’s communication or foraging or result in abandonment of areas for long periods may result in additional analyses under formal consultation to ensure that these activities are not likely to result in adverse modification or destruction of critical habitat. If activities may result in extensive effects, this process may also include requirements to modify the activity in order to minimize effects to MHI IFKW critical habitat. However, some of the activities identified may be resolved relatively easily through this consultation because the cumulative duration of temporary changes to the habitat would be unlikely to alter the overall conservation value of that habitat for MHI IFKWs.

**Uniqueness of DOD Activities at the Site:** The Navy did not identify how this specific area is unique, but indicated the importance of sustaining military training with realistic training environments for troop preparedness.

**Conservation Benefits:** Benefits to the conservation of MHI IFKWs depend on whether designation of critical habitat at a site leads to additional conservation of the species

above what is already provided by being listed in the first place. The potential for additional conservation at the site is a function of MHI IFKW use of the area, the level of protection already provided by management, and the likelihood of non-DOD actions subject to critical habitat.

**MHI IFKW Use of the Area:** Density analysis of satellite-tracking information indicates that the overlap area falls into mostly low-use areas for MHI IFKWs. However, offshore of Kaena point an area is highlighted as high-use for MHI IFKWs. High-use areas likely indicate areas of higher conservation value where greater foraging and/or reproductive opportunities exist. Within a restricted range, low-use areas continue to offer essential features and may provide unique opportunities for foraging as oceanic conditions vary seasonally or temporally.

**Level of Protection Already Provided by Management:** Chapter 3 of the Economic report provides information about baseline protections that support the conservation of MHI IFKWs (Cardno 2017); these include provisions under the ESA and MMPA that protect this DPS from activities that may adversely affect the health of the population. As noted above the Navy undergoes section 7 consultations (under the ESA) to ensure that their activities are not likely to jeopardize MHI IFKWs, as well as MMPA review and authorization for activities that may result in “take” of marine mammals. These reviews take into consideration how activities as a whole may affect MHI IFKWs, among other species, and address concerns associated with how these animals may be affected by activities that create noise and/or pollution in the marine environment.

Additional protections for MHI IFKW essential features may be achieved by other regulatory efforts that are aimed at protecting Hawaii’s marine resources and environment and may provide ancillary protections for MHI IFKW essential features. Most of these protections include broad regulations or restrictions associated with ensuring water quality and sustainable fish resources (e.g., The Clean Water Act and the Magnuson-Stevens Fishery Conservation and Management Act) (see Cardno 2017). This area overlaps to some degree with Sanctuary waters and bottomfish restricted fishing sites, which may also provide some protection for water quality and prey species respectively.

**Likelihood of Non-DOD Actions Subject to Critical Habitat:** It is possible that non-DOD federal actions will be proposed within this site that could affect the essential features, but that would no longer be subject to the critical habitat provision if the particular area were excluded from the designation. The Bureau of Ocean Energy Management (BOEM) has identified two general wind lease areas, a portion of which overlaps with this area; however, as noted in the [Exclusions Based on Economics](#) section of this report, this area will be proposed for economic exclusion. Accordingly, a small portion of this area (approximately 326 km<sup>2</sup> or 126 mi<sup>2</sup>) being requested for national security exclusion is already proposed for economic exclusion.

**Recommendation:** We recommend that this area not be excluded from the critical habitat designation because the benefits of exclusion do not appear to outweigh the benefits of designation. The extent of the area requested encompasses approximately 2,886 km<sup>2</sup> (~1,114 mi<sup>2</sup>) of the area under consideration for critical habitat, which includes a high-use area of high conservation value. Only the danger zone is closed to the public during designated firing dates, and other federal actions take place in these surrounding areas that may otherwise affect MHI IFKW essential features. Therefore, other federal activities subject to ESA section 7 may occur in these waters that may impact essential features of critical habitat.

### **Fleet Operational Readiness Accuracy Check Site Range (FORACS)**

The Fleet Operational Readiness Accuracy Check Site (FORACS) Range AND Surface Ship Radiated Noise Measurement (SSRNM) System are located off Oahu's west coast and connected by an undersea data transmission cable to the Fleet Technical Evaluation Center on the west coastline. This area is used to check range and bearing accuracy for Navy ships and to assess noise coming from vessels as they operate. The area shown in [Figure 8](#) overlaps with approximately 74 km<sup>2</sup> (~29 mi<sup>2</sup>) or approximately 0.1 percent of the area under consideration for designation.

**National Security Impacts:** National security impacts depend on the effects of DOD activities on the site's essential features, and subsequent additional section 7 consultation requirements resulting from critical habitat (i.e., above and beyond what would already be required by the fact that MHI IFKWs are listed as endangered under the ESA).

Activities on the FORACS range allows Navy ships to ensure equipment function and calibration as well as vessel noise levels and signature. Systems that are checked during FORACS testing include radars, passive sonars, and active sonars. The Navy noted that ships 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. During a run the ship will approach the target, which could be a stationary underwater acoustic transducer located offshore or the shore station, making a slow turn to eventually track outbound from the target and establish a bearing to the target in use. This information is compared with the known bearing. During active sonar testing range-to-target information is also evaluated.

The SSRNM hydrophone array is located within the FORACS range and receives noise (i.e., propulsion, ship machinery and flow noise) coming from vessels for analysis. SSRNM testing is conducted on Navy ships to evaluate their waterborne acoustic characteristics while underway thus reducing vulnerability to undersea warfare threats. Ships and submarines may also conduct sonar maintenance while on the range (DoN 2017a).

**The Type and Frequency of Additional Consultation:** As noted under the exclusion request for the entire area, the Navy is currently working towards describing activities intended after 2018 in another programmatic environmental impact statement and will initiate consultation to ensure that these activities meet obligations under the ESA and MMPA. Designation of critical habitat throughout these areas will require that the Navy



consider how these activities may impact the essential features of critical habitat within these documents and within this upcoming consultation. In particular, activities that may introduce noise that exceed thresholds that inhibit MHI IFKW's communication or foraging or result in abandonment of areas for long periods may result in additional analyses under formal consultation to ensure that these activities are not likely to result in adverse modification or destruction of critical habitat. If activities may result in adverse effects, this process may also include requirements to modify the activity or employ mitigation in order to minimize effects to MHI IFKW critical habitat.

**Uniqueness of DOD Activities at the Site:** The Navy indicated that system checks at the FORACS and SSRNM sites cannot be completed anywhere else because they require infrastructure on the bottom and on the adjacent land. If this important testing did not occur, military systems and equipment could fall out of calibration, ships could be vulnerable to undersea threats due to excessive vessel noise, and units would not fully prepared for duty (DoN 2017a).

**Conservation Benefits:** Benefits to the conservation of MHI IFKWs depend on whether designation of critical habitat at a site leads to additional conservation of the species above what is already provided by being listed in the first place. The potential for additional conservation at the site is a function of MHI IKFW use of the area, the level of protection already provided by management, and the likelihood of non-DOD actions subject to critical habitat.

**MHI IKFW Use of the Area:** Density analysis of satellite-tracking information indicates that this area of the range is low-use for MHI IFKWs. High-use areas likely indicate areas of higher conservation value where greater foraging and/or reproductive opportunities exist. However, within a restricted range low-use areas continue to offer essential features and may provide unique opportunities for foraging as oceanic conditions vary seasonally or temporally.

**Level of Protection Already Provided by Management:** Chapter 3 of the Economic report provides information about baseline protections that support the conservation of MHI IFKWs (Cardno 2017); these include provisions under the ESA and MMPA that protect this DPS from activities that may adversely affect the health of the population. As noted above the Navy undergoes section 7 consultations (under the ESA) to ensure that their activities are not likely to jeopardize MHI IFKWs, as well as MMPA review and authorization for activities that may result in "take" of marine mammals. These reviews take into consideration how activities as a whole may affect MHI IFKWs, among other species, and address concerns associated with how these animals may be affected by activities that create noise and/or pollution in the marine environment.

Additional protections for MHI IFKW essential features may be achieved by other regulatory efforts that are aimed at protecting Hawaii's marine resources and environment and may provide ancillary protections for MHI IFKW essential features. Most of these protections include broad regulations or restrictions associated with

ensuring water quality and sustainable fish resources (e.g., The Clean Water Act and the Magnuson-Stevens Fishery Conservation and Management Act) (see Cardno 2017).

**Likelihood of Non-DOD Actions Subject to Critical Habitat:** Few if any federal actions by non-DOD agencies have been proposed at this site which are likely to affect MHI IFKW essential features. For this reason, there is low likelihood of federal actions being proposed by non-DOD agencies that would affect MHI IFKW critical habitat at this site.

**Recommendation:** We conclude that the benefit to national security of excluding this area outweighs the conservation benefit of designation, and recommend that the FORACS range off Oahu be excluded from the areas under consideration from critical habitat designation. Several factors support this exclusion. This area is a unique and important place for DOD activities and potential impacts from those activities will result in modifications to the DOD consultation process and potential modifications to the DOD activities. The benefits of designating this low-use habitat area is reduced somewhat by the protections already afforded to some of the essential features and because DOD use of this area is likely to discourage other federal activities that may otherwise affect the essential features and require consultation. While DOD must still insure that activities in this area are not likely to jeopardize the continued existence of the MHI IFKW, the exclusion of this area means DOD will not be required to consult to insure that its activities are not likely to adversely modify habitat or essential features within this area. Based on our best scientific judgment and acknowledging the small size of this area (approximately 0.1 percent of the area under consideration for designation), and other safeguards that are in place (e.g., protections already afforded MHI IFKWs under its listing and other regulatory mechanism), we conclude that exclusion of this area will not result in the extinction of the species.

### **Shipboard Electronic Systems Evaluation Facility Range (SESEF)**

The Shipboard Electronic Systems Evaluation Facility Range (SESEF) is located southwest of Oahu and overlaps with approximately 74 km<sup>2</sup> (~29 mi<sup>2</sup>) or approximately 0.1 percent of the area under consideration for designation (see [Figure 8](#)).

**National Security Impacts:** National security impacts depend on the effects of DOD activities on the site's essential features, and subsequent additional section 7 consultation requirements resulting from critical habitat (i.e., above and beyond what would already be required by the fact that MHI IFKWs are listed as endangered under the ESA). The Shipboard Electronic Systems Evaluation Facility (SESEF) southwest of Oahu provides state-of-the-art test and evaluation of combat systems that radiate or receive electromagnetic energy. Tests are conducted to evaluate ship, shore, and aircraft systems that emit or detect electronic emissions. These systems include those used for radio communications, data transfer, navigation, radar, and systems that identify friend and foe. The test equipment operated by the facility allows for a performance evaluation of the ship, shore, or aircraft system. Tests conducted by the facility fall into one of two broad

categories: Quick Look and System Performance tests. Neither test uses ordnance or sonar. System performance tests generally require longer periods of dedicated testing and require the ship to maneuver in pre-defined geometries within a certain geographic area (i.e., the offshore range) (DoN 2017a).

**The Type and Frequency of Additional Consultation:** As noted under the exclusion request for the entire area, the Navy is currently working towards describing activities intended after 2018 in another programmatic environmental impact statement and will initiate consultation to ensure that these activities meet obligations under the ESA and MMPA. Designation of critical habitat throughout these areas will require that the Navy consider how these activities may impact the essential features of critical habitat within these documents and within this upcoming consultation. In particular, activities that may introduce noise that exceed thresholds that inhibit MHI IFKW's communication or foraging or result in abandonment of areas for long periods may result in additional analyses under formal consultation to ensure that these activities are not likely to result in adverse modification or destruction of critical habitat. While it is unlikely that activities at this site will result in extensive effects, additional analyses are expected to ensure the protection of essential features

**Uniqueness of DOD Activities at the Site:** The Navy noted that some SESEF associated testing can be completed while in port, however other testing requires detailed analyses and specific maneuvering on the range. If these system checks could not be conducted Navy combat, communications, and navigational systems could go out of calibration without the operators' knowledge. That could make Navy platforms unable to accurately resolve their targets, unable to correctly position themselves and increase the risk of collisions and grounding, or could make Navy ships more vulnerable to electronic attack (DoN 2017a).

**Conservation Benefits:** Benefits to the conservation of MHI IFKWs depend on whether designation of critical habitat at a site leads to additional conservation of the species above what is already provided by being listed in the first place. The potential for additional conservation at the site is a function of MHI IKFW use of the area, the level of protection already provided by management, and the likelihood of non-DOD actions subject to critical habitat.

**MHI IKFW Use of the Area:** Density analysis of satellite-tracking information indicates that this area of the range is low-use for MHI IFKWs. High-use areas likely indicate areas of higher conservation value where greater foraging and/or reproductive opportunities exist. However, within a restricted range low-use areas continue to offer essential features and may provide unique opportunities for foraging as oceanic conditions vary seasonally or temporally.

**Level of Protection Already Provided by Management:** Chapter 3 of the Economic report provides information about baseline protections that support the conservation of MHI IFKWs (Cardno 2017); these include provisions under the ESA and MMPA that

protect this DPS from activities that may adversely affect the health of the population. As noted above the Navy undergoes section 7 consultations (under the ESA) to ensure that their activities are not likely to jeopardize MHI IFKWs, as well as MMPA review and authorization for activities that may result in “take” of marine mammals. These reviews take into consideration how activities as a whole may affect MHI IFKWs, among other species, and address concerns associated with how these animals may be affected by activities that create noise and/or pollution in the marine environment.

Additional protections for MHI IFKW essential features may be achieved by other regulatory efforts that are aimed at protecting Hawaii’s marine resources and environment and may provide ancillary protections for MHI IFKW essential features. Most of these protections include broad regulations or restrictions associated with ensuring water quality and sustainable fish resources (e.g., The Clean Water Act and the Magnuson-Stevens Fishery Conservation and Management Act) (see Cardno 2017).

**Likelihood of Non-DOD Actions Subject to Critical Habitat:** DOD use of this area is likely to discourage additional activities that would otherwise be subject to section 7 consultation. For this reason, there is low likelihood of federal actions being proposed by non-DOD agencies that would affect MHI IFKW critical habitat at this site.

**Recommendation:** We conclude that the benefit to national security of excluding this area outweighs the conservation benefit of designation, and recommend that SESEF range off Oahu be excluded from the areas under consideration from critical habitat designation. Several factors support this exclusion. This area is a unique and important place for DOD activities and potential impacts from those activities will result in modifications to the DOD consultation process. The benefits of designating this low-use area is reduced somewhat by the protections already afforded to some of the essential features and because DOD use of this area is likely to discourage other federal activities that may otherwise require consultation. While DOD must still insure that activities in this area are not likely to jeopardize the continued existence of the MHI IFKW, the exclusion of this area means DOD will not be required to consult to insure that its activities are not likely to adversely modify habitat or essential features within this area. Based on our best scientific judgment and acknowledging the small size of this area (approximately 0.1 percent of the area under consideration for designation), and other safeguards that are in place (e.g., protections already afforded MHI IFKWs under its listing and other regulatory mechanism), we conclude that exclusion of this area will not result in the extinction of the species.

### **Warning Areas 196 and 191**

These are two warning areas located south of Oahu at the outer edges of the designation. The areas shown in [Figure 8](#) overlap with approximately 728 km<sup>2</sup> (~281 mi<sup>2</sup>) or approximately 1 percent of the area under consideration for designation.

**National Security Impacts:** National security impacts depend on the effects of DOD activities on the site’s essential features, and subsequent additional section 7 consultation

requirements resulting from critical habitat (i.e., above and beyond what would already be required by the fact that MHI IFKWs are listed as endangered under the ESA). The Navy indicated that gunnery exercise and gun testing for anti-surface warfare occurs in this area. These training and testing activities may produce in-water noise (i.e., vessel movement, and impulsive sounds generated in close vicinity to or at the water surface from weapons firing, and inert impact of non-explosive munitions) in proposed critical habitat.

**The Type and Frequency of Additional Consultation:** As noted under the exclusion request for the entire area, the Navy is currently working towards describing activities intended after 2018 in another programmatic environmental impact statement and will initiate consultation to ensure that these activities meet obligations under the ESA and MMPA. Designation of critical habitat throughout these areas will require that the Navy consider how these activities may impact the essential features of critical habitat within these documents and within this upcoming consultation. In particular, activities that may introduce noise that exceed thresholds that inhibit MHI IFKW's communication or foraging or result in abandonment of areas for long periods may result in additional analyses under formal consultation to ensure that these activities are not likely to result in adverse modification or destruction of critical habitat. If activities may result in adverse effects, this process may also include requirements to modify the activity or apply mitigation in order to minimize effects to MHI IFKW critical habitat. However, some of the activities identified may be readily addressed through this consultation because the cumulative duration of temporary changes to the habitat would be unlikely to alter the overall conservation value of that habitat for MHI IFKWs.

**Uniqueness of DOD Activities at the Site:** The Navy did not identify how this specific area is unique, but indicated the importance of sustaining military training with realistic training environments for troop preparedness.

**Conservation Benefits:** Benefits to the conservation of MHI IFKWs depend on whether designation of critical habitat at a site leads to additional conservation of the species above what is already provided by being listed in the first place. The potential for additional conservation at the site is a function of MHI IKFW use of the area, the level of protection already provided by management, and the likelihood of non-DOD actions subject to critical habitat.

**MHI IKFW Use of the Area:** Density analysis of satellite-tracking information indicates that this area of the range is low-use for MHI IFKWs. High-use areas likely indicate areas of higher conservation value where greater foraging and/or reproductive opportunities exist. However, within a restricted range low-use areas continue to offer essential features and may provide unique opportunities for foraging as oceanic conditions vary seasonally or temporally.

**Level of Protection Already Provided by Management:** Chapter 3 of the Economic report provides information about baseline protections that support the conservation of

MHI IFKWs (Cardno 2017); these include provisions under the ESA and MMPA that protect this DPS from activities that may adversely affect the health of the population. As noted above the Navy undergoes section 7 consultations (under the ESA) to ensure that their activities are not likely to jeopardize MHI IFKWs, as well as MMPA review and authorization for activities that may result in “take” of marine mammals. These reviews take into consideration how activities as a whole may affect MHI IFKWs, among other species, and address concerns associated with how these animals may be affected by activities that create noise and/or pollution in the marine environment.

Additional protections for MHI IFKW essential features may be achieved by other regulatory efforts that are aimed at protecting Hawaii’s marine resources and environment and may provide ancillary protections for MHI IFKW essential features. Most of these protections include broad regulations or restrictions associated with ensuring water quality and sustainable fish resources (e.g., The Clean Water Act and the Magnuson-Stevens Fishery Conservation and Management Act) (see Cardno 2017)

**Likelihood of Non-DOD Actions Subject to Critical Habitat:** It is possible but unlikely that non-DOD federal actions will be proposed within this site that could affect the essential features, due to the small scale of this area and its geographical remoteness from the islands.

**Recommendation:** We conclude that the benefit to national security of excluding this area outweighs the conservation benefit of designation, and recommend that Warning Areas 196 and 191 off Oahu be excluded from the areas under consideration from critical habitat designation. Several factors support this exclusion. Consultations could result in modifications to DOD military readiness activities conducted in these areas. Yet only a small fraction of the warning areas (300 square miles) overlaps with areas under consideration for critical habitat. The benefits of designating this small (approximately 1 percent of the area under consideration for designation) and low-use area are reduced somewhat by the protections already afforded to some of the essential features and because DOD use of this area and the remoteness of this area is likely to discourage other federal activities that may otherwise require consultation. While DOD must still insure that activities in this area are not likely to jeopardize the continued existence of the MHI IFKW, the exclusion of this area means DOD will not be required to consult to insure that its activities are not likely to adversely modify habitat or essential features within this area. 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 MHI IFKWs under its listing and other regulatory mechanism), we conclude that exclusion of this area will not result in the extinction of the species.

### **Warning Areas 193 and 194**

Only small portions of W-193 and W-194 overlap with the proposed critical habitat. The areas shown in [Figure 8](#) overlap with approximately 458 km<sup>2</sup> (~177 mi<sup>2</sup>) or approximately 1 percent of the area under consideration for designation.

**National Security Impacts:** National security impacts depend on the effects of DOD activities on the site's essential feature, and subsequent additional section 7 consultation requirements resulting from critical habitat (i.e., above and beyond what would already be required by the fact that MHI IFKWs are listed as endangered under the ESA). The Navy indicated that this area is used for anti-surface warfare and anti-submarine warfare training and testing. These training and testing activities may produce in-water noise (i.e., explosives, vessel movement, and impulsive sounds generated in close vicinity to or at the water surface from weapons firing, and inert impact of non-explosive munitions) in proposed critical habitat.

**The Type and Frequency of Additional Consultation:** As noted under the exclusion request for the entire area, the Navy is currently working towards describing activities intended after 2018 in another programmatic environmental impact statement and will initiate consultation to ensure that these activities meet obligations under the ESA and MMPA. Designation of critical habitat throughout these areas will require that the Navy consider how these activities may impact the essential features of critical habitat within these documents and within this upcoming consultation. In particular, activities that may introduce noise that exceed thresholds that inhibit MHI IFKW's communication or foraging or result in abandonment of areas for long periods may result in additional analyses under formal consultation to ensure that these activities are not likely to result in adverse modification or destruction of critical habitat. If activities may result in adverse effects, this process may also include requirements to modify the activity or apply mitigation in order to minimize effects to MHI IFKW critical habitat. However, some of the activities identified may be readily addressed through this consultation because the cumulative duration of temporary changes to the habitat would be unlikely to alter the overall conservation value of that habitat for MHI IFKWs.

**Uniqueness of DOD Activities at the Site:** The Navy did not identify how this specific area is unique, but indicated the importance of sustaining military training with realistic training environments for troop preparedness. We defer to the Navy's expert judgment on the importance of these sites to military preparedness.

**Conservation Benefits:** Benefits to the conservation of MHI IFKWs depend on whether designation of critical habitat at a site leads to additional conservation of the species above what is already provided by being listed in the first place. The potential for additional conservation at the site is a function of MHI IKFW use of the area, the level of protection already provided by management, and the likelihood of non-DOD actions subject to critical habitat.

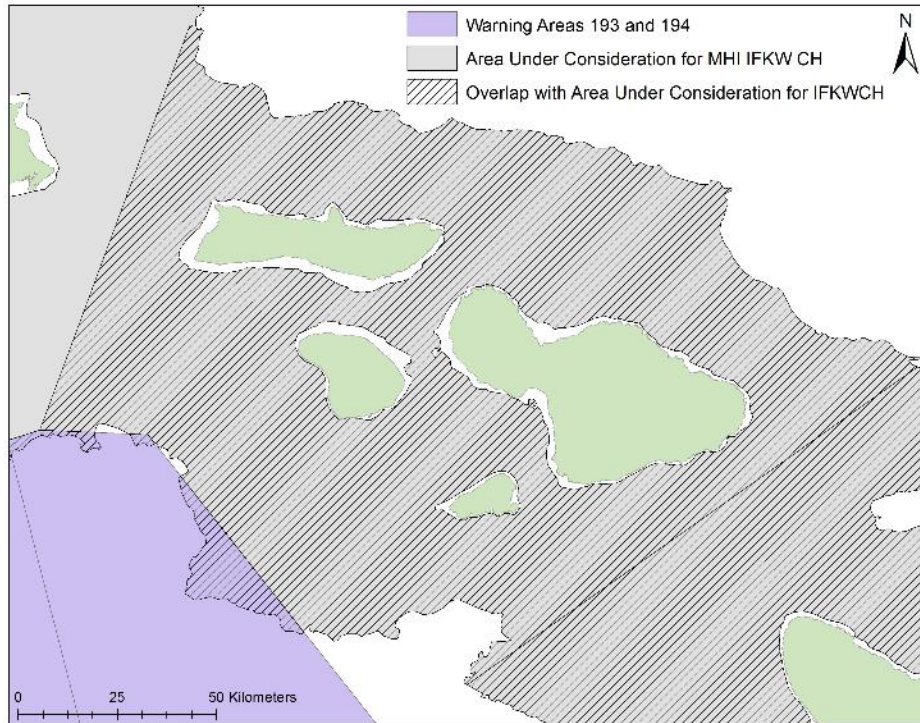
**MHI IKFW Use of the Area:** Density analysis of satellite-tracking information indicates that this area of the range is low-use for MHI IFKWs. High-use areas likely indicate areas of higher conservation value where greater foraging and/or reproductive opportunities exist. However, within a restricted range low-use areas continue to offer essential features and may provide unique opportunities for foraging as oceanic conditions vary seasonally or temporally.

**Level of Protection Already Provided by Management:** Chapter 3 of the Economic report provides information about baseline protections that support the conservation of MHI IFKWs (Cardno 2017); these include provisions under the ESA and MMPA that protect this DPS from activities that may adversely affect the health of the population. As noted above the Navy undergoes section 7 consultations (under the ESA) to ensure that their activities are not likely to jeopardize MHI IFKWs, as well as MMPA review and authorization for activities that may result in “take” of marine mammals. These reviews take into consideration how activities as a whole may affect MHI IFKWs, among other species, and address concerns associated with how these animals may be affected by activities that create noise and/or pollution in the marine environment.

**Likelihood of Non-DOD Actions Subject to Critical Habitat:** It is possible but unlikely that non-DOD federal actions will be proposed within this site that could affect the essential features, due to the small scale of this area and its geographical remoteness from the islands.

**Recommendation:** We conclude that the benefit to national security of excluding this area outweighs the conservation benefit of designation, and recommend that Warning Areas 193 and 194 south of Oahu be excluded from the areas under consideration from critical habitat designation. Several factors support this exclusion. This area is a unique and important place for DOD activities and potential impacts from those activities will result in modifications to the DOD consultation process and potential modifications to the DOD activities. The benefits of designating this small (approximately 1 percent of the area under consideration for designation), low-use area is reduced somewhat by the protections already afforded to some of the essential features and because DOD use and the remote nature of this area is likely to discourage other federal activities that may otherwise require consultation. While DOD must still insure that activities in this area are not likely to jeopardize the continued existence of the MHI IFKW, the exclusion of this area means DOD will not be required to consult to insure that its activities are not likely to adversely modify habitat or essential features within this area. 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 MHI IFKWs under its listing and other regulatory mechanism), we conclude that exclusion of this area will not result in the extinction of the species.





**Figure 9. Four Island Region requested for exclusion.**

### **Four Island Region (Maui, Lanai, Molokai, Kahoolawe)**

The Navy highlighted the four island region around Maui, Lanai, Molokai, and Kahoolawe as important to submarine training and certification. No boundary was provided for this highlighted area; however, the Navy included a map depicting all waters surrounding these islands that overlap with the areas under consideration for designation (DoN 2017a). For purposes of determining the approximate size of this area we have drawn boundaries that cross through the channels between Oahu and Molokai, and Maui and Hawaii. The area shown in Figure 9 overlaps with approximately 15,389 km<sup>2</sup> (~5,940 mi<sup>2</sup>) or approximately 27 percent of the area under consideration for designation.

**National Security Impacts:** National security impacts depend on the effects of DOD activities on the site’s essential features, and subsequent additional section 7 consultation requirements resulting from critical habitat (i.e., above and beyond what would already be required by the fact that MHI IFKWs are listed as endangered under the ESA). Submarine crews utilize this area for training and deployment certifications in a variety of warfare mission areas (Undersea warfare; Antisubmarine warfare; Intelligence, Surveillance and Reconnaissance; and Mine Countermeasure), shallow water operations and ship control, shallow water navigation, and shallow water weapons employment. Submarine training and certification activities can include participation by surface ASW forces and maritime patrol and reconnaissance aircraft, which may employ active mid-frequency and high-frequency sonar. These training and testing activities may produce in-water noise (e.g., active sonar, vessel movement, and impulsive sounds generated in close

vicinity to or at the water surface from weapons firing, and inert impact of non-explosive munitions) in proposed critical habitat (DoN 2017a).

**The Type and Frequency of Additional Consultation:** As noted under the exclusion request for the entire area, the Navy is currently working towards describing activities intended after 2018 in another programmatic environmental impact statement and will initiate consultation to ensure that these activities meet obligations under the ESA and MMPA. Designation of critical habitat throughout these areas will require that the Navy consider how these activities may impact the essential features of critical habitat within these documents and within this upcoming consultation. In particular, activities that may introduce noise that exceed thresholds that inhibit MHI IFKW's communication or foraging or result in abandonment of areas for long periods may result in additional analyses under formal consultation to ensure that these activities are not likely to result in adverse modification or destruction of critical habitat. If activities may result in adverse effects, this process may also include requirements to modify the activity or apply mitigation in order to minimize effects to MHI IFKW critical habitat. However, some of the activities identified may be readily addressed through this consultation because the cumulative duration of temporary changes to the habitat would be unlikely to alter the overall conservation value of that habitat for MHI IFKWs.

**Uniqueness of DOD Activities at the Site:** The Navy stated that this area is crucial to retaining the ability to train submarine crews year round in the unique bathymetry of the Four-Island Region. This area provides unique environmental characteristics that allow for training in waters that are shallow and navigationally constrained. This network of shallow water inter-island channels is unique within the Eastern/Mid Pacific training range complexes, and it provides an unmatched opportunity to train on searching for submarines in shallow water and avoiding active sonar searches. This is the only training minefield optimized for submarines in Hawaii and it is required to support several certifications necessary to achieve military preparedness.

**Conservation Benefits:** Benefits to the conservation of MHI IFKWs depend on whether designation of critical habitat at a site leads to additional conservation of the species above what is already provided by being listed in the first place. The potential for additional conservation at the site is a function of MHI IKFW use of the area, the level of protection already provided by management, and the likelihood of non-DOD actions subject to critical habitat.

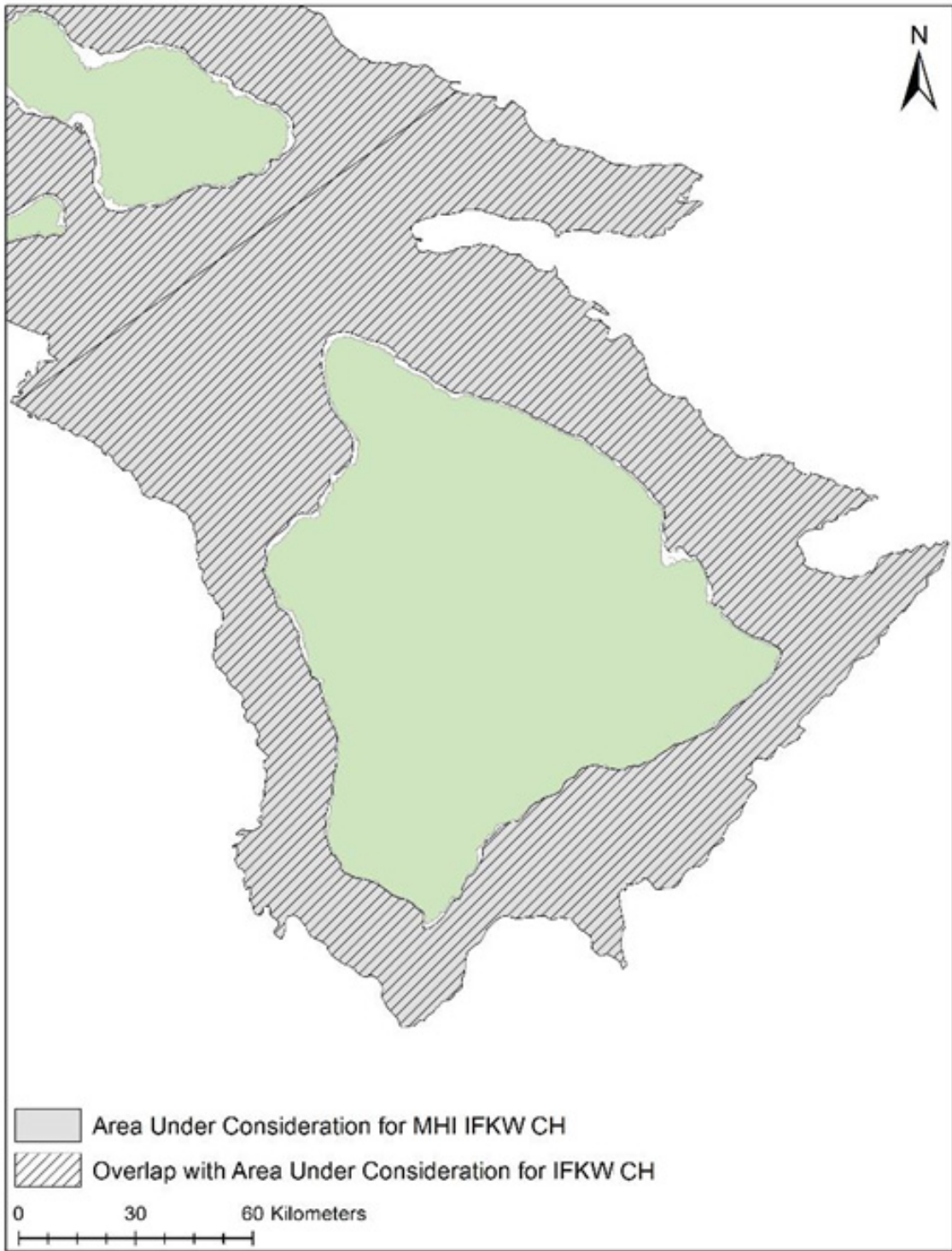
**MHI IKFW Use of the Area:** Density analysis of satellite-tracking information indicates that this area of the range supports both high-use and low-use areas for MHI IFKWs. High-use areas likely indicate areas of higher conservation value where greater foraging and/or reproductive opportunities exist. High use areas within this region include waters extending from north of Maui to northwest of Molokai and extending west towards Oahu and south into the channel between Molokai and Oahu; additionally, small areas are found to the west and southwest of Lanai.

**Level of Protection Already Provided by Management:** Chapter 3 of the Economic report provides information about baseline protections that support the conservation of MHI IFKWs (Cardno 2017); these include provisions under the ESA and MMPA that protect this DPS from activities that may adversely affect the health of the population. As noted above, the Navy undergoes section 7 consultations (under the ESA) to ensure that their activities are not likely to jeopardize MHI IFKWs, as well as MMPA review and authorization for activities that may result in “take” of marine mammals. These reviews take into consideration how activities as a whole may affect MHI IFKWs, among other species, and address concerns associated with how these animals may be affected by activities that create noise and/or pollution in the marine environment. In addition, the Navy has indicated that they are proposing mitigation measures designed to provide additional protections for MHI IFKW (among other species) in their Hawaii-Southern California Environmental Impact Statement/Overseas Environmental Impact Statement (DoN 2017b). These include measures that prohibit surface ship hull-mounted mid-frequency active sonar from November 15 through April 15 in a large portion of the 4-island area. More detail on these proposed measures may be found at the following website: [www.hstteis.com](http://www.hstteis.com)

Additional protections for MHI IFKW essential features may be achieved by other regulatory efforts that are aimed at protecting Hawaii’s marine resources and environment and may provide ancillary protections for MHI IFKW essential features. Most of these protections include broad regulations or restrictions associated with ensuring water quality and sustainable fish resources (e.g., the Clean Water Act and the Magnuson-Stevens Fishery Conservation and Management Act) (see Cardno 2017).

**Likelihood of Non-DOD Actions Subject to Critical Habitat:** It is possible that non-DOD federal actions will be proposed within this site that could affect the essential features, but that would no longer be subject to the critical habitat provision if the particular area were excluded from the designation.

**Recommendation:** We recommend that this area not be excluded from the critical habitat designation because the benefits of exclusion do not appear to outweigh the benefits of designation. While we give great deference to the Navy’s judgment regarding the importance of military activities in the identified area, this area also has significant conservation value. The extent of the area requested encompasses a large area (approximately 27 percent of the area under consideration for designation) that includes several areas that are high-use for MHI IFKWs. Other federal actions may take place in these surrounding areas. Therefore, other federal activities subject to ESA section 7 may occur in these waters that may impact essential features of critical habitat. Although the DOD consultation process and potential activities may change as a result of designating this area, understanding the impacts that these activities may have on MHI IFKW essential features is important to support the conservation of this DPS.



**Figure 10. Hawaii Island request for exclusion.**

## Hawaii

The Navy highlighted the waters surrounding the Island of Hawaii as important to Navy training. No boundary was provided for this highlighted area; however, the Navy included a map depicting all waters surrounding this Island that overlap with the areas under consideration for designation (DoN 2017a). For purposes of determining the approximate size of this area we have drawn a boundary that crosses through the channel between Maui and Hawaii. The area shown in [Figure 10](#) overlaps with approximately 16,931 km<sup>2</sup> (~6,535 mi<sup>2</sup>) or approximately 30 percent of the area under consideration for designation.

**National Security Impacts:** National security impacts depend on the effects of DOD activities on the site's essential feature, and subsequent additional section 7 consultation requirements resulting from critical habitat (i.e., above and beyond what would already be required by the fact that MHI IFKWs are listed as endangered under the ESA). Training in the Alenuihaha Channel, as well as the waters west of Hawaii Island, allows for the integration of carrier strike group operations during simulated strait transits and amphibious landings. Active sonar is used to support strike maneuver and protect high value units (e.g., aircraft carriers) as aircraft go to strike at Pohakaloa Training Area (PTA) live fire range ashore, and most often occurs during RIMPAC. The Alenuihaha Channel allows sea, air, and land-based units to work in conjunction with one another in controlled airspace in close proximity to the PTA. The area around Hawaii Island is used by surface ships with anti-submarine warfare capability to train to clear the sea space for any submarine threat before Marines go ashore at Kawaihae Harbor or during amphibious movements into the PTA. The Alenuihaha Channel is one of the best locations for integrated air to ground marine operations. The approaches to the beaches are near large open water areas for strike group maneuvering and submarine activities, and are under controlled airspace and military warning areas, so multiple aircraft can be safely de-conflicted from civilian air traffic. Other waters around Hawaii are occasionally used for unit level training.

Additionally, testing events may occur around Hawaii. Specifically, Intelligence, Surveillance and Reconnaissance (ISR) testing involving active sonar is used in waters west of Hawaii (off Kona) (DoN 2017a).

**The Type and Frequency of Additional Consultation:** As noted under the exclusion request for the entire area, Navy training and testing activities are covered under biological opinions through 2018. The Navy is currently working towards describing training and testing activities intended after 2018 and will initiate consultation to ensure that these activities meet obligations under the ESA and MMPA. Designation of critical habitat throughout these areas will require that the Navy consider how these activities may impact the essential features of critical habitat within this consultation.

**Potential Delays and Requirements Resulting from the Additional Consultation:** As noted under the exclusion request for the entire area, the Navy is currently working towards describing activities intended after 2018 in another programmatic environmental

impact statement and will initiate consultation to ensure that these activities meet obligations under the ESA and MMPA. Designation of critical habitat throughout these areas will require that the Navy consider how these activities may impact the essential features of critical habitat within these documents and within this upcoming consultation. In particular, activities that may introduce noise that exceed thresholds that inhibit MHI IFKW's communication or foraging or result in abandonment of areas for long periods may result in additional analyses under this formal consultation to ensure that these activities are not likely to result in adverse modification or destruction of critical habitat. If activities may result in adverse effects, this process may also include requirements to modify the activity or apply mitigation in order to minimize effects to MHI IFKW critical habitat. However, some of the activities identified may be readily addressed through this consultation because the cumulative duration of temporary changes to the habitat would be unlikely to alter the overall conservation value of that habitat for MHI IFKWs

**Uniqueness of DOD Activities at the Site:** The Alenuihaha Channel as well as the waters west of Hawaii Island provide a unique training capability that does not exist elsewhere in the Hawaii Range Complex. Hawaii Island is unique in that it is the only capable air to ground range able to support carrier strike group activities near a channel. These areas provide a unique and irreplaceable capability within the Hawaii Range Complex that allows naval forces to conduct realistic, integrated training in an environment that replicates the actual areas where they will be called to serve (DoN 2017a).

Limiting or restricting mid-frequency active sonar training in the Alenuihaha Channel would force the relocation of portions of Undersea Warfare training, Independent Deployer Certification training, Rim of the Pacific, and unit level training exercises to other channels in the Hawaiian OPAREAs farther from the Pohakuloa Training Area. Segmenting these training events over time and space could result in an unacceptable loss of realism, could result in increased safety risks, and erode readiness. The ability of a strike group to defend itself from submarine attack while transiting a strait (i.e., restricted waters) is critical to its survival in forward operating areas. Without this critical skills training, military personnel will not be adequately trained for deployment in support of National Command Authority and Combatant Commander tasking (DoN 2017a).

**Conservation Benefits:**

Benefits to the conservation of MHI IFKWs depend on whether designation of critical habitat at a site leads to additional conservation of the species above what is already provided by being listed in the first place. The potential for additional conservation at the site is a function of MHI IKFW use of the area, the level of protection already provided by management, and the likelihood of non-DOD actions subject to critical habitat.

**MHI IKFW Use of the Area:** Density analysis of satellite-tracking information indicates that this area of the range supports both high-use and low-use areas for MHI IFKWs. High-use areas likely indicate areas of higher conservation value where greater foraging and/or reproductive opportunities exist. These high-use areas are found off the west coast

and around the northwest tip of the Island. As noted at the beginning of this section, satellite-tracking information does not offer a full understanding of spatial habitat use, because it is limited in certain months of the year and data from social clusters 3 and 2 are limited. Tracking data from Cluster 3 individuals indicate that the northwest tip of the Island may be important to this cluster. Although largely underrepresented in tracking-data, observational data indicate that Cluster 2 animals are more commonly found off the Island of Hawaii.

**Level of Protection Already Provided by Management:** Chapter 3 of the Economic report provides information about baseline protections that support the conservation of MHI IFKWs (Cardno 2017); these include provisions under the ESA and MMPA that protect this DPS from activities that may adversely affect the health of the population. As noted above, the Navy undergoes section 7 consultations (under the ESA) to ensure that its activities are not likely to jeopardize MHI IFKWs, as well as MMPA review and authorization for activities that may result in “take” of marine mammals. These reviews take into consideration how activities as a whole may affect MHI IFKWs, among other species, and address concerns associated with how these animals may be affected by activities that create noise and/or pollution in the marine environment. In addition, the Navy has indicated that they are proposing mitigation measures designed to provide additional protection for MHI IFKW (among other species) in their Hawaii-Southern California Environmental Impact Statement/Overseas Environmental Impact Statement (DoN 2017b). These include measures that limit the number of major training exercises using surface ship hull-mounted mid-frequency active sonar and prohibit in-water explosives during unit-level training and major training exercises off the west coast of Hawaii, as well as measures that prohibit the use of all surface ship hull-mounted mid-frequency active sonar and all in-water explosives off the east coast of Hawaii. More detail on these proposed protections may be found at the following website: [www.hstteis.com](http://www.hstteis.com)

Additional protections for MHI IFKW essential features may be achieved by other regulatory efforts that are aimed at protecting Hawaii’s marine resources and environment and may provide ancillary protections for MHI IFKW essential features. Most of these protections include broad regulations or restrictions associated with ensuring water quality and sustainable fish resources (e.g., the Clean Water Act and the Magnuson-Stevens Fishery Conservation and Management Act) (see Cardno 2017).

**Likelihood of Non-DOD Actions Subject to Critical Habitat:** It is possible that non-DOD federal actions will be proposed within this site that could affect the essential features, but that would no longer be subject to the critical habitat provision if the particular area were excluded from the designation.

**Recommendation:** We recommend that this area not be excluded from the critical habitat designation because the benefits of exclusion do not appear to outweigh the benefits of designation. While we give great deference to the Navy’s judgment regarding the importance of military activities in the identified area, this area also has significant

conservation value. The extent of the area requested encompasses a large area (approximately 30 percent of the area under consideration for designation) that includes a high-use area for MHI IFKWs and is recognized as important to Cluster 2 animals, which are underrepresented in tracking information. The DOD does not control the marine waters surrounding Hawaii Island, and other federal actions take place in these surrounding areas. Therefore, other federal activities subject to ESA section 7 may occur in these waters that may impact essential features of critical habitat. Although the DOD consultation process and potential activities may change as a result of designating this area, understanding the impacts that these activities may have on MHI IFKW essential features is important to support the conservation of this DPS.

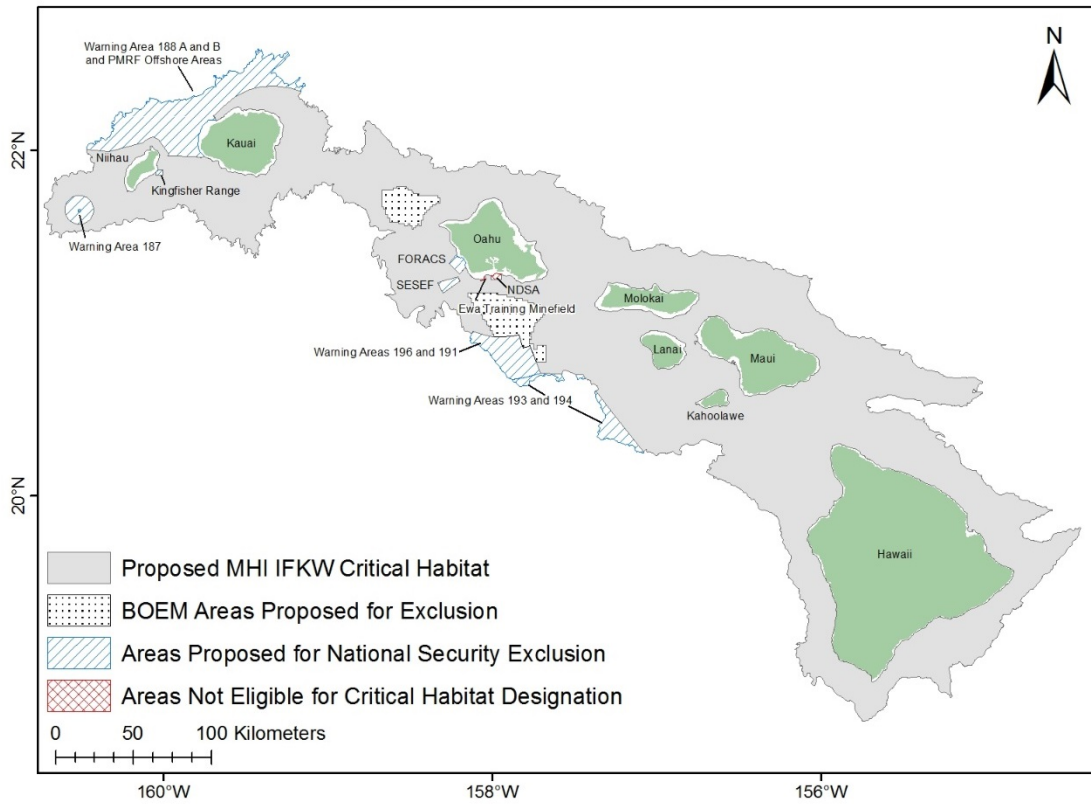
**Total Impact of national security exclusions:** in Table 2 - Table 6, we considered the individual impacts vs. benefits of excluding each of the 15 national security sites identified by the DOD and Coast Guard. We also considered the aggregate impact of our proposed exclusion of 10 of 15 requested national security sites. From approximately 56,821 km<sup>2</sup> of the area under consideration, we are recommending approximately 5,159 km<sup>2</sup> from designation because the benefits of excluding these areas outweigh the benefits of designation. The total area considered for exclusion represents approximately 9% of the total area considered for designation, and consists mostly of areas of low IFKW use. Considering the small size of the total area excluded relative to the area proposed for designation, its low use, and other safeguards that are in place (including protections already afforded MHI IFKWs under its listing and other regulatory mechanism), we conclude that exclusion of this total area will not result in the extinction of the species.

#### *Consideration of Exclusion for Other Relevant Impacts*

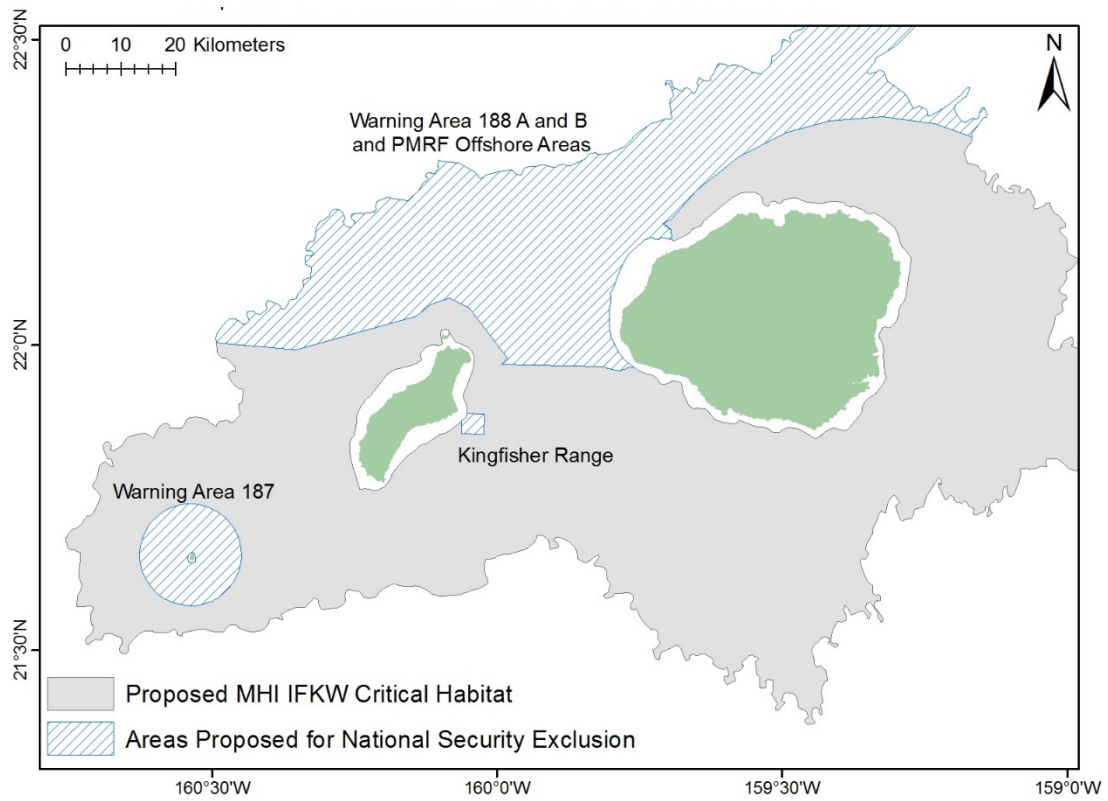
Section 4(b)(2) of the Act also allows for the consideration of other relevant impacts associated with the designation of critical habitat. We did not identify other relevant impacts that would require exclusion consideration for this proposed designation, and we will solicit additional information through the proposed rule public comment process.



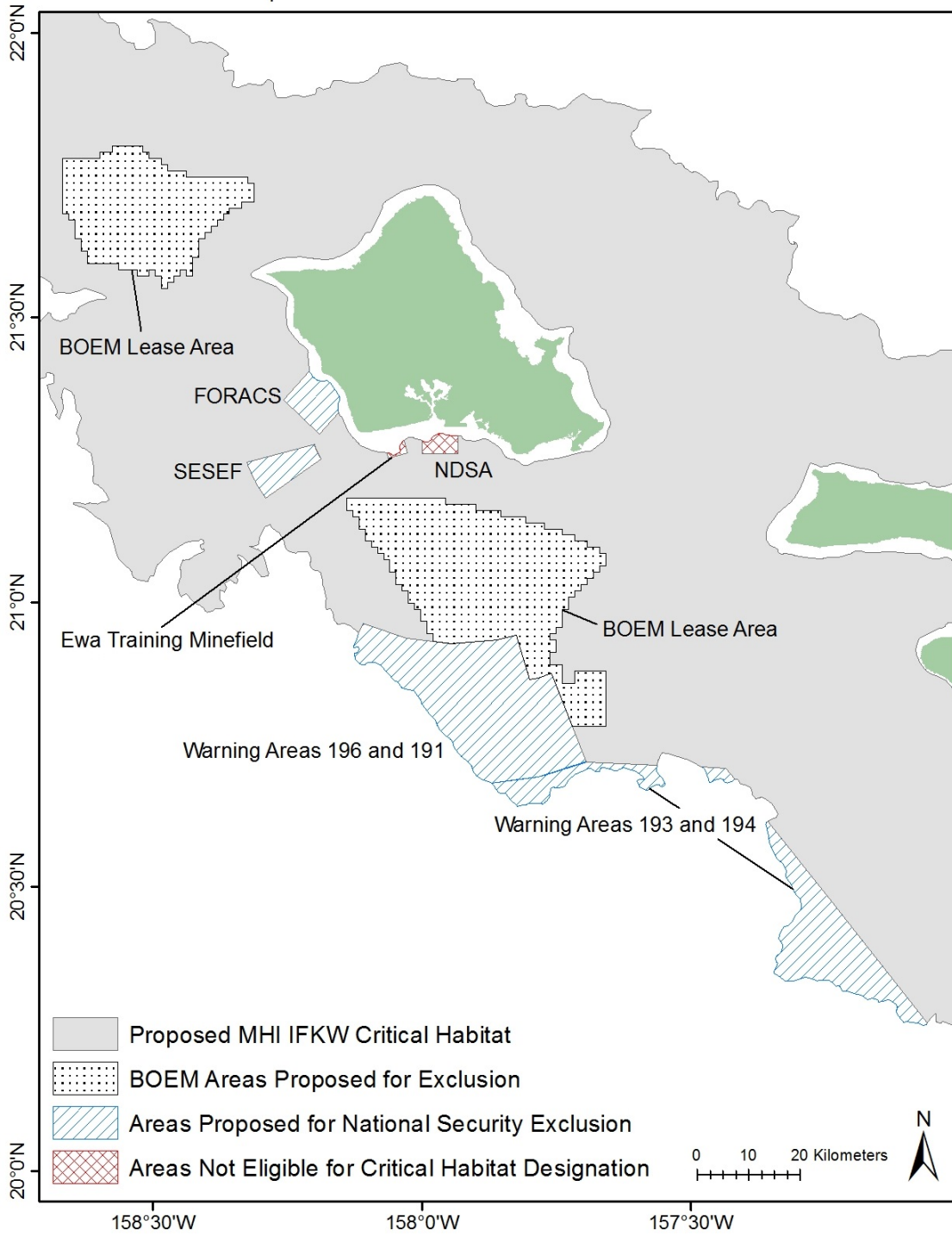
*Proposed Designation Maps*



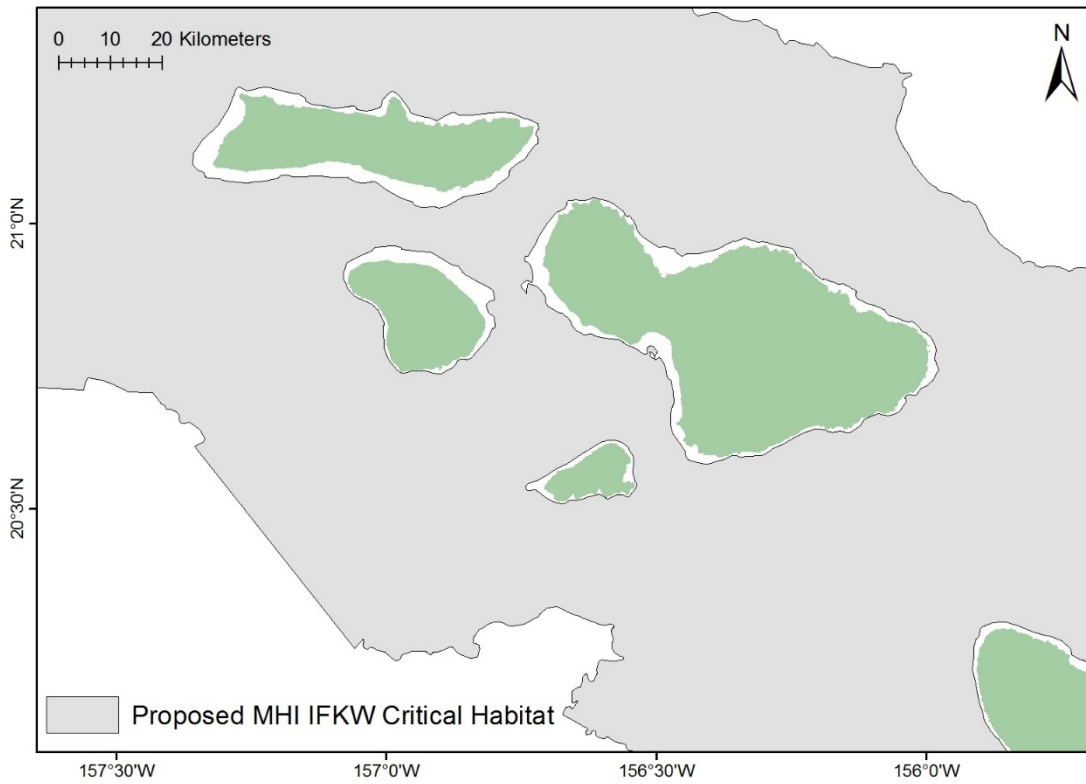
**Figure 11. Area proposed for MHI IFKW critical habitat.**



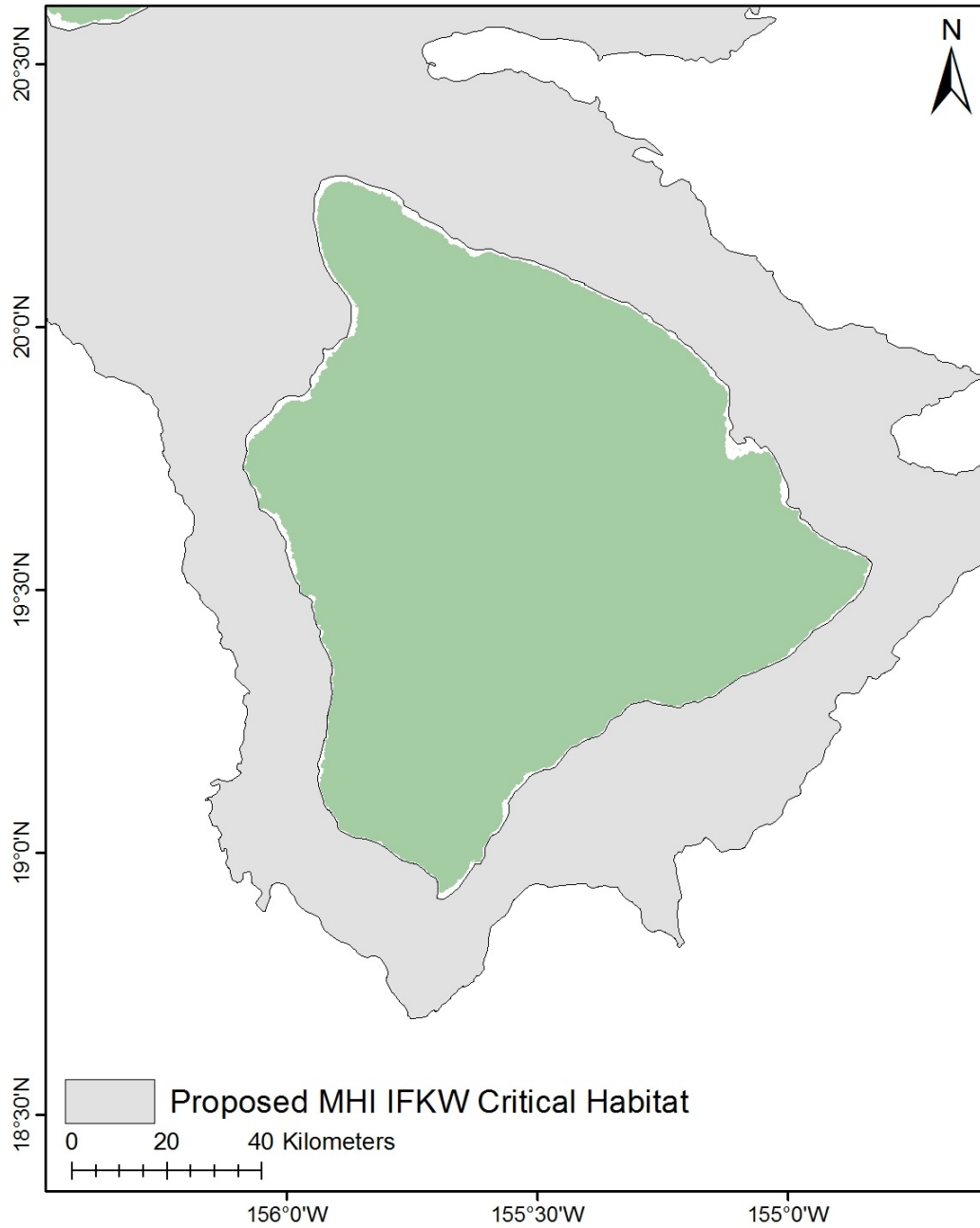
**Figure 12. Areas proposed for MHI IFKW critical habitat near Niihau and Kauai.**



**Figure 13. Areas proposed for MHI IFKW critical habitat near Oahu.**



**Figure 14. Areas proposed for MHI IFKW critical habitat around the four islands of Molokai, Lanai, Kahoolawe, and Maui.**



**Figure 15. Areas proposed for MHI IFKW critical habitat near Hawaii.**

## References

- Baird, R. W. (2017). Phone call with Jean Higgins to discuss the potential expansion of any high-use areas surrounding the main Hawaiian Islands. NMFS, Pacific Islands Regional Office.
- Baird, R. W. (2017). Email re: Review of IFKW Mapping of CRC's data and notification of Cluster 4. E. S. B. Jean Higgins. NMFS, Pacific Islands Regional Office.
- Baird, R. W., M. Hanson, et al. (2012). Range and primary habitats of Hawaiian insular false killer whales: informing determination of critical habitat, DTIC Document.
- Bradford, A. L., E. M. Oleson, et al. (2015). "Revised stock boundaries for false killer whales (*Pseudorca crassidens*) in Hawaiian waters." NOAA Tech. Memo. NMFS-PIFSC-47.
- Budget, O. o. M. a. (2017). "Circular A-4 TO THE HEADS OF EXECUTIVE AGENCIES AND ESTABLISHMENTS. Subject: Regulatory Analysis." Retrieved June 2017, 2017, from [https://obamawhitehouse.archives.gov/omb/circulars\\_a004\\_a-4/](https://obamawhitehouse.archives.gov/omb/circulars_a004_a-4/).
- Cardno (2017). Draft Economic Report MHI Insular False Killer Whale Critical Habitat Designation. Cardno 737 Bishop St, Suite 3050 Honolulu, HI.
- Carretta, J. V., K. Forney, et al. (2016). U.S. Pacific Marine Mammal Stock Assessments: 2016 N. O. A. A. U.S. Department of Commerce, National Marine Fisheries Service. Southwest Fisheries Science Center.
- Carretta, J. V., E. Oleson, et al. (2013). U.S. Pacific Marine Mammal Stock Assessments: 2012. N. O. A. A. U.S. Department of Commerce, National Marine Fisheries Service Southwest Fisheries Science Center.
- Commerce, D. o. (2017). "UNDER SECRETARY OF COMMERCE FOR OCEANS AND ATMOSPHERE AND ADMINISTRATOR OF THE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION Number DOO 10-15." Retrieved June 2017, 2017, from [http://www.osec.doc.gov/opog/dmp/doos/doo10\\_15.html](http://www.osec.doc.gov/opog/dmp/doos/doo10_15.html).
- Department of Air Force, U. S. (2017). Letter Re: Response to request for information for main Hawaiian Islands Insular False Killer Whale Critical Habitat. N. P. R. D. A. R. A. Ann Garrett. Eglin AFB, FL, Department of the Air Force.
- DoN, U. S. (2017a). Letter to NMFS re: Areas Under Consideration for Main Hawaiian Islands Insular False Killer Whale Critical Habitat. N. P. R. D. A. R. A. Ann Garrett. Pearl Harbor, Hawaii, Department of the Navy.
- DoN, U. S. (2017b). Comments received through OMB review of the proposed rule to designate Main Hawaiian Islands Insular False Killer Whale Critical Habitat.
- DoN (2008). "Hawaii Range Complex Final Environmental Impact Statement/Overseas Environmental Impact Statement (EIS/OEIS)."
- DoN (2013). "Hawaii and Southern California Training and Testing Final Environmental Impact Statement/Overseas Environmental Impact Statement (EIS/OEIS)."
- NMFS. (2017). "Main Hawaiian Islands Insular False Killer Whale Recovery Planning Workshop." Retrieved June 2017, 2017, from [http://www.fpir.noaa.gov/Library/PRD/False%20Killer%20Whale/IFKW\\_Recovery\\_Planning\\_Workshop\\_Summary.pdf](http://www.fpir.noaa.gov/Library/PRD/False%20Killer%20Whale/IFKW_Recovery_Planning_Workshop_Summary.pdf).
- NMFS (2017). Proposed Designation of Critical Habitat the for the Endangered Main

Hawaiian Islands Insular False Killer Whale Distinct Population Segment Draft  
Biological Report NMFS Pacific Islands Regional Office.  
Oleson, E. M., C. H. Boggs, et al. (2010). Status review of Hawaiian insular false killer  
whales (*Pseudorca crassidens*) under the Endangered Species Act.