

2. Alternatives

2.1 Introduction

This section discusses the alternatives to implement the proposed actions. As described in Section 1.3.2 (Need for the Actions), NMFS is considering four proposed actions and alternatives to implement the proposed actions. The alternatives are grouped into the following six topics: SAs and response; carcass disposal; rehabilitation activities; release activities; disentanglement; and biomonitoring and research activities. The description of each topic includes the proposed action(s) that those alternatives would affect. Activities and Policies and Best Practices documents are described under each issue, where appropriate, to clarify the actions taken under each alternative. A No Action Alternative, Status Quo Alternative, and Preferred Alternative are designated under each issue.

The No Action Alternative for each issue is based upon NMFS not undertaking the coordination and operation of the MMHSRP. Current SAs would not be renewed and new SAs would not be issued. The Policies and Best Practices manual and the ESA/MMPA permit would not be issued. The stranding and disentanglement networks would continue their current activities. As current SAs expired, the current National Stranding Network would cease to exist. Once the current ESA/MMPA permit expires on June 30, 2009, the current disentanglement network would no longer function.

2.1.1 Stranding Agreements and Response Activities

2.1.1.1 Response Activities

Response activities analyzed in this PEIS are only those that are conducted by groups operating under the authority of a SA, MMPA Section 109(h) (state and local governments), or another legal means. Response to a dead stranded marine mammal may include beach assessment, collection of the carcass, field or laboratory necropsy, carcass disposal, and/or retention of parts and specimens. This may include the use of heavy machinery on or close to the beach in order to retrieve or move animals.

Response to a live stranded marine mammal may include beach assessment, capture, relocation, transport to a rehabilitation facility, euthanasia, and/or release back to the wild. Pinnipeds on beaches are typically monitored for 24-48 hours before any response is taken to ensure that the animal truly is stranded and to avoid overcrowding at rehabilitation facilities. Solitary stranded animals are generally not refloated (*i.e.*, released from the beach). It is assumed that a solitary animal stranded because it is unhealthy and if the animal is refloated, it is likely to strand again. For mass strandings,

1 most of the animals are likely to be healthy and may be refloated from the stranding site. These
2 animals would be marked with some form of identification, in case they restrand.

3 Live animal response may also include the administration of chemical agents (sedatives, antibiotics,
4 euthanasia solution) or other veterinary intervention on the beach. All euthanasia procedures would
5 follow the American Veterinary Medical Association (AVMA) guidelines (AVMA 2001) and/or the
6 American Association of Zoo Veterinarians (AAZV) guidelines (AAZV 2006). While conducting a
7 beach response, the stranding network member may cordon off or close areas of the beach to public
8 access. All dead and live stranded animals are assessed for signs of human interaction. Human
9 interactions include vessel interactions (*e.g.*, propeller lacerations and blunt trauma), entanglements in
10 fishing gear or marine debris, ingestion of gear and debris, and gun shots. Training is provided to the
11 National Stranding Network on human interaction documentation to ensure consistency in reporting
12 and aid in management decisions.

13 Hazing of marine mammals may occur if an animal is in the vicinity of an oil or hazardous material
14 spill, HABS, or sonar. Animals may also be hazed to deter a potential mass stranding. For all marine
15 mammals, including threatened and endangered species, hazing is authorized under the MMHSRP's
16 ESA/MMPA permit. Hazing methods include, but are not limited to, the use of acoustic and visual
17 deterrents, vessels, exclusion devices, and capture and relocation. Active and passive acoustic
18 deterrents may be used to deter cetaceans. Pingers, which are typically used in the commercial
19 fishing industry, produce high-frequency pulses of sound to deter animals. Passive deterrents include
20 devices that provide a reflection of echolocation signals. Pinniped acoustic deterrents include bells,
21 firecrackers, or starter pistols. Visual deterrents for pinnipeds include flags, streamers, and flashing
22 lights. Vessels can be used to herd animals back out to open water or away from a hazardous
23 situation. Exclusion devices for pinnipeds may include nets or fencing. Please see Appendix H for
24 more detailed information on hazing methods.

25 **2.1.1.2 Stranding Agreement Template and Criteria**

26 While NMFS has issued SAs for many years, they have been in a variety of formats with a large
27 amount of variability between regions. They have also differed significantly in the level of detail
28 regarding the authorized activities of the agreement holder. The National Template for Marine
29 Mammal SAs (see Appendix C) was developed to standardize the SA nationwide, while maintaining
30 flexibility in certain areas to address differences in the NMFS regions. All sections that are in black
31 are proposed to be implemented nationwide; the shaded sections are flexible and may be implemented

1 on a region-by-region basis. Flexible areas include reporting timelines for Level A data and
2 additional reporting requirements (Level B and C data). The Template codifies the rights and
3 responsibilities of both NMFS and the Stranding Network Participant. Different sections apply to
4 different roles of stranding responders, and may be used independently or in conjunction with each
5 other. For instance, a network member that only conducted dead animal response and necropsy
6 activities would have Article III in their SA but not Article IV, V or VI, whereas a network member
7 that responded to live and dead animals, and transported and rehabilitated live animals would have all
8 Articles but VI, which corresponds to Designee organizations. One of the main differences between
9 this template and previous versions utilized is Article IX, Section B, which sets out a procedure for
10 probation, suspension, and eventual termination following repeated violations of the terms and
11 conditions of the SA.

12 The SA criteria are for new and renewal SA applicants (see Appendix C). The qualifications were
13 designed to standardize SAs across the U.S., but allow for regional flexibility when necessary. For
14 example, in areas that are geographically remote or have low stranding coverage, the evaluation
15 criteria may be waived based on the discretion of the NMFS Regional Administrator. Qualifications
16 are listed for response to dead stranded marine mammals/first response; response, triage, and
17 transport of live stranded marine mammals; and rehabilitation and release of live stranded marine
18 mammals.

19 Stranding network participants must comply with the terms and responsibilities of their SAs through:
20 (1) timely reporting of strandings to NMFS; (2) timely submission of complete reports on basic Level
21 A data; (3) collection and timely reporting of additional information when feasible and requested by
22 NMFS; and (4) cooperation with other network members as well as local, state, and Federal officials.

23 **2.1.1.3 Stranding Agreement and Response Alternatives**

24 The following alternatives address the stranding response activities of the stranding network and the
25 SA criteria in the Policies and Best Practices manual. These alternatives would impact Proposed
26 Actions 1, 2, 3, and 4.

27 **Alternative A1.** No Action Alternative- SAs are not issued or renewed. No stranding
28 response activities.

29 Under Alternative A1, NMFS would not issue new SAs or renew current SAs. The SAs would expire
30 and authorized stranding response activities would end. The current stranding network would cease

1 to exist. Federal (not including NMFS), state, and local agencies authorized under MMPA Section
2 109(h) would still be able to conduct emergency response to non-ESA listed species, and ESA-listed
3 species under regulations at 50 CFR 17.21(c)(3) and 17.31(a), where applicable. However, response
4 activities would likely be limited and localized, and would consist mostly of carcass disposal for the
5 protection of public health and safety.

6 **Alternative A2.** Status Quo Alternative- Current SAs are renewed and current stranding
7 response activities continue. Final SA criteria are not issued.

8 Under Alternative A2, NMFS would renew the current SAs but would not issue new SAs. Current
9 stranding response activities would continue but new activities would not be included. New SA
10 holders could not be added to the network and other changes to the network would not occur. The
11 final SA criteria would not be issued. SAs would continue to be issued regionally with national
12 programmatic oversight. Standardization would not occur or proceed slowly with resultant
13 inefficiencies which may impact accomplishment of agency mandates.

14 **Alternative A3.** SAs are issued to any applicants after review. Final SA criteria are not
15 issued. SAs include current and future stranding response activities.

16 Under Alternative A3, NMFS would issue SAs to any applicants after they were reviewed by the
17 NMFS Regional Office (including renewals). The final SA Criteria would not be implemented, and
18 the new SA template would not be utilized. SAs would include current and future stranding response
19 activities.

20 **Alternative A4.** Preferred Alternative- Final SA criteria are implemented. SAs would be
21 issued on a case-by-case basis. SAs include current and future stranding
22 response activities.

23 Under Alternative A4, NMFS would implement the final SA criteria and issue SAs on a case-by-case
24 basis to those entities meeting the SA criteria (including renewals and new applicants), utilizing the
25 new SA template. SAs would include current and future stranding response activities. This
26 alternative would also allow modifications to stranding activities, including response procedures,
27 tools and equipment, and euthanasia techniques.

1 **Alternative A5.** Final SA criteria are implemented. SAs would be issued on a case-by-case
2 basis. Stranding response to threatened, endangered, and rare animals is
3 **required**; response to other animals is optional.

4 Under Alternative A5, NMFS would implement the final SA criteria and issue SAs on a case-by-case
5 basis to those entities meeting the SA criteria (including renewals and new applicants), utilizing the
6 new SA template. SAs include current and future stranding response activities, however this
7 alternative would require response to threatened, endangered and rare animals as part of the terms and
8 conditions of the SA. Response to all other animals would be optional, but highly encouraged.
9 Stranding participants could respond to these non-listed animals when feasible, based upon the
10 availability of resources.

11 **2.1.2 Carcass Disposal**

12 **2.1.2.1 Carcass Disposal Methods**

13 During stranding response activities, carcass disposal methods depend on the species, the number and
14 size of animals, location and logistics. Location includes coastal geography, currents, and state
15 and/or local laws and regulations. Logistics refers to the availability of equipment, resources, and
16 manpower. The method of carcass disposal will also be based upon the chemicals used on the animal,
17 including antibiotics, sedatives, and/or euthanasia solution.

18 One method of disposal is to leave the carcass where the stranding occurred. Natural decomposition,
19 scavengers, and the tide will eventually dispose of the remains. Leaving the carcass on-site is
20 possible in uninhabited areas. However it is less feasible in populated areas where the carcass may be
21 a public health or aesthetic concern, or if chemicals were used to euthanize the animal. Another
22 method of disposal is to move a carcass from an unsuitable area (public beach) to a more appropriate
23 location (a remote beach or a landfill) and let it decompose. Carcasses may also be buried onsite or
24 transported and buried in a more suitable location. A carcass can be towed out to sea and released,
25 but the release site must be far enough from shore so the carcass will not wash up again. If a carcass
26 returns to shore, it necessitates further response and disposal activities. A carcass can also be sunk by
27 attaching materials, such as cement barriers or chains, to weigh the carcass down.

28 Other industrial disposal methods include incinerating, rendering, and composting. The ability of the
29 local stranding network to utilize these methods depends greatly on the resources available in their
30 area and cost. Composting is an alternative method of carcass disposal involving transporting

1 carcasses to a composting facility. Composting is not commonly used at the present time, but it is
2 being explored in an experiment conducted by the University of New England utilizing funding from
3 a recent Prescott grant. This study will look at the efficiency of composting, as well as the retention
4 rate of euthanasia solution, bacteria and viruses, and possibly contaminants, by comparing readings
5 from the pre-composted carcasses and the resulting compost.

6 **2.1.2.2 Carcass Disposal Alternatives**

7 The following alternatives define different options for marine mammal carcass disposal. These
8 alternatives would impact Proposed Actions 1 and 3.

9 **Alternative B1.** No Action Alternative- No carcass disposal.

10 Under Alternative B1, NMFS would terminate carcass disposal. Current SAs would expire and
11 stranding response would cease; any disposal activities conducted by stranding network members
12 would also cease. Carcasses of stranded animals would be left on-site to decompose or wash back out
13 into the ocean. Federal (not including NMFS), state, and local agencies authorized under MMPA
14 Section 109(h) would still be able to conduct carcass disposal of non-ESA listed species, and ESA-
15 listed species under regulations at 50 CFR 17.21(c)(3) and 17.31(a), where applicable for the
16 protection of public health and safety. Their methods of carcass disposal and their impacts would not
17 be covered under the MMHSRP.

18 **Alternative B2.** Status Quo Alternative- Current methods of carcass disposal continue.

19 Alternative B2 would continue the current carcass disposal methods used by stranding network
20 members.

21 **Alternative B3.** Preferred Alternative- Status Quo with the recommendation to transport
22 chemically euthanized animal carcasses off-site.

23 Under Alternative B3, NMFS would recommend the removal of chemically euthanized animal
24 carcasses off-site for disposal by incineration, landfill, or other methods. Animals that die naturally
25 or euthanized by other means may be disposed of by whatever means feasible and allowed, including
26 those methods described in Section 2.1.2.1. Alternative B3 would allow the modification of carcass
27 disposal activities as new information is obtained regarding persistent contaminants or as disposal
28 methods are improved or developed, including composting.

1 **2.1.3 Rehabilitation Activities**

2 **2.1.3.1 Rehabilitation Facilities and Activities**

3 Twenty-nine facilities are currently authorized under SAs, the National Contingency Plan, or as
4 NMFS designees to conduct marine mammal rehabilitation on species under NMFS jurisdiction (see
5 Appendix F). These facilities are highly variable in terms of species treated, capacity, and facility
6 amenities. Some rehabilitation is conducted in the open ocean, by using nets to fence off a bay or
7 lagoon, or by using floating platforms with nets attached. Some facilities have elaborate structures
8 including inground pools and underwater observation windows, while other groups have only
9 aboveground or temporary pools, which are assembled only when needed. The length of time that a
10 facility can rehabilitate an animal may depend on the species, medical needs, or the available
11 equipment. Most rehabilitation activities conducted in temporary (“pop-up”) pools with or without
12 external filtration units must be short-term (days or possibly weeks), and efforts focus primarily on
13 stabilization and assessment. Other organizations are capable of long-term rehabilitation efforts of
14 weeks or months, although usually at considerable cost (in both money and effort). Carcass disposal
15 methods at rehabilitation facilities include rendering, incinerating, or burial in a landfill.

16 Rehabilitation activities conducted by state or local government official in the normal course of their
17 duties are covered by regulation at 50 CFR 216.22 (a)(3): “Where the marine mammal in question is
18 injured or sick, it shall be permissible to place it in temporary captivity until such time as it is able to
19 be returned to its natural habitat.” The governmental official is required to report to the Secretary of
20 Commerce the activities under this section every six months details on the marine mammal take,
21 including “the description of the place and means of confinement and the measures taken for its
22 maintenance and care” when the animal has been retained in rehabilitation (50 CFR 216.22(b)(5)).

23 **2.1.3.2 Rehabilitation Facility Standards**

24 The Rehabilitation Facility Standards set minimum facility, husbandry, and veterinary standards for
25 rehabilitating marine mammals to optimize the success of releasing the animals back to the wild (see
26 Appendix C). The standards also address personnel health and safety issues and contingency
27 planning. Some standards are based on the Animal Welfare Act regulations, which define minimum
28 standards for captive marine mammals. Standards are also based on expert input from a 1998 NMFS
29 workshop in Miami, Florida. Recommended standards (above the minimum) are included for facility
30 design and operation and are suggestions for optimizing the rehabilitation success rate. Meeting or

1 exceeding the recommended standards may be considered a goal to strive towards when upgrading
2 existing or designing new facilities or protocols.

3 **2.1.3.3 Rehabilitation Activities Alternatives**

4 The following alternatives address the rehabilitation activities of the stranding network and the
5 Rehabilitation Facility Standards in the Policies and Best Practices manual. These alternatives would
6 impact Proposed Actions 1, 2, 3, and 4.

7 **Alternative C1.** No Action Alternative- No rehabilitation of stranded animals.

8 Under Alternative C1, NMFS would terminate the rehabilitation of stranded animals. Current SAs
9 would expire, stranding response would cease, and therefore animals would not be rehabilitated. Sick
10 and injured animals would be left on the beach.

11 **Alternative C2.** Status Quo Alternative- Current rehabilitation activities continue.

12 Under Alternative C2, NMFS would continue the current rehabilitation activities of the stranding
13 network. New rehabilitation facilities could not be added to the stranding network. Adaptive changes
14 to rehabilitation activities would not be permitted. The final Rehabilitation Facility Standards would
15 not be implemented.

16 **Alternative C3.** Preferred Alternative- NMFS issues new SAs and response and rehabilitation
17 activities continue. Final Rehabilitation Facility Standards are implemented.

18 Under Alternative C3, NMFS would continue the current rehabilitation activities of the stranding
19 network, with the ability to designate new rehabilitation facilities and modify rehabilitation activities
20 if necessary. The final Rehabilitation Facility Standards would be implemented.

21 **Alternative C4.** New SAs are issued and response and rehabilitation activities continue.
22 Rehabilitation of threatened, endangered, and rare animals is **required**;
23 response to other animals is optional. Final Rehabilitation Facility Standards
24 are implemented.

25 Under Alternative C4, NMFS would require the rehabilitation of stranded threatened, endangered,
26 and rare animals. Rehabilitation of all other animals would be optional, but highly encouraged.
27 Stranding participants could rehabilitate these animals when feasible, based upon the availability of
28 resources. The final Rehabilitation Facility Standards would be implemented.

1 **2.1.4 Release of Rehabilitated Animals**

2 **2.1.4.1 Release Activities**

3 Release of a rehabilitated animal occurs when an attending veterinarian, after consultation with
4 NMFS, determines the animal is releasable. The presumption and goals for rehabilitated animals are
5 to release them back to the wild. In some cases, releasing a rehabilitated animal may not be the best
6 solution for either the individual animal or its conspecifics (members of the same species). The
7 minimum protocols for the release of a rehabilitated marine mammal are covered under regulation at
8 50 CFR 216.27. Every six months, the marine mammal must be evaluated for releasability by the
9 attending veterinarian. The release determination recommendation and a release plan are made by the
10 attending veterinarian of the rehabilitation facility, in consultation with their assessment and/or
11 husbandry team. This plan includes: 1) a description of the marine mammal, including its physical
12 condition and estimated age; 2) the date and location of the proposed release; and 3) the method and
13 duration of transport prior to release, per 50 CFR 216.67 (a)(2)(ii). The recommendation and release
14 plan are reviewed and approved or changed, if necessary, by NMFS prior to a release. The release
15 recommendation and plan are provided to NMFS at least 15 days in advance of a proposed release
16 date. The NMFS Regional Administrator may allow for pre-approved waivers for routine pinniped
17 cases as stated in 50 CFR 216.27(a)(2)(i)(A). This allows for the release of animals without the
18 required 15-day advanced notice or detailed release plan for an individual case. Typically these
19 waivers apply to cases involving routine diagnosis (*i.e.*, known cause of stranding), treatment, and
20 rehabilitation. Such waivers require the rehabilitation facility to submit a treatment and release
21 protocol for approval. Waivers are not considered for cetacean cases. Non-releasable animals may,
22 with NMFS approval, be permanently placed in a public display or scientific research facility, or may
23 be euthanized.

24 Prior to release, NMFS requires that animals be tagged or marked for individual identification, and
25 the tag number or description of the marking reported to NMFS. Current commonly used forms of
26 identification for cetaceans include photo identification, freeze branding, and/or a dorsal fin tag.
27 Photo identification should include the body, face, dorsal fin, flukes, and pectoral flippers, as well as
28 any identifying characteristics such as scars or color pattern markings. A numerical freeze brand (if
29 applicable) would be placed on both sides of the dorsal fin or just below the dorsal fin. Roto-tags
30 would be attached on the trailing edge of the dorsal fin. Identification of non-delphinid cetaceans is
31 determined in consultation with NMFS. NMFS must also approve any additional forms of
32 identification to be attached, such as VHF or satellite tags. All pinnipeds must be flipper tagged for

1 identification. Tags and placement instructions would be obtained from NMFS as appropriate for the
2 pinniped species. Other identification methods, such as freeze branding or glue tags, may be used in
3 addition to flipper tags. The identification method is detailed in the release plan, and will be
4 approved by NMFS prior to being implemented, especially if unique or atypical methods are utilized.

5 Cetaceans are transported to release sites by vessel. Pinnipeds are transported via vehicle or vessel to
6 beach or ocean release sites. Post-release monitoring is conducted for all released animals. Post-
7 release monitoring may be conducted using mark-resight methodology, radio telemetry, or satellite
8 tags. Monitoring should continue on a regular basis for at least one full year or, at a minimum, the
9 battery duration of the tag.

10 **2.1.4.2 Release Criteria**

11 The release criteria provide guidance for determining the release of rehabilitated marine mammals to
12 the wild (see Appendix C). The guidance includes marine mammal species under NMFS and
13 USFWS jurisdiction. It is a joint document developed by NMFS and USFWS in consultation with
14 marine mammal experts. Standards are also based upon review and public comment of the 1997 draft
15 NOAA Technical Memorandum “Release of Stranded Marine Mammals to the Wild: Background,
16 Preparation, and Release Criteria.” The standards provide recommendations for the medical,
17 behavioral, and developmental assessment of rehabilitated animals prior to release.
18 Recommendations on release site selection and post-release monitoring are also included. The
19 release criteria also require a health screen and certification before an animal is released.

20 **2.1.4.3 Release Alternatives**

21 The following alternatives address the release activities of the stranding network and the release
22 criteria in the Policies and Practices manual. These alternatives would impact Proposed Actions 1, 2,
23 3, and 4.

24 **Alternative D1.** No Action Alternative- No animals to be released.

25 Under Alternative D1, NMFS would end the release of stranded animals. Current SAs would expire,
26 stranding response and rehabilitation would cease, and therefore there would be no animals to release.

27 **Alternative D2.** Status Quo Alternative- Current release activities continue.

1 Under Alternative D2, NMFS would continue the current release activities of the stranding network.
2 Adaptive changes to release activities would not be permitted. The final release criteria would not be
3 implemented.

4 **Alternative D3.** Preferred Alternative- New SAs are issued and response, rehabilitation, and
5 release activities continue. Final release criteria would be implemented and
6 would include adaptive management of release activities.

7 Under Alternative D3, NMFS would continue the current release activities of the stranding network,
8 with the ability to modify release activities (adaptive changes) when necessary. The final release
9 criteria would be implemented.

10 **2.1.5 Disentanglement Network**

11 **2.1.5.1 Disentanglement Activities**

12 Disentanglement efforts are conducted for many marine mammals. For large whales,
13 disentanglement efforts may include vessel and aerial searches for the affected animal and incidental
14 harassment of non-entangled animals during these searches. Close approaches, tagging, use of buoys
15 or sea anchors to slow an animal's movement, cutting of lines and possibly flesh (when the line is
16 embedded), and remote sedation may occur during disentanglement. For pinnipeds and small
17 cetaceans, disentanglement efforts may include capture with incidental disturbance of non-entangled
18 animals, restraint, surgery, rehabilitation, administration of chemical agents (sedatives and/or
19 antibiotics), and release. Biopsy sampling may occur, either through the use of a remote dart or the
20 collection of tissues from the removed fishing gear. Appendix H contains the general methodologies
21 used during disentanglement activities. All disentanglement activities of ESA-listed species are
22 authorized under the ESA/MMPA permit; disentanglement of non-listed species are conducted under
23 the authority of the SA.

24 **2.1.5.2 Disentanglement Guidelines**

25 The Marine Mammal Disentanglement Guidelines provide the definitions and roles for First
26 Responders, Primary First Responders, and Primary Disentanklers for large whale disentanglements
27 (see Appendix C). The five levels of responders are described, including the targeted individuals,
28 responsibilities, and the criteria to be certified for each level. A First Responder is anyone in the
29 disentanglement network with any level of training who may respond to an entanglement report under
30 network protocols and authorization. A Primary First Responder is an individual with a higher

1 network classification (Levels 3-5) that may direct efforts locally and, under certain conditions and
2 authorization, may attempt disentanglements during first response. A Primary Disentangler is an
3 individual who can perform all the duties of a First Responder, but also meets the NMFS criteria to
4 undertake the actual disentangling. Primary Disentanglers have a classification of Level 4 or 5 in the
5 network. Under the direction of the NMFS Disentanglement Coordinator, these Guidelines are
6 currently in use for the Disentanglement Network on the East Coast (both NMFS Northeast and
7 Southeast Regions). There are approximately 165 trained members of the disentanglement network
8 with response levels ranging from 2-5. There are several hundred more members that have been
9 trained at response level 1.

10 There are no standardized protocols for disentanglement of small cetaceans and pinnipeds. Currently,
11 these animals are approached on a case-by-case basis by members of the stranding network,
12 responding to them as they would to any other stranded animal. Response to entangled small
13 cetaceans typically requires in-water capture of free-swimming animals. Some animals may have
14 impaired locomotion if the gear is heavy or anchored. Entangled pinnipeds are typically captured on
15 land when they are hauled out. Animals may be freed of gear and immediately released, or brought
16 into a rehabilitation facility for a period of time prior to release.

17 **2.1.5.3 Disentanglement Alternatives**

18 The following alternatives address the disentanglement network and the Disentanglement Guidelines
19 in the Policies and Practices manual. These alternatives would impact Proposed Actions 1, 2, 3, and
20 4.

21 **Alternative E1.** No Action Alternative- No disentanglement network.

22 Under Alternative E1, NMFS would terminate the disentanglement network. The current SAs would
23 expire and pinniped and small cetacean disentanglement would end. The current ESA/MMPA permit
24 would expire and disentanglement activities of ESA-listed species would not be authorized.
25 Entangled animals may be monitored, (as long as they were not harassed during the monitoring
26 activities), but no action would be taken to disentangle them.

27 **Alternative E2.** Status Quo Alternative- Disentanglement network continues current
28 activities, no modifications or new members added.

1 Under Alternative E2, NMFS would continue the current activities of the disentanglement network.
2 Current SAs would continue to allow disentanglement of pinnipeds and small cetaceans. The new
3 ESA/MMPA permit would be issued and would authorize the current disentanglement activities for
4 ESA-listed species. New members could not be added to the disentanglement network. Adaptive
5 changes to disentanglement activities, including the use of newly developed equipment, would not be
6 permitted.

7 **Alternative E3.** Preferred Alternative- Disentanglement network continues current activities
8 on East Coast with modifications to West Coast network. The
9 Disentanglement Guidelines and training prerequisites would be
10 implemented.

11 Under Alternative E3, NMFS would continue the current activities of the disentanglement network,
12 with the ability to add new participants and modify disentanglement activities and technologies when
13 necessary. Current and future SAs would continue to allow disentanglement of pinnipeds and small
14 cetaceans. The new ESA/MMPA permit would be issued and would authorize the current and future
15 disentanglement activities of ESA-listed species. The East Coast network would continue their
16 current activities. Modifications would be made to the West Coast network to coordinate the
17 structure and training with the East Coast network. The Disentanglement Guidelines and training
18 prerequisites for network participants would be implemented nationwide.

19 **2.1.6 Biomonitoring and Research**

20 **2.1.6.1 Biomonitoring and Research Activities**

21 The MMHSRP conducts and sponsors a variety of prospective health assessments and research
22 projects relating to marine mammal health. The prospective health assessment research activities of
23 the MMHSRP are conducted on stranded animals and free-ranging animals that occur in areas with
24 known health concerns or in areas of previous health concerns. Marine mammals that are captured
25 for these health assessments may have visible health problems (for example, skin lesions), they may
26 have been exposed to known toxins, or they may have been exposed to other physical, chemical, or
27 biotic stressors that are known to produce adverse health outcomes in marine mammals. The areas
28 targeted for prospective health assessments often include areas of previous and current die-offs.

29 Many different diagnostic and research labs are under permit and/or contract with the MMSHRP to
30 provide analyses. Services provided include histopathology, virology, bacteriology, toxicology

1 (contaminant and biotoxin analyses), and acoustic diagnostics. General research methodologies are
2 described in Appendix H.

3 **2.1.6.2 Biomonitoring and Research Alternatives**

4 The following alternatives address the biomonitoring and research activities of the MMHSRP. These
5 alternatives would impact Proposed Actions 2 and 3.

6 **Alternative F1.** No Action Alternative- Biomonitoring and research activities would not
7 occur.

8 Under Alternative F1, NMFS would terminate the current biomonitoring and research activities of the
9 MMHSRP. This would include the NMMTB, health assessment captures, and other various research
10 projects.

11 **Alternative F2.** Status Quo Alternative- Continuation of current biomonitoring and research
12 activities.

13 Under Alternative F2, NMFS PR1 would issue the MMHSRP a new ESA/MMPA permit that would
14 include the current biomonitoring and research activities. New biomonitoring and research activities
15 would not be added under the permit.

16 **Alternative F3.** Preferred Alternative- New ESA/MMPA permit issued to include current and
17 future biomonitoring and research activities.

18 Under Alternative F3, NMFS PR1 would issue the MMHSRP a new ESA/MMPA permit that would
19 include current and new biomonitoring and research activities.

20 **2.2 Alternatives Considered but Eliminated from Further Analysis**

21 **2.2.1 Stranding Response Alternatives**

22 *Stranding Response Curtailed Immediately.* This alternative would immediately stop the response
23 to stranded animals and the current stranding network would cease to exist. Public comments
24 supported the continuation of stranding response activities and stated that this alternative was not
25 feasible. Under this alternative, NMFS would not be fulfilling its mandate under the MMPA, and
26 there would be a high level of public controversy. Therefore, NMFS eliminated this alternative.

1 ***Stranding Response to Some Animals is Authorized, Other Animals are Prohibited.*** Public
2 comments did not support prohibiting stranding response to certain animals. By denying
3 organizations the ability to respond to some animals, these animals would have to be left on the
4 beach. This would create public controversy, and would eliminate valuable information on marine
5 mammal health and populations that is gained from the examination of stranded animals. Therefore,
6 NMFS eliminated this alternative.

7 **2.2.2 Carcass Disposal Alternatives**

8 ***All Animals are Buried On-site.*** Burial is not an option in all geographic areas due to substrate
9 issues (rocks or dense soil, shallow water table, inaccessibility by necessary machinery, etc.) or local
10 restrictions. Burial of animal carcasses may be prohibited in some areas where animals strand. In
11 addition, marine mammal carcasses have the potential to be highly toxic. Chemically euthanized
12 animal carcasses may contain high concentrations of lethal chemicals. Other carcasses may have high
13 toxin levels from biotoxins or other contaminants. Burying these carcasses would create a risk to
14 scavengers, water quality, and soils. The option to transport carcasses off-site must be available.
15 Therefore, NMFS eliminated this alternative.

16 ***All Animals are Transported Off-site for Disposal.*** Public comments did not support the alternative
17 to transport all carcasses off-site for disposal. Transporting all carcasses off-site would place a
18 financial burden on stranding network participants. In addition, some carcasses may not be
19 transportable for logistical reasons: the animal is too large or too heavy to lift; equipment is
20 unavailable or cost prohibitive; equipment is not permitted; or has no available beach access. Other
21 disposal methods (burial, disposal at sea, natural decomposition) for non-toxic carcasses are more
22 cost-effective and feasible. Therefore, NMFS eliminated this alternative.

23 ***No Animals are Chemically Euthanized.*** Chemical injection is currently the most common humane
24 method of euthanasia for pinnipeds and small cetaceans. Other methods of euthanasia, such as
25 ballistics (shooting) or explosives, may be dangerous to personnel assisting with the process as well
26 as the public. Prohibiting the use of chemical euthanasia would require stranding personnel to either
27 use these methods or not perform euthanasia. The use of other methods would increase the risks to
28 human health and safety. Additional numbers of animals would be killed using other means or left on
29 the beach to die, which could increase the suffering of the animal and potentially create public
30 controversy. Therefore, NMFS eliminated this alternative.

1 **2.2.3 Rehabilitation Activities Alternatives**

2 ***Rehabilitation Activities Curtailed Immediately.*** This alternative would immediately stop the
3 rehabilitation of stranded animals. Public comments supported the continuation of rehabilitation
4 activities and stated that this alternative was not feasible. Under this alternative, NMFS would not be
5 fulfilling its mandate under the MMPA. Therefore, NMFS eliminated this alternative.

6 ***Rehabilitation of Some Animals is Authorized, Other Animals are Prohibited.*** Public comments did
7 not support prohibiting the rehabilitation of certain animals. By denying organizations the ability to
8 respond to some animals, these animals would have to be left on the beach. This would create public
9 controversy, and would eliminate valuable information on marine mammal health and populations.
10 Rehabilitation of common species also gives rehabilitation facilities additional opportunities to
11 perfect their rehabilitation practices, increasing the chance of successful rehabilitation and release of
12 threatened, endangered and rare species. Therefore, NMFS eliminated this alternative.

13 **2.2.4 Release of Rehabilitated Animals Alternatives**

14 ***All Animals are Released (After Rehabilitation).*** Currently, nonreleasable animals may be placed in
15 permanent captivity in a public display or at a research facility if they hold an APHIS exhibitor's or
16 research license. During rehabilitation, problems may be detected that would prevent the animal from
17 being deemed releaseable (*e.g.*, the animal has a medical issue requiring regular veterinary care and
18 medications, or it develops behavioral problems). Requiring the facility to release this animal despite
19 this condition would be detrimental to the welfare of the animal and possibly to the wild population
20 and human safety. Therefore, NMFS eliminated this alternative.

21 ***Release of Some Animals is Required, Other Animals are Optional.*** Under this alternative, release
22 of some species of rehabilitated animals would be required to occur under any circumstance, or the
23 animal would be euthanized. Currently, these animals may be deemed nonreleaseable and placed in
24 permanent captivity at a public display or at a research facility, where they contribute to the education
25 of the general public or to the scientific body of knowledge. Requiring the release of animals would
26 result in the release of inappropriate animals (those suffering from medical or behavioral conditions).
27 This would be detrimental to the welfare of the animals and possibly to the wild population and
28 human safety. Therefore, NMFS eliminated this alternative.

29 ***Release of Some Animals is Authorized, Other Animals are Prohibited.*** Under this alternative,
30 release of some species of rehabilitated animals would be prohibited, regardless of the circumstances.

1 Therefore, the animal would be placed in permanent captivity at a public display or at a research
2 facility or euthanized, even if it was “releaseable” or appropriate to be released back into the wild.
3 This would be a detriment to the wild population and would result in overcrowding at facilities, or
4 needless euthanasia. Therefore, NMFS eliminated this alternative.

5 **2.2.5 Disentanglement Alternative**

6 *Disentanglement of Some Animals is Authorized, Other Animals are Prohibited.* Under this
7 alternative, disentanglement of some species would be prohibited, regardless of the circumstances.
8 Therefore, the animal would remain entangled and potentially unable to feed, swim, or reproduce,
9 even if the entanglement could be dealt with at minimum risk to the animal and the response team
10 This would be a detriment to the wild population and would result in needless death and suffering of
11 marine mammals. Therefore, NMFS eliminated this alternative.

12 **2.2.6 Biomonitoring and Research Activities Alternatives**

13 *Health Assessment Captures Would Not Occur.* Under Title IV of the MMPA, one of the purposes
14 of the MMHSRP is to collect and disseminate reference data on the health and health trends of marine
15 mammal populations in the wild. Health assessment captures are an integral part of collecting this
16 health reference data. Captures are also used to provide information on animals in areas where UMEs
17 have occurred or are occurring, and significantly contribute to UME investigations. Therefore,
18 NMFS eliminated this alternative.

19 *Tissue Banking Would Not Occur.* The NMMTB was established under Title IV of the MMPA to
20 store, analyze, and archive marine mammal tissues. Without the NMMTB, reference data on the
21 health of marine mammals and populations of marine mammals would not be collected and
22 maintained. Under this alternative, NMFS would not be fulfilling its statutory mandate to maintain
23 the NMMTB. Therefore, NMFS eliminated this alternative.