

## **NMFS Standards for Rehabilitation Facilities**

### **Executive Summary**

The goal of this document is to set MINIMUM facility, husbandry, and veterinary standards for rehabilitating marine mammals (cetaceans and pinnipeds, excluding walrus) under the jurisdiction of the National Marine Fisheries Service (NMFS) in the United States. Likewise some of the standards put forth in this document are based on the United States Department of Agriculture (USDA), Animal and Plant Health Inspection Service's Animal Welfare Act regulations which define minimum standards for permanent managed care marine mammals. However, there are differences between the two documents in that NMFS Rehabilitation Standards were developed for temporary care of ill or injured marine mammals.

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# 1 Introduction

As part of the National Marine Fisheries Service (NMFS) Stranding Agreements, NMFS will require that all rehabilitation facilities for cetaceans and pinnipeds, excluding walrus, meet the MINIMUM STANDARDS presented in this document. The goal of this document is to set MINIMUM facility, husbandry, and veterinary standards for rehabilitating marine mammals in order to meet the prescribed NMFS and United States Fish and Wildlife Service (USFWS) Standards for Release. Likewise some of the standards put forth in this document are based on the United States Department of Agriculture (USDA), Animal and Plant Health Inspection Service (APHIS) Animal Welfare Act (AWA) regulations which define minimum standards for permanent managed care marine mammals. However, there are differences between the two documents in that NMFS standards were developed for temporary care of ill or injured marine mammals.

RECOMMENDED STANDARDS are included in some sections, and consist of facility design and operational suggestions for optimizing the rehabilitation. Meeting or exceeding the RECOMMENDED STANDARDS may be considered a goal to strive towards when upgrading existing, or designing new facilities or protocols.

It is the intent of NMFS to provide a reasonable process for facilities to be upgraded to meet the MINIMUM STANDARDS set forth in this document. Substandard facilities may be improved using funds that may be available through the John H. Prescott Rescue Assistance Grant Program (Prescott Grant). Likewise Prescott Grant funds may also be used to improve facilities that meet MINIMUM STANDARDS with the goal to achieve or exceed the RECOMMENDED STANDARDS. Health and safety practices are highly stressed in this document. NMFS expects all personnel and volunteers will be trained to the highest level of responsibility they are assigned. Rehabilitation facilities are encouraged to comply with Occupational Safety and Health Administration regulations.

Newly constructed facilities must meet the MINIMUM STANDARDS and must be inspected by NMFS prior to admitting patients. Certain facilities (*e.g.*, Short-term Holding and Emergency Temporary Holding Facilities) do not need to meet all the MINIMUM STANDARDS, please see Sections 6 and 7 for details on these exemptions.

## 1.1 Purpose

The purpose of rehabilitation is to provide humane care for ill or injured marine mammals and to optimize releasing the animals back to the wild. As mandated by Title IV Section 402 (a) of the Marine Mammal Protection Act (MMPA), NMFS has developed guidance and criteria for release based on optimizing the chances for survival and minimizing the risk to wild populations (NMFS and USFWS Standards for Release). These rehabilitation facility standards have been developed to achieve the goals set forth by the NMFS and USFWS Standards for Release.

This document is organized with the main section (Section 2) that provides standards for any marine mammal rehabilitation facility, regardless of taxa, that works with NMFS trust species (*i.e.*, all cetaceans and pinnipeds except for walrus). Subsequent sections provide taxa-specific differences for cetaceans (Section 3) and pinnipeds (Section 4), as well as standards for those facilities that are providing rehabilitation for Endangered Species Act listed marine mammals (Section 5). The last two sections include exemptions from the MINIMUM STANDARDS for facilities that engage in short-term holding (Section 6), and emergency temporary holding (Section 7). Also included is Appendix A, which is a checklist with each of the MINIMUM STANDARDS for use of facilities in preparation for Facility Inspections, which will be conducted by NMFS on a regular or as needed basis (in-person or virtually).

The following reports may be requested annually by NMFS as required under the NMFS Stranding Agreement or as a part of the Facility Inspections:

- Standard Operating Procedure (SOP) reviews;

- Health and Safety Plan reviews;
- National Oceanic and Atmospheric Administration (NOAA) Form 89864, Office of Management and Budget (OMB) #0648-0178 (Level A Data; Marine Mammal Rehabilitation Disposition Report; Human Interaction Form);
- Case records/summaries for any rehabilitation performed at a facility, including narrative descriptions of the cases as well as spreadsheets of treatments, blood values, etc.

## **1.2 Acknowledgements**

These Rehabilitation Standards have been revised from 2009 Standards originally written by Laurie Gage of the USDA Animal and Plant Health Inspection Service Animal Care. We want to thank Dr. Gage for her contributions to the Rehabilitation Standards and Inspection Program over the years. We would also like to thank the many people who contributed information and review of these Standards.

## **2 Standards for All Rehabilitation Facilities**

### **2.1 Facilities, Housing, and Space**

#### **2.1.1 Pool and Pen Construction and Design**

Pools can be any shape and should be structurally sound, maintained in good repair, protect animals from injury, contain animals within the facility, and restrict entrance of unwanted animals.

##### MINIMUM STANDARDS

- 2.1.1.1 Pools and pens must be constructed of durable, non-toxic, non-corrodible material.
- 2.1.1.2 Pools and pens must offer ease of cleaning.
- 2.1.1.3 Pools and pens must offer ease of handling the animals.
- 2.1.1.4 If netting is used as pen construction material, it must be small enough gauge to prevent entanglement.

##### FOR SEA PEN LAGOON/BAY FACILITIES ONLY (SP):

- 2.1.1.5 (SP). Facilities must maintain effective barrier fences extending above the high tide water level, or other appropriate measures, on all sides.
- 2.1.1.6 (SP). Nets must be sufficiently rigid to prevent entanglement by mammals or fish.
- 2.1.1.7 (SP). Sea pens must have a second set of perimeter nets at least 10 m from the net pen to prevent direct contact between animals inside the pen in rehabilitation with wild marine mammals.
- 2.1.1.8 (SP). Sea pens must be located more than 1 km from any major outflow of storm drains or sewage treatment plants. Note: This distance may need to be greater when considering flow direction or current from these outflows.
- 2.1.1.9 (SP). Sea pens must be placed more than 500m downstream from water intake pipes that bring water into facilities housing marine mammals.
- 2.1.1.10 (SP). Quarantine sea pens must be placed so that tidal action or underwater currents will not permit water flow between quarantine pens and sea pens housing animals that are further along in rehabilitation or healthy (captive) marine mammals.

#### **2.1.2 Shelter, Shade, and Temperature**

Rehabilitation facilities located where there is inclement weather need to provide shelter to rehabilitating animals that may be exposed to extreme heat or cold. Animals held in indoor facilities should be provided with appropriate light and dark photoperiods which mimic actual seasonal conditions.

##### MINIMUM STANDARDS

- 2.1.2.1 Means must be available to control the air temperature to facilitate recovery, protecting rehabilitating animals from extremes of heat and cold and preventing discomfort.

2.1.2.2 Holds water temperatures within the normal seasonal habitat temperature range for the species under rehabilitation, unless otherwise authorized and documented<sup>1</sup> by the attending veterinarian.

*FOR OUTDOOR FACILITIES (OR THE PORTION OF POOLS/PENS THAT ARE OUTDOORS):*

2.1.2.3 Shade structures or shelters must be available to animals to aid thermoregulation on those days when local climatic conditions could compromise the health of the animal.

2.1.2.4 Shade structures (when used) must be large enough to provide shade to at least 25% of the area of the pool/pen at all times of day.

*FOR INDOOR FACILITIES (OR THE PORTION OF POOLS/PENS THAT ARE INDOORS):*

2.1.2.5 Lighting in indoor facilities should be appropriate for the species and should illuminate the pen/pool during daylight hours.

2.1.2.6 Means must be available to ensure sufficient air turnover to prevent discomfort, reduce potential for transmission of disease, prevent build-up of heat or chemical fumes, and provide a method for bringing fresh air into the facility.

2.1.2.7 There must be sufficient vents or openings to allow movement of air throughout the facility.

**RECOMMENDED**

- Full spectrum lights or a natural source of lighting for animals housed indoors.
- Removable or adjustable shade structures over pools and pens that are easily cleaned and that provide more natural sunlight to animals that are less active.
- Permanent shade structures over pools and pens for animals that are more active (pre-release)
- Shade structures, where necessary, shall be large enough to provide shade to at least 50% of the minimum horizontal dimension (MHD) surface area determined for the species held in the pool. MHD is defined as 7.3 meters (24 feet) or two times the actual length of the largest species housed in the pool, whichever is greater.

## **2.1.3 Housekeeping**

### **MINIMUM STANDARDS**

2.1.3.1 Areas surrounding rehabilitation pools and pens (including decks and walkways) must be kept clean and in good repair.

2.1.3.2 Support buildings and grounds must be kept clean and in good repair.

2.1.3.3 All enclosures must have no sharp projections, edges, or loose objects which may cause trauma or injury to the marine mammals in rehabilitation.

2.1.3.4 Objects introduced as environmental enrichment must be too large to swallow, made of nonporous and cleanable material, frequently disinfected, and not an entanglement hazard.

2.1.3.5 All drains and overflows must have screened covers.

2.1.3.6 Pens and pools must have no holes or gaps larger than ½ the size of the head diameter of the smallest animal housed within.

## **2.1.4 Pest Control**

### **MINIMUM STANDARDS**

2.1.4.1 The facility must maintain a safe and effective program for the control of insects, reptilian, avian, and mammalian pests.

2.1.4.2 Insecticides or other chemical agents for pest control must not be applied in an enclosure housing marine mammals or in a food preparation area, unless directed otherwise in documentation by the attending veterinarian

2.1.4.3 If insecticides or other chemical agents for pest control are applied, all appropriate measures must be taken to prevent direct contact (airborne, waterborne, or solid surface) between the animals and the chemical.

2.1.4.4 Insecticides or other chemical agents for pest control must be stored in properly labeled

<sup>1</sup> “Documented” includes written and electronic records

containers and separated from food preparation and animal feed areas.

- 2.1.4.5 Post SDS “right to know” documents for personnel utilizing insecticides/pesticides, or cleaning, water quality, and animal treatment chemicals and drugs.

## 2.1.5 Sanitation

### MINIMUM STANDARDS

- 2.1.5.1 Animal and food waste must be removed at least once per day from the rehabilitation enclosure areas outside the pool, and more frequently when necessary to prevent contamination.
- 2.1.5.2 Animal and food particulate waste must be removed from pools at least once per day, and more frequently as necessary to maintain water quality and prevent contamination.
- 2.1.5.3 Trash and debris must be removed from pens and pools as soon as it is noticed to preclude ingestion or other harm to the animals.
- 2.1.5.4 Pools and pens must be cleaned and disinfected between patients or patient cohorts (Note: Effective filtration systems provide adequate disinfection for pools).
- 2.1.5.5 Ensures appropriate disinfectants are mixed to recommended dilutions and are utilized to clean pens, equipment, utensils, and feed receptacles and to place in foot baths. These disinfectants should have both bactericidal and virucidal qualities (<https://www.cdc.gov/infectioncontrol/guidelines/disinfection/index.html>).
- 2.1.5.6 Measures must be taken to prevent animals from coming into direct contact with disinfectants from spray, cleaning hoses, aerosols, or any other method of delivery.
- 2.1.5.7 Rotates disinfectants on a regular basis to prevent bacterial resistance.
- 2.1.5.8 Chemical agents for cleaning and sanitizing must be stored in properly labeled containers and located away from food preparation and animal feed areas.

### RECOMMENDED

- Coat all pool and haul-out surfaces with a non-porous, non-toxic, non-degradable cleanable material that is able to be disinfected.

## 2.1.6 Facility Security

### MINIMUM STANDARDS

- 2.1.6.1 The rehabilitation facility must be secured from public access.
- 2.1.6.2 There must be no opportunities for direct public contact with animals in rehabilitation.
- 2.1.6.3 Facilities with outdoor enclosures (including net pens) must have a complete perimeter fence of an adequate height and construction to keep out people, domestic animals, wildlife, and pests.

### RECOMMENDED

- 24-hour monitoring (may be virtual via cameras and/or alarms) is maintained when animals are present.

## 2.2 Water Quality

### 2.2.1 Water Source and Disposal

#### MINIMUM STANDARDS

- 2.2.1.1 Fresh water must be available to clean and wash down pens and surrounding areas (*e.g.*, decks and walkways).
- 2.2.1.2 Wastewater must be discharged in accordance with state and local regulations.
- 2.2.1.3 Any required documentation (*e.g.*, permits) for wastewater discharge must be maintained and provided to NMFS upon request.
- 2.2.1.4 Effluent from pens must not be near the water intake.

### 2.2.2 Water Quality Testing

#### MINIMUM STANDARDS

*FOR ALL SYSTEMS (DUMP AND FILL, CLOSED, SEMI-OPEN, AND OPEN):*

- 2.2.2.1 Clean the rehabilitation pools and pens as often as necessary to maintain proper water quality.

- 2.2.2.2 Test temperature in all pools at least daily, or whenever heating or cooling water.
- 2.2.2.3 If chlorine or bromine is used, test chlorine or bromine level in all pools daily.
- 2.2.2.4 If chlorine is used, maintain total chlorine below 1.5ppm, where combined chlorine does not exceed 50% total chlorine.
- 2.2.2.5 If used, other chemical additives should be measured daily and shall not be added in a manner that could cause harm or discomfort to the animals.
- 2.2.2.6 Record daily measurements that are taken (e.g., temperature, chlorine levels, ozone levels, pH, salinity, etc.).

*FOR DUMP AND FILL SYSTEMS ONLY:*

- 2.2.2.7 Drains water from pools daily or as often as necessary to keep the pool water quality within acceptable limits.

*FOR CLOSED, SEMI-OPEN OR OPEN SYSTEMS ONLY:*

- 2.2.2.8 Test pH in all pools daily.
- 2.2.2.9 Maintain pH between 6.5 and 8.5.
- 2.2.2.10 If ozone is used, measure ozone levels daily.
- 2.2.2.11 If ozone is used, maintain ozone levels below 0.02 mg/liter.
- 2.2.2.12 If salt water is used, maintain salinity levels above 24 parts per thousand (ppt) unless a documented veterinary plan calls for lower salinity levels, or if the animals are housed in sea pens near their resident range.
- 2.2.2.13 Measures and records coliform growth in all pools weekly.
- 2.2.2.14 Total coliform counts do not exceed 500 per 100 ml or a most probable number (MPN) of 1000 coliform bacteria per 100 ml water. Or fecal coliform counts do not exceed 400 per 100 ml.
- 2.2.2.15 If a single coliform test exceeds the limit, 2 additional tests should be performed within 48 hours and the results averaged OR the pool may be completely or partially refilled and tested again within a week. The results of tests should be recorded.
- 2.2.2.16 Has separate filtration and water flow systems for pools in quarantine/isolation areas.

*FOR CLOSED AND SEMI-OPEN SYSTEMS ONLY:*

- 2.2.2.17 Have a minimum of 2 complete water changes per day to maintain sufficient turnover of water through the filtration system.
- 2.2.2.18 Water is regularly filtered through appropriate filters (e.g., sand and gravel) to remove particulate matter, and disinfectants (e.g., chlorine, ozone, UV, etc.) are available to be added to eliminate pathogens.

*FOR OPEN WATER SEA PENS ONLY:*

- 2.2.2.19 The pen must have a method for moving water (e.g., paddles, pumps, spray devices) that is able to aerate and move water if there is insufficient flow of tides or current through the enclosure with an equivalent of two water changes per day.

## **2.3 Isolation/Quarantine**

### **2.3.1 General Isolation and Quarantine**

#### **MINIMUM STANDARDS**

- 2.3.1.1 All new animals should be admitted into a separate pool, pen or cage that can be isolated with the use of dividers, tarps, or via physical space from other animals. Animals that are admitted in the same 24-hour period may be housed together as a group or cohort.
- 2.3.1.2 Sufficient space or solid barriers between animal enclosures should be provided to prevent direct contact, including wash down or splash moving from one pool to another, to reduce the possibility of water or airborne disease transmission.
- 2.3.1.3 Animal care personnel must thoroughly clean and disinfect buckets, hoses, scales, transport equipment, and cleaning equipment to prevent transmission of pathogens via fomites if equipment is used by multiple animals/pens.



- 2.3.1.4 Foot baths must be placed at the entry and exit to animal areas, and used by all personnel whenever entering or exiting these areas.
- 2.3.1.5 Foot baths should be changed at least daily.
- 2.3.1.6 All personnel interacting with animals should use personal protective equipment [*e.g.*, protective clothing (slickers, coveralls, etc.), closed toed shoes, gloves, eye protection and/or face masks].
- 2.3.1.7 Foot baths, glove baths, and/or other methods should be used to disinfect clothing, wet suits, or exposure suits and footwear between handling animals within the quarantine/isolation area and outside of the quarantine/isolation area.
- 2.3.1.8 Each animal should be individually identified with a mark or tag prior to mixing with other animals and is required if needed to distinguish between individuals. Note: This may be a temporary mark or tag such as a shave mark or grease pen, but must be sufficient to distinguish between individuals.

## **2.3.2 Prevention of Disease Transmission**

### MINIMUM STANDARDS

- 2.3.2.1 Personal pets must be prohibited from entering the facility and facility grounds, remaining outside the perimeter fence at all times.
- 2.3.2.2 Personnel in contact with animals in rehabilitation must change contaminated clothing and/or disinfect all equipment prior to leaving the rehabilitation premises.
- 2.3.2.3 Provide eye flushing stations as used with hazardous materials (HAZMAT) or normal saline bottles to irrigate the eye.
- 2.3.2.4 Personnel with open wounds should not interact with animals carrying potentially infectious diseases.
- 2.3.2.5 Train personnel how to recognize symptoms and prevent contracting zoonotic disease.
- 2.3.2.6 A written<sup>2</sup> health and safety plan(s) is available to all personnel that includes protocols for safely handling all species and sizes of marine mammals cared for at the facility, a list of potential zoonotic diseases, and includes protocols for managing bite wounds.

## **2.3.3 Biosecurity for Facilities with Species other than Marine Mammals on Site**

This includes zoos/aquaria, rehabilitation facilities of other wildlife, etc.

### MINIMUM STANDARDS

- 2.3.3.1 Traffic flow patterns must be established so that personnel working with marine mammals in rehabilitation do not inadvertently travel into other animal areas and vice versa.
- 2.3.3.2 Established decontamination protocols must be followed before personnel working with marine mammals in rehabilitation enter areas housing other animals.
- 2.3.3.3 Restrooms, showers, changing rooms, etc. should be established for personnel working with marine mammals in rehabilitation separate from those working with other animals.
- 2.3.3.4 Food containers (buckets, tubs, tanks, feeding implements, etc.) taken into pools and pens for animals in rehabilitation must be dedicated to stranded animal use and marked or otherwise identified.
- 2.3.3.5 Food for animals in rehabilitation may be prepared in a central/combined kitchen and then taken into the rehabilitation area. However, containers must be thoroughly disinfected before returning to the shared area.

## **2.3.4 Evaluation Requirements Prior to Placing Marine Mammals Together**

### MINIMUM STANDARDS

- 2.3.4.1 Each animal must have an evaluation by trained personnel that is notated in its medical record before moving animals between pools/pens.
- 2.3.4.2 Prior to moving an animal out of the intake (isolation/quarantine) area, an evaluation should be conducted, unless waived by veterinary personnel.

<sup>2</sup> Written plans may include paper and electronic records.

- 2.3.4.3 Prior to moving an animal out of the intake (isolation/quarantine) area, a complete blood count (CBC)/blood chemistries, and other appropriate tests should be obtained, unless waived by the attending veterinarian.
- 2.3.4.4 Personnel conducting evaluations and making decisions regarding animal pen placement must be familiar with current NMFS recommendations on diseases of concern (*e.g.*, avian influenza, leptospirosis, morbillivirus, etc.) and emerging diseases.

### **2.3.5 Outbreak Prevention and Control**

#### MINIMUM STANDARDS

- 2.3.5.1 The facility must have a detailed infection control and outbreak plan that details how infectious disease transmission will be mitigated or contained.
- 2.3.5.2 The infection control and outbreak plan must address zoonotic pathogens including both airborne and non-airborne pathogens.
- 2.3.5.3 During an outbreak of an infectious disease, personal protective equipment, equipment, and tools strictly dedicated to the quarantine areas must be used.
- 2.3.5.4 If the animals are part of a declared Unusual Mortality Event (UME), screening for disease must be in direct coordination with NMFS and the UME investigative team.
- 2.3.5.5 Personnel must be trained to follow appropriate quarantine protocols.

## **2.4 Nutrition**

### **2.4.1 Feeding and Diets**

#### MINIMUM STANDARDS

- 2.4.1.1 Diet composition and frequency must be reviewed by a nutritionist, attending veterinarian, or the animal care supervisor and must be formulated with consideration for age, species, condition, and size of the marine mammals being fed.
- 2.4.1.2 Animals should be fed a minimum of twice per day, unless directed otherwise in documentation by the attending veterinarian.
- 2.4.1.3 Personnel must be trained to recognize good and bad fish and other seafood (*e.g.*, squid, invertebrates) quality.
- 2.4.1.4 Animals must receive sufficient vitamin and/or salt supplementation, approved by the attending veterinarian in documentation. Note: Veterinary approval could be included as part of a general feeding protocol for the facility.
- 2.4.1.5 Feeding must only be conducted by qualified, trained personnel.
- 2.4.1.6 Feeding of rehabilitation animals by members of the public is **strictly** prohibited.

### **2.4.2 Food Storage, Thawing, and Preparation**

“Food items” are defined as fish, invertebrates, and other animal products for consumption by marine mammals in rehabilitation.

#### MINIMUM STANDARDS

- 2.4.2.1 Frozen food items must be stored in freezers which are maintained at a maximum temperature of 0°F (-18°C).
- 2.4.2.2 Food freezers must only contain food items for animal consumption. Human food or frozen specimens must not be placed in the fish freezer.
- 2.4.2.3 All boxes of food items must be labeled with the date of delivery and must be used within one year of delivery date.
- 2.4.2.4 Frozen food should be rotated in the freezer so oldest food is fed first.
- 2.4.2.5 Food items must not be allowed to sit in direct sunlight.
- 2.4.2.6 Food items should be thawed in the coldest water available.
- 2.4.2.7 All food items must be fed to the marine mammals within 24 hours of complete thawing
- 2.4.2.8 All thawed food should be refrigerated.
- 2.4.2.9 The thawed food items must maintain a cold temperature through feeding and not allowed to

- reach room temperature. Food items may be iced or refrigerated for a reasonable time before feeding (exact time will vary depending on ambient temperature)
- 2.4.2.10 Prepared formula/gruel must be fed immediately or refrigerated and fed within 24 hours of preparation.
  - 2.4.2.11 Once heated to an appropriate temperature for a feed, formula/gruel must be discarded if it is not consumed within one hour
  - 2.4.2.12 Food containers (*e.g.*, buckets, tubs, bottles, tanks), utensils (*e.g.*, knives, cutting boards), and any other equipment used for holding, thawing, or preparing food must be cleaned with detergent and hot water after each feeding, and sanitized at least once per day.
  - 2.4.2.13 Kitchens and other food preparation and handling areas must be cleaned after every use and sanitized at least once per week  
(<https://www.cdc.gov/infectioncontrol/guidelines/disinfection/index.html>).

## **2.5 Veterinary Medical Care**

### **2.5.1 Veterinary Program and Staffing**

#### MINIMUM STANDARDS

- 2.5.1.1 Veterinary care for the animals must conform with any State Veterinary Practice Act or other laws governing veterinary medicine which applies to the state in which the facility is located.
- 2.5.1.2 Personnel caring for animals are sufficiently trained to assist with veterinary procedures under the direction of the attending veterinarian and the rehabilitation facility maintains at least one Animal Care Supervisor who is responsible for overseeing prescribed treatments, maintaining hospital equipment, and controlling drug supplies.
- 2.5.1.3 The Animal Care Supervisor is adequately trained to deal with emergencies until the veterinarian arrives, be able to direct the restraint of the animals, be responsible for administration of post-surgical care, and be skilled in maintaining appropriate medical records. The Animal Care Supervisor communicates frequently and directly with the attending veterinarian to ensure that there is a timely transfer of accurate information about medical issues.
- 2.5.1.4 The attending veterinarian or the Animal Care Supervisor must review and initial the standard operating procedures of the facility annually (*e.g.*, euthanasia protocol, health and safety plan, etc.), and whenever the documents are changed or updated.

### **2.5.2 Attending Veterinarian**

The “attending veterinarian” is the veterinarian for the facility who assumes responsibility for diagnosis, treatment, and medical clearance for release or transport of marine mammals in rehabilitation (50 CFR 216.27).

#### MINIMUM STANDARDS

- 2.5.2.1 The attending veterinarian must provide a schedule of veterinary care that includes visual and physical examinations of all of the marine mammals in rehabilitation, and a periodic visual inspection of the facilities.
- 2.5.2.2 The attending veterinarian must review animal records for all animals (in person or electronically).
- 2.5.2.3 The attending veterinarian must be able to write and submit timely transport and disposition (*e.g.*, release, non-releasable) recommendations for marine mammals in rehabilitation.
- 2.5.2.4 The attending veterinarian must be available to answer questions on a 24-hour basis via phone/text/or e-mail.
- 2.5.2.5 The attending veterinarian must be available to visit the facility on an emergency basis.
- 2.5.2.6 The attending veterinarian must have prior experience working with marine mammals or be in regular consultation with an experienced marine mammal veterinarian and have access to a list of other expert veterinarians to contact when assistance is needed.
- 2.5.2.7 The attending veterinarian must have an active state veterinary license in the United States
- 2.5.2.8 The attending veterinarian must have the skills to draw blood from and give injections to the species most commonly encountered at the rehabilitation center.

- 2.5.2.9 The facility must identify and provide contact information for backup veterinarians available during any absences.
- 2.5.2.10 The attending veterinarian must have the appropriate registrations and licenses to obtain the necessary medications for the animals treated at the rehabilitation facility.
- 2.5.2.11 The attending veterinarian must be able to conduct or arrange for a full post-mortem examination on any species of marine mammal treated at the facility.
- 2.5.2.12 The attending veterinarian must be knowledgeable of and able to perform marine mammal euthanasia.
- 2.5.2.13 The attending veterinarian must be knowledgeable about species-specific pharmacology
- 2.5.2.14 The attending veterinarian must consult with NMFS when the time in rehabilitation of any individual animal will exceed 6 months.
- 2.5.2.15 The attending veterinarian must be knowledgeable of marine mammal zoonotic diseases.

## **2.6 Diagnostic Testing**

### **2.6.1 Diagnostic Tests**

All diagnostic testing standards may be waived at the discretion of the attending veterinarian; however, such waivers and the rationale must be documented in the animal's medical records.

#### MINIMUM STANDARDS

- 2.6.1.1 Animals shall have a minimum of two blood samples drawn for complete blood count (CBC) with differential and serum chemistry – one taken upon or shortly after admission and one taken prior to release (see NMFS and USFWS Standards for Release). Note: If duration of rehabilitation is shorter than a week, one blood work-up may suffice at the attending veterinarian's discretion and must be documented in the medical record and release request (if applicable).
- 2.6.1.2 Fecal test for parasites may be run upon admission of each animal, at the discretion of the attending veterinarian.
- 2.6.1.3 Serology may be performed for each animal as necessary for release determinations based upon direction of the NMFS Regional or National Stranding Coordinator and the Marine Mammal Health and Stranding Response Program or the attending veterinarian.
- 2.6.1.4 The NMFS Regional Stranding Coordinator shall be notified as soon as possible following detection/confirmation of any disease of concern (e.g., emerging, reportable or zoonotic disease that could be a potential hazard for public or animal health).

### **2.6.2 Pre-Release Testing and Requirements**

#### MINIMUM STANDARDS

- 2.6.2.1 All requirements in the NMFS and USFWS Standards for Release must be followed for each animal, including pre-release complete blood count/chemistry.
- 2.6.2.2 Documentation that the pre-release checklist was reviewed must be included in the animal's medical records, particularly if the requirement for pre-release notification and authorization has been waived by the NMFS Region.
- 2.6.2.3 For cetaceans and ESA pinnipeds, live fish tests should be conducted prior to release if feasible.
- 2.6.2.4 Prior to release, each animal must be marked or tagged using a NMFS approved tag in such a way as to facilitate monitoring of marine mammals released to the wild.

## **2.7 Necropsy and Euthanasia**

### **2.7.1 Necropsy**

#### MINIMUM STANDARDS

- 2.7.1.1 The attending veterinarian or trained personnel may perform a necropsy on every animal that dies within 24 hours of death, if feasible. If necropsy is to be performed at a later date (ideally no longer than 72 hours postmortem), the carcass should be stored appropriately to delay tissue

decomposition including freezing.

- 2.7.1.2 Histopathology may be performed on select tissues from each animal that dies, at the discretion of the attending veterinarian.
- 2.7.1.3 For animals that die of an apparent infectious disease process, a complete set of all major tissues should be evaluated by histopathology, if feasible.
- 2.7.1.4 Carcass disposal must be handled in a manner consistent with local and state regulations.

## **2.7.2 Euthanasia Protocols**

### MINIMUM STANDARDS

- 2.7.2.1 The facility must have a written euthanasia protocol signed and reviewed by the attending veterinarian annually.
- 2.7.2.2 A list of all persons authorized to administer euthanasia must be included in the euthanasia protocol, signed by the attending veterinarian, and reviewed (and updated if needed) annually.
- 2.7.2.3 Euthanasia shall be performed in a way to minimize distress in the animal.
- 2.7.2.4 All persons administering euthanasia must be knowledgeable and trained to perform the procedures.

## **2.7.3 Euthanasia Drugs**

### MINIMUM STANDARDS

- 2.7.3.1 Drug Enforcement Administration (DEA) laws and regulations and State Veterinary Practice Acts should be followed when using controlled drugs including storage, inventory, and record keeping.
- 2.7.3.2 Appropriate drugs for euthanasia, in quantities appropriate for the largest species admitted to the facility, shall be maintained in stock on site or will be provided as needed by a licensed veterinarian with a current DEA license.

## **2.8 Record Keeping and Retention**

### **2.8.1 Record Keeping**

Create and update individual medical records for each animal that enters rehabilitation.

### MINIMUM STANDARDS

Medical records must contain at a minimum:

- 2.8.1.1 An accurate description of the animal, individual identification (*e.g.*, marks, tag number), date and location of stranding, sex, and findings of human interaction.
- 2.8.1.2 Weight records, including weight at stranding, weekly weights for underweight animals if feasible, and weight taken within two weeks of release/placement.
- 2.8.1.3 Other measurements, including at a minimum length and girth at stranding, and within two weeks of release/placement.
- 2.8.1.4 Any medication or treatments administered to the animal.
- 2.8.1.5 The results of any blood work or other diagnostic tests.
- 2.8.1.6 Documentation of animal movement between pens.
- 2.8.1.7 Feed records should record the actual, not estimated, individual daily consumption by food type by weighing food before and after feeding. Note: If non-critical animals are housed in groups and are broadcast-fed, daily individual food consumption may be estimated.
- 2.8.1.8 Medical records include Subjective, Objective, Assessment, and Plan (SOAP)-based medical assessment of each patient, or at minimum include clinical findings, diagnoses and treatment plans for each patient.
- 2.8.1.9 Complete and submit the Marine Mammal Stranding Report – Level A, Marine Mammal Rehabilitation Disposition, and Human Interaction Forms (NOAA Form 89-864; OMB Control No.0648-0178) within 30 days of the stranding and disposition events.

### **2.8.2 Record Retention**

## MINIMUM STANDARDS

- 2.8.2.1 Maintain medical and husbandry records in an accessible format for a minimum of 15 years.
- 2.8.2.2 Maintain up to date water quality and water additives records for a minimum of two years.
- 2.8.2.3 Maintain life support system maintenance records for a minimum of one year.
- 2.8.2.4 Ensure all records are available for NMFS review upon request.

## 2.9 Contingency Plans

### 2.9.1 Contingency Plans

Each facility must have and periodically review and update written contingency plans for personnel, facilities, and animals for each of the following situations:

## MINIMUM STANDARDS

- 2.9.1.1 “Acts of God” which may include floods, earthquakes, hurricane, tsunami, wild fire, global pandemics, or other unpredictable natural disasters known to occur in the region where the facility is located.
- 2.9.1.2 Inclement weather, including large storms.
- 2.9.1.3 Construction in the vicinity of the rehabilitation pools.
- 2.9.1.4 Power outages, addressing maintenance of food items and life support systems.
- 2.9.1.5 Water shortages, including obtaining and disposing of adequate amounts of water during peak periods of animal use, and back-up water sources if primary source is limited or unavailable.
- 2.9.1.6 The facility must have a written plan for maximum capacity during periods of increased strandings (Unusual Mortality Event, El Nino, etc.).

## 2.10 Viewing

### 2.10.1 Viewing

[Reserved]

- 2.10.1.1 Has a variance or waiver from NMFS to allow public viewing of non-ESA marine mammals undergoing rehabilitation.

## RECOMMENDED

- Only remote public viewing or distance viewing is allowed and only when there is no possible impact of the public viewing on the animals being rehabilitated.

## 3 Standards for Cetacean Rehabilitation Facilities

All facilities rehabilitating cetaceans must meet all MINIMUM STANDARDS identified in Section 2, in addition to the MINIMUM STANDARDS in this Section.

### 3.1 Requirements for Cetaceans in Critical Care

Animals in critical care include ill, injured, neonatal, or other cetaceans that cannot swim normally.

#### 3.1.1 Critical Care Standards

## MINIMUM STANDARDS

- 3.1.1.1 For animals that cannot swim unsupported, support must be provided via flotation devices, a suspended stretcher system, constant human support, a shallow resting shelf, sloping beach, or other system.
- 3.1.1.2 Animals that need support must be appropriately monitored.
- 3.1.1.3 Animals that cannot swim or dive must have a water spray or method to keep their skin moist.
- 3.1.1.4 Sufficient shade structures or shelters must be provided to animals if they are unable to swim,

dive, or thermoregulate.

- 3.1.1.5 Means must be available to control the water temperature (either heating or cooling) for critical care animals.
- 3.1.1.6 Pool diameter and depth for critical care cetaceans can be less than that described in Section 2, and is at the discretion of the attending veterinarian.

## **3.2 Requirements for Cetacean Pools and Pens**

These standards apply to animals that are no longer in critical care and are swimming independently.

### **3.2.1 Pool Size, Depth and Shade**

“Pool” includes both man-made structures as well as open sea/bay/net pens.

#### MINIMUM STANDARDS

- 3.2.1.1 Pools must be available to all cetaceans in rehabilitation.
- 3.2.1.2 All pools must be deep enough for animal(s) to float and submerge.
- 3.2.1.3 Pool depth must equal one half the body length of the cetacean or 0.9 meters (3 feet), whichever is greater.
- 3.2.1.4 Pools shall have a minimum horizontal dimension (MHD) of 7.3 meters (24 feet) or two times the actual length of the largest animal in the pool, whichever is greater.
- 3.2.1.5 Shade structures, where necessary, are large enough to provide shade to at least 50% of the MHD surface area determined for the species held in the pool. MHD is defined as 7.3 meters (24 feet) or two times the actual length of the largest species housed in the pool, whichever is greater.

### **3.2.2 Number of Cetaceans per Pool**

#### MINIMUM STANDARDS

- 3.2.2.1 The pool should provide enough space for each animal to swim, dive, and maintain an individual distance of one body length from any other cetaceans in the pool at the same time.
- 3.2.2.2 The facility shall have a written plan for maximum capacities for each pool, which may be species or size dependent.

### **3.2.3 Extended Rehabilitation**

Extended rehabilitation is defined as longer than 6 months.

#### MINIMUM STANDARDS

- 3.2.3.1 Animals housed longer than 6 months must be provided with pools at least 1.5 meters (5 feet) deep and must meet the USDA, APHIS AWA MHD standards
- 3.2.3.2 Exceptions to pool measurements or the USDA standards for cetaceans in extended rehabilitation must be discussed with NMFS by the attending veterinarian and must be documented with a signed statement in the animal’s medical records.

## **3.3 Water Quality**

### **3.3.1 Salt Water**

#### MINIMUM STANDARDS

- 3.3.1.1 Salt water must be readily available to fill pools housing rehabilitating cetaceans except at the direction of the attending veterinarian, which must be documented in the animal’s medical records.
- 3.3.1.2 Salinity should be tested in each pool daily and maintained between 24-35 ppt, unless the written veterinary plan calls for a different salinity.

### **3.3.2 Water Temperature**

## MINIMUM STANDARDS

- 3.3.2.1 The facility should have the ability to heat and cool the water.
- 3.3.2.2 The water temperature should be maintained within the normal wild seasonal temperature range for the species in rehabilitation except at the direction of the attending veterinarian, which must be documented in the animal's medical records.

## **3.4 Staffing Levels**

### **3.4.1 Staffing Level for Cetaceans**

#### MINIMUM STANDARDS

- 3.4.1.1 For each critical care cetacean weighing less than 250 kg, there should be a minimum of 2 personnel qualified to handle cetaceans, with additional personnel required for larger animals as determined by veterinary and/or husbandry personnel.
- 3.4.1.2 For every 4 cetaceans not in critical care but still being monitored, provide a minimum of 2 personnel qualified to handle cetaceans for the time period appropriate for monitoring (may be 24-hour).
- 3.4.1.3 For every 5 cetaceans that are pre-release (eating regularly and independently, not requiring handling), provide a minimum of one person qualified to handle cetaceans during regular operation hours.
- 3.4.1.4 Personnel is available on a 24-hour basis for critical animal care.

## **3.5 Diagnostic Testing**

### **3.5.1 Diagnostic Tests**

#### MINIMUM STANDARDS

- 3.5.1.1 Animals should be tested for hearing abilities early in rehabilitation and prior to consideration for release, when feasible.
- 3.5.1.2 Evaluation of pregnancy in adult females should be conducted early in rehabilitation, either via serum progesterone and estrogen levels or through ultrasonic examination.

## **4 Standards for Pinniped Rehabilitation Facilities**

All facilities rehabilitating pinnipeds, excluding walrus, must meet all MINIMUM STANDARDS identified in Section 2, in addition to the MINIMUM STANDARDS in this Section.

### **4.1 Requirements for Pinnipeds in Critical Care**

Animals in critical care include ill, injured, neonatal, or other pinnipeds that cannot swim normally or should not be in the water.

#### **4.1.1 Critical Care Standards**

##### MINIMUM STANDARDS

- 4.1.1.1 Critical care pinnipeds may be held without water access at the discretion of the attending veterinarian, but this should be documented in the animal's medical record.
- 4.1.1.2 Provides platforms in dry resting areas allowing critical or debilitated animals an alternative to laying on concrete or other hard/cold surfaces.
- 4.1.1.3 Pool size and depth, as well as amount of dry resting area (DRA) for critical care pinnipeds is at the discretion of the attending veterinarian, but this should be documented in the animal's medical record.
- 4.1.1.4 Means must be available to control the water temperature (heating or cooling) for critical care animals that need access to water.
- 4.1.1.5 Radiant heating devices or waterproof heating pads are utilized when ambient temperatures fall



below the comfort level of the animal, which will be determined by the species, age, medical condition, and body condition of the animal.

- 4.1.1.6 Animals are able to move away from point source heaters. If animals are too debilitated to move, temperature of heaters cannot exceed the safe range of 60-80°F at skin surface or animals are monitored every 2 hours.
- 4.1.1.7 If ambient air temperatures reach >80° F (26.6° C), shade must be provided to pinnipeds that cannot swim or do not have access to a pool. Water spray or another method for wetting the animal must also be provided.
- 4.1.1.8 Large fans or “swamp coolers” are available to move air across animals with no access to pools when ambient temperatures reach over 85°F (29.4°C).

## **4.1.2 Pinniped Pup Specific Care Standards**

Guidance for pinniped pups less than a year old.

### **MINIMUM STANDARDS**

- 4.1.2.1 Houses pups individually or with similar aged conspecifics depending upon veterinary discretion.
- 4.1.2.2 For phocids <1 week of age or otariids <3 weeks of age, house with 24/7 supervised access to shallow water (<0.5 meters deep) pools. If 24/7 supervision is not possible, restrict access to water during non-supervised periods. 24/7 supervision may stop when animals demonstrate ability to swim and haul out without assistance.
- 4.1.2.3 Access to raised platforms in dry resting areas for pups of all ages, at the discretion of the veterinarian.
- 4.1.2.4 Platforms are low enough for easy access yet high enough to allow the floor to dry under platform.
- 4.1.2.5 Platforms are made of material with a sealed cleanable surface and designed to allow for waste to pass through.

## **4.2 Requirements for Pinniped Pools and Pens**

These standards apply to animals that are no longer critical care and are swimming independently.

### **4.2.1 Pool Access**

#### **MINIMUM STANDARDS**

- 4.2.1.1 Pools are available for all non-critical care pinnipeds undergoing rehabilitation.

### **4.2.2 Pool Size and Depth**

#### **MINIMUM STANDARDS**

- 4.2.2.1 Pools shall be at least 0.76 meters (2.5 feet) deep.
- 4.2.2.2 Pools shall be deep enough for each animal maintained within to completely submerge.
- 4.2.2.3 Pools shall be large enough in diameter to allow each animal housed therein to swim.

### **4.2.3 Dry Resting Area**

#### **MINIMUM STANDARDS**

- 4.2.3.1 For one non-critical pinniped, the pen must have a dry resting area (DRA) equivalent to 1.2 x (length of the animal)<sup>2</sup>.
- 4.2.3.2 For two non-critical pinnipeds sharing a pen, the pen must have a DRA equivalent to 1.5 x (length of the longest animal)<sup>2</sup>.
- 4.2.3.3 For three or more non-critical pinnipeds sharing a pen, the pen must have a DRA equivalent to 1.5 x (length of the longest animal)<sup>2</sup>, and in addition, enough space for the animals to lay with at least one body length separation, to turn around completely, and to move at least two body lengths in one direction.
- 4.2.3.4 If the facility has the potential and the willingness to admit adult male pinnipeds of sexually

dimorphic species, it must have a written contingency plan (including appropriately sized pools and pens) for management of these cases.

#### **4.2.4 Extended Rehabilitation**

Extended rehabilitation is defined as longer than 6 months.

##### **MINIMUM STANDARDS**

4.2.4.1 If a pinniped is kept for longer than 6 months but less than a year, the facility should meet USDA APHIS AWA standards. However, the actual length of each animal may be used for the dry resting area calculation rather than the adult length.

4.2.4.2 If a pinniped is kept for longer than 1 year, holding space must meet USDA APHIS AWA standards.

### **4.3 Staffing Levels**

#### **4.3.1 Staffing Level for Pinnipeds**

##### **MINIMUM STANDARDS**

4.3.1.1 Provides a minimum of three qualified trained rehabilitation personnel on site for the first 25 pinnipeds housed at the facility, and two more trained rehabilitation personnel for every additional 25 pinnipeds. More staffing is available for dependent pups.

4.3.1.2 Personnel is available on a 24-hour basis for critical animal care.

## **5 Standards for Endangered Species Act Marine Mammal Rehabilitation Facilities**

All facilities rehabilitating Endangered Species Act (ESA) marine mammals must meet all MINIMUM STANDARDS identified in Section 2, 3 and 4 if applicable, in addition to the MINIMUM STANDARDS in this Section.

The rehabilitation of NMFS ESA marine mammals was outlined in NMFS procedural directive 02-308-01 issued in 2012 and these requirements are now incorporated in the below standards. Additionally, all ESA marine mammals in rehabilitation are held under the NMFS Marine Mammal Health and Stranding Response Program's (MMHSRP) NMFS ESA/Marine Mammal Protection Act (MMPA) Permit and there are additional authorizations and reporting requirements needed for the Permit.

### **5.1 Requirements for ESA Pools and Pens**

#### **5.1.1 Pool and Pens**

##### **MINIMUM STANDARDS**

5.1.1.1 The facility has dedicated space to house ESA marine mammals individually if needed.

5.1.1.2 The facility can provide an appropriate social environment with adequate room for more than one animal of a social species if needed or appropriate as deemed by the attending veterinarian.

### **5.2 Veterinary Medical Care**

#### **5.2.1 Attending Veterinarian**

The "attending veterinarian" is the veterinarian for the facility who assumes responsibility for diagnosis, treatment, and medical clearance for release or transport of marine mammals in rehabilitation (50 CFR 216.27).

##### **MINIMUM STANDARDS**

5.2.1.1 The attending veterinarian and animal care staff must have prior experience working with marine

mammals, experiencing working with ESA marine mammals, and will consult experts with specific expertise as needed.

- 5.2.1.2 Veterinary medical care is provided as needed and available 7 days a week.
- 5.2.1.3 The attending veterinarian must be on-site for a minimum of 20hrs per week if an ESA marine mammal is in critical condition and requiring intensive care.
- 5.2.1.4 A maintenance care designation for ESA marine mammals that are stable and no longer need intensive care may be requested by the attending veterinarian to the MMHSRP headquarters staff by completing in writing a Maintenance Care Medical Summary (see Appendix B for a template). If approved, the attending veterinarian must be on-site at least one day a month for animals in maintenance care.
- 5.2.1.5 The attending veterinarian must be available to answer questions on a 24-hour basis via phone/text/or e-mail.
- 5.2.1.6 The attending veterinarian must be available to visit the facility on an emergency basis.
- 5.2.1.7 The attending veterinarian must request prior authorization from the MMHSRP headquarters staff for major medical procedures, including when sedating or anesthetizing an ESA marine mammal.
- 5.2.1.8 Procedures conducted on an ESA marine mammals must be under the direct supervision of professional staff and the attending veterinarian.
- 5.2.1.9 The attending veterinarian is available and actively consults with MMHSRP headquarters staff and consulting veterinarian.
- 5.2.1.10 The attending veterinarian should discuss recommended treatments with MMHSRP headquarters staff and consulting veterinarian.
- 5.2.1.11 The attending veterinarian and animal care staff should promptly implement activities requested by the MMHSRP headquarters staff and consulting veterinarian.

## **5.3 Necropsy and Euthanasia**

### **5.3.1 Necropsy**

#### MINIMUM STANDARDS

- 5.3.1.1 The attending veterinarian or trained personnel must perform a necropsy on every ESA marine mammal that dies within 24-48 hours of death.
- 5.3.1.2 Histopathology must be performed on select tissues from each ESA marine mammal that dies.
- 5.3.1.3 Preliminary gross necropsy reports should be provided with 30 days of the necropsy. Final necropsy reports should be submitted once histopathology or other ancillary test results have been received, but ideally within 6 months of necropsy.

### **5.3.2 Euthanasia Authorization**

#### MINIMUM STANDARDS

- 5.3.2.1 The attending veterinarian or staff must request permission from the NMFS Regional Stranding Coordinator and MMHSRP Program headquarter staff prior to euthanizing any ESA marine mammal.

## **5.4 Pre-Release Requirements**

### **5.4.1 Pre-Release Approvals**

Under the NMFS MMPA/ESA permit MMHSRP headquarters staff is required to approve release determinations for rehabilitated ESA marine mammals.

#### MINIMUM STANDARDS

- 5.4.1.1 The attending veterinarian must consult with the NMFS Regional Stranding Coordinator and MMHSRP headquarters staff regarding the recommendation for release and the release plan for ESA-listed species.
- 5.4.1.2 The attending veterinarian must submit a Medical Summary Release Request and Release Plan

(see Appendix B for a template) at least a week in advance of the release date to the NMFS Regional Stranding Coordinator and MMHSRP headquarters staff for approval.

## **5.5 Record Keeping and Notification**

### **5.5.1 Record Keeping and Notification**

#### MINIMUM STANDARDS

- 5.5.1.1 Within 24-hours of admission to rehabilitation, an accurate description of the animal, including any mark/tag number if present, date and location of stranding, sex, and findings of human interaction should be transmitted to the NMFS Regional Stranding Coordinator and MMHSRP headquarters staff.
- 5.5.1.2 An individual Medical Summary for each ESA marine mammal must be submitted within a week of entering rehabilitation. The medical summary should include current bloodwork. Medical summaries must be transmitted to the NMFS Regional Stranding Coordinator and MMHSRP headquarters staff (see Appendix B for a template).

### **5.5.2 Permit Authorization**

#### MINIMUM STANDARDS

- 5.5.2.1 Facilities that regularly maintain ESA marine mammals for short-term holding or long-term rehabilitation must have a Co-investigator letter issued under the MMHSRP NMFS ESA/MMPA Permit.

### **5.5.3 Permit Reporting**

#### MINIMUM STANDARDS

- 5.5.3.1 All requested information including animal disposition, samples collected, etc. must be submitted to the NMFS Regional Stranding Coordinator and MMHSRP headquarters staff annually in accordance with the NMFS ESA/MMPA permit reporting period.

## **5.6 Viewing**

### **5.6.1 ESA Viewing**

#### MINIMUM STANDARDS

- 5.6.1.1 No direct public viewing of ESA marine mammals is allowed.
- 5.6.1.2 Indirect public viewing of ESA marine mammals is allowed via remote cameras or one-way glass or clear glass that is above the animal's line of sight.

## **6 Standards for Short-Term Holding Facilities**

Short term holding is defined as less than 96 hours. Facilities that hold marine mammals for this time are subject to all of the above MINIMUM STANDARDS in Sections 2, 3, 4 and 5 if applicable, with the following exemptions:

### **6.1 Exemptions from Facilities, Housing and Space Standards (2.1)**

- 6.1.1.1 The number of animals housed in each pool/pen can exceed the standard for long-term rehabilitation. However, the facility must have a written plan for maximum capacity, outlining the following:
  - Number of animals per pool/pen by species, age class;
  - How to determine cohorts when the facility is at maximum capacity; and
  - How to handle the need for increased transports.

### **6.2 Exemptions from Water Quality Standards (2.2)**

If pools are available:

- 6.2.1.1 A daily test for pH is not required.
- 6.2.1.2 A daily test for salinity is not required.
- 6.2.1.3 Either fresh or salt water may be used.

### **6.3 Exemptions from Nutrition Standards (2.4)**

- 6.3.1.1 Vitamin or salt supplementation is not required.

### **6.4 Exemptions from Veterinary Medical Care Standards (2.5)**

- 6.4.1.1 A physical exam may be conducted by any trained personnel.
- 6.4.1.2 An attending veterinarian is not required on site for animal examination, but must be available by phone 24/7 to respond to updates or questions from trained personnel.

### **6.5 Exemptions from Diagnostic Testing Standards (2.6)**

- 6.5.1.1 No completed blood count/blood chemistry test is required.
- 6.5.1.2 No additional diagnostic testing is required.
- 6.5.1.3 Live fish tests are not required prior to release or transfer to long-term rehabilitation.

### **6.6 Exemptions from Record Keeping and Retention (2.8)**

- 6.6.1.1 No girth, length, or weight is required to be taken or recorded, although estimated measurements are encouraged.

### **6.7 Exemptions from Cetacean-Specific Standards (3)**

- 6.7.1.1 The diameter and the pool depth is at the discretion of the attending veterinarian, so long as the animal can float and submerge.
- 6.7.1.2 On a case by case basis in an emergency situation, cetaceans may be maintained in fresh water for no more than 96hrs with the prior authorization and review of the holding and transport plan by the RSC. This plan should include how the cetacean will be immediately transferred to a salt water environment if the cetacean develops any bloodwork abnormalities or skin lesions. Cetaceans in fresh water should receive oral salt supplementation as well as monitoring of electrolyte balance and other blood parameters via daily bloodwork.
- 6.7.1.3 Hearing and pregnancy testing is not required prior to release or transfer to long-term rehabilitation.

### **6.8 Exemptions from Pinniped-Specific Standards (4)**

- 6.8.1.1 The diameter and the pool depth and dry resting area is at the discretion of the attending veterinarian, so long as the animal can float and submerge and enough dry resting area to lay down and turn around.
- 6.8.1.2 Non-critical care pinnipeds may be maintained in a dry pen with no access to a pool.

### **6.9 Exemptions from ESA-Specific Standards (5)**

- 6.9.1.1 The diameter and the pool depth and dry resting area is at the discretion of the attending veterinarian, so long as the animal can float and submerge and enough dry resting area to lay down and turn around.
- 6.9.1.2 ESA marine mammals do not need to be housed individually.
- 6.9.1.3 At the request of the Regional Stranding Coordinator and/or MMHSRP headquarter staff, a short-term holding facility that may not meet minimum rehabilitation standards for ESA species long-term rehabilitation can serve as a temporary stabilization location prior to transferring the animal to a long-term rehabilitation facility. The facility must comply with all requests and

recommendations for stabilization care from NMFS or consulting veterinary/wildlife experts.

The short-term holding facility needs to be pre-approved by the Regional Stranding Coordinator and/or MMHSRP headquarters staff prior to holding an animal for temporary stabilization.

- 6.9.1.4 On a case-by case basis, ESA species may be held in a short-term holding facility for >96hrs prior to transfer to a long-term rehabilitation facility, after notification and with agreement from NMFS (at a minimum, MMHSRP headquarters staff and the Regional Stranding Coordinator), the short-term holding facility, and the long-term rehabilitation facility receiving the animal.

## **7 Standards for Emergency Temporary Holding Facilities**

Emergency Temporary Holding Facilities are defined as those facilities that are temporary in nature (*e.g.*, tents, pop-up pools, etc.), are designed to respond to emergency situations (*e.g.*, oil spills, infectious disease outbreaks, UMEs, etc.), and will only exist during the duration of the emergency (*e.g.*, hours, days, weeks to months). These facilities may practice both short-term (<96hrs) and long-term care (>96hrs). Emergency Temporary Holding Facilities must be inspected by NMFS (in-person or virtual) prior to operation.

Facilities that hold marine mammals for this purpose are subject to all of the above MINIMUM STANDARDS in Section 2, 3, 4 and 5 if applicable, with the following exemptions:

### **7.1 Exemptions from Facilities, Housing and Space Standards (2.1)**

- 7.1.1.1 The number of animals housed in each pool/pen can exceed the standard for long-term rehabilitation. However, the facility must have a written plan for maximum capacity, outlining the following:
- Number of animals per pool/pen by species, age class;
  - How to determine cohorts when the facility is at maximum capacity; and
  - How to handle the need for increased transports.

### **7.2 Exemptions from Water Quality Standards (2.2)**

- 7.2.1.1 A daily test for pH is not required.  
7.2.1.2 A daily test for salinity is not required.  
7.2.1.3 Either fresh or salt water may be used.

### **7.3 Exemptions from Nutrition Standards (2.4)**

- 7.3.1.1 Vitamin or salt supplementation is not required if animals are housed for less than 96 hours.

### **7.4 Exemptions from Veterinary Medical Care Standards (2.5)**

- 7.4.1.1 A physical exam may be conducted by any trained personnel.  
7.4.1.2 An attending veterinarian is not required on site for animal examination, but must be available by phone 24/7 to respond to updates or questions from trained personnel.

### **7.5 Exemptions from Diagnostic Testing Standards (2.6)**

- 7.5.1.1 No complete blood count/blood chemistry test is required if animals are housed for less than 96 hours.  
7.5.1.2 Live fish tests are not required prior to release if animals are housed for less than 96 hours.

### **7.6 Exemptions from Record Keeping and Retention (2.8)**

- 7.6.1.1 No girth, length, or weight is required to be taken or recorded for animals housed less than 96

hours, although estimated measurements are encouraged.

### **7.7 Exemptions from Cetacean-Specific Standards (Section 3)**

- 7.7.1.1 The diameter and the pool depth is at the discretion of the attending veterinarian, so long as the animal can float and submerge.
- 7.7.1.2 On a case by case basis in an emergency situation, cetaceans may be maintained in fresh water for no more than 96hrs with the prior authorization and review of the holding and transport plan by the RSC. This plan should include how the cetacean will be immediately transferred to a salt water environment if the cetacean develops any bloodwork abnormalities or skin lesions. Cetaceans in fresh water should receive oral salt supplementation as well as monitoring of electrolyte balance and other blood parameters via daily bloodwork.
- 7.7.1.3 Hearing and pregnancy testing is not required prior to release if animals are housed for less than 96 hours.

### **7.8 Exemptions from Pinniped-Specific Standards (4)**

- 7.8.1.1 The diameter and the pool depth and dry resting area is at the discretion of the attending veterinarian, so long as the animal can float and submerge and has enough dry resting area to lay down and turn around.
- 7.8.1.2 A non-critical pinniped may be maintained in a dry pen with no access to a temporary pool for up to two weeks.

### **7.9 Exemptions from ESA-Specific Standards (5)**

- 7.9.1.1 The diameter and the pool depth and dry resting area is at the discretion of the attending veterinarian, so long as the animal can float and submerge and enough dry resting area to lay down and turn around.
- 7.9.1.2 ESA marine mammals do not need to be housed individually.
- 7.9.1.3 At the request of the Regional Stranding Coordinator and/or MMHSRP headquarter staff, a short-term emergency temporary holding facility that may not meet minimum rehabilitation standards for ESA species long-term rehabilitation can serve as a temporary stabilization location prior to transferring the animal to a long-term rehabilitation facility. The facility must comply with all requests and recommendations for stabilization care from NMFS or consulting veterinary/wildlife experts. The short-term emergency holding facility needs to be approved by the Regional Stranding Coordinator and/or MMHSRP headquarters staff prior to holding an animal for temporary stabilization.
- 7.9.1.4 On a case-by case basis, ESA species may be held in a short-term emergency temporary holding facility for >96hrs prior to transfer to a long-term rehabilitation facility, after notification and with agreement from NMFS (at a minimum, MMHSRP headquarters staff and the Regional Stranding Coordinator), the short-term temporary holding facility, and the long-term rehabilitation facility receiving the animal.
- 7.9.1.5 On a case-by case basis, ESA species may be held in a long-term emergency temporary holding facility for long-term rehabilitation, after notification and with agreement from NMFS (at a minimum, MMHSRP headquarters staff and the Regional Stranding Coordinator).

## Appendix A: NMFS/MMHSRP Rehabilitation Facility Inspection Checklist

### NMFS/MMHSRP Rehabilitation Facility Inspection Program

## Checklist for Inspection

Name of Facility: \_\_\_\_\_

Date of Inspection: \_\_\_\_\_

Facility Representative(s): \_\_\_\_\_

Inspector(s): \_\_\_\_\_

CI = Compliance    NCI = Non-Compliance

	CI	NCI	STANDARD	COMMENTS
<b>2</b>	<b>STANDARDS FOR ALL REHABILITATION FACILITIES</b>			
<b>2.1</b>	<b>FACILITIES, HOUSING, AND SPACE</b>			
<b>2.1.1</b>	<b>Pool and Pen Construction and Design</b>			
	MINIMUM STANDARD			
2.1.1.1			Pools and pens must be constructed of durable, non-toxic, non-corrodible material.	
2.1.1.2			Pools and pens must offer ease of cleaning.	
2.1.1.3			Pools and pens must offer ease of handling the animals.	
2.1.1.4			If netting is used as pen construction material, it must be small enough gauge to prevent entanglement.	
FOR SEA PEN LAGOON/BAY FACILITIES ONLY (SP):				
2.1.1.5 (SP)			Facilities must maintain effective barrier fences extending above the high tide water level, or other appropriate measures, on all sides.	



2.1.1.6 (SP)			Nets must be sufficiently rigid to prevent entanglement by mammals or fish.	
2.1.1.7 (SP)			Sea pens must have a second set of perimeter nets at least 10 m from the net pen to prevent direct contact between animals inside the pen in rehabilitation with wild marine mammals.	
2.1.1.8 (SP)			Sea pens must be located more than 1 km from any major outflow of storm drains or sewage treatment plants. NOTE: this distance may need to be greater when considering flow direction or current from these outflows.	
2.1.1.9 (SP)			Sea pens must be placed more than 500m downstream from water intake pipes that bring water into facilities housing marine mammals.	
2.1.1.10 (SP)			Quarantine sea pens must be placed so that tidal action or underwater currents will not permit water flow between quarantine pens and sea pens housing animals that are further along in rehabilitation or healthy (captive) marine mammals.	
<b>2.1.2</b>	<b>Shelter, Shading, and Temperature</b>			
	MINIMUM STANDARD			
2.1.2.1			Means must be available to control the air temperature to facilitate recovery, protecting rehabilitating animals from extremes of heat and cold and preventing discomfort.	
2.1.2.2			Holds water temperatures within the normal seasonal habitat temperature range for the species under rehabilitation, unless otherwise authorized by the attending veterinarian in writing.	
FOR OUTDOOR FACILITIES (OR THE PORTION OF POOLS/PENS THAT ARE OUTDOORS)				
2.1.2.3			Shade structures or shelters must be available to animals to aid thermoregulation on those days when local climatic conditions could compromise the health of the animal.	
2.1.2.4			Shade structures (when used) must be large enough to provide shade to at least 25% of the area of the pool/pen at all times of day.	
FOR INDOOR FACILITIES (OR THE PORTION OF POOLS/PENS THAT ARE INDOORS)				
2.1.2.5			Lighting in indoor facilities should be appropriate for the species and should illuminate the pen/pool during daylight hours.	
2.1.2.6			Means must be available to ensure sufficient air turnover to prevent discomfort, reduce potential for transmission of disease, prevent build-up of heat or chemical fumes, and provide a method for bringing fresh air into the facility.	
2.1.2.7			There must be sufficient vents or openings to allow movement of air throughout the facility.	

<b>2.1.3</b>	<b>Housekeeping</b>		
	MINIMUM STANDARD		
2.1.3.1			Areas surrounding rehabilitation pools and pens (including decks and walkways) must be kept clean and in good repair.
2.1.3.2			Support buildings and grounds must be kept clean and in good repair.
2.1.3.3			All enclosures must have no sharp projections, edges, or loose objects which may cause trauma or injury to the marine mammals in rehabilitation.
2.1.3.4			Objects introduced as environmental enrichment must be too large to swallow, made of nonporous and cleanable material, frequently disinfected, and not an entanglement hazard.
2.1.3.5			All drains and overflows must have screened covers.
2.1.3.6			2.1.3.6 Pens and pools must have no holes or gaps larger than ½ the size of the head diameter of the smallest animal housed within.
<b>2.1.4</b>	<b>Pest Control</b>		
	MINIMUM STANDARD		
2.1.4.1			The facility must maintain a safe and effective program for the control of insects, reptilian, avian, and mammalian pests.
2.1.4.2			Insecticides or other chemical agents for pest control must not be applied in an enclosure housing marine mammals or in a food preparation area, except as authorized by the attending veterinarian.
2.1.4.3			If insecticides or other chemical agents for pest control are applied, all appropriate measures must be taken to prevent direct contact (airborne, waterborne, or solid surface) between the animals and the chemical.
2.1.4.4			Insecticides or other chemical agents for pest control must be stored in properly labeled containers and separated from food preparation and animal feed areas.
2.1.4.5			Post SDS “right to know” documents for personnel utilizing insecticides/pesticides, or cleaning, water quality, and animal treatment chemicals and drugs.
<b>2.1.5</b>	<b>Sanitation</b>		
	MINIMUM STANDARD		

2.1.5.1			Animal and food waste must be removed at least once per day from the rehabilitation enclosure areas outside the pool, and more frequently when necessary to prevent contamination.	
2.1.5.2			Animal and food particulate waste must be removed from pools at least once per day, and more frequently as necessary to maintain water quality and prevent contamination.	
2.1.5.3			Trash and debris must be removed from pens and pools as soon as it is noticed to preclude ingestion or other harm to the animals.	
2.1.5.4			Pools and pens must be cleaned and disinfected between patients or patient cohorts (Note: effective filtration systems provide adequate disinfection for pools).	
2.1.5.5			Ensures appropriate disinfectants are mixed to recommended dilutions and are utilized to clean pens, equipment, utensils, and feed receptacles and to place in foot baths. These disinfectants have both bactericidal and virucidal qualities ( <a href="https://www.cdc.gov/infectioncontrol/guidelines/disinfection/index.html">https://www.cdc.gov/infectioncontrol/guidelines/disinfection/index.html</a> ).	
2.1.5.6			Measures must be taken to prevent animals from coming into direct contact with disinfectants from spray, cleaning hoses, aerosols, or any other method of delivery.	
2.1.5.7			Rotates disinfectants on a regular basis to prevent bacterial resistance.	
2.1.5.8			Chemical agents for cleaning and sanitizing must be stored in properly labeled containers and located away from food preparation and animal feed areas.	
<b>2.1.6</b>	<b>Facility Security</b>			
	MINIMUM STANDARD			
2.1.6.1			The rehabilitation facility must be secured from public access.	
2.1.6.2			There must be no opportunities for direct public contact with animals in rehabilitation.	
2.1.6.3			Facilities with outdoor enclosures (including net pens) must have a complete perimeter fence of an adequate height and construction to keep out people, domestic animals, wildlife, and pests.	
<b>2.2</b>	<b>WATER QUALITY</b>			
<b>2.2.1</b>	<b>Water Source and Disposal</b>			
	MINIMUM STANDARD			
2.2.1.1			Fresh water must be available to clean and wash down pens and surrounding areas (e.g., decks and walkways).	
2.2.1.2			Wastewater must be discharged in accordance with state and local regulations.	

2.2.1.3			Any required documentation (e.g. permits) for wastewater discharge must be maintained and provided to NMFS upon request.	
2.2.1.4			Effluent from pens must not be near the water intake.	
<b>2.2.2</b>	<b>Water Quality Testing</b>			
	MINIMUM STANDARD			
FOR ALL SYSTEMS (DUMP AND FILL, CLOSED, SEMI-OPEN, and OPEN)				
2.2.2.1			Clean the rehabilitation pools and pens as often as necessary to maintain proper water quality.	
2.2.2.2			Test temperature in all pools at least daily, or whenever heating or cooling water.	
2.2.2.3			If chlorine or bromine is used, test chlorine or bromine level in all pools daily.	
2.2.2.4			If chlorine is used, maintain total chlorine below 1.5 ppm, where combined chlorine does not exceed 50% total chlorine.	
2.2.2.5			If used, other chemical additives should be measured daily and shall not be added in a manner that could cause harm or discomfort to the animals.	
2.2.2.6			Record daily measurements that are taken (e.g. temperature, chlorine levels, ozone levels, pH, salinity, etc.)	
FOR DUMP AND FILL SYSTEMS ONLY				
2.2.2.7			Drains water from pools daily or as often as necessary to keep the pool water quality within acceptable limits.	
FOR CLOSED, SEMI-OPEN or OPEN SYSTEMS ONLY				
2.2.2.8			Test pH in all pools daily.	
2.2.2.9			Maintain pH between 6.5 and 8.5.	
2.2.2.10			If ozone is used, measure ozone levels daily.	
2.2.2.11			If ozone is used, maintain ozone levels below 0.02 mg/liter.	
2.2.2.12			If salt water is used, maintain salinity levels above 24 parts per thousand (ppt) unless a written veterinary plan calls for lower salinity levels, or if the animals are housed in sea pens near their resident range.	
2.2.2.13			Measures and records coliform growth in all pools weekly.	
2.2.2.14			Total coliform counts do not exceed 500 per 100 ml or a most probable number (MPN) of 1000 coliform bacteria per 100 ml water. Or fecal coliform counts do not to exceed 400 per 100 ml.	

2.2.2.15			If a single coliform test exceeds the limit, 2 additional tests should be performed within 48 hours and the results averaged OR the pool may be completely or partially refilled and tested again within a week. The results of tests should be recorded.	
2.2.2.16			Has separate filtration and water flow systems for pools in quarantine/isolation areas.	
FOR CLOSED AND SEMI-OPEN SYSTEMS ONLY				
2.2.2.17			Have a minimum of 2 complete water changes per day to maintain sufficient turnover of water through the filtration system.	
2.2.2.18			Water is regularly filtered through appropriate filters (e.g. sand and gravel) to remove particulate matter, and disinfectants (e.g. chlorine, ozone, UV, etc.) are available to be added to eliminate pathogens.	
FOR OPEN WATER SEA PENS ONLY				
2.2.2.19			The pen must have a method for moving water (e.g., paddles, pumps, spray devices) that is able to aerate and move water if there is insufficient flow of tides or current through the enclosure with an equivalent of two water changes per day.	
<b>2.3</b>				
<b>2.3.1</b>				
MINIMUM STANDARD				
2.3.1.1			All new animals should be admitted into a separate pool, pen or cage that can be isolated with the use of dividers, tarps, or via physical space from other animals. Animals that are admitted in the same 24 hour period may be housed together as a group or cohort.	
2.3.1.2			Sufficient space or solid barriers between animal enclosures should be provided to prevent direct contact, including wash down or splash moving from one pool to another, to reduce the possibility of water or airborne disease transmission.	
2.3.1.3			Animal care personnel must thoroughly clean and disinfect buckets, hoses, scales, transport equipment, and cleaning equipment to prevent transmission of pathogens via fomites if equipment is used by multiple animals/pens.	
2.3.1.4			Foot baths must be placed at the entry and exit to animal areas, and used by all personnel whenever entering or exiting these areas.	
2.3.1.5			Foot baths should be changed at least daily.	

2.3.1.6			All personnel interacting with animals should use personal protective equipment [e.g. protective clothing (slickers, coveralls, etc.), closed toed shoes, gloves, eye protection and/or face masks].	
2.3.1.7			Foot baths, glove baths, and/or other methods should be used to disinfect clothing, wet suits, or exposure suits and footwear between handling animals within the quarantine/isolation area and outside of the quarantine/isolation area.	
2.3.1.8			Each animal must be individually identified with a mark or tag upon admission. Note: this may be a temporary mark or tag such as a shave mark or grease pen, but must be sufficient to distinguish between individuals.	
<b>2.3.2</b>				
	MINIMUM STANDARD			
2.3.2.1			Personal pets must be prohibited from entering the facility and facility grounds, remaining outside the perimeter fence at all times.	
2.3.2.2			Personnel in contact with animals in rehabilitation must change contaminated clothing and/or disinfect all equipment prior to leaving the rehabilitation premises.	
2.3.2.3			Provide eye flushing stations as used with hazardous materials (HAZMAT) or normal saline bottles to irrigate the eye.	
2.3.2.4			Personnel with open wounds should not interact with animals carrying potentially infectious diseases.	
2.3.2.5			Train personnel how to recognize symptoms and prevent contracting zoonotic disease.	
2.3.2.6			A written health and safety plan(s) is available to all personnel that includes protocols for safely handling all species and sizes of marine mammals cared for at the facility, a list of potential zoonotic diseases, and includes protocols for managing bite wounds.	
<b>2.3.3</b>				
	MINIMUM STANDARD			
2.3.3.1			Traffic flow patterns must be established so that personnel working with marine mammals in rehabilitation do not inadvertently travel into other animal areas and vice versa.	
2.3.3.2			Established decontamination protocols must be followed before personnel working with marine mammals in rehabilitation enter areas housing other animals.	

2.3.3.3			Restrooms, showers, changing rooms, etc. should be established for personnel working with marine mammals in rehabilitation separate from those working with other animals.	
2.3.3.4			Food containers (buckets, tubs, tanks, feeding implements, etc.) taken into pools and pens for animals in rehabilitation must be dedicated to stranded animal use and marked or otherwise identified.	
2.3.3.5			Food for animals in rehabilitation may be prepared in a central/combined kitchen and then taken into the rehabilitation area. However, containers must be thoroughly disinfected before returning to the shared area.	
<b>2.3.4</b>				
MINIMUM STANDARD				
2.3.4.1			Each animal must have an evaluation by trained personnel that is notated in its medical record before moving animals between pools/pens.	
2.3.4.2			Prior to moving an animal out of the intake (isolation/quarantine) area, an evaluation should be conducted, unless waived by veterinary personnel.	
2.3.4.3			Prior to moving an animal out of the intake (isolation/quarantine) area, a complete blood count (CBC)/blood chemistries, and other appropriate tests should be obtained, unless waived by the attending veterinarian.	
2.3.4.4			Personnel conducting evaluations and making decisions regarding animal pen placement must be familiar with current NMFS recommendations on diseases of concern (e.g., avian influenza, leptospirosis, morbillivirus, etc.) and emerging diseases.	
<b>2.3.5</b>				
MINIMUM STANDARD				
2.3.5.1			The facility must have a detailed infection control and outbreak plan that details how infectious disease transmission will be mitigated or contained.	
2.3.5.2			The infection control and outbreak plan must address zoonotic pathogens including both airborne and non-airborne pathogens.	
2.3.5.3			During an outbreak of an infectious disease, personal protective equipment, equipment, and tools strictly dedicated to the quarantine areas must be used.	
2.3.5.4			If the animals are part of a declared Unusual Mortality Event, screening for disease must be in direct coordination with NMFS and the UME investigative team.	

2.4.1.2

2.3.5.5			Personnel must be trained to follow appropriate quarantine protocols.	
<b>2.4</b>				
<b>2.4.1</b>				
	MINIMUM STANDARD			
2.4.1.1			Diet composition and frequency must be reviewed by a nutritionist, attending veterinarian, or the animal care supervisor and must be formulated with consideration for age, species, condition, and size of the marine mammals being fed.	
2.4.1.2			Animals should be fed a minimum of twice per day, unless directed otherwise in documentation by the attending veterinarian	
2.4.1.3			Personnel must be trained to recognize good and bad fish and other seafood (e.g. squid, invertebrate) quality.	
2.4.1.4			Animals must receive sufficient vitamin and/or salt supplementation, unless directed otherwise in documentation by the attending veterinarian. NOTE: Veterinary approval could be included as part of a general feeding protocol for the facility.	
2.4.1.5			Feeding must only be conducted by qualified, trained personnel.	
2.4.1.6			Feeding of rehabilitation animals by members of the public is <b>strictly</b> prohibited.	
<b>2.4.2</b>				
	MINIMUM STANDARD			
2.4.2.1			Frozen food items must be stored in freezers which are maintained at a maximum temperature of 0°F (-18°C).	
2.4.2.2			Food freezers must only contain food items for animal consumption. Human food or frozen specimens must not be placed in the fish freezer.	
2.4.2.3			All boxes of food items must be labeled with date of delivery and must be used within one year of delivery date.	
2.4.2.4			Frozen food should be rotated in the freezer so oldest food is fed first.	
2.4.2.5			Food items must not be allowed to sit in direct sunlight.	
2.4.2.6			Food items should be thawed in the coldest water available.	
2.4.2.7			All food items must be fed to the marine mammals within 24 hours of complete thawing.	
2.4.2.8			All thawed food should be refrigerated.	



2.4.2.9			The thawed food items must maintain a cold temperature through feeding and not allowed to reach room temperature. Food items may be iced or refrigerated for a reasonable time before feeding (exact time will vary depending on ambient temperature).	
2.4.2.10			Prepared formula/gruel must be fed immediately or refrigerated and fed within 24 hours of preparation.	
2.4.2.11			Once heated to an appropriate temperature for a feed, formula/gruel must be discarded if it is not consumed within one hour.	
2.4.2.12			Food containers (e.g., buckets, tubs, bottles, tanks), utensils (e.g., knives, cutting boards), and any other equipment used for holding, thawing, or preparing food must be cleaned with detergent and hot water after each feeding, and sanitized at least once per day.	
2.4.2.13			Kitchens and other food preparation and handling areas must be cleaned after every use and sanitized at least once per week ( <a href="https://www.cdc.gov/infectioncontrol/guidelines/disinfection/index.html">https://www.cdc.gov/infectioncontrol/guidelines/disinfection/index.html</a> ).	
<b>2.5</b>				
<b>2.5.1</b>				
	<b>MINIMUM STANDARD</b>			
2.5.1.1			Veterinary care for the animals must conform with any State Veterinary Practice Act or other laws governing veterinary medicine which applies to the state in which the facility is located.	
2.5.1.2			Personnel caring for animals are sufficiently trained to assist with veterinary procedures under the direction of the attending veterinarian and the rehabilitation facility maintains at least one Animal Care Supervisor who is responsible for overseeing prescribed treatments, maintaining hospital equipment, and controlling drug supplies.	
2.5.1.3			The Animal Care Supervisor is adequately trained to deal with emergencies until the veterinarian arrives, be able to direct the restraint of the animals, be responsible for administration of post-surgical care, and be skilled in maintaining appropriate medical records. The Animal Care Supervisor communicates frequently and directly with the attending veterinarian to ensure that there is a timely transfer of accurate information about medical issues.	

2.5.1.4			The attending veterinarian or the Animal Care Supervisor must review and initial the standard operating procedures of the facility annually (e.g. euthanasia protocol, health and safety plan), and whenever the documents are changed or updated.	
<b>2.5.2</b>				
	MINIMUM STANDARD			
2.5.2.1			The attending veterinarian must provide a schedule of veterinary care that includes visual and physical examinations of all of the marine mammals in rehabilitation, and a periodic visual inspection of the facilities.	
2.5.2.2			The attending veterinarian must review animal records for all animals (in person or electronically).	
2.5.2.3			The attending veterinarian must be able to write and submit timely transport and disposition (e.g. release, non-releasable) recommendations for marine mammals in rehabilitation.	
2.5.2.4			The attending veterinarian must be available to answer questions on a 24-hour basis via phone/text/or e-mail.	
2.5.2.5			The attending veterinarian must be available to visit the facility on an emergency basis.	
2.5.2.6			The attending veterinarian must have prior experience working with marine mammals or be in regular consultation with an experienced marine mammal veterinarian and have access to a list of other expert veterinarians to contact when assistance is needed.	
2.5.2.7			The attending veterinarian must have an active state veterinary license in the United States	
2.5.2.8			The attending veterinarian must have the skills to draw blood from and give injections to the species most commonly encountered at the rehabilitation center.	
2.5.2.9			The attending veterinarian must identify and provide contact information for backup veterinarians available during any absences.	
2.5.2.10			The attending veterinarian must have the appropriate registrations and licenses to obtain the necessary medications for the animals treated at the rehabilitation facility.	
2.5.2.11			The attending veterinarian must be able to conduct a full post-mortem examination on any species of marine mammal treated at the facility.	
2.5.2.12			The attending veterinarian must be knowledgeable of and able to perform marine mammal euthanasia.	
2.5.2.13			The attending veterinarian must be knowledgeable about species-specific pharmacology.	

2.5.2.14			The attending veterinarian must consult with NMFS when the time in rehabilitation of any individual animal will exceed 6 months.	
2.5.2.15			The attending veterinarian must be knowledgeable of marine mammal zoonotic diseases.	
<b>2.6</b>				
<b>2.6.1</b>				
	MINIMUM STANDARD			
2.6.1.1			Animals shall have a minimum of two blood samples drawn for complete blood count (CBC) with differential and serum chemistry – one taken upon or shortly after admission and one taken prior to release (see NMFS and USFWS Standards for Release). NOTE: If duration of rehabilitation is shorter than a week, one blood work-up may suffice at the attending veterinarian’s discretion and must be documented in the medical record and release request (if applicable).	
2.6.1.2			Fecal test for parasites may be run upon admission of each animal, at the discretion of the attending veterinarian.	
2.6.1.3			Serology may be performed for each animal as necessary for release determinations based upon direction of the NMFS Regional or National Stranding Coordinator and the MMHSRP or the attending veterinarian.	
2.6.1.4			The NMFS Regional Stranding Coordinator shall be notified as soon as possible following detection/confirmation of any disease of concern (e.g., emerging, reportable or zoonotic disease that could be a potential hazard for public or animal health).	
<b>2.6.2</b>				
	MINIMUM STANDARD			
2.6.2.1			All requirements in the NMFS and USFWS Standards for Release must be followed for each animal, including pre-release complete blood count/chemistry.	
2.6.2.2			Documentation that the pre-release checklist was reviewed must be included in the animal’s medical records, particularly if the requirement for pre-release notification and authorization has been waived by the NMFS Region.	
2.6.2.3			At minimum for cetaceans and ESA pinnipeds, live fish tests should be conducted prior to release if feasible. Live fish tests is encouraged for other taxa/species as feasible.	
2.6.2.4			Prior to release, each animal must be marked or tagged using a NMFS approved tag in such a way as to facilitate monitoring of marine mammals released to the wild.	

<b>2.7</b>	<b>NECROPSY AND EUTHANASIA</b>		
<b>2.7.1</b>	<b>Necropsy</b>		
	MINIMUM STANDARD		
2.7.1.1			The attending veterinarian or trained personnel may perform a necropsy on every animal that dies within 24 hours of death, if feasible. If necropsy is to be performed at a later date (ideally no longer than 72 hours postmortem), the carcass should be stored appropriately to delay tissue decomposition including freezing.
2.7.1.2			Histopathology may be performed on select tissues from each animal that dies, at the discretion of the attending veterinarian.
2.7.1.3			For animals that die of an apparent infectious disease process, a complete set of all major tissues should be evaluated by histopathology, if feasible.
2.7.1.4			Carcass disposal must be handled in a manner consistent with local and state regulations.
<b>2.7.2</b>	<b>Euthanasia Protocols</b>		
	MINIMUM STANDARD		
2.7.2.1			The facility must have a written euthanasia protocol signed and reviewed by the attending veterinarian annually.
2.7.2.2			A list of all persons authorized to administer euthanasia must be included in the euthanasia protocol, signed by the attending veterinarian, and reviewed (and updated if needed) annually.
2.7.2.3			Euthanasia shall be performed in a way to minimize distress in the animal.
2.7.2.4			All persons administering euthanasia must be knowledgeable and trained to perform the procedures.
<b>2.7.3</b>	<b>Euthanasia Drugs</b>		
	MINIMUM STANDARD		
2.7.3.1			Drug Enforcement Administration (DEA) laws and regulations and State Veterinary Practice Acts must be followed when using controlled drugs including storage, inventory, and record keeping.
2.7.3.2			Appropriate drugs for euthanasia, in quantities appropriate for the largest species admitted to the facility, shall be maintained in stock on site or will be provided as needed by a licensed veterinarian with a current DEA license.
<b>2.8</b>	<b>RECORD KEEPING AND RETENTION</b>		
<b>2.8.1</b>	<b>Record Keeping</b>		

	<b>MINIMUM STANDARD</b>		
			Medical records must contain at a minimum:
2.8.1.1			An accurate description of the animal, individual identification (e.g. marks, tag number), date and location of stranding, sex, and findings of human interaction.
2.8.1.2			Weight records, including weight at stranding, weekly weights for underweight animals if feasible, and weight taken within two weeks of release/placement.
2.8.1.3			Other measurements, including at a minimum length and girth at stranding, and within two weeks of release/placement.
2.8.1.4			Any medication or treatments administered to the animal.
2.8.1.5			The results of any blood work or other diagnostic tests.
2.8.1.6			Documentation of animal movement between pens.
2.8.1.7			Feed records should record the actual, not estimated, individual daily consumption by food type by weighing food before and after feeding. NOTE: if non-critical animals are housed in groups and are broadcast-fed, daily individual food consumption may be estimated.
2.8.1.8			Medical records include Subjective, Objective, Assessment, and Plan (SOAP)-based medical assessment of each patient, or at minimum include clinical findings, diagnoses and treatment plans for each patient.
2.8.1.9			Complete and submit the Marine Mammal Stranding Report – Level A, Marine Mammal Rehabilitation Disposition, and Human Interaction Forms (NOAA Form 89-864; OMB Control No.0648-0178) within 30 days of the stranding and disposition events.
<b>2.8.2</b>	<b>Record Retention</b>		
	<b>MINIMUM STANDARD</b>		
2.8.2.1			Maintain medical and husbandry records in an accessible format for a minimum of 15 years
2.8.2.2			Maintain up to date water quality and water additives records for a minimum of two years.
2.8.2.3			Maintain life support system maintenance records for a minimum of one year.
2.8.2.4			Ensure all records are available for NMFS review upon request.
<b>2.9</b>	<b>CONTINGENCY PLANS</b>		
<b>2.9.1</b>	<b>Contingency Plans</b>		
	<b>MINIMUM STANDARD</b>		

			Each facility must have and periodically review and update written contingency plans for personnel, facilities, and animals for each of the following situations:	
2.9.1.1			“Acts of God” which may include floods, earthquakes, hurricane, tsunami, wild fire, global pandemics, or other unpredictable natural disasters known to occur in the region where the facility is located.	
2.9.1.2			Inclement weather, including large storms.	
2.9.1.3			Construction in the vicinity of the rehabilitation pools.	
2.9.1.4			Power outages, addressing maintenance of food items and life support systems.	
2.9.1.5			Water shortages, including obtaining and disposing of adequate amounts of water during peak periods of animal use, and back-up water sources if primary source is limited or unavailable.	
2.9.1.6			The facility must have a written plan for maximum capacity during periods of increased strandings (Unusual Mortality Event, El Nino, etc.).	
<b>2.10</b>	<b>VIEWING</b>			
<b>2.10.1</b>	<b>Viewing</b>			
	MINIMUM STANDARD			
2.10.1.1			Has a variance or waiver from NMFS to allow public viewing of non-ESA marine mammals undergoing rehabilitation.	
<b>3</b>	<b>STANDARDS FOR CETACEAN REHABILITATION FACILITIES</b>			
			All facilities rehabilitating cetaceans must meet all MINIMUM STANDARDS identified in Section 2, in addition to the MINIMUM STANDARDS in this Section.	
<b>3.1</b>	<b>REQUIREMENTS FOR CETACEANS IN CRITICAL CARE</b>			
<b>3.1.1</b>	<b>Critical Care Standards</b>			
	MINIMUM STANDARD			
			Animals in critical care include ill, injured, neonatal, or other cetaceans that cannot swim normally.	
3.1.1.1			For animals that cannot swim unsupported, support must be provided via flotation devices, a suspended stretcher system, constant human support, a shallow resting shelf, sloping beach, or other system.	
3.1.1.2			Animals that need support must be appropriately monitored.	
3.1.1.3			Animals that cannot swim or dive must have a water spray or method to keep their skin moist.	

3.1.1.4			Sufficient shade structures or shelters must be provided to animals if they are unable to swim, dive, or thermoregulate.	
3.1.1.5			Means must be available to control the water temperature (either heating or cooling) for critical care animals.	
3.1.1.6			Pool diameter and depth for critical care cetaceans can be less than that described in Section 2, and is at the discretion of the attending veterinarian.	
<b>3.2</b>	<b>REQUIREMENTS FOR CETACEAN POOLS AND PENS</b>			
	These standards apply to animals that are no longer in critical care and are swimming independently.			
<b>3.2.1</b>	<b>Pool Size, Depth and Shade</b>			
	MINIMUM STANDARD			
3.2.1.1			Pools must be available to all cetaceans in rehabilitation.	
3.2.1.2			All pools must be deep enough for animal(s) to float and submerge.	
3.2.1.3			Pool depth must equal one half the body length of the cetacean or 0.9 m (3 ft), whichever is greater.	
3.2.1.4			Pools shall have a minimum horizontal dimension (MHD) of 7.3 meters (24 feet) or two times the actual length of the largest animal in the pool, whichever is greater.	
3.2.1.5			Shade structures, where necessary, are large enough to provide shade to at least 50% of the MHD surface area determined for the species held in the pool. MHD is defined as 7.3 meters (24 feet) or two times the actual length of the largest species housed in the pool, whichever is greater.	
<b>3.2.2</b>	<b>Number of Cetaceans per Pool</b>			
	MINIMUM STANDARD			
3.2.2.1			The pool should provide enough space for each animal to swim, dive, and maintain an individual distance of one body length from any other cetaceans in the pool at the same time.	
3.2.2.2			The facility shall have a written plan for maximum capacities for each pool, which may be species or size dependent.	
<b>3.2.3</b>	<b>Extended Rehabilitation</b>			
	MINIMUM STANDARD			

3.2.3.1			Animals housed longer than 6 months must be provided with pools at least 1.5 meters (5 feet) deep and must meet the USDA, APHIS AWA minimum horizontal dimension (MHD) standards	
3.2.3.2			Exceptions to pool measurements or the USDA standards for cetaceans in extended rehabilitation must be discussed with NMFS by the attending veterinarian and must be documented with a signed statement in the animal's medical records.	
<b>3.3</b>	<b>WATER QUALITY</b>			
<b>3.3.1</b>	<b>Salt Water</b>			
	MINIMUM STANDARD			
3.3.1.1			Salt water must be readily available to fill pools housing rehabilitating cetaceans except at the direction of the attending veterinarian, which must be documented with a signed statement in the animal's medical records.	
3.3.1.2			Salinity should be tested in each pool daily and maintained between 24-35 ppt, unless the written veterinary plan calls for a different salinity.	
<b>3.3.2</b>	<b>Water Temperature</b>			
	MINIMUM STANDARD			
3.3.2.1			The facility should have the ability to heat and cool the water.	
3.3.2.2			The water temperature should be maintained within the normal wild seasonal temperature range for the species in rehabilitation except at the direction of the attending veterinarian, which must be documented with a signed statement in the animal's medical records.	
<b>3.4</b>	<b>STAFFING LEVELS</b>			
<b>3.4.1</b>	<b>Staffing Level for Cetaceans</b>			
	MINIMUM STANDARD			
3.4.1.1			For each critical care cetacean weighing less than 250 kg, there should be a minimum of 2 personnel qualified to handle cetaceans, with additional personnel required for larger animals as determined by veterinary and/or husbandry personnel.	
3.4.1.2			For every 4 cetaceans not in critical care but still being monitored, provide a minimum of 2 personnel qualified to handle cetaceans for the time period appropriate for monitoring (may be 24-hour).	



3.4.1.3			For every 5 cetaceans that are pre-release (eating regularly and independently, not requiring handling), provide a minimum of one person qualified to handle cetaceans during regular operation hours.	
3.4.1.4			Personnel is available on a 24-hour basis for critical animal care.	
<b>3.5</b>	<b>DIAGNOSTIC TESTING</b>			
<b>3.5.1</b>	<b>Diagnostic Tests</b>			
	MINIMUM STANDARD			
3.5.1.1			Animals should be tested for hearing abilities early in rehabilitation and prior to consideration for release, when feasible.	
3.5.1.2			Evaluation of pregnancy in adult females should be conducted early in rehabilitation, either via of serum progesterone and estrogen levels or through ultrasonic examination.	
<b>4</b>	<b>STANDARDS FOR PINNIPED REHABILITATION FACILITIES</b>			
			All facilities rehabilitating pinnipeds, excluding walrus, must meet all MINIMUM STANDARDS identified in Section 2, in addition to the MINIMUM STANDARDS in this Section.	
<b>4.1</b>	<b>REQUIREMENTS FOR PINNIPEDS IN CRITICAL CARE</b>			
<b>4.1.1</b>	<b>Critical Care Standards</b>			
	MINIMUM STANDARD			
			Animals in critical care include ill, injured, neonatal, or other pinnipeds that cannot swim normally or should not be in the water.	
4.1.1.1			Critical care pinnipeds may be held without water access at the discretion of the attending veterinarian, but this should be documented in the animal's medical record.	
4.1.1.2			Provides platforms in dry resting areas allowing critical or debilitated animals an alternative to laying on concrete or other hard/cold surfaces.	
4.1.1.3			Pool size and depth, as well as amount of dry resting area (DRA) for critical care pinnipeds is at the discretion of the attending veterinarian, but this should be documented in the animal's medical record.	
4.1.1.4			Means must be available to control the water temperature (heating or cooling) for critical care animals that need access to water.	

4.1.1.5			Radiant heating devices or waterproof heating pads are utilized when ambient temperatures fall below the comfort level of the animal, which will be determined by the species, age, medical condition, and body condition of the animal.	
4.1.1.6			Animals are able to move away from point source heaters. If animals are too debilitated to move, temperature of heaters cannot exceed the safe range of 60-80°F at skin surface or animals are monitored every 2 hours.	
4.1.1.7			If ambient air temperatures reach > 80° F (26.6° C), shade must be provided to pinnipeds that cannot swim or do not have access to a pool. Water spray or another method for wetting the animal must also be provided.	
4.1.1.8			Large fans or “swamp coolers” are available to move air across animals with no access to pools when ambient temperatures reach over 85°F (29.4°C).	
<b>4.1.2</b>	<b>Pinniped Pup Specific Care Standards</b>			
	MINIMUM STANDARD			
			Guidance for pinniped pups less than a year old:	
4.1.2.1			Houses pups individually or with similar age conspecifics depending upon veterinary discretion	
4.1.2.2			For phocids <1 week of age or otariids < 3 weeks of age, house with 24/7 supervised access to shallow water (< 0.5 meters deep) pools. If 24/7 supervision is not possible, restrict access to water during non-supervised periods. 24/7 supervision may stop when animals demonstrate ability to swim and haul out without assistance.	
4.1.2.3			Access to raised platforms in dry resting areas for pups of all ages at the discretion of the veterinarian.	
4.1.2.4			Platforms are low enough for easy access yet high enough to allow the floor to dry under platform.	
4.1.2.5			Platforms are made of material with a sealed cleanable surface and designed to allow for waste to pass through.	
<b>4.2</b>	<b>REQUIREMENTS FOR PINNIPED POOLS AND PENS</b>			
	These standards apply to animals that are no longer critical care and are swimming independently.			
<b>4.2.1</b>	<b>Pool Access</b>			
	MINIMUM STANDARD			
4.2.1.1			Pools are available for all non-critical care pinnipeds undergoing rehabilitation.	

<b>4.2.2</b>	<b>Pool Size and Depth</b>		
	MINIMUM STANDARD		
4.2.2.1			Pools shall be at least 0.76 m (2.5 feet) deep.
4.2.2.2			Pools shall be deep enough for each animal maintained within to completely submerge.
4.2.2.3			Pools shall be large enough in diameter to allow each animal housed therein to swim.
<b>4.2.3</b>	<b>Dry Resting Area</b>		
	MINIMUM STANDARD		
4.2.3.1			For one non-critical pinniped, the pen must have a DRA equivalent to 1.2 x (length of the animal) <sup>2</sup> .
4.2.3.2			For two non-critical pinnipeds sharing a pen, the pen must have a DRA equivalent to 1.5 x (length of the longest animal) <sup>2</sup> .
4.2.3.3			For three or more non-critical pinnipeds sharing a pen, the pen must have a DRA equivalent to 1.5 x (length of the longest animal) <sup>2</sup> , and in addition, enough space for the animals to lay with at least one body length separation, to turn around completely, and to move at least two body lengths in one direction.
4.2.3.4			If the facility has the potential and the willingness to admit adult male pinnipeds, it must have a written contingency plan (including appropriately sized pools and pens) for management of these cases.
<b>4.2.4</b>	<b>Extended Rehabilitation</b>		
	MINIMUM STANDARD		
4.2.4.1			If a pinniped is kept for longer than 6 months but less than a year, the facility should meet USDA APHIS Animal Welfare Act standards. However, the actual length of each animal may be used for the dry resting area calculation rather than the adult length.
4.2.4.2			If a pinniped is kept for longer than 1 year, holding space must meet USDA APHIS Animal Welfare Act standards.
<b>4.3</b>	<b>STAFFING LEVELS</b>		
<b>4.3.1</b>	<b>Staffing Level for Pinnipeds</b>		
	MINIMUM STANDARD		

4.3.1.1			Provides a minimum of three qualified trained rehabilitation personnel on site for the first 25 pinnipeds housed at the facility, and two more trained rehabilitation personnel for every additional 25 pinnipeds. More staffing is available for dependent pups.	
4.3.1.2			Personnel is available on a 24-hour basis for critical animal care.	
<b>5</b>	<b>STANDARDS FOR ENDANGERED SPECIES ACT MARINE MAMMAL REHABILITATION FACILITIES</b>			
			All facilities rehabilitating Endangered Species Act (ESA) marine mammals must meet all MINIMUM STANDARDS identified in Section 2, 3 and 4 if applicable, in addition to the MINIMUM STANDARDS in this Section.	
<b>5.1</b>	<b>REQUIREMENTS FOR ESA POOLS AND PENS</b>			
<b>5.1.1</b>	<b>Pool and Pens</b>			
	MINIMUM STANDARD			
5.1.1.1			The facility has dedicated space to house ESA marine mammals individually if needed.	
5.1.1.2			The facility can provide an appropriate social environment with adequate room for more than one animal of a social species if needed or appropriate as deemed by the attending veterinarian.	
<b>5.2</b>	<b>VETERINARY MEDICAL CARE</b>			
<b>5.2.1</b>	<b>Attending Veterinarian</b>			
	MINIMUM STANDARD			
5.2.1.1			The attending veterinarian and animal care staff must have prior experience working with marine mammals, experiencing working with ESA marine mammals, and will consult experts with specific expertise as needed.	
5.2.1.2			Veterinary medical care is provided as needed and available 7 days a week.	
5.2.1.3			The attending veterinarian must be on-site for a minimum of 20 hrs per week if an ESA marine mammal is in critical condition and requiring intensive care.	
5.2.1.4			A maintenance care designation for ESA marine mammals that are stable and no longer need intensive care may be requested by the attending veterinarian to the MMHSRP headquarters staff by completing in writing a Maintenance Care Medical Summary (see Appendix B). If approved, the attending veterinarian must be on-site at least one day a month for animals in maintenance care.	

5.2.1.5			The attending veterinarian must be available to answer questions on a 24-hour basis via phone/text/or e-mail.	
5.2.1.6			The attending veterinarian must be available to visit the facility on an emergency basis.	
5.2.1.7			The attending veterinarian must request prior authorization from the MMHSRP headquarters staff for major medical procedures, including when sedating or anesthetizing an ESA marine mammal.	
5.2.1.8			Procedures conducted on an ESA marine mammals must be under the direct supervision of professional staff and the attending veterinarian.	
5.2.1.9			The attending veterinarian is available and actively consults with MMHSRP headquarters staff and consulting veterinarian.	
5.2.1.10			The attending veterinarian should discuss recommended treatments with MMHSRP headquarters staff and consulting veterinarian.	
5.2.1.11			The attending veterinarian and animal care staff should promptly implement activities requested by the MMHSRP headquarters staff and consulting veterinarian.	
<b>5.3</b>	<b>NECROPSY AND EUTHANASIA</b>			
<b>5.3.1</b>	<b>Necropsy</b>			
	MINIMUM STANDARD			
5.3.1.1			The attending veterinarian or trained personnel must perform a necropsy on every ESA marine mammal that dies within 24-48 hours of death.	
5.3.1.2			Histopathology must be performed on select tissues from each ESA marine mammal that dies.	
5.3.1.3			Preliminary gross necropsy reports should be provided with 30 days of the necropsy. Final necropsy reports should be submitted once histopathology or other ancillary test results have been received, but ideally within 6 months of necropsy.	
<b>5.3.2</b>	<b>Euthanasia Authorization</b>			
	MINIMUM STANDARD			
5.3.2.1			The attending veterinarian or staff must request permission from the NMFS Regional Stranding Coordinator and MMHSRP headquarters staff prior to euthanizing any ESA marine mammal.	
<b>5.4</b>	<b>PRE-RELEASE REQUIREMENTS</b>			
<b>5.4.1</b>	<b>Pre-Release Approvals</b>			
	MINIMUM STANDARD			
5.4.1.1			The attending veterinarian must consult with the NMFS Regional Stranding Coordinator and MMHSRP headquarters staff regarding the recommendation for release and the release plan for ESA-listed species.	

5.4.1.2			The attending veterinarian must submit a Medical Summary Release Request and Release Plan (see Appendix B) at least a week in advance of the release date to the NMFS Regional Stranding Coordinator and MMHSRP headquarters staff for approval.	
<b>5.5</b>	<b>RECORD KEEPING AND NOTIFICATION</b>			
<b>5.5.1</b>	<b>Record Keeping and Notification</b>			
	MINIMUM STANDARD			
5.5.1.1			Within 24 hours of admission to rehabilitation, an accurate description of the animal, including any mark/tag number if present, date and location of stranding, sex, and findings of human interaction should be transmitted to the NMFS Regional Stranding Coordinator and MMHSRP headquarters staff.	
5.5.1.2			An individual Medical Summary for each ESA marine mammal must be submitted within a week of entering rehabilitation. The medical summary should include current bloodwork. Medical summaries must be transmitted to the NMFS Regional Stranding Coordinator and MMHSRP headquarters staff (see Appendix B).	
<b>5.5.2</b>	<b>Permit Authorization</b>			
	MINIMUM STANDARD			
5.5.2.1			Facilities that regularly maintain ESA marine mammals for short-term holding or long-term rehabilitation must have a Co-investigator letter issued under the MMHSRP NMFS ESA/MMPA Permit.	
<b>5.5.3</b>	<b>Permit Reporting</b>			
	MINIMUM STANDARD			
5.5.3.1			All requested information including animal disposition, samples collected, etc. must be submitted to the NMFS Regional Stranding Coordinator and MMHSRP headquarters staff annually in accordance with the NMFS ESA/MMPA permit reporting period.	
<b>5.6</b>	<b>VIEWING</b>			
<b>5.6.1</b>	<b>ESA Viewing</b>			
	MINIMUM STANDARD			
5.6.1.1			No direct public viewing of ESA marine mammals is allowed.	

5.6.1.2			Indirect public viewing of ESA marine mammals is allowed via remote cameras or one-way glass or clear glass that is above the animal's line of sight.	
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## Appendix B: ESA Medical Summary and Release Plan Templates

### 1. ESA SPECIES MEDICAL SUMMARY AND RECOMMENDATION FOR CRITICAL OR MAINTENANCE CARE (SPECIES, ANIMAL ID, “NAME”)

**Attending Veterinarian(s):**

**Report Date:**

**Signalment: Sex, Age, Species**

**Admit Wt:**

**Current Wt:**

**Admit SL:**

**Current SL:**

**Stranding History/Response:**

**Housing and Husbandry (include pool and pen dimensions; water quality, etc.):**

**Nutrition (tubing, free-feeding, live fish test?):**

**Medical & Behavioral History (including bloodwork abnormalities, drugs administered and dates discontinued, drug dosages, etc.):**

**Medical Recommendation (critical care/maintenance care?):**

**Any staffing changes from approved veterinary coverage plan?**

Attending Veterinarian’s Signature \_\_\_\_\_

Date \_\_\_\_\_

**Table 1: Bloodwork (or can attached PDF of results)**

**Please include recent photographs of the patients.**



**2. ESA SPECIES MEDICAL SUMMARY AND RECOMMENDATION  
FOR RELEASE  
(SPECIES, ANIMAL ID, "NAME")**

**Attending Veterinarian(s):**

**Report Date:**

**Signalment: Sex, Age, Species**

**Admit Wt:**

**Current Wt:**

**Admit SL:**

**Current SL:**

**Stranding History/Response:**

**Housing and Husbandry (include pool and pen dimensions; water quality, etc.):**

**Nutrition (tubing, free-feeding, live fish test?):**

**Medical & Behavioral History (including bloodwork abnormalities, drugs administered and dates discontinued, drug dosages, etc.):**

**Medical Recommendation (release/conditional release/not release?):**

Attending Veterinarian's Signature \_\_\_\_\_

Date \_\_\_\_\_

**Table 1: Bloodwork (or can attached PDF of results)**

**Please include recent photographs of the patients**

### **3. Proposed Release, Research, Monitoring and Contingency Plan for (Species, Animal ID, “Name”)**

Contact:

Proposed Release Date:

#### **I. Release Logistics**

Upon medical and permit clearance of Animal X:

- Transport logistics to release site
- Personnel for transport
- Immediate post-release and short-term monitoring

#### **II. Release Site selection rationale:**

- Suitability of release site
- Animal X’s home range (if known)

#### **III. Research and Monitoring Plan**

- Tagging, etc.
- Long-term monitoring (if possible)

#### **IV. Contingency Plan**

- Re-capture/relocation? (if possible)
- Placement?