UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
PROGRAM PLANNING AND INTEGRATION
Silver Spring, Maryland 20910

DEC 17 2013

To All Interested Government Agencies and Public Groups:

Under the National Environmental Policy Act (NEPA), an Environmental Assessment (EA) has been performed on the following action.

TITLE: Environmental Assessment on the Effects of Issuing Marine Mammal Scientific Research Permit No. 14856

LOCATION: U.S. and international waters worldwide

SUMMARY: NMFS proposes to issue a scientific research permit for takes of marine mammals during vessel surveys, aerial surveys, photo-identification, acoustic recording, biopsy collection, implantable and suction cup tagging, and import/export of biopsy samples. The purpose of the research is to determine the migration routes and movement patterns, habitat use, diving behavior, vocal patterns, and acoustic environment of cetaceans worldwide. Impacts from these activities would be short-term and minimal to individual animals and negligible to the species. A biological opinion concluded that the proposed action would not likely jeopardize the continued existence of the species and would not likely destroy or adversely modify designated critical habitat. The permit would be valid for five years from the date of issuance.

RESPONSIBLE OFFICIAL: Donna S. Wieting
Director, Office of Protected Resources
National Marine Fisheries Service
National Oceanic and Atmospheric Administration
1315 East-West Highway, Room 13821
Silver Spring, MD 20910
(301) 427-8400

Our environmental review led us to conclude that this action will not have a significant effect on the human environment. Therefore, an environmental impact statement will not be prepared. A copy of the finding of no significant impact (FONSI) including the supporting EA is enclosed for your information.

Although NOAA is not soliciting comments on this completed EA/FONSI we will consider any comments submitted that would assist us in preparing future NEPA documents. Please submit any written comments to the responsible official named above.

Sincerely,

for Patricia A. Montanio
NOAA NEPA Coordinator

Enclosure

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UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Silver Spring, MD 20910

Environmental Assessment on the Effects of Issuing Marine Mammal Scientific Research Permit No. 14856

December 2013

Lead Agency: USDOC National Oceanic and Atmospheric Administration
National Marine Fisheries Service
Office of Protected Resources

Responsible Official: Donna S. Wieting, Director
Office of Protected Resources

For Further Information Contact: Office of Protected Resources
National Marine Fisheries Service
1315 East West Highway
Silver Spring, MD 20910
(301) 427-8401

Location: Worldwide

Abstract: The National Marine Fisheries Service (NMFS) proposes to issue Scientific Research Permit No. 14856, for takes of marine mammals in the wild, pursuant to the Marine Mammal Protection Act of 1972, as amended (MMPA; 16 U.S.C. 1361 et seq.), the Endangered Species Act of 1973 (ESA; 16 U.S.C. 1531 et seq.), and the Fur Seal Act of 1966, as amended (16 U.S.C. 1151 et seq.). The permit would be valid for five years from the date of issuance and would authorize take of fourteen species of pinnipeds, sixty-nine species of cetaceans, and unidentified mesoplodon species worldwide. The purpose of the research is to determine the migration routes and movement patterns, habitat use, diving behavior, vocal patterns, and acoustic environment of cetaceans worldwide. The research would involve vessel surveys, aerial surveys, photo-identification, acoustic recording, biopsy collection, and implantable and suction cup tagging. Import/export of biopsy samples would also be permitted.

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1.0 PURPOSE OF AND NEED FOR ACTION

Proposed Action: In response to receipt of a request from Bruce Mate, Ph.D., Hatfield Marine Science Center, Oregon State University, Newport, OR, (File No. 14856), NMFS proposes to issue Scientific Research Permit No. 14856, pursuant to the Marine Mammal Protection Act of 1972, as amended (MMPA; 16 U.S.C. 1361 et seq.), the Endangered Species Act of 1973 (ESA; 16 U.S.C. 1531 et seq.), and the Fur Seal Act of 1966 (16 U.S.C. 1151 et seq.) for "takes" of marine mammals, including those listed as threatened or endangered as described in Alternative 3. The activities that would result in take include approaching animals by aircraft and vessels for observation, photo-identification, passive acoustic recordings, biopsy sampling, tagging and incidental harassment.

Purpose of and Need for Action: The MMPA and ESA prohibit "takes" of marine mammals and of threatened and endangered species, respectively, with only a few specific exceptions. The applicable exceptions in this case are an exemption for *bona fide*[1] scientific research under Section 104 of the MMPA and for scientific purposes related to species recovery under Section 10(a)(1)(A) of the ESA.

The purpose of the permit is to provide the applicant with an exemption from the take prohibitions under the MMPA and ESA for harassment of marine mammals and import of marine mammal parts, including those listed as endangered, during conduct of research that is consistent with the MMPA and ESA issuance criteria.

The need for issuance of the permit is related to the purposes and policies of the MMPA and ESA. NMFS has a responsibility to implement both the MMPA and the ESA to protect, conserve, and recover marine mammals and threatened and endangered species under its jurisdiction. Facilitating research about species' basic biology and ecology or that identifies, evaluates, or resolves specific conservation problems informs NMFS management of protected species.

The purposes of the proposed research activities are to determine the migration routes and movement patterns, habitat use, diving behavior, vocal patterns, and acoustic environment of cetaceans worldwide.

Other EA/EIS That Influence Scope of this Environmental Assessment

NMFS Permits Division has prepared Environmental Assessments (EAs) with Findings of No Significant Impact (FONSI) for issuance of permits authorizing takes by harassment during research involving biopsy and tagging on numerous species of marine mammals:

- *Environmental Assessment On The Effects Of The Issuance Of Two National Marine Fisheries Service Permitted Scientific Research Activities On Cetacean Species In The South And North Atlantic Oceans (Including The Gulf Of Mexico), Arctic And North Pacific Oceans (Including Beaufort, Chukchi, And Bering Seas, Hawaii And The Eastern Tropical Pacific), Indian Ocean, South Pacific And Southern Oceans (Antarctic Peninsula), Mediterranean Caribbean Seas,*

[1] The MMPA defines bona fide research as "scientific research on marine mammals, the results of which – (A) likely would be accepted for publication in a refereed scientific journal; (B) are likely to contribute to the basic knowledge of marine mammal biology or ecology; or (C) are likely to identify, evaluate, or resolve conservation problems."

International And Foreign Waters (2005).

- *Environmental Assessment for Issuance of a Scientific Research Permit [File No. 14097] for Pinniped, Cetacean, and Sea Turtle Studies (2010a).*

- *Environmental Assessment for Issuance of a Scientific Research Permit for Cetacean Studies in the Pacific, Arctic and Atlantic Oceans [File No. 14245] (2011a).*

  The three EA's above described and analyzed the effects of research activities ranging from close approaches during aerial and vessel surveys for photo-identification to biopsy sampling and tagging.

- *Programmatic Environmental Impact Statement (PEIS) for Research on Steller Sea Lions and Northern Fur Seals* (NMFS 2007)

  This PEIS described and analyzed the effects of research on Steller seal lions and Northern fur seals. In its ROD (signed August 10, 2009) for the Final PEIS, NMFS selected the Preferred Alternative (Alternative 4: Research Program with Full Implementation of Conservation Goals), as the alternative under which permits for research would be issued.

In 2005, 2010, and 2011 NMFS prepared EAs for research on cetaceans and pinnipeds. All three of these EAs examined a variety of tagging attachment techniques from suction cup to darts to fully implantable tags. In the EA's analyses, NMFS found that vessel and aerial surveys of cetaceans and pinnipeds and biopsy and tagging of large whales, including with implantable tags, may result in short-term minor disruptions in behavioral patterns and that these disruptions are not life-threatening or otherwise biologically significant to the individual, stock, population, or species. The EA's analyses are incorporated by reference and this EA does not re-evaluate effects of vessel and aerial surveys on pinnipeds and cetaceans or biopsy and tagging of large whales as there is no new information to suggest such an analysis is warranted.

In 2007, NMFS prepared a Programmatic Environmental Impact Statement (PEIS) for Research on Steller Sea Lions and Northern Fur Seals. The takes of northern fur seals and endangered Western DPS Steller sea lions proposed in the permit application are consistent with the preferred alternative evaluated in the PEIS. In the PEIS analysis, NMFS found that aerial surveys over water for these species of marine mammals may result in short-term minor disruptions in behavioral patterns and that these disruptions are not life-threatening or otherwise biologically significant to the individual, stock, population, or species. The PEIS analysis is incorporated by reference and this EA does not re-evaluate effects on those species as there is no new information to suggest such an analysis is warranted.

The EA's cited above were prepared to take a closer look at potential environmental impacts of permitted research on marine mammals listed as threatened or endangered, and not because the Permits Division determined that significant adverse environmental impacts were expected or that the categorical exclusion was not applicable. As each EA demonstrates, and each FONSI has documented, research on marine mammals generally does not have a potential for significant adverse impacts on marine mammal populations or any other component of the environment.

Scope of Environmental Assessment: Based on the analysis in these prior EA's, the proposed action is not expected to significantly affect the human environment. The scope of this EA is limited to the effects on the marine mammals targeted by the permit, including the following ESA-listed species: humpback whales (*Megaptera novaeangliae*), blue whales (*Balaenoptera musculus*), fin whales (*B. physalus*), sei whales (*B. borealis*), Southern right whales (*Eubalaena australis*), bowhead whales (*Balaena mysticetus*), sperm whales (*Physeter macrocephalus*), killer whales (*Orcinus orca*) Southern Resident stock, North Pacific right whales (*E. japonica*), Western North Pacific gray whales (*Eschrichtius robustus*), beluga whales (*Delphinapterus leucas*) Cook Inlet stock, Steller sea lions Eastern and Western Distinct Population Segments (*Eumetopias jubatus*), Guadalupe fur seals (*Arctocephalus townsendi*), Hawaiian monk seals (*Monachus schauinslandi*), Hawaiian insular false killer whales (*Pseudorca crassidens*), bearded seals (*Erignathus barbatus*), and ringed seals (*Pusa hispida*).

Issuance of permits for research on marine mammals and threatened and endangered species are listed in National Oceanic and Atmospheric Administration (NOAA) Administrative Order 216-6 (NAO 216-6; 1999), as categories of actions that "do not individually or cumulatively have a significant effect on the human environment..." and which therefore do not require preparation of an EA or environmental impact statement (EIS). A possible exception to the use of these categorical exclusions is when the action may adversely affect species listed as threatened or endangered under the ESA (NAO 216-6 Section 5.05c).

There is no evidence from prior analyses[2] of the effects of permit issuance, or from monitoring reports submitted by permit holders[3], that issuance of research permits for take of marine mammals listed under the ESA results in adverse effects on stocks or species. Nevertheless, NMFS has prepared this EA, with a more detailed analysis of the potential for adverse impacts on threatened or endangered species resulting from takes of a specified number of individuals to assist in making the decision about permit issuance under the MMPA and ESA.

As part of the standard permit process, notification of Dr. Mate's application and draft EA were published in the Federal Register (77 FR 32571). The application was also sent to the Marine Mammal Commission (MMC) for review at the same time during the comment period, pursuant to 50 CFR §216.33 (d)(2). Comments received on the draft EA were considered in the preparation of this Final EA. During the 30-day public comment period, the Permits Division received comments from the public, the Humane Society of the United States (HSUS), the MMC, and various NMFS offices.

The one concern that was shared by multiple reviewers was the potential effects of the implantable tags on killer whales. The current tag has been successfully used on many species, but has not previously been used on killer whales. Reviewers expressed concern that due to killer whales' smaller size and thinner blubber layer compared to that of larger whales, the tags could cause injury to killer whales. The MMC recommended that NMFS issue the permit with certain provisions, including that NMFS prohibit

[2] Since 2005, NMFS has prepared over 100 EAs for issuance of permits under the MMPA and ESA. In every case, the EA supported a finding of no significant impact regardless of the nature of the permitted take or the status of the species that were the subject of the permit. These EAs were accompanied by Biological Opinions prepared pursuant to interagency consultation under section 7 of the ESA and further document that such permits are not likely to adversely affect listed species.

[3] All NMFS permits for research on marine mammals require submission of annual reports, which include information on responses of animals to the permitted takes.

the use of the deeply penetrating tags on killer whales. Based on these concerns, the Permits Division decided to consider a third alternative: issue the permit, but without authorization to use implantable tags on killer or minke whales. This is reflected in the Preferred Alternative in section 2.0.

HSUS also reviewed the draft EA and had the following issues:

- It is inappropriate for the applicant or the EA to lump all animals from a single ocean basin, rather than focusing on recognized stocks. It's not clear if the applicant wants to focus his research on animals from a single stock or if they would be spread out across multiple stocks.

- The draft EA contained only two alternatives. A third should be considered that would not grant all the proposed research. In particular NMFS should consider denying permission to tag dependent calves and animals from small stocks where the risk of not being able to monitor animals post-tagging may outweigh the benefits.

- Substantial questions exist as to the effects of the proposed action [described in Alternative 2] on the environment, thereby triggering NMFS' duty to prepare an EIS. Specifically, "...the proposal to tag critically endangered North Pacific right whales (something NMFS has previously denied) and dependent calves (something not previously permitted and on which there has been no study of effects) ... raise questions regarding the unknown or uncertain risks of the action as well as the potential adverse effects on endangered species of whales."

Regarding stocks, the application contained information both by species, by ocean, and by stock. The take tables for the permit are separated by ocean basin. Then, for each ocean, Dr. Mate lists the proposed total number of animals to be tagged annually and over the life of the permit. Furthermore, Dr. Mate specifies the maximum number of animals of any given stock that could be tagged over the course of a year. Although research objectives and fieldwork logistics mean that Dr. Mate would tag multiple individuals from the same stock, it is not his intent to spend all his efforts with any single stock of animals and the permit's take tables would not allow this. The EA mentions worldwide and stock populations for the various target species. The Biological Opinion prepared on the proposed research also examined species, ocean basin, and stock levels.

A third alternative has been added in response to the concerns the Permits Division received. This alternative (the Preferred Alternative), discussed in section 2.0, would authorize most of the proposed research, but eliminates the use of implantable tags on all stocks of killer and minke whales due to their smaller size. Regarding the request to prepare an EIS, the proposed research is not expected to result in unknown or uncertain risks. Similar research using similar tags have been previously conducted by the applicant and by the NMFS National Marine Mammal Laboratory (NMML). Dr. Mate has been designing and deploying implantable tags in cetaceans for over ten years. He recently had post-tagging images for 15 individual whales reviewed by seven marine mammal veterinarians who concluded that the tagging "did not result in unexpected or consequential visible effects" for the whales (Hayslip et al, 2011)

The current permit issued to NMML (File No. 14245) authorizes tagging of North Pacific right whales with implantable, dart, dorsal fin/ridge, and suction cup tags. With respect to tagging calves, the only species that would be tagged are blue whales and then only individuals that are approximately six months old and at least ten meters in length. At that size, a blue whale calf is as big as some adults of

the other species that would be tagged. NMFS has previously authorized other researchers to tag calves, in some cases on younger and smaller animals. For example, Permit No. 16111 authorizes biopsy sampling and dart tags on blue, fin, humpback, and gray whales that are four months or older. NMML's permit allows suction cup tags on calves of the critically endangered North Pacific right whales. Permit No. 16388 authorizes the use of dermal tags, which include an implantable dart, on North Atlantic right whales and humpback whales that are year old, and still smaller than a six month old blue whale. Lastly, the Biological Opinion prepared for the proposed research examined the potential for adverse effects on endangered species and concluded that the research is not likely to jeopardize the continued existence of those species.

2.0 ALTERNATIVES INCLUDING THE PROPOSED ACTION

Alternative 1 - No Action: Under the No Action alternative, no permit would be issued and the applicant would not receive an exemption from the MMPA and ESA prohibitions against take.

Alternative 2 - Proposed Permit: Under the Proposed Permit alternative, a permit would be issued to the applicant for all of the activities requested in his application. The permit would exempt the applicant from MMPA and ESA take prohibitions during conduct of research that is consistent with the purposes and policies of the MMPA and ESA and applicable permit issuance criteria.

The objectives of the applicant's research are to: (1) identify migration routes; (2) identify specific feeding and breeding grounds for each species, if unknown; (3) characterize local movements and dive habits in both feeding and breeding grounds, and during migration; (4) examine the relationships between movements/dive habits and prey distribution, time of day, geographic location, or physical and biological oceanographic conditions; (5) characterize whale vocalizations; and (6) characterize sound pressure levels to which whales are exposed.

Methods: The research protocols are described in detail in the application on file with NMFS for this action and are briefly summarized here. The research protocol consists of vessel and aerial surveys with vessel approach for implantable and suction-cup tagging, biopsy, photo-id, passive acoustic recording, and behavioral observation.

Some animals would be temporarily "tagged" with scientific instruments attached via suction cups or implantable darts for periods of time ranging from several hours to 2 years. These tags record position, physical and biological oceanographic conditions, received ambient sound levels, whale vocalizations, and animal behaviors such as acceleration and body orientation. Animals also would be photographed and biopsy sampled for later identification and to document behaviors. Biopsy samples may be imported and exported for analysis.

The primary species of interest are large whales, which would be tagged and biopsy darted. The permit would authorize harassment of target animals from the close approach necessary for tagging, biopsy collection, photo-identification, and behavioral observations, as well as incidental harassment of non-target animals that might be in the vicinity of the target animal. The permit would also authorize Level B harassment of other marine mammals encountered during tagging activities to gather photo-

identification and behavioral information for species and situations where little information has been documented.

Duration: The proposed research would occur yearround. The proposed permit would be valid for five years from the date of issuance.

A single one-year extension of this permit may be authorized and would be considered a modification or amendment, pursuant to NMFS regulations at 50 CFR §222.306. The extension would not change any other terms or conditions of the permit. NMFS does not consider a one-year extension of this nature to represent a substantial change to the proposed action that involves changes in environmental impacts. As such, NMFS would not prepare a supplemental EA for the one-year extension unless substantive new information or circumstances relating to environmental impacts were available (e.g., a change in the status of the target species, listing of new threatened or endangered species in the project area).

Target species or stocks: The applicant's research is directed at 69 species of cetaceans and 14 species of pinnipeds (including their individually managed stocks) (Table 1). As proposed in the application, only adults of the smaller whale species (minke, Antarctic minke, and killer) would be tagged. For the other whale species, adults and juveniles would be tagged. In the case of blue whales, calves older than 6 months of age or greater than 10 m in length would also be tagged. The permit would exempt takes of all marine mammals that could be harassed. This is consistent with the MMPA definition of harassment in which actions with a potential to injure (Level A harassment) a marine mammal or disturb (Level B harassment) a marine mammal in the wild by causing disruption of behavioral patterns including migration, breathing, nursing, breeding, feeding, or sheltering, which are considered a take. The inclusion of "potential to" in this definition means that the take occurs regardless of whether there is an injury or a disruption in the behavioral patterns of marine mammals exposed to the action.

Table 1. ESA-listed species targeted for study in the proposed action by level of harassment.
* = denotes ESA listed species or proposed for listing. (DPS= Distinct Population Segment)

Level A Harassment	
Humpback whale, *Megaptera novaeangliae**	Blue whale, *Balaenoptera musculus**
Fin whale, *B. physalus**	Sei whale, *B. borealis**
Bryde's whale, *B. edeni*	Minke whale, *B. acutorostrata*
Antarctic minke whale, *B. bonaerensis*	Eastern North Pacific gray whale, *Eschrichtius robustus*
Southern right whale, *Eubalaena australis**	Bowhead whale, *Balaena mysticetus**
Sperm whale, *Physeter macrocephalus**	Killer whales, *Orcinus orca*
North Pacific right whales, *E. japonica**	Western North Pacific gray whales*
Level B Harassment	
Pygmy right whale, *Caperea marginata*	Southern bottlenose whale, *Hyperoodon planifrons*
Pygmy sperm whale, *Kogia breviceps*	Dwarf sperm whale, *K. sinus*
Cuvier's beaked whale, *Ziphius cavirostris*	Sowerby's beaked whale, *Mesoplodon bidens*
Blainville's beaked whale, *M. densirostris*	Gervias beaked whale, *M. europaeus*
True's beaked whale, *M. mirus*	Hubb's beaked whale, *M. carlhubbsi*
Hector's beaked whale, *M. hectori*	Stejneger's beaked whale, *M. stejnegeri*

Perrin's beaked whale, *M. perrini*	Pygmy beaked whale, *M. peruvianus*
Longman's beaked whale, *M. pacificus*	Ginkgo-toothed beaked whale, *M. ginkgodens*
Gray's beaked whale, *M. grayi*	Strap-toothed beaked whale, *M. layardii*
Andrew's beaked whale, *M. bowdoini*	Spade-toothed beaked whale, *M. traversii*
Arnoux's beaked whale, *Berardius arnuxii*	Sheperd's beaked whale, *Tasmacetus shepherdi*
Baird's beaked whale, *Berardius bairdii*	Melon-headed whale, *Peponocephala electra*
Pygmy killer whale, *Feresa attenuata*	False killer whale, *Pseudorca crassidens* (including Hawaiian Insular DPS)*
Short finned pilot whale, *Globicephala macrorhynchus*	Long finned pilot whale, *G. melaena*
Beluga whale, *Delphinapterus leucas* (including Cook Inlet DPS)*	Narwhal, *Monodon monoceros*
Northern bottlenose whale, *Hyperoodon ampullatus*	Fraser's dolphin, *Lagenodelphis hosei*
Rough-toothed dolphin, *Steno bredanensis*	Risso's dolphin, *Grampus griseus*
Atlantic spotted dolphin, *Stenella frontalis*	Pantropical spotted dolphin, *S. attenuata*
Clymene dolphin, *S. clymene*	Spinner dolphin, *S. longirostris*
Striped dolphin, *S. coeruleoalba*	Southern right whale dolphin, *Lissodelphis peronii*
Bottlenose dolphin, *Tursiops truncatus*	Northern right whale dolphin, *Lissodelphis borealis*
Long-beaked Common dolphin, *Delphinus capensis*	Short-beaked Common dolphin, *D. delphis*
White-beaked dolphin, *Lagenorhynchus albirostris*	Atlantic White-sided dolphin, *L. acutus*
Hourglass dolphin, *L. cruciger*	Peale's dolphin, *L. australis*
Dusky dolphin, *L. obscurus*	Pacific White-sided dolphin, *L. obliquidens*
Harbor porpoise, *Phocoena phocoena*	Dall's porpoise, *P. dalli*
Killer Whale, Southern Resident DPS, *Orcinus orca**	Northern fur seal, *Callorhinus ursinus*
Harbor seal, *Phoca vitulina*	Northern elephant seal, *Mirounga angustirostris*
Steller sea lion, *Eumetopias jubatus*(including Eastern and Western DPS's)*	California sea lion, *Zalophus californianus*
Hawaiian monk seal, *Monachus schauinslandi**	Guadalupe fur seal, *Arctocephalus townsendi**
Hooded seal, *Cystophora cristata*	Bearded seal, *Erignathus barbatus**
Ringed seal, *Phoca hispida**	Ribbon seal, *Phoca fasciata*
Gray seal, *Halichoerus grypus*	Spotted seal, *Phoca largha**

The permit would contain measures to minimize impacts of the proposed research activities to the target animals and other protected species in the area. These include:

- Avoiding non-target species to prevent potential harassment.
- Using caution when approaching animals and researchers must retreat from animals if behaviors indicate the approach may be interfering with reproduction, feeding, or other vital functions.
- For females with calves, researchers:

- Must immediately terminate efforts if there is evidence that the activity may be interfering with pair-bonding or may be life threatening;
- Must not position the research vessel between the mother and calf;
- Must approach mothers and calves gradually to minimize or avoid any startle response;
- Must not approach any mother or calf while the calf is nursing; and
- Must, if possible, sample the calf first to minimize the mother's reaction when sampling mother/calf pairs.

- Disinfecting biopsy dart tips before and between each use.
- When possible, identifying individuals prior to sampling to avoid duplication.
- Prohibiting individuals from being tagged with two tags more than once per year.
- Discontinuing tagging attempts if the animal demonstrates a strong negative response to tagging.
- Prohibiting implantable tagging of animals exhibiting poor body condition.
- Limiting takes of an animal to three takes, including missed sampling or tagging attempts, in one day.
- Coordinating activities with other Permit Holders and notifying the NMFS Regional Offices to avoid unnecessary repeated disturbance of target animals.

Alternative 3 – Preferred Alternative: Under the Preferred Alternative, a permit would be issued to the applicant, but the permit would not authorize all activities as originally requested. Instead, the permit would not authorize implantable tagging on any stock of killer or minke whales. Multiple reviewers expressed concerns about use of the implantable tags on these whales, which are smaller than the other species that would receive the same type of tag. Based on these comments and discussions with the applicant, the Permits Division decided to develop this third alternative. All of the information listed above in Alternative 2 would still apply, with the exception of killer and minke whale implantable tagging. The permit would exempt the applicant from MMPA and ESA take prohibitions during conduct of research that is consistent with the purposes and policies of the MMPA and ESA and applicable permit issuance criteria.

3.0 AFFECTED ENVIRONMENT

Location

The taking of marine mammals would occur on all U.S. EEZ, state, territorial, and international waters worldwide.

Status of ESA Species

There are 69 species of cetaceans and 14 species of pinnipeds found in the study area that would be targeted for research or taken incidentally. Of these, 12 cetacean species are listed as endangered or have a Distinct Population Segment (DPS's) that is listed. There are five species of pinnipeds that are ESA-listed or have a DPS that is listed (three endangered, seven threatened). Further details on the species and the status in U.S. waters, in the U.S. Stock Assessment Reports (SAR's) available at http://www.nmfs.noaa.gov/pr/sars/region.htm.

The status of species and populations worldwide that are not detailed in the SAR's can be found at the International Union for Conservation of Nature (IUCN) status of the world cetaceans web page at http://www.iucn-csg.org/index.php/status-of-the-worlds-cetaceans/

Sei whale: Sei whales are listed as depleted under the MMPA and endangered under the ESA throughout their range with the worldwide population estimated to be in the range of 30,000 to 40,000.

Blue whale: Blue whales are listed as depleted under the MMPA, endangered under the ESA throughout their range. The worldwide population is estimated to be in the range of 10,000 to 25,000 (IUCN).

Fin whale: Fin whales are listed as depleted under the MMPA, endangered under the ESA throughout their range. The worldwide population is estimated to be less than 100,000 (IUCN).

North Pacific right whale: There are no reliable estimates of current abundance or trends for right whales in the North Pacific, including the eastern or western population. For the western North Pacific, sighting survey estimates for the summer feeding ground indicate an abundance of around 900 in the Sea of Okhotsk. Over the past forty years, most sightings in the eastern North Pacific have been of single whales. However, during the last few years, small groups of right whales have been sighted (Wade et al., 2006, 2011).

Southern right whale: Fin whales are listed as depleted under the MMPA, endangered under the ESA throughout their range. The worldwide population is estimated to be greater than 7,500(IUCN).

Humpback whale: Humpback whales are listed as depleted under the MMPA, endangered under the ESA throughout their range. The worldwide population is estimated to be less than 100,000 (IUCN).

Sperm whale: Sperm whales are listed as depleted under the MMPA and endangered under the ESA throughout their range. The worldwide population is estimated to be less than 1,000,000 (IUCN).

Bowhead whale: Bowhead whales are listed as depleted under the MMPA and endangered under the ESA throughout their range. The worldwide population is estimated to be around 20,000 (IUCN).

Western North Pacific (WNP) stock Gray whale: WNP gray whales are listed as depleted under the MMPA and endangered under the ESA throughout their range. Their population is estimated to be in the range of 100-150 (IUCN).

Eastern North Pacific Southern Resident Killer Whale stock (SRKW): SRKW's are listed as depleted under the MMPA and endangered under the ESA throughout their range. The population is currently estimated at about 85 whales. (Caretta et al., 2011)

Cook Inlet Beluga whales: The Cook Inlet DPS of beluga whales is listed as endangered. The population is currently estimated to be fewer than 300 animals (Hobbs et al., 2011).

Hawaiian Insular stock of false killer whales: A final rule that lists this stock as an endangered distinct population segment was issued on November 28, 2012 (77 FR 70915). Within waters of the central Pacific, four Pacific Islands Region stocks of false killer whales are currently recognized for management under the MMPA: the Hawaii Insular stock, the Hawaii pelagic stock, the Palmyra Atoll stock, and the American Samoa stock (Carretta et al., 2011). The best estimate of current population size of Hawaiian insular false killer whales is 123 individuals (Baird et al., 2005).

Hawaiian Monk Seal: Hawaiian monk seals are listed as depleted under the MMPA and endangered under the ESA, throughout their range. The best estimate of the total population size is 1,136 (Caretta et al., 2011).

Guadalupe fur seal: The Guadalupe fur seal is listed as depleted under the MMPA and threatened under the ESA throughout their range. The best estimate of the total population size is from 1993 and is 7,408 (Caretta et al., 2011).

Steller sea lions: Steller sea lions are listed as depleted under the MMPA and threatened (eastern) or endangered (western) under the ESA. For management purposes, Steller sea lions inhabiting U.S. waters have been divided into two DPS's at 144° West longitude (Cape Suckling, Alaska).

Western DPS: Currents population estimates are a minimum of 42,366 SSLs in the Western DPS (Allen and Angliss, 2010). Population surveys suggest that the Western DPS is declining.

Eastern DPS: This population was recently (October 2013) delisted by NMFS and is no longer considered threatened. Currents population estimates are a minimum of 58,334-72,223 in the Eastern DPS (Allen and Angliss, 2010).
Beringia and Okhotsk Bearded seal DPS's: On December 28, 2012, NMFS published a final rule (77 FR 76740) designating these two stocks of bearded seals as threatened under the ESA. The best estimate of the current population size of the DPS's is 220,000.

Arctic, Okhotsk, Baltic, and Ladoga Ringed seal Distinct Population Segments: On December 28, 2012, NMFS issued a final rule (77 FR 76706) on the ESA-status of four DPS's of ringed seals. The Arctic, Okhotsk, and Baltic subspecies were listed as threatened. The Ladoga subspecies was listed as endangered. The best estimate of the current population size of the DPS's is around 1,000,000.

Non-ESA Listed Mammals

Of the non-listed cetacean and pinniped species, five have stocks considered depleted under the MMPA: AT1 (Alaska transient) killer whales; bottlenose, pantropical spotted, and spinner dolphins; and northern fur seals. The remaining non-listed species of marine mammals are from populations that are considered either stable or increasing in size, or are data deficient with no population estimate available.

Further details on the species and their status in U.S. waters can be found in the U.S. Stock Assessment Reports available at http://www.nmfs.noaa.gov/pr/sars/region.htm; and their status worldwide at the International Union for Conservation of Nature (IUCN) status of the world cetaceans web page at http://www.iucn-csg.org/index.php/status-of-the-worlds-cetaceans/.

Non-Target Marine Animals

In addition to the marine mammal stocks and species that are the subject of the permit, an assortment of sea birds, sea turtles, fish and invertebrates may be found in the action area. The permit would only authorize takes of marine mammals. The takes of marine mammals by harassment are the result of close approaches by a vessel and aircraft. Non-target animals will not be affected by the harassment of marine mammals under the permit. The applicant does not plan to investigate these other species. Furthermore, the permit would contain a condition clearly stating that takes of any protected species not in the permit (e.g., sea otters) are not authorized and should such species be observed researchers must exercise caution and remain a safe distance away from the animals. Therefore those animals will not be considered further.

Biodiversity and Ecosystem Function

The proposed action is directed at marine mammals and does not interfere with benthic productivity, predator-prey interactions or other biodiversity or ecosystem functions. Marine mammals would not be removed from the ecosystem or displaced from habitat, nor would the permitted research affect their diet or foraging patterns. Further, the proposed action does not involve activities known to or likely to result in the introduction or spread of nonindigenous species, such as ballast water exchange or movement of vessels among water bodies. Thus, effects on biodiversity and ecosystem function will not be considered further.

Ocean and Coastal Habitats

The action area includes all U.S. designated and proposed critical habitats for marine species. The proposed action is directed at marine mammals and does not affect habitat. It does not involve alteration of substrate, movement of water or air masses, or other interactions with physical features of ocean and coastal habitat. Thus, effects on habitat will not be considered further.

Unique Areas

Research may be conducted in all of the U.S. designated sanctuaries, monuments, and marine protected areas. The permitted taking of marine mammals during research, and the import of marine mammal parts, will not affect any protected areas.

The researcher may be required to obtain special use or access permits for these areas, but no such permits are required for NMFS to issue the proposed permit.

Essential fish habitat (EFH) designated for various species of fish, which includes hard and soft bottom substrates, is also located throughout the action area. The proposed action is directed at marine mammals and does not alter or affect unique areas, including any components of EFH.

Thus, effects on unique areas will not be considered further.

Historic Places, Scientific, Cultural, and Historical Resources
There are no districts, sites, highways or structures listed in or eligible for listing in the National Register of Historic Places in the action area. The proposed action represents non-consumptive use of marine mammals and does not preclude their availability for other scientific, cultural, or historic uses, including subsistence harvest by Alaskan Natives. Thus, effects on such resources will not be considered further.

Social and Economic Resources
The proposed action does not affect distribution of environmental burdens, access to natural or depletable resources or other social or economic concerns. It does not affect traffic and transportation patterns, risk of exposure to hazardous materials or wastes, risk of contracting disease, risk of damages from natural disasters, food safety, or other aspects of public health and safety. Thus, effects on such resources will not be considered further.

4.0 ENVIRONMENTAL CONSEQUENCES

Effects of the No Action Alternative
There would be no direct or indirect effects on the environment of not issuing the permit. The takes of marine mammals, including those listed as threatened or endangered, resulting from the applicant's research would not be exempted. It is unlikely the applicant would conduct the research in the absence of a permit, because to do so would risk sanctions and enforcement actions. Other activities, including other permitted research that affect marine mammals, would continue to occur.

Effects of the Proposed Permit Alternative
Effects would occur at the time when the applicant's research results in takes of marine mammals, including those listed as threatened or endangered.

Dr. Mate is a current and prior holder of multiple research permits (Permit Nos. 15483, 369-1757, 369-1440). This request would allow continuation of ongoing long term research for another five years. The number of animals proposed to be taken annually would be slightly higher than is currently authorized for some species; however, the level of effort would not be substantially different. The overall effects of issuing the permit would be similar to the effects of issuing Dr. Mate's current and prior permits, as well as Permit Nos. 14097 and 14245 issued to the NMFS Southwest Fisheries Science Center and NMML, respectively. Those effects were discussed in the relevant EAs for those permits (NMFS 2005, 2010, 2011). Research activities may result in short-term behavioral responses by individuals, but would not be expected to result in stock- or species-level effects.

Most relevant to this analysis is the potential for negative impacts on the target species. It is important to recognize that an adverse effect on a single individual or a small group of animals does not translate into an adverse effect on the population or species unless it results in reduced reproduction or survival of the individual(s) that causes an appreciable reduction in the likelihood of survival or recovery for the species. In order for the proposed actions to have an adverse effect on a species, the exposure of individual animals to the research activities would first have to result in:

- direct mortality,
- serious injury that would lead to mortality, or
- disruption of essential behaviors such as feeding, mating, or nursing, to a degree that the individual's likelihood of successful reproduction or survival was substantially reduced.

Subsequently, mortality or reduction in an individual's likelihood of successful reproduction or survival would then have to result in a net reduction in the number of individuals of the species. In other words, the loss of the individual or its future offspring would not be offset by the addition, through birth or emigration, of other individuals into the population. That net loss to the species would have to be reasonably expected, directly or indirectly, to appreciably reduce the likelihood of both the survival and recovery of the listed species in the wild.

Level B harassment, as defined by the MMPA, would occur during aerial and vessel surveys, photo-identification activities, behavioral observations, and passive acoustic recording. The close approach activities requested in the proposed action are small increases in the number of animals that would be taken as compared to Dr. Mate's current permit, and would not be expected to have any additional effects that were not analyzed in previous EAs.

Level B harassment from large and small vessel surveys and photo-identification would occur concurrently with Level A harassment activities.

Level A harassment, as defined by the MMPA, would occur during tagging activities and biopsy sampling. Both of these activities have been analyzed in numerous EAs, including the three listed in section 1.0. The potential for injury would be minimized by conditions of the permit limiting how sampling and attachment of tags may occur, such as avoiding sensitive areas of the body. The applicant would also minimize potential disturbance or physical risk by:

- Limiting time spent in the vicinity of target animals and the number of attempts made to obtain biopsy samples, or deploy tags in order to minimize incidental harassment or disturbance from the presence of the small boat or the activities; and

- Sterilizing biopsy tips and dart tags in a multi-step process to minimize the risk of infection.

All tag types to be used for this action were analyzed in the EAs for Dr. Mate's current permit and NMML and Southwest Fisheries Science Center's permits (Nos. 14245 and 14097) (NMFS, 2010a; NMFS, 2011a). The effects of the activities were found to be short-term and recoverable with only moderate to minimal reactions, with no observable change in behavior in response to biopsy sampling or tagging and no long term impact or reduction in fecundity expected. The effects analyses in those EAs are hereby incorporated by reference.

Since these EAs were issued, a report on the effects of implantable tagging and wound healing on eastern gray whales under Permit No. 369-1757 has been made publically available. Photographs of 15 tagged gray whales taken over periods of up to two years were reviewed by seven marine mammal veterinarians for health assessments with findings consistent with the above summarized effects (Hayslip et al., 2011). Scars and pigmentation changes shrank over time. No re-sighted whales were emaciated or exhibited other signs suggesting adverse effects from tagging. The behavior of tagged

whales was not noticeably different than that of non-tagged whales. The panel of veterinarians concluded that tagging "did not result in unexpected or consequential visible effects" for the whales (Hayslip et al., 2011).

These results were presented at the 2011 International Whaling Commission meeting to the sub-committee on bowhead, right and gray whales (IWC, 2011a). The group recommended tagging both males and females of the critically endangered western gray whale stock, stating in their report (IWC, 2011b) that:

- *"The risk is sufficiently low and the conservation benefits sufficiently high that the main focus of determining candidates to tag should be the scientific importance of the data that might be obtained."*;

- *"...whales judged to be healthy and in good body condition (to the extent this can be determined visually in the field) should be candidates for tagging..."* ; and

- *" ...the following cannot be considered as candidate whales: 'small' animals (calves, yearlings, juveniles); females accompanied by calves; to the extent possible to determine, females that have weaned their calves in 2011 as such females may have depleted energy reserves and be in poor body condition."*

The Section 7 biological opinion (BO) prepared for this action also evaluated the use of these tags and notes that NMFS veterinarian T. Rowles opined that these tags are not expected to "be a major health risk to individuals". The BO went on to conclude that "deeply-penetrating tags do not innately represent a significant health or fitness consequence to target individuals" (NMFS 2013). Thus NMFS does not anticipate that tagging adults, juveniles or females with calves as conditioned by the permit would result in significant impacts to the health of target animals. Although the implantable tags proposed in the application, or similar types, have been deployed on a variety of large whale species for many years by Dr. Mate, NMML, and other researchers, they have not been previously used on killer whales. During the public comment period, the Permits Division received numerous questions about the use of the implantable tag on killer whales. Because killer whales are smaller and have a thinner blubber layer than the whale species that Dr. Mate typically tags, reviewers expressed concern that the rather long implantable tag could cause injury or unforeseen reactions in this species. There are no concerns about the effects of other research activities on killer whales.

Effects of the Preferred Alternative (Issuance of the requested permit but with no killer or minke whale implantable tagging):
The effects of this alternative would be exactly the same as the Proposed Permit alternative, with the exception that no killer or minke whales of any stock would be tagged with the implantable tags. This would remove any concern about the implantable tag, as currently designed, being too long for the blubber layer of these smaller whales. If Dr. Mate wishes to pursue tagging these species, he can take the comments into account and design a similar tag that is smaller and more suited to the whale blubber thickness of these smaller whales. He would then need to request a permit amendment. Such a request would be processed similar to a new permit application – requiring a 30-day public comment period, appropriate NEPA analysis, and ESA Section 7 consultation, if applicable.

Effects would occur at the time when the applicant's research results in takes of marine mammals, including those listed as threatened or endangered.

In accordance with Section 7 of the ESA, a Biological Opinion was prepared based on the Preferred Alternative and examined the following species: blue, fin, sei, western gray, humpback, North Pacific and Southern right, sperm, Southern Resident killer, Cook Inlet beluga, and Hawaiian insular false killer whales, and eastern and western Steller sea lions. After reviewing the current status of those species, the environmental baseline for the study area, the effects of proposed research programs, and the cumulative effects, the Biological Opinion concluded that issuing Permit No. 14856 is not likely to jeopardize the continued existence of the species. Likewise, critical habitat is not expected to be affected by the proposed research.

Cumulative Effects

Cumulative effects are defined as those that result from incremental impacts of a proposed action when added to other past, present, and reasonably foreseeable future actions, regardless of which agency (federal or non-federal) or person undertakes such actions. As a permit requirement, researchers must notify in advance the relevant NMFS Regional Office of their research plan, and the respective Regions are responsible for coordination of researchers in the area.

Cumulative impacts can result from individually minor but collectively significant actions that take place over a period of time. There may already be substantial adverse impacts on marine mammals from the existing levels of human activities. However, the relative incremental effect of the proposed action would not be significant.

NMFS believes that the proposed action as discussed above is similar to that of actions previously analyzed in the NMFS EA's discussed in the *Other EA/EIS That Influence Scope of this Environmental Assessment* section which have been incorporated by reference. These prior analyses determined that the research directed at large whales and other species would not have a significant cumulative effect on either the human or marine environment. NMFS is not aware of any new information that affects these analyses or their findings. The analyses included examining other past, present and future activities affecting whales, such as whaling, ship strikes, entanglement, anthropogenic noise, whale watching, and habitat degradation. The proposed action would be focused on fin, blue, sei, bowhead, sperm, North Pacific right, Southern right, gray, humpback, Bryde's, and minke whales and would similarly not be likely to have a significant cumulative effect on the other target and non-target species. Furthermore, it is not expected that the proposed action will have a significant cumulative impact on the environment. Based on these determinations, it is highly unlikely that activities carried out by the researcher under the proposed permit would have significant cumulative impacts.

5.0 MITIGATION MEASURES

There are no additional mitigation measures beyond those that are part of the applicant's protocols or conditions that would be required by permit, as discussed in the description of the Proposed Permit Alternative. The applicant's protocols cover all aspects of research from vessel approaches to biopsy and tagging operations. The protocols are incorporated into the permit by reference. Here is a short summary of some of the applicant's measures to minimize effects to the animals:

"Close boat approaches will be undertaken with care so as not to unduly stress the animals. Whales are typically approached from behind and to one side. When approaching within 100 yards of animals our vessel speed will be the same or slower than the whale's speed. During tag deployment our vessel speed will be slightly greater than the whale's so as to catch up to the whale and position the tag. Our approach to an animal will be terminated if the animal exhibits an "acute behavioral response" (repeated, prolonged, or excessive instances of disturbance or disruption of normal behavior patterns). While attempting to tag mothers with calves, care will be taken not to separate or stress the mother/calf pair. At no time will our vessel purposefully maneuver between a mother and calf, and we will terminate efforts if there is any evidence that our activity is interfering with pair-bonding or nursing. Our experience tagging and resighting tagged mothers with calves gives us confidence that our approach protocols do not disrupt the mother/calf relationship. Tags will be miniaturized to the extent possible to reduce these risks. Antibiotic, in ointment and long-dispersant forms, will be applied to parts of subdermal tags to reduce risk of infection."

In summary, the permit conditions limit the level of take as described in the take tables and require notification, coordination, monitoring, and reporting. Although injury and mortality are not expected, if they occur due to the authorized actions, the permit contains measures requiring researchers to cease activities until protocols have been reviewed and revised with NMFS. Upon review NMFS may also revoke the permit.

Review of monitoring reports of previous permits for the same or similar research protocols indicate that these types of mitigation measures are effective at minimizing stress, pain, injury, and mortality associated with takes.

6.0 LIST OF PREPARERS AND AGENCIES CONSULTED

This document was prepared by the Permits and Conservation Division of NMFS' Office of Protected Resources in Silver Spring, Maryland.

The National Marine Sanctuary Program was consulted for activities that would be conducted in U.S. National Marine Sanctuaries and Monuments.

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UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Silver Spring, Maryland 20910

Finding of No Significant Impact
for Issuance of Marine Mammal Scientific Research Permit No. 14856

DEC 16 2013

Background

In January 2010, the National Marine Fisheries Service (NMFS) received an application for a permit (File No. 15483) from Bruce Mate, Ph.D., Oregon State University, Hatfield Marine Science Center, Newport, Oregon, to take marine mammals during research in U.S. and international waters worldwide. In accordance with the National Environmental Policy Act, NMFS prepared an Environmental Assessment (EA) analyzing the impacts on the human environment associated with permit issuance (Environmental Assessment on the Effects of the Issuance of Marine Mammal Scientific Research Permit No. 14856). The EA contains three alternatives: No Action, Proposed Permit, and the Preferred Alternative. The Preferred Alternative does not authorize tagging of killer or minke whales; in all other ways the Preferred and Proposed Permit alternatives are the same. In addition, a Biological Opinion (BO) was prepared under the Endangered Species Act (April 2013) summarizing the results of an intra-agency consultation. The analyses in the EA, as informed by the BO, support the findings and determination below.

Analysis

National Oceanic and Atmospheric Administration Administrative Order 216-6 (May 20, 1999) contains criteria for determining the significance of the impacts of a Proposed Action. In addition, the Council on Environmental Quality (CEQ) regulations at 40 C.F.R. 1508.27 state that the significance of an action should be analyzed both in terms of "context" and "intensity." Each criterion listed below is relevant to making a finding of no significant impact and has been considered individually, as well as in combination with the others. The significance of this action is analyzed based on the NAO 216-6 criteria and CEQ's context and intensity criteria. These include:

1) Can the Preferred Alternative reasonably be expected to cause substantial damage to the ocean and coastal habitats and/or essential fish habitat as defined under the Magnuson-Stevens Act and identified in Fishery Management Plans?

> **Response:** Issuance of the permit is not expected to affect ocean and coastal habitats or any designated Essential Fish Habitat (EFH). Although EFH is present in the action area, the Preferred Alternative would not result in impacts to habitat. The majority of research would involve routine vessel movements at the water surface and activities would be directed at marine mammals. None of the activities in the Preferred Alternative would alter or damage habitat. None of the activities that would be authorized under the Preferred Alternative would involve alteration of substrate, movement of water or air masses, or other interactions with physical features of ocean and coastal habitat. Therefore, no EFH consultation was required.

2) Can the Preferred Alternative be expected to have a substantial impact on biodiversity and/or ecosystem function within the affected area (e.g., benthic productivity, predator-prey relationships, etc.)?

Response: The effects of the action on the target species, including ESA-listed species and their habitat, EFH, marine sanctuaries, and non-target species were all considered in the EA and the accompanying BO. The Preferred Alternative would target marine mammals for research activities that are expected to result in no more than short-term minimal disturbance or harm to individual marine mammals. This work is not expected to interfere with benthic productivity, an animal's susceptibility to predation, alter dietary preferences or foraging behavior, or change distribution or abundance of predators or prey. Therefore, the Preferred Alternative is not expected to have a substantial impact on biodiversity or ecosystem function.

3) Can the Preferred Alternative reasonably be expected to have a substantial adverse impact on public health or safety?

Response: No, the Preferred Alternative is not expected to impact public health or safety. The Preferred Alternative involves issuance of a permit to take marine mammals via vessel and aerial surveys. Research activities include: photo-identification, behavioral observations, passive acoustic recordings, biopsy sampling, attachment of suction-cup or implantable dart tags, and import/export of samples. Samples would be handled in a safe manner as described by the applicant that would prevent transfer of pathogens. Thus, the proposed activities do not involve hazardous methods, toxic agents or pathogens, or other materials that would have a substantial adverse impact on public health and safety.

4) Can the Preferred Alternative reasonably be expected to adversely affect endangered or threatened species, their critical habitat, marine mammals, or other non-target species?

Response: As determined in the 2013 BO, the Preferred Alternative would affect ESA-listed marine mammals in the action area. However, the BO concluded that the effects of the Preferred Alternative would be short-term in nature and limited to individual animals. The Preferred Alternative would not likely jeopardize the continued existence of any ESA-listed species and would not likely destroy or adversely modify designated critical habitat. The Preferred Alternative would also disturb non-ESA listed marine mammals in the area. The effects are expected to be short-term and recoverable, and to not result in impacts on populations, stocks or species.

5) Are significant social or economic impacts interrelated with natural or physical environmental effects?

Response: Effects of the Preferred Alternative would be limited to the short-term harassment of target animals and non-target marine mammals in the vicinity of research. Permitting take exemptions for the proposed research could result in a low level of economic benefit to local economies in the action area. However, such impacts would be negligible on a regional level and therefore are not considered significant. These impacts are not interrelated with any natural or physical impacts. The Preferred Alternative would not result in inequitable distributions of environmental burdens or affect access (short-or long-term use) to any natural or depletable resources in the action area.

6) Are the effects on the quality of the human environment likely to be highly controversial?

Response: NMFS does not consider the Preferred Alternative controversial nor have similar research actions been considered controversial in the past. The proposed research activities are standard research activities that have been conducted on these species by the scientific community, and by the applicant, for decades. In addition, past submitted monitoring reports that include information on the effects of research are in agreement with published scientific literature on the effects of the types of proposed research activities. No other portion of the marine environment beyond marine mammals would be impacted by the Preferred Alternative.

7) Can the Preferred Alternative reasonably be expected to result in substantial impacts to unique areas, such as historic or cultural resources, park land, prime farmlands, wetlands, wild and scenic rivers, essential fish habitat, or ecologically critical areas?

Response: Issuance of the permit is not expected to result in substantial impacts to any such area. Essential fish habitat and critical habitat would not be impacted by the taking of marine mammals by harassment (see Question 1 and 4 responses).

8) Are the effects on the human environment likely to be highly uncertain or involve unique or unknown risks?

Response: The effects of permit issuance on the environment are not uncertain and the takes of marine mammals do not involve unique or unknown risks. The potential for harassment and mortality to the target and non-target marine mammals is known and has been considered. The proposed procedures have been used on multiple cetacean and pinniped species, including by the applicant under previous permits. Short and long-term physical and behavioral reactions including tag site healing have been thoroughly documented and were discussed in the EA. Risks to other portions of the human environment as a result of the takes are not expected.

9) Is the Preferred Alternative related to other actions with individually insignificant, but cumulatively significant impacts?

Response: The Preferred Alternative is not related to other actions with individually insignificant, but cumulatively significant impacts. The incremental impact of the action when added to other past, present, and reasonably foreseeable future actions discussed above and in the EA would be minimal and not significant.

10) Is the Preferred Alternative likely to adversely affect districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places or may cause loss or destruction of significant scientific, cultural or historical resources?

Response: The Preferred Alternative would not take place in any district, site, highway, structure, or object listed in or eligible for listing in the National Register of Historic Places, thus none would be impacted. As analyzed in the EA, the Preferred Alternative would not cause the loss or destruction of significant scientific, cultural or historical resources. None of these resources are expected to be directly or indirectly impacted.

11) Can the Preferred Alternative reasonably be expected to result in the introduction or spread of a non-indigenous species?

Response: The Preferred Alternative would not be removing or introducing any species; therefore, it would not likely result in the introduction or spread of a non-indigenous species. Researchers would not be exchanging ballast water during the course of research.

12) Is the Preferred Alternative likely to establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration?

Response: The decision to issue the permit would not be precedent-setting and would not affect any future decisions. Issuance of a permit to a specific individual or organization for a given research activity does not in any way guarantee or imply that NMFS will authorize other individuals or organizations to conduct the same research activity. Any future request received would be evaluated upon its own merits relative to the criteria established in the MMPA, ESA, and NMFS' implementing regulations.

13) Can the Preferred Alternative reasonably be expected to threaten a violation of Federal, State, or local law or requirements imposed for the protection of the environment?

Response: Issuance of this permit is not expected to violate any Federal, State, or local laws or requirements related to environmental protection. NMFS has sole

jurisdiction for issuance of such permit for marine mammals and has determined the proposed research to be consistent with all applicable provisions of the MMPA and ESA. The permit currently contains language stating that the permit do not relieve the Permit Holder of the responsibility to obtain any other permits, or the need to comply with any other Federal, State, local, or international laws or regulations.

14) Can the Preferred Alternative reasonably be expected to result in cumulative adverse effects that could have a substantial effect on the target species or non-target species?

Response: As discussed in the EA, the marine mammals that would be affected by the Preferred Alternative are already exposed to a variety of human activities, including subsistence hunting, entanglement in fishing gear, anthropogenic noise, vessel traffic, military and industrial activities, and scientific research. However, the incremental effect of the Preferred Alternative would be insignificant. The proposed takes of marine mammals by harassment during the life of the permit are not likely to contribute to collectively significant adverse impacts on marine mammal stocks or species, including those listed as threatened or endangered. The effects of the takes would be transitory and recoverable, associated with only minor and short-term changes in the behavior of a limited number of individual marine mammals. The frequency and duration of the disturbance under the proposed permit would allow adequate time for animals to recover from any potential adverse effects, such that additive or cumulative effects of the action on its own are not expected. Therefore, the Preferred Alternative is not expected to result in cumulative adverse effects on target or non-target species.

DETERMINATION

In view of the information presented in this document, and the analyses contained in the EA and BO prepared for issuance of Permit No. 14856, it is hereby determined that permit issuance will not significantly impact the quality of the human environment. In addition, all beneficial and adverse impacts of the Preferred Alternative have been addressed to reach the conclusion of no significant impacts. Accordingly, preparation of an Environmental Impact Statement for this action is not necessary.

Donna S. Wieting

DEC 16 2013

Donna S. Wieting
Director, Office of Protected Resources

Date