



Prepared for:
 National Oceanic and Atmospheric Administration
 National Marine Fisheries Service

Programmatic Environmental Impact Statement

Chapter 5: Implementation & Mitigation

Final PEIS for Hawaiian Monk Seal Recovery Actions

March 2014



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5.0 *NEPA COMPLIANCE, IMPLEMENTATION, AND ADAPTIVE MANAGEMENT*

5.1 *IMPLEMENTATION OF THE HAWAIIAN MONK SEAL RECOVERY ACTIONS PEIS UNDER THE NATIONAL ENVIRONMENTAL POLICY ACT*

The purpose of this chapter is to:

- 1) Explain procedures that will be used to implement future National Environmental Policy Act (NEPA) compliance on permitting activities addressed in the Final Programmatic Environmental Impact Statement (PEIS) for Hawaiian Monk Seal Recovery Actions;
- 2) Document actions planned or underway to address concerns raised during preparation of this PEIS regarding translocation, vaccinations, behavioral modification, and stakeholder and community coordination; and
- 3) Provide an overview of additional activities (or mitigation measures) intended, in part, to support successful implementation of Hawaiian monk seal research and enhancement actions, and to mitigate potential adverse impacts that have been identified during the course of the NEPA process.

A number of recommendations for further actions were made during the comment period that fall within two general categories:

- Monitoring plans for the translocation and vaccination processes, and
- Additional outreach and coordination with local communities, stakeholders and partners.

The National Marine Fisheries Service (NMFS) determined it was most appropriate to address these issues outside the scope of any one alternative as these issues and recommendations are considered significant enough that they should be considered and implemented independent of any selected alternative.

5.1.1 *Need for NEPA Compliance*

This PEIS addresses research and enhancement permit activities that are proposed in the foreseeable future. NMFS staff, the permit applicant, and the general public should understand the process for preparing research and enhancement permit applications and how they would be reviewed for NEPA compliance using this PEIS. In addition to providing an overview of the NEPA compliance requirements, the following sections provide:

- Guidance to the Pacific Islands Fisheries Science Center (PIFSC) in preparing their permit applications;

- Information for other stakeholders regarding the level of subsequent NEPA review that would take place and when; and
- Monitoring plans for specific research and enhancement activities proposed under Alternatives 3 and 4.

5.1.2 *NEPA Compliance Review of Research and Enhancement Permit Applications using the PEIS*

The Final PEIS for Hawaiian Monk Seal Recovery Actions covers proposed research and enhancement programs for monk seals over the next 10 years or more. Within this 10-year timeframe, permit applications will require a NEPA compliance review of the information presented in this PEIS. Future NEPA compliance reviews will depend on the scope of the proposed research and enhancement. Subsequent site-specific or more detailed actions within the scope of this PEIS and associated Record of Decision (ROD) may tier from the background information and evaluation of impacts presented herein if necessary. Tiered NEPA documents will focus on issues “ripe for decision” (CEQ 2005). This process is described in more detail in Section 5.1.2.1 below.

Public notice of receipt of a new 5-year permit application submitted by PIFSC (File No. 16632) was published in the *Federal Register* on March 1, 2013 for a 45-day comment period (78 FR 13863). This application includes activities described in the Preferred Alternative (Alternative 3 – Limited Translocation). NMFS anticipates future submission of permit applications and permit amendments over the duration of this Final PEIS, as issued permits are only valid for a five year period and may be amended independent of or in response to a request from a permit holder.

Permit applications for research and enhancement activities can be submitted at any time of year, with one year lead-time recommended. At the time of submission, the NMFS Office of Protected Resources, Permits and Conservation Division determines if the proposed activity is covered by the assessment of impacts in this PEIS. Additional information about the permit process can be found on the NMFS website at <http://www.nmfs.noaa.gov/pr/permits/>.

The Record of Decision (ROD) for this PEIS, which will be published after the notice of availability of the Final PEIS, will identify any conditions of approval relevant to permit applications and permits, and will provide a listing of research and enhancement permit activities addressed by Alternative 3 (Preferred) identified in the Final PEIS. Both the PEIS and the ROD represent decision documents that will be used for the purpose of documenting NEPA compliance of ongoing and future activities addressed within the PEIS.

Proposed research and enhancement permit activities identified and analyzed within Alternative 3 (Preferred) will be subject to routine NEPA compliance, as described in the following subsection (Section 5.1.1.2 Permit Review Procedures). Proposed research and enhancement permit activities not identified and

analyzed in Alternative 3 (Preferred) will be subject to a separate NEPA compliance review, the level of which will be determined when the application is submitted.

5.1.2.1 *Permit Review Procedures for NEPA Compliance*

Applications for new permits (including application File No. 16632) and amendments or modifications to permits for research or enhancement activities on Hawaiian monk seals will be reviewed by the NMFS Office of Protected Resources. New permit application and permit amendments are processed using the following procedures with respect to NEPA compliance:

- NMFS review of the permit application and the Final PEIS for Hawaiian Monk Seal Recovery Actions and ROD to determine if the proposed research and enhancement is within the scope of Alternative 3 (Preferred). In addition, permit applications are distributed for a 30-day public review and comment;
- A Memorandum to the File will be prepared if the proposed research or enhancement activities in the permit application was identified and analyzed within the range of alternatives presented in the Final PEIS. The Memorandum would document that NEPA compliance for issuance of the permit is provided by the Final PEIS and any conditions of approval apply as documented in the ROD. A copy of the ROD would be attached to the Memorandum;
- Site-specific or more detailed actions may tier from this PEIS in the form of an Environmental Assessment (EA), EA accompanied by a Finding of No Significant Impact (FONSI), or a Supplemental Environmental Impact Statement (EIS), depending on the potential impacts of the activity. These tiered documents would be very focused, incorporating by reference detailed background information and evaluation of impacts presented herein; and
- For any research and enhancement activities proposed in future permit applications that is not within the range of alternatives presented and analyzed in this PEIS, a Categorical Exclusion, EA or Supplemental EIS would be prepared. The level of NEPA analysis will depend on the potential effects of the proposed new activity.

5.1.2.2 *Reporting Requirements*

NMFS Office of Protected Resources requires annual and final reports from permit holders. Special reports are also required for activities including, but not limited to, lethal takes and exceeding authorize take levels. In addition, permit holders must report on unexpected events they observe that could impose significant adverse effects upon the permitted species or the ecosystem of which they are part (Reporting and Recordkeeping Requirements Final Rule 1996).

NMFS Office of Protected Resources has a publicly accessible, web-based permit application and permit tracking system that includes information on: project information and description; location and take information; NEPA evaluation; project contacts; permit status; permit modifications; and reports. This web page is publicly accessible by interested parties (<https://apps.nmfs.noaa.gov/>).

The NMFS PIFSC has a publications webpage that includes technical memoranda, journal publications, data reports, conference proceedings, etc. and more related to Hawaiian monk seal research, which is publicly accessible by interested parties (<http://www.pifsc.noaa.gov/psd/>).

The NMFS Office of Protected Resources also has a publication web page that includes current and past Stock Assessment Reports for Hawaiian monk seals. PIFSC research and monitoring data is used to generate these reports, which include population trends and abundance estimates, distribution, factors limiting recovery, and other information pertinent to the status of Hawaiian monk seals. Please see <http://www.nmfs.noaa.gov/pr/sars/>.

5.2

MONITORING PLAN FOR THE TWO-STAGE TRANSLOCATION PROCESS

Concerns were raised during scoping and the public comment process for the Draft PEIS regarding the two-stage translocation process as proposed under Alternative 4 (Enhanced Implementation), in which weaned pups could be collected in the NWHI and released in the MHI. Specifically, some stakeholders wanted details about how researchers would choose release sites in the MHI and how the process would be evaluated for effectiveness over time.

The Preferred Alternative (Alternative 3) in this Final PEIS involves implementing a two-stage translocation program whereby weaned pups are taken from areas of lower survival to areas of higher survival within the NWHI, within the MHI, or from the MHI to the NWHI. ***This excludes taking weaned pups born in the NWHI to the MHI.*** This translocation would include the option of returning the translocated seals to their birth location or nearest appropriate site at age 2 years and older. Note that seals born in the MHI and previously translocated to the NWHI may be returned to the MHI.

The generalized two-stage translocation strategy is detailed in Appendix F and covers activities proposed under Alternative 3 (Preferred) and Alternative 4. The specific provision for translocating pups from the NWHI and releasing them in the MHI an option included only in Alternative 4. A multitude of variables exist that contribute to uncertainty of outcomes, thus the translocation program would be monitored and guided by a complex and adaptive decision framework described in Appendix F.

A 'decision framework' is a tool that helps guide decisions throughout a process, in this case, the monk seal translocation process. Many of the inputs to the decision framework rely on direct observation of key indicators such as population status, juvenile survival rates, and outcomes from previous

translocation actions. Also, at various points in the decision framework, researchers would use a computer model (called a stochastic simulation model) updated with the most recent seal population data to estimate the likely range of benefits associated with different choices.

Two decision trees, one for each of the two stages of the translocation strategy, have been developed to support decision-making and assessment as translocation projects progress. The Stage 1 decision tree addresses translocation of weaned Hawaiian monk seal pups from areas of lower survival to areas of higher survival. The Stage 2 decision tree addresses returning previously translocated seals from the recipient site to their donor sites. The decision framework is described in detail in Appendix F and is briefly characterized below.

The decision framework consists of several progressive steps and is designed to structure the decision making process so as to maximize the benefits and reduce the risks associated with the translocation project, including the following:

- NMFS would carefully choose the donor and recipient sites to achieve the greatest possible benefit (in terms of increasing juvenile survival and enhancing the population);
- Public input would play a role in deciding the most appropriate release sites if translocations of weaned pups were done from the NWHI to the MHI (as proposed under Alternative 4). Specific release sites would be chosen both to minimize potential conflict with beach and ocean users and maximize the chances that the translocated seals would be successful. Seals would likely be most successful when they are released in remote areas where they are less likely to encounter people. It should be recognized that weaned seals will begin to travel around the island where they were released and will even swim between islands;
- Monk seal monitoring and intervention activities critical to a successful two-stage translocation between the NWHI and MHI (as proposed under Alternative 4) would require further development and refinement; these monitoring and intervention activities could be developed and refined under Alternative 3 (Preferred);
- NMFS would monitor recipient sites to ensure the capacity of a site to support additional monk seals is not exceeded. This would be determined from observations of juvenile condition and survival at each site, supplemented by simulation modeling to better quantify the probable benefit;
- NMFS would suspend translocation actions in response to unforeseen developments such as the failure to return previously translocated seals to their natal site or region once they reach the stipulated age;
- While seals are in the wild at the recipient site, NMFS would monitor them to learn as much as possible about their location, activities, health

and welfare, and whether any human-seal interactions were occurring. Initially seals would typically be monitored with satellite transmitters, and later through regular population assessments; or, if in the MHI, through the established Hawaiian monk seal sighting network; and

- Translocated seals that become socialized or involved in human-seal interactions would be managed in the same fashion as other seals through behavior modification or other measures appropriate to the situation.

Proper care and safe transport of seals as well as mitigating risks of transmitting disease via translocations are other important considerations that NMFS has accounted for. Details of the measures involved in selection, health screen, care in captivity, quarantine and unforeseen contingencies are addressed in Appendix G. NMFS has a great deal of experience handling and transporting monk seals, especially weaned pups, and best practices developed to date will be employed. As new information accrues during the implementation of future translocations, this would augment and help refine protocols further.

As envisioned, the translocation project would initially be implemented as a small-scale experiment. The first phase may involve the experimental translocation of a small number of juvenile or sub-adult seals from one site to another (*e.g.*, from MHI to NWHI) to better assess how well the second stage of the translocation would proceed. As the project proceeds, results from the preceding actions would be used to inform future efforts and better predict the expected outcome from each candidate action. For example, researchers are particularly interested in knowing how survival of translocated seals would differ from those that have spent their entire lives at a site. Once there are data with which to assess that difference, it would be used to better refine the predictions from the simulation model.

Two particular areas of concern for Hawaiian monk seals with two-stage translocation include:

- Minimizing the risk of disease transmission; and
- Minimizing stress and the potential for harm during the actual process of capturing, transporting and releasing seals.

These details are covered in depth in Appendix G. In brief, seals being considered for translocation would be given a thorough health screening prior to completion of the translocation operation. Veterinary care would be provided from the point of capture until release, and quarantine procedures would be followed as appropriate to avoid transporting an ill animal and exposing other seals to infectious disease. Translocated seals would also be monitored closely after release to detect any health problems that may arise.

PLAN FOR THE VACCINATION PROCESS

The proposed vaccination program is somewhat unique among the actions in this PEIS, in that it is designed to address a potential, rather than a realized, threat to the Hawaiian monk seal. That is, according to research to date, infectious disease does not currently appear to be significantly impacting the species. However, there is great potential for infectious disease to have devastating effects on the species.

Two factors make disease outbreaks especially concerning:

- 1) Hawaiian monk seals have been largely isolated for most of their evolutionary history in the Hawaiian Archipelago. Until humans arrived on the islands, there were no terrestrial mammals (and their associated diseases) except the Hawaiian hoary bat. Now there are numerous domestic, feral and invasive mammals on the islands that pose a threat as disease vectors.
- 2) The monk seal population is already quite small and has extremely low genetic diversity, which may make the species especially vulnerable to the outbreak of a new disease.

Because of these concerns, NMFS is committed to being prepared to rapidly respond to, if not prevent, outbreaks of the perceived greatest viral disease threats through vaccination research and enhancement activities. There are currently two types of viral disease that pose a great potential threat to monk seals, but for which vaccines have already been developed.

Morbilliviruses are a group of related viruses that cause disease in a wide variety of species. Morbillivirus outbreaks have caused mass die offs in other seal populations, including a 1988 event in which approximately 18,000 (70% of the population) harbor seals (*Phoca vitulina*) in Europe died from Phocine Distemper Virus (PDV) infection (Heide-Jørgensen *et al.* 1992). A second outbreak occurred in the North Sea in 2002, which killed over 20,000 harbor seals (Jensen *et al.* 2002). Outbreaks of canine distemper virus (CDV) killed 5-10,000 Baikal seals (*Pusa sibirica*) in 1987-1988 (Grachev *et al.* 1989) and 10,000 Caspian seals (*P. caspica*) in 2000 (Kennedy *et al.* 2000).

West Nile virus (WNV) is a mosquito-borne pathogen that causes disease in a wide variety of wildlife, domesticated species and humans. WNV is currently not present in Hawaii, and the State has rigorous surveillance and response plans for this virus due to its public health importance. Although WNV has not been known to affect wild marine mammals to date, the death of a captive monk seal in Texas from WNV infection indicates monk seals are susceptible. It has also killed captive harbor seals in the mainland U.S. Thus, the possibility of extensive mortality in monk seals exists if the virus were to be introduced to Hawaii.

Fortunately, vaccines are in existence for both WNV and morbillivirus. There are two main concerns when giving an existing vaccine to a new species. The first is that the vaccine is safe (does not cause disease or any dangerous reaction) and

the second is that it is effective (actually protects the animal from disease as intended). Both the vaccines for WNV and CDV have been proven safe and effective in other species and have been tested on some captive monk seals with no ill effects (see Appendix E).

The proposed vaccination activities (detailed in Appendix E) for Hawaiian monk seals involve two primary elements as follows:

- 1) Continue research to test these vaccines on captive seals, confirm the vaccines' safety, and determine whether the expected immune response occurs by following up with blood tests; and
- 2) Be prepared with response plans should a "trigger" occur (for example, a case of morbillivirus in a wild monk seal). Even in the case of such a response, vaccinations would be initially limited to the population perceived to be at immediate risk, and would be expanded only after confirmation of safety and efficacy.

Prophylactic (preventative) vaccination may be considered in the future, but again, only after careful and conservative incremental testing proves that such an approach would be safe and effective.

5.4

PLAN FOR DEVELOPMENT OF A BEHAVIOR MODIFICATION PROGRAM

As described in Section 2.5, a variety of aversive and disruptive stimuli may be considered for behavioral modification.

Behavioral modification that does not involve the use of aversive stimuli and which does not necessitate a research permit includes humans altering their behavior in the presence of a curious seal by avoiding eye contact and ignoring the seal; refraining from making noise near, touching, swimming with, and feeding seals; and moving away and leaving an area when seals actively approach humans. Following these guidelines would be an essential component to preventing the development of abnormal socialization of seals with humans. These guidelines are available on the NMFS web site

http://www.fpir.noaa.gov/PRD/prd_good_neighbors.html and are an important component of ongoing outreach efforts.

The Hawaiian monk seal behavior modification program would be a joint effort between NMFS and their partners. This partnership would also have a public nexus as it would require participation by the community in reporting and describing seal behaviors/interactions throughout the process. NMFS would establish a Behavior Modification Advisory Committee that would consist of a group of researchers and managers (internal and external) to help with the development and implementation of the program. This committee would also serve to determine if an animal of concern is a candidate for behavioral modification, continue to advise as each case progresses, and provide recommendation for modifying or escalating techniques.

The program would also consist of implementation teams. These are the groups that would be on-site monitoring and documenting behaviors/interactions and applying any behavioral modification methods. Implementation teams would receive training to maintain consistent data records, safety protocols, and application of behavior modification techniques. It is important that these techniques be administered properly according to a standardized research plan designed to address the specific behaviors displayed by each seal, and that the efficacy of methods applied be accurately recorded. Therefore, only people that have proper authorization and training would be allowed to apply behavioral modification techniques, including aversive conditioning techniques. A core mission of these teams would also be conducting outreach to explain the actions being undertaken and educating the public on proper behaviors to prevent the socialization of seals with humans.

Behavioral modification techniques would be applied only in situations where wild seals are beginning to regularly demonstrate behaviors that put themselves or humans at risk. Some examples include (but are not limited to):

- 1) Regularly interacting with snorkelers, divers or other ocean users. These interactions are directed behavior towards humans, which could include rubbing, scratching, biting, soliciting feeding, and more. Early on when these behaviors are novel or low in terms of aggression, low-level aversive stimuli or alternatively, positive stimuli or removing the positive stimuli to redirect behaviors, may be applied. If these behaviors are more ingrained the level of aversive stimuli applied may be escalated as appropriate.
- 2) Regularly interacting with fishermen or fishing gear. Seals that repeatedly target nets or fishing lines are at risk of drowning, hooking, entanglement and other injuries. Some deterrents may be effective at discouraging seals from supplementing their diet by depredating fishing gear.

There are a number of aversive or possibly positive stimuli that could be used for monk seals. It is difficult to predict the efficacy of any technique until it is applied. Any method would be carefully tested in an experimentally rigorous fashion to determine it is safe and effective prior to being adopted as an approved tool for monk seal behavior modification. Hawaiian monk seals or other pinnipeds in captivity may be used to test each method prior to initiating research trials on wild monk seals.

The successful development of this program would depend in large part on public input and cooperation. Of particular importance would be immediate notification of any seal exhibiting the early stages of habituated behavior. This would require ongoing dialogue with ocean users and interest groups likely to encounter seals in their recreation or commercial activities. By identifying which tools are most appropriate for each situation, and having an implementation team trained in the proper application of each technique, NMFS hopes to reduce

the likelihood that monk seal recovery in the MHI would be accompanied by undue hardship or inconvenience for the public.

5.5 ***MITIGATING POTENTIAL IMPACTS TO CULTURAL RESOURCES, CULTURAL PRACTICES, AND HISTORICAL PROPERTIES***

NMFS intends to implement activities (or mitigation measures) described below that are specifically designed to mitigate potential adverse impacts to cultural resources and practices, and historic properties, including traditional cultural properties. This section provides an overview of these mitigation measures and further description is provided in Appendices B and K. Additional activities that engage the local community, such as those described in Section 5.6, are also expected to support this type of mitigation through improved community participation and communications with NMFS.

5.5.1 ***Coordination with the State of Hawaii, State Historic Preservation Division***

As mentioned in Section 3.4.7, the Hawai'i State Historic Preservation Division (SHPD) is currently updating its Geographic Information System (GIS) database of historic properties located within the MHI. This database will show the exact location of all historic properties (including traditional cultural properties) for which accurate location coordinates are available. Once the database is fully operational, it will be possible to quickly identify any documented sites located within the vicinity of the proposed research and enhancement activities. The SHPD GIS database can serve as a useful tool in assessing locations where the activities will be implemented to avoid impacting known historic properties. Teams planning recovery activities should be able to ascertain the types and locations of the identified historic properties located within the areas in which the activities will be implemented. This information, supplemented by knowledge from local individuals, can help in determining where and how to conduct activities to minimize direct impact on historic properties. In addition, SHPD staff is located in each county and possess a wide knowledge base of documented historic properties on their respective islands. The SHPD staff may be able to suggest areas that would be suitable and unsuitable for the translocation of seals. They can also provide assistance in planning monitoring or medical related activities. Whenever possible, NMFS staff will consult with SHPD during the planning of monk seal activities so as to obtain their input and guidance.

5.5.2 ***Training in the Recognition, Avoidance, Reporting of Cultural Resources and Historic Properties***

While many of the archaeological and cultural sites located within the project area for proposed Hawaiian monk seal recovery actions have been previously identified, others remain either undiscovered or unrecorded. When appropriate and feasible, specific NMFS staff and volunteers conducting monk seal recovery actions will be designated to be responsible for recognizing, avoiding, and

reporting cultural resources and historic properties in the field and these personnel will receive sufficient training to carry out this responsibility. The training will be developed by NMFS in close collaboration with the Hawaii SHPD and other qualified organizations and individuals. This training will include an overview of the types of cultural resources, archaeological sites, and historic properties (including traditional cultural properties) that are likely to be encountered, as well as instructions on their recognition and avoidance. Proper and respectful protocol to be practiced while working around cultural and historic sites would also be discussed. In addition, the training will cover the procedures for reporting the inadvertent discovery of unrecorded resources, archeological sites and/or historic properties, most particularly human remains, should they be encountered.

This course of training will also include the recognition of shoreline cultural resources, such as strand dwelling plants utilized in traditional medicine or edible seaweeds that were traditionally gathered along the shoreline. Such resources could be impacted by pedestrian or boat traffic associated with monk seal recovery related activities. Knowledge of such resources is expected to allow recovery teams to recognize and avoid impacting them.

5.5.3 *Procedures Regarding Monk Seals in Fishponds*

NMFS will develop a protocol for dealing with the removal of Hawaiian monk seals if they enter traditional fishponds. This protocol would involve consultation with the landowner and/or kahu (caretaker) of the pond, SHPD, local Native Hawaiian Organizations (if appropriate), and other appropriate entities to plan and coordinate the safe removal of the monk seal in a manner that would have the least impact on the structural integrity of the fishpond.

5.5.4 *Northwestern Hawaiian Islands*

Permits are required for access to conduct Hawaiian monk seal research and enhancement activities within the limits of the Papahānaumokuākea Marine National Monument. Any activities associated with monk seal recovery actions undertaken within the NWHI must therefore comply with Monument regulations and the terms and conditions of Presidential Proclamation 8031.

Monument regulations state that “permittees [must] attend a cultural briefing on the significance of Monument resources to Native Hawaiians” and that there are “prohibitions against the disturbance of any cultural or historic property” (NOAA 2008b). Thus, the “Monument permit program allows for a comprehensive review of proposed activities and will be administered to ensure compliance with Presidential Proclamation 8031, as well as other applicable Federal statutes (such as the NHPA) and state laws and regulations” (NOAA 2008b).

Under the terms of the Monument permit, researchers and volunteers involved in Hawaiian monk seal recovery actions coordinate their activities with the

Monument archaeologist and historic preservation specialists to ensure that they do not adversely impact any of the Monument's historic properties. All researchers landing on Nihoa or Mokumanana (Necker) are instructed to limit their activities to coastal areas. The only exceptions are camping in designated camping areas and traveling between coastal areas.

The campsites in the NWHI to be used by researchers have already been in seasonal use since the 1980s, with rigorous protocols in place to protect the natural and cultural resources surrounding them (see Appendix L, Monument Permit PMNM-2011-001). These protocols will be followed by all researchers involved in Hawaiian monk seal recovery actions to ensure that use of the NWHI camps will not impact cultural and historic resources.

5.6 *COORDINATION WITH STAKEHOLDERS AND COMMUNITIES*

NMFS intends to further develop and maintain close coordination with key stakeholders, community members, and partners to facilitate implementation of the proposed recovery actions. Ocean-oriented stakeholders and community members, such as fishers, surfers, Native Hawaiian practitioners, coastal property managers, etc., are among those most likely to encounter monk seals or most likely to have unique knowledge or experience that would be useful for successful implementation of the proposed activities in the MHI. Government agency and non-government organizations have been, and will continue to be, essential partners in successful recovery action implementation. This section summarizes community-based programs NMFS has and/or will support to the maximum extent possible and discusses how these or similar programs could facilitate implementation of the proposed recovery actions.

5.6.1 *Marine Mammal Response Network*

NMFS manages the Marine Mammal Response Network in Hawaii in partnership with several government and non-government partners, and with oversight and authorization from the NMFS National Marine Mammal Health and Stranding Response Program. The network is comprised of island-based response coordinators who oversee the activities of numerous volunteers and partner agency staff. The network:

- Responds to monk seals (and other marine mammals) that are reported to be sick, injured, entangled, or hooked in the MHI.
- Responds to “routine” monk seal haul outs to monitor seals, and when seals are in areas of high human use, cordons off a “seal protection zone” around the seal to protect the seal from disturbance and alert the public that a seal is resting on the beach.
- Conducts outreach and education activities, such as giving presentations at schools and staffing information booths at community events.

The network has grown significantly over recent years, and now has hundreds of trained volunteers and NMFS-funded coordinators on almost every inhabited island in the MHI. The sighting data that accrue from this network of observers contribute directly to monk seal population assessment tasks in the MHI. For example, resights of known seals are used to calculate age-specific survival rates, reproductive rates, and movements. Sightings of previously unknown seals, along with any identifying marks that may distinguish them, are particularly useful because they help determine the number of seals present in the MHI.

The sighting data are also used to characterize seal distribution and haulout habitat and for a variety of other purposes. The sighting network is well suited for seal monitoring in the MHI, where seals are distributed over a vastly larger area and where it would take a very large staff to canvas and detect all of the seals now reported through the sighting network.

The Marine Mammal Response Network also includes a network of Hawaiian practitioners who advise NMFS on appropriate integration of Hawaiian cultural protocols with response activities.

Members of the network are active in community engagement, education and outreach related to Hawaiian monk seal recovery, and will support and/or participate in many of the community-based efforts that result from the MHI Monk Seal Management Plan, outreach plan and partnership programs described below.

5.6.2 *Hawaiian Monk Seal Recovery Team*

Pursuant to the ESA, NMFS may engage a recovery team as part of its endangered species recovery efforts. As indicated in ESA Sec 4(f)(2), “(t)he Secretary (of Commerce), in developing and implementing recovery plans, may procure the services of appropriate public and private agencies and institutions and other qualified persons. Recovery teams appointed pursuant to this subsection shall not be subject to the Federal Advisory Committee Act.”

NMFS convened a Hawaiian Monk Seal Recovery Team (HMSRT) to support development of the revised Hawaiian Monk Seal Recovery Plan (2007). As of late 2013, PIRO was in the process of convening a new HMSRT to support implementation of the revised recovery plan, including implementation of research and enhancement actions proposed in this PEIS. The expected role of the new HMSRT will be to advise NMFS on a variety of matters concerning the conservation and recovery of the endangered Hawaiian monk seal. The new HMSRT is expected to focus, in particular, on matters related to implementing the revised Hawaiian Monk Seal Recovery Plan (2007) and any related policy documents or plans that arise from Hawaiian monk seal recovery plan implementation, such as the MHI Management Plan discussed in Section 5.6.3.

Members of the new HMSRT are expected to be selected to provide NMFS with advice from a wide range of relevant expertise, including expertise in Hawaiian

culture practices, ocean-related tourism, subsistence and recreational fishing, etc. HMSRT advice may be related to evaluating research and enhancement actions, assessing the efficacy of achieving recovery criteria, and recommending new or emergency actions that enhance the recovery of the species.

NMFS expects that research and enhancement actions proposed in this PEIS will be considered by the HMSRT. NMFS recognizes that achieving successful Hawaiian monk seal conservation and implementation of the Hawaiian Monk Seal Recovery Plan, including the research and enhancement actions proposed in this PEIS, can be facilitated by considering a wide range of perspectives and knowledge held by a diverse group of people from Hawaii and elsewhere.

New HMSRT members will be selected to provide NMFS with knowledge, expertise, and experience that are otherwise not available within NMFS. HMSRT advice will represent the views of the team members and may not necessarily reflect the views and policies of NMFS or any other agency or organization.

5.6.3 *Main Hawaiian Islands Management Plan*

The Hawaiian Monk Seal Recovery Plan (NMFS 2007) directs NMFS to create a MHI Hawaiian Monk Seal Management Plan that addresses the full scope of monk seal management needs in the MHI. Considering this broad mandate, NMFS envisions a MHI Hawaiian Monk Seal Management Plan that will include roles for NMFS and partner government agencies, as well as non-government organizations (NGOs), communities, and individual stakeholders. Completing preparation of such a plan in a way that effectively engages our government and non-government partners and stakeholders is a high priority for NMFS.

The MHI Hawaiian Monk Seal Management Plan will be a strategic plan that presents management strategies and associated activities. These strategies are expected, in part, to facilitate successful implementation of the proposed research and enhancement actions, as well as to help mitigate potential adverse impacts associated with their implementation. The MHI management plan will play an important role in engaging communities, both in its preparation and implementation.

In preparing the MHI Hawaiian Monk Seal Management Plan, NMFS will continue to work collaboratively with partners, stakeholders, and communities to better define and elucidate threats to monk seals in the MHI and contributing factors. A specific planning methodology will be used to clarify the meanings of direct threats, indirect threats, and other terms used in discussing monk seal management in the MHI. In addition, the planning process will develop strategies and activities intended to reduce or eliminate the direct and indirect threats. Participatory development of the plan will allow for various groups and individuals to articulate their priorities for monk seal management, and shape a framework for how they would like to be engaged in the future.

NMFS and others have been developing management strategies and policies to address threats to monk seals in the MHI for more than 10 years. NMFS anticipates that all or most of the monk seal management activities currently underway or planned for near-term implementation, including many of the research and enhancement actions proposed in the PEIS, will be considered during development of the MHI Hawaiian Monk Seal Management Plan. The planning process will allow for the current efforts to be more systematically evaluated and integrated with additional management efforts (or “strategies” and “activities”) that will be identified during the planning process.

In October 2002, The Workshop on the Management of Hawaiian Monk Seals on Beaches in the MHI was co-sponsored by the Marine Mammal Commission, NMFS, and the State of Hawaii, DLNR, Division of Aquatic Resources. Over a three-day period, stakeholders, including representatives from federal, state and city and county agencies, NGOs, and interested individuals discussed many issues of concern and importance. Comprehensive comments and suggestions were compiled in a final report. This report served as the first community-based scoping of management issues relevant to the creation of a comprehensive management approach for seals in the MHI.

In March 2006, NMFS PIRO sponsored a two-day MHI Hawaiian Monk Seal Management Workshop. Representatives from PIFSC, DLNR, HIHWNMS, and other agencies were in attendance. Areas of discussion included adaptive management approaches to high profile issues such as emerging disease concerns, pups born on popular beaches, techniques and issues dealing with conditioned or habituated seals, pups born near freshwater streams (with associated disease risk), captive care and rehabilitation of sick or injured seals, and volunteer network development and outreach. This was an important step in the continuing development of a MHI Hawaiian Monk Seal Management Plan.

Building on the results of the two workshops and other efforts, NMFS developed a Draft MHI Hawaiian Monk Seal Management Plan in 2010 and presented the draft plan to the Hawaiian Monk Seal Recovery Team in February 2011. The Recovery Team had significant concerns with the format of the draft management plan.

In response to these concerns, NMFS adopted a new planning approach, based on the Open Standards for the Practice of Conservation, which is described further below. Part of this new planning approach includes developing a comprehensive and effective management plan for monk seal in the MHI by engaging partners, stakeholders, and others with important knowledge and experience.

Meetings were held with an inter-agency working group in July 2012, as well as a workshop co-hosted by the Monk Seal Foundation to facilitate input from various partners, stakeholders, and community members with specific expertise, including recreational fishing, Hawaiian cultural practices, ocean-related tourism, etc. More meetings and engagement with fishermen, enforcement,

Ocean Safety, and other groups and individuals will continue as the plan development continues.

5.6.4 *Outreach Plan*

Hawaiian monk seals face many threats across their range, from direct threats (direct causes of mortality) to indirect threats and contributing factors. There are also opportunities, such as public interest in conservation, which can contribute positively to recovery. Public knowledge and attitudes are at the root of nearly all the threats facing monk seals in the MHI.

While many people in Hawaii value the endangered and indigenous animals with which we share our ocean and beaches, there is also a lack of knowledge, sometimes leading to potentially unsafe interactions between seals and humans, and even animosity toward Hawaiian monk seals from some people and ocean user groups, often due to differing attitudes about seals. This underscores the need for improving and increasing outreach and effective flow of accurate information to the public.

For several years, NMFS has created an internal Hawaiian Monk Seal Recovery Program Outreach Plan. In the plan (usually updated annually), the Recovery Program identifies goals, objectives, and outreach strategies and messages for NMFS outreach efforts. However, because of the significant role that outreach can play in management, the internal outreach plan is being modified and adapted to fit within the MHI Hawaiian Monk Seal Management Plan discussed in Section 5.6.3.

The primary goal of the Outreach Plan is to use outreach and education to inform citizens and thus enable them to think critically, and make decisions about Hawaiian monk seals based on sound science and cultural information, to facilitate monk seal population recovery. By effectively using outreach and education in both overarching and targeted strategies, we can widely broadcast the messages of the recovery program, while addressing community concerns and building public support (social and political) to reduce specific threats and achieve our recovery goals.

As part of the development of the outreach strategies related to the MHI Management Plan, significant input will be obtained from partners, stakeholders, and other individuals with expertise in conservation outreach and education. In the “Outreach Plan” section of the MHI Management Plan, NMFS will identify current overarching issues that are necessary to broadly influence threats to monk seals, and then use the Management Plan to determine where targeted outreach strategies can reduce or eliminate a specific threat.

5.6.5 *Partnership Grants*

Subject to available funding, NMFS PIRO has and will solicit competitive applications for partnerships supporting specific programmatic activities related

to Hawaiian monk seal recovery, in particular activities related to recovery in the MHI. NMFS anticipates that priority will continue to be given to community-based and community-integrated projects or projects with an educational or outreach component geared to elevate public awareness and build capacity from the community level for Hawaiian monk seal recovery. This priority includes projects designed to achieve the following outcomes:

- Improve awareness and understanding among local residents regarding Hawaiian monk seal biology, endangered species status, and recovery issues and opportunities.
- Improve local resident understanding of, and participation in, activities that promote Hawaiian monk seal recovery, including community education and outreach, monk seal haul-out responses, seal behavior modification, seal relocation within the MHI, and mitigation of fishery interactions and other human-seal interactions.
- Facilitate productive communications between the NMFS Hawaiian monk seal recovery program and local residents, especially Native Hawaiian communities and fishermen.
- Host meetings with Hawaiian monk seal recovery program staff, volunteers, partners, fishermen, and other ocean users to help build and maintain productive working relationships and facilitate effective implementation of the Hawaiian Monk Seal Recovery Plan (2007), including development of the Main Hawaiian Islands Hawaiian Monk Seal Management Plan.
- Identify and describe constraints to, and opportunities for, enhanced collaboration between the NMFS Hawaiian monk seal recovery program and the local residents.
- Conduct all of the above in close collaboration with the NMFS Hawaiian monk seal recovery program and consistent with the NMFS Hawaiian Monk Seal Recovery Plan (2007).

Under this grant program, NMFS anticipates funding projects as grants or cooperative agreements. NMFS will be substantially involved in the management or operation of the program if a project is funded through a cooperative agreement. This substantial involvement may include, but is not limited to, partnering in collaborative efforts or re-direction of activities to meet regional interests. Substantial involvement may also include NMFS staff assisting in development of outreach materials and activities, development of meeting agendas and participant lists, conduct and facilitation of meetings, and recruitment, training and management of volunteers.

Funding for this program is contingent upon Congressional appropriations. Applicants are selected by NMFS on a competitive basis. More information about this program will be available via announcements of federal funding opportunities posted at: <http://www.grants.gov>.

Another opportunity for partnership grant funding is through the NMFS Protected Species Cooperative Conservation program. Through this program, NMFS has awarded a grant (under Section 6 of the Endangered Species Act) to DLNR to support Hawaiian monk seal (and sea turtle) conservation activities, including outreach and response coordination activities with local fishers. Continued implementation of Hawaii's Section 6 grant program could help enhance understanding and support of Hawaiian monk seal recovery actions within the fishing community and help NMFS further mitigate potential associated adverse impacts on fishing activities.

5.6.6 *Incorporating Community Feedback into Research and Enhancement Activities*

To support activities proposed in Alternative 3 (Preferred), coordination with community members should continue to draw on extensive two-way communication and information sharing between NMFS and the key stakeholders and community members as discussed above. This would be facilitated by continuing and expanding programs, such as those discussed above, that entail participatory planning and implementation, education and outreach, and other interactive and participatory activities.

If adequately engaged and motivated, local community members can support monitoring and reporting of location-specific and historical information that could be especially valuable before, during and after translocation within the MHI, behavior modification, and vaccination activities. This support could include monitoring and reporting of monk seals and assessment of various local environmental factors. For instance, with NMFS support and coordination, community members could monitor and report on the behavior of seals before and after behavior modification techniques are applied. In another example, community members could use their local environmental knowledge to help NMFS assess and select appropriate sites for the release of seals translocated within the MHI. The various types of community-based support can be summarized as follows:

Monk Seal Monitoring and Reporting:

- Detecting and reporting seal presence or absence;
- Documenting and confirming individual seal identification;
- Observing and reporting seal behaviors;
- Observing and reporting seal health and body condition; and
- Observing and reporting human-seal interactions, and fishery interactions.

Environmental and Habitat Assessment:

- Observing and reporting human uses – types and levels of shoreline use, fishing, etc.; and

- Observing and reporting monk seal uses – frequency of foraging, pupping, resting, molting, etc.

Community-based programs and activities, such as those described above, can be used to build capacity within local communities to conduct monitoring on temporal and spatial scales that would otherwise be extremely difficult to achieve. In addition to supporting wide spread coverage and timely monitoring and reporting, these programs could also help NMFS and its partners be more aware of, and responsive to, emerging opportunities and constraints to monk seal recovery throughout the MHI.

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