



2021 Mū'olea Strategic Plan

Protecting our source of life and inspiration



ACKNOWLEDGEMENTS

We would like to express our special thanks of gratitude to all those who have supported the efforts of Nā Mamo O Mū'olea over the years. We thank the National Oceanic Atmospheric Administration, The Trust for Public Land, the Office of Hawaiian Affairs, and the County of Maui for helping to acquire and protect the land and for giving us a 50-year lease for its management; all those who have participated in the Hāna Limu Festival and for joining us in celebrating our culture and way of life; current and past Board members for being an integral part of our success as an organization; federal, state, and county agencies for working in partnership with us to restore health to the land and sea in Mū'olea; and the Mū'olea community and lineal descendants for your 'ike. Mahalo nui loa to all for helping us mālama (care for) our place and perpetuate our Hawaiian cultural values and practices so the 'ohana of Mū'olea can continue to rely on these lands and waters for our traditional subsistence lifestyle.

Current NMOM Board Members/Alternates		Past NMOM Board Members	
*Hank Eharis (P)/*Walter Pu	*Bruce Lind/Pomai Lind	Mona Oliveira	*Earl Kuailani
*Claudia Kalaola (VP)/Brian Villiarimo	*Pomai Konohia/Shannon Lind	*Terry Lee Poaipuni	
*Jan Elliott (T)/Janelle Baoy	Wailena Pu/Walter Pu	Hilary Harts	
*Scott Crawford (S)/Roxie Sylva	Taina Kaina/Elroy Krause	*Simeon Park Jr.	
*John Blumer-Buell/Frank James Oliveira	Ipo Mailou/Joy Boy Mailou	Jana Sinenci	
Kenneth Davis/Janelle Baoy		Karen Davidson	

Hāna Limu Festival Participants and Other Partners	
Ahahui Ka'ahumanu Hāna Chapter	Henry Chang Wo
Akakū Maui Community Media Center	Hui o Ka Wai Ola
Ala Kuku'i	Jack Uaiwa & Boys
Alaka'ina Maui Digital Bus	Ka Hikina o Ka Lā (UHMC Program)
Barbless Hook Circle Project	Kahanu Garden
Barefoot Cafe	Kamehameha Schools
CJ Helekahi	Kīpahulu 'Ohana
County of Maui Police Department	Kua'āina Ulu 'Auamo
County of Maui Office of Economic Development	Kupu
County of Maui Parks and Recreation	Maui Nui Makai Network
County of Maui Public Works	Maui Nui Marine Resource Council
DLNR Division of Aquatic Resources	Maui Nui Seabird Recovery Project
Dr. Cecilia Smith & Dr. Bill Thomas	NOAA Marine Mammal Response Team
Earl's Tents & Rozitta Hoopai 'Ohana	Office of Hawaiian Affairs
Ewa Limu Project	'Oiwi TV
Hālau Nā Kaulakuhikuhi	Omidyar Fund of The Hawai'i Community Foundation
Haleakalā National Park	Papahānuamokuākea Marine National Monument
Hāna Canoe Club	Parley Kanaka'ole
Hāna Emergency Preparedness	Pekelo Cosma
Hāna Kai Resort	Polynesia Voyaging Society
Hāna Maui Resort / Travaasa Hāna	Stephen "Tree" Luksic
Hāna Maui Trust	The Nature Conservancy Hawai'i Program
Hāna Soil & Water Conservation District	UH Mānoa Department of Botany, Mānoa
Hāna Youth Center	UH Maui Marine Option Program
Hawaiian Islands Land Trust	Waihe'e Limu Restoration Group

*NMOM Founding Board Members

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Nā Mamo O Mū'olea members. Photo by Tiara Stark.

Nā Mamo O Mū'olea

VISION

Mū'olea is a community gathering place where family and friends actively restore and mālama, educate, gather, and relax together. It is a place that feeds and heals our minds, bodies and spirit - a place where Hawaiian cultural values are alive and old Hawai'i is enjoyed.

VALUES

We live and promote these values in our work to protect Mū'olea for current and future generations:

- *Give thanks and give back* – we mahalo Mū'olea and lend a hand to help
- *Hana lima* – we reach our goals through hard work, resourcefulness, and involvement
- *Hilina'i* – we lean on, rely on, and trust in one another as a community of caring
- *Kuleana* – it is our privilege and responsibility to care for this land of our ancestors and ali'i
- *Mahele* – we share freely with one another as individuals, families, and community
- *Mālama i ka 'āina* – this is our highest calling, to preserve, protect, and maintain Mū'olea
- *Take only what the resources will sustain* – in this way we will always have enough



Hawaiian chiefess Analea Keohokālole (1816 – 1869), mother of King David Kalākaua, Queen Lydia Lili'uokalani, Miriam Likelike and William Leleiohoku, owned the land at Mū'olea in the mid-1800s.

WHO WE ARE

Nā Mamo O Mū'olea (NMOM) is a non-profit 501(c)3 organization formed in 2006 to protect and manage the cultural and natural resources of Mū'olea. In 2004, the community organized to purchase nearly 70 acres of coastal land in the Mū'olea ahupua'a. Collaboration between the County of Maui, The Trust for Public Lands, National Oceanic and Atmospheric Administration (NOAA), Office of Hawaiian Affairs, State of Hawai'i and the community made the purchase possible. Today, these lands are owned by the County of Maui and managed by our all-volunteer community group under a 50-year lease.



Mū'olea Point in 1888. Photo by Hedemann.

The **mission** of NMOM is to perpetuate traditional ahupua'a management of the Mū'olea ahupua'a and to restore and maintain the area's natural, cultural, scenic, historic and marine resources for the benefit, education and enjoyment of our community and future generations.

By caring for Mū'olea, it can remain a place where families focus on traditional values, share knowledge, and mo'olelo. By practicing cultural leadership and keeping cultural practices in use, Mū'olea can serve as a model and voice for Hawaiians in the communities of Mū'olea, Koali, Hāna, and others in East Maui and beyond. We take care to respect and listen to one another so that Mū'olea can be cared for as a healthy gathering place that is a source of life and inspiration for our community.

Consistent with the purposes for which the land and shoreline were protected, NMOM seeks to protect resources as well as the traditional subsistence uses and those values and practices that help us to care for resources.

Our bylaws state that “at least two-thirds of the Board of Directors shall be lineal descendants of the original grantees of the Royal Patent Grants and Land Commission Awards (LCA) within the ahupua'a of Mū'olea and Papahawahawa, or the lineal descendants of the original 30 members of the Hui of Mū'olea, as named in the conveyance dated June 2nd 1863, liber 17, pages 24-25; and shall currently reside in East Maui (including the four moku of Ko'olau, Hāna, Kīpahulu and Kaupō). Of the remaining Directors, at least one shall be a current resident of the Mū'olea or Papahawahawa ahupua'a.” Each member of the Board of Directors has one alternate who meets the same qualifications as

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the Director, and in the absence of the Director at a meeting of the Board of Directors has the same voting authority as the Director.

NMOM is also an active, founding member of the Maui Nui Makai Network (the “Network”), a group of community and partner organizations across Maui Nui that seek to care for and restore healthy ecosystems on which they depend. As an active member, NMOM has largely aligned our mission and process with those of the Networks (see Appendix 1 & III).

While NMOM recognizes the need for money for operations, our focus is primarily on people, health of resources, joyful work, Hawaiian culture, and pono values. Explicitly stated, it is not our mission to raise large amounts of money, as we strongly believe that through the guidance of Mū'olea 'ohana, community involvement, support, and hard work, we can restore Mū'olea to abundance so that both culture and the resources thrive for countless generations to come. However, as a 501(c)3 organization, NMOM does accept tax deductible donations for the organization's efforts or the Dr. Isabella Aiona Abbott Memorial Scholarship fund or the organization.

OUR PROJECT DESCRIPTION

The ahupua'a of Mū'olea is located on the rugged and beautiful Hāna Coast, in the moku of Hāna, approximately halfway between Hāna Town and Kīpahulu. Mū'olea is known for its unique cultural and natural resources. King David Kalākaua maintained a summer home here, and legendary Maui King Kahekili chose the uplands of Mū'olea as the place to rest and recover his strength following his successful re-conquest of Hāna in the late 1700s.

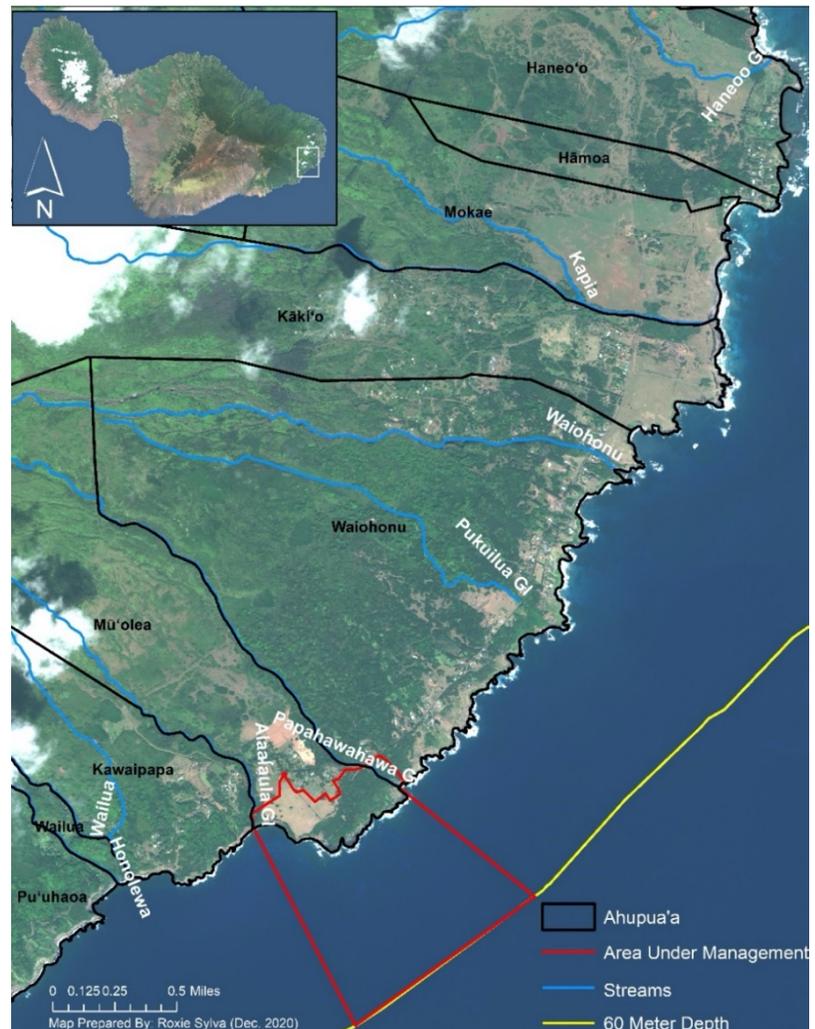
Mū'olea hosts an abundance of Hawaiian sites – heiau, fishing shrines and stonewalls, endangered native plant species, an ancient Hawaiian coconut grove, a freshwater spring, and an extensive and unique tide pool complex. The near-shore waters, coral reef, and intertidal ecosystems of Mū'olea are rich in Hawaiian ocean life. Fish, crustaceans, corals, 'opihi and limu flourish here. The local Hawaiian community knows Mū'olea for its valuable fishing and gathering grounds that have sustained their families for centuries; it is also a place of rest and relaxation. It is also known for the Limu Make O Hāna, the deadly, poisonous organism found only at Mū'olea. Used at one time to poison the tips of spears and ensure the death of enemies, its location is fiercely protected by tradition to be strictly off limits to all.

Fresh water from Kanewai spring forms a muliwai, or estuary, that feeds the near-shore reef. The near constant sweep of tradewind-driven waves and sea spray nourishes the extensive tidepool complexes. Kanewai is known for the traditional fishing practice of building manini hale, a house of rocks that attracts the fish so they can be easily caught. Both the estuary and the tidepools provide important protection and nursery habitat for many juvenile reef fish. These fishing grounds were traditionally managed as part of the ahupua'a, a political unit extending from the high mountains into the deep sea. Expertly managed under traditional systems, the sea sustained

the people of Mū'olea for generations. During the last century, the abundance of marine resources in Mū'olea was maintained by 'ohana who had responsibility over certain areas and who maintained clear communications and respect about resource use within the ahupua'a; this system, however, has changed in the last 25 years.



The tidepools of Mū'olea provide a nursery area for 'ohua (juvenile Manini) and other reef fish. Photo by Claudia Kalaola.



Map Above: The area under management is largely in the ahupua'a of Mū'olea, between 'Ala'ala'ula and Papahawahawa streams, extending out to the 60-meter depth line. Please refer to Appendix III for a more detailed site map. Map by Roxie Sylva.

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PARTICIPATORY PLANNING PROCESS

Early on we recognized the need to develop a roadmap for us to care for the land and sea of Mū'olea. For this 2021 revision, we met multiple times in 2019 and 2020. This plan builds on the 2009 Mū'olea 2-year Marine Resources Action Plan, the 2013 Strategic Plan, and the 2016 Survey and analysis of our work to date. Through our efforts to implement this plan, we strive to build a model of community-based management in East Maui.



NMOM board members and other Maui Hikina Ho'omau signatories at the 10th Annual Hāna Limu Festival in 2019. Photo by TNC (Emily Fielding).

WHAT WE WANT TO MĀLAMA

Our strategic areas of focus for management are people, kai (ocean), wai (freshwater), culture, 'āina (land) and governance.

People: We recognize our physical, spiritual and historical connection to the 'āina of Mū'olea. To foster our connection, we emphasize youth involvement and responsibility, educational opportunities, and understanding our relationships and genealogy in this area.



NMOM and partners monitor 'opihi in 2017. Photo by TNC (Emily Fielding).

Kai: Mū'olea is our icebox. It's where we go for sustenance and we want it to always be well stocked for our present and future generations. We strive to manage our resources and relationship to the sea as our kūpuna did in the past. We focus on returning our favorite species to abundance: moi, ahohole,



Ula (lobster) on Mū'olea reef. Photo by Russell Amimoto.

manini, kole, uhu, 'ū'ū and 'ula on the reef; 'opihi, 'a'ama, and limu koku on the shore; and pāpa 'i kua loa (kona crab) on the sand. These species were chosen as important food sources for present and future generations.

Wai: The fresh waters of Mū'olea are revered. At Kanewai, a freshwater spring flows into the sea, creating a nursery area for fish. 'Ala'ala'ula Stream flows year-round from the summit of Haleakalā into Kauakiu Bay and is known for the Wailena waterfall. Powerful Papahawahawa Stream flows only during heavy rains, from the native forests of Waiho'i Valley above.



Alaalaula stream. Photo by TNC (Emily Fielding).



Kanewai by the milo tree. Photo by Claudia Kalaola.

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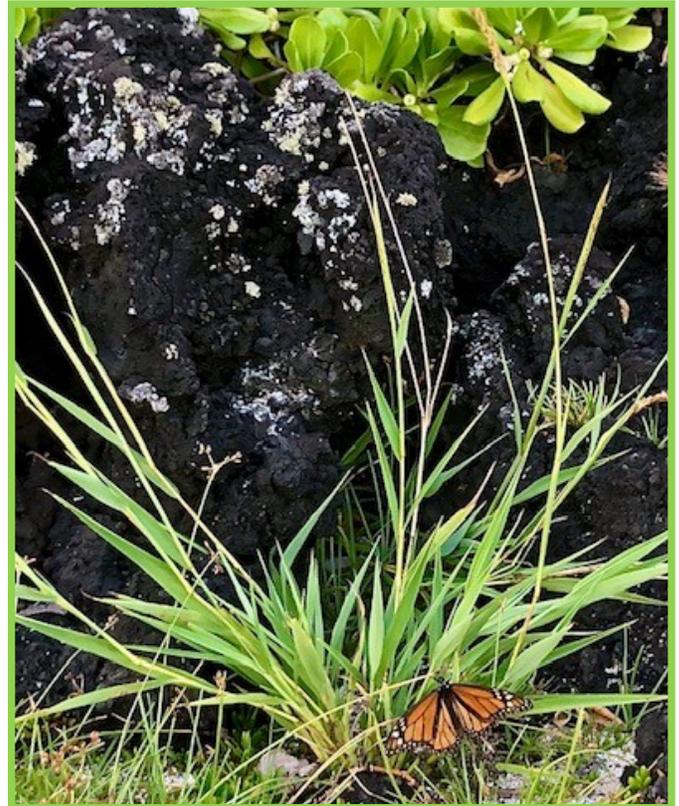
'Ūlī, or Wandering Tattler (*Tringa Incanus*) rest after their long migration from Alaska. Photo by Jan Elliott.

Culture: We seek to deepen our understanding, appreciation, and respect for the Hawaiian cultural resources of Mū'olea, past and present. To that end, we strive to learn more about the physical history such as the Kawaloa Heiau near Papahawahawa Stream, the whereabouts of King Kalākaua's summer home, as well as the spoken traditions of place names, mo'olelo, and the legacy of our ali'i.



Young female endangered 'Ūlio-Holo-i-ka-Uaua, or Hawaiian Monk Seal (*Monachus Schauinslandi*) basks in the tide pools near the niu grove. Photo by Jan Elliott.

'Āina: Mū'olea's natural resources include rare coastal native plants, ancient niu, lauhala and milo groves, and māla (gardens). In the pasture lands above Kauakiu Bay, managed cattle grazing and mechanical mowing are essential to keeping weeds in check. We maintain a boundary fence to keep out wild cattle, and maintain gathering areas, cultural sites, footpaths, and roads by mowing and trimming vegetation.



Native grass *Ischaemum byrone* thrives after out planting by NMOM in 2006. It is scattered in coastal sites on East Maui (and other islands) including some offshore islets. Photo by Jan Elliott.

Governance: Our Board of Directors holds monthly meetings in the County Council Service's Hāna office (and recently by video conference) since our non-profit was formed. We have and will continue to work with the county and the state to develop the tools needed to empower our Board and community to effectively manage resources and activities in the area.



NMOM and the Mū'olea community outplant limu in the tidepools. Photo by TNC.

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Strategic Areas of Focus for Mū'olea						
Includes	1. People	2. Kai	3. Wai	4. Culture	5. 'Āina	6. Governance
	Youth involvement and responsibility	Abundant reef fish	Clean water from springs and streams and native stream life	Traditional place names, oral histories, and mo'olelo	Coastal native plants	Agreements that support what we do (conflict resolution)
	Educational opportunities	Abundant 'opihi and limu	Kanewai, 'Ala'ala'ula, Papahawahawa	Kawaloa Heiau near Papahawahawa Stream	Manage livestock and pasture	DLNR rules protecting gathering by 'ohana
	Connection and relationship to 'āina	Traditional fishing knowledge	Water rights and access	Kalākaua's home, rock walls	Niu, lauhala, and milo groves	Access and use policies
	Genealogy and relationships	Kuleana	Water infrastructure	Research connection to ali'i	Māla (gardens), greenhouse	Strong Board of Directors, involved community



'Ū'ū gather in a cave on the Mū'olea reef in 2010. Photo by TNC.

OUR ACTIONS

Building on all that we have learned about our community, history, environment, problems and priorities since our group formed, we updated our goals, objectives and strategic actions to address priority challenges, reduce threats, and improve resources and relationships. We recognize that our planned actions need to continue to be adaptive to opportunities, changing circumstances, new information, and our capacity to implement actions (measured by “Measures of Success”, Appendix I). Therefore, we will use this plan as overarching guidance to set priorities and review progress on an annual basis. Our goals, objectives, and strategic actions are located in the table below.

OUR CHALLENGES

The priority challenges to be addressed at Mū'olea related to resource management:

- 1) Overharvest of marine resources
- 2) Alien plant overgrowth
- 3) Limited amount of volunteer time to dedicate to the project
- 4) Need to educate community about our efforts
- 5) Lack of enforceable rules for ocean resource use
- 6) Miscommunication and disagreements about management



NMOM and fellow East Maui community groups commit to working together at the 10th Annual Hāna Limu Festival in 2019. Photo by TNC.

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Goal	Objective	Strategic Actions
Goal 1: Fulfill our kuleana to bring back resources and keep Mū'olea the way it is for future generations.	Obj 1.1: Develop programs and/or products to involve the Mū'olea community in efforts to document, share, and add to the history, genealogies and knowledge of Mū'olea.	<ul style="list-style-type: none"> a) Lead oral history workshops and provide tools for families to record and archive their family stories. b) Sponsor a genealogy workshop to give Mū'olea families the resources and opportunity to do their own genealogies. c) Sponsor a land tenure workshop to help Mū'olea families research and understand their ownership interests and rights to lands. d) Conduct archival research into the history of the area, including Kalākaua's house, Kawaloa Heiau near Papahawahawa Stream and Kanewai, Kahekili's time here, and other significant cultural sites, and mo'olelo (e.g. the shark man). e) Collect and archive photographs. f) Create accessible archives – physical and digital. g) Develop page of website to share history and knowledge collected.
	Obj 1.2: Restore and maintain the Mū'olea landscape on an on-going basis.	<ul style="list-style-type: none"> a) Develop a NMOM Restorative and Sustainable Land Management Plan (landscape restoration and management plan) by December 2021 (and implement plan) that includes: (1) trails and roads; (2) fencing/maintenance; (3) community garden; (4) restoration of māla, lauhala, and niu grove; (5) cultural sites; (6) native/canoe vegetation; and (7) and the impacts of climate change and sea level rise. b) Develop pasture management plan by December 2021, including the protection and restoration of archeological sites (e.g. stone wall). c) Develop Water Resources Management Plan and Policies, a master plan for fresh water resources for Mū'olea property, exploring existing water rights and access, catchment system, wells, stream diversion, and county water meter as possible options. d) Conduct a community process to officially give the rare grass <i>Ischaemum byrone</i> a Hawaiian name. e) Investigate & acquire neighboring land in Mū'olea.
	Obj 1.3: Proactively ensure the quality and quantity of surface and sub-surface freshwater flow to Mū'olea is maintained at current levels. Prevent land-based impacts to ocean resources.	<ul style="list-style-type: none"> a) Increase involvement and dialogue with East Maui Watershed Partnership (EMWP) and Maui Invasive Species Committee (MISC) about mauka forest restoration activities and reducing stream runoff; request a supporting membership with EMWP. b) Regarding 'Ala'ala'ula stream, Papahawahawa stream, and Kanewai spring: stay informed about all land-based activities (e.g. adjacent construction, road work, grading, soil-moving, well-drilling, permit applications, toxic chemical use) that may impair these waters and marine life, and seek neighborhood and agency cooperation to prevent damage. c) Develop and disseminate best sustainable ahupua'a land use practices to promote awareness and voluntary implementation by adjacent landowners.
	Obj 1.4: Develop policies and procedures for all areas of management by 2021.	<ul style="list-style-type: none"> a) Develop policies and procedures for: camping & access (insurance & waivers), code of conduct (noise, fireworks, nudity); formalizing relationship with police & fire safety; kai management; communications, social media, filming; land management; and herbicides. b) Develop internal Board structures, policies and procedures, including working with the County and other agencies, communications, compensation and financial needs, and conflict resolution. c) Develop a code of conduct and signage for activities at Mū'olea.

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Goal 2: Re-establish and perpetuate traditional practices for pono and sustainable resource management & replenishment.	Obj 2.1: Increase 'opihi abundance and size through consistent and full compliance with 'Opihi Rest Area.	<ul style="list-style-type: none"> a) Conduct annual 'opihi monitoring and analyze data in real time with the support of partners. b) Maintain the voluntary 'opihi rest area to ensure abundance of 'opihi population. c) Maintain signage, update and expand other outreach on 'opihi pono practices and the 'opihi rest area. d) Support improved 'opihi rules and/or regional management in collaboration with partners and support regional efforts.
	Obj 2.2: Increase awareness of native limu.	<ul style="list-style-type: none"> a) Hold an Annual Hāna Limu Festival to educate, raise awareness, and perpetuate native limu and their traditional uses. b) Develop a website to promote and raise awareness of limu including hosting archives of past festivals and other educational resources. c) Conduct baseline survey of edible limu at Mū'olea with partners.
	Obj 2.3: Increase reef health and reef fish abundance.	<ul style="list-style-type: none"> a) Conduct reef and reef fish monitoring to measure reef fish abundance and reef condition every 10 years (to compare to previous surveys conducted in 2010). b) Explore partnerships to conduct a local Hāna invasive fish tournament that includes youth. Utilize the captured audience to express key messages about pono fishing practices. Conduct the tournament and announce winners during Aloha Week festivities. c) Develop Mū'olea lawai'a pono code of conduct, install signage at Mū'olea. d) Document observations about seasonal reproductive patterns with partners. Produce a seasonal calendar for Mū'olea based on seasonal observations with partners. Post seasonal signage based on current spawning conditions. e) Based on the East Maui Ho'omau agreement (Appendix II), participate in regional efforts for near-shore fisheries management. f) Maintain and update information at kiosk at Mū'olea to share and learn about topics. g) Encourage 'ohana to teach youth pono fishing and traditional practices through fishing. h) Develop and utilize tidepool and kanewai cultural-ecological inventory/field guide/map as a way to involve youth in understanding and appreciating marine life.
	Obj 2.4: Contribute to raising awareness, exchanging knowledge, and fostering dialogue about traditional uses and knowledge.	<ul style="list-style-type: none"> a) Collaborate with partners to increase dialogue about traditional fishing, land management, and farming knowledge, and to help define ahupua'a management. b) Continue to involve NMOM Board of Directors and their families and youth in all projects. c) Connect with regional and local networks (e.g. Maui Nui Makai Network, E Alu Pū, Limu Hui, East Maui Mālama I Ke Kai group).
	Obj 2.5: Involve youth to build their interest and capacity to be future stewards of Mū'olea.	<ul style="list-style-type: none"> a) Promote and administer the Dr. Isabella Aiona Abbott Memorial Scholarship. b) Host at least one youth activity at Mū'olea each year. c) Prioritize youth involvement in all activities.

OUR ACCOMPLISHMENTS 2009-2019

ALOHA! Honoring our values, learning, sharing, and community involvement are priorities for NMOM. Following are some of the great projects we have been privileged to lead.



Hāna Limu Festival attendees gathered to welcome Hōkūle'a in 2017. Photo by Claudia Kalaola.

Hāna Limu Festival: Since 2009, NMOM in collaboration with The Nature Conservancy (TNC), MNMN, and other partner organizations, have held an annual Hāna Limu Festival. The event brings people together from around Hawai'i and the world to learn the importance of limu in marine ecosystems and the Native Hawaiian culture. Contributing organizations host booths that highlight and share educational outreach. In 2019, NMOM celebrated our 10th year of hosting the event, which also paid tribute to Dr. Isabella Kauakea Abbott, who would have celebrated her 100th birthday. The Limu Festival also provides additional opportunities to promote the Dr. Isabella Aiona Abbott Memorial Scholarship and ways recipients can give back to the community. The scholarship was created to honor the life, work, and achievements of Dr. Isabella Aiona, a Hāna-born algae taxonomist. Funds are awarded to post-high school graduates pursuing careers in botany, ethnobotany, marine science and/or Hawaiian studies. As a non-profit 501(c)3 organization, NMOM can accept tax deductible donations for the Dr. Isabella Aiona Abbott Memorial Scholarship fund or the organization.

Traditional Ecological Knowledge (TEK) Workshops: In November 2012, we collaborated with TNC to train our youth in interviewing kūpuna and 'ohana about Mū'olea. Through transcribing and reviewing recorded interviews, we are learning



Uncle Bruce Lind and Uncle Simeon Park share mo'olelo during the TEK Workshop interviews in 2012. Photo by Manuel Mejia.

important things about our people and their connection to Mū'olea; knowledge we hope will help us to better appreciate, manage, and educate others.

Whales: In 2005, we rescued a stranded juvenile beaked whale in the tidepools at Mū'olea. By working together, we were able to lift it back into the sea. And in 2010, a dead sperm whale washed ashore that was over 50 feet long. Learning from the Kia'i Kanaloa Network, there is a cultural connection where marine mammals come into contact with the land. Mauka of the area where these two occurrences took place is the Kawaloa Heiau near Papahawahawa Stream.



The community gathered to free a stranded juvenile rare beaked whale. Photo by Claudia Kalaola.

Cultural surveys: Mū'olea contains an abundance of archaeological sites, including Kawaloa Heiau near Papahawahawa Stream, which is listed in the State of Hawai'i Inventory of Historic Places. The community also contains a wealth of traditional ecological knowledge. In order to safeguard this knowledge, NMOM held Traditional Ecological Knowledge workshops in 2012, where interviews with the community were documented and recorded. In 2007, NMOM received a small grant from Maui County to begin an archaeological survey of Mū'olea. Under the guidance of Dr. Thomas Dye of Honolulu, we dug several test pits in prominent locations around Mū'olea, looking for traces of Kalākaua's house site and evidence of pre-Western contact, Hawaiian habitation, and usage. We gathered charcoal samples for radio-carbon dating in these test pits among the many crumbling stone walls of the agricultural terraces, fishing shrines, and ancient dwelling sites on the property. Dr. Dye's intriguing report on the archaeology of Mū'olea asks more questions than it answered and re-affirms the vast extent of the archaeological record that remains to be uncovered in Mū'olea. An especially important site is the undocumented heiau at Kanewai, which was noted in 2006 by esteemed Pacific archaeologist Dr. Patrick Vinton Kirsch as being of particular significance. NMOM continues these efforts today through reading old Hawaiian newspapers, compiling information from Bishop Museum archives, and collecting archive photographs.

Native plants: In collaboration with Patti Welton and Bill Haus, botanists from Haleakalā National Park, we conducted a native plant survey of Mū'olea in 2006. We found many coastal species, and one native grass so rare it has no known Hawaiian name. We plan to help this rare grass and other species flourish, and to establish a Hawaiian name (see photo on page 7).

'Opihi surveys: 'Opihi is one of the most important foods from the sea for our community. To increase our understanding of

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how to increase the abundance of 'opihi at Mū'olea, we helped create the 'Opihi Partnership and standardized monitoring methods for 'opihi in 2008. Since then, we have been conducting annual summer surveys at Mū'olea in collaboration with TNC and Texas A&M University, maintained signage and voluntary 'opihi rest areas (ORAs), and conduct outreach on pono 'opihi practices and ORAs. All are welcome to join. We have also shared these methods with other East Maui



NMOM members next to newly installed 'opihi signage in 2014. Photo by TNC.

communities, the Ka'ūpūlehu community on Hawai'i Island, and sent representatives from our community to monitor 'opihi in Papahānaumokuākea Marine National Monument.

Reef abundance: Ensuring the abundance of our reef resources is a priority for us. In 2009-2010 we collaborated with TNC's monitoring team to survey our reef and reef fish. This information about the abundance and types of reef fish and corals provides a baseline that we can compare to in the future, as well as to compare to descriptions of how it was in the past. To further ensure the abundance of our reef resources, we share traditional fishing practices with different youth groups (Kulia I Ka Pono, Hāna Youth Center, Punana Leo, Ma Ka Hana Ka 'Ike), and conduct outreach, including the utilization of tidepool surveys as a tool, conducting local and statewide presentations to increase dialogue about traditional fishing methods, ahupua'a management, and to share our lessons learned, document observations about seasonal reproductive patterns, and continue to share outreach materials through our on-site kiosk.



Mū'olea reef and marine life. Photo by TNC.



The late Maui slack-key master Pekelo Cosma entertaining the crowd with original compositions at the 2010 Hāna Limu Festival. Photo by Claudia Kalaola.

WAYS YOU CAN BE INVOLVED

Join us for our monthly Board of Director's meeting on the 2nd Wednesday of every month at the County Council Room at Hāna School (or by video conference when necessary) at 5:00 pm. You can also join in community workdays, 'opihi monitoring, the Annual Hāna Limu Festival each November, and help spread the word about the Dr. Isabella Aiona Abbott Memorial Scholarship for Hāna youth.

CONTACT US

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MAHALO NUI!

Nā Mamo O Mū'olea is grateful to all community members and organizations who participated in the creation of this plan. The County of Maui as well as The Nature Conservancy and The National Oceanic and Atmospheric Administration (NOAA), through their Coral Reef Conservation Program, have been especially significant supporters toward this effort. 'A 'ohe hana nui ke alu 'ia. No task is too big when done together by all.





Maui Nui Makai Network Common Measures Framework

What is it? A set of indicators that community members to monitor their progress and success for stewardship and conservation efforts. These indicators were co-generated and designed to be easy to collect, meaningful at the community level, and take into account improved biocultural and human wellbeing outcomes.

Why have common measures? It is important for community groups to have the ability to track progress to know if their efforts are working and to inform the adjustments needed in management if the actions aren't effective. It shows progress in how people and places are doing. For the Network, these measures quantify the extent to which they are having an impact and if not, to provide lessons learned and ways to adapt to solve the problems.

How will they be used? A combination of data collection methods is being co-created with community groups. Where possible, we use existing methods and protocols developed by the communities and our partners. At the Network level, semi-annual surveys (check-in at gatherings to see how we are doing on key critical areas) will help inform how we can keep improving in learning through knowledge exchange and measuring our collective impact.

Key Principles: We developed common measures of success specific to the Maui Nui Makai Network communities so that they are meaningful to people and place and include socio-cultural indicators that take into account human interactions with nature. Through this biocultural approach, we aim to document how healthy communities thrive with healthy environments and vice-versa. Key principles we used in developing this framework and indicators are that they are:

- Meaningful at the local and regional scale
- Promotes transparency and accountability
- Co-created, co-developed and selected by communities
- Doubles as a way to communicate project and results
- Motivates people to care
- Easy and practical to collect information
- Rooted in place, encompassing biophysical and cultural components important to the community
- For communities, answers: How are our lives and resources improving due to our efforts?
- For the Network, answers: How is our collective impact moving the needle for people and nature in Maui Nui?

Common Measures Framework

We've nested the common measures into 4 'umeke (bowls): People, Place, Empower, Partners. **People** is about the community, **Place** is about the biophysical aspects and ecological health of the site, **Empower** is about the empowerment of the community to have agency over resource management and governance, and **Partners** is about the learning network and its capacity and impact.



Measuring Success for Mū'olea				
Objectives	Indicators (How will we know?)	How will we measure?	Who will lead?	When or how often?
1.1 Develop programs and/or products to involve the Mū'olea community in efforts to document, share and add to the history, genealogies and knowledge of Mū'olea.	-Workshops held and evaluated. -# of events held and evaluated. -# of unique participants. -# new skills/knowledge learned. -Traditions passed on to next generation.	-Data will be kept as events are held and added up on an annual basis. -Keep track of workshop metric and survey participants. -# of positive evaluations. -Archival material is available on website.	People who plan workshops	Per workshop
1.2 Restore and maintain the Mū'olea landscape on an ongoing basis.	-1994 Hana Community Plan, The County of Maui General Plan Policy Plan and The Maui Island Plan General Plan 2030 in use (yes/no) -In compliance with County of Maui Lease and NMOM By-Laws (yes/no) -Land management plan includes generational and cultural knowledge and practices in the plans for implementation. -# of unique participants. -Rare grass is named and present. -Mū'olea land is restored and maintained.	-Document portions of plan that are in use and that have been completed. -Document community participation on an annual basis. -Land-based surveys to collect data on rare grass presence annually. -# of acres (out of 70 acres) restored and maintained.	People who draft the plans	
1.3 Proactively ensure the quality and quantity of surface and subsurface freshwater flow to Mū'olea is maintained at current levels. Prevent land-based impacts to ocean resources.	-Percent of freshwater sources secured. -# partnerships/networks established and/or connected with. -Traditions passed on to next generation.	-Data on the % of freshwater sources secured will be calculated on an annual basis. -EMWP membership established. -Freshwater flow monitoring established with USGS or others (e.g. partner for 'Ala'ala'ula Stream flow monitoring). -Sustainable ahupua'a land use practices shared.	Partner with agency like USGS who can maintain equipment and collect data and analyze the data and trends	Ongoing throughout the year
1.4 Develop policies and procedures for all areas of management by 2021.	-Internal and external policies, procedures, and code of conduct developed. -# of unique participants.	-Collect data on degree of sense of ownership and kuleana in policies, management efforts, and stewardship. -Perception, knowledge and attitudes survey of Board of Directors and people who go to Mū'olea conducted. Results used to adapt policies.	Board of Directors	Once when the policies are implemented; then periodically as needed

	<p>2.1 Increase ‘opihi abundance and size through consistent and full compliance with ‘Opihi Rest Area.</p>	<ul style="list-style-type: none"> -‘Opihi abundance/sizes/change -# of people reached and # of unique participants (i.e., surveyors). -Community engagement in rule-making. -Level of compliance -Data and information shared via email and zoom and handouts; signage maintained and visible; ORA clearly demarcated. 	<ul style="list-style-type: none"> -Rapid ‘opihi surveys to document % change annually. -Data on # of surveyors and community members present at report outs summarized annually. -# people observed doing restricted behavior. 	<p>Hank</p>	<p>Annual surveys</p>
	<p>2.2 Increase awareness of native limu.</p>	<ul style="list-style-type: none"> -Limu Festival held annually and # of participants and attendees documented. -# of people reached. -Limu species/abundance/change. -Limu Festival website created and visited. -# media hits/social media posts. 	<ul style="list-style-type: none"> -Data on annual participation (attendees & exhibitors) collected. -Poll attendees and exhibitors on their experience (e.g. knowledge captured - what did they learn). -Limu survey conducted at Mū‘olea. -Data on # of website visits, media hits, and social media posts will be added up annually. 	<p>Limu festival committee</p>	<p>Per event</p>
	<p>2.3 Increase reef health and reef fish abundance.</p>	<ul style="list-style-type: none"> -Fish abundance/biomass. -Level of compliance. -# youth engaged in pono fishing practices and events. -Seasonal calendar produced including reproductive patterns and code of conduct. 	<ul style="list-style-type: none"> - Reef health surveys conducted every 10 years, data reported out. -# people observed doing behavior not aligned with code of conduct. -Data on # youth engaged added up annually. -# seasonal calendars produced and disseminated to community. 	<p>Fishing committee</p>	
	<p>2.4 Contribute to raising awareness, exchanging knowledge, and fostering dialogue about traditional practices and knowledge.</p>	<ul style="list-style-type: none"> -# of oral histories and traditional stories documented (i.e., held) with ‘ōpio involvement. -# of kupuna participating. -# of regional and local networks and partners connected with. -Traditions passed on to next generation. 	<ul style="list-style-type: none"> -Document and compile oral history activities and participation (# ‘ōpio & kupuna) for annual report to the Board of Directors. -Data collected on both the # of partners/networks as well as which partners/networks work with. 	<p>Board of Directors/committee</p>	
	<p>2.5 Involve youth to build their interest and capacity to be future stewards of Mū‘olea</p>	<ul style="list-style-type: none"> -Traditions passed on to next generation. -# of events held. -# of youth participating in give-back activities held. -# of youth educated through mālama‘āina activities at Mū‘olea. -# of Dr. Isabella Abbott Scholarship applicants. 	<ul style="list-style-type: none"> -Document and compile annual data on youth engagement activities and participation for annual report to the Board of Directors. Include data on knowledge captured and practiced. -# of Dr. Isabella Abbott Scholarship recipients. 	<p>Board of Directors/committee</p>	

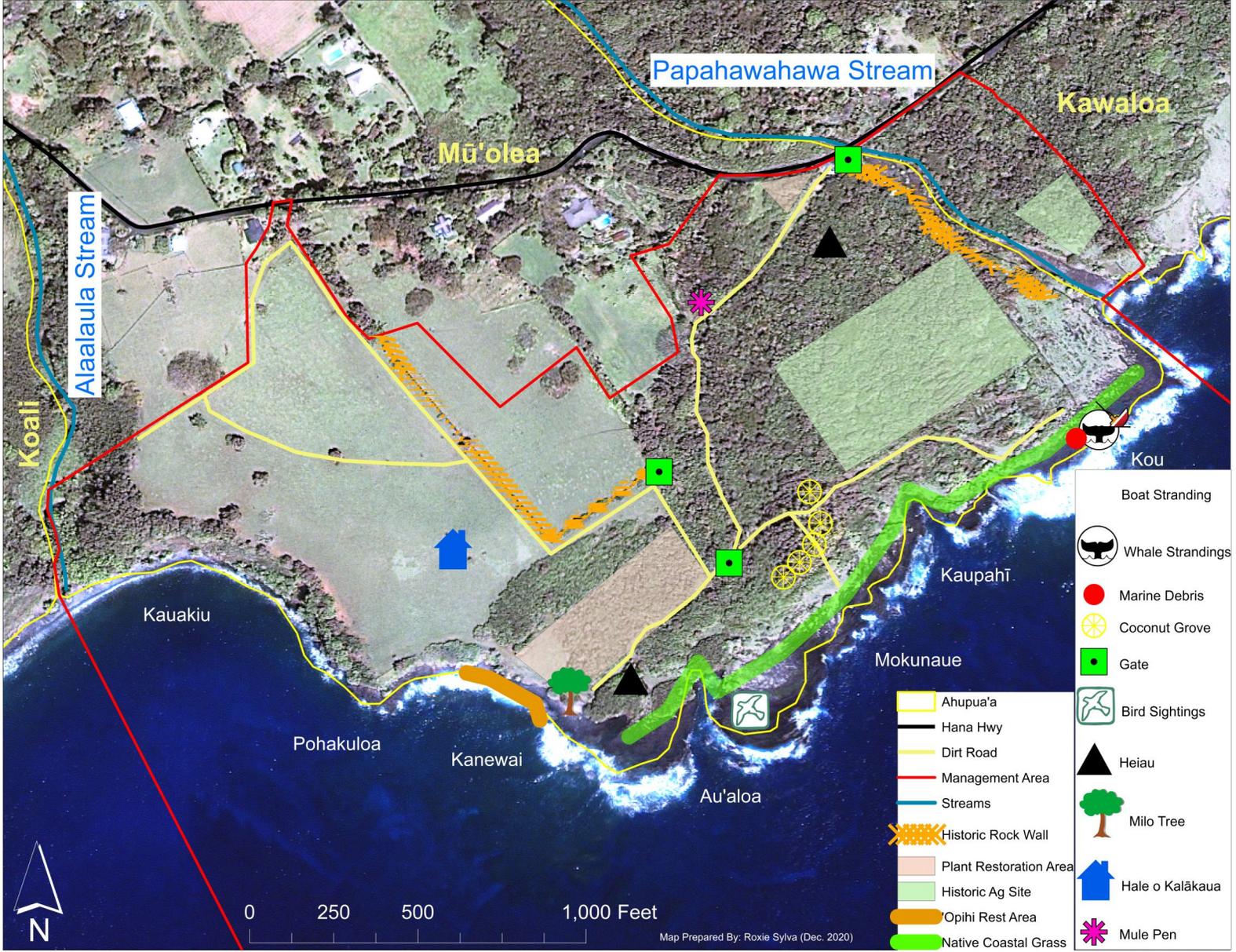
APPENDIX II. East Maui Ho‘omau

The Ho‘omau (to perpetuate) is a statement that reflects a group’s shared aspirations and intentions. This Ho‘omau was created by a group of East Maui community groups, including NMOM, at a series of Mālama I Ke Kai: East Maui Community Action Planning Workshops.

‘O Maui Hikina Kākou! We are East Maui! Ko‘olau, Hāna, Kīpahulu, Kaupō. We work together to honor our kūpuna, future generations, and lāhui. We strive for a life rooted in sustainability ensuring an abundance of resources. We protect and preserve our communities’ traditions. From mauka to makai, our forests, streams, and ocean are full of life that feeds and empowers our families. As one ‘ohana, we celebrate each other’s commonalities and differences, committed to learn, share, and support all our efforts to mālama ‘āina. Unified, we are stronger, more efficient, knowledgeable, compassionate, and resilient. In this, we honor our Hā. ‘O Maui Hikina Kākou! We are East Maui!

– Mālama I Ke Kai: East Maui Community Action Planning Workshop, August 2019

APPENDIX III. The Mū'olea 2021 Draft Site Plan



Detailed site map for NMOM Strategic plan. Map by Roxie Sylva.