APPENDIX I:
Operational Protocols and Best Management Practices

Disease and Introduced Species Prevention Protocol for Permitted Activities in the Marine Environment Papahānaumokuākea Marine National Monument[1]

I. Equipment and Dive Gear Disinfection

Equipment and gear is treated according to three levels that correspond to the potential for the spread of disease and/or introduced species.

General points applicable to all the levels and acceptable disinfection solutions are listed in D.

A. Level One: Equipment in direct contact with diseased coral tissue or other diseased organisms

- Equipment: includes, but is not limited to, gloves, chisels, forceps, drill bits, shears, clippers, and spear tips.
- Multiple sets of equipment: Use a disinfected set of equipment for diseased coral colonies and another disinfected set of equipment for non-diseased coral colonies at each dive site.
- Disinfect between sites: Use a disinfected set of equipment at each dive site. Disinfect equipment by soaking for a minimum of ten minutes in an acceptable disinfection solution (see acceptable disinfection solutions listed below).

  Non-porous equipment (e.g. forceps, chisels): Use wipes in which the active ingredient is quaternary ammonium chloride compounds (QACs) (e.g., Clorox or Lysol® wipes) to remove organic matter. Follow wiping by soaking for a minimum of ten minutes in a disinfectant solution.

  Porous equipment and dive gear (e.g. gloves, nylon mesh bags): Manually remove any organic matter, and soak for a minimum of 10 minutes in an acceptable disinfectant solution.

- Secure all samples: Seal all samples in bags or jars under water and place sample bags and jars in secure holding container.

B. Level Two: Benthic equipment not used to sample diseased coral tissue or other diseased organisms

- Benthic equipment: includes equipment that may contact the benthos such as reels, tape measures, goodie bags, transect lines, etc.
- Disinfect between sites: Use a disinfected set of equipment at each dive site.

[1] This protocol and a companion document, "Disease and Introduced Species Prevention Protocol for Permitted Activities in the Marine Environment Papahānaumokuākea Marine National Monument," were accepted at the April 9, 2007 Monument Management Board Meeting.

- Disinfect equipment: achieved by soaking for a minimum of ten minutes in a disinfection solution (see acceptable disinfection solutions listed below).

Non-porous equipment must be wiped and/or soaked. If wiping, use wipes in which the active ingredient is QACs. An accepted wipe is Clorox or Lysol® wipes. If soaking, soak for a minimum of ten minutes in an acceptable disinfectant solution.

Porous equipment must be soaked for a minimum of ten minutes in an acceptable disinfectant solution.

C. Third Level: All dive gear used in the Monument

- Dive gear includes any wetsuit, mask, fin, snorkel, BC, regulator, weight belt, booties, etc.
- Disinfect dive gear daily (if used). Inspect all dive gear and remove any organic matter. Disinfect by submerging for a minimum of ten minutes in an acceptable disinfection solution, followed by a thorough fresh water rinse, and hanging to dry.

D. General points applicable to all three levels

- Disinfect any equipment and gear at least daily if used. Also, only disinfected equipment and gear may be transported either direction between Papahanaumokuakea and the main Hawaiian islands.
- Dispose of organic matter and used solution according to the ship's solid waste disposal or other approved secure holding system.
- Acceptable Disinfection Solutions**:**

1. 3% dilution of commercial bleach (e.g. Clorox or other 5-6% sodium hypochlorite product) in fresh water;

2. the manufacturer's recommended disinfection strength dilution of quaternary ammonium compounds in "soft" (low concentration of calcium or magnesium ions) fresh water. An example of an acceptable QAC solution is Lysol® All Purpose Cleaner in a 6.6% Lysol in water dilution.

II. Cleaning Tender Vessels

- At least daily (if tender vessel if used), inspect for and remove any algal fragments or other organisms (dispose of organic matter and used solution according to the ship's solid waste disposal or other approved secure holding system).
- Rinse tender vessel internal and external surfaces with fresh water between islands, including during transits in either direction between Papahanaumokuakea and the main Hawaiian islands.
- Allow tender vessel to dry before redeployment.

III. Disinfection of Shipboard Wet Laboratory

- At least daily (if lab is used), disinfect entire laboratory, including sinks, countertops, walls, doors, and floors.
- Acceptable Disinfection Solutions and Wipes**:**

1. 3% dilution of commercial bleach (e.g. Clorox or other 5-6% sodium hypochlorite product) in fresh water;

2. the manufacturer's recommended disinfection strength dilution of quaternary ammonium compounds in "soft" (low concentration of calcium or magnesium ions) fresh water. An example of an acceptable QAC solution is Lysol® All Purpose Cleaner in a 6.6% Lysol in water dilution. Also, commercially available wipes containing QACs (e.g. Clorox®, Lysol®) are acceptable; and

3. 70-80% ethanol.

- Dispose of all materials generated during cleaning according to the ship's solid disposal or other secure holding system.
- The laboratory must be clean between islands, including during transits in either direction between Papahanaumokuakea and the main Hawaiian islands.

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Papahanaumokuakea Marine National Monument
Special Conditions & Rules
For
Moving Between Islands & Atolls
And
Packing For Field Camps

June 2007

The islands and atolls of the Papahanaumokuakea Marine National Monument (Monument) and the Hawaiian Islands National Wildlife Refuge are special places providing habitat for many rare, endemic plants and animals. Many of these species are formally listed as Endangered under the Endangered Species Act. Endemic plants and insects, and the predators they support, are especially vulnerable to the introduction of competing or consuming species. Such introductions may cause the extinction of island and reef endemics, or even the destruction of entire island or reef ecological communities. Notable local examples include: the introduction of rabbits to Laysan Island in 1902 which caused the extinction of numerous plant and insect species, and 3 endemic landbird species; the introduction of rats to many Pacific Islands causing the elimination of many burrowing seabird colonies; the introduction of the annual grass, sandbur, to Laysan Island where it has crowded out native bunch grass thus, eliminating nesting habitat for the Endangered Laysan finch; and, the introduction and proliferation of numerous ant species throughout the Pacific Islands to the widespread detriment of endemic plant and insect species.

Several of the islands within the Monument are especially pristine, and as a result are rich in rare and special plants and animals. Nihoa Island has at least 17 endemic and rare insect species, 5 Endangered plants and 2 Endangered birds. Necker Island has Endangered plants and 11 endemic insects. Laysan Island has Endangered plants, 9 endemic arthropods and the Endangered Laysan finch and Laysan duck. Other islands in the Monument such as Lisianski, and islets in Atolls such as Pearl and Hermes Reef and French Frigate Shoals provide homes for a variety of endemic and/or endangered species and require special protection from alien species.

Other Pacific Island such as Kure and the “high islands” (Oahu, Hawaii, Maui, Kauai, etc.) as well as, certain islands within Midway Atoll, Pearl and Hermes Reef and French Frigate Shoals have plants and/or animals that are of high risk for introduction to the relatively pristine islands discussed above. Of special concerns are snakes, rats, cats, dogs, ants and a variety of other insect and plant species. Harmful plant species of highest concern that we know of are *Verbesina encelioides, Cenchrus echinatus, and Setaria verticillata.*

The Co-trustees are responsible for the management and protection of the islands, reefs and wildlife of the Monument. No one is permitted to set foot within the Monument without the express permission of the Co-trustees through the permitting process. Because of the above concerns, the following restrictions on the movement of personnel and materials throughout the Monument exist.

The Following Conditions and Rules apply to the all islands within the Monument with the exception of those at French Frigate Shoals and Midway Atoll:

<u>Definitions:</u>
“**new**" means off the shelf and never used anywhere but the island in question.
"**clothing**" is all apparel , shoes, socks, over and under garments.

"**soft gear**" is all gear such as daypacks, fannypacks, packing foam or similar material, camera bags, camera/binocular straps, microphone covers, nets, holding or weighing bags, bedding, tents, luggage, or any fabric, fiber, paper or material capable of harboring seeds or insects.

1. Any personnel who will be landing boats, and staying within the boats, at any island should have clean clothes and shoes.

2. Any personnel going ashore at any island and moving inshore from the immediate area in which waves are breaking, or beyond the intertidal area, at the time of landing must have new footwear, new or island specific clothes and new or island specific soft gear. All must be frozen for at least 48 hours prior to landing.

3. Any personnel entering any vegetated area, regardless of how sparse the vegetation, must have new footwear, new clothes and new soft gear all frozen for at least 48 hours prior to landing.

4. To avoid transport of seeds from within small boats the following protocol should be followed. For islands with safe or sandy landing conditions, one should keep quarantine shoes/socks inside quarantine containers until the island is reached. One should go ashore bare foot, and then don the quarantine shoes. Non quarantine shoes should be removed in the small boat, put into a bucket or some kind of sealed container, and left enclosed in that container until the person departs the island. The sealed container, if clean on the outside, may go ashore, but should not be opened ashore. For landings which are rocky, rough, and relatively unsafe (such as Necker and Nihoa) for safety reasons, quarantine shoes should be donned when inside the small boats, but care should be taken to look for seeds and insects which may be in the small boat.

5. Soft gear may not be moved between islands. Hard gear must be thoroughly cleaned and frozen for at least 48 hours between islands.

6. During transit, clothing and gear coming off Kure, Midway, or any islet of French Frigate Shoals must be carefully sequestered to avoid contamination of gear bound for cleaner islands. Special care must be taken to avoid contaminating gear storage areas and quarters aboard transporting vessels with seeds or insects from these islands.

7. Regardless of origin or destination, inspect and clean all equipment, supplies, etc., just prior to any trip to the Monument. Carefully clean all clothing, footwear and softgear following use to minimize risk of cross contamination of materials between islands.

8. Pack supplies in plastic buckets with fitted lids or other sealable metal or plastic containers since they can be thoroughly cleaned inside and out. **Cardboard is not permitted on islands.** Cardboard boxes disintegrate in a short time and harbor seeds, animals, etc., which cannot be easily found or removed. **Wood is not permitted unless sealed (painted or varnished) on all surfaces and frozen for 48 hours.**

   Wooden boxes can also harbor insects and seeds and therefore are only allowed if well constructed (tight fitting seams are required). All wood must be treated, and inside and outside surfaces must be painted or varnished to provide a smooth, cleanable finish that seals all holes.

9. Freeze or tarp and fumigate then seal all equipment (clothes, books, tents, everything) just prior to departure. Food and cooking items need not be fumigated but should be cleaned and frozen, if freezable. Cameras, binoculars, radios, and other electronic equipment must be thoroughly cleaned, including internal inspection whenever possible, but do not need to be frozen or

fumigated. Such equipment can only be packed in wooden crates if treated as in #2 above. Any containers must contain new, clean packing materials and be frozen or fumigated.

10. At present, Tern Island is the singular exception to the above rule, having less stringent rules due to the large number of previously established alien species. Careful inspection of all materials and containers is still required. However, it is acceptable to use wooden and cardboard containers for transporting supplies to Tem Island. Also, there is no requirement for freezing or fumigating items disembarked at Tem. Although requirements for Tem Island are more lax, the Refuge is still concerned about the possibilities of new introductions. Do not wear clothing to Tern Island that has been worn at Pearl and Hermes, Midway Atoll or Kure Atoll.

Additional Special Conditions for Travel to Nihoa and Necker (Mokumanamana) Islands:
Nihoa and Necker are the most pristine locations in the Monument. Nihoa is home to the highest number of federally listed endangered species in the Monument. Many areas of these small rugged islands are inaccessible. Introduction of any alien species could have disastrous results in a very short time. It would be almost impossible to mount any kind of control or eradication program on these islands should an alien species become established. Because of these reasons, access to Nihoa and Necker are strictly limited, and rules governing entry are more stringent.

1. Access to Nihoa and Necker by permittees will only be allowed under the accompaniment and supervision of a U.S. Fish and Wildlife Service (USFWS) Representative. The representative, who shall be appointed by the U.S. Fish and Wildlife Service Monument Manager will work with permittees to assure careful compliance with all rules for inspection, handling and preparation of equipment. The USFWS Representative will have the authority to control and limit access to various parts of the island to protect animals, plants and archaeological sites, especially endangered species. The USFWS Representative will have the authority to disallow access to the island, or order an immediate departure from the island if conditions for working on the island are not met or are violated in some way.

2. All field equipment made out of fabric material or wood must be new, and never previously used in the Northwestern or main Hawaiian Islands. Equipment previously purchased or made for use on Nihoa and Necker that has been carefully sealed and stored while away from Nihoa and Necker, and not used elsewhere, may also be brought onto the island. Rules for freezing and/or fumigating are as described for other sites in the Monument (see above).

3. Clothing, footwear (shoes, slippers, socks, etc.), daypacks (soft gear) must be new, unused, or previously only used on Nihoa (or Necker) and carefully sealed and stored while off of the island. Hard gear such as camera, and equipment must be thoroughly cleaned and inspected.

Additional Special Conditions for Travel Within Pearl and Hermes Atoll:
In recent years *Verbesina encelioides* has been introduced to Southeast Island within Pearl and Hermes Atoll. This noxious weed has taken over a large portion of the island. To prevent the further spread of this weed to the other islets within this atoll the following precaution must be taken:

1. Every person should have one set of quarantine gear and clothing for Southeast Island and one set of quarantine gear and clothing for all other islets in the atoll. For instance the same clothing, and if needed camping gear, may be used at north and seal kittery, but anything used at southeast needs to stay off all other islets in the atoll. Do not use the outer islet clothing and gear on Southeast Island.

2. Carefully inspect small boats and their associated equipment when traveling between islets at Pearl and Hermes Atoll. Since folks likely take one anchor ashore and put one anchor in the water there is potential for seed dispersal on anchor lines as well as from within the small boats. This needs to be watched very carefully.

Additional Special Conditions for Food:

Fresh foods such as fruits, vegetables, leafy vegetables and tubers are not permitted on quarantine enforced islands (Necker, Nihoa, Laysan, Garner Pinnacles, Lisianski and Pearl and Hermes Reef). Concern is not only that certain species such as tomatoes could easily become established but that decomposing organic waste can also harbor microbes and insects and can act as an introduction vector. Soil can contain many seeds, eggs, larvae, etc., and cannot be transported to or between islands.

All other food that can be safely frozen (this does not apply to food in cans or glass jars) must be packaged in air tight containers just as all other gear and frozen for 48 hours.

DEPARTMENT OF LAND AND NATURAL RESOURCES

Adoption of Chapter 13-76
Hawaii Administrative Rules

August 10, 2007

SUMMARY

Chapter 13-76, Hawaii Administrative Rules, entitled "Non-Indigenous Aquatic Species", is adopted.

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HAWAII ADMINISTRATIVE RULES

TITLE 13

DEPARTMENT OF LAND AND NATURAL RESOURCES

SUBTITLE 4

FISHERIES

PART IV FISHERIES RESOURCE MANAGEMENT

CHAPTER 76

NON-INDIGENOUS AQUATIC SPECIES

Subchapter 1 General Provisions

§13-76-1 Purpose
§13-76-2 Definitions
§13-76-3 General permit conditions
§13-76-4 Penalties
§13-76-5 Severability
§§13-76-6 to 13-76-10 (Reserved)

Subchapter 2 Ballast Water Management

§13-76-11 Purpose
§13-76-12 Definitions
§13-76-13 Prohibited activities
§13-76-14 Applicability
§13-76-15 Permits
§13-76-16 Ballast water management plan requirements
§13-76-17 Ballast water exchange requirements
§13-76-18 Ballast water discharge requirements
§13-76-19 Ballast water reporting requirements
§13-76-20 Evaluation and compliance

SUBCHAPTER 1

GENERAL PROVISIONS

§13-76-1 Purpose. This chapter governs rules aimed at preventing, to the extent practical, the introduction and spread of non-indigenous aquatic species into State waters. Such non-indigenous aquatic species are potentially harmful to the environment and economy of Hawaii because they may replace or destroy native species and alter their habitats. [Eff OCT 12 2007] (Auth: HRS §187A-32) (Imp: HRS §187A-32)

§13-76-2 Definitions. As used in this chapter unless otherwise provided:

"Board" means the board of land and natural resources.

"Department" means the department of land and natural resources.

"Master" means the person authorized by the vessel operator to be the captain of the vessel.

"Non-indigenous aquatic species" means any marine, brackish water, or freshwater species or other viable biological material, including, but not limited to, eggs, spores, or seeds, that enters or exists in an ecosystem where it was not known to have existed before, is outside its natural or historic range, or may have come to Hawaii by human introduction.

"Person" means any individual, corporation, partnership, trust, association, or other private entity, or any officer, employee, agent, department, or instrumentality of the federal government, of any state or political subdivision thereof, or of any foreign government.

"State" means the State of Hawaii.

"State marine waters" means all waters of the State, including the water column and the water surface, extending from the upper reaches of the wash of the waves on shore seaward to the limit of the

State's police power and management authority, including the United States territorial sea, notwithstanding any law to the contrary.

"USCG" means the United States Coast Guard.

"Vessel operator" means a company that owns, operates or has chartered a vessel. [Eff OCT 12 2007] (Auth: HRS §187A-32) (Imp: HRS §187A-32)

§13-76-3 General permit conditions. (a) The general permit provisions of this section shall be in addition to the more specific provisions of section 13-76-15, and as otherwise provided in this chapter.

(b) The department may require persons to submit an application for a permit issued pursuant to this chapter.

(c) The submission of an application to the department shall not obligate the department to issue a permit or constitute a right or interest on the part of the applicant to have a permit issued.

(d) A permit shall have a limited duration subject to the provisions of this chapter, but such duration shall not exceed one year from the date of issuance. The issuance of a permit shall not constitute a vested right or property interest to receive future or additional permits.

(e) Permits are non-transferable, so that whenever a permittee parts with possession or transfers, in whole or in part, the title to or interest in the vessel identified in the permit to another person by any arrangement, the permit shall immediately expire. The permittee must notify the department prior to and immediately after such transfer has occurred.

(f) The department may impose terms and conditions it deems necessary to carry out the purposes of this chapter, including requiring a report or reports of any activity conducted that may potentially introduce a non-indigenous species to state marine waters by the applicant or permit holder within the state.

(g) It is unlawful for any person to violate any provision of any permit issued pursuant to this chapter. Failure to comply with any provision of this chapter, or any provision of any permit issued hereunder, shall be cause for termination of said permit.

(h) If the department determines that the protection and conservation of aquatic life in the area requires the cessation of all or certain activities allowed under the permits, upon notification to the permit holders of this determination by any reasonable means, the permits shall automatically expire on a date provided in the notification.

(i) There is no right to a renewal or re-issuance of a permit. When reviewing an application for a permit, the department shall consider whether the applicant has previously violated or not complied with any term or condition of a permit and may deny the application on this basis.

(j) The permittee shall have the permit on board the vessel and be able to show the permit upon the demand of any employee, agent, or officer authorized to enforce this chapter. Failure or refusal to show the permit shall be a violation of this chapter and sufficient cause to immediately but temporarily suspend the permit until such time that the board may take action to revoke the permit.

(k) The board may revoke any permit for any violation of the terms and conditions of the permit and a person whose permit was revoked shall not be eligible to apply for another permit until one year from the date of revocation. [Eff OCT 12 2007] (Auth: HRS §§187A-5, 187A-32) (Imp: HRS §§187A-5, 187A-32)

§13-76-4 Penalties. A person violating the provisions of this chapter shall be guilty of a petty misdemeanour, as provided under section 187A-13, HRS, subject to administrative penalties as provided under

section 187A-12.5, HRS, and punished as provided by law. [Eff OCT 12 2007] (Auth: HRS §§187A-12.5, 187A-13, 187A-32) (Imp: HRS §§187A-12.5, 187A-13)

§13-76-5 Severability. The provisions of these rules are declared to be severable, and if any portion or the application thereof to any person or property is held invalid for any reason, the validity or application of the remainder of these rules to other persons or property shall not be affected. [Eff OCT 12 2007] (Auth: HRS §§187A-12.5, 187A-13, 187A-32) (Imp: HRS §§187A-12.5, 187A-13)

SUBCHAPTER 2

BALLAST WATER MANAGEMENT

§13-76-11 Purpose. (a) This subchapter addresses the management and disposition of vessel ballast water as a medium or means for the introduction of aquatic invasive species into state marine waters, such as but not limited to any ocean, estuary, bay, harbor, beach, or coastal area. These rules are intended to act in coordination with federal regulations on ballast water management by 1) establishing state laws that will correspond to and complement federal regulations on ballast water to ensure consistency, 2) providing best practices guidelines to improve vessel ballast water management prior to entering state marine waters, 3) adopting a ballast water management program, including a ballast water exchange reporting system, and 4) monitoring compliance with program requirements.

(b) This subchapter identifies: 1) prohibited activities; 2) vessels exempted from ballast water management plan requirements, ballast water reporting requirements, ballast water exchange requirements, and ballast water discharge requirements; 3) which permits are available to qualifying vessels; 4) requirements

that incoming vessels are subject to regarding ballast water; and 5) State verification of compliance with this subchapter. [Eff OCT 12 2007] (Auth: HRS §§187A-5, 187A-32) (Imp: HRS §§187A-5, 187A-32)

§13-76-12 Definitions. As used in this subchapter, unless otherwise provided:

"Aquatic invasive species" means a non-indigenous aquatic species, which, if introduced into an ecosystem, may cause harm to Hawaii's economy, environment, human health, or public safety and welfare.

"Ballast operations" means the transfer, uptake, and/or discharge of ballast water.

"Ballast tank" means any tank, hold, or part of a vessel used to carry ballast water, whether or not the tank or hold was designed for that purpose.

"Ballast water" means any water, associated sediments, and suspended matter taken on board a vessel to manipulate, control, or maintain trim, draft, stability, or stresses of the vessel, without regard to the manner in which it is carried.

"BWM" means ballast water management as required by federal law 33 CFR Part 151 Subpart D, Mandatory Ballast Water Management Program for U.S. Waters, dated July 28, 2004.

"Coastwise trade" includes the transportation of passengers or merchandise between points embraced within the coastwise laws of the United States.

"Discharge" means to drain or remove part or all of the ballast water off the vessel.

"EEZ" means the United States exclusive economic zone established by Presidential Proclamation No. 5030, dated March 10, 1983, which extends from the baseline of the territorial sea of the United States seaward 200 nautical miles, substantially as defined in federal law 33 CFR 151.2025, dated July 1, 2005.

"Empty/refill exchange" means to pump the ballast tank or tanks out, until empty or as close to empty as the master determines is safe to do so, then refilling

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the tank with mid-ocean waters.

"Exchange" means to replace water in ballast tanks by using flow through exchange, empty/refill exchange, or other exchange methodology recommended or required by the United States Coast Guard.

"Flow through exchange" means to flush out ballast tanks by pumping in mid-ocean water at the bottom of the tank and continuously overflowing the tank from the top until three full volumes of the ballast water tank capacity have been changed.

"MHI EEZ" means the main Hawaiian islands exclusive economic zone identified as those waters of the EEZ surrounding the main Hawaiian islands east of 161° West longitude.

"Mid-ocean waters" means waters at least 200 nautical miles from any coast.

"Permanent ballast" means a weight or heavy material added to a vessel to enhance the vessel's stability that is always left on the vessel and not normally removed either between or during voyages.

"Transfer" means the on-board movement of ballast water from one part of the vessel to another.

"Qualifying vessels" means all vessels, United States or foreign flagged, carrying ballast water into state marine waters after operating outside the EEZ.

"Sediments" means any material that settles out of ballast water within a vessel.

"Uptake" means to fill part or all of the vessel's ballast tanks with water from outside the vessel.

"Vessel in innocent passage" means a ship engaged in continuous and expeditious surface passage through the territorial sea and archipelagic waters of foreign coastal states in a manner not prejudicial to its peace, good order, or security. Passage includes stopping and anchoring, but only if incidental to ordinary navigation or necessary by rough weather or distress, or for the purpose of rendering assistance to persons, ships, or aircraft in danger or distress.

"Voyage" means any transit by a vessel that originates from a port or place outside of the EEZ

surrounding the State of Hawaii and destined for a port or place in Hawaii. [Eff OCT 12 2007] (Auth: HRS §187A-32) (Imp: HRS §187A-32)

§13-76-13 Prohibited activities. (a) Unless exempted under the provisions of section 13-76-14, by permit issued pursuant to section 13-76-15, or as may be otherwise provided by law, it is unlawful for the master of a qualifying vessel:

(1) To fail to have or fail to follow a ballast water management plan, as required under section 13-76-16;
(2) To exchange ballast water contrary to the provisions of section 13-76-17;
(3) To discharge, or allow the discharge of, ballast water in state marine waters in violation of section 13-76-18;
(4) To fail to submit a ballast water report form, as required in section 13-76-19; and
(5) To violate any provision in this subchapter.

(b) It is unlawful for the master to prevent, hinder, or otherwise interfere with the department's or USCG's evaluation of the vessel's compliance with the provisions of this subchapter. The evaluation may be conducted in accordance with section 13-76-20 and as may be otherwise provided in this subchapter. [Eff OCT 12 2007] (Auth: HRS §§187A-5, 187A-32) (Imp: HRS §§187A-5, 187A-32)

§13-76-14 Applicability. (a) The ballast water management plan requirements of section 13-76-16 shall apply to qualifying vessels.

(b) The ballast water reporting requirements of section 13-76-19 shall apply to qualifying vessels, except for the following:

(1) Crude oil tankers engaged in coastwise trade. This exemption applies only to vessels carrying unrefined crude oil product from one U.S. place to another, including

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Hawaii;

(2) Any vessel of the United States Department of Defense or USCG, subject to the requirements of Section 1103 of the National Invasive Species Act of 1996, or any vessel of the armed forces, as defined in Section 1322(a)(14) of Title 33 of the United States Code that is subject to the "Uniform National Discharge Standards for Vessels of the Armed Forces" pursuant to Section 1322(n) of Title 33 of the United States Code;

(3) Any vessel that operates exclusively within the MHI EEZ;

(4) Any vessel that operates outside of the EEZ, but conducts all ballast operations exclusively in the MHI EEZ, regardless of the number of voyages the vessel makes; and

(5) Any vessel in innocent passage or having entered state marine waters due to circumstances beyond its control; provided that the vessel does not discharge ballast water into state marine waters, or into waters that may impact state marine waters, unless the vessel meets the requirements of section 13-76-18;

(c) The ballast water exchange requirements of section 13-76-17 shall apply to qualifying vessels that conduct ballast water exchanges; except for vessels exempted under subsection 13-76-14(b)(1),(2),(3),(5) and the following:

(1) Any vessel equipped with a functioning treatment system designed to kill all living aquatic organisms in the ballast water; provided that USCG or other approving authority has determined that the system is designed to be at least as effective as ballast water exchange at reducing the risk of transfer of aquatic invasive species in ballast water and the treatment system is properly functioning as designed; and

(2) Any vessel, to the extent that it is equipped with permanent, freshwater, or treated ballast, as specified in section 13-76-14 (c)(1) above or will not discharge ballast water in state marine waters.

(d) The ballast water discharge requirements of section 13-76-18 shall apply to qualifying vessels that either will discharge or have discharged ballast water into state marine waters; except for vessels exempted under subsections 13-76-14(b)(2) and (3), and 13-76-14(c)(1) and (2).

(e) The master, or vessel operator when there is no master, shall be responsible for complying with the provisions of this subchapter, unless otherwise provided. Nothing in this subchapter shall relieve the master of the responsibility to ensure the safety and stability of the vessel or the safety of the crew and passengers, or any other responsibility. [Eff OCT 12 2007] (Auth: HRS §187A-32) (Imp: HRS §187A-32)

§13-76-15 Permits. (a) The department may issue permits to vessel operators, exempting qualifying vessels from the provisions of this subchapter, subject to the provisions of section 13-76-3 and the following conditions:

(1) Receipt of a completed application, on a form provided by the department, and any other information the department may require; and

(2) Approval by the department, after an assessment of the appropriateness of the application based on:

(A) Safety of the crew or its passengers, USCG approved ballast water treatment system, protection of property, vessel integrity or other factors the department considers relevant to the intent and purpose of this subchapter; and

(B) All applicable state and federal law.

(b) The permit exemptions are limited to the provisions of this subchapter and do not exempt the master from other state laws or any federal laws. [Eff OCT 12 2007] (Auth: HRS §§187A-5, 187A-32) (Imp: HRS §§187A-5, 187A-32)

§13-76-16 Ballast water management plan requirements. Vessels in compliance with BWM requirements for a ballast water management plan, shall be deemed to also be in compliance with this section. It is unlawful for any master to violate BWM requirements for a ballast water management plan. [Eff OCT 12 2007] (Auth: HRS §187A-32) (Imp: HRS §187A-32)

§13-76-17 Ballast water exchange requirements. (a) Qualifying vessels that require ballast water exchanges shall conduct such exchanges in mid-ocean waters. Unless exempted by section 13-76-14(c), or as may be otherwise provided by law, it is unlawful for a master to conduct a ballast water exchange within state marine waters while holding ballast water obtained from an area less than 200 nautical miles from any coast.

(b) All such exchanges shall be by flow through exchange, empty/refill exchange, or other exchange methodology recommended or required by the USCG or other approving authority.

(c) The master is responsible for the safety of the vessel, its crew, and its passengers and is not required to conduct a ballast water management practice, including exchange, if the master determines that the practice would threaten the safety of the vessel, its crew, or its passengers because of adverse weather, vessel design limitations, equipment failure, or any other extraordinary conditions. Should the master make such a determination, the master shall

take all feasible measures, based on the best available technologies economically achievable, that do not compromise the safety of the vessel, its crew, and its passengers, to minimize the discharge of ballast water containing non-indigenous aquatic species into state marine waters or waters that may impact state marine waters. Such discharge shall be subject to the provisions of section 13-76-18.

(d) Nothing in this subchapter relieves the master of the responsibility for ensuring the safety and stability of the vessel or the safety of the crew and passengers, or any other responsibility. [Eff OCT 12 2007] (Auth: HRS §187A-32) (Imp: HRS §187A-32)

§13-76-18 Ballast water discharge requirements. (a) To the extent practical, the master of any qualifying vessel that has not conducted a mid-ocean waters ballast water exchange, and is subject to the provisions of subsection 13-76-14(d), shall not discharge ballast water into state marine waters.

(b) The master shall report to the department, pursuant to section 13-76-19, when a mid-ocean waters ballast water exchange was not done and a ballast water discharge into state marine waters is necessary.

(c) Unless exempted by subsections 13-76-14(c) or 13-76-14(e) of this section, prior to any ballast water discharge into the EEZ or state marine waters, the master shall obtain approval from the department to discharge ballast water. Upon approval, the master shall then implement all feasible measures to minimize the discharge of ballast water.

(d) This subchapter does not authorize the discharge of oil, noxious liquid substances, or any other pollutant in a manner prohibited by state, federal or international laws or regulations. Ballast water carried in any tank containing a residue of oil, noxious liquid substances, or any other pollutant shall be discharged in accordance with the applicable requirements.

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(e) The master shall be exempted from the provisions of subsections 13-76-18(a) and 13-76-18(c), if the master determines that such ballast water discharge is necessary to ensure the safety and stability of the vessel or the safety of the crew and passengers, because of adverse weather, vessel design limitations, equipment failure, or any other extraordinary conditions. [Eff OCT 12 2007] (Auth: HRS §187A-32) (Imp: HRS §187A-32)

§13-76-19 Ballast water reporting requirements. (a) Unless exempted in subsection 13-76-14(b), for all qualifying vessels, the master shall:

(1) Fully and accurately fill out the USCG ballast water report form;

(2) Submit the form by fax, electronic mail, or as otherwise provided to the department no later than twenty-four (24) hours prior to vessel arrival into state marine waters;

(3) Submit an amended form to the department before the vessel departs state marine waters, should there be a change in any of the information submitted in accordance with this section; and

(4) Maintain on board the vessel records that include all of the information provided on the form for at least two years.

(b) Submission of this form or an amended form to the department does not relieve the master of the responsibility to report to the USCG, if the USCG requires such report or amended form. [Eff OCT 12 2007] (Auth: HRS §187A-32) (Imp: HRS §187A-32)

§13-76-20 Evaluation and compliance. (a) In order to evaluate the compliance rate of qualifying vessels with the provisions of this subchapter, the department, in coordination with the USCG, may:

(1) Take samples of ballast water and sediment, examine documents, and make other appropriate inquiries;

(2) Compile the information obtained from submitted reports and use the information in conjunction with existing information relating to the number of vessel arrivals; and

(3) Take other actions necessary for the purposes of this subchapter.

(b) The master shall make available to the department, upon the department's request, the records required by section 13-76-19 and other relevant information. [Eff OCT 12 2007] (Auth: HRS §187A-32) (Imp: HRS §187A-32)

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DEPARTMENT OF LAND AND NATURAL RESOURCES

Chapter 13-76, Hawaii Administrative Rules, on the Summary Page dated August 10, 2007, was adopted on August 10, 2007, following a public hearing held on June 28, 2007, after public notice was given in the Honolulu Star-Bulletin on May 20, 2007.

The adoption of chapter 13-76 shall take effect ten days after filing with the Office of the Lieutenant Governor.

Laura H. Thielen
Interim Chairperson
Board of Land and Natural Resources

APPROVED:

Linda Lingle
Governor
State of Hawaii

Dated: OCT - 1 2007

APPROVED AS TO FORM:

Deputy Attorney General

Filed

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Precautions for Minimizing Human Impacts on Endangered Land Birds in Papahānaumokuākea Marine National Monument

The Nihoa finch *(Telespiza ultima)*, Nihoa millerbird (*Acrocephalus remota*), and Laysan finch (*Telespyza cantans*) are inquisitive birds that constantly inspect and probe their environment while foraging. While this probably benefits them in their natural environment, it can be problematic when humans bring in equipment or set up encampments. Things that we normally would not think of as hazards to wildlife become sources of finch or millerbird mortality (usually by drowning, entanglement, and entrapment). In order to avoid the unintentional killing of these endangered species, it is imperative that visitors to Nihoa, Laysan, and Pearl and Hermes Atoll be aware of the different hazards that humans pose to passerine birds. The guidelines below derive from documented mortalities and will help you "bird-proof' your operation, but additional hazards exist, so use common sense at all times.

1. The burn barrel must be attended **at all times** when burning trash; be vigilant. When not burning, any vents or rust-eaten holes in the barrel or lid must be covered *(*e.g., with rocks).

2. Buckets must always be overturned so that they won't collect rainwater.

3. Laundry buckets must have lids on them while laundry is soaking.

4. Water-filled buckets for dishwashing (or any other chore) must always be attended.

5. Desalinator garbage cans should have netting placed between the can and the lid. Make sure the lids close properly; faulty positioning of hoses can interfere with proper closure.

6. Tarps *(*e.g., those covering propane, etc.) must be tucked in tightly so that they don't collect rainwater.

7. Fabric with loose threads should be burned; little feet can become entangled when fabric is hung out to dry. Cut loose threads off tents and tarps.

8. Anything with small mesh *(*e.g., bird nets or insect nets) should be put away to avoid foot entanglement.

9. Water jugs should be aligned with ample space between rows so that finches won't get trapped. Always keep jugs capped.

10. For stability reasons, buckets should not be stacked more than two high. Keep an eye out for leaning buckets or water jugs, and level the sand beneath them if necessary.

11. Tents should be zipped at all times (day and night) so that finches and millerbirds cannot enter.

12. Finches and millerbirds should be discouraged from eating people-food so as not to augment the camp population any more than it is already. Dependency by the finches on the camp will result in suffering when temporary and more-permanent field camps dissolve.

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Human Hazards to Seabirds in Papahānaumokuākea Marine National Monument

Most seabirds exhibit insular tameness, which is behavior characterized by a lack of the wariness you might observe in birds living in areas with terrestrial predators. Because of this, it sometimes appears by their actions as if humans pose no problems for them. In fact there are a number of potentially serious consequences every time a seabird colony is entered, even by experienced researchers. Hazards to seabirds also result from the movement of vessels through the waters of the Monument.

Mechanical - At most seabird colonies in the Monument, you will see birds nesting on three different levels, under the ground, on the surface, and in the shrubs and trees. At many times of the year it is difficult to walk in some parts of the colony without stepping on eggs or caving in the burrows of the petrels and shearwaters. Chicks of several of the tern species hide in vegetation so you should be careful about setting your foot where you cannot see the surface of the ground. Ground-nesting gray-backed terns and brown noddies are often most affected by your activities because they are very timid and nest in open areas that may be travel pathways. If you have occasion to have to walk in burrow areas, you must be prepared to rescue a shearwater or petrel by digging if you accidentally cave in its home. Putting out temporary tents or stacks of equipment may provide a site that burrowing or crevice nesting birds will use. Subsequently removing these materials may cause the nest to fail. Special care should be taken never to leave string or line anywhere in the colony. Seabirds have an uncanny ability to find it and get tangled in any material of this kind. Lights in camps or on vessels at sea cause a collision hazard for petrels and shearwaters in particular because they are confused by the light and collide with the vessel or lighted structure. All ship lights except for running lights or anchor lights should be extinguished or shielded, especially when operating in proximity to seabird colonies.

Thermal - The climate of the tropical and subtropical islands seems mild but the eggs and small chicks of all the species live a precarious life on the edge of thermal disaster. The attendance patterns of adults reflect this with eggs and tiny chicks virtually never left unattended. Great care and attention must be given to never keeping a bird off its egg or chick for more than a few minutes. Keep this in mind if you must spend more than 3 or 4 minutes in any area. This is an issue when it is hot as well as when it is cool and wet. When first approaching a site look for any nests or adults flushed from an inconspicuous nest and plan your work to minimize keeping birds from attending their eggs or chicks for more than 3 minutes.

Biological - In some colonies, one species may learn to take advantage of human disturbance to prey upon others. Frigatebirds will take chicks and steal nest material from booby nests and other frigatebird nests when the owners of the nest are frightened off by human disturbance. In colonies inhabited by finches of various species, the minute an egg is exposed the finch will rush in and peck a hole and consume the contents. Unattended eggs of ground-nesting species are often eaten by shorebirds such as ruddy turnstones. All small seabirds are at great risk in colonies where there are introduced rats. It is possible that going up to isolated or cryptic nests and handling the eggs will provide a trail that might lead rats to the nest.

Behavioral considerations – Young ground-nesting terns such as sooty terns, gray-backed terns and brown noddies are particularly vulnerable to disturbance at age 2 through 7 days from hatching because they are large enough to run in panic if a person walks through the nesting area but not old enough to find their way back to their own nest-site where their parent will recognize and feed them. A colony with chicks at this young age (before scapular feathers have erupted) must not be disturbed. All three species

of boobies (brown, red-footed, and masked) are vulnerable to injury and death when they dive on towed lures used during trolling operations. Younger birds seem particularly susceptible to this. Sustenance fishing operations in the Monument should be stopped immediately if birds are flying in the area and express interest in the lures.

Papahānaumokuākea Marine National Monument

National Marine Fisheries Service Best Management Practices

- If there is any Hawaiian monk seal or any other protected species in the area when performing any permitted activity, the activity shall cease until the animal(s) depart the area unless the activity is covered under a separate permit that allows that activity (e.g., ESA and/or MMPA permits);

- The applicant and those working under any permit issued for this activity shall be familiar with the "Marine Wildlife Viewing Guidelines," accessible at NOAA's National Marine Fisheries Service website: http://www.fpir.noaa.gov/PRD/prd_laws_policies_guidelines1.html;

- Implement the "Disease and Introduced Species Prevention Protocol for Permitted Activities in the Marine Environment Papahānaumokuākea Marine National Monument" for in-water activities; and

- Implement the "Bests Practices for Minimizing the Impact of Artificial Light on Sea Turtles" Pacific Islands regional Office, NOAA National Marine Fisheries service, Rev. Nov. 9, 2007, as applicable.

February 28, 2008 Pacific Islands Regional Office.

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Best Practices for Minimizing the Impact of Artificial Light on Sea Turtles

NOAA's National Marine Fisheries Service (NOAA Fisheries) and the U.S. Fish and Wildlife Service are jointly responsible for the protection of threatened and endangered sea turtles. In Hawai'i, the agencies are especially concerned about the impact of shoreline activities on the successful nesting and basking of green and hawksbill sea turtles.

Over 90 percent of nesting activity for the Hawaiian population of the threatened green sea turtle (*Chelonia mydas*) occurs at French Frigate Shoals in the Northwestern Hawaiian Islands (NWHI). Green turtles nest from May through September, peaking in June and July. Hatchlings continue to emerge from nests through November. Large numbers of green turtles are also known to bask throughout the NWHI. The endangered hawksbill sea turtle (*Eretmochelys imbricata*) also nests in Hawai'i, with over 90 percent of documented nests occurring on the Island of Hawai'i. Regular nesting also occurs on Maui and Moloka'i. Hawksbills appear to nest and forage primarily within the main Hawaiian Islands, though they have been sighted in the Northwestern Hawaiian Islands.

Many factors affect the potential survival of these turtles, including the loss or destruction of nesting and basking beaches, and other human shoreline activities such as the use of artificial lights. The following set of measures should be adopted as appropriate, to minimize the impacts of lighting on sea turtles:

A. **Avoid the use of artificial lighting near beaches, where possible, particularly during nesting and hatching seasons**.
Artificial light sources on a nesting beach may deter adult females from exiting the water to lay eggs on the beach, cause abandonment of nesting attempts, or disorient adult females and disrupt their natural behavior of returning to the sea after nesting. Artificial light will disorient hatchlings that use light cues to find their way to the sea, making them more vulnerable to predation, exhaustion, and desiccation. Artificial light may also disturb basking turtles.

B. **Do not use excessive or unnecessary amounts of light, or leave lights on or allow campfires to burn longer than necessary.**
Basking behavior may help turtles avoid marine predators. If artificial lighting causes a basking turtle to return to the sea, it may be more vulnerable to predation.

C. **Shield or redirect lights to reduce as much as possible the amount of light that can be seen from the nesting or basking beach**.
Effective light shields should be completely opaque, sufficiently large, and positioned so that light from the shielded source does not reach the beach.

D. Where possible, use low-intensity light sources that emit long wavelength light (yellow, red) and avoid sources that emit short wavelengths (ultraviolet, blue, green, white).
Long wavelengths are the least disturbing to sea turtles. Red light-emitting diodes (LEDs) are the best option and one of the light sources least disruptive to sea turtles. Amber or yellow filters placed on light sources are less desirable than red lighting, as they vary in effectiveness and will fade over time.

E. Aboard vessels at sea, use the minimum lighting necessary to comply with navigation rules and best safety practices.
Sea turtles of all life stages may be attracted to lights from vessels at sea. These turtles may be vulnerable to vessel activities, as well as being vulnerable to predators that may also be attracted to the same lights.

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Special Conditions & Rules for Small Boat Operations at Tern Island

Trip Authorization

All boat trips, including the use of non-FWS vessels, must be authorized by the resident refuge manager before leaving Tern Island or entering French Frigate Shoals. Information must be provided on the trip objectives, the destination(s), and approximate time of return. The resident refuge manager may withhold permission for a boat to leave Tern Island or operate within the refuge boundary if in his/her opinion, the seas are too rough, the weather is inclement, the equipment is in questionable condition, or the operator lacks the experience to cope with prevailing conditions.

Boat Operators and Passengers

All boat operators are required to have completed a Boat Safety Course for use of boats at French Frigate Shoals. FWS Employees must have official DOI boat training certification. Operators must be experienced in handling small craft around coral heads and choppy seas and be familiar with outboard engine operation and repair. If the resident refuge manager is not familiar with their abilities, he/she may request a demonstration ride or other means for skills verification. All persons involved in boating operations must be able to swim. The operator is responsible for seeing that all boat use policy requirements are met. Any kind of unsafe boat operation (violation of boating policy, reckless driving, excessive speed, etc.) will be cause for the resident refuge manager to revoke that person's right to operate boats at French Frigate Shoals. Everyone in the boat must have his/her life jacket on at all times! Each person that is to operate boats at French Frigate Shoals will be required to read and sign the Tern Island copy of the Boat Use Policy to verify that he/she has read and understood it.

Boats and Equipment

All boats going on solo trips are required to have two motors in working condition. Both motors must be tested before leaving the dock area and must be attached to the boat by a safety chain or rope unless bolted to the hull. Boats must have standard safety equipment on board including a life preserver for each person (diving buoyancy compensators and wet suits are not adequate), a bow anchor with at least 120 feet of line (and a similarly equipped stern anchor, if landing on another islet), paddles or oars, an emergency tool kit, a first-aid kit, an emergency locating transmitter (EPIRB), an emergency strobe light, and handheld radios.

A second boat with two motors in good working condition will either travel with the other boat(s) or be ready for immediate use at Tern Island should an emergency arise and rescue be required.

Radio Procedure

All boats launched from Tern Island must be equipped with two operational radios. An exception to this rule is when several boats are being used to offload vessels. Since all boats will be in visual contact with other boats, Tern Island, or the offloading vessel, only one radio is required. Check with the resident refuge manager for the radio frequencies being used. Radios must be tested before leaving the dock area. It is the responsibility of the boat operator to make sure that radios are properly charged prior to any trip (check with the resident refuge manager for proper charging procedures).

Boats must contact Tern Island when they leave a location and when they reach their destination. Arrangements must be made prior to a boat trip to have someone monitoring the radios at Tern Island within 15 minutes after arrival at a destination, or of the time of a prearranged radio call. If contact is not made the boat must immediately return to Tern Island. If radio contact is made while returning to Tern Island the trip can be resumed. If Tern Island does not hear from a boat 1 hour past the expected arrival or prearranged radio call, the backup boat will be launched and a search will commence.

Previous FFS Boating Policy required a rescue boat to be launched 1 hour after any boat is overdue for radio check in. This remains unchanged except that in the late afternoon all boat operators must check in prior to the Departure Guidelines listed below. If a boat has not checked in by the listed guideline, a rescue boat will be launched immediately and sent to the last known location of the missing boat.

Departure Guidelines

All boating activities must be limited to a period between half an hour after sunrise and 1 1/2 hours before sunset. If you change your original route for any reason during the day, contact the resident refuge manager by radio on Channel 16. To allow reasonable amount of time to perform search and rescue, boats must depart the following areas before sunset as stated: Disappearing Island 5 hours, the Gins 2 hr 15 min; East Island 2 hours; Shark, Trig, and Round Islands 1 hr 50 min.

General Rules

No boats may be launched if the wind speed exceeds 20 knots or if seas are deemed exceedingly rough by the resident refuge manager. Approach to within one-half mile of any islet not specifically mentioned on Monument Permits is prohibited, except in emergency situations or unless permission is otherwise obtained in advance from the resident refuge manager. At least two people must be aboard a boat at all times unless pre-approved by the resident refuge manager.

April 2008

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