

# KAHOʻOLAWE ISLAND RESERVE FY24 ANNUAL REPORT

July 2023 — June 2024

Kahoʻolawe Island Reserve Commission Kōmikina Mālama Kahoʻolawe Kūkulu ke ea a Kanaloa - The life and spirit of Kanaloa builds and takes form

State of Hawai'i



# **FROM THE DIRECTOR**



The mission of the Kaho'olawe Island Reserve Commission (KIRC) is to undertake the restoration of the Kaho'olawe Island Reserve. Unique in this mission is the diversity of ecosystems that the KIRC staff protect and restore on an on-going basis. The Kaho'olawe Island Reserve includes not just the island of Kaho'olawe but it also includes the two-miles of surrounding ocean. Starting at the top of Kaho'olawe, the KIRC's work includes restoring severely eroded hardpan. This hardpan is the remnant subsoil after topsoil (in some cases up to 17 feet) has been blown away due to centuries of ungulate overgrazing. Lower on Kaho'olawe's slopes is a dry landscape, predominately covered in invasive scrubland grasses and kiawe trees. Finally, the shoreline consists of high, inaccessible sea cliffs that are the home to numerous seabirds, white sandy beaches that are the breeding grounds for native monk seals and just recently discovered, nesting green sea turtles, as well as an abundant reef ecosystem that has been described by scientists as the one of the most significant and important marine habitats in the main Hawaiian Islands.

This diverse range of ecosystems requires that the KIRC staff also have a diverse range of skills and expertise. In addition to our marine scientists and restoration biologists that work to restore and protect the land and marine environments, we also have a variety of staff that oversee and contribute to the many other functions needed to maintain an entire island. As travel by boat is the primary means to getting people and supplies to Kaho'olawe, the KIRC has a dedicated team that expertly operates and captains our ocean vessel. Additionally, all our field staff are also cross trained to assist and help crew our vessel. Since Kaho'olawe was once used as a military weapons training range, our field staff is trained in safety and medical emergency procedures as well as trained in identifying and avoiding military unexploded ordnance that they could encounter on the island. Lastly, with Kaho'olawe containing over 2,000 archaeological features and is listed on the National Register of Historic Places, all KIRC staff are required to be sensitive to protecting the cultural resources of Kaho'olawe.

The KIRC staff is a small, but is a dedicated workforce with duties that encompasses many different types of responsibilities. The willingness of the crew to cross train in other fields as well as to develop expertise in a variety of different conditions ensure that the KIRC can successfully manage this island that has been entrusted to protect and restore.

-Michael K. Nāho'opi'i **Executive Director** 



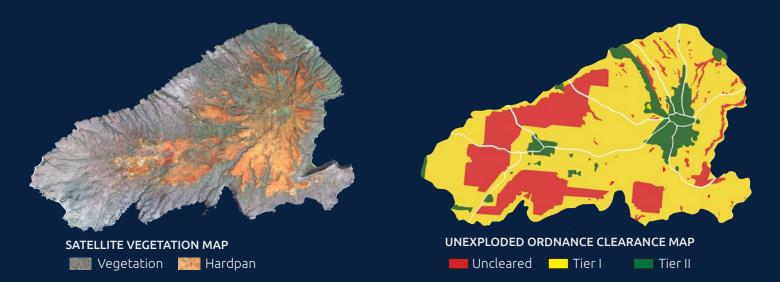
wo rescued Hawaiian Green Sea turtles making there way to the ocean on Honokanai'a Beach in August 2024

32 Frequently Asked Questions

# 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 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.





# MISSION

# Kūkulu Ke Ea A Kanaloa

The life & spirit of Kanaloa builds and takes form

The MISSION of the KIRC is to uphold the vision for 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.



A decades-long struggle by the people of Hawai'i, particularly the Protect Kaho'olawe 'Ohana (PKO), succeeded in stopping the bombing of Kahoʻolawe 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 (yellow areas in the map to the right), 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.

# The VISION for Kaho'olawe:

🚮 The kino (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.

Wa'a Hōkūle'a and Mo'okiha in Honokanai'a Ba

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.

# ABOUT

# **ORGANIZATIONAL STRUCTURE**

# **KIRC CORE PROGRAMS**

### The **RESTORATION** Program restores native, land-based habitats and watersheds through innovative strategies addressing erosion control, invasive species removal, revegetation and ground water recharge.

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# The **ADMINISTRATION** Program supports all KIRC programs while also managing volunteers, GIS mapping, community outreach, archive and collections, fund development, finance and

human resources.

The **OCEAN** Program

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

The **OPERATIONS** Program provides transport, maintenance, manpower and overall safety on Maui and within the Reserve.

The **CULTURAL** program provides for the care and protection of Kaho'olawe's cultural resources, as well as the expansion of meaningful, cultural use of the island.

# Public Information Administrative Specialist

Operations Manager Officer

Commission Maintenance & Coordinator

> Administrative Specialist III GIS / LAN Specialist

Specialist Volunteer

**Vessel Specialist** Logistics

# **KIRC STAFF**

**Executive Director** Administrative Officer **Commission Coordinator** Administrative Assistant III GIS/LAN Specialist **Public Information Specialist Operations Manager** Maintenance & Vessel Operator Grant Thompson Logistics Specialist Volunteer Coordinator Natural Resources Specialist V Natural Resources Specialist III Natural Resources Specialist III Ocean Resources Specialist III Ocean Resources Specialist II Ocean Resources Specialist II

Michael Nāho'opi'i Matt Hatakeyama Terri Gavagan Janeece Beauchamp Carmela Noneza Ashley Razo Lopaka White Kaleiopio Guth **Ross Kamimoto** Paul Higashino Lyman Abbott Jamie Bruch Dean Tokishi Caroline Sabharwal

**Christina Wine** 



Historic Park)

Coordinator

Hawai'i Revised Statutes 6K sets forth the composition of the KIRC. One member shall be selected by the Governor of the State of Hawai'i from lists submitted by Native Hawaiian organizations, one member shall be a reprsentative of the Office of Hawaiian Affairs, one member shall be the Chair of the Board of Land and Natural Resources of the State of Hawai'i, one member shall be a representative of the County of Maui, one member shall be a member of the Protect Kaho'olawe 'Ohana, and two members shall be selected by the Governor form a list submitted by the Protect Kaho'olawe 'Ohana. The Chair of the KIRC shall be selected from among the members by the Governor. The KIRC also maintains staff to assist it in its restoration and management of the Kaho'olawe Island Reserve.

# COMMISSIONERS



Protect Kaho'olawe 'Ohana: Michelle Miki'ala Pescaia, Chairperson (Interpretive Park Ranger, Kalaupapa National

Protect Kaho'olawe 'Ohana: Faith Kahale Saito, Vice Chairperson (Native Hawaiian Counselor, Hulili Ke Kukui Hawaiian *Center, University College, Honolulu Community College)* 

Protect Kaho'olawe 'Ohana: 'Ānela Evans ('Ike Hawai'i Faculty, Punahou School) County of Maui: Saumalu Mataafa (Deputy Director, Department of Housing and Human Concerns, County of Maui) Native Hawaiian Organization: Benton Kealii Pang (President, O'ahu Council, Association of Hawaiian Civic Clubs) Department of Land and Natural Resources: Dawn N.S. Chang (Chairperson, DLNR) Office of Hawaiian Affairs: Justin Keoni Souza (Trustee, Office of Hawaiian Affairs)

**EXECUTIVE DIRECTOR** 

STAFF

Natural Resource Specialist V

Natural Resource Ocean Resource Specialist III

Natural Resource Specialist III

Ocean Resource Specialist III

Specialist II

Ocean Resource Specialist II

**Cultural Resources Program Coordinator** 

# 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 to accomplish. The KIRC relies on the efforts of dedicated and motivated community volunteers to maximize current restoration efforts in the Reserve. Through the Volunteer Program, the KIRC is able to fulfill its mission of providing safe and meaningful access to the public. By partnering with community groups, school groups, profressional organizations, conservation agencies, foundations and public outlets, the KIRC hopes to foster a culture of stewardship and conservation for Kaho'olawe and for all of Hawai'i's cultural and natural resources.

To date, the KIRC has welcomed, escorted and engaged more than **17.000 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.

Skyline & Kapa Sungear volunteers removing invasive buffelgrass and kiawe at Keanakeiki in December 2023



▲ Grace Bible volunteer group in July 2023

Trilogy volunteers after planting 'aki 'aki grass on Honokanai'a Beach in May 2024

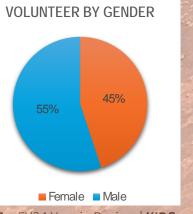
**VOLUNTEER BY AGE** 

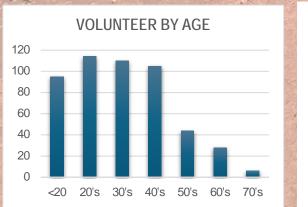
= 20 volunteers By Age: 70's 🦯 60's 50's

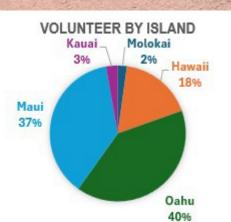




"I learned there is ALWAYS something you can do to help. I will always look for the little thing I can do to help back home" - 16 year old student volunteer







Protect Kaho'olawe 'Ohana (PKO) **PKO Wehena Makahiki** Trilogy **PKO Kaapuni** Ka Ipu Kukui Wailea Skyline



- Grace Bible volunteers shoveling gravel to control water on roadways in July 2023

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### In FY24, **526** volunteers supported the KIRC in the restoration and revitalization of Kaho'olawe.



The Protect Kaho'olawe 'Ohana and KIRC staff in Novmber 2023

"The most memorable moment of this access for me was going to the sacred wahi pana places and being able to honor my brother and ancestors. I loved doing research on the reef because it made me think of how much my brother would've loved it. I learned what to plant to help the soil from erosion and I can spread this knowledge to the people in Hana so that we can use it if we have any issues. " - 14 year old student volunteer

# **Community Volunteer Groups**

PKO Ala Loa PKO Mo'olono

Kapa Sungear University of Hawai'i Maui Public Art Corps Four Seasons Resort Maui at Hālau Makana Aloha O Ka Laua'e by Sissy Lake-Farm Grace Bible

Haleakalā Biochar



"I thought this island was untouchable but now that I'm here, I realize how much work has been done. There is still so much to do and I hope to be a part of it" -15 year old NALU Studies student volunteer

# **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.

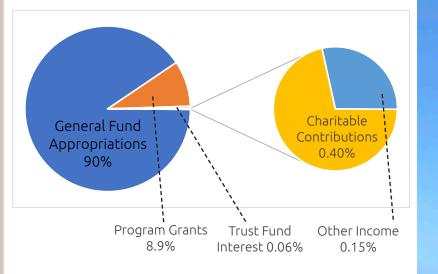
Though the Trust Fund seemed considerable at the time, it was not substantial enough to last in perpetuity. As stated in the Federally-mandated Kaho'olawe Island Conveyance Commission final report to Congress in 1993, "in the short term, federal funds will provide the bulk of the program support for 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.

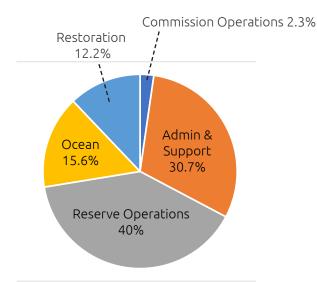
The State authorized permanent funding for the KIRC in 2018 in the form of 16 staff positions and administrative operating costs and temporary CIP funding to maintain basic field operations for ten consecutive days each month. Even with State funding, the KIRC still required support in the form of grants,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

The 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	FY22	FY23	FY24
Beginning Balance	\$1,500,239	\$782,644	\$706,586
Support & Revenue	\$1,113,685	\$1,514,505	\$1,667,200
Operating Expenses	\$1,831,280	\$1,590,563	\$1,764,102
Ending Balance	\$782,644	\$706,586	\$609,685

Support & Revenue	FY22	FY23	FY24
General Funds Appropriations	\$986,672	\$1,280,760	\$1,505,700
Program Grants	\$78,197	\$195,653	\$149,901
Charitable Contributions	\$29,388	\$28,075	\$7,958
Other income	\$18,250	\$7,950	\$2,525
Interest on Trust Fund	\$1,178	\$2,067	\$1,116
Total Support & Revenue	\$1,113,685	\$1,514,505	\$1,667,200

Operating Expenses	FY22	FY23	FY24
Commission Operations	\$67,383	\$47,942	\$42,548
Admin & Support Services	\$502,326	\$607,638	\$555,886
Reserve Operations	\$711,899	\$745,090	\$724,344
Ocean Program	\$129,791	\$253,765	\$263,456
Restoration Program	\$290,684	\$284,743	\$221,544
Total Operating Expenses	\$1,702,084	\$1,939,178	\$1,807,778



# LEGISLATIVE UPDATE

For the past several years, the KIRC has been seeking to secure the one-time appropriation of \$400,000 in Act 248/SLH2022 as a permanent, reoccurring appropriations, which would result in receiving this additional operating funding every year as part of the KIRC's financial baseline. In the 2023 legislative session, the KIRC was successful and was able to establish this funding as reoccurring and then shifted its request from additional operating funds to additional KIRC personnel and capitol improvement program (CIP) funding to continue the work on the Kaho'olawe Education and Operations Center at Kihei. Additionally, Senate confirmation hearings for three KIRC Commissioners were also held last session.

With the recovery and rebuilding from the 2023 Maui wildfires in the forefront of everyone's minds going into the 2024 session, the KIRC decided not to seek the introduction of any separate funding bills but focus on the Administration's funding request. Initially, the KIRC's request for additional personnel and CIP funding was not included when the Administration's bill went to the legislature but the Senate Ways and Means (WAM) Committee, chaired by Senator Donovan Dela Cruz, added KIRC's CIP request to the bill late in the legislative hearings. Just prior to the 2023 Maui wildfires, the KIRC made a detailed presentation to WAM on the KIRC's need for this new facility and many senators agreed that this would be a great benefit to Maui and the State. Since only one chamber of the legislature passed our funding request, staff quickly worked to secure the support of members of the House Finance Committee to also support this request. With only a week before the hectic conference committee hearings, the KIRC reached out to as many of its legislative allies as possible for support, but in the end the request fell through.

Additionally, the Senate Water and Land Committee held a confirmation hearing for new KIRC Commissioners Faith Kahale Saito (PKO) and Keoni Souza (OHA) and a reconfirmation hearing for second-term Commissioner Saumalu Mataafa (Maui County). All three received the approval of the Senate committee and received a full confirmation vote in the Senate.





Sen. Donovan Dela Cruz

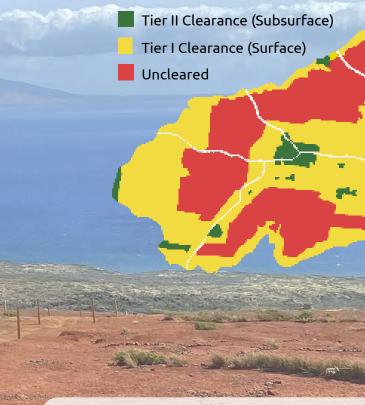




Rep. Amy Perruso



KIRC INITIATIVE	DETAILS	METHOD	RESULT
Request additional funds to add four new KIRC positions	Add personnel funds to allow the KIRC to hire three new permanent field positions	Requested in the Governor's Administrative Budget HB1800	No additional field personnel authorized
Request additional CIP funds for second phase planning and design of the Kaho'olawe Education Center at Kihei	Additional funds to complete the construction designs and planning requirements for the KIRC's new consolidated office,museum, and cultural center at Kihei. Additionally, construction funds to expand the current boathouse	Requested in the Governor's Administrative Budget	Senate WAM added funds, but still needed House sup- port. It did not pass.
Tier II C	VE CLEARANCE MAP learance (Subsurface) earance (Surface)		
Unclear			
		a da si	



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.

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.

RAVICELI



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: a 39-foot landing craft, 'Ōhua; Honokanai'a Base Camp on Kaho'olawe, and Unexploded Ordnance and Industrial Safety. The KIRC's center of operation is located at Honokanai'a on the southern end of Kaho'olawe. The Honokanai'a base camp (pictured below) 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.





80 'Alalākeiki Channel crossings

1,000 crew hours worked

172,970

gallons of seawater

pumped

gallons of diesel consumed



volunteers and staff

supported in camp

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.

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days camp was open

3,808 manhours maintaining camp infrastructure and utilities gallons of fresh water

The KIRC's Honokanai'a base camp

made

KIRC Operations team en route to Kaho'olawe for a volunteer access, loaded with supplies on the 'Ōhua  $\mathbf{\nabla}$ 



675 passengers safely transported

15,000 lbs payload capacity













# **KA PALUPALU O KANALOA**

# BACKGROUND

Discovered on 'Ale'ale, a seastack on Kaho'olawe's southern coast in 1992, the Ka Palupalu o Kanaloa (*Kanaloa kahoolawensis*) is one of the worlds most endangered plants with only two wild plants in existence. This plant genus is an important symbol of the island's survival and significance as a pu'uhonua or refuge of the Native Hawaiian people, flora and fauna. Pollen samples indicate the plant once lived on all the Hawaiian Islands, yet it survived only in the isolated terrian of Kaho'olawe.

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. There are currently 16 plants in propagation in three locations on Maui. The purpose of this project is to implement a management and recovery plan through a working group hui to restore *Kanaloa kahoolawensis* into the wild. It is hoped that the plant, and the island's ecosystem, as well as Native Hawaiian cultural practices, will once again flourish.

Kanaloa kahoolawensis on 'Ale 'ale along the southern coast of Kaho'olawe



Ka Palupalu o Kanaloa plant grown from a seedling at a Maui-based partner nursery



The fate and future of this critically endangered plant lies in the hands of the members of the Ka Palupalu o Kanaloa Partnership, which includes representatives from the KIRC, U.S. Fish & Wildlife Service (USFWS), Department of Land and Natural Resources (DLNR), Department of Forestry and Wildlife (DOFAW), Maui Nui Botanical Gardens (MNBG), Plant Extinction Prevention Program (PEPP), National Tropical Botanical Garden (NTBG), Protect Kaho'olawe 'Ohana (PKO), Ho'olawa Farms, Lyon Arboretum, Olinda Rare Plant Facility and Mākena Golf and Beach Club (MGBC).



# **FY24 ACTIVITIES**

- 🗹 Successfully propagated seed of the original wild Kanaloa plant, giving the team two parent plants
- ☑ Secured funding to create a nursery specifically designed for Ka Palupalu O Kanaloa plants
- $\boxdot$  Completed a plant monitoring app available for growers to use
- ☑ Prepared three locations from fire and risk dangers by clearing the forest away from facilities
- ☑ Held quarterly partnership meetings to discuss current state of the existing collection and future plans for propagation and cultivation
- oxdot Updated the draft Management Plan for review by the Partnership and the Commission

# WHAT'S NEXT?

The Ka Palupalu o Kanaloa Partnership hui team will continue micropropagation efforts for pollen collection(s) when the plants flower next. The hui will coordinate moving the largest and oldest plant into a bigger planter box, requiring securing funding for construction. The hui will continue to hold quarterly management meetings to maintain an up-to-date account of the status of the existing living *in situ* collection. The team will plan to distribute plants to additional locations to eliminate the risk of natural disasters if another storm occurs at one location. The hui is seeking funding to relocate the oldest plant into a larger planter box and shelter.





# 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 \$100.000 Amount:

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 Keālialalo (see map). After 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 Lua 'O Keālialalo.

### Volunteer sifting a'ali'i seeds for storage



Volunteers scattering milo seed pods and mulch in an eroded gulch



# **FY24 ACTIVITIES**

- ☑ Invasive species removal conducted in Keanakeiki and Lua 'O Kealiālalo
- Collected 10 lbs of ma'o (*Gossipyum tomentosum*) for future shrubland plantings in Keanakeiki Collected pili grass seed from both sites for propagation
- Constructed firebreaks around base camp structures by shoveling gravel
- ☑ Weed mat cloths were laid down to smother alien grasses in preparation of planting
- ☑ Removed invasive bufflegrass, kiawe, koa haole and klu at Keanakeiki
- Monitored Cressa growth in the vegetation plot at Keanakeiki
- I Applied herbicide to cut stumps of woody alien plants to prevent regrowth
- Chipped kiawe at Keanakeiki for use as mulch at both Keanakeiki and Lua 'O Kealiālalo

replanting on hardpan.





Volunteers removing invasive buffelgrass and kiawe at Keanakeiki

# 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. Ma'o seeds will be used to re-establish the once thriving ma'o shrubland that dominated the Kaukaukapapa and Kealaikahiki areas. The team will continue to monitor the native Makihi (*Cressa truxillenses*) growth at Keanakeiki. The team has plans to extend invasive species removal and control beyond the actual project boundary after plantings have begun.

▲ Newly (re) introduced seedlings in a harpan depression



# COASTAL WETLAND ENHANCEMENT IN HONOKANAI'A

*Funding Source:* U.S. Fish and Wildlife Service (USFWS) National Coastal Wetlands Conservation Program (CWC) January 2022 - December 2024 Duration:

\$355,531

BACKGROUND

Amount:

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 also provided funding for an Ocean Resource Specialist II (ORS II) for two years.

A Honokanai'a Project Site

### 🔻 Volunteers from Trilogy planting native 'aki 'aki grass at Honokanai'a Beach



The KIRC has innovative planting methods including a metal framing system which eliminate "cave in's" in vertical sand dune faces, allowing vegetation to take root and stabilize the loss of habitat.



# **FY24 ACTIVITIES**

- ☑ Non-native vegetation removal of bufflegrass and kiawe
- ☑ Improved the roadway in the project site
- ☑ Excavation of the silt pond; 3 cubic yards of silt was removed Deployed a long term water guality monitoring device
- I Established a weather station in the project area to monitor rain events and precipitation levels I Held five lectures to raise awareness of this project at Seabury High School, Lahainaluna High School, Pacific

Whale Foundation, 4-H Youth Development Program, and Ka Ipu Kukui Youth Program Conducted a wetland pilot study with UH Geography researchers and students





# WHAT'S NEXT?

In FY24, the Ocean Program was awarded a 2025 Maui County Green Grant for continued wetland restoration work. The team will continue efforts to remove invasive species like bufflegrass and kiawe and plant 'aki 'aki and 'ākulikuli plants in the project area. The team will continue working on improvements to the roadway in the project site to reduce sedimentation and increase water flow into the wetland.

# ☑ To date, 23,681 native plants have been (re)introduced, exceeding the grant goal of 2,000

Volunteers Naomi and Peyten Tokishi working on roadway repairs to reduce sedimentation



# **DEVELOPING A DIGITAL APPLICATION FOR THE COLLECTION OF KILO 'IKE PILI**

*Funding Source:* Institute of Museum and Library Services (IMLS)

July 2023 - June 2026



### Amount: \$99,960

### BACKGROUND

Duration:

The Ocean Program was awarded funding from the Institute of Museum and Library Services to develop a shared database where environmental observations can be entered, cataloged, and analyzed with the Protect Kaho'olawe 'Ohana (PKO) and KIRC representatives. The resulting database will allow users to record, collect, and organize consistent and accurate data in a standarized format, making it more manageable and easier to analyze by current and future cultural and environmental stewards of Kaho'olawe. As a result, the overall care, management, and use of the environmental, historical, archeological, and cultural resources on Kaho'olawe will be improved.

▼ An aerial survey taken by KIRC staff monitoring the reef health off of Hakioawa Beach on Kaho'olawe



# **FY24 ACTIVITIES**

- ☑ A helicopter contract has been secured with Windward Aviation on Maui
- goals, objectives, roles, and deliverables to make the outcome of this project a success.





sedimentation run-off on Kaho'olawe

# WHAT'S NEXT?

In FY24, the KIRC Ocean program staff will collect data via aerial surveys circumnavigating Kaho'olawe approximately every other month. This data collection over time will allow KIRC staff to detect patterns of erosion, vegetation growth or degradation, coral reef health, and changes in water catchment areas. This will help the KIRC team understand how the island's environment responds to restoration efforts and natural events, enabling adaptive management strategies.

☑ Work has begun to schedule meeting with PKO and KIRC staff involved with this grant to clearly identify

▼ Left: An aerial survey of the Hakioawa watershed. Right: KIRC's Ocean Program before departing on Windward's helicopter

Left: A Hawaiian monk seal observed on the shore of Honokanai'a. Right: An aerial photo taken by KIRC staff showing



# SHARING THE STORIES OF KAHO'OLAWE'S PAST, PRESENT AND **FUTURE**

*Funding Source:* Hawai'i Tourism Authority, through Hawai'i Community Foundation

July 2023 - October 2024 Duration:

Amount: \$35,500

# BACKGROUND

The KIRC was awarded funding from the Hawai'i Tourism Authority and Hawai'i Community Foundation for the Kūkulu Ola program. The purpose of the Kūkulu Ola program is to seek community-based projects and programs that honor the perpetuate the Hawaiian culture and communiy. The KIRC administrative staff project goal is to improve the existing Kaho'olawe exhibit at the Maui Ocean Center (MOC). The program and KIRC staff will strive to nurture the culture by creating unique experiences and activities that are respectful and accurate.

▼ The entrance of the exhibit at MOC playing oli (chants) for entrance and departure on Kaho'olawe



Visitors walking into the exhibit, passing the replica navigators chair and viewing the star constellations



The exhibit at MOC including the 3-D topographic map

# **FY24 ACTIVITIES**

- ☑ New graphic boards have been designed to revamp one of the walls
- A new QR code has been generated to display inside the exhibit to allow visitors to view a virtual tour of Kaho'olawe and read about the culturally significant sites.
- I A video has been produced showcasing the proposed Educational center to be built on Maui
- A TV monitor has been purchased to display a new video inside the exhibit





Left: Replica artifacts encased at the exhibit. Right: Visitors viewing the artifacts in the exhibit

# WHAT'S NEXT?

The KIRC's administrative team will coordinate upgrades to the exhibit with the help of Maui Ocean Center's team. The new graphic boards will be installed showcasing the KIRC's current restoration projects such as native planting and marine debris cleanups. A new TV monitor will be installed playing a video of the proposed Kaho'olawe Education Center that can bring more education to visitors about Kaho'olawe and Hawaiian culture for those who are not able to visit Kaho'olawe.

 $\checkmark$  Left: Visitors interacting with the topographic map of Kaho'olawe. Right: An overview of the bombing period at the exhibit

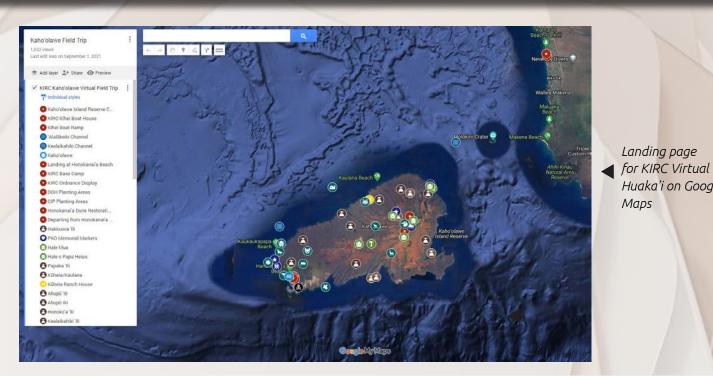


# **PROVIDING COMMUNITY ACCESS TO KAHO'OLAWE THROUGH** VIRTUAL RESOURCES

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

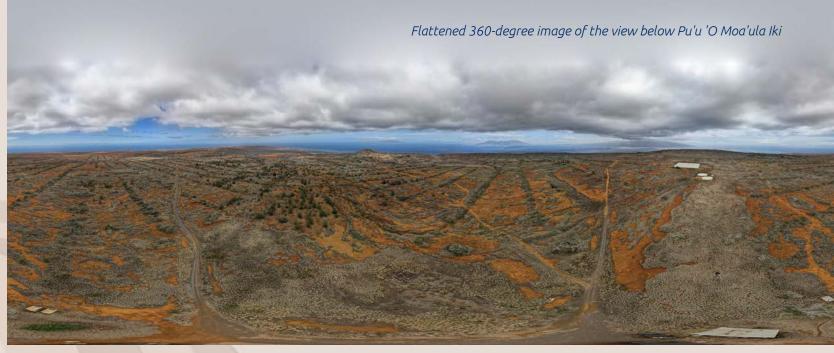
### BACKGROUND

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.



**FY24 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 Virtual 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





### Rain Ko'a

name

Landing page

Maps

Huaka'i on Google

descriptio

Rain Ko'a

This ko'a (shrine) was constructed as a joint project between the Kaho'olawe Island Reserve Commission (KIRC) and the Protect Kaho'olawe 'Ohana (PKO) to help bring back the rains to Kaho'olawe. Additionally, there have been two other rain ko'a built for the same purpose on Kaho'olawe.

This particular ko'a was built to connect a cloud bridge to Ukumehame on Maui. Ceremonies are conducted here by the PKO. This photo was taken by Stanton Enomoto in

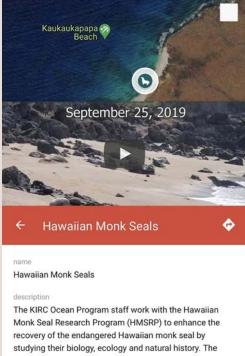
Left: One of the documented historic Hawaiian sites on the KIRC Virtual Huaka'i on Google Maps. Right: One of the documented endangered species on the KIRC Virtual Huaka'i on Google Maps with a video link to watch.

# WHAT'S NEXT?

The project team will document the remaining 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.







HMSRP monitors and assesses the six main monk seal reproductive subpopulations in the Northwestern Hawaiian Islands (NWHI) as well as the increasing subpopulation in the main Hawaiian Islands (MHI). In addition, the HMSRP investigates threats to Hawaiian monk seal survival and works to mitigate factors impeding the species recovery.



# **GOING MOBILE: ENHANCING THE TECHNOLOGICAL INFRASTRUCTURE**

Funding Source:	Institute of Museum and Library Services (IMLS)
	Native American/Native Hawaiian Museum Services (NANHMS ) Program
Duration:	July 2022 - June 2024
Amount:	\$99,042

### BACKGROUND

This project will increase the organizational capacity of the KIRC through technological enhancement of the 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 KIRC to serve the local community.



☑ New hardware and software was distributed to KIRC staff ☑ New computers and peripheral equipment were provided to KIRC staff ☑ Upgraded Internet services with a new LAN switch and router ☑ Designed and set-up KIRC server file paths

Implementation of the new laptops for KIRC staff





### WHAT'S NEXT?

The project team has submitted a grant proposal to the Institute of Museum and Library Services (IMLS) for a new project titled "Sharing Kaho'olawe's history and culture through spatial storytelling". This proposed project seeks to create a new and updated KIRC geographic information system (GIS) database that can be transformed into Web GIS. If awarded, this project will create a digital tool that archaeologists, volunteers, and researchers can use. This tool will be important for education, outreach, and community involvement as it facilitates the storage, visualization, and analysis of spatial information over the internet. This would ultimately increase the global public access by enabling the discovery of the Reserve's cultural and natural resources.



▲ KIRC's Jamie Bruch training to operate the Phantom 4 DJI drone



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

☑ Conducted staff trainings and completed implementation fulfilling project and grant obligations



KIRC's Carmela Noneza operating the weather station on Kaho'olawe



# **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 Kihei 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 selfsustainability.

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.

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





🔻 The second floor Artifact Exhibit and Archives in proposed center



# **UNIQUE OPPORTUNITIES**

- recreation and are finished by 10am
- ☑ Public engagement. Potential for a social enterprise creation to fuel our mission work
- to restore the island
- at neighboring condominiums
- opportunities

lacksquare Aerial view of the proposed Kaho'olawe Education and Operations Center in Kīhei, Maui

▼ Aerial view of the center in relation to the Kīhei Boat Ramp

☑ Existing captured audience. 200-300 estimated daily visitors launch from the Kihei Boat Ramp for ocean

☑ Unique exhibitions. Dedicated to the memory of the people's struggle to regain Kaho'olawe and the effort

☑ Conference Center. Alternative to resort sites for small to medium sized conference facilities with lodging

Partnerships. Establish partnerships with other venues for market sharing and joint ticketing/promotion



# Welcome to the team - our new hires!



### **Ross Kamimoto Volunteer Coordinator**

Ross Kamimoto was born and raised in central Washington and holds a Bachelor's degree in Environmental Science from Western Washington University. While studying abroad in Costa Rica, he gained hands-on experience in conservation biology and field methods, which sparked his passion for environmental restoration. After moving to Maui, he began his career through an AmeriCorps internship, leading to a full-time role with the Maui Invasive Species Committee (MISC). Over six years, Ross managed invasive plant species through methods ranging from field surveys to helicopter operations. Now, as the Volunteer Coordinator for the Kaho'olawe Island Reserve Commission (KIRC), he organizes restoration efforts, enforces biosecurity protocols, and supports the preservation of Kaho'olawe's cultural and ecological heritage.

Currently pursuing a Master's in Wildlife Ecology and Management, Ross is driven by a commitment to advancing conservation in Hawaii. His studies align with his professional focus on restoring ecosystems, managing invasive species, and fostering community involvement in environmental stewardship. Outside of work, Ross enjoys hiking, music, and photography, with a special interest in capturing Maui's natural beauty and night skies. His multidisciplinary background and dedication to ecological restoration reflect his goal of making a lasting impact on Hawaii's environment.



### Kalei Guth **Logistics Specialist**

Kaleiopio is born and raised in Lahaina, Maui and is a graduate of Kamehameha School and the University of Hawai'i at Manoa, with a Bachelors degree in Hawaiian Studies. She has been an intern and volunteer with the Kaho'olawe Island Reserve Commission since 2010. During her time as an intern with the KIRC, she worked closely with both the Operations and Restorations teams, sharpening her skills both on the boat and in the field. Kalei comes aboard with a broad range of experience to assist our team here at the KIRC.

Kaleiopio spends her free time with her daughter, Kealaleihoku, who is also quite familiar to Kaho'olawe. Having grown up next to the ocean, they enjoy going to the beach and surfing or working on their family's farm. Also, they enjoy traveling and learning about other cultures around the world and their foods.

### "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.

### "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.

# **Frequently Asked Questions**

### "Did you clean up all of the bombs?"

The U.S. Navy i unexploded ordnance The KIRC remains the Federal Gov the 2004 com 75% of the su with only 10% de Areas that have not TO THE PUBLIC

ponsible for removing all from the land and waters of Kaho'olawe, and the liabit associated with its presence. d to that position and relies on fulfill their obligation Upon leanup, approximately ept of ordnance feet. ROUS 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.

### "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.

### "How can I help?"

- ☑ Connect with us on social media
- Become a KIRC member and make a donation today  $\checkmark$ by scanning the QR code below
- Submit a volunteer application to take part in our restoration efforts on Kaho'olawe
- $\checkmark$ Enroll as an intern
- Testify at one or more legislative hearings  $\checkmark$
- Create a Kaho'olawe-inspired work of art to be shared  $\checkmark$
- $\checkmark$ Invite the KIRC to your space as a (free) speaker
- Read, learn about, and share our online library and learning materials



Scan QR Code to Donate

# MAHALO to our FY24 Members and Donors!

Benefactors \$100-\$499

Don & Betty Otten

John Canzano

Jeffrey & Gay Chang

**Edward Clark** 

Mark Heckman

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Matthew Bredeson

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# **ALOHA KAHO'OLAWE**

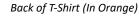
Aloha Kaho'olawe is a campaign to support Kaho'olawe restoration and access. Through this initiative, we invite participation via membership donations, partnerships and legislative support. By building consensus that there is value in the historical, cultural, ecological and community resources shared through Kaho'olawe, we aim to share this special place now and for generations to come. All donors at any level including "Supporter" will be enrolled in our e-newsletters. Consider becoming a member today!

Benefits Include:	Patron	Benefactor
Annual Family Membership to Maui Ocean Center (valued at \$290)	$\checkmark$	
Annual Individual Membership to Maui Ocean Center (valued at \$129)		$\checkmark$
KIRC Logo T-Shirt or Card Set (while supplies last)	$\checkmark$	$\checkmark$
Subscription to Ko Hema Lamalama	$\checkmark$	$\checkmark$
KIRC Logo Sticker	$\checkmark$	$\checkmark$
KIRC Virtual Tour QR Sticker	$\checkmark$	✓





Front of T-Shirt (in Blue)





The Kaho'olawe Exhibit at Maui Ocean Center





Ko Hema Lamalama Quarterly Newsletters

Stickers



Safety, transport and on-island operations



Research, monitoring and ocean programs



WHAT DOES MY KIRC MEMBERSHIP SUPPORT?

Planting, erosion control and restoration efforts



**Preservation and** protection of cultural resources



Access, education and community involvement



Sustainer

 $\checkmark$ 





A set of 5 greeting cards

MAHALO AND ALOHA

# Send this completed form with your donation to:

Kaho'olawe Island Reserve Commission 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

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# **GIFT TYPE:**

- □ PATRON (\$500 & up)
- □ BENEFACTOR (\$100-\$499)
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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.



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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o instagram.com/KahoolaweIslandReserve

Download our free mobile app: Kaho'olawe Island Guide

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