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PEP-ENVIRONMENTAL COMPLIANCE MEMORANDUM NO. 20-5

To: Heads of Bureaus and Offices

From: Michaela E. Noble, Director 
Office of Environmental Policy and Compliance

Kaiini Kaloi, Director 
Office of Native Hawaiian Relations

Subject: Biosecurity Protocol for Hawai'i Island

PURPOSE

The Office of Environmental Policy and Compliance (OEP) is issuing this Environmental Compliance Memorandum (ECM) under the authority provided in Department Manual, Series 17, Part 381, Chapter 4 (381 DM 4) to convey instructions and guidance through the Environmental Memoranda Series. This ECM is being co-issued with the Office of Native Hawaiian Relations. This ECM establishes protocols to be followed, required by statute, or deemed appropriate, to prevent the introduction of harmful invasive species into local natural areas and native habitats on Hawai'i Island and to prevent the spread of invasive species to other U.S. land interests.

BACKGROUND

The Federal Government defines an invasive species as a non-native organism, with respect to a particular ecosystem, whose introduction causes or is likely to cause economic or environmental harm, or harm to human, animal, or plant health. Biosecurity is the set of measures taken to manage the risk from invasive species to the economy, environment, and health and lifestyle of the people.

The protocols establish best management practices to mitigate and prevent the spread of invasive species to be followed by all Department of the Interior employees, contractors, concessioners and others present or performing physical work on Hawai'i Island. These protocols are to be followed and implemented whenever feasible. The protocols also include recommendations for keeping field staff safe from certain invasive species present on Hawai'i Island. The protocols were developed based on existing guidance provided by the National Park Service, the U.S. Fish and Wildlife Service, the U.S. Geological Survey, the State of Hawaii, and the Department of the Interior's Office of Native Hawaiian Relations.

If you have any questions, please contact Mr. Kaiini Kaloi with the Department of the Interior's Office of Native Hawaiian Relations by email at kaiini_kaloi@ios.doi.gov or by phone at 202-

208-7462; or Mr. John Nelson with the Department of the Interior's Office of Environmental Policy and Compliance by email at john_nelson@ios.doi.gov or by phone at 202-208-6304.

Attachment

cc: Federal Emergency Management Agency, Region IX
State of Hawaii

**OFFICE of ENVIRONMENTAL POLICY and COMPLIANCE
OFFICE of NATIVE HAWAIIAN RELATIONS**

Environmental Compliance Memorandum

Biosecurity Protocols for Hawai'i Island

The following biosecurity protocol (based on National Park Service, State of Hawai'i, U.S. Fish and Wildlife Service, U.S. Geological Survey, and the DOI Office of Native Hawaiian Relations guidance) are to be followed when required by statute, or deemed appropriate, and operating on Hawai'i Island. The protocol was created to prevent the introduction of invasive species including frogs, ants, weeds, and fungi into local natural areas (e.g., Hawai'i Volcanoes National Park, Hakalau Forest National Wildlife Refuge, State of Hawaii "Natural Areas") and areas with native habitat (habitat that is primarily composed of native vegetation) on Hawai'i Island, to other islands in the Hawaiian archipelago, or to the U.S. mainland. The local land manager(s) who have jurisdiction over the subject land will make the final determination as to whether the subject land meets the definition of a natural area or native habitat.

1. All work vehicles, machinery, and equipment are to be cleaned, inspected by its user, and found free of mud, dirt, debris and organisms prior to entry into the natural areas or native habitat.

a. Vehicles, machinery, and equipment must be thoroughly pressure washed in a designated cleaning area (designated by the responsible land manager) and visibly free of mud, dirt, plant debris, insects, frogs (including frog eggs) and other vertebrate species such as rats, mice and non-vegetative debris. A hot water wash is preferred. Areas of particular concern include bumpers, grills, hood compartments, areas under the battery, wheel wells, undercarriage, cabs, and truck beds (truck beds with accumulated material (intentionally placed or fallen from trees) are prime sites for accidental transport of invasive species).

b. The interior and exterior of vehicles, machinery, and equipment must be free of rubbish and food. The interiors of vehicles and the cabs of machinery must be vacuumed clean. Floor mats shall be sanitized with a solution of >70% isopropyl alcohol or a freshly mixed 10% bleach solution.

c. Any machinery, vehicles, equipment, or other supplies found to be infested with ants (or other invasive species) must not enter natural areas or native habitat. Treatment is the responsibility of the equipment or vehicle owner and operator.

2. Little Fire Ants – All work vehicles, machinery, and equipment are to be inspected for invasive ants prior to entering the natural areas or native habitat.

a. A visual inspection for little fire ants is to be conducted prior to entry into natural areas or native habitat.

b. Hygiene is paramount but even the cleanest vehicle may transport little fire ant. Place MaxForce Complete Brand Granular Insect Bait (1.0% Hydramethylnon; <http://littlefireants.com/Maxforce%20Complete.pdf>) into refillable tamper resistant bait stations. An example of a commercially available refillable tamper resistant bait station is the [Ant Café Pro \(https://www.antcafe.com/\)](https://www.antcafe.com/). Place a bait station (or stations) in vehicle. Note larger vehicles, such as trucks, may require multiple stations. Monitor bait stations frequently (every week at a minimum) and replace bait as needed. If the station does not have a sticker to identify the contents, apply a sticker listing contents of the station.

c. Any machinery, vehicles, equipment, or other supplies found to be infested with ants (or other invasive species) must not enter natural areas or native habitat until it is sanitized and re-tested following a resting period of at least 24 hours. Infested vehicles must be sanitized following recommendations by the Hawaii Ant Lab (<http://www.littlefireants.com/>) or other ant control expert and in accordance with all State and Federal laws. Treatment is the responsibility of the equipment or vehicle owner and operator.

d. Gravel, building materials, or other equipment such as portable buildings are to be baited using MaxForce Complete Brand Granular Insect Bait (1.0% Hydramethylnon; <http://littlefireants.com/Maxforce%20Complete.pdf>) or AmdroPro (0.73% Hydramethylnon; <http://littlefireants.com/Amdro%20Pro.pdf>) following label guidance.

e. Storage areas that hold field tools, especially tents, tarps, and clothing are to be baited using MaxForce Complete Brand Granular Insect Bait (1.0% Hydramethylnon; <http://littlefireants.com/Maxforce%20Complete.pdf>) or AmdroPro (0.73% Hydramethylnon; <http://littlefireants.com/Amdro%20Pro.pdf>) following label guidance.

Note: The authors' use of trade names is for descriptive purposes only and does not imply endorsement by the US Government. All pesticides must be applied in accordance with State and Federal laws.

3. Base yards and staging areas inside and outside natural areas and native habitat must be kept free of invasive species.

a. Base yards and staging areas are to be inspected at least weekly for invasive species and any invasive found is to be removed immediately. The local land manager(s) will determine what species are to be targeted in these inspections and removal procedures (please refer to contacts listed at the end of the document for current disposal/removal recommendations). The local land manager will also ensure regulatory compliance with all activities. Land managers are to pay particular attention to where vehicles are parked overnight, keeping areas within 10-meters of vehicles free of debris. Parking on pavement and not under trees, while not always practical, is best.

b. Project vehicles or equipment stored outside of a base yard or staging area, such as a private residence, are to be kept in a pest free area as defined by the onsite land or project manager.

4. All cutting tools used in natural areas and native habitat must be sanitized to prevent the spread of the Rapid 'Ōhi'a Death (ROD) fungus.

- a. Avoid wounding 'ōhi'a trees and roots with mowers, chainsaws, weed eaters, and other tools. Cut only the minimum number of trees and branches as approved for the project.
- b. All cutting tools, including machetes, chainsaws, and loppers must be sanitized to remove visible dirt and other contaminants prior to entry into natural areas or areas with native habitat, and when moving to a new project area within the native habitat area. Tools may be sanitized using a solution of >70% isopropyl alcohol or a freshly mixed 10% bleach solution. One minute after sanitizing, you may apply an oil based lubricant to chainsaw chains or other metallic parts to prevent corrosion.
- c. Only dedicated tools and chainsaws are to be used to sample known or suspected ROD infected trees.
- d. Vehicles, machinery, and equipment must be cleaned as described in (1) above.

5. Imported 'ōhi'a firewood, logs, and 'ōhi'a parts:

- a. 'Ōhi'a firewood, logs, and parts are not to be transported. For State guidance see: www.hdoa.hawaii.gov.

6. For individuals working in the field on Hawai'i Island:

- a. **Before going into the field**, visually inspect and clean your clothes, boots, pack, radio harness, tools, and other personal gear and equipment, for seeds, soil, plant parts, insects, and other debris. A small brush is handy for cleaning boots, equipment and gear. Soles of shoes are to be sanitized using a solution of >70% isopropyl alcohol or a freshly mixed 10% bleach solution.
- b. **Immediately before leaving the field**, visually inspect and clean your clothes, boots, pack, radio harness, tools, and other personal gear and equipment, for seeds, soil, plant parts, insects, and other debris. Soles of shoes are to be sanitized using a solution of >70% isopropyl alcohol or a freshly mixed 10% bleach solution.
- c. **Little fire ants nest in trees.** If you are under a tree and that tree is bumped or somehow stressed, the threat response of the ants is to fall from the leaves and sting the person under the tree. If you are subject to an ant attack, do not panic. The ants are extremely small, but their stings are painful, so make sure you remove all ants from your body and clothing. The stings cause inch long welts that are itchy and painful, and can last for weeks. Treat stings as you would other insect stings. In some persons, stings can produce life threatening reactions. Stocking antihistamine in the first aid kit is a reasonable precaution.
- d. **Rat Lungworm disease** is caused by a parasite that can infect humans who consume raw or undercooked infected snails or slugs or consume raw produce that contains a small infected snail

or slug. Infection is rare but can be serious. Symptoms can include severe headache, neck stiffness, low grade fever, nausea, and vomiting anywhere from 1-6 weeks after exposure. The disease is not spread person to person. Anyone who handles snails or slugs is to wear gloves and/or wash hands. Eating unwashed produce is discouraged.

For current disposal/removal recommendations please contact the following:

1. Little Fire Ants – <http://www.littlefireants.com/>
2. Rapid ‘ōhi‘a Death - <https://cms.ctahr.hawaii.edu/rod/>
3. Coqui - <http://www.biisc.org/>
4. All taxa - <http://www.biisc.org/>