

Designation of Critical Habitat for the Leatherback Sea Turtle

Endangered Species Act Section 4(b)(2) Report

December 2009

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This report contains NOAA’s National Marine Fisheries Service (NMFS), Leatherback Critical Habitat Review Team (CHRT) recommendations for the designation of critical habitat under section 4 of the Endangered Species Act (ESA) for the leatherback sea turtle, which was listed under the ESA on June 2, 1970 (35 FR 8491). It describes the methods used, process followed, and conclusions reached for each step leading to the proposed critical habitat designation. In this document the use of “we” and “our” refers to the CHRT.

I. Background

The leatherback sea turtle was listed as endangered throughout its range on June 2, 1970 (35 FR 8491). Pursuant to a joint agreement, the U.S. Fish and Wildlife Service (USFWS) has jurisdiction over sea turtles on the land and NOAA’s National Marine Fisheries Service (NMFS), has jurisdiction over sea turtles in the marine environment. The USFWS initially designated critical habitat for leatherbacks on September 26, 1978 (43 FR 43688). The critical habitat area consists of a strip of land 0.2 miles wide (from mean high tide inland) at Sandy Point Beach on the western end of the island of St. Croix in the U.S. Virgin Islands. On March 23, 1979, NMFS designated the marine waters adjacent to Sandy Point Beach as critical habitat from the hundred fathom curve shoreward to the level of mean high tide (44 FR 17710).

On October 2, 2007, NMFS received a petition from the Center for Biological Diversity, Oceana, and Turtle Island Restoration Network (“Petitioners”) to revise the leatherback critical habitat designation. The Petitioners sought to revise the designation to include the area currently managed under the authority of the Magnuson-Stevens Fishery Conservation and Management Reauthorization Act to reduce leatherback interactions in the California/Oregon drift gillnet fishery targeting swordfish and thresher sharks. On December 28, 2007, NMFS announced a 90-day finding that the petition provided substantial scientific information indicating that the petitioned action may be warranted (72 FR 73745), then convened a critical habitat review team (CHRT) consisting of biologists from NMFS Headquarters, the Southwest and Northwest Regional Offices, and the Southwest and Northwest Fisheries Science Centers, to assist in the assessment and evaluation of potential critical habitat areas along the U.S. West Coast.

When initially evaluating the petition, we reviewed a variety of data sources to identify specific areas within and adjacent to the petitioned area that might warrant consideration as critical habitat. Due to the movements of leatherback sea turtles within the EEZ, it was found that areas adjacent to the petitioned area should also be considered. Additionally, the petitioned area included waters outside the U.S. EEZ, however joint NMFS and FWS regulations provide that areas outside of U.S. jurisdiction can not be designated as critical habitat (50 CR 424.12(h)). Therefore the portion of the petitioned area that fell outside the U.S. EEZ was excluded from our analysis. Although petitioned to designate an area that encompassed roughly 200,000 square miles (321,870 square km) of marine habitat, we evaluated approximately 292,600 square miles (757,833 square km) of Pacific waters within the U.S. EEZ. Susequent sections of this report will provide further information on the areas evaluated and the analysis that was done.

II. Alternatives Considered

We, the CHRT, considered various alternatives to the critical habitat designation for the leatherback sea turtle. The alternative of not designating critical habitat for leatherbacks would impose no economic, national security, or other relevant impacts, but would not provide any conservation benefit to the species. This alternative was considered and rejected because such an approach does not meet the legal requirements of the ESA and would not provide for the conservation of the species.

The alternative of designating all potential critical habitat areas (*i.e.*, no areas excluded) also was considered and rejected because, for a number of areas, the economic benefits of exclusion outweighed the benefits of inclusion, and we determined that exclusion of these areas would not significantly impede conservation or result in extinction of the species. The total estimated annualized economic impact associated with the designation of all potential critical habitat areas would be \$3.8 million to \$25.5 million (discounted at 7 percent) or \$3.5 million to \$25 million (discounted at 3 percent).

An alternative to designating critical habitat within all of the areas considered for designation is the designation of critical habitat within a subset of those areas. Under section 4(b)(2) of the ESA, we must consider the economic impacts, impacts to national security, and other relevant impacts of designating any particular area as critical habitat. NMFS has the discretion to exclude an area from designation as critical habitat if the benefits of exclusion (*i.e.*, the impacts that would be avoided if an area were excluded from the designation) outweigh the benefits of designation (*i.e.*, the conservation benefits if an area were designated), so long as exclusion of the area will not result in extinction of the species. Exclusion under section 4(b)(2) of the ESA of one or more of the particular areas considered for designation would reduce the total impacts of designation. The determination of which particular areas and how many to exclude depends on the ESA section 4(b)(2) analysis, which was conducted for each area and described in detail in this report.

Under the preferred alternative, we propose to exclude 5 out of 8 areas considered. The total estimated economic impact associated with this proposed rule is \$3.1 million to \$20.4 million (discounted at 7 percent) or \$2.8 million to \$20 million (discounted at 3 percent). We believe that the exclusion of these areas would not significantly impede conservation or result in the extinction of the leatherback sea turtle. We selected this alternative because it would result in a critical habitat designation that provides for the conservation of the species while reducing the economic impacts on entities. This alternative also meets ESA and joint NMFS and USFWS regulations concerning critical habitat.

III. 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) of the ESA (16 U.S.C. 1532 (5)) defines critical habitat in some detail.

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

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

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

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

(C) Except in those circumstances determined by the Secretary, critical habitat shall not include the entire geographical area which can be occupied by the threatened or endangered species.

“Conservation” is specifically defined

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

(3) The terms "conserve," "conserving," and "conservation" mean to use and the use of all methods and procedures which are necessary to bring any endangered species or threatened species to the point at which the measures provided pursuant to this chapter are no longer necessary.

Certain military lands are precluded from designation

In 2003 Congress amended section 4(a)(3)(B)(i) of the ESA to limit the designation of land controlled by the Department of Defense (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.

Specific information required for making designations

Section 4(a)(3) requires NMFS to make critical habitat designations concurrently with the listing determination, to the maximum extent prudent and determinable:

(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.

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 ensure their actions are not likely to destroy or adversely modify critical habitat

Once critical habitat is designated, section 7(a)(2) provides that federal agencies must ensure 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 ensure such actions do not jeopardize the continued existence of the listed species:

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

Authority to designate critical habitat is delegated to NMFS

The authority to designate critical habitat, including the authority to consider the impacts of designation, the authority to weigh those impacts against the benefit of designation, and the authority to exclude particular areas, has been delegated to the Assistant Administrator of the National Marine Fisheries Service (Department Organization Order 10-15 (5/24/04). NOAA Organization Handbook, Transmittal #34, May 31, 1993).

Joint regulations govern designation

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

50 CFR Sec. 424.12 Criteria for designating critical habitat.

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

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

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

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

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

The regulations confine designation to areas within United States jurisdiction:

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

The regulations define “special management considerations or protection.”

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

Approach to designation

Based on this statutory and regulatory direction, the leatherback critical habitat review team (CHRT) approach to designation included the following steps:

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

IV. Identify Specific Areas Eligible for Critical Habitat Designation

Identify areas meeting the definition of critical habitat

Although the petition to revise the leatherbacks critical habitat designation requested the designation of the area currently managed under the authority of the Magnuson-Stevens Fishery Conservation and Management Reauthorization Act to reduce leatherback interactions in the California/Oregon drift gillnet fishery targeting swordfish and thresher shark, we evaluated all waters within the U.S. Exclusive Economic Zone (EEZ) associated with California, Oregon and Washington for their eligibility of designation as critical habitat. Areas that meet the 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, 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.

Geographical Area Occupied by the Species

Leatherbacks have the most extensive range of any living reptile and have been reported circumglobally throughout the oceans of the world (Marquez 1990, NMFS and USFWS 1998). Leatherbacks can forage in the cold temperate regions of the oceans, occurring at latitudes as far north as 71°N and 47°S, however, nesting is confined to tropical and subtropical latitudes. In the Pacific Ocean, significant nesting aggregations occur primarily in Mexico and Costa Rica, Indonesia, the Solomon Islands, and Papua New Guinea. In the Atlantic Ocean, significant leatherback nesting aggregations have been documented on the west coast of Africa, from Guinea-Bissau south to Angola, with dense aggregations in Gabon. In the wider Caribbean Sea, leatherback nesting is broadly distributed across 36 countries or territories with major nesting colonies (>1000 females nesting annually) in Trinidad, French Guiana and Suriname (Dow *et al.* 2007). In the Indian Ocean, nesting aggregations are reported in South Africa, India and Sri Lanka. Leatherbacks have not been reported to nest in the Mediterranean Sea. Leatherbacks migrate through and forage in the North Pacific and are present in waters off the coast of Canada, and the US coast (Alaska, Washington, Oregon and California).

Physical or Biological Features Essential to Conservation

We determined the physical or biological habitat features essential to the conservation of leatherbacks based on their biology and life history, focusing on “primary constituent elements” as directed by our regulations. We considered the biology and life history of the leatherback sea turtle, and regulatory direction gleaned from the ESA and the joint USFWS/NMFS regulations, to identify the physical or biological features essential to the species conservation. Leatherbacks do not nest along the U.S. West Coast so we did not consider terrestrial habitat. We also recognized that leatherbacks make long, trans-Pacific migrations and physical or biological habitat features essential for conservation could be present in any portion their migration route. Finally, we acknowledged that leatherbacks may pursue prey as far as the extent of mean lower low water (MLLW). Thus, based on best available scientific information and the regulatory direction to designate critical habitat only within U.S. jurisdiction, we identified PCEs for marine waters within the Economic Exclusive Zone (EEZ) shoreward to the mean lower low water mark.

In light of this information and regulatory direction, we identified two PCEs of the biological feature prey, essential for the conservation of leatherbacks in marine waters of the U.S. West Coast:

1. Occurrence of prey species, primarily Scyphomedusae of the order Semaestomeae (Chrysaora, Aurelia, Phacellophora, and Cyanea) of sufficient condition, distribution, diversity, and abundance to support individual as well as population growth, reproduction, and development
2. Migratory pathway conditions to allow for safe and timely passage and access to/from/within high use foraging areas

We considered a third PCE, water quality to support normal growth, development, viability, and health. This PCE would encompass bioaccumulation of contaminants and pollutants in prey and subsequent accumulation in leatherbacks as well as direct ingestion and contact with contaminants and pollutants. We eliminated this option because knowledge on how water quality affects scyphomedusae was lacking, and, where data were available, we believed prey condition, distribution, diversity, and abundance would encompass water quality considerations regarding bioaccumulation. Because the PCE regarding prey encompassed water quality, the economic analysis evaluated the economic impacts to activities that contribute pollutants or contaminants to the waters. We also felt that direct ingestion and contact with contaminants and pollutants would be encompassed in a direct effects analysis for the listed species.

“Specific Areas” within the Occupied Geographical Area

We identified specific areas within the geographical area occupied by the species by examining whether each specific area is presently occupied by leatherbacks and contains at least one PCE that may require special management considerations or protection. To satisfy the first criterion, we determined for each specific area whether data confirmed that leatherbacks were present. Data reviewed included: turtle distribution data from nearshore aerial surveys (Benson et al. 2007b, unpublished data); offshore ship sightings and fishery bycatch records (NMFS SWR Observer Program unpublished data, Starbird et al. 1993, Bonnell and Ford 2001, Bowlby 1994); satellite telemetry (Benson et al. 2007a, 2007c, unpublished data). To satisfy the second criterion, we used additional data on distribution and abundance information on the preferred prey of leatherbacks, bathymetry, and regional oceanographic patterns along the U.S. West Coast (Parrish et al. 1983, Shenker 1984, Graham 1994, Suchman and Brodeur 2005).

We considered the area within the California Current, which is one of the most productive marine ecosystems in the world. Dominated by wind-driven upwelling, these cool, nutrient-rich waters support abundant year-round residents and attract far-ranging migratory species that forage here seasonally, including seabirds, whales, sharks, and pelagic fish. The distribution, abundance, and foraging success of top trophic level predators in marine systems are determined by large-scale oceanographic patterns and their effect on prey distribution and abundance. Variability in the physical features can be inter-annual and seasonal, and such perturbations bring changes in nutrient upwelling, primary productivity, and zooplankton biomass within coastal upwelling systems. We recognized that leatherback habitat utilization appears to vary seasonally and spatially. The boundaries chosen to define each specific area represent our best estimate of the areas where leatherbacks transition from foraging to migrating or where prey composition or abundance change.

Most leatherback sightings occur in marine waters within the neritic zone. The species may pursue prey as far as the extent of mean lower low water (S. Benson, NMFS, unpublished) so we considered this as the shoreward extent of distribution in those specific areas with documented nearshore distribution. Based on the best scientific and commercial information, we identified the following specific areas (see Biological Report for more details):

Area 1: Nearshore area from Point Arena to Point Sur California and offshore to the 200 meter isobath.

Leatherback presence is based on aerial surveys, shipboard sightings, and telemetry studies.

This area is a principal California foraging area (Benson *et al.* 2007b) with high densities of primary prey species, brown sea nettle (*C. fuscescens*), occurring here seasonally from April to November (Graham 1994).

Area 2: Nearshore area from Cape Flattery, Washington, to Umpqua River (Winchester Bay), Oregon and offshore to the 2000 meter isobath. Leatherback presence is based on aerial surveys, shipboard surveys, fishery interaction data, and telemetry studies. This area is the principal Oregon/Washington foraging area and includes important habitat associated with Heceta Bank, Oregon. The greatest densities of a primary prey species, brown sea nettle (*C. fuscescens*), occur north of Cape Blanco, Oregon and in shallow inner shelf waters (Suchman and Brodeur 2005).

Area 3: Nearshore area from Umpqua River (Winchester Bay), Oregon, to Point Arena, California, shoreward of the 2000 meter isobath. Leatherback presence is based on aerial survey data. This area includes major upwelling centers between Cape Blanco, Oregon and Cape Mendocino, California and is characterized by cold sea surface temperatures (<13° C), and great densities of the prey species—moon jellyfish (*A. labiata*). Although leatherback use is limited, this area could experience greater use during warm water episodes such as an El Niño event.

Area 4: Offshore area west and adjacent to Area 2 (see above). Includes waters west of the 2000 meter isobath from N47.651/W126.229 southwest to N43.750/W128.834. Leatherback presence is based on aerial surveys. This area is used primarily as a region of passage to/from areas 2 and 5 (see below) although prey species are present and it is also used as secondary foraging area.

Area 5: Offshore area south and adjacent to Area 4 and west and adjacent to the northern portion of Area 3 (see above). This area includes all waters in the U.S. EEZ deeper than the 2000 meter isobath south of Area 4 and north of a line consistent with the California/Oregon border. Leatherback presence is based on aerial surveys, telemetry studies, and fishery interaction data.

This area includes prey species within primary offshore foraging habitat and passage to areas 2 & 4 (see above).

Area 6: Offshore area south and adjacent to Area 5 and west and adjacent to the southern portion of Area 3 (see above) off shore to a line connecting N42.000/W129.000 and N38.95/W126.382. Leatherback presence is based on aerial surveys, telemetry studies, and fishery interactions. This area includes prey species within secondary foraging habitat west of Cape Mendocino and passage between Area 5 (see above) and Area 7 (see below).

Area 7: Nearshore area from Point Arena, California, to Point Vicente, California, exclusive of area 1 (see above) and offshore to a line connecting N38.955/W126.382 and N33.741/W121.893. This area includes waters surrounding the northern Santa Barbara Channel Islands (San Miguel, Santa Rosa, Santa Cruz, and Anacapa Islands). Leatherback presence is based on based on aerial surveys, telemetry studies, and fishery interactions. This area includes prey species within secondary foraging areas characterized by ocean frontal zones west of the continental shelf that are occupied by aggregations of moon jellyfish (*A. labiata*) and lower densities of brown sea nettles (*C. fuscescens*). The frontal zones are created by a series of quasi-permanent, retentive eddies or meanders, associated with offshore-flowing squirts and jets anchored at coastal promontories between Point Reyes and Point Sur, which create linkages between nearshore waters of area 1 and offshore waters of the California Current. Telemetry data indicate that this area is commonly utilized by leatherbacks, particularly when jellyfish availability in area 1 is poor. This area also provides passage to/from foraging habitat in areas 1, 5, and 6 (see above), often through the northern Santa Barbara Channel Islands during the spring and early summer months.

Area 8: Extreme offshore area west and adjacent to areas 6 and 7 from the California/Oregon border then south, including areas closer to the coast, along the U.S. EEZ to the U.S./Mexico border. This area includes waters surrounding the southern Santa Barbara Channel Islands (San Nicholas, Santa Barbara, Catalina, and San Clemente Islands). Leatherback presence is based on based on aerial surveys, telemetry studies, and fishery interactions. This area includes prey species within tertiary foraging habitat characterized by warm, low salinity offshore waters and passage to/from foraging habitat in areas 1, 5, 6, and 7 (see above).

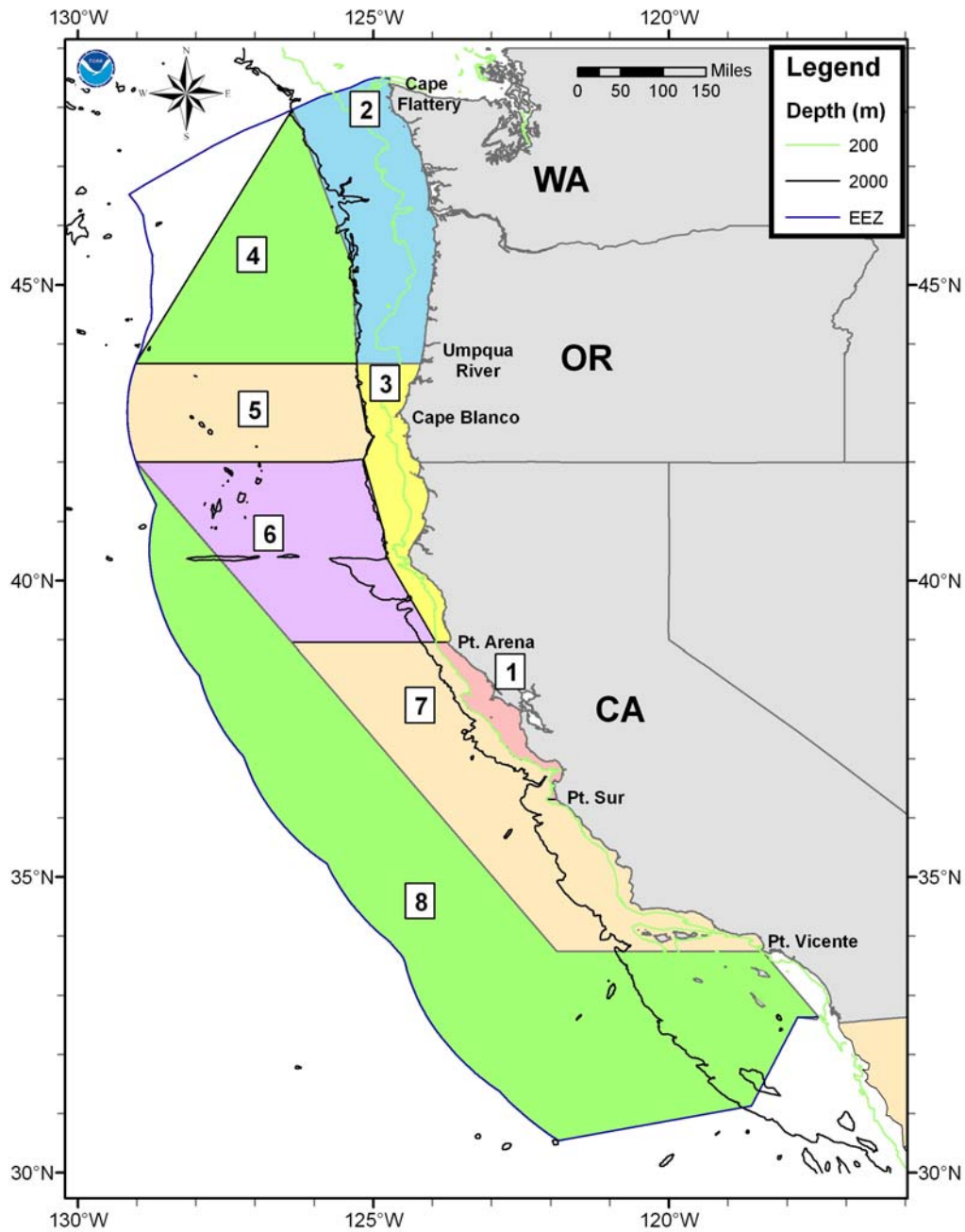


Figure 1: Specific areas assessed for designation as leatherback critical habitat

Special Management Considerations or Protection

An occupied area may be designated as critical habitat if it contains physical and biological features that “may require special management considerations or protection.” Joint NMFS and USFWS regulations

(50 CFR 424.02(j)) define “special management considerations or protection” to mean “any methods or procedures useful in protecting physical and biological features of the environment for the conservation of listed species.” In this analysis we identified a number of activities that may threaten the identified PCEs, as impacts to the PCEs also impact the physical and biological features. We grouped these activities into eight activity types: pollution from point sources (e.g. National Pollution Discharge Elimination System (NPDES)); runoff from agricultural pesticide use; oil spills; power plants; aquaculture; desalination plants; tidal energy or wave energy projects; and liquid natural gas (LNG) projects. All of these activities have the potential to affect the PCEs by altering prey abundance, prey contamination levels, and free passage between and within specific areas. Some of these activities may also have the potential to impact PCEs positively (e.g. infrastructure for aquaculture may provide substrate and habitat for the benthic polyp stages of medusae).

We also considered impacts to PCE’s from potential offshore wind energy projects and ocean acidification, however, in both cases we found a significant lack of information to support a complete analysis of potential impacts. There are currently no offshore wind energy projects off the U.S. west coast and data was limited regarding potential or proposed projects and their associated costs. When considering ocean acidification (and myriad contributing activities) and possible affects to the prey PCE, data indicated that the Class Scyphozoa, which includes *C. fuscescens* and *A. labiata*, has calcium sulfate hemihydrate statoliths, which may be affected by acidification. Winans and Purcell (in review) found no pH effect on production of new medusae (ephyrae); statoliths were not decreased in number, but were smaller in low pH. Iglesias-Rodriquez *et al.* (2008) found increases in biogenic calcification in phytoplankton with increased CO₂ using methods they argued were more realistic than those used in previous studies that showed decreased calcification with increasing PCO₂. Attrill *et al.* (2007) suggested that lower pH in parts of the North Sea opened an ecological niche leading to an increase in jellyfish abundance. Yet, Richardson and Gibbons (2008) repeated and expanded the work of Attrill *et al.* (2007) and found no correlation between ocean acidification and scyphomedusae abundance. Given equivocal or sparse data, we exclude ocean acidification and the contributing activities from our analysis.

We also considered impacts to PCE’s from commercial fishing activities, but ultimately determined that commercial fisheries would not impact PCE’s. When considering the prey PCE, we looked at potential fisheries that would target jellyfish, but no such fishery was anticipated, within the evaluated areas, in the foreseeable future. The bycatch of jellyfish in existing commercial fisheries was also considered, but it was determined that the level of bycatch was limited. When considering impacts to the passage PCE, the team considered whether fishing gear could be considered an impediment to the passage of leatherbacks to and from their foraging areas, and if the presence of that gear altered the habitat. It was determined that only permanent or long-term structures would be considered for their potential to affect habitat and the passage PCE. Additionally, the direct take of the species in fishing gear is more appropriately considered under the jeopardy standard in ESA section 7 consultations. Therefore fishing gear was not evaluated for its effects on the passage or prey PCEs, and commercial fishing activities were excluded from our analysis.

Unoccupied Areas

Section 3(5)(A)(ii) of the ESA authorizes the designation of “specific areas outside the geographical area occupied at the time [the species] is listed” if these areas are essential for the conservation of the species. Regulations at 50 CFR 424.12(e) emphasize that the agency “shall designate as critical habitat

areas outside the geographical area presently occupied by a species only when a designation limited to its present range would be inadequate to ensure the conservation of the species.” We, at the present time, has not identified additional specific areas outside the geographical area occupied by leatherbacks that may be essential for the conservation of the species.

Military areas ineligible for designation

Recent amendments to the ESA preclude the Secretary from designating military lands as critical habitat if those lands are subject to an Integrated Natural Resource Management Plan (INRMP) under the Sikes Act and the Secretary certifies in writing that the plan benefits the listed species (Section 4(a)(3), Public Law. No. 108-136). Currently, there are no INRMPs in the areas under consideration for designation as critical habitat.

V. 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 requires that before we designate any “particular areas,” we must consider the economic impacts, impacts on national security, and any other relevant impacts. The ESA does not define what “particular areas” means in the context of section 4(b)(2), or the relationship of particular areas to “specific areas” that meet the statute’s definition of critical habitat. As there was no biological basis to further subdivide the eight “specific areas” identified within the occupied geographical area into smaller units, we treated these areas as the “particular areas” for our initial consideration of impacts of designation. Once impacts are determined, we decide whether to consider exercising discretion to exclude any areas. If we consider exercising such discretion, we are to weigh the benefits of excluding any particular area (avoiding the economic, national security or other costs) against the benefits of designating it (the conservation benefits to the species). If we conclude that the benefits of exclusion in any particular area outweigh the benefits of designation, we have discretion to exclude areas, so long as exclusion will not result in extinction of the species. We determined to proceed with evaluating the benefits of designation.

Determine Coextensive Impacts vs. 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 ensure their actions are not likely to result in the destruction or adverse modification of critical habitat. Determining this impact is complicated by the fact that section 7(a)(2) contains the overlapping requirement that Federal agencies must also ensure their actions are not likely to jeopardize the species’ continued existence. The true impact of designation regarding section 7(a)(2) is the extent to which Federal agencies modify their actions to insure their actions are not likely to destroy or adversely modify the critical habitat of the species, beyond any modifications they would make because of the listing and the jeopardy requirement, or the incremental impact. Additional impacts of designation include state and local protections that may be triggered as a result of the designation and the benefits from educating the public about the importance of each area for species conservation. We discuss the benefits of designation in the “Benefits of Designation” section below.

To estimate the impacts of critical habitat designation, we predicted the incremental change in Federal agency actions as a result of critical habitat designation and the adverse modification prohibition,

beyond the changes predicted to occur as a result of listing and the jeopardy provision. In recent critical habitat designations for salmon and steelhead and for southern resident killer whales NMFS considered the “coextensive” impact of designation was considered in accordance with a Tenth Circuit Court decision (*New Mexico Cattle Growers Association v. U.S. Fish and Wildlife Service*, 248 F.3d 1277 (10th Cir. 2001)) (NMCA). The USFWS had determined there would be no economic impact from the designation because the impacts associated with jeopardy determinations and adverse modification determinations were coextensive. The Tenth Circuit found the USFWS’s approach rendered meaningless Congress’s requirement that economic impacts be considered in the designation process. The Court concluded that, to give “effect to Congressional directive,” the USFWS must analyze the full impacts of designation, regardless of whether those impacts are coextensive with other impacts (such as the impact of the jeopardy avoidance requirement). The “coextensive” impact of designation considers the predicted change in the Federal agency action resulting from the critical habitat designation and the adverse modification prohibition (whereby the action’s effect on the PCEs of the species’ habitat and value of the habitat is analyzed), even if the same change would result from application of the listing and the jeopardy provision (whereby the action’s effect on the species itself and individual members of the species is analyzed).

Shortly after the NMCA decision, however, the Court of Appeals for the Fifth Circuit (*Sierra Club v. U.S. Fish and Wildlife Service*, 243 F.3d 434 (5th Cir. 2001) (*Sierra Club*)) and the Court of Appeals for the Ninth Circuit (*Gifford Pinchot Task Force v. FWS*, 378 F. 3d 1059 (9th Cir. 2004) (*Gifford Pinchot*)) invalidated the regulatory definition of “adverse modification” of critical habitat. The Courts decisions did not address the regulatory definition of jeopardy. Shortly following these decisions, a District Court in Washington, D.C. issued a decision involving the USFWS’s critical habitat designation for the piping plover. *Cape Hatteras Access Preservation Alliance v. Norton*, 344 F. Supp. 2d 1080 (D.D.C. 2004) (*Cape Hatteras*). In that decision the Court reasoned that the impact of a regulation should be based on a comparison of the world with and without the action and cited guidance from the Office of Management and Budget in support of that proposition. The *Cape Hatteras* Court concluded that the problem with the USFWS’s analysis of economic impacts resulted from its treatment of “adverse modification” and “jeopardy” as being functionally equivalent. The Court ordered the USFWS “to clarify or modify its position [regarding functional equivalence] on remand,” implying that the *Gifford Pinchot* Court’s holding might have an effect on the agency’s historical treatment of the jeopardy and adverse modification requirements as providing “coextensive” protections.

Consistent with the *Cape Hatteras* decision (*Cape Hatteras Access Preservation Alliance v. Norton*, 344 F. Supp. 2d 1080 (D.D.C. 2004)), we estimated and analyzed the incremental impacts of designation, beyond the impacts that would result from baseline protections and the listing and jeopardy provision. We estimated incremental scores for each activity and area based on best available information. The incremental scores range from 0.3, for activities that occur in areas with a large amount of current protections (e.g. areas with Marine Sanctuaries or overlapping critical habitat with other listed species) to 0.5 for activities that occur in areas that have moderate protections (e.g. areas with listing and jeopardy protections and EPA regulations) (see economic report for more details).

A draft economic report (NMFS 2009b) 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 such changes. The draft biological report (NMFS 2009a) describes in detail we’s evaluation of the conservation value of each specific area by PCE and the final conservation value ratings.

Specific Area	PCE Condition & Frequency				Overall Conservation Rating
	1 = Preferred prey rare or absent and passage conditions to/from /within high use foraging areas needed infrequently or inconsistently 2 = Preferred prey present but not consistently abundant or not well distributed and passage conditions to/from/within high use foraging areas are needed more frequently and consistently 3 = Preferred prey consistently abundant and well distributed and passage conditions to/from/within high use foraging areas needed frequently and consistently				
	PREY	VALUE	PASSAGE	VALUE	TOTAL
Area 7	Yes	2	Yes	3	Medium
Area 8	Yes	1	Yes	3	Low

We recognize that the “benefit of designation” should ideally take into account the specific and unique benefits from section 7 consultations on critical habitat. We initially attempted to quantify this benefit based upon the threats to the PCEs in each area and the activities in each area. We attempted to determine the specific modifications (e.g. management measures) that were likely to be made to activities in each area and the likelihood that the activity would be modified due to the designation of critical habitat. This approach was based on the idea that the conservation benefit to the species from critical habitat designation would be added to the benefit already derived through section 7 consultations on jeopardy to the listed species. A similar approach was used in the critical habitat designation for southern resident killer whales to modify conservation value ratings and qualify the benefits of designation based primarily on anticipated changes to federal actions due to section 7 consultations. Ultimately we decided not to use this approach due to the difficulties in characterizing the likelihood that activities would be modified and the difficulty in determining what specific management practices might be changed to protect the PCEs (especially jellyfish). Nevertheless, the process improved our overall understanding of the relationships between activities, threats and PCEs, which helped inform our other decisions.

Although we could not quantify the likelihood of project modifications, we wanted to somehow recognize the potential benefits from section 7 consultations on critical habitat. It was agreed that these benefits would be recognized under the presumption that the greater the number of Federal activities in a given area, the greater the potential overall benefit from the management of those activities. Although non-quantifiable, this assumption will be used to better evaluate areas that are eligible for exclusion, in a later section of this analysis. As described above, at least one Federal activity type with the potential to affect one or more PCE’s has been identified in each of the 8 specific areas under consideration as critical habitat. In total, eight Federal activity types have been identified: National Pollution Discharge Elimination System (NPDES), runoff from agriculture pesticide application, oil spills/oil spill response, power plants, aquaculture, desalination plants, tidal energy or wave energy projects, and liquid natural gas projects. Table 2 provides information on the activity types that are present in each of our 8 specific areas.

Table 2: Activities present in each area

Area	NPDES	Agricultural Pesticides	Oil Spills	Power Plants	Desalination	Tidal/Wave Energy	LNG	Aquaculture
1	Yes	Yes	Yes	Yes	Yes	Yes	-	Yes

2	Yes	Yes	Yes	-	-	-	Yes	-
3	Yes	Yes	Yes	-	-	Yes	Yes	-
4	-	-	Yes	-	-	-	-	-
5	-	-	Yes	-	-	-	-	-
6	-	-	Yes	-	-	-	-	-
7	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
8	-	-	Yes	-	-	-	Yes	Yes

Economic benefits of exclusion

To determine the economic benefits of excluding particular areas from designation, we estimated the potential costs associated with the designation of each area. To do this we first accounted for the baseline level of protection afforded to leatherbacks based on existing federal and state regulations, including protections afforded to other listed species in these areas. When calculating the baseline cost estimates we relied heavily on information from the draft economic reports supporting critical habitat designations for the southern resident killer whale (Industrial Economics Incorporated, 2006), green sturgeon (Industrial Economics Incorporated, 2008) and the final economic report for salmon and steelhead (NMFS, 2005). Given the limited amount of direct information regarding the types of modifications we might seek through an adverse modification consultation on leatherback critical habitat, we relied on the best information available to guide our decision-making.

Consistent with the *Cape Hatteras* decision (*Cape Hatteras Access Preservation Alliance v. Norton*, 344 F. Supp. 2d 1080 (D.D.C. 2004)), we estimated and analyzed the incremental impacts of designation, beyond the impacts that would result from baseline protections and the listing and jeopardy provision. We estimated incremental scores by activity and area based on best available information. The incremental scores range from 0.3, for activities that occur in areas with a large amount of current protections (e.g. areas with Marine Sanctuaries or overlapping critical habitat with other listed species) to 0.5 for activities that occur in areas that have moderate protections (e.g. areas with listing and jeopardy protections and EPA regulations) (see economic report for more details).

Table 3: Incremental scores by activity and by area

Area	NPDES: Minor	NPDES: Major	Agricultural Pesticides	Oil Spills	Power Plants	Desalination	Tidal/Wave Energy	LNG	Aquaculture
1	0.5	0.5	0.5	0.3	0.3	0.3	0.5	-	-
2	0.3	0.3	0.3	0.3	-	-	-	0.5	-
3	0.5	0.5	0.5	0.3	-	-	0.5	0.5	-
4	-	-	-	0.5	-	-	-	-	-
5	-	-	-	0.5	-	-	-	-	-
6	-	-	-	0.5	-	-	-	-	-
7	0.5	0.5	0.5	0.4	0.3	0.5	0.5	0.5	0.5
8	-	-	-	0.5	-	-	-	0.5	0.5

Using these incremental scores, we were able to monetize estimates of the economic impacts resulting from a critical habitat designation by determining cost projections for each activity. The majority of

activity costs were projected 20 years into the future. Where applicable, costs were adjusted for inflation to reflect 2009 values and a seven percent discount rate was applied to account for future costs (see the economic report for more details). Costs were annualized for each activity and then modified by the incremental score to determine the estimated costs for project modifications due to the designation of critical habitat for each area. Using this method, we calculated low and high cost scenarios based on differing spatial considerations for activities that occur on land (*e.g.* agriculture pesticide application) and the likelihood of modifications to existing activities. Where applicable, the high cost scenario estimated costs for activities within 5 miles of the coastline; the low cost scenario estimated costs for activities within 1 mile of the coastline. Estimated costs were determined for all activities except LNG and aquaculture; only a qualitative assessment was possible for these activities.

Further, in the low cost scenario, NPDES facilities, desalination plants, and tidal/wave energy projects were estimated at \$0 due to the uncertainty of project modifications. Using low costs, Area 7 has the highest annual impacts at about \$1.65 million, while Areas 1 and 3 have the next highest annualized impacts at about \$875 thousand and \$648 thousand, respectively. Under the high cost scenario, the 5 mile buffer was used for NPDES facilities and agricultural pesticide application activities. Using high costs, Area 7 has the highest annual impacts at almost \$12 million, while Areas 1, 3 and 2 have the next highest annualized impacts at \$6.3 million, \$4.8 million and \$2.2 million, respectively.

Under both high and low cost scenarios, areas 8, 4, 5 and 6 have identical costs, since the only quantitative cost calculated for these areas was the possibility of an oil spill. However, area 8 would be expected to have a higher cost than areas 4, 5, and 6 since LNG projects and aquaculture facilities were identified as potentially existing in area 8, although there are non-quantifiable costs associated with those activities.

The median value between the high and low cost scenarios was used as the estimated incremental cost for the designation of each area. The economic report describes in detail the actions we identified that may be affected by the critical habitat designation, the potential range of changes we might seek in those actions, and the estimated level of economic impacts that might result from those changes.

Table 4: Low, Median and High Costs Estimates

Area	Annualized Impacts (7% Discount Rate)			Other Activities
	Low*	Mid	High**	
7	\$1,646,600	\$6,820,450	\$11,994,300	LNG and Aquaculture
1	\$874,700	\$3,581,850	\$6,289,000	
3	\$648,100	\$2,739,800	\$4,831,500	LNG
2	\$530,100	\$1,345,950	\$2,161,800	LNG
8	\$25,100	\$46,650	\$68,200	LNG and Aquaculture
4	\$25,100	\$46,650	\$68,200	
5	\$25,100	\$46,650	\$68,200	
6	\$25,100	\$46,650	\$68,200	

*Where applicable, <1 mile buffer used

**Where applicable, <5 mile buffer used

Exclusions Based on Economic Impacts

The conservation benefit to the species resulting from the designation of a particular area is not directly comparable to the economic benefit resulting from the exclusion of that particular area. As explained above, we had sufficient information to monetize the estimated economic benefits of exclusion, but were not able to monetize the conservation benefits of designation. To qualitatively scale the economic cost estimates in the same manner as the conservation value ratings, we created economic thresholds and assigned each area an economic rating based on its median annualize cost.

To determine appropriate economic thresholds we examined average annual revenue or sales for firms that conduct activities that are identical or very similar to the activities identified in this report. Table 5 shows the average annual revenue for activities present in area 7, along with the # of activities per activity type.

Table 5: Average Annual Revenue by Activity: Area 7 Example

Activity	Average Annual Revenue or Sales Per Firm	Businesses Used As Proxy for Activities	Example: Area 7 # of Activities per category
NPDES Facilities	\$12.6 million	Average of: Sewage treatment plants, Food manufacturing, Wood product manufacturing & Paper and pulp mills	28
Agricultural Pesticide Application	\$7.0 million	Farm supplies merchant wholesalers	5,400 acres » 17 farms
Power Plants	\$45 million	Power plants using fossil fuels	3
Desalination Plants	\$5.7 million	Desalination plants	7.5
Tidal/Wave Energy Projects	\$7.4 million	Hydroelectric power generation	1

*Sources: U.S. Census Bureau, 2002 Economic Census
Poseidon Resources, The Carlsbad Desalination Project*

Area 7 has a total midpoint cost of \$6.7 million and \$6.5 million subtracting oil spill costs, as there are no revenue costs associated with oil spill response. LNG and Aquaculture revenue were also not included in this analysis, as the associated costs were not able to be quantified. Using the average number of identified activities (with revenue quantified) that occur in Area 7, the total revenue is \$658 million. Therefore the total costs represent about one percent of total revenue (\$6.5 million/\$658 million). As shown in Table 6, we set the high economic threshold at \$20 million or more in costs, based on an estimate of 3 percent of total revenue for activities associated with Area 7, the area with the highest estimated revenues and costs. The economic threshold between medium and low economic costs was set at \$700,000 based on the median value of costs per area. A very low estimated cost threshold was set at less than \$25,000, based on the presumed insignificant distributed burden this would place on affected activities. No areas currently under review as potential leatherback critical

habitat have either high or very low economic costs using this economic scale (see the economic and 4(b)(2) reports for more details).

Table 6: Economic Thresholds and Corresponding Economic Ratings

Threshold	Economic Rating
\$20,000,000 or more	High
\$700,000 - \$19,999,999	Medium
\$25,000 - \$699,999	Low
\$0 - \$24,999	Very Low

To weigh the benefits of designation against the benefits of exclusion, we compared the conservation value ratings against the economic ratings. Areas were determined to be eligible for exclusion, based on economic impacts, using three decision rules:

- 1) Areas with conservation value ratings of “high” or “medium” were eligible for exclusion only if they had an economic rating above the conservation rating, unless decision rule 3 applies;
- 2) Areas with conservation value ratings of “low” or “very low” were eligible for exclusion if they had an economic rating equal to or above the conservation value rating;
- 3) Offshore areas with oil spills as the only activity that may affect PCEs are eligible for exclusion regardless of conservation value or economic ratings.

Table 7: Median Annual Costs and Ratings, by Area

Areas	Median annualized cost	# Activities types that may affect PCEs	Economic rating	Conservation value rating	Eligible for exclusion based on economic impacts?
7	\$6,820,450*	8	Medium	Medium	No
1	3,581,850*	6	Medium	High	No
3	2,739,800*	5	Medium	Very Low	Yes
2	1,345,950*	3	Medium	High	No
4	46,650	1**	Low	Medium	Yes
5	46,650	1**	Low	Medium	Yes
6	46,650	1**	Low	Low	Yes
8	46,650*	3	Low	Low	Yes

* Cost estimates for LNG and Aquaculture were not available so were not included in these estimates. See the draft economic report for more details.

** Oil spill is the only activity.

The dollar thresholds for the economic ratings do not represent an objective judgment that areas with medium conservation value ratings are worth no more than \$19,999,999, or that areas with low conservation value ratings are worth no more than \$24,999. Under the ESA, we are required to weigh dissimilar impacts given limited time and information. The statute emphasizes that the decision to exclude an area is discretionary. In this policy context, we selected dollar thresholds representing the levels at which we believe the economic impact associated with a specific area would outweigh the

conservation benefits of designating that area, as well as an additional decision rule when oil spills are the only activity in an area. These dollar thresholds and decision rules provided a relatively simple process for identifying specific areas warranting consideration for exclusion.

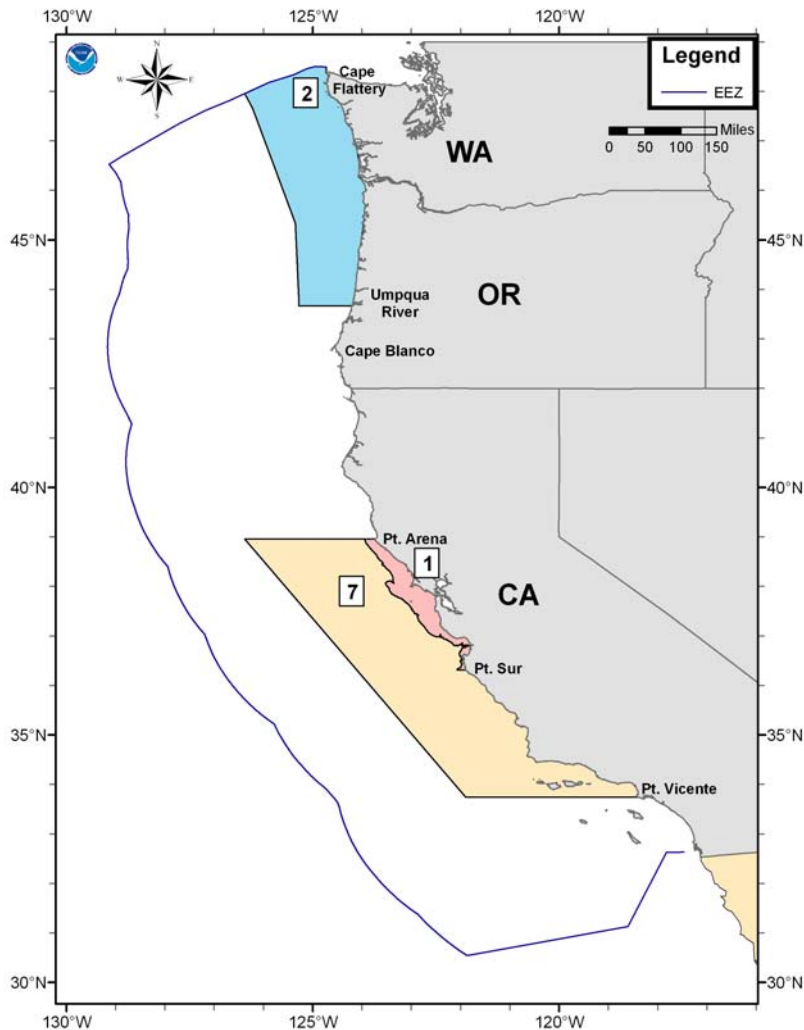
Based on the aforementioned analysis, Areas 3, 4, 5, 6 and 8 were identified as eligible for exclusion based on economic impacts. The Secretary may exclude any area from critical habitat if he determines that the benefits of exclusion outweigh the benefits of designating such an area as critical habitat, unless he determines that failure to designate will result in the extinction of the species concerned. Based on this mandate, we considered whether the exclusion of Areas 3, 4, 5, 6, and 8 would result in the extinction of the endangered leatherback sea turtle.

We evaluated this question based on the information reviewed when addressing the conservation value ratings and activities that may impact PCEs, and determined that exclusion of Areas 3, 4, 5, 6, and 8 is not likely to cause the extinction of leatherbacks. We also evaluated whether excluding any of these areas would significantly impede the conservation of the species. After examining relevant scientific and commercial information, we determined that the exclusion of these areas would not significantly impede conservation. For Area 3, we based this determination on the area's limited overall prey abundance, distribution of preferred prey species, and use of the area by leatherbacks. For Areas 6 and 8, we based this determination on the fact that these areas offer secondary and tertiary foraging habitat, respectively.

Given their medium conservation value ratings, special attention was given to Areas 4 and 5 to ensure that exclusions would not significantly impede conservation. We found that although these areas received a medium conservation value rating, oil spills are the only identified activity that may affect PCEs. Based on NOAA's records since the late 1950s, there have been very few and relatively small oil spills documented in these two areas. In general, vessels transiting offshore are widely dispersed and less vulnerable to collisions with one another or with man-made or natural structures. In addition, there has been limited or no response to offshore oil spills when they have occurred off the U.S. West Coast. Therefore, we reasoned that exclusion of these areas would not impede conservation of leatherback sea turtles since there are few activities within Areas 4 and 5 likely to require special management afforded by critical habitat designation.

Based on the best scientific and commercial data currently available, we recommend the exclusion of Areas 3, 4, 5, 6, and 8 from critical habitat designation. We recognize that the lack of documented evidence of leatherbacks in some of these areas may be the result of inadequate monitoring and encouraged directed surveys in both offshore and nearshore areas to increase our knowledge of leatherback use of the waters of the U.S. West Coast.

Figure 3: Areas recommended for designation as critical habitat for leatherback sea turtles



Exclusions Based on National Security

The Secretary must consider possible impacts on national security when determining critical habitat. Discussions with the Department of Defense indicate that there is overlap between the areas proposed here as critical habitat and areas off the coast of southern California and Washington where the U.S. Navy conducts training exercises. The Navy provided letters to NMFS detailing the operations areas that they consider should be excluded from critical habitat due to national security. We will continue working with the DOD to identify impacts to national security and to determine whether any military areas are eligible for exclusion from the proposed critical habitat designation. Appendix I provides additional information including letters from the Navy to NMFS and maps of the areas where the Navy may request exclusions. The Navy has not made a formal request for exclusions at this time.

Exclusions for Indian Lands

The longstanding and distinctive relationship between the Federal and tribal governments is defined by treaties, statutes, executive orders, judicial decisions, and agreements, which differentiate tribal governments from the other entities that deal with, or are affected by, the Federal government. This relationship has given rise to a special Federal trust responsibility involving the legal responsibilities and obligations of the United States toward Indian Tribes and the application of fiduciary standards of due care with respect to Indian lands, tribal trust resources, and the exercise of tribal rights.

Pursuant to these authorities lands have been retained by Indian Tribes or have been set aside for tribal use. These lands are managed by Indian Tribes in accordance with tribal goals and objectives within the framework of applicable treaties and laws. E.O. 13175, Consultation and Coordination with Indian Tribal Governments, outlines the responsibilities of the Federal Government in matters affecting tribal interests. Indian lands are those defined in the Secretarial Order “American Indian Tribal Rights, Federal-Tribal Trust Responsibilities, and the Endangered Species Act” (June 5, 1997), including: (1) lands held in trust by the United States for the benefit of any Indian tribe; (2) land held in trust by the United States for any Indian Tribe or individual subject to restrictions by the United States against alienation; (3) fee lands, either within or outside the reservation boundaries, owned by the tribal government; and (4) fee lands within the reservation boundaries owned by individual Indians.

An array of activities on Indian lands may trigger ESA section 7 consultations. For leatherbacks, we reviewed maps indicating that several areas along the Washington coast under consideration as critical habitat may overlap with Indian lands. These possible overlap areas consist of a narrow intertidal zone associated with Indian lands—from the line of mean lower low water to extreme low water—for the following federally-recognized tribes (73 FR 18553, April 4, 2008): the Hoh, Makah, Quileute, and Quinault tribes (see Appendix II).

To assess the exclusion of Indian lands under section 4(b)(2) of the ESA, we compared the benefits of designation to the benefits of exclusion. The benefits of exclusion include: (1) the furtherance of established national policies, our Federal trust obligations and our deference to the tribes in management of natural resources on their lands; (2) the maintenance of effective long-term working relationships to promote species conservation on an ecosystem-wide basis; (3) the allowance for continued meaningful collaboration and cooperation in scientific work to learn more about the conservation needs of the species on an ecosystem-wide basis; and (4) continued respect for tribal sovereignty over management of natural resources on Indian lands through established tribal natural resource programs. Given that the affected Indian lands represent a very small proportion of the total critical habitat area and, moreover, the high benefits of exclusion, we determined that the benefits of exclusion outweigh the benefits of designation. We also determined that these proposed exclusions will not result in extinction of leatherback turtles. Therefore, we recommend the exclusion of the identified Indian lands from the proposed critical habitat designation for leatherback turtles.

VI. CHRT Final Recommendation

We, the CHRT, recommend revising the current critical habitat for the leatherback sea turtle (*Dermochelys coriacea*) by designating additional areas within the Pacific Ocean. Specific areas proposed for designation include two adjacent marine areas totaling approximately 46,100 square miles (119,400 square km) stretching along the California coast from Point Arena to Point Vicente; and one 24,500 square mile (63,455 square km) marine area stretching from Cape Flattery, Washington to the

Umpqua River (Winchester Bay), Oregon following the 2,000 meter depth contour. The areas proposed for designation comprise approximately 70,600 square miles (182,854 square km) of marine habitat. We propose excluding approximately 217,300 square miles (562,807 square km) of marine habitat within state waters and the U.S. Exclusive Economic Zone (EEZ) associated with California, Oregon and Washington because the benefits of exclusion outweigh the benefits of designation and exclusion will not result in the extinction of the species.

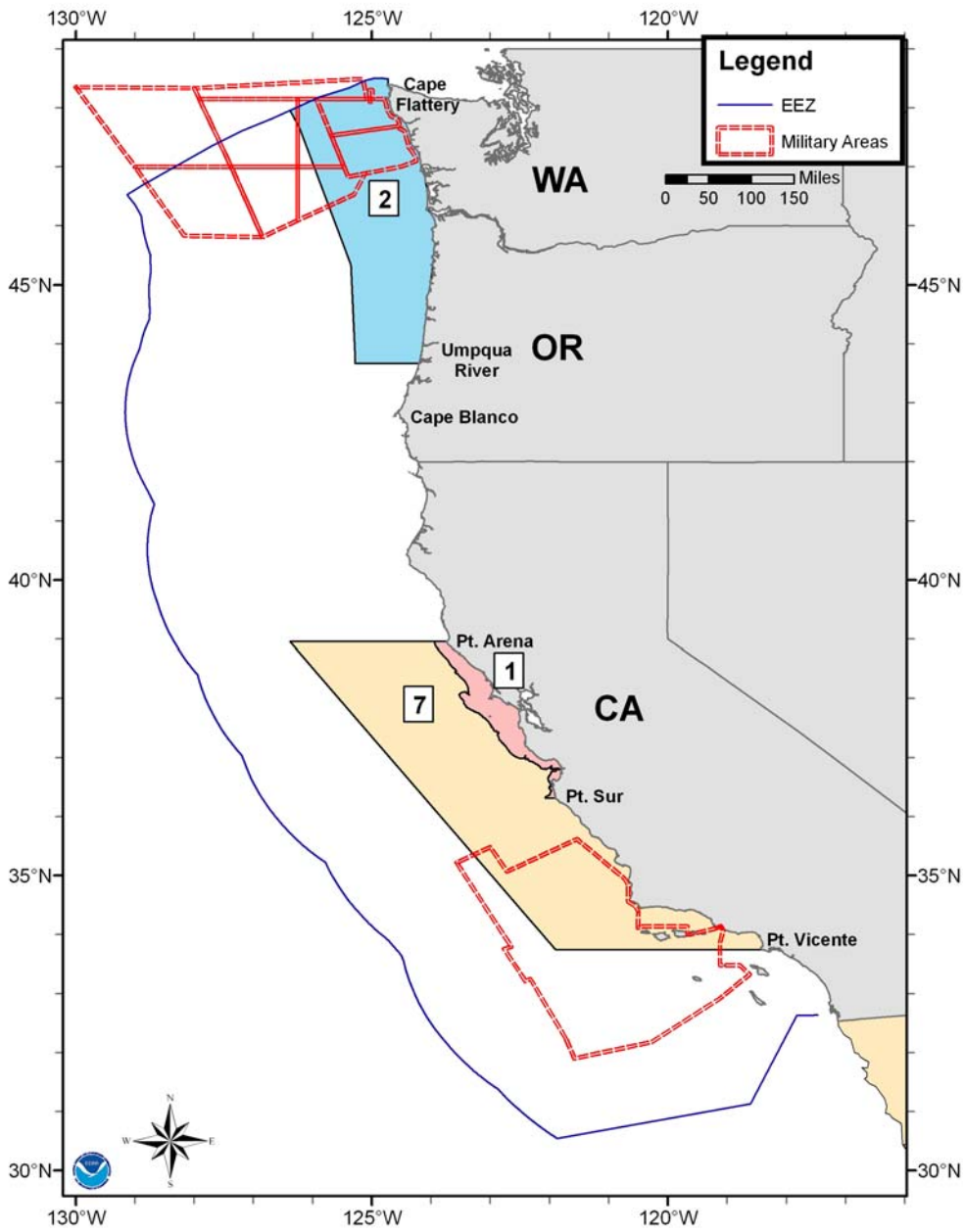
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Appendix I: Supplementary Information Regarding Exclusions Based on National Security





DEPARTMENT OF THE NAVY
COMMANDER NAVY REGION SOUTHWEST
937 NO. HARBOR DR.
SAN DIEGO, CALIFORNIA 92132-0058

IN REPLY REFER TO:

5090

Ser N40JRR.cs/0020

October 2, 2009

Mr. David Cottingham
Marine Mammal and Sea Turtle Conservation Division
National Marine Fisheries Service
1315 East West Highway
Silver Spring, Maryland 20910

Dear Mr. Cottingham,

We understand that your office is planning to examine expansion of the critical habitat designated for the leatherback turtle (*Dermochelys coriacea*) and that there is an opportunity for affected Federal agencies to share informal information with the National Marine Fisheries Service (NMFS) relevant to this examination. Therefore, in addition to the information provided by Commander, Navy Region Northwest and by Commanding Officer, Naval Air Station, Whidbey Island, Navy Region Southwest submits the following information to your office as you consider the potential expansion of designated critical habitat.

First, as background, the Navy's mission is to organize, train, equip and maintain combat-ready naval forces capable of winning wars, deterring aggression, and maintaining freedom of the seas. This mission is mandated by Federal law (Title 10 U.S. Code Section 5062), which charges the Chief of Naval Operations (CNO) with responsibility for ensuring the readiness of the Nations' Naval forces. CNO meets this directive by establishing and executing training programs, including at-sea training and exercises. Underlying mission-readiness preparation is access to integrated ranges, operational areas, and airspace to develop and maintain skills for conducting naval activities. In addition to operational training, the realistic testing of weapon systems is also an integral part of mission-readiness. It is upon this basic concept, mission readiness, that the Navy evaluates all proposals that may impact our access and ability to conduct realistic testing and training.

The Navy has completed analyses of its training in two of three west coast range complexes: the Point Mugu Sea Range along central and southern California, and the Southern California Range Complex. We are also completing the Northwest Training Range Complex (from Washington south to an area north of Mendocino County, California) Environmental Impact Statements/Overseas Environmental Impact Statements.

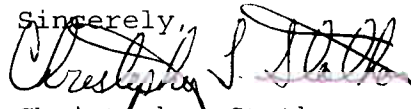
The Northwest Training Range Complex Draft EIS/OEIS was released earlier this year and the Navy anticipates issuing a Record of Decision in the Fall/Winter 2009. Depictions of the California ranges are attached in response to your request for information on Navy activities.

Given the enormous area currently under consideration, and current knowledge of Navy's national security concerns, training activities and how they change and evolve to address operational requirements, we anticipate having significant comments regarding exclusion of critical habitat designation for any areas that overlap these ranges. Given the preliminary nature of your consideration of critical habitat and the abbreviated time for internal review, we look forward to continued discussion concerning a number of issues, including whether existing legal authority already exists to reduce or eliminate the threats to this species of sea turtle obviating the need for critical habitat, and the legal authority for any requirements associated with critical habitat designations in open ocean areas. The Navy's official position regarding critical habitat designation will be provided by Navy headquarters upon publication of the proposed rule in the Federal Register.

Additional information on the Southern California and Northwest Training Range Complexes is available at <http://www.socalrangecomplexeis.com/> and <http://www.nwtrangecomplexeis.com/> respectively.

For further information, please contact Kelly Brock, Acting Natural Resource Team Lead, Chief of Naval Operations, Environmental Readiness Division, N45 at kelly.brock@navy.mil or (703) 604-5420.

Sincerely,



Christopher Stathos
Fleet Environmental Coordinator
and Deputy Regional Environmental
Coordinator Navy Region Southwest

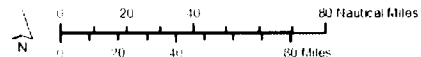
Attachments: (1) SOCAL Range Complex FEIS/OEIS Chart
(2) Point Mugu Sea Range FEIS/OEIS Chart

Copy to:
Elizabeth Petras
National Marine Fisheries Service
Office of Protected Resources
Southwest Region

Captain Dean Leech, JAGC, USN
ASN (I&E)



 SOCAL Range Complex (EIS/OEIS Study Area)



Sources: NGA, ESRI

Figure 1: SOCAL Range Complex (as depicted in Figure ES-1 in the Navy's Final Environmental Impact Statement for the SOCAL Range Complex, signed on January 21, 2009), which extends southwest from southern California in an approximately 700 by 200 nm rectangle with the seaward corners at 27° 30'00" N. lat.; 127°10'04" W. long. and 24° 00'01" N. lat.; 125° 00'03" W. long.

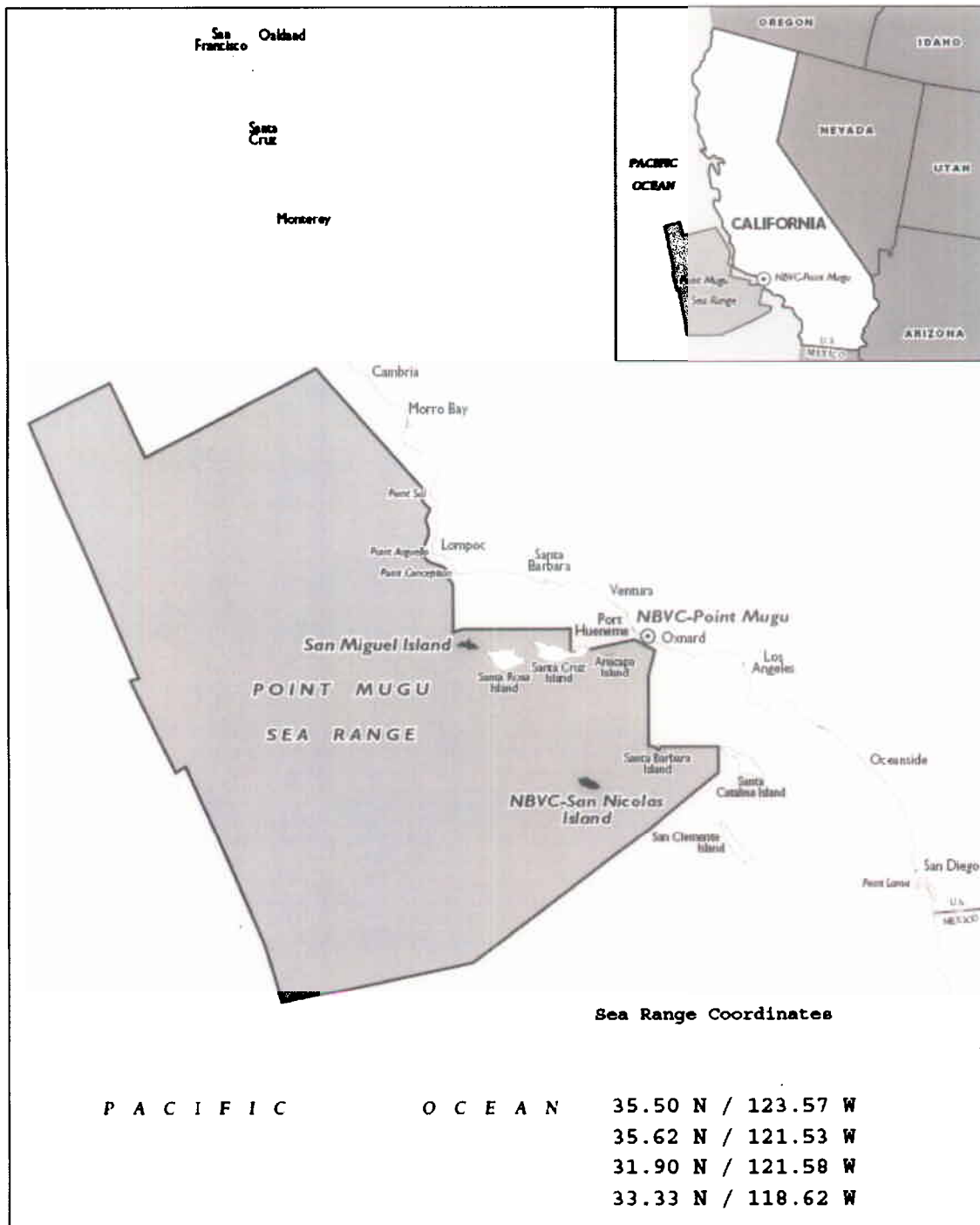


Figure 2: Pt. Mugu Sea Range



DEPARTMENT OF THE NAVY

NAVAL AIR STATION WHIDBEY ISLAND
OAK HARBOR, WASHINGTON 98278-5000

5090
Ser N40/1098
30 Sep 09

Mr. David Cottingham
Marine Mammal and Sea Turtle Conservation Division
National Marine Fisheries Service
1315 East West Highway
Silver Spring, MD 20910

Dear Mr. Cottingham:

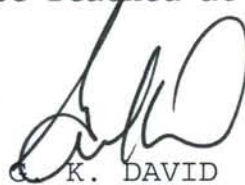
We understand that your office intends to expand the area of critical habitat designation for the leatherback turtle (*Dermochelys coriacea*) that is covered in the federal register entry dated December 28, 2007. The U.S. Navy has prepared what we feel is a substantial argument that allows us to request exemption of the proposed critical habitat. Of particular concern is the areas W237, Navy 6, Navy 8 and Naval Exercise areas 3 and 4. In addition the area from the 500 fathom curve shoreward (Washington State) to the mean high tide area is vital for the activity of the Keyport Research and Development Complex off the coast of Washington along with the Northwest Training Range Complex.

The Navy's mission is to organize, train, equip and maintain combat-ready Naval forces capable of winning wars, deterring aggression, and maintaining freedom of the seas. This mission is mandated by Federal law (Title 10 U.S. Code [U.S.C.] § 5062), which charges the Chief of Naval Operations (CNO) with responsibility for ensuring the readiness of the Nation's Naval forces. The CNO meets that directive, in part, by establishing and executing training programs, including at-sea training and exercises, including mid-frequency active (MFA) sonar activities, and ensuring Naval forces have access to the ranges, operational areas, and airspace needed to develop and maintain skills for conducting naval activities. Activities involving research, development, test and evaluation for Naval systems are an integral part of this readiness mandate.

The description in the Northwest Training Range Complex environmental impact statement/overseas environmental impact statement of the Navy's monitoring methodologies while conducting an exercise and the enclosure provides the rationale for exemption. Your office's proposed action could potentially impact national security if training were required immediately to meet fleet force obligations and training could not occur because of required consultation on critical habitat.

5090
Ser N40/

I look forward to your response, and if additional information is required my point of contact for this issue is Mr. George Hart. Mr. Hart can be reached at 360-315-5103 or george.hart1@navy.mil.



G. K. DAVID
Captain, U.S. Navy
Commanding Officer

Enclosure: 1. Exemption Rationale

Copy to: Commander, Navy Region Northwest (N40BA)

Prepared by,
G. T Sodano
SAIC/NWTRC RSS

20 August 2009

In support of the Critical Habitat Exemption for the Leather Back Sea Turtle.

Pacific North West Surface/Subsurface Operating Area, Warning Area 237, Navy 8, Navy 6, Naval Exercise Area 4 and 3 Description of Training Needs and Activities.

The Navy training activities performed in the Pacific North West Surface/Subsurface Operating Area, Warning Area 237, Navy 6, Navy 8 and Naval Exercise Area 3 and 4 as noted on NOAA Charts 18480 and 18500 and Figures 1-3, provide at sea quality training so that Navy personnel and equipment can be maintained at a level of operational readiness necessary to provide operational commanders with trained, combat-ready, combat skilled personnel and ships that are capable of global deployment and are available to immediately support a national contingency. The exemption from Leather Back Turtle Critical Habitat in Pacific North West Surface/Subsurface Operating Area, Warning Area 237, Navy 6, Navy 8 and Naval Exercise Area 3 and 4 would assist in maintaining this training environment for personnel and ships on the West Coast. Maintaining short notice and ease of access to Pacific North West Surface/Subsurface Operating Area, Warning Area 237, Navy 6, Navy 8 and Naval Exercise Area 3 and 4 provides the means to maximize and vary training scenarios that are essential to naval warfare needs. All these training sites are comparable to areas of the world where current threats and developing threats exist.

World events have placed the U.S. military on heightened alert in defense of the United States and in defense of allied nations. At this time, the Navy is actively engaged in overseas contingency operations around the globe. Title 10 U.S. Code, Section 5062 directs the Chief of Naval Operations to maintain, train, and equip all naval forces for combat so that they are capable of winning wars, deterring aggression, and maintaining freedom of the seas. To achieve this level of readiness, naval forces must have access to varied training environments where they can develop and maintain skills for wartime missions.

The Navy needs the quality of training that may be required on a short notice basis, and thus achieve its required level of operational readiness, as mandated by federal law. Training activities include:

- Ship system checks for ships that have gone through a maintenance period and require initial sea trial test and evaluation.
- Unmanned Aerial System testing and training.
- Search and Rescue training.
- Air to Surface Warfare training.
- Surface to Air Warfare Training
- Surface to Surface Warfare Training
- Electronic Warfare Training
- Anti Submarine Warfare Training.
- Subsurface Warfare Training.
- Electronic Warfare Training
- Anchoring exercise and training.
- Reconnaissance training.

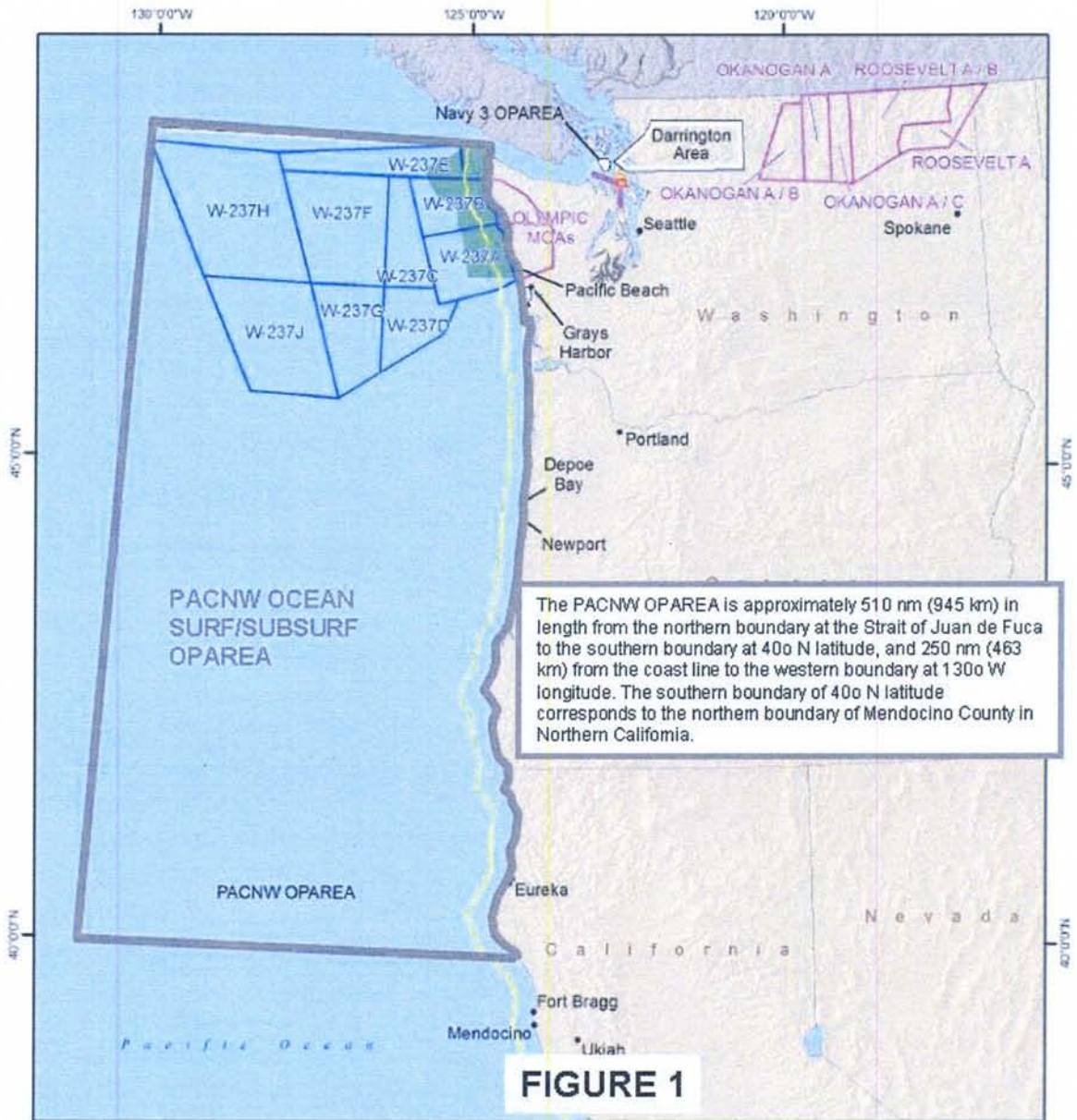


FIGURE 1

Special Use Airspace

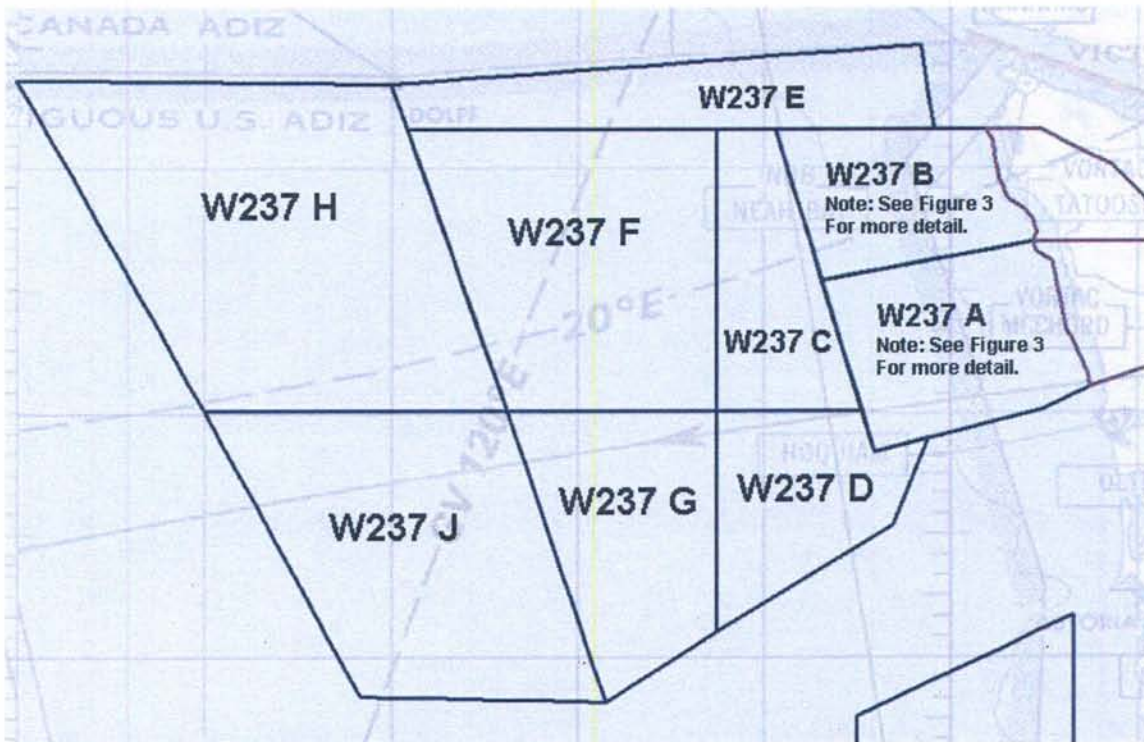
- Warning Area
- Military Operating Area (MOA)
- Restricted Area
- Alert Area

- Operating Area (OPAREA)
- Olympic Coast National Marine Sanctuary
- Territorial Sea Boundary (12nm)
- City

0 50 100 200
Miles

Projection:
WGS84, UTM 10N

Sources:
ESRI, NGA, Navy Instructions, IVT



W237A N47°31'59.00" W125°41'05.00" to N47°41'29.00" W124°33'05.00" then 3 NM fr and parl to the shoreline to N47°05'59.00" W124°14'53.00" to N47°00'29.00" W124°30'05.00" to N46°49'59.00" W125°24'05.00" to beginning. Low surface to FL230 Hi FL230-FL500

W237B N48°08'59.00" W125°56'05.00" to N48°08'59.00" W124°48'05.00" then 3 NM fr and parl to the shoreline to N47°41'29.00" W124°33'05.00" to N47°31'59.00" W125°41'05.00" to beginning. Low surface to FL230 Hi FL230-FL500

W237C N48°08'59.00" W125°56'05.00" to N47°00'00.00" W125°28'03.00" to N47°00'00.00" W126°15'00.00" to N48°08'59.00" W126°15'00.00" to beginning. Surface to unlimited

W237D N47°00'00.00" W125°28'03.00" to N46°49'59.00" W125°24'05.00" to N46°53'24.00" W125°06'47.00" to N46°32'00.00" W125°18'00.00" to N46°06'00.00" W126°15'00.00" to N47°00'00.00" W126°15'00.00" to beginning. Surface to unlimited.

W237E N48°29'37.00" W125°09'01.00" to N48°08'59.00" W125°05'00.00" to N48°08'59.00" W127°54'44.00" to N48°20'00.00" W128°00'00.00" to beginning. Surface to FL270

W237F N48°08'59.00" W126°15'00.00" to N47°00'00.00" W126°15'00.00" to N47°00'00.00" W127°22'26.00" to N48°08'59.00" W127°54'44.00" to beginning. Surface to unlimited.

W237G N47°00'00.00" W126°15'00.00" to N46°06'00.00" W126°15'00.00" to N45°48'35.00" W126°50'49.00" to N47°00'00.00" W127°22'26.00" to beginning. Surface to unlimited

W237H N48°20'00.00" W128°00'00.00" to N47°00'00.00" W127°22'26.00" to N47°00'00.00" W129°00'00.00" to N48°21'02.00" W130°00'00.00" to beginning. Surface to FL270.

W237J N47°00'00.00" W127°22'26.00" to N45°48'35.00" W126°50'49.00" to N45°50'00.00" W128°10'00.00" to N47°00'00.00" W129°00'00.00" to beginning. Surface to FL270

FIGURE 2



Night Training to enable low light and night time navigation training exercise.

Exempting Pacific North West Surface Subsurface Area depicted (Figure 1), W-237 (Figure 2) and Navy 6, Navy 8 and Naval Exercise Areas 3 and 4 (Figure 3) from Leather Back Turtle Critical Habitat would support mission-oriented requirements for Navy Warfare through maintaining diverse and realistic training environments.

Appendix II: Supplementary Information Regarding Exclusions for Indian Lands



NOV 12 2009

MEMORANDUM FOR: The Record

FROM: David Cottingham *David Cottingham*
Division Chief
Marine Mammal and Sea Turtle Conservation Division

Donna Darm *Donna Darm*
Assistant Regional Administrator
Protected Resources Division, Northwest Region

SUBJECT: Analysis of the Benefits of Designating versus the Benefits of
Excluding Indian Lands in Washington from Proposed Critical
Habitat for the Leatherback Turtle

This analysis was prepared to inform the agency's exercise of discretion under Section 4(b)(2) of the Endangered Species Act (ESA), which allows the Secretary to exclude any particular area from critical habitat designation if the benefits of exclusion outweigh the benefits of designation, so long as exclusion will not result in extinction of the listed species. The analysis first examines the benefits of designating Indian lands for the leatherback turtle (*Dermochelys coriacea*) then examines the benefits of excluding lands of four Indian tribes located along the Washington coast. The analysis concludes that the benefits of exclusion outweigh the benefits of designation because excluding Indian lands benefits the federal government's policy of promoting respect for tribal sovereignty and self-governance and the critical habitat area on Indian lands is a tiny proportion of total critical habitat for this species. The analysis further concludes that excluding this small amount of habitat will not result in extinction of the leatherback turtle. Based on this conclusion, we recommend the agency exercise its discretion under ESA section 4(b)(2) to exclude Indian lands from designation for this species.

Background

The leatherback turtle was listed as endangered throughout its range on June 2, 1970 (35 FR 8491). Pursuant to a joint agreement, the U.S. Fish and Wildlife Service (FWS) has jurisdiction over sea turtles on the land and the National Marine Fisheries Service (NMFS) over sea turtles in the marine environment. The FWS initially designated critical habitat for leatherback turtles on September 26, 1978 (43 FR 43688). The critical habitat area consisted of a strip of land 0.2 miles wide (from mean high tide inland) in the U.S. Virgin Islands at Sandy Point Beach on the western end of the island of St. Croix. The following year, NMFS designated the marine waters adjacent to Sandy Point Beach as critical habitat from the hundred fathom curve shoreward to the level of mean high tide (44 FR 17710; March 23, 1979).



On October 2, 2007, NMFS received a petition from the Center for Biological Diversity, Oceana, and Turtle Island Restoration Network (“Petitioners”) to revise the leatherback sea turtle critical habitat designation. The Petitioners sought to revise the critical habitat designation to include the offshore marine area currently managed under the authority of the Magnuson-Stevens Fishery Conservation and Management Reauthorization Act to reduce leatherback interactions in the California/Oregon drift gillnet fishery targeting swordfish and thresher shark. On December 28, 2007 (72 FR 73745), NMFS announced its 90-day finding that the petition provided substantial scientific information indicating that the petitioned action may be warranted. The agency initiated a review of the critical habitat of the species to determine whether the petitioned action is warranted. That review resulted in the identification of additional areas adjacent to the petitioned area and extending as far north as the U.S.-Canada border off the Washington coast.

Section 3(5)(A) defines critical habitat, but areas meeting the definition are not automatically designated. Section 4(b)(2) establishes the process the agency is to use in designating critical habitat. It requires us to designate critical habitat for threatened and endangered species “on the basis of the best scientific data available and after taking into consideration the economic impact, and any other relevant impact, of specifying any particular area as critical habitat.” This section grants the Secretary of Commerce discretion to exclude any area from critical habitat if he determines “the benefits of such exclusion outweigh the benefits of specifying such area as part of the critical habitat.” The Secretary’s discretion is limited, as he may not exclude areas if it “will result in the extinction of the species.”

In developing the proposed rule, we identified four tribes in Washington with lands that overlap areas recommended for proposal as critical habitat: the Hoh, Makah, Quileute, and Quinault tribes. We consulted with these tribes to discuss and better understand their concerns regarding the critical habitat designation (G. Sims, NOAA Fisheries, pers. comm.). The tribes expressed their preference to have their lands excluded from critical habitat designation. Some expressed concerns over the potential impact of the critical habitat designation on tribal fisheries, particularly within usual and accustomed fishing areas in marine waters. Tribal fisheries may cause take of leatherbacks and thus are more likely to be affected by ESA take prohibitions than by the proposed critical habitat designation. In addition, and as described below, usual and accustomed fishing areas are not necessarily coextensive with areas defined as “Indian lands” in various Federal policies, orders, and memoranda. Thus, we conclude that exclusion of usual and accustomed fishing areas outside those identified as Indian lands is not warranted.

The attached table and map depict the location and overlap of the Indian lands relative to areas recommended for proposal as leatherback critical habitat.

Unique Federal Relationship with Indian Tribes

Executive Order 13175 reiterates the unique relationship between the federal and tribal governments: The United States has a unique relationship with Indian tribal governments as set forth in the Constitution of the United States, treaties, statutes, Executive Orders, and court decisions. The nature of the relationship has been discussed from the earliest court cases (see *Worcester v. Georgia*). In his seminal work, Felix Cohen¹ points out that, while treaties with

¹ Cohen, F. 2005. *Cohen's Handbook of Federal Indian Law*, 2005 edition. LexisNexis Matthew Bender Publications, San Francisco, CA.

Indian tribes are accorded the same dignity as that given to treaties with foreign nations, they differ in at least two important respects. Through the application of special canons of construction, Indian treaties are construed in favor of the Indians. Further, the courts will not find that Indian treaties have been abrogated by later treaties or legislation unless there is a clear and specific showing in the later enactment that abrogation was intended.

This description supports points that will be made later in this memo regarding the purpose of Indian lands as reserves for tribal governments. The reservations are both secure homelands for the tribes, as well as bases for their economic stability. The title to the land is held by the United States for the sole beneficial use of the tribes and their members. These are not federal lands reserved for public use, but rather “Indian lands” reserved for use by tribal governments (and individual tribal members). Discussion regarding the future status of Indian lands should be consistent with these purposes.

Unique Status of “Indian Country” and Indian Lands

Before addressing specific characteristics of Indian Land, it is helpful to look at the legal status of the areas within which they are found, i.e., “Indian Country.” Indian Country is defined in 18 U.S.C. § 1151:

(a) all lands within the limits of any reservation under the jurisdiction of the United States Government, notwithstanding the issuance of any patent, and including rights-of-way running through the reservation,

(b) all dependent Indian communities within the borders of the United States whether within the original or subsequently acquired territory thereof, and whether within or without the limits of a State, and

(c) all Indian allotments, the Indian titles to which have not been extinguished, including rights-of-way running through the same.

As Cohen (2005) points out, the Indian country statute is thus of general importance in defining the special territory where Indians are governed primarily by tribal and federal law rather than state law. “Indian lands” are defined in the Secretarial Order as “any lands title to which is either 1) held in trust by the United States for the benefit of any Indian tribe or individual, or 2) held by any Indian tribe or individual subject to restrictions by the United States against alienation.” Additionally, it is a stated principle of the Secretarial Order that Indian lands “are not subject to the controls or restrictions set forth in federal public land laws. Indian lands are not federal public land or part of the public domain, but are rather retained by tribes or set aside for tribal use pursuant to treaties, statutes, court orders, executive orders, judicial decision, or agreements. Accordingly, Indian tribes manage Indian lands in accordance with tribal goals and objectives, within the framework of applicable laws.” The above supports the conclusions of Sandi Zellmar’s discussion in “Indian Lands as Critical Habitat for Indian Nations and Endangered Species: Tribal Survival and Sovereignty Come First”.²

² MEEORANDURF:TDheNDUcedndRGEnHCP3 S.D.L. Rev. 381] (1998)

Thus, the trust responsibility arises not only from the nature of the relationship between tribes and the United States, but also from the massive transfer of lands from Indian Nations to the federal government and the retention and protection of a critical—though diminished—land base, as reflected in treaties. Just as sovereignty is at the very core of the trust responsibility, the tribal land base, retained by the tribes through treaties, is a critical component of sovereignty for most tribes.

Executive Policy Guides Treatment of Indian Lands in Designating Critical Habitat

In addition to Executive Order 13175, we have Department of Commerce direction, via the Secretarial Order, stating that Indian lands shall not be designated, nor areas where the “tribal trust resources ... or the exercise of tribal rights” will be impacted, unless such lands or areas are determined “essential to conserve a listed species.” In such cases we “shall evaluate and document the extent to which the conservation needs of the listed species can be achieved by designating only other lands.” The Secretarial Order is consistent with the long-standing policies of the federal government regarding relationships with, and responsibilities to, Indian tribes. The Secretarial Order direction was developed in consultation with tribal governments, in recognition of their sovereign status and management authority. The Order’s purpose, in part, is to help ensure the tribes do not bear a disproportionate conservation burden.

This direction recognized the unique status of Indian lands. In the words of the Secretarial Order, “Indian lands are not federal public lands or part of the public domain, and are not subject to federal public land laws.” They were retained by tribes or were set aside for tribal use pursuant to treaties, statutes, judicial decisions, executive orders or agreements. These lands are managed by Indian tribes in accordance with tribal goals and objectives, within the framework of applicable laws. (For a description of the federal government’s relationship and responsibility regarding Indian lands and trust resources, see *United States v. Mitchell* (463 U.S. 206 (1983))).

The Relationship between the Federal and Tribal Governments is Unique and Longstanding

The federal government has long recognized the unique status of Indian tribes. The U.S. Constitution recognized tribal status via the “Indian commerce clause.” Additionally, treaties are identified as being part of the “supreme law of the land.” In addition to Constitutional recognition, there have been a number of executive branch expressions of the relationships³ between the federal and tribal governments. Examples of executive direction include:

- **Presidential Memorandum of April 28, 1994**—directs executive departments and agencies to “assess the impact of federal government plans, projects, programs, and activities on tribal resources to assure that tribal government rights and concerns are considered during ... [their] development.”
- **Executive Order 13175 – Consultation and Coordination With Indian Tribal Governments (November 6, 2000)**—directs departments and agencies to “encourage Indian tribes to develop their own policies to achieve program objectives;” “where

³ Rather than conduct an exhaustive historical review of executive (or judicial, for that matter) direction this memo discusses the most recent examples. For more detail on the history of federal-Indian relations see: (1) Cohen, F. 2005. *Cohen's Handbook of Federal Indian Law*, 2005 edition. LexisNexis Matthew Bender Publications, San Francisco, CA and (2) Getches, D.H., Wilkinson, C.F., and R.A. Williams, Jr. 2005. *Cases and Materials on Federal Indian Law* (5th edition).

possible, defer to Indian tribes to establish standards;” “in determining whether to establish federal standards, consult with tribal officials as to the need for federal standards and any alternatives that would limit the scope of federal standards or otherwise preserve the prerogatives and authority of Indian tribes.”

• **Department of Commerce—American Indian and Alaska Native Policy (March 30, 1995)**— includes the following “Policy Principles”:

- Recognition of, and commitment to, “a government-to-government relationship with ... Tribal governments.” (First Principle)
- Recognition that “the tribal right to self-government flows from the inherent sovereignty of tribes and nations and that Federally recognized tribes have a unique and direct relationship with the Federal government.” (First Principle)
- Recognition of trust responsibility and commitment to “consult and work with tribal governments prior to implementing any actions when developing legislation regulations, and/or policies that will affect tribal governments, their development efforts, and their land and resources” (Third Principle)
- “Pledges to honor the Constitutional protections to Indian Commerce” by recognizing that tribes, as sovereign governments, “are responsible for the welfare and rights of their members and the right to regulate commerce within their reservation boundaries.” (Fourth Principle)
- Confirmation that the Department “will consult and work with tribal governments before making decisions or implementing policy, rules or programs that may affect tribes to ensure tribal rights and concerns are addressed.” (Fifth Principle)
- Recognition “that as a sovereign government” tribes are “responsible for the welfare and rights” of their membership and have “the right to regulate commerce within [their] boundaries.” (Fifth Principle)
- Commitment to identify and take “appropriate steps to remove any impediments to working directly and effectively with tribal governments.” This includes applying the requirements of applicable executive orders (e.g., 13175 on intergovernmental partnerships (see above) and 12866 Regulatory Planning and Reviews) and legislative (e.g., Regulatory Flexibility Act) requirements “to design solutions and tailor Federal programs, when appropriate, to address specific or unique needs of tribal communities.” (Sixth Principle)

• **SECRETARIAL ORDER--*American Indian Tribal Rights, Federal-Tribal Trust Responsibilities, and the Endangered Species Act.***

The Secretaries of Commerce and of the Interior jointly issued the Secretarial Order in June 1997. The stated purpose of the Order is the clarification of “the responsibilities of the component agencies, bureaus and offices” of the Department “when actions taken under authority of the [Endangered Species] Act and associated implementing regulations affect, or may affect, Indian lands, tribal trust resources or the exercise of ... tribal rights.” The opening section continues by saying the Departments will strive “to ensure that Indian tribes do not bear a disproportionate burden for the conservation of listed species, so as to avoid or minimize the potential for conflict and confrontation.” Several sections of the Secretarial Order refer to, or specifically address critical habitat. The following is from Appendix Section 3(B):

– (2) *Recognize the right of Indian tribes to participate fully in the listing process by providing timely notification to, soliciting information and comments from, and utilizing the expertise of, Indian tribes whose exercise of tribal rights or tribal trust resources could be affected by a particular listing. This process shall apply to proposed and final rules to... (ii) designate critical habitat.*

– (3) *Recognize the contribution to be made by affected Indian tribes, throughout the process and prior to finalization and close of the public comment period, in the review of proposals to designate critical habitat and evaluate economic impacts of such proposals with implications for tribal trust resources or the exercise of tribal rights. The Services shall notify affected Indian tribes and the BIA, and solicit information on, but not limited to, tribal cultural values, reserved hunting, fishing, gathering, and other Indian rights or tribal economic development, for use in: (i) the preparation of economic analyses involving impacts on tribal communities; and (ii) the preparation of "balancing tests" to determine appropriate exclusions from critical habitat and in the review of comments or petitions concerning critical habitat that may adversely affect the rights or resources of Indian tribes.*

– (4) *In keeping with the trust responsibility, [the Services] shall consult with the affected Indian tribe(s) when considering the designation of critical habitat in an area that may impact tribal trust resources, tribally-owned fee lands, or the exercise of tribal rights. Critical habitat shall not be designated in such areas unless it is determined essential to conserve a listed species. In designating critical habitat, the Services shall evaluate and document the extent to which the conservation needs of the listed species can be achieved by limiting the designation to other lands.*

– (6) *Having first provided the affected Indian tribe(s) the opportunity to actively review and comment... provide affected Indian tribe(s) with a written explanation whenever a final decision on any of the following activities conflicts with comments provided by an affected Indian tribe: ... (ii) designate critical habitat.*

In summary, as articulated in the February 16, 2000 FRN (65 FR 7764-7787, February 16, 2000) designating critical habitat:

– *...there is a unique and distinctive relationship between the United States and Indian tribes (as defined by the U.S. Constitution, treaties, statutes, executive orders, judicial decisions, and agreements), which differentiate tribes from the other entities that have a relationship with, or are affected by, actions of the federal government.*

– *This relationship has given rise to a special federal trust responsibility involving the legal responsibilities and obligations of the United States toward Indian tribes and the application of fiduciary standards of due care with respect to Indian lands, tribal trust resources, and the exercise of tribal rights.*

– *Pursuant to the treaties, statutes, judicial decisions, executive orders and other agreements that define the relationship between the United States and tribes, lands have been retained by Indian tribes or have been set aside for tribal use. These lands are managed by Indian tribes in accordance with tribal goals and objectives, within the framework of applicable laws.*

Benefits of Designation

The principal benefit of designating critical habitat is that ESA section 7 requires every federal agency to ensure that any action it authorizes, funds or carries out is not likely to result in the destruction or adverse modification of the designated critical habitat. This complements the Section 7 provision that federal agencies ensure their actions are not likely to jeopardize the continued existence of a listed species. Another possible benefit is that the designation of critical habitat can serve to educate the public regarding the potential conservation value of an area. This may focus and contribute to conservation efforts by clearly delineating areas that are important to species conservation.

In developing the critical habitat designation for the leatherback turtle, we first established those areas that meet the definition of critical habitat. We identified potential critical habitat areas throughout the species range along the California, Oregon and Washington coasts. We asked a team of federal biologists to determine the relative conservation value of each area to the species thereby allowing us to determine the benefit of designating any particular area in a way that would aid the 4(b)(2) balancing test. The higher the conservation value of an area, the greater the benefit of the section 7 protection.

Table 1 and Figure 1 identify the habitat that may be affected by a designation on Indian lands. These possible overlap areas consist of a narrow intertidal zone associated with Indian lands from the line of mean lower low water to extreme low water.⁴ The benefits of designation depend upon the extent of the habitat under consideration, its conservation value, and the types of federal activities in that area likely to undergo section 7 consultation. The activities occurring in these areas that may undergo a section 7 consultation include transportation projects, tidal energy projects, and oil spill response. Given the tiny percentage of critical habitat on Indian lands—approximately 3% of proposed intertidal shoreline (and a much smaller fraction of all waters proposed for designation)—we anticipate there would be very few federal actions undergoing a section 7 consultation.

Benefits of Exclusion

Exclusion of Indian lands would further federal government policies to promote tribal sovereignty and self-governance:

- The Secretarial Order states that Indian lands will not be designated as critical habitat unless they are essential for conservation, i.e., after the Secretary determines that the designation of all other non-Indian land is insufficient to conserve the species.
- The exclusion is consistent with the April 28, 1994 executive memorandum and executive order 13175.
- The exclusion is consistent with past Federal Register-published secretarial determinations (65 FR 7764-7787, February 16, 2000).

⁴ The actual overlap between Indian lands and leatherback turtle habitat consists of a narrow strip of intertidal land between mean lower low water and extreme low water. This narrow strip varies in width but would generally be just a few meters wide. Although we chose to calculate our overlap estimates using linear shoreline miles, the actual *areal* overlap is much smaller when considering the substantial area seaward of the line of extreme low water.

- The exclusion is consistent with the recognition of the sovereignty of tribal governments and their jurisdiction over Indian and (where documented) non-Indian lands.
- The exclusion is consistent with departmental/agency trust responsibility in that it supports an essential purpose of the Indian lands, including economic security; it recognizes tribal primacy regarding the management of tribal lands; and it complies with direction/statements found in the Secretarial Order and EO 13175.
- The exclusion supports and affirms the federal-tribal co-manager partnership crucial to the conservation and recovery of the species.

Conclusion

Based on the foregoing analysis, we conclude that the benefits of excluding the identified Indian lands outweigh the benefits of designating those lands because excluding Indian lands benefits the federal government's policy of promoting respect for tribal sovereignty and self-governance and critical habitat on Indian lands represents such a small proportion of total critical habitat. Also, because the percentage of critical habitat on Indian lands is so small, we conclude that exclusion will not result in extinction of the leatherback turtle.

Attachments – Table 1 & Figure 1

Table 1. Summary of Indian tribes that have lands overlapping with specific areas recommended for proposal as critical habitat for the leatherback turtle. The conservation value of the affected specific area and the miles of shoreline overlap are shown.

Tribe	Specific Area Overlapping with Indian Lands	Conservation Value of Affected Specific Area	Shoreline Miles Overlapping with Indian Lands
Hoh Tribe	Area 2 - Coastal area from Winchester Bay, OR, to Cape Flattery, WA	High	1.6 mi
Makah Tribe	Area 2 - Coastal area from Winchester Bay, OR, to Cape Flattery, WA	High	13.2 mi
Quileute Tribe	Area 2 - Coastal area from Winchester Bay, OR, to Cape Flattery, WA	High	2.4 mi
Quinault Tribe	Area 2 - Coastal area from Winchester Bay, OR, to Cape Flattery, WA	High	25.2 mi
<i>Total miles of overlap and percentage of entire shoreline in areas recommended for critical habitat designation</i>			42.4 mi (3%)

Figure 1. Indian Lands Overlapping with Areas Proposed as Critical Habitat for Leatherback Turtles

