KEKAHA HAWAIIAN HOMESTEAD ASSOCIATION

A not-for-profit 501(c)3 corporation formed under laws of the State of Hawai'i
PO Box 1292 Kekaha, HI 96752 www.KekahaHomelands.org (808) 639-0752

Suzanne Case, Chair
David Smith, Administrator (Responsible Official)
Department of Land and Natural Resources (DLNR)
Division of Forestry and Wildlife (DoFAW)
1151 Punchbowl Street
Honolulu, HI 96813

April 3, 2017

Re: Lehua Island Rodenticide Project:
Draft Environmental Assessment (Publication Date: March 8, 2017) (DEA)

Dear Chair Case and Mr. Smith,

Kekaha Hawaiian Homestead Association, a Hawaii not-for-profit organization (KHHA), addresses the needs and concerns of native Hawaiian beneficiaries in west Kaua'i and Ni'ihau, including many that are active fishermen and/or engage in the cultural practices of limu, ama crab, wana and opihi gathering.

As described in the DEA's item 5 (p. 14) fundamental eradication principles require that the proposed eradication be acceptable to stakeholders and local communities.

Our Ni'ihauan community bears the greatest and most direct impact of the intended activities described in the DLNR/DoFAW-proposed rodenticide-based eradication project on Lehua. As you know, Ni'ihau lies approximately ¾ mile from Lehua and shares common aspects in its water ecosystems. Because our Ni'ihauan members (and/or their extended ohana) reside on a privately-owned island where raising challenging questions may result in personal repercussions, we have made efforts to understand and discuss their concerns about the Lehua project. Their feedback is included in our review comments below.

KHHA Review of the DEA. After reviewing the DEA, KHHA is not convinced that an adequate, fact-based premise specific to Lehua has been established to justify the risks and unforeseen consequences of a Lehua-wide helicopter broadcast of rodenticide that may impact our ecosystems and communities. Nor are we convinced that a Finding of No Significant Impact is appropriate at this time. Instead we encourage a next phase of in-depth baseline research and further investigation that could lead to a conclusion that a poison drop is absolutely warranted.

We note, for example, that the current 2017 DEA relies heavily on Lehua species inventories conducted 12 to 15 years ago (see Wood and Vanderwerf reports, 2004 and 2007, describing Lehua inventories conducted from 2002 to 2005). Additionally, the DEA contains no specific counts or current estimates, seasonal or otherwise, of the rat population on Lehua.

While the DEA contains many general statements on the use of rat eradication in the name of island conservation, there is very little Lehua-specific data that explains 1. why this eradication project is relevant at all at this time, 2. whether a self-balancing coexistence is possible so that

poison application is avoidable, or 3. that any particular bird species on Lehua are presently threatened specifically and primarily by rat predation on Lehua. The DEA, for example, contains only one reference to rat egg destruction specifically on Lehua. That reference listed a total of four rat-predated eggs from nearly 300 nests of three selected bird species over a three-month observation period.

It is not clear then why DLNR and DoFAW have prioritized this eradication project, especially given the limited availability of research on Lehua-specific ecosystem effects and the high risk health status of the Ni'ihauan community generally.

Other areas of insufficient data include current counts of coral species, ama crab, opihi, wana and limu, risk analysis study citations and specific rodenticide application areas and rates.

As Lehua island is a Hawaii State Wildlife Sanctuary the law requires that "disturbance of flora and fauna shall be avoided as much as possible" and makes no distinction with regard to species. HAR 13-126-9(b)(2). DLNR and DoFAW are therefore urged to first consider native Hawaiian-based and community-led solutions and participation in solving conservation problems before resorting to using toxic substances in Lehua's ecosystems. Principles of integrated pest management (IPM) also dictate that systems-oriented, site-specific research on environmental factors first be conducted, and that pesticides be used only after monitoring indicates that they are clearly needed. Many of the statements included in the current DEA do not meet this threshold of proof.

We request that DLNR and DoFAW conduct and include the results of formal research studies specific to Lehua on the following issues. The Final EA should not be issued, a FONSI should not be determined, and the proposed activities should not proceed until DLNR/DoFAW generates the following data and provides it to the public:

1) **Baseline numbers for the rat population on Lehua**, seasonal if relevant, confirmed through independently commissioned research. Scientists and the public need access to actual numbers based on documented, site-specific counting protocols before they can provide meaningful input on this rodenticide-based eradication project. Anecdotal statements on the benefits of rat eradication generally are insufficient.

2) **Scientifically-derived correlation between rat predation and declining bird populations on Lehua, and/or experiment-based confirmation that specific bird species survival is currently threatened primarily by the rats (vs. other possible causes) on Lehua.** A clear reason for the helicopter rodenticide drop must be scientifically established (in order to rule out using less drastic, perhaps more labor-intensive and gradual rat control methods to address the problem on Lehua). Please state in the DEA that IPM methods encourage avoiding the use of chemical pesticides if research can show that rat and bird species are able to live in self-correcting balance within Lehua's ecosystem with less toxic approaches. Initial groundwork cited in the current DEA (such as placing decoy eggs, records of bird carcasses observed over a decade ago, etc.) is insufficient to establish the premise for the proposed island-wide rodenticide drop.

3) **Updated, scientifically reported numbers and specific species lists for Lehua**, seasonal if relevant. The premise of the project cannot rely so heavily on species inventories conducted 12 to 15 years ago. Scientifically-conducted counts of bird species are important, especially since the eradication project is being proposed to protect them. What species and how many birds will be protected? Updated

information, for example, on the Newells' Shearwaters activity and numbers on Lehua, a key protected species, should be included.

4) **Food chain issues must be studied and described more in-depth in the DEA,** especially as the aerial drop of rodenticide will occur in shoreline areas previously excluded in the 2009 rodenticide drop. We suggest a particular focus on rodenticide uptake and persistence in ama crab, opihi, wana and limu, and the possible effects on humans ingesting them, especially if they are in specific high health risk categories. Specific research results on toxin persistence in fish tissues, ama crab and limu should be included in the DEA. Statements generalizing possible toxicity or harmlessness to humans, ama crab, opihi, wana and limu are insufficient.

5) **It is scientifically established that the rodenticide brodifacoum is very lethal to marine life.** As acknowledged in the DEA, a helicopter drop, no matter how much precaution is taken, will result in toxins in the waters and likelihood of collateral kill. Please state this more prominently in the DEA, with research and past project citations. Please also include the scientific method and data backup used by DLNR/DoFAW to estimate the deaths of non-target species described in the DEA. Please also include DoFAW's estimated collateral deaths of pu'eo, fish, crab and other marine life kills, and possible "worst case" damage to limu and coral. Please include the maximum total volume of intended rodenticide use, not only active ingredient and not only a kg per hectare and lb. per acre statement.

6) **Please include a synopsis of any research on the effects of helicopter disturbance on nesting birds.** Are there reported instances of "flushing" of nesting chicks and mothers from helicopter presence? If so, what are DoFAW's projected estimates of aborted nests, abandoned fledglings and fledgling mortality of specific bird populations?

7) **The DEA should include supporting research that enables DLNR/DoFAW to "rule out" a conclusion that the 2009 rodenticide drop on Lehua may have had some indirect involvement in the triggerfish and whale deaths (ie, research on immunosuppressive or autoimmune effects of brodifacoum and diphacinol, and their combined sequential use, on marine life).** In other words, the DEA should expressly deny, citing any prior research, that the 2009 rodenticide drop had any relationship, even if indirect, to the triggerfish and whales deaths. In the DEA, please cite how long after their discovery the triggerfish and whale specimens were tested in 2009; describe the tests performed, with process details; and include the chain of custody documents and related notes.

We hope that these comments assist DLNR and DoFAW with the regulatory processes related to the EA's proposed activities.

Mahalo,

/s/

Harold Vidinha
President
Kekaha Hawaiian Homestead Association

Cc: Office of Hawaiian Affairs (OHA)