



United States Department of Agriculture

JOINT CHIEFS' LANDSCAPE RESTORATION PARTNERSHIP

Ko'olau Forest Protection



Ko'olau Mountains © Bryan Mass

The majestic summits of the Ko'olau Mountains were once considered to be wao akua, or the realm of the gods. Located on the island of O'ahu, the Ko'olau Mountains cover 110,000 acres and span the entire length of the island from roughly north to south. Mist swirls over verdant peaks and a multitude of animals, such as the beloved 'elepaio bird, the Hawaiian hoary bat and endangered tree snails that hide in lush forested valleys. Much of the flora and fauna here are found nowhere else in the world. Beyond beauty and diversity, the Ko'olau range is an invaluable producer of freshwater. With an estimated annual yield of 133 billion gallons of freshwater, the mountains contain some of the most important and productive watershed forests on O'ahu. The focal areas for the Joint Chiefs' project are key contributors to the Pearl Harbor aquifer, where groundwater levels have declined by half since 1910. Having evolved in isolation for millions of years, the native ecosystems and functional watersheds of the Ko'olau are particularly vulnerable to degradation caused by invasive species. Joint Chiefs' funding enabled a suite of strategies to control invasive plants and animals, helping to secure long-term health for this breathtaking landscape, including sustaining drinking water supply, the tourism economy and the cultural heritage of residents.

PROJECT IMPACT

15,000+

INVASIVE SPECIES REMOVED

More than 15,000 invasive strawberry guava trees were removed, improving the health of forest and freshwater systems on O'ahu Mountains.

Total awarded through the Joint Chiefs' from 2015-17: \$766,500

USDA's Forest Service and Natural Resources Conservation Service are working together to improve the health of forests where public forests and grasslands connect to privately owned lands. Through the Joint Chiefs' Landscape Restoration Partnership, the two USDA agencies are restoring landscapes by reducing wildfire threats to communities and landowners, protecting water quality and enhancing wildlife habitat.

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HAWAII

Ko'olau Forest Protection RESULTS



Fencing, USDA Forest Service photo

Protected water quality and wildlife habitat: Invasive feral pigs uproot and eat native plants and spread invasive seeds. The State of Hawai'i matched Joint Chiefs' funding to install 3.7 miles of fencing to keep these destructive animals away from sensitive natural areas. These structures will protect water quality and habitat for years to come.



Improved water quantity: Non-native plants, such as manuka and strawberry guava, were removed from more than 110 acres and land along 46 miles of fence line were treated. These plants do not use or store water as efficiently as native species. Removing them enhances habitat for a multitude of endangered and at-risk species while maintaining forests to better capture and store fresh water.



KO'OLAU FOREST PROTECTION



Crews remove invasive plants; courtesy Ko'olau Mountains Watershed Partnership

Partners Protecting Paradise

The Joint Chiefs' Landscape Restoration Partnership was created to inspire greater collaboration among Federal agencies and local partners to catalyze long-term change. In Hawai'i, this goal was realized through a relationship with the Ko'olau Mountains Watershed Partnership (KMWP). The organization fosters landowner collaboration and perpetuates water resources by protecting and enhancing native ecosystems.

Those are big and lofty goals. But when you meet people like Alison Crowley, it is easy to see how they can be achieved. After working as an environmental educator in Colorado, Alison came to O'ahu in search of a career in conservation. She now serves as the field supervisor with KMWP, leading a crew of local technicians who scaled rough terrain in wind, rain and sunshine, to remove invasive strawberry guava plants on 80 acres—work that was funded by the Joint Chiefs'.

According to Alison, respect for land is deeply rooted in Hawaiian culture. "You don't have to work in conservation to have appreciation for the land and the desire to give back," said Crowley. "If you take care of the land then the land will take care of you. It is an equal exchange."

Working with a diverse and knowledgeable crew through challenging circumstances has been fulfilling for Alison, and the landscape has benefited. "It is beyond rewarding to see the work we do have a positive impact in such a short span. The landscapes on the Hawaiian Islands are ever-changing, sometimes resilient and sometimes highly affected by human impact. We all play a part to help or hinder. I choose to help and give others an opportunity to do so also, said Alison."



Alison Crowley and a colleague © KMWP

Key Partners

Hawai'i Association of Watershed Partnerships
Hawai'i Department of Land and Natural Resources, Division of Forestry and Wildlife
Kamehameha Schools
Ko'olau Mountains Watershed Partnership
'Oahu 'Oahu Ko'olau Inc.
O'ahu Invasive Species Committee
Pacific Cooperative Studies Unit
United States Army
University of Hawai'i at Mānoa