Executive Summary

The Maui Invasive Species Committee ("MISC") is a project of the University of Hawai'i-Pacific Cooperative Studies Unit ("UH-PCSU") that works to prevent, control or eliminate threatening invasive plant and animal species in Maui County.

MISC received four grants from the County of Maui ("the County") Office of Economic Development ("OED") for environmental protection ("Environmental Protection Grants") and coqui frog eradication ("Coqui Grants") during fiscal years ("FY") 2017 and 2018.

Purpose	Environmental Protection		Coqui Frog Eradication	
Grant Number	G4505	G4632	G4504	G4594
Period	1/7/17 - 3/31/18	12/1/17 - 3/31/19	1/1/17 - 1/31/18	12/1/17 - 3/31/19
Amount	\$895,000	\$895,000	\$300,000	\$750,000

Our audit examined the use, management and expenditure of public funds relating to environmental protection and coqui frog eradication efforts conducted by MISC. The audit sought to evaluate whether the number of coqui frog colonies have increased, decreased or remained the same; whether MISC has fulfilled the scope of each grant and expended funds appropriately; and the manpower, staffing and utilization of MISC, including actual hours of field work.

Our audit found:

1. MISC has eradicated 19 coqui frog colonies but the Māliko Gulch infestation area remains a challenging area to control. Of the 10 remaining active populations, Haʻikū and Māliko Gulch are the most heavily infested, with coqui frogs continuing to spread to new locations in Haʻikū. MISC currently estimates that coqui infest approximately 1,184 acres in and around Māliko Gulch. Communicating the results of its coqui control efforts has not been a simple task for MISC, both in its regular reporting to OED as well as during this audit. The frog's size, vocal habits, dangerous or inaccessible habitats, and other environmental conditions make counting coqui frogs an inherently difficult task with limitations on precision. MISC's current estimates of the number of coqui frogs are based on manual counting of coqui frog vocalizations, which primarily occur at night. MISC has attempted to report on its efforts in various ways, including the total number of colonies, number of colonies eradicated, acres infested and the number of frogs present before and after treatment. However, the results reported by MISC do not clearly communicate the overall magnitude of the coqui frog problem in the County, which leads to our second finding.

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- 2. The performance measures of the Coqui Grants do not allow for an assessment of whether MISC is succeeding or failing in containing or eradicating coqui frogs in Maui County. Despite quarterly and annual reports provided by MISC to the OED describing its efforts, the fact that the County felt an audit was necessary to determine whether coqui frog colonies have increased, decreased or remained the same highlights an inherent flaw in this reporting process. MISC is not required to provide actual or estimated figures of coqui frogs, colonies or infested acres in its reports to OED. Rather, the Coqui Grants' performance measures are: 1) number of acres treated; 2) number of staff hours focused on the Māliko Gulch project; and 3) gallons of citric acid applied. As a result, OED receives raw data that is not easily translated into measurable results. MISC's reporting of hundreds of acres sprayed, thousands of field work hours and the application of hundreds of thousands of gallons of citric acid may sound substantial. However, without any context or goals to measure these figures against, it is difficult to determine the ultimate meaning or impact of MISC's efforts.
- 3. Finally, performance measures established by OED for MISC need to consider that as an agency subject to State leave policies, MISC may use a significant portion of the grant funds to pay for leave time. During calendar year 2018, MISC personnel spent approximately 47,360 hours (72.5% of total hours) on programmatic activities such as field work, data collection and outreach and education. Approximately 5,200 hours (8%) of personnel hours was spent on administrative operational support functions, and 12,767 hours (19.5%) was spent on leave, which includes vacation, sick, holiday and administrative leave. We did not analyze the leave taken by all employees and are not concluding on the appropriateness of such leave. However, the County should be aware that the number of field work hours available under the grants may be limited by the amount of leave afforded to MISC personnel as Research Corporation of the University of Hawai'i ("RCUH") employees. The County should be mindful, however, that using a governmental entity such as MISC for these efforts likely also leverages certain efficiencies, resources and connections with other government and research entities that a third-party private or not-for-profit organization may not have. OED and MISC should consider the number of programmatic hours available when setting performance measures for the grants. OED should understand what is possible to accomplish within available programmatic hours so that it sets manageable expectations for the County's invasive species eradication efforts.

Invasive species and coqui frog proliferation remain serious threats to the environment of Maui County. With over 47,000 hours of programmatic hours spent in 2018, there is little doubt that MISC's efforts have had some impact on containing and eradicating such species. However, communicating exactly *how much* impact MISC's efforts have had remains a challenge for MISC and the County. We recommend that MISC and OED work together to identify performance measures that provide the County with sufficient, consistent information that clearly demonstrates the magnitude and impact of MISC's efforts.