Roadmap

- Welcome to Waiʻoli, Kauaʻi
- Cultural/Historical Context
- Waiʻoli Loʻi Kalo Irrigation System
- Waiʻoli Valley Taro Hui
- Questions?
Waiʻoli
ʻĀina Hoʻoheno i ka Ua

KAUAI
HAWAIIAN ISLANDS

HAWAII TERRITORY SURVEY
Waiʻoli, Haleleʻa, Kauaʻi

Photo taken in 1890-1892 from Kamookoleaka, looking out across the Waiʻoli Loʻi Kalo Irrigation System.

Courtesy of Waiʻoli Mission Collection, negative in possession of David Forbes, circa 1890-1892.

Mele

Poetry

Waiʻoli rests in the coolness of the Kēhau.

My love to you Waipā sitting in the calm waters of Waʻioli.

At the pandanus laden Puʻupaoa we see the rain that rattles upon the leaves. It enjoys the sands of Mahamoku. The ʻōhiʻa softening rain of Waʻioli.
Moʻolelo
History

“Eia na moo o Kauai; … Kikiula ma Hanalei, nona ka muliwai o Waioli.”

Here are the moʻo of Kauaʻi; … Kīkīʻula at Hanalei, whose home is the river-valley of Waiʻoli.

“Ka Moolelo Kaa No Keaomelemele” Ka Nupepa Kuokoa 25 April 1885

Hanalei Kalana

The tributaries of Hanalei River – Kumuohia, Waiaula, Pahauniu, and Nukuhuluia – historically ran through the loʻi and today are still feeding into the Hui’s ‘auwai.

Kalana is a traditional Native Hawaiian land division associated more with systematic biocultural resource management and community identity rather than governance.
“On the 30th of this past October, certain peoples representing the districts of Hanalei and Anahola, gathered at Waiʻoli Church to create a Farming Association for these districts. D.B. Mahoe Esq. was chosen as secretary, and J.H. Werner Esq. was chosen as Chair for this meeting. They presented a constitution before the body, and it was amended and passed.”

For centuries, Kānaka Maoli have managed natural and cultural resources within the larger Hanalei Bay Watershed as a single integrated system to maximize the cultivation of traditional crops and lifeways and to distribute water resources.

The Hanalei Kalana includes Hanalei Bay Watershed: Hanalei, Waiʻoli, Waipā, and Waikoko, meeting at Mahamoku, “Hanalei Bay.”
As a part of the Hanalei Kalana, Waiʻoli Watershed shares stream resources with the ahupuaʻa of Waipā and Hanalei.

The Waiʻoli Muliwai (Estuary) is located within the Waipā Ahupuaʻa, a portion of the Waiʻoli loʻi and ʻauwai are located within the Hanalei Ahupuaʻa, and two hoʻi from Waiʻoli return water to Hanalei River, all eventually feeding Mahamoku. Hanalei tributaries also feed Waiʻoli Stream & loʻi.

Context:

Hanalei and Waiʻoli Valleys produce more than 70% of all kalo grown in Hawaiʻi.

Massive flooding due to heavy rains in April 2018 and August 2018 (Hurricane Lane) devastated Waiʻoli.
Overview of the Problem (cont.)

- Discovered that key kalo infrastructure was on State Conservation Land.
- Loʻi Kalo Irrigation System
  - Mānowai was blown out.
  - Poʻowai and ʻauwai were filled with silt and other debris; stream significantly altered.
- A numeric IIFS is necessary for the Hui to apply for a long-term water lease under HRS 171.

Water Lease Application Process

Request for water lease → DLNR informs DHHL of request → DHHL beneficiary consultation → DHHL/DLNR develop water rights reservation

Approval by Board for auction of lease → Development of watershed management plan or lease covenant → Compliance by applicant with Chapter 343, HRS (IA/IF/Exemption) → OCCL consultation → Public auction → Qualification of bidders

Amended IIFS needed to submit DEA → Execute lease
Waiʻoli Loʻi Kalo Irrigation System

- Mānowai: a traditional, Native Hawaiian breakaway dam.
- Poʻowai: a water intake at the head of the ‘auwai.
- ‘Auwai: a traditional irrigation ditch.
- Hoʻi: returns water to stream.
Waiʻoli farmer maintaining and repairing the mānowai, throwing stones so that more water can flow into the system.

Light blue arrow shows historic flow of water diverted by the mānowai. Red lines indicate the location of the historic mano.

After November 2020 Flood
The temporary mānowai, further downstream, is in a less than ideal location.

Flow of water from historic mānowai (left) into a branch of Waiʻoli Stream that flows towards the poʻowai.

Water from the māno flows from the top of the photo. Water on the left goes into the ‘auwai.

Water on the right flows back to the main branch of Waiʻoli Stream.

August 2020 after maintenance/repair by Kauaʻi County’s contractor.

After November 2020 and March 2021 floods.
A tributary from the Hanalei side contributes to Waiʻoli Stream, near the first māno, but before the poʻowai.

Same stretch of ʻauwai (further mauka).
Hoʻi

- Eight hoʻi return water to Waʻiʻoli Stream and Hanalei River.
- Six return water to Waʻiʻoli Stream.
- Two return water to the lower reaches of Hanalei River.
- All feed Mahamoku (Hanalei Bay).
Waiʻoli Valley Taro Hui

- These small, family-run kalo farms formally organized as the Waiʻoli Valley Taro Hui in response to the April 2018 flooding.

- The farmers have collaborated informally for over a century to steward and maintain Waiʻoli Valley’s natural and cultural resources.

- The Hui is a 501(c)(3) nonprofit established for the purposes of education and community engagement to empower future generations with traditional knowledge.

Aloha ʻĀina ʻOiaʻiʻo

- For Kānaka Maoli, and for these farmers, the practice of aloha ʻāina is embodied in the traditional and customary cultural practice of kalo cultivation.

- This practice not only operationalizes the farmers’ kuleana to mālama ʻāina as a means of survival, but importantly, it actualizes their familial relationship and kuleana to Kānaka Maoli’s elder sibling: kalo.
Within the Hui, nearly all the farmers were raised growing kalo in Waiʻoli, learning the practice from their parents, grandparents, and, for some, their great grandparents.

For example, kalo farming defines the Kaonaʻohana, a practice that spans four generations. Uncle Shorty Kaona is 100% Native Hawaiian and continues to farm full-time on his ʻohana’s kuleana land, as his ancestors have done since time immemorial.

The Hui relies and acts upon intergenerational knowledge passed down throughout Kauaʻi generally, and Waiʻoli Valley specifically.

The farmers intimately understand the ʻāina in Waiʻoli, the movement of the earth, and the rhythm and patterns found in the natural environment.

This informs and guides their ʻāina-based practices and processes of kalo cultivation in Waiʻoli.

Sharing experiences, adapting to natural changes, and stewarding this ʻāina for generations, these farmers have practiced kilo (observation) and have learned ma ka hana ka ʻike (the practice of learning by doing and adapting).
Hoʻolako
Enough to Share with Others

- In Haleleʻa, communities measure their wealth via hoʻolako – having enough to share with others.
- The Hui aims to hoʻolako and feed kamaʻāina as a means to sustain and maintain a relationship-based economy with shared values of aloha ʻāina – aloha for each other and aloha for the land.
- Today, the Hui trades with and/or gifts kalo to members within their community.

Mālama ʻĀina

- This ancient Loʻi Kalo Irrigation System is intimately interconnected and has changed very little over the last several centuries.
- For example, the farmers consistently restore the mānōwai, clear the stream of debris, and fix the ʻauwai. This monitoring and maintenance is a vital part of their cultural practice. It is when families gather and share time, food, and fellowship.
Flood Impacts Continue
February 2021

Flood Impacts Continue
February 2021

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Aia i Waiʻoli ke Aloha ʻĀina

Aia i Waiʻoli ke aloha ʻāina
There at Waiʻoli is aloha ʻāina

Ia ʻāina momona no ka hui kalo
That fertile land for the hui kalo

Hui ʻia a kūpaʻa, ā lawa pono
United, steadfast, and just enough

ʻIliʻili leo honehone i ka poli
Gathered as small pebbles soft in sound, but together, strong and held close

Pumehana Waipā uluwehiwehi
Waipā is cherished, lush and verdant

Hoapili no ka wai ʻolu o Waiʻoli
A companion for the refreshing waters of Waiʻoli

Aia i Waiʻoli ke Aloha ʻĀina

ʻOliʻoli Keanolani no ka mahiʻai
Keanolani is delightful for the farmers

I laila nō wau me kuʻu mahalo
It is there that I am filled with gratitude

Hanohano Kalihiwai i ka pua ʻala
Famous is Kalihiwai for its fragrant flower

Kui ʻia i lei no ka lāhui
Strung into a lei for the lahui

Haʻina ka puana a i lohe ʻia
Told is the refrain and it is heard

Aia i Waiʻoli ke aloha ʻāina
There at Waiʻoli is aloha ʻāina

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Mahalo piha!

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