



KAHO'OLAWE ISLAND RESERVE FY23 ANNUAL REPORT

July 2022 — June 2023

Kaho'olawe Island Reserve Commission
Kūkulu ke ea a Kanaloa - The life and spirit of Kanaloa



State of Hawai'i



FROM THE DIRECTOR



In order to accomplish the KIRC’s mission: to provide safe and meaningful use of Kaho`olawe and to undertake the restoration of the island and its waters, it is dependent upon the KIRC that a safe and secure infrastructure is provided in order to transport and house our staff and volunteers on Kaho`olawe. Located just 12-miles across the channel from Maui, Kaho`olawe is an isolated and remote island that on one hand has not suffered the overdevelopment seen on the other major islands, but on the other hand lacks much of the basic infrastructure necessary to facilitate the enormous transformative restoration the KIRC is trying to accomplish.

Much of the island’s infrastructure was built during the Navy’s occupation and cleanup of the island. Since the transfer of Base Camp, the KIRC has adapted the existing facilities to accommodate a smaller scale work crew, be more energy efficient and independent, and to create a better sense of place for volunteers and staff.

Over the last year, the KIRC has been limited in the number of volunteers we were able to host due to issues stemming from aging infrastructure. One of the primary sources of potable water is derived from desalinating seawater through reverse-osmosis. Using solar energy from the 100 kW solar array, fresh drinking water is extracted from the ocean, but

that depends on bringing clean seawater to the reverse-osmosis systems located in the Base Camp. A large summer swell came into Honokanai`a Bay and tore the seawater intake line. In conjunction with that issue, our primary ocean vessel, `Ōhua, was also out of commission due to an undeterminable engine/transmission issue. Without our primary dive platform, making repairs to the ocean infrastructure was nearly impossible.

Through our staff’s ingenuity and perseverance, we were able to adapt another dive platform to install a new seawater line and restore potable water production. `Ōhua is still having intermittent engine/transmission issues, but for now the boat has been returned to service and accesses have commenced regular volunteers back to Kaho`olawe to continue the restoration effort. Overcoming the unusual and sometimes very technical problems are common events for KIRC staff and after years of facing these daily challenges, we have one of the most resourceful and innovative crew around.

— Michael K. Naho`opi`i,
KIRC Executive Director



Honokanai`a Beach on the southwestern side of Kaho`olawe



A TRIBUTE TO DR. EMMETT 'AUWAE ALULI

On November 30, 2022, the Kaho`olawe Island Reserve Commission's (KIRC) first chairperson and founding member of the Protect Kaho`olawe `Ohana (PKO), Dr. Emmett `Auwae Aluli passed away.

The KIRC honors the life and legacy of Dr. Noa Emmett `Auwae Aluli. Emmett served as a gentle but great leader with love, humility and kindness for the Aloha `Aina movement and Native Hawaiians.

One of Dr. Aluli's most outstanding achievements, the founding of the Protect Kaho`olawe `Ohana (PKO), marked a historic turning point for Native Hawaiians and Hawai`i Nei and served as a catalyst for a Hawaiian cultural renaissance. Dr. Aluli was one of the celebrated "Kaho`olawe Nine" who staged the first occupation of the island in January 1976. After the tragic disappearance at sea of charismatic PKO leader George Helm and Kimo Mitchell in 1977, Aluli emerged as a leader of the PKO, serving on the congressional Kaho`olawe Island Conveyance Commission (KICC). Through its efforts, the abuse of Kaho`olawe as a military target was halted in 1990 and the island was returned to the people of Hawai`i in May 1994.

Dr. Aluli was instrumental in crafting the state law mandating that the state hold the island in trust for eventual transfer to the sovereign Hawaiian entity.

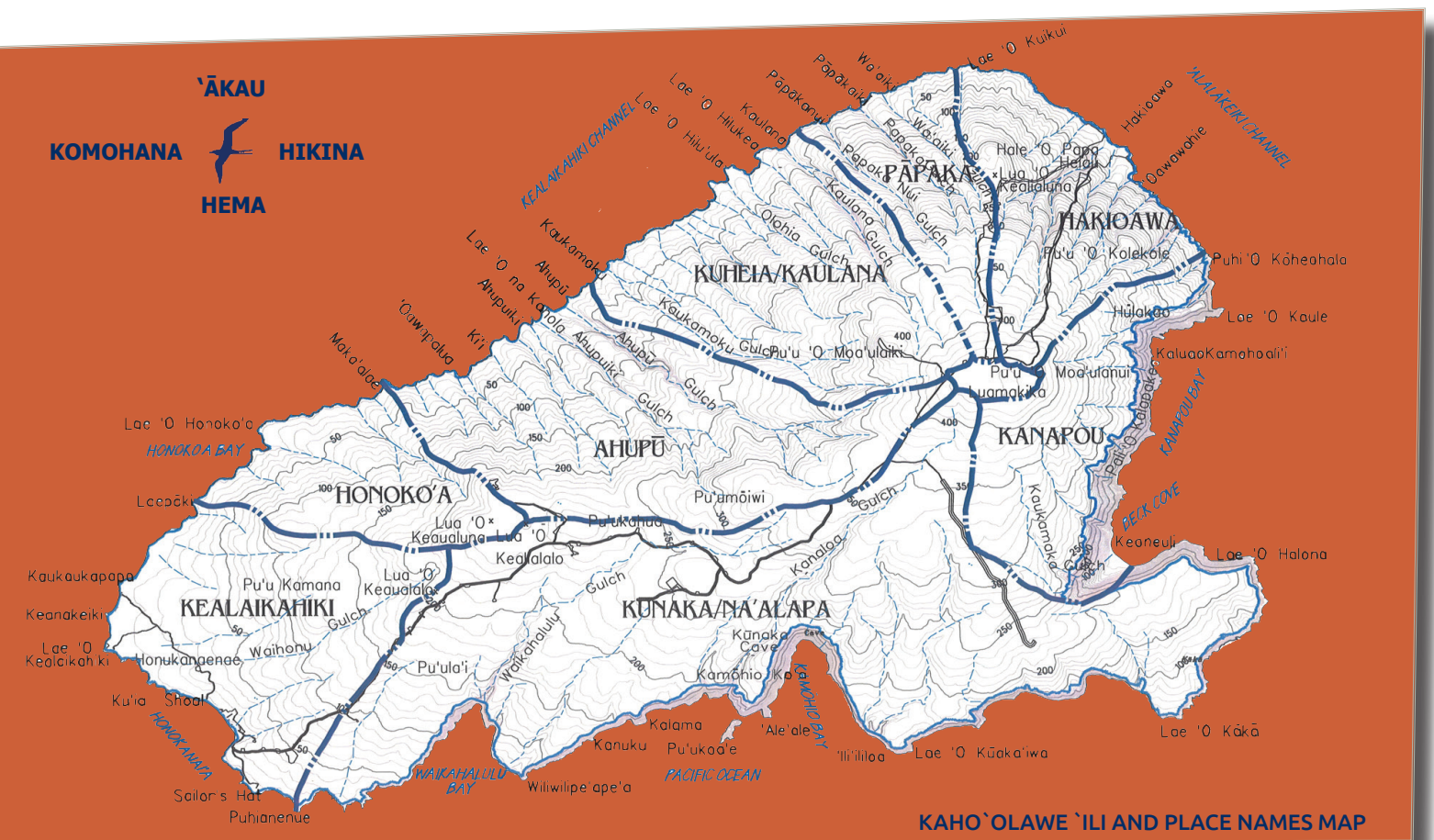
The loss of this beloved physician and iconic leader is felt on Kaho`olawe, throughout the pae `āina and around the world. We will carry on his legacy as we continue to restore and revitalize Kaho`olawe now and for generations to come.



HISTORY

Kaho`olawe is the smallest of the eight main islands in the Hawaiian archipelago. Eleven miles long, seven miles wide and comprised of 28,800 acres, the island is of volcanic origin with the highest elevation at 1,477 feet. Its slopes are fissured with gulches 50 to 200 feet deep and formidable cliffs dominate the east and south coast. After 200 years of uncontrolled grazing by goats, sheep and cattle, and another 50 years of misuse as a live-fire training and bombing range by the U.S. Navy, approximately 30% of the island is barren due to severe erosion and a large proportion of its vegetation is alien invasive species.

A decades-long struggle by the people of Hawai`i, particularly the Protect Kaho`olawe `Ohana (PKO), succeeded in stopping the bombing of Kaho`olawe and helped to spark the rebirth and spread of Native Hawaiian culture and values. A 1993 act of Congress conveyed Kaho`olawe back to the State of Hawai`i, but allowed the Navy to retain control of the island through 2003 while it conducted a 10-year cleanup of unexploded ordnance (UXO). Those efforts resulted in roughly 75% of the island being surface cleared and 10% of that area being subsurface cleared to a depth of four feet (green areas), leaving 25% uncleared (red areas). UXO is still present and continues to pose a threat to the safety of anyone accessing the island or its waters.



A treasured resource for all of Hawai`i's people, Kaho`olawe is of tremendous significance to the Native Hawaiian people. In recognition of the special cultural and historic status of Kaho`olawe, the island and the waters within 2 nautical miles of its shores were designated a Reserve by the State of Hawai`i, to allow for the preservation of traditional Native Hawaiian cultural, spiritual and subsistence purposes, rights and practices. In 1994, the Kaho`olawe Island Reserve Commission (KIRC) was established under the Hawai`i Revised Statutes, Chapter 6K, to manage Kaho`olawe, its surrounding waters, and its resources, in trust for the general public and for a future Native Hawaiian sovereign entity.

The KIRC gives dimension to its purpose with its Vision Statement, which calls not only for the Reserve's environmental restoration, but also for the restoration and growth of Native Hawaiian cultural practices through human access and engagement.



Kūkulu Ke Ea A Kanaloa

The life & spirit of Kanaloa builds and takes form

20

years managing restoration

The MISSION of the KIRC is to uphold the vision of Kaho`olawe by providing safe, meaningful use of the Reserve for traditional and cultural practices of the Native Hawaiian people, and undertaking the restoration of the island and its waters.

15,678

volunteers escorted & trained

497,243

native plants (re) introduced

60

tons of marine debris removed



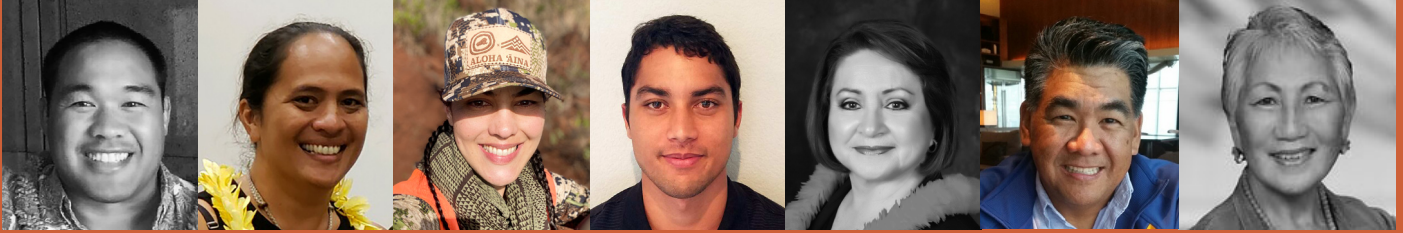
The Vision Statement for Kaho`olawe:

- ▶ *The kīno (physical manifestation) of Kanaloa is restored. Forests and shrublands of native plants and other biota clothe its slopes and valleys. Pristine ocean waters and healthy reef ecosystems are the foundation that supports and surrounds the island.*
- ▶ *Nā po`e o Hawai`i (the people of Hawai`i) care for the land in a manner, which recognizes the island and ocean of Kanaloa as a living spiritual entity. Kanaloa is a pu`uhonua and wahi pana (a place of refuge, a sacred place) where native Hawaiian cultural practices flourish.*
- ▶ *The piko of Kanaloa (the navel, the center) is the crossroads of past and future generations from which the native Hawaiian lifestyle is spread throughout the islands.*

ORGANIZATIONAL STRUCTURE

COMMISSIONERS

appointed by the Governor



Protect Kaho`olawe `Ohana: Josh Ka'akua, Chairperson (*Academic Program Officer, University of Hawai`i*)

Protect Kaho`olawe `Ohana: Miki'ala Pescaia (*Interpretive Park Ranger, Kalaupapa National Historic Park*)

Protect Kaho`olawe `Ohana: Ānela Evans (*`Ike Hawai'i Faculty, Punahou School, Lana`i*)

County of Maui: Saumalu Mata'afa (*Deputy Director, Department of Human Concerns, County of Maui*)

Office of Hawaiian Affairs: Carmen Hulu Lindsey, Vice Chairperson (*Trustee, Office of Hawaiian Affairs*)

Native Hawaiian Organization: Benton Keali'i Pang (*President, O`ahu Council, Association of Hawaiian Civic Clubs*)

Department of Land and Natural Resources: Dawn N.S. Chang (*Chairperson, DLNR*)

EXECUTIVE DIRECTOR

STAFF

Public Information Specialist

Administrative Officer

Maintenance & Vessel Specialist

Natural Resource Specialist V

Ocean Resource Specialist III

GIS / LAN Specialist

Logistics Specialist

Natural Resource Specialist III

Ocean Resource Specialist II

Commission Coordinator

Volunteer Coordinator

Natural Resource Specialist III

Ocean Resource Specialist II

Administrative Specialist III

Kaho`olawe Island Reserve Specialist II

CORE PROGRAM



ADMINISTRATION

Supports all KIRC programs while also managing volunteers, GIS mapping, community outreach, archive and collections, fund development, finance and human resources.



OPERATIONS

Provides transport, maintenance, manpower and overall safety on Maui and within the Reserve.



RESTORATION

Restores native, land-based habitats and watersheds through innovative strategies addressing erosion control, invasive species removal, revegetation and ground water



OCEAN

Manages marine resources within the Reserve, fostering ancestral knowledge while integrating both ancient and modern resource management techniques.



CULTURE

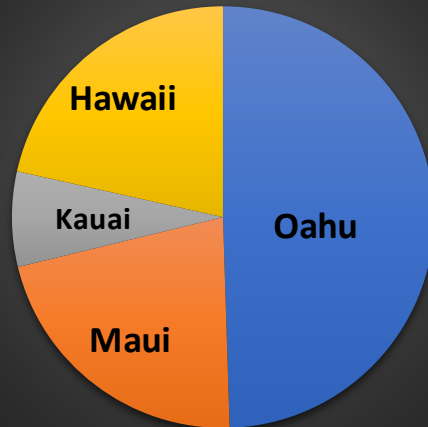
Provides for the care and protection of Kaho`olawe's cultural resources, as well as the expansion of meaningful, cultural use of the island.

VOLUNTEER WORKFORCE

The restoration of Kaho`olawe is a monumental endeavor that far exceeds the available funding and staffing of the KIRC. Realizing the vision for Kaho`olawe (page 4) will require thousands of hands over several generations. The KIRC relies on the efforts of dedicated and motivated community volunteers to maximize current restoration efforts in the Reserve. To date, the KIRC has welcomed, escorted and engaged more than 15,000 volunteers in the revitalization of hundreds of acres of Kaho`olawe's forest, wetlands, watersheds, and reefs, ultimately fulfilling its mission to provide safe and meaningful access to the public.

In FY23, **498** volunteers supported the KIRC in the restoration and revitalization of Kaho`olawe.

Volunteers by Island



Community Volunteer Groups

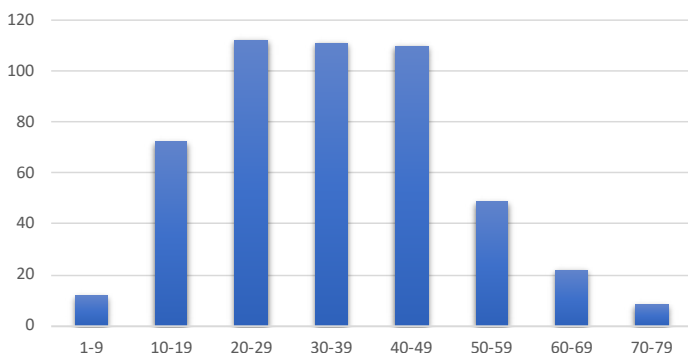
Protect Kaho`olawe `Ohana
 Wehena Makahiki
 Panina Makahiki
 Mo'olono

Ala Loa
 Nalu Studies Program
 Department of Health
 Kanu Wa'a

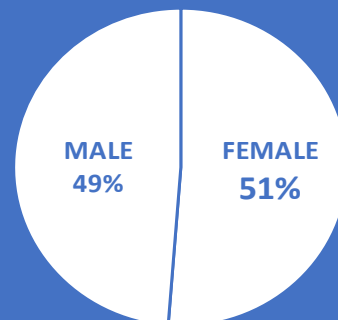
Pacific Whale Foundation
 King Kekaulike Faculty
 Maui Public Art Corps
 Ka Ipu Kukui
 Island Conversation



Volunteer by Age



VOLUNTEER BY GENDER



FINANCIALS

In 1993, the Hawai'i State Legislature allocated 11% of the U.S. Navy's \$400M federal unexploded ordnance clean-up budget to the newly established Kaho'olawe Island Reserve Commission. This one time \$44M allowance became the Kaho'olawe Rehabilitation Trust Fund, earmarked to carry out environmental restoration, archaeological and educational activities on Kaho'olawe while the island is held in trust for a future Native Hawaiian sovereign entity. Rules around federal appropriations required the money be spent and not be used to establish an endowment for the long-term restoration of the island.

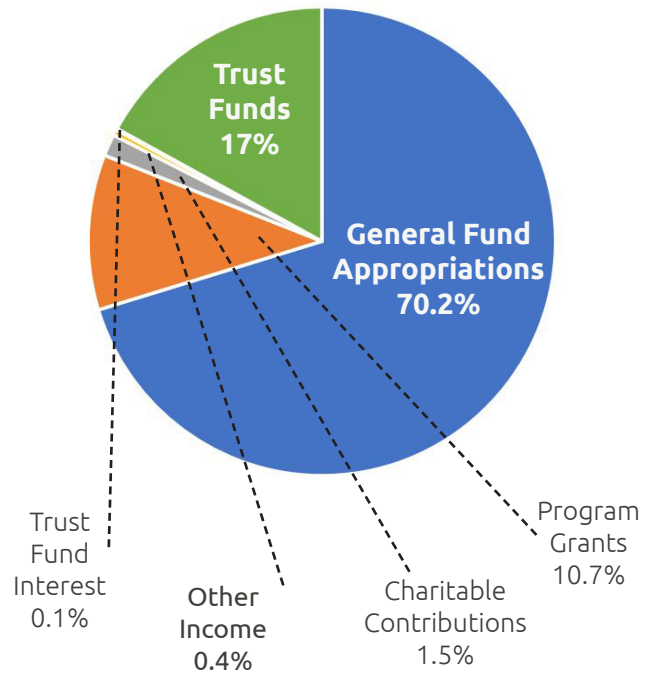
Though the Fund seemed considerable at the time, it was not substantial enough to last in perpetuity. As stated in the Federally-mandated Kaho'olawe Island Conveyance Commission final report to Congress in 1993, "in the short term, federal funds will provide the bulk of the program support for specific soil conservation projects and related activities. In the longer term, however, State revenues will be needed to continue and enhance those activities initiated with federal funds."

With the Trust Fund set to run out in 2015, the KIRC partnered with the Protect Kaho'olawe 'Ohana and the Office of Hawaiian Affairs to publish *I Ola Kanaloa!*, a collaborative strategic plan for the Kaho'olawe Island Reserve through 2026. Along with the refined goals and objectives outlined in *I Ola Kanaloa!*, the KIRC presented a Self-Sufficiency and Sustainability Plan to the Hawai'i State Legislature in 2016 and were allocated emergency funding from the State at a level that would maintain the current programs and operations at a reduced level.

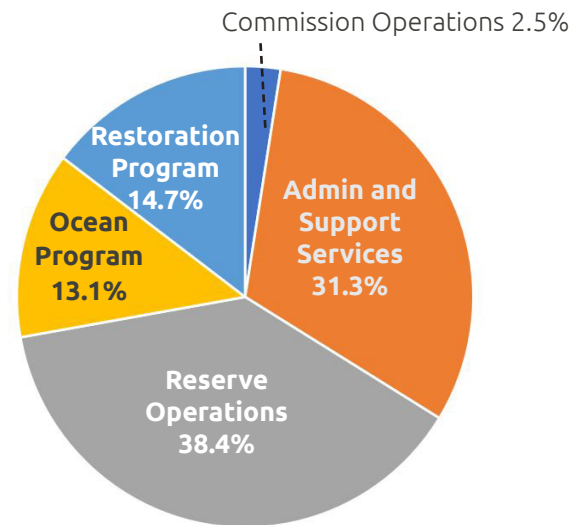
The State authorized permanent funding for the KIRC in 2018 in the form of 16 staff positions and administrative operating costs and temporary CIP funding to maintain basic field operations for ten consecutive days each month. Even with State funding, the KIRC still required support in the form of grants, Aloha Kaho'olawe memberships and public giving to complete projects on island.

The CIP funding was not renewed in 2020 and the COVID pandemic brought cuts to the KIRC's permanent funding, including two full-time positions and \$100,000 in operating funds. The KIRC continues to rely heavily on volunteer manpower, grant funding, in-kind donations and public giving to maintain and expand operations in the Reserve.

SUPPORT & REVENUE



OPERATING EXPENSES



TRUST FUND	FY21	FY22	FY23
Beginning Balance	\$1,512,867	\$1,500,239	\$782,644
Support & Revenue	\$1,829,754	\$1,113,686	\$1,514,505
Operating Expenses	\$1,842,382	\$1,831,280	\$1,590,563
Ending Balance	\$1,500,239	\$782,645	\$706,586

SUPPORT & REVENUE	FY21	FY22	FY23
General Fund Appropriations	\$1,007,882	\$986,673	\$1,280,760
Program Grants	\$18,000	\$78,197	\$195,653
Charitable Contributions	\$13,422	\$29,338	\$28,075
Other Income	\$787,300	\$18,250	\$7,950
Interest on Trust Fund	\$3,150	\$1,178	\$2,067
Total Support & Revenue	\$1,055,354	\$1,113,686	\$1,514,505

OPERATING EXPENSES	FY21	FY22	FY23
Commission	\$47,101	\$72,498	\$39,323
Admin & Support Services	\$459,974	\$540,455	\$498,400
Reserve Operations	\$1,035,832	\$765,935	\$611,142
Ocean Program	\$112,974	\$139,643	\$208,145
Restoration Program	\$186,501	\$312,748	\$233,554
Total Operating Expenses	\$1,842,382	\$1,831,280	\$1,590,563

FY23 GRANT FUNDED PROJECTS

Coastal and Upland Wetland Restoration

(page 15)

Amount: \$100,000

Marine Debris Removal From Kanapou

(page 17)

Amount: \$76,025

Coastal Wetland Enhancement in Honokanai'a

(page 19)

Amount: \$355,531

Providing Community Access to Kaho`olawe through Virtual Resources

(page 21)

Amount: \$98,230

Going Mobile: Enhancing the Technological Infrastructure

(page 23)

Amount: \$99,042

A rain ko'a associated with Kaho`olawe, Ipu a Kane

LEGISLATIVE UPDATE

The KIRC's 2023 Legislative Session featured a new administration in both State leadership, Governor Josh Green, and at the Department of Land and Natural Resources, Chairperson Dawn Chang. With the change in administration, the Kaho`olawe Island Reserve Commission (KIRC) was given the opportunity to create its own program identification code within the State Budget. Since its inception, the KIRC had been fiscally placed with the DLNR Chair's Office and its funding comingled with the DLNR Chair's Office, DLNR Personnel, Fiscal and Communications. With its own program identification code, the KIRC now has its own distinct funding and creates a more identifiable line item within the State Budget.

The KIRC's initial request in the Administration's budget included creation of a new program ID code for the KIRC, continuation of \$400,000 in operating funding previously approved in Act 248 SLH 2022, full-year funding for two new KIRC positions approved the previous year, and an additional three field personnel to help with on-island restoration efforts, boat operations and on-island logistics.

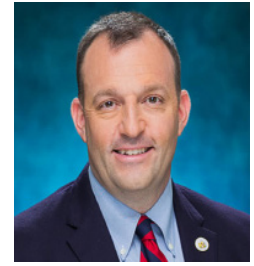
Since the initial Administration's budget submitted to the legislature was prepared by the previous administration, the KIRC was only approved for full-year funding for the two new staff positions approved last year. During the legislative session, Governor Green requested the Administration's budget request be amended through his Governor's Message entitled "A New Beginning, Huluhia." In his message, Governor Green demonstrated that Hawaii is one `ohana – one family- and this is one of our most important values and greatest strengths. He also stated that "It is our kuleana – our responsibility – to take action to improve our quality of life in Hawaii...Together, it is time for us to take bold action." The Governor's Message included the additional \$400,000 annual operating funds for the KIRC as his message states "As caretakers of these islands, we cannot stand by and witness idly the impacts of climate change without doing all in our power to change it."

In addition to the Governor's Message, the KIRC also sought the backing of its legislative supporters to introduce separate legislation seeking the additional operating fund and field personnel for the KIRC. Three bills were introduced requesting additional funding for the KIRC, the first, House Bill 571, introduced by the Native Hawaiian Caucus Legislators was heard by the House Water and Land Committee and supported by its Chair and Vice Chair, Representatives Linda Ichiyama and Mahina Poepoe. A second bill, House Bill 354 was introduced by a cadre of Maui Representatives (Hashimoto, Amato, Cochran, Poepoe). We would like to extend our mahalo to all the House Representatives that supported our bills and especially to Representative Amy Perruso for introducing and supporting our funding request to the Native Hawaiian Caucus. In the other chamber, the KIRC would like to thank Senator Lorraine Inouye for introducing a senate companion bill, Senate Bill 100, that also passed hearings in the Senate Water & Land/Hawaiian Affairs Committee.

As the Administration's Budget (House Bill 300) request moved through its various hearings, the KIRC's additional operating funding request was supported by the Senate Ways and Means (WAM) Committee and was included in the final conference hearing amendment at the end of the legislative session. The KIRC would like to thank the support of Senators Donovan Dela Cruz and Gill Keith-Agaran, Chair and Vice Chair of WAM, for their long time continuing support of Kaho`olawe.

Governor Green initially intended to veto the bill, but eventually only initiated line-item vetoes and signed the rest of the bill, including the KIRC's increase in operating budget (\$400,000 per year) as Act 164 on June 30, 2023.

MAHALO



Gov. Josh Green



Sen. Lorraine Inouye



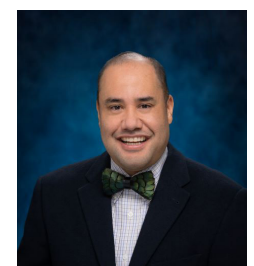
Rep. Amy Perruso







Rep. Kyle Yamashita



Sen. Gil Keith-Agaran



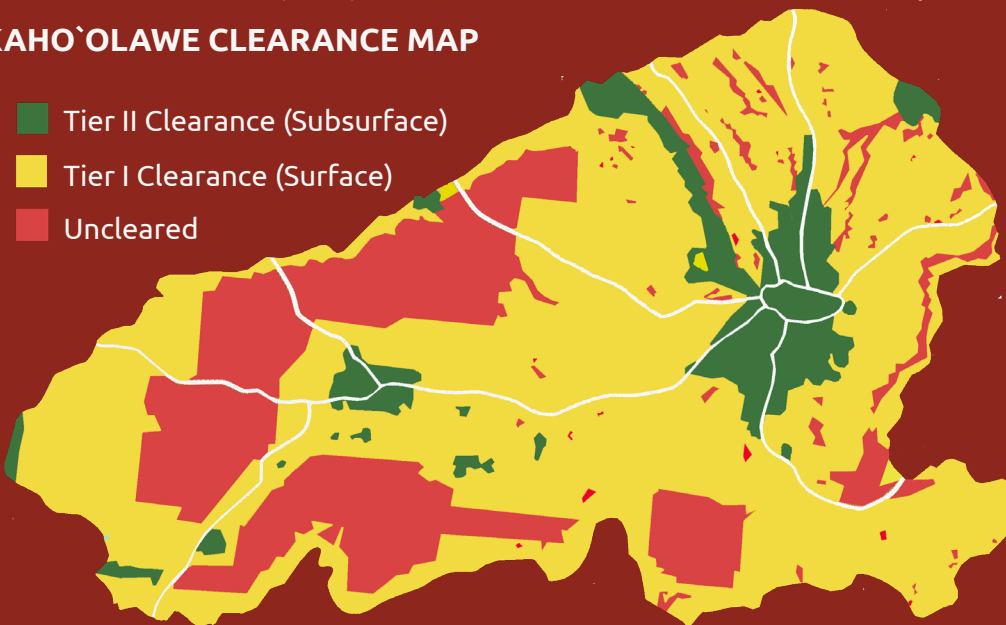
Sen. Donovan Dela Cruz

KIRC INITIATIVE	DETAILS	METHOD	RESULT
 Continuation of Operating Funds established in Act 248, SLH 2022	Act 248 SLH 2022 provided an additional \$400,000 in non-reoccurring operating funds. The KIRC seeks to make this funding permanent and recurring	Governor's Administration Budget HB300, Separate Legislation HB354, HB571 and SB100	Rolled separate legislation into Governor's budget request and approved
 Request additional funds to add three new KIRC positions	Add personnel funds to allow the KIRC to hire three new permanent field positions	Separate legislation HB354, HB571 and SB100	No additional field personnel authorized
 Provide full year funding for new KIRC positions provided in Act 248 SLH	Initial funding for these new positions were for half-year, the KIRC is seeking full time funding.	Included in the Governor's Administrative Budget HB1577, SB3013	Approved Governor's Administrative Budget
 Transfer KIRC personnel and operating funding from DLNR Chairperson's office to new separate program ID	Establishing a separate KIRC program ID within the State Budget will provide KIRC with a baseline financial requirement that is more readily identifiable to the legislature	Included in the Governor's Administrative Budget HB1577, SB3013	Approved in Governor's Administrative Budget

When the U.S. Navy transferred access of Kaho`olawe to the State of Hawai`i in 2004, it had not been entirely cleared of ordnance. At the completion of the Navy's 10-year clean-up project, 66% of the island had been surface cleared (*Tier I*), 10% had been subsurface cleared to a depth of 4-feet (*Tier II*), and 23% was left uncleared, along with 100% of the waters surrounding the island. After nearly two decades of on-going erosion it is not uncommon to find new ordnance in previously cleared areas.

KAHO`OLAWA CLEARANCE MAP

- Tier II Clearance (Subsurface)
- Tier I Clearance (Surface)
- Uncleared



One of the core components of the Operations Program is to provide safety within the Reserve, which includes detecting unexploded ordnance (UXO), providing UXO escorts when required and developing UXO training and orientation guidelines for those entering the Reserve.



OPERATIONS

The KIRC provides all of the facilities, vehicles, equipment, supplies, utilities, services and manpower needed fulfill its mission (page 4) through the Operations Program. Key components of the program include: the KIRC's Kīhei Education and Operations Center; a 39-foot landing craft, `Ōhua; Honokanai`a Base Camp on Kaho`olawe; Unexploded Ordnance and Industrial Safety.



▲ The KIRC's ocean vessel, `Ōhua



100 kilowatt photovoltaic array that generates the camp's electrical power, reducing the KIRC's use of diesel fuel from 800 gallons per month to less than 20.



▲ The KIRC's base camp in Honokanai`a

The KIRC's center of operation is located at Honokanai`a on the southern end of Kaho`olawe. The Honokanai`a base camp (*pictured above*) was built in the mid-1980's by the U.S. Navy to support military live fire weapons training on Kaho`olawe. Later modified to support the unexploded ordnance (UXO) cleanup project, it sustained a workforce of over 400 people and was designed to be resupplied via heavy lift helicopters and large ocean barges. When the KIRC was assigned management of Kaho`olawe, the remnant base provided a suitable site for the KIRC's operational center but proved to be disproportionate to the agency's actual needs. Today, the 22-building camp includes facilities to house and feed volunteer work crews and staff; generate and distribute electrical power; repair equipment and vehicles used to actively manage and restore Kaho`olawe, (including former military trucks, all-terrain vehicles and heavy machinery); store fuel for on-island vehicles and a generator; and maintain a potable water system that uses a reverse osmosis plant to generate fresh water from the ocean.

102
days camp
was open

210
volunteers and staff
supported in camp

2385
manhours maintaining camp
infrastructure and utilities

32,990
gallons of fresh water
made

ʻŌhūa was unavailable for the majority of 2023 due to a mechanical issue. ʻŌhūa is the primary means of transport between Maui and Kahoʻolawe for our staff, Base Camp support, volunteer workforce, materials, supplies, and equipment. Thanks to the generosity of Uncle Johnny Mac (Hualani), Kim Hum of Hawaiian Islands Humpback Whale National Marine Sanctuary (Koholā), and Joe Foster (ʻEhukai), the KIRC conducted successful access trips utilizing their vessels.

100

Alalākeiki Channel crossings

975

crew hours worked

498

passengers safely transported

15,000

lbs payload capacity



▲ The Hualani boat being launched for an access trip to Kaho'olawe



KIRC staff Lopaka White preparing to disembark at Honokanai'a ▲



▲ A packed boat on Hualani ready to disembark



▲ KIRC staff launching the National Marine Sanctuary boat to disembark for a boat run

7,500
gallons of seawater pumped

530
gallons of diesel consumed

2,021
hours of energy produced

2,129
meals prepared



KA PALUPALU O KANALOA

BACKGROUND

Discovered on `Ale`ale, a seastack on Kaho`olawe's southern coast in 1993, the Ka Palupalu o Kanaloa (*Kanaloa kahoolawensis*) is one of the worlds most endangered plants with only two wild plants in existence. Efforts have been underway to recover the species into stable populations. After many failed attempts of propagation of the cultivated plants a breakthrough in 2016 produced two clones through cuttings. From these cuttings numerous seedlings have been produced.

The purpose of this project is to implement a management plan through a working group hui to restore Kanaloa Kahoolawensis into the wild.

▼ *Three Ka Palupalu o Kanaloa plants grown from seedlings at National Tropical Botanical Garden in Maui*



FY23 ACTIVITIES

- ✓ Expanded collection of nurseries from two to four, including Maui Nui Botanical Gardens and National Tropical Botanical Garden
- ✓ Successfully propagated seed of the original wild Kanaloa plant, giving the team two parent plants
- ✓ Held quarterly partnership meetings to discuss current state of the existing collection and future plans for propagation and cultivation
- ✓ Updated the draft Management Plan for review by the Partnership and the Commission

▼ *Kanaloa Kahoolawensis* on `Ale `ale along the southern coast of Kaho`olawe



▼ Wind damage to the Kanaloa hoop house in Olinda Maui on August 8, 2023

WHAT'S NEXT?

The Ka Palupalu o Kanaloa Partnership team will hold quarterly management meetings to maintain an up-to-date account of the status of the existing living *in situ* collection. A protocol will be put in place for pollen collection, use, and storage. The team will distribute plants to multiple locations to eliminate the risk of natural disasters if another storm occurs at one location. The team also hopes to secure the four locations from fire and wind risk dangers, by clearing the forest away from the facility and planting the cleared area with native species.





COASTAL AND UPLAND WETLAND RESTORATION

Funding Source: U.S. Fish and Wildlife Service (USFWS) North American Wetland Conservation Act (NAWCA) U.S. Small Grants

Duration: October 2021 - October 2024

Amount: \$100,000

 Coastal and Upland Wetland Restoration sites

BACKGROUND

Kaho`olawe is home to several seasonal ephemeral wetlands that support a variety of native wetland vegetation and invertebrates, as well as migratory birds. The goal of the Coastal and Upland Wetlands Restoration project, funded by a grant from the USFWS NAWCA U.S. Small Grants program, is to enhance two of Kaho`olawe's seasonal wetlands through the removal of invasive species and the re-introduction of native plants. The first site is a 3.5-acre coastal wetland located at Keanakeiki. The second is a 20-acre upland wetland located at Lua 'O Keāliālalo (see map). Once invasive species removal has begun in both sites, the Restoration staff, with the support of project partners from the Protect Kaho`olawe `Ohana (PKO) and Maui Nui Seabird Recovery Program (MNSRP) and other community volunteers will outplant 2,000 native seedlings at Keanakeiki and 4,000 at Kealialalo.



 KIRC staff cutting down invasive kiawe at the Keanakeiki project site

FY23 ACTIVITIES

- ☑ Invasive species removal conducted in Keanakeiki and Lua 'O Kealiālalo
- ☑ Weed mat cloths were laid down to smother alien grasses
- ☑ Removed invasive bufflegrass, kiawe, koa haole and klu at Keanakeiki
- ☑ Installation of a vegetation plot at Keanakeiki to monitor Cressa growth
- ☑ Applied herbicide to cut stumps of woody alien plants to prevent regrowth
- ☑ Collected ma`o seed from both sites for propagation on Maui
- ☑ Chipped kiawe at Keanakeiki for use as mulch at both sites



RESTORATION

▼ Invasive buffel grass before being covered by weed mat

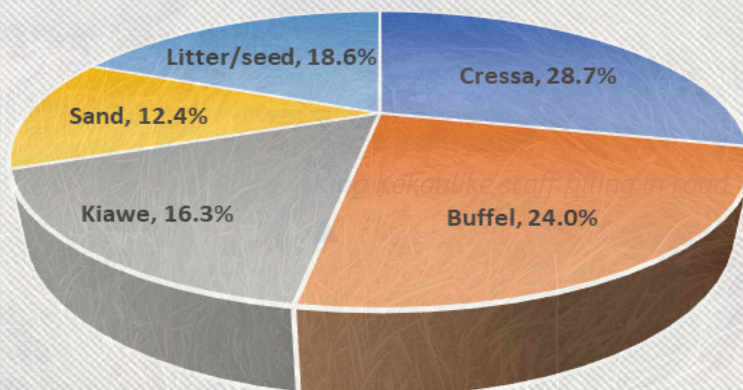


WHAT'S NEXT?

The KIRC Restoration team, with the support of community volunteers, will continue to physically remove invasive species in both sites and apply herbicide to the stumps of woody alien plants to prevent regrowth. They will also begin to prepare the sites for planting, pre-digging holes and adding soil amendments and water to improve survivability. Out plantings of native species will begin in early 2024 during the rainy season. The team has plans to extend invasive species removal and control beyond the actual project boundary after plantings.

Chart results from KIRC staff 10m transect

Cressa Transect Keanakeiki July 2023



By EOY '23, Cressa was at 28.7% cover and is expected to rise once kiawe is removed from the area

▼ Cressa showed in the middle of the 10m transect at the Keanakeiki project site



MARINE DEBRIS REMOVAL FROM KANAPOU

Funding Source: National Fish and Wildlife Foundation (NFWF) Fishing for Energy (FFE) program

Duration: January 2020 - January 2023

Amount: \$76,025

▲ Kanapou Project Site

BACKGROUND

Kanapou Bay, which spans over eight kilometers (five miles), is located on the eastern side of Kaho`olawe. The bay experiences a constant influx of marine debris due to the prevailing wind and ocean currents in that area. Since 2003, this has been the site of KIRC-coordinated large-scale annual cleanups. The sheer expense of these cleanups, due to the relative remoteness of the site and lack of infrastructure in place at Kanapou, has limited the frequency of clean-up efforts and resulted in large concentrations of debris accumulating over time.



The KIRC was awarded a grant for \$76,025 through NFWF's Fishing For Energy program that focused on the removal of derelict fishing gear and other marine debris from Kanapou. Originally projected to end in 2021, the rescheduling of volunteer accesses that were canceled in 2020 due to COVID-19 meant having to postpone the Kanapou clean-up activities to 2021 and 2022. The KIRC was awarded an extension that will allow the grant to continue through the summer of 2023.

FY23 ACTIVITIES

- ☑ Removed a total of approx. 7 tons of marine debris, collected from 2021-2022, via Windward Aviation
- ☑ All 7 tons of marine debris successfully repurposed and diverted from Maui landfill
- ☑ 4 tons of the marine debris was flown mauka side for use in constructing erosion control devices
- ☑ 3 tons of the marine debris was flown to Mālama Maui Nui to be repurposed and recycled into construction material

Marine debris being flown to Maui from Keoneuli Beach in Kanapou on Kaho`olawe



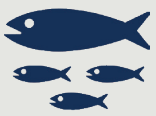
▼ KIRC volunteers packing and prepping super sacks full of marine debris to be picked up by Windward Aviation



WHAT'S NEXT?

In FY24, the KIRC Ocean Program staff will routinely conduct aerial surveys every 2-3 months to monitor the accumulation of marine debris on Keoneuli Beach in Kanapou. Marine debris cleanups are conducted every 5-7 years depending on debris accumulation. In the interim, future planning and financial forecasting will be conducted.

◀ Marine debris being flown up mauka from Keoneuli Beach in Kanapou on Kaho`olawe



COASTAL WETLAND ENHANCEMENT IN HONOKANAI`A

Funding Source: U.S. Fish and Wildlife Service (USFWS) National Coastal Wetlands Conservation Program (CWC)

Duration: January 2022 - August 2024

Amount: \$355,531

BACKGROUND

The Ocean Program was awarded funding from the USFWS National Coastal Wetlands Conservation program to work in and around the 2.69-acre seasonal ephemeral wetland in Honokanai`a. The current project aims to stabilize the natural sand dunes and enhance the seasonal wetlands in Honoakanai`a, making them more attractive to native bird species and mitigating the future effects of climate change. Goals include the physical removal of alien invasive species, reintroduction of 10,000 native drought-tolerant seedlings, and improvement to the road that borders the wetland to reduce sedimentation and increase water flow into the wetland. The award is also providing funding for an Ocean Resource Specialist II (ORS II) for two years.

▲ Honokanai`a Project Site



▼ Dawson Solutions volunteers assist base camp's reverse osmosis intake back up system



▲ KIRC volunteers raking gravel after filling a hole in the road

FY23 ACTIVITIES

- ✓ The KIRC Ocean Program manager hired the new Ocean Resource Specialist (ORSII)
- ✓ Removed invasive bafflegrass and kiawe
- ✓ Planted 20,131 native seedlings in cleared areas
- ✓ Began improving the roadway in the project site
- ✓ Excavation of the silt pond; 3 cubic yards of silt was removed
- ✓ Deployed a long term water quality monitoring device
- ✓ Established a weather station in the project area to monitor rain events and precipitation levels
- ✓ Conducted a wetland pilot study with UH Geography researchers and students

▼ Silt pond excavation in Honokanai`a in July 2023



▼ KIRC volunteer carrying buckets of `aki `aki to plant at Honokanai`a coastline



WHAT'S NEXT?
In FY24, the team will continue efforts to remove invasive species and plant `aki `aki and `ākulikuli plants in the project area, and continue working on improvements to the roadway in the project site to reduce sedimentation and increase water flow into the wetland.



PROVIDING COMMUNITY ACCESS TO KAHO`OLAWE THROUGH VIRTUAL RESOURCES

Funding Source: Institute of Museum and Library Services (IMLS)
Native American/Native Hawaiian Museum Services (NANHMS) Program

Duration: July 2021 - October 2024

Amount: \$98,230

BACKGROUND

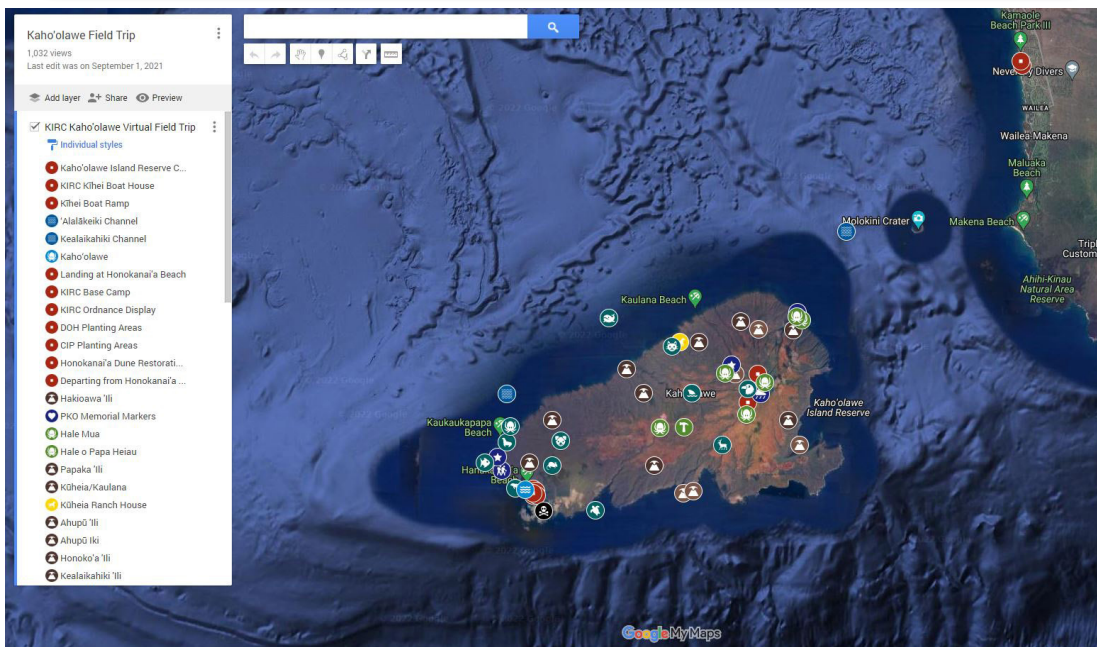
The mission of the KIRC is to provide safe and meaningful access to the Reserve and its resources for the purpose of environmental restoration and the perpetuation of native Hawaiian cultural practices and traditions. Through the “Expanding Public Access to Kaho`olawe through Live-Stream and Virtual Reality” project, the KIRC administrative staff developed and piloted several digital and virtual reality tools that can fulfill this mission from a distance, including continuous live-streaming video from Kaho`olawe, monthly 360 video access updates, and a Kaho`olawe Virtual Reality (VR) Huaka`i. These tools have the potential to serve as models for other natural museum spaces that hope to maintain or expand public access beyond a physical means to individuals both in Hawai`i and around the world.

FY23 ACTIVITIES

- ✓ Captured video footage and 360 images for 50 of the proposed sites on Kaho`olawe
- ✓ Processed more than 5,000 pieces of digital media
- ✓ Used a combination of new content and previously collected media to develop a pilot digital KIRC huaka`i on Google Maps
- ✓ Shared the pilot map-based huaka`i with local teacher contacts and the Maui Huliau Foundation for use as a virtual learning experience for students on Maui and other islands

WHAT’S NEXT?

The project team will document the remaining twenty sites on Kaho`olawe using 360-degree photographs and capture audio recordings of oral histories and other mo`olelo related to the documented sites for inclusion in the Virtual Huaka`i on Google Maps. The map has been posted on the KIRC website.



← *Landing page for KIRC Virtual Huaka`i on Google Maps*



Scan this QR code to access the KIRC’s Virtual Huaka`i on Google Maps

ADMINISTRATION

Flattened 360-degree image of the view below Moa`Ula Iki



Flattened 360-degree image of the beach in Honokanai`a, Kaho`olawe.



Flattened 360-degree image of the mauka CIP planting area





GOING MOBILE: ENHANCING THE TECHNOLOGICAL INFRASTRUCTURE

Funding Source: Institute of Museum and Library Services (IMLS)
Native American/Native Hawaiian Museum

Duration: July 2022 - June 2024

Amount: \$99,042



BACKGROUND

The proposed project will increase the organizational capacity of the KIRC through technological enhancement of the Kaho`olawe Island Reserve Commission's (KIRC) current hardlined servers and technical hardware to a cloud-based system that will allow staff to have both in-office and remote access. This project, which is in direct alignment with the State of Hawaii's overall technology goals, will advance the stewardship of and access to the Kaho`olawe Island Reserve's collection of natural, environmental, cultural, historical and archaeological resources by building the organizational capacity of the Kaho`olawe Island Reserve Commission (KIRC) to serve the local community.

FY23 ACTIVITIES

- Purchased new hardware and software
- Purchased new computers and peripheral equipment
- Upgraded Internet services with a new LAN switch and router

▼ *KIRC staff members operating the Phantom 4 DJI drone at Wailuna, Kaho`olawe*

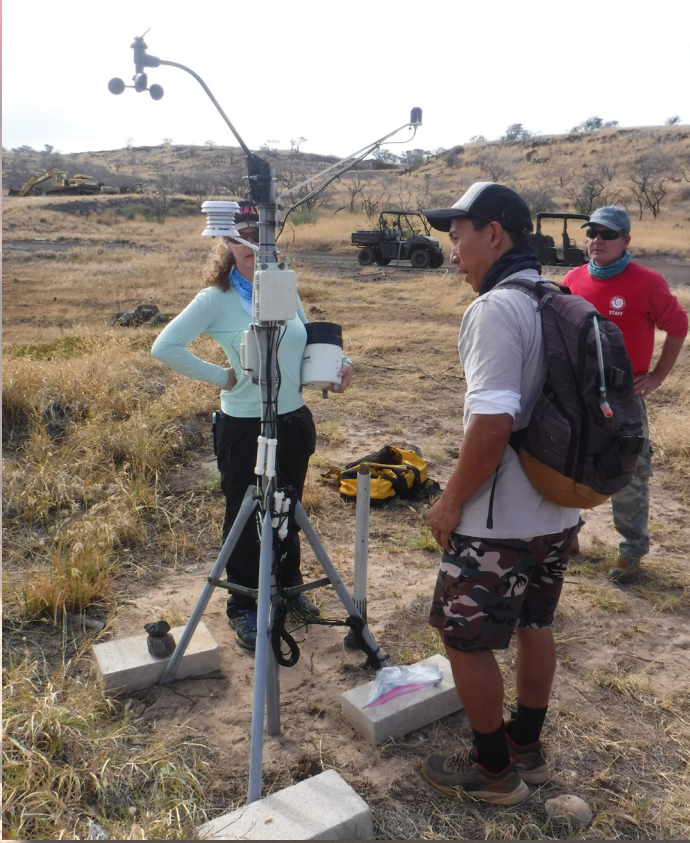


▼ *KIRC staff member training to operate the Phantom 4 DJI drone*



ADMINISTRATION

▼ KIRC staff member overseeing the use of UH Geography's weather station at Honokanai`a



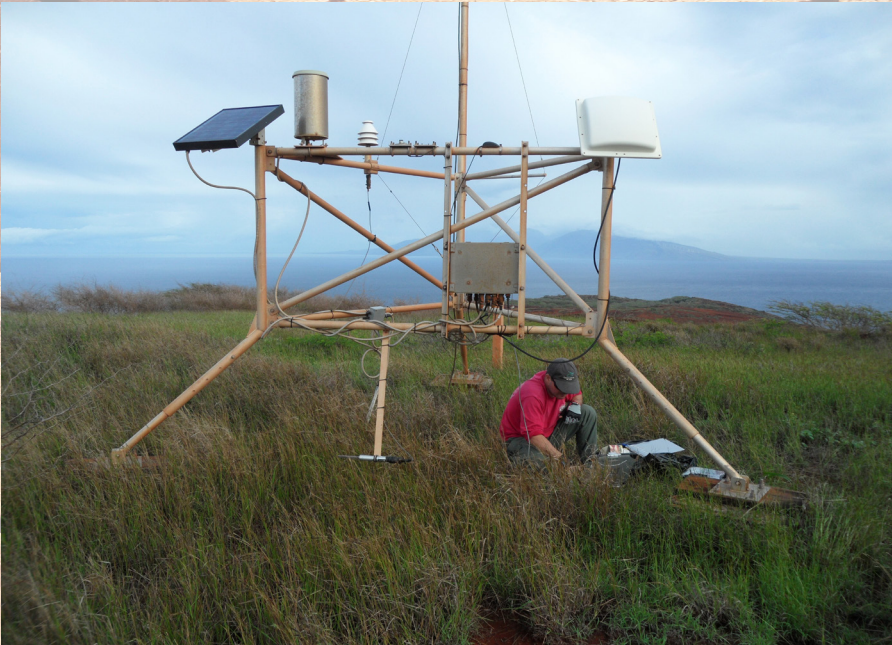
▼ Timo Sullivan of Island Conversation preparing the Matrice 300 drone with a H20T thermal sensor to take flight



WHAT'S NEXT?

Next steps are the completion of upgrades to the KIRCs internal technological infrastructure and setup of new computers and hardware.

▼ KIRC staff member operating the weather station on Kaho`olawe



▼ The Matrice 300 drone that captured many photos including the one on the back page of this report





KAHO`OLAWE EDUCATION AND OPERATIONS CENTER PROPOSAL

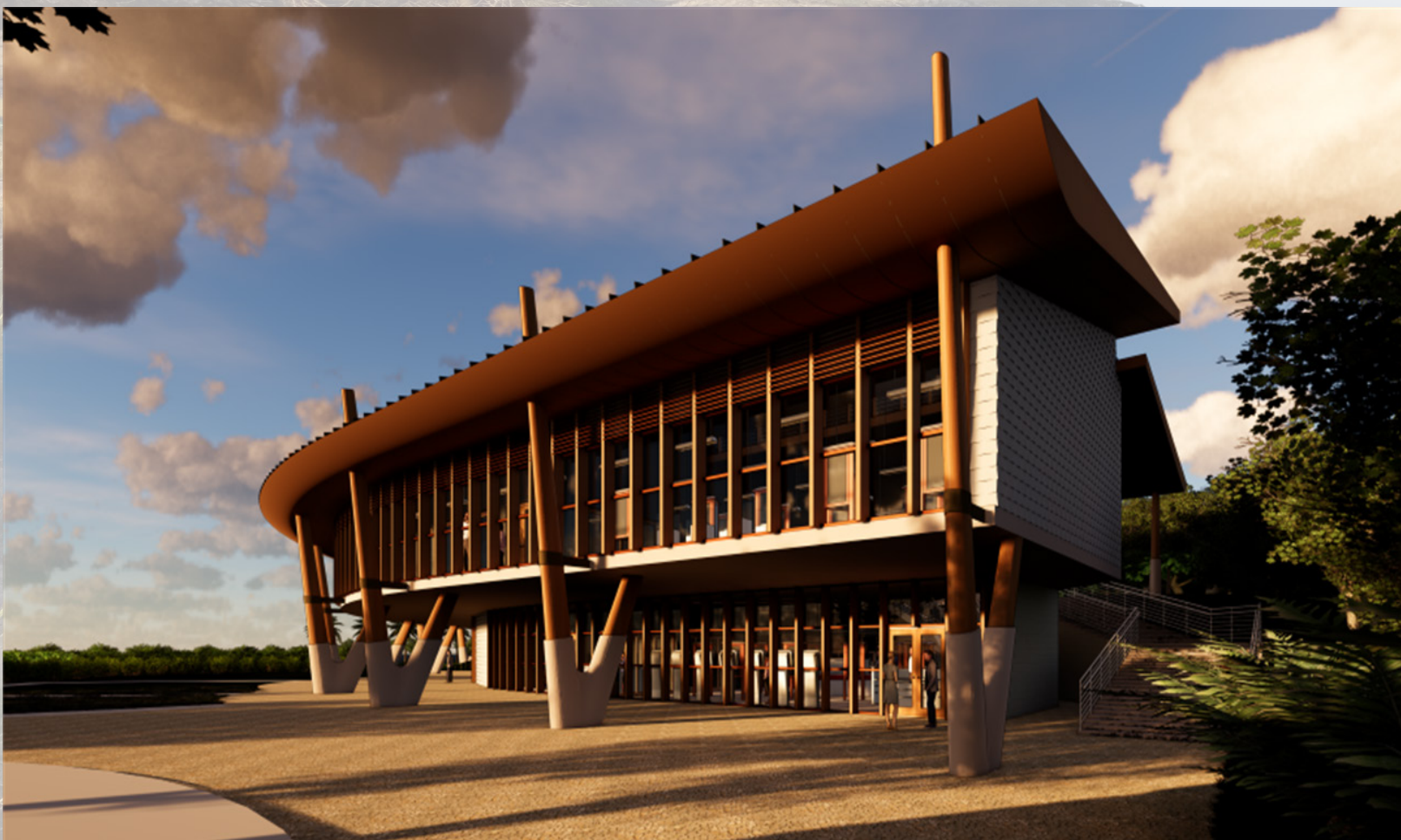
BACKGROUND

The Kaho`olawe Island Reserve Commission (KIRC) is developing its future Education and Operations Center on 8.261-acre property adjacent to the Kīhei Small Boat Harbor in south Maui. The KIRC currently uses the property as its base of operations for the long-term restoration of Kaho`olawe. A boathouse and a small native plant nursery currently occupy a portion of the site.

The Education and Operations Center can become the State's centerpiece for sustainable environmental management as well as a hub for collaborative indigenous resource management efforts of state, county and community organizations. The facility will house and exhibit important Kaho`olawe historical findings and documents, and honor those that fought to return Kaho`olawe to the people. Lastly, the facility will create revenue generating opportunities to achieve financial self-sustainability.

This facility will be located in one of Maui's fastest growing residential areas and a visitor destination that will provide worldwide exposure showcasing its innovative cultural and natural resource management expertise for thousands of visitors in the Kīhei/Wailea region in addition to the residents of Hawai`i. The opportunity to create a living educational and research center that integrates scientific research with traditional Native Hawaiian culture and creative arts will result in a new collaborative model for resource management systems throughout the state and the country.

▼ *Outside view of the proposed Kaho'olawe Education and Operations Center in Kīhei, Maui*



ADMINISTRATION

▼ Aerial view of the proposed Kaho`olawe Education and Operations Center in Kihei, Maui



"I learned how important it is to learn what happened to Kaho`olawe and how we can help make it right" -15 yr. old Nalu Studies volunteer Volunteer

▼ The second floor Artifact Exhibit and Archives



▼ Aerial view of the center in relation to the Kihei boat ramp



UNIQUE OPPORTUNITIES

- ☑ Existing captured audience. 200-300 estimated daily visitors launch from the Kihei boat ramp for ocean recreation and are finished by 10am.
- ☑ Public engagement. Potential for a social enterprise creation to fuel our mission work.
- ☑ Unique exhibitions. Dedicated to the memory of the people's struggle to regain Kaho'olawe and the effort to restore the island
- ☑ Conference Center. Alternative to resort sites for small to medium sized conference facilities with lodging at neighboring condominiums
- ☑ Partnerships. Established partnerships with other venues for market sharing and joint ticketing/promotion opportunities

▼ Current Molokini customers wait at Kihei boat ramp



"We took students to the KIRC baseyard to learn about Kaho'olawe. Are there other ways for students to be involved?" Michelle O'Byrne, Iao Intermediate School Volunteer



ADMINISTRATION

We are happy to announce the addition of three new members to the KIRC team!



Caroline Sabharwal
Ocean Resource Specialist II

After earning her BA in Biology from Denison University in 2015, Caroline moved to Maui to study marine science and conservation. While completing the Marine Option Program at the University of Hawai'i (UH) Maui College she worked for three years as an on-call responder for the Maui Marine Turtle Stranding hotline. She also served as a diver assistant for the UH Department of Oceanography in conjunction with National Oceanic and Atmospheric Administration and Sea Grant for their West Maui Reef Conservation Project, The Nature Conservancy for their Hawai'i Island reef resilience surveys, as well as the Hilo-based Multiscale Environmental Graphical Analysis (MEGA) lab's photo mosaic modeling of coral reef systems.

Caroline is both grateful and excited to be working towards restoring the kino of Kanaloa. In her words, "Kaho'olawe sits at the intersection of cultural importance, ecological revitalization and community. At the KIRC, restoration is not only being done on a physical level, but on a level that is, at its core, deeply human. It is a unique and powerful example of how working to revive a natural ecosystem can heal the physical environment and, in the process, rekindle a spiritual and emotional connection between us and the natural world."



Christina Wine
Ocean Resource Specialist II

Christina grew up in Wailuku, Maui and graduated from Baldwin High School. She then briefly attended University of Hawai'i (UH) Maui College before earning a 4-year marine science degree at UH Hilo. Christina then spent the next few years of her travels on or near different parts of the ocean, living and working on coastlines, small islands, tall ships, and harbors. She completed environmental internships on Maui and Oahu, working on projects ranging from lab analyses on Ford Island to Na Ala Hele trail work. She also worked as an outdoor environmental educator on ship and shore platforms from the Long Island Sound to the California kelp forests. Her next step was returning to school to learn how to service boat systems in the hopes of joining marine conservation and research efforts from another angle.

After gathering experience with shellfish farming, sailing, teaching aloft and afloat, and learning to maintain a strange assortment of vessels, ranging from a wooden ship to an electric submarine, Christina chose to join the KIRC staff as a member with the Ocean Program team in 2022. She is happy to be back in home waters under an organization that is able to give back not just to the ocean but specifically to Hawai'i.





Welcome KIRC's Public Information Specialist, Ashley Razo

Ashley is the latest staff member to join the KIRC as the Public Information Specialist. She earned her BS in Business Administration from University of Illinois in 2013. She has a background in field marketing management, information technology consulting, media sales and event staffing.

Ashley has worked with one of the four largest advertising public groups; IPG and for a major consumer packaged goods brand; KIND Snacks in Chicago. One of her biggest accomplishments was hiring and training a field staff of 45 in the state of Michigan to educate consumers on brand initiatives and guidelines. Upon her move to Maui, Ashley started her search to find impactful work and a way to give back to the island. She made a career shift and completed a 2019 permaculture internship at Hale Akua Garden Farm in Haiku. This was the beginning of her career working in tropical agriculture and animal husbandry. Since 2019, Ashley went on to work for a coffee farm in Olinda and a garden design & landscape company in Kula.

Ashley's first time on Kaho'olawe in 2021 as a volunteer impacted her view on the islands as a whole and showed her how to educate her community on conservation and restoration. Her past experience in the field has prepared her for working and educating the public at large on Maui and on Kaho'olawe. She is honored to be part of the KIRC, their restoration initiatives and to further grow the KIRC's impact.

... And a Farewell to Maggie Pulver

Maggie made an incredible impact in her 5 year period with the KIRC. She has been a longtime volunteer on Kaho'olawe, with her first access with the KIRC in 2011. Her accomplishments were wide and big; encompassing public, financial and restorative impact. She connected at risk Maui youth to Kaho'olawe through Nalu Studies student accesses and reintroduced an estimated 1,000 native plants to Kanaloa. She secured funding from new federal sources, focusing on wetland restoration and expanded access to the reserve through partnerships with local businesses. Lastly, Maggie provided training and professional development to employees at local businesses who engaged directly with locals and visitors.

Maggie will be greatly missed and the KIRC wishes her the best in her future endeavors.

"I will continue to serve as I can from the volunteer side for life" – Maggie Pulver



MAHALO

to our FY23 Members and Donors!

PATRONS (\$500 and up)

Joseph Foster	Tapani & Ellen Vuori
Stephen Craven	Dave & Jane Culp
Stephen Hack	John McCandless
Ellen Pelissero	Joan Pedro
Juliet McMullin	Heather Wilkinson
Benton Pang	Scott Jakubowski

SUSTAINERS (\$50 to \$99)

Mark Benson	Kathy Ward
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SUPPORTERS (\$1 to \$49)

Smith Earthstar	Tori Peterson
Madeline Bohan	Earthstar Smith
Matthew Kistler	

BENEFACTORS (\$100 to \$499)

Margaret Enomoto	Jeffrey & Gay Chang
Ian Dixon-McDonald	Chris Mott
Pamela Zirker	Debra Trussel
James Rodrigues	Lara Reynolds
Matthew Bredeson	Daniel & Stacy Chaleff
Rowena Somerville	Edward Clark
John Canzano	Marty Martins
Alexandra Creighton	Mark Heckman

Individual donations are critical to our efforts to protect, restore and preserve the ocean and land of this important cultural reserve. If you have been impacted by Kaho`olawe — as a volunteer, friend, teacher, student, researcher or other community or family member, we invite you to join today.

"I learned so much about Hawai`i history and spirituality. I can't wait to share with my family and my students." -39 yr. old Kekaulike High School staff member

"This trip has been filled with powerful moments, deep shared knowledge of native intelligence, beauty, love of aina, meaningful work and Kaho'olawe Kanaloa Kane spirit." -55 yr. old Kekaulike High School staff member

"I learned more about what makes life impactful and meaningful and it has challenged me to create a life back home that will impact others" -33 yr. old Public Art Corps volunteer

Frequently Asked Questions

What do you do out there?

In addition to restoring Kaho`olawe's devastated landscape, protecting its critical natural and cultural resources, and making vital improvements to the island's infrastructure, we are developing an integrated mauka to makai management system that balances the technical aspects of modern conservation principles with a traditional cultural perspective.

Why don't you take more people?"

The KIRC's work on Kaho`olawe is critically dependent upon its volunteers. We strive to make the most of our limited volunteer opportunities, but we are primarily restricted by available funding, safety and weather conditions. The number of requests we receive to go to Kaho`olawe far exceeds our logistical and financial capacity.

Did you clean up all of the bombs?"

The U.S. Navy is forever responsible for removing all unexploded ordnance (UXO) from the land and waters of Kaho`olawe, and the liability associated with its presence. The KIRC remains committed to that position and relies on the Federal Government to fulfill their obligation. Upon the 2004 completion of the Navy's cleanup, approximately 75% of the surface of the island was swept of ordnance with only 10% cleared down to the depth of four feet. Areas that have not been cleared remain "DANGEROUS TO THE PUBLIC AND ARE NOT SAFE." As formally agreed by the Navy and State, the Navy will return to dispose of any new UXO found in cleared areas. The KIRC has made regular requests to our congressional delegation for federal funds for the Navy to complete their obligation.

"Can I fish over there?"

Trolling is permitted on two scheduled weekends each month in waters deeper than 30 fathoms (180 feet). No other fishing, ocean recreation or activities are allowed within the Reserve. (Visit kahoolawe.hawaii.gov/announce to download a Trolling Right of Entry Registration Packet). The rules governing Reserve waters are enforced by the State of Hawai`i, Department of Land and Natural Resources, Division of Conservation and Resources Enforcement (DOCARE), the KIRC and the U.S. Coast Guard. Any person violating these rules is guilty of a petty misdemeanor and shall be fined up to \$1,000 or imprisoned for up to 30 days. The KIRC may also assess administrative fines of up to \$10,000 per offense.

"How can I help?"

Pick your favorite way/s to connect with us (social media, newsletter, email list) to learn about work days and community events at our Kihei Boat House site; join the Kaho`olawe volunteer wait list; invite the KIRC to your space as a (free) speaker; read/ learn about/ share our online library and learning materials; testify at one or more legislative hearings; create a Kaho`olawe-inspired work of art to be shared; become a member; enroll as an intern; or let us know your own idea.

Aloha Kaho`olawe is a campaign to support Kaho`olawe restoration and access. Through this initiative, we invite participation via membership donations, partnerships and legislative support. By building consensus that there is value in the historical, cultural, ecological and community resources shared through Kaho`olawe, we aim to share this special place now and for generations to come.

Send this completed form with your donation to:
811 Kolu Street, Suite 201 | Wailuku, HI 96793.

Checks may be made payable to Kaho`olawe Rehabilitation Trust Fund. You can also give online at kahoolawe.hawaii.gov/donations.shtml.

CONTACT INFORMATION:

Name and/ or company

Address

E-mail

Phone

GIFT TYPE:

- PATRON (\$500 & up)
- BENEFACTOR (\$100-\$499)
- SUSTAINER (\$50-\$99 | \$25 with student ID)
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For Benefactors and Patrons, please choose one of the gifts from below, and indicate your preferred size and color (1st come, 1st served):

- Shirt
 - M L XL
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Comments:

The Kaho`olawe Island Reserve Commission (KIRC) is a 170(c)1 government nonprofit, authorized per IRS Publication 557, to receive tax-deductible contributions to programs that serve a public purpose. Donors should always consult with their tax advisors before claiming any tax-deductible charitable contributions.



Back Cover: View of Mauna Kahalawai, central Maui and the western edge of Haleakalā from Wailuna, Kaho`olawe

*Front Cover:
View of KIRC staff Dean Tokishi in Kaho'olawe reserve waters*



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*Download our free mobile app: **Kaho`olawe Island Guide***



MAHALO

Kūkulu ke ea a kanaloa - The life and spirit of Kanaloa

Logo and motto of the KIRC, symbolizing the he`e, or octopus form of the god Kanaloa and the kupu o ka `āina, or re-greening of the island.

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Report design by Ashley Razo