

## 1. RESTORATION SUMMARY

### Restoration Status Update (Period Covered September 2020 to March 2021)

The Capitol Improvement Project (CIP) II has put in 97% of its planned 21,000 plants in the project site in Kamōhio Watershed and coastal sand dunes in Honokanai‘a. Ten volunteer groups assisted with the native plantings as well as invasive alien control of ironwoods near LZ-1 and weed management around the rain catchment. In Base Camp, volunteer groups assisted with clearing vegetation around the fuel farm and removing clutter around the generator shed. Additionally, several storage rooms in the Range Operations Center (ROC) were cleaned and organized.



Ditch planting in Kamōhio



Ka Ipu Kukui volunteers collecting pili grass seeds

New seedlings germinated from seeds from one of the Kanaloa plant's cuttings at Ho'olawa Farms. The Kanaloa Management Plan was also updated.



*Kanaloa kahoolawensis* seedlings

KIRC staff in conjunction with Island Conservation held a virtual project steering committee meeting with various organizations in December 2020 to discuss a faunal restoration project for Kaho‘olawe. Outcomes will include a feasibility and budget report.

In February 2021, the six 10m x10m fire plots in Kealialalo, the Cistern area and Kealaikahiki were re-observed. Initially set up and observed in April 2020 for plant cover and native seed regeneration, none of the native plant seeds a‘ali‘i (*Dodonaea viscosa*), naio (*Myoporum sandwicense*) and ma‘o (*Gossypium tomentosum*) manually distributed (in April 2020) germinated in the plots. Some native plants did appear naturally including ‘uhaloa (*Waltheria indica*), ‘ilima (*Sida fallax*), and kuahulu/kua hulu/koali or hairy Merremia (*Merremia aegypta*), an indigenous vine. There was a significant increase in cover of fire adapted Buffel grass (*Cenchrus ciliaris*) and Mission grass (*Pennisetum polystachion*) over the 10 month period. An example of one of the fire plots in the Kealialalo wetland showing the dominant non-native Buffel grass and Mission grass is presented below.



Kealialalo Wetland April 2020



Kealialalo Wetland February 2021

Also, in February 2021, ma‘o (*G. tomentosum*) plots in the Kealaikahiki area were re-surveyed one year after the fire from the initial surveys conducted in May 2020. One year after the fire, 56% of the ma‘o plants scorched had new growth and with seedlings observed under 8.6% of the dead plants (N=70).



Hawaiian Cotton (ma‘o) post fire regeneration at Kaukaikapapa coastal wetland

Hawaiian Hoary Bat detectors at Kaukaukapapa and Luamakika were deployed using solar arrays and rechargeable batteries. Tabulated data show bats were most active in the fall with October having the peak of detections with most detections after 10 PM.

Water catchment gutters were cleaned out after the February 2021 rains.



Water catchment maintenance

In March 2021 a leak was discovered in one of the rain catchment tanks 1/3 of the way up which reduces holding capacity for irrigation water. After heavy rains in February and March, storm water damage was assessed on the K-1 road. The section from the K2 junction to LZ1 was washed out in various places and major road work needs to be scheduled and completed for vehicle safety.

The 4x4 road to the wiliwili grove at Kaukamoku Gulch was cleared, flagged and GPS'd. This will allow easier access to gather seed in the future.

The North American Wetlands Conservation Act (NAWCA) grant was accepted and will occur in the Keanakeiki and Kealialalo wetland areas. The State of Hawai'i Department of Health, Clean Water Branch 14 month grant for the Hakioawa Operations and Maintenance Plan has been awarded. The Notice to Proceed was dated March 29, 2021 and it will end May 28, 2022.