

FOREST STEWARDSHIP PROGRAM

Hui Kū Maoli Ola

Kāne'ohe, Hawai'i



The Hui Kū Maoli Ola Forest Stewardship project is a 30 acre native and indigenous forest restoration project located in Ha'iku Valley in the ahupua'a of He'eia and in the district of Ko'olaupoko, O'ahu. Formed in 1999, Hui Kū Maoli Ola is a native plant nursery that is dedicated to transforming land back to 'āina, perpetuating and preserving Hawai'i's natural history and culture. Before Hui Kū acquired a long term lease of the property from Kamehameha Schools in 2005, the valley was overrun with non-native tree species, disturbed by feral pigs, and was a popular illegal dumping ground. In 2012, Hui Kū enrolled in the Forest Stewardship Program with the goals of removing invasive weeds, replanting with native plants, engaging in watershed protection, improving terrestrial habitats, and connecting with the community to maintain the forest.

Since 2012, Hui Kū has made great strides in restoring the land to a native and indigenous forest. They have removed invasive weeds and replanted nearly two dozen species of native plants. The project provides numerous public benefits, including enhancing forest recreation by developing trails that community members can use to safely explore the natural and cultural resources on the property, and training people in land management skills through a watershed education program that can be used within their own communities.

HAWAII FOREST STEWARDSHIP PROGRAM

The Hawai'i Forest Stewardship Program (FSP) provides technical and financial assistance on a cost-share basis to promote stewardship, enhancement, conservation and restoration of Hawai'i's forests. The FSP focuses on the following: forest products, native ecosystem health and biodiversity, watershed quality, wildlife habitat and recreation.



Hui Kū Maoli Ola Site History



Site History:

Historically, the ahupua'a of He'eia once boasted rich wetlands with some of the most productive land on the island used for kalo (taro) cultivation by the first Polynesian settlers. In the late 1800's and early 1900's, rice, pineapple, and sugarcane cultivation replaced most of the lo'i terraces throughout He'eia. At the same time, native forests were cleared and turned into pasture for cattle, the ramifications of which can still be seen across the ahupua'a today. The land that Hui Kū Maoli Ola stewards includes a portion of He'eia stream, which once fed a reservoir used for the pineapple, sugarcane, and pasture that replaced the indigenous hala (*Pandanus tectorius*) and native 'ōhi'a (*Metrosideros polymorpha*) forests of Ha'iku Valley. Following the end of this agricultural era, the land was reforested with non-native species to reduce erosion, which led to over 80% of Ha'iku Valley being covered in non-native tree species. Once the land was leased by Hui Kū Maoli Ola, they began their mission of restoring the land. They removed over 80 rollout bins worth of trash and tires, exposing forgotten lo'i terraces. They worked closely with the local community to educate and involve them in this mission, changing the

perception of the space from a dumping ground to a community space to be protected. With this support, they began restoring the lo'i terraces to grow kalo and other culturally important food trees and plants. In 2012 Hui Kū enrolled part of the property as a Forest Stewardship project, dedicated to restoring portions of the land to native and indigenous forest.



He'eia stream, which flows through Hui Kū; Restored kalo lo'i adjacent to the forest stewardship project area. Photo credit: Papahāna Kūāʻola Instagram.

Hui Kū Maoli Ola Forest Management



CX210 hydraulic excavator with FECON mulcher.

Clearing and Weed Control:

Prior to the start of the project, up to 98% of the 63 acre property was dominated by non-native species including Java plum (*Syzygium cumini*), rose apple (*Syzygium jambos*), octopus tree (*Schefflera actinophylla*), strawberry guava (*Psidium cattleianum*), various types of ginger, heliconia, and more. Ha'iku Valley receives an average rainfall of 90-130 inches annually and is an ideal environment for rapid weed growth. As such, intensive clearing and weed control was necessary prior to planting for reforestation. A CX210 hydraulic excavator with a FECON mulcher was used to simultaneously clear and chip the site. Chipped material was then composted to kill off diseases and non-native plant seeds before being used as mulch to control weeds and help prevent surface soil runoff. Between mulching and planting, a heavy pond liner was used to smother stubborn weeds. After planting, hand pulling, weed whacking, and herbicides are used to help maintain the site while ground covers become established.

Propagation and Planting:

Hui Kū Maoli Ola doubles as a plant nursery that grows native species from propagules collected from the neighboring valleys and ridges to be planted on site. By incorporating native plants from the region, genetic diversity is enhanced. Seeds from endangered Hawaiian plants are also propagated and outplanted on the project site, providing protected habitat for these species. The project has incorporated nearly two dozen native and indigenous species including 'ōhi'a, koa (*Acacia koa*), 'iliahi (*Santalum freycianum*), loulou (*Pritchardia martii*), alahe'e (*Psychrad odorata*) and hala across the 30 acre project site. Most plants are planted as seedlings grown on site. Additional ground cover will be planted following the establishment of the tree canopy.

Feral Animal Control:

Feral pig, rodent, mongoose, and chicken populations are managed and controlled to mitigate damages to young plants.



Left to Right: Hui Kū Maoli Ola native Hawaiian plant nursery; 'Ōhi'a and Alahe'e planted at Hui Kū; Mature hala ready for out planting.

Hui Kū Maoli Ola Engagement, Lessons Learned



Community work days at Papahana Kuaola engage the community in both management of the native forest and the adjacent kalo lo'i; Alahe'e tree. Photo credit: Papahana Kuaola Instagram.

Education & Community Outreach:

In 2006, the co-founders of Hui Kū Maoli Ola, Matthew Schirman and Richard Barboza, founded the nonprofit organization Papahana Kuaola. This nonprofit connects community to 'āina and perpetuates restoration practices using Hawaiian knowledge and culture, striving to create a sustainable future for the valley. Papahana Kuaola hosts 'āina-based education programs, community events, and service days to share knowledge that can be implemented in other communities working to build a healthy Hawai'i. Located adjacent to Hui Kū Maoli Ola, Papahana Kuaola is a significant community partner and allows for a greater knowledge sharing network throughout the valley.

Lessons Learned

When planning for a stewardship project, always prepare for unforeseen issues. The 10 year time span of a Forest Stewardship project is relatively short, and having strong partners and multiple contingency plans makes a successful project more achievable. Partnering with organizations that share the same mission and goals are critical to a project's success, be it by providing person power, financial support, or administrative assistance. Over the course of a partnership, goals and directions of each organization may change. As such, it is valuable to ensure potential partners have a shared commitment to the project and have a written agreement as to the scope and roles and responsibilities of each organization.

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