MALAMA CULTURAL PARK

SPECIAL AREA PLAN

FINAL: July 2022

DEPARTMENT OF HAWAIIAN HOME LANDS

MALAMA CULTURAL PARK

Hio Place, Kaunakakai, Moloka‘i

Special Area Plan

Prepared For:

DEPARTMENT OF HAWAIIAN HOME LANDS

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Aerial photo courtesy of Dudek Hawai‘i

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Executive Summary

The Malama Cultural Park is a treasured wahi pana (ancestral land), not only for the people of Kaunakakai, but also for residents throughout the island of Molokaʻi. The Department of Hawaiian Home Lands (DHHL) seeks to preserve this wahi pana and to support the continuing practice of ocean recreational use in a manner that protects and respects the historical legacy of this place. This Special Area Plan (SAP) will help to guide the long-term use and management of the park, protecting its unique natural and cultural resources for present and future generations. This SAP provides a conditions assessment of Malama Cultural Park and its resources, outlines specific management actions to ensure the natural and cultural resources within the DHHL property are properly cared for, and recommends a management approach. The SAP reflects the core values important to both DHHL beneficiaries and Molokaʻi residents. It also provides a guide for DHHL to coordinate management and stewardship activities for the benefit of all park users.

The SAP was developed through a series of discussions with a wide range of community stakeholders and various public agencies. The SAP reflects the sentiments and perspectives provided through beneficiary consultation to primarily sustain the park as both a safe and enjoyable space. The planning process evaluates earlier planning efforts for the park and the surrounding area when it was under the jurisdiction of other public agencies. The SAP also incorporates information from new studies, and outlines plans for park facility programming and management.

In recognition of the role of Malama Cultural Park as a valuable wahi pana of Molokaʻi that must be protected and managed for the benefit of current and future generations, the goals of this SAP are to:

- Maintain the park to serve as a special place for the community and across generations
- Protect, restore, and maintain habitat for native plants and animals
- Protect and perpetuate cultural knowledge, resources, and practices
- Generate opportunities for community economic development
- Provide opportunities for place-based educational programs

Seventeen strategies associated with the above goals were identified for the Plan Area:

- Manage vehicular access, activities, and uses
- Demolish the jailhouse
- Consider providing bathrooms in the Community Focused Zone
- Improve water delivery and access
- Develop a kūpuna area and memorial garden
- Reduce trash and maintain waste receptacles
- Establish an invasive species removal and control program
- Establish a restoration and recovery program for coastal plant communities
- Implement a vegetated berm enhancement along the edge of the shoreline
- Mitigate exposure to soil contamination
- Develop an overall mitigation plan for cultural resources
- Ensure the perpetuation of Hawaiian canoe culture at the park
- Support the development of a new hālau waʻa for canoe club use
- Establish a community farmers market area
- Construct a new covered pavilion or visitor center
- Educate and engage the public
- Establish a monitoring program

Through the SAP's beneficiary consultation process, it became evident that the community held a strong desire to take over the management kuleana for the Plan Area and its resources. Beneficiaries expressed a hope that community-led organizations could have the opportunity to help operate and manage the Plan Area through formalized partnership agreements with DHHL. As such, the SAP is intended to be implemented by community partners selected by DHHL. Beneficiaries preferred a management structure involving multiple managing entities with delineated areas and defined responsibilities, with the option to transition to an umbrella management approach at a later time.

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Glossary of Hawaiian language terms

ʻāina	land, earth
ahupuaʻa	traditional Hawaiian land section that typically ran from the mountains to the sea and included coastal and nearshore resources
aliʻi	Hawaiian royalty
heiau	an ancient Hawaiian temple or structured area of traditional worship
hoaʻāina	native tenants
ike	knowledge
iwi kūpuna	ancestral remains
keiki	child
kamaʻāina	one born in a place, local
kānaka	people (references in this document to kānaka are shortened references to the term kānaka maoli meaning the native or indigenous people of Hawaiʻi)
kuleana	responsibility
kūpuna	grandparents, ancestors or elders of the grandparent generation
kupa ʻāina	Hawaiian citizen of the land
makai	towards the ocean
malama	moon or month
mālama	to care for
manaʻo	ideas
mauka	uplands, towards the mountain
moku	district or island
moʻolelo	traditional stories, tales, myths, histories and legends
ʻohana	family
ʻōpio	youth or young person
pohaku	stone
waʻa	Hawaiian canoe
wahi pana	celebrated places, places of importance
Wahi kūpuna	a physical site, area, or landscape that is significant to Native Hawaiians

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Chapter 1: Introduction

Project Information Summary

Project Name:	Malama Cultural Park Special Area Plan
Project Location:	Hio Place, Kaunakakai, Molokaʻi (*Figure 1-2*)
Landowner	Department of Hawaiian Home Lands (*Figure 3-2*)
Ahupuaʻa	Kaunakakai (*Figure 3-1*)
Tax Map Keys (TMK)	(5)-3-001:002, 097, & 100 (*Figure 3-2*)
State Land Use District:	Urban District (*Figure 3-4*)
DHHL Land Use	Special District
County of Maui Zoning	Interim (*Figure 3-5*)
Molokaʻi Community Plan Designation	Park, Public/Quasi Public (*Figure 3-7*)
Special Management Area (SMA):	Within SMA (*Figure 3-6)*
Flood Zone:	AE: Area of 1% Annual Chance of Flooding, Base Flood Elevation (BFE)= 10ft; and VE, High Risk Coastal Area, BFE= 10 feet (ft) (*Figure 3-46*)

Introduction

The Malama Cultural Park is a treasured wahi pana (ancestral land), not only for the people of Kaunakakai, but also for residents throughout the island of Molokaʻi. For many generations, Malama Cultural Park connects the past to the present and evokes a great sense of cultural pride. In the past, it was one of the places where kupaʻāina would access the shoreline for fishing and launching waʻa. It was also a favorite retreat of aliʻi, where Lota Kapuāiwa Kalanimakua Aliʻiōlani Kalanikupuapaʻīkalaninu, also known as King Kamehameha V, built a vacation home and was known to sunbathe along its sandy shore (Summers, 1971). At Malama Cultural Park today, one can find a sandy beach that serves as a popular place for canoeing and paddle boarding; a natural wetland; and numerous cultural sites that provide a glimpse into the rich history and culture of one of Molokaʻi's central gathering places. For many park users, it is crucial that this special place be protected and preserved for its historic and cultural significance as well as for the important role it plays in the Kaunakakai ahupuaʻa and for the overall ecosystem of the island.

DHHL seeks to preserve this wahi pana and to support the continuing practice of ocean recreational use in a manner that protects and respects the historical legacy of this place. This SAP has been drafted to guide the long-term use and management of the park, protecting its unique natural and cultural resources for present and future generations. This SAP provides a conditions assessment of Malama Cultural Park and its resources, outlines specific management actions to ensure the natural and cultural resources within the DHHL property are properly cared for, and recommends a management approach. The SAP reflects the core values important to both DHHL beneficiaries

and Molokaʻi residents. It also provides a guide for DHHL to coordinate management and stewardship activities for the benefit of park users.

The SAP was developed through a series of discussions with beneficiaries, a wide range of community stakeholders, and various public agencies. The SAP reflects the sentiments and perspectives provided through beneficiary consultation to primarily sustain the park as both a safe and enjoyable space. The SAP planning process evaluates earlier planning efforts for the park and the surrounding area when it was under the jurisdiction of other public agencies. The SAP also incorporates information from new studies, and outlines plans for park facility programming and management.

Special Area Plan Background

The mission of DHHL is to effectively manage the Hawaiian Home Lands Trust and to develop and deliver lands to native Hawaiians. The Hawaiian Home Lands Program was started with the passage of the Hawaiian Homes Commission Act, 1920, as amended (HHCA) due to the efforts of Prince Jonah Kūhiō Kalanianaʻole (*Figure 1-1*). The stated aim of the legislation was to enable native Hawaiians to escape the tenements and slums in Honolulu; by settling them to become self-supporting, self-sufficient, and thrive once more.

FIGURE 1-1 PRINCE JONAH KŪHIŌ KALANIANAʻOLE

It was Prince Kūhiō's vision to ensure for the provision of healthy Hawaiian communities for future generations to come. As part of the effort to fulfill that vision, DHHL has focused planning efforts on community building and the stewardship of the natural and cultural resources that are fundamentally grounded in the Hawaiian way of life. Developing designated parks for recreation and gathering are an important way to foster a sense of community, strengthen community bonds, and maintain a strong sense of cultural identity.

In 2011, a portion of the lands comprising Malama Cultural Park were transferred from the State of Hawaiʻi, Department of Land and Natural Resources (DLNR), into the DHHL inventory as part of the 16,000 acre settlement

(*Figure 1-3*). The park area was accepted by DHHL mainly because it would provide cultural and recreational opportunities in a central location and maintain a Hawaiian sense of place as well as access to the shoreline. These specific DHHL parcels will be referred to as the "Plan Area" in this document (*Figure 1-2 and 1-3*).

In 2018, the Hawaiian Home Commission, under DHHL land use administrative rules, designated the Plan Area as a Special District under its Land Use Designation scheme with the goal of preserving and protecting significant natural, historic and community resources on Trust lands. The DHHL Special District designation is for land with special opportunities such as natural, cultural or historic resources, or severe constraints such as flood control or endangered species. This category is applied to environmentally or culturally sensitive land that requires some conservation principles but can also be used for compatible activities if managed correctly. The intent is for native Hawaiian beneficiaries to oversee these lands and use them to create a Hawaiian sense of place for all beneficiaries living on Moloka‘i.

To help achieve this goal, DHHL has developed this SAP for the future management of the Plan Area and its resources. The SAP will identify the current resources and uses of the Plan Area and address key issues such as responsible access, competing uses, stewardship of natural and cultural resources, and the management of park facilities and infrastructure. This plan provides an opportunity to engage in early action to ensure resources are properly cared for before irreversible consequences compromise the ability of future generations to enjoy this special place.

FIGURE 1-2 PROJECT LOCATION

FIGURE 1-3 PLAN AREA DELINEATION

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Chapter 2: Plan Development Methodology

This SAP was developed based on significant information gathered from consultations with Molokaʻi DHHL beneficiaries, park users, and other community members knowledgeable about Malama Cultural Park. These stakeholders provided their manaʻo (ideas), to assist the planning team in formulating recommended management strategies (as described in Chapter 5). Agencies and organizations including the State DLNR Division of State Parks (DSP), State Department of Transportation (DOT) Harbors Division, County of Maui (County) Parks and Recreation (DPR), the University of Hawaiʻi Center of Indigenous Innovation, the Maui Visitors and Convention Bureau, and the existing canoe clubs operating in the park were also consulted.

This chapter provides the context through which the SAP's management goals and strategies were developed. It describes prior planning efforts for the park dating back to before DHHL acquired the property. It also describes the beneficiary consultation process and summarizes the manaʻo shared.

The final section of this chapter discusses the methods for site analysis that provided the foundation for the identification and evaluation of the SAP Area's natural and cultural resources.

Prior Planning Efforts

The SAP was developed with respect to the desires and efforts that were expressed by the community during earlier planning efforts for the park. The following sections describe these prior efforts.

1995 Master Plan

In 1995, the State Department of Business Economic Development and Tourism (DBEDT), proposed the development of an approximately 11-acre area in Kaunakakai for the creation of Malama Cultural Park. The project resulted in the creation of a Master Plan for the park and publication of a Final Environmental Assessment (EA). At the time of the master planning process, the State DLNR owned the entire park site comprised of 11.27 acres. In addition to the now DHHL-owned parcels (the Plan Area), the master planning area also consisted of two additional parcels (presently under the jurisdiction of the County DPR (TMK (5)-3-001:003 and 005)).

The purpose of the original Master Plan was to develop a public park which would provide a focal point for Molokaʻi's history and culture. The Master Plan envisioned a passive as well as active park to support and enhance socio-cultural, recreational, and potential economic activities envisioned for the island of Molokaʻi. The cultural themes of the park would be focused on native Hawaiian antiquities as well as modern recreational activities popular on Molokaʻi, including canoe paddling, hula, the makahiki, and Hawaiian arts and crafts. This master planning process involved extensive consultation with the Molokaʻi community. A reproduced rendering of the 1995 Master Plan is illustrated in *Figure 2-1*.

Only a few of the proposed actions in the 1995 Master Plan for the park were actually realized. Paved walkways were partially constructed and a comfort station with restroom and showers was developed on the now County-owned portion of the park. Improvements on the now DHHL-owned portion included hauling in of fill material to construct an earthen amphitheater and stage. The stage area was equipped with permanent power connections and an irrigation system.

Implementation of the Master Plan was put on hiatus in the late 1990s due to lack of maintenance funding. Approximately 7 acres on the western side of the planning area were later transferred to DPR for its management as a County park and for the Molokaʻi Yacht Club as an existing lessee. The remaining parcels on the eastern side of the park remained with the DLNR until 2011.

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FIGURE 2-1 ADAPTATION OF THE 1995 MALAMA CULTURAL PARK MASTER PLAN

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Components of the Master Plan that were desired by the community, but were never developed include:

- Construction of an overlook / viewing area over the wetland
- Hale Malama (visitor information center for the Malama Platform)
- Shaded sitting area for kūpuna
- Amphitheatre / hula hālau pavilion
- Language immersion school
- Canoe sheds designed with traditional Hawaiian construction practices
- Beach support building
- Arts and crafts building
- Paved parking lot
- Orientation kiosk and wayside exhibits
- Site lighting
- Concession stands for selling food and crafts
- Removal of historic jailhouse
- Caretaker home and maintenance equipment storage area

Special District Land Use Designation

In 2011, as part of the Act 14 settlement process, three of the DLNR-owned park parcels totaling 4.58 acres (the Plan Area) were transferred over to DHHL. At that time, the DHHL Molokaʻi Island Plan, having been approved in 2005, did not include these parcels, therefore the land had never been assigned a DHHL land use designation.

DHHL's Beneficiary Consultation Policy, approved in January 2009, recognizes that meaningful, timely and effective beneficiary consultation is essential to the successful implementation of Hawaiian Homes Commission (HHC) policies, programs, and projects. Beneficiary consultation was initiated in 2016 to collect beneficiary feedback and input on land use designation alternatives for DHHL's three Malama Cultural Park parcels. The outreach ensued on the island of Molokaʻi at two community events, and two meetings in 2016 and 2017. The purpose of the outreach strategy was to gauge interest in stewardship and collaborative planning for the park, and collect information on history, issues, and opportunities, areas to be sensitive of, and thoughts on potential land uses and activities.

Table 2-1 summarizes all comments received during the beneficiary consultation process, and sorts them by subject or topic, as well as provides any responses from DHHL.

Table 2-1: Summary of Consultation for Special District Land Use Designation (2016-2017)		
Subject	**Question / Comment/Suggestion**	**Response / Key Points**
Use 1995 Plan as a basis	Use the old Malama Park Master Plan as a working guide for future meetings.	DHHL supports implementing as much of the original plan as is feasible, as it has widespread community support.
	Bring old Master Plan and review before the meeting.	DHHL supports implementing as much of the original plan as is feasible.
Planning timeline	What is the time table of Plan?	Ideally, within the next five years.
	Is it safe to assume that everything right now is status quo until the new plan is implemented?	Yes. Land use designation will guide us to what the next steps are.
Educational uses for wetlands and historic sites	We really want to restore the wetlands to use as an educational site with boardwalks, signage, field trip for school children, school partnerships aside from the wetlands, signage and storyboards for the cultural sites like King Kamehameha V home, etc.	Specific uses will be worked out during the SAP phase. DHHL supports educational opportunities for cultural and natural resources.
Empower homesteaders to do park planning	For future meetings, maybe the homesteaders can run the meeting now that we know what to do.	Once land use designation is approved, beneficiaries will be involved in master planning.
Land not suitable for Homesteading	Why is DHHL accepting land that can't be used for homesteading? I've been on the Moloka'i waiting list for 20 years Don't waste trust resources if it's not going to provide new lots for applicants.	DHHL acquired lands for both homesteading and non-homesteading uses per Act 14 to provide the trust with ways to more holistically implement HHCA mandates.
Canoe club use is important	Canoe paddling is a cultural activity. The club has a right to be located on the shoreline. Canoeing brings families together, promotes healthy lifestyles, and benefits kids, disabled and special needs. DHHL needs to support it.	DHHL acknowledges the historic importance of the canoe clubs and paddling at Malama Cultural Park.
Land Use Designation	Support of Special District designation.	DHHL Planning Office recommends Special District as the most appropriate land use designation.

Responses to DHHL's efforts to initiate the SAP planning process for Malama Cultural Park were positive, with a few exceptions. There was concern that the efforts of the past will not be honored to the extent that they should be. Beneficiaries also wanted to play a more active role, expressing a strong interest in stewardship, community empowerment and collaborative planning. Since these meetings, the beneficiaries continued to share a vision of the park as a culturally based community economic development project, educational center and recreational site. The

comments strongly emphasized that due to the sensitivity and significance of the cultural and natural resources in the property, the Special District designation would be the appropriate land use designation for the three DHHL-owned Malama Cultural Park parcels.

The HHC formally accepted the recommendation to designate the park as a Special District in January 2018.

Special Area Plan Beneficiary Consultation Process

Development of the SAP requires beneficiaries, together with DHHL, to develop a plan to improve and manage the Malama Cultural Park and its resources. DHHL initiated the beneficiary consultation process for the SAP in 2020. From 2020 to 2022, DHHL conducted four beneficiary consultation meetings with Molokaʻi beneficiaries, and multiple small group meetings with key park users and stakeholders. The purpose of these meetings was to confirm uses and activities for specific zones throughout the park, identify key management issues, and evaluate alternative models for park stewardship.

Due to the COVID-19 pandemic, nearly all outreach meetings that were initially planned to be held in-person were held virtually through online meeting platforms. Only the fourth beneficiary consultation meeting was held in person at the Kūlana ʻŌiwi Halalu in Kalamaʻula, Molokaʻi. Beneficiaries were also offered opportunities to provide their manaʻo through the participation of online surveys, via email, or telephone.

A Draft SAP was published on the DHHL website on April 27, 2022. Beneficiaries were invited to review the Draft SAP and either provide oral comments at the fourth beneficiary consultation meeting or to submit written comments to the planning team by the June 25, 2022 deadline.

The following table summarizes all comments received during the beneficiary consultation process, and sorts them by subject or topic, as well as provides any responses from DHHL.

Table 2-2: Summary of Special Area Plan Consultation

Subject	Question / Comment/Suggestion	Response / Key Points
Importance of canoe culture	Malama Cultural Park has been a place for canoeing since ancient times. The park is the heart of canoe paddling on Molokaʻi. The canoe clubs have nowhere else to go and have a strong desire to remain in place.	DHHL acknowledges the historic importance of canoe paddling at Malama Cultural Park. The SAP will recommend that a selected portion of the shoreline area be designated for canoe club use. The SAP will allow DHHL to formalize agreements with qualified community organizations competent in Hawaiian canoe culture.
Lack of action	The park was a beautiful place years ago, but had since fallen into disarray from decades of neglect. Beneficiaries participated in earlier planning efforts to improve the park such as the 1995 Master Plan. Beneficiaries are sad and frustrated that the early planning efforts never came to fruition. The bathroom on the County-owned portion of the park is closed due to damages and overall lack of maintenance. There is presently no working bathroom in the park.	DHHL is aware of the frustration of the community by the lack of management over the years. The SAP will address the long-term stewardship of the Plan Area with recommendations of a management structure. Guidance will be provided in the SAP as to how necessary improvements and repairs are authorized.
Safety	The park has no lights and is dark at night. There are concerns about homeless individuals	Proper park design and effective use of the built environment can lead to a

	living in the park. Crime has occurred in the past and many don't feel safe or welcome. Lighting is beneficial for security. It is a deterrent for crime.	reduction in the fear and incidence of crime, and an improvement in quality of life. Principles of Crime Prevention Through Environmental Design (CPTED) are integrated into the SAP to make the park feel safer and more welcoming. Some CPTED strategies for Malama Cultural Park include: • Emphasis on natural surveillance with a design that allows clear, unobstructed views • Installation of lighting for the illumination of human activity and security • Concentrated activity areas that encourage multiple park users to gather in designated areas for increased periods of time • Well-defined, well-lit, easily visualized park entry/exit points • Clear signage that promotes easy wayfinding • Regular trimming of trees and vegetation that may obscure park lighting • Providing water, shade, and seating to encourage the extended presence of normal park users • Engagement of park maintenance staff for early identification of potential issues In regard to lighting, the SAP calls for new site lighting throughout the Community Focused Zone parking, along trails, and gathering areas. This could include options for solar powered lighting. It is also recommended that the new pavilion structure provide lighting for hosting nighttime events. Before lighting can be installed, improvements to the park's electrical utilities are required. Park managers are encouraged to coordinate with the County and Hawaiian Electric to make needed utility improvements.
Perpetuate Hawaiian history and culture	The park should be a place for preserving and perpetuating Hawaiian history and culture. With its wetland, plants, birds, and sea life, the park could also serve as a place for nature-based	The SAP will allow DHHL to formalize agreements with community-based organizations to mālama the park's natural and cultural resources and

	education. Nearby schools used to visit the park and share their science projects.	provide opportunities for place-based education.
Sea level rise and coastal erosion	There are concerns regarding sea level rise and flooding. The park should be managed with future sea level in mind. The SAP should study options to mitigate the impacts of inundation to the property and infrastructure. This area was recognized as a priority area in DHHL South Shore Erosion Management Plan (SSEMP). The SAP should incorporate the findings from the SSEMP to protect the park from sea level rise and erosion. The canoe clubs have done a great job with planting ʻakiʻaki grass along the shoreline. The ʻakiʻaki has been successful for erosion control and should be planted more in this area.	The SAP has incorporated recommendations from the SSEMP. Strategy 2D involves the recommendation to implement a berm enhancement along the shoreline. Berm enhancements raise the elevation of the berm and supports the beaches function as a natural dissipator of wave energy. Implementation of a berm enhancement also serves to reduce backshore flooding. In addition to providing flood protection, an increase berm elevation would help to maintain a larger dry beach area as water levels rise over time. Berm enhancement involves adding sand to nourish the beach and increase the berm elevation. The SAP will also incorporate the recommendation to strategically plant ʻakiʻaki along the shoreline as a means of mitigating coastal erosion.
Importance of park management	The park must have an implementation plan that supports family and community stewardship. The SAP should address issues of security, litter, and vandalism in the park.	Developing a park management model is the core purpose of the SAP. The SAP will empower community-based organizations to assume management responsibilities of the park. The plan will define the management needs and the criteria for potential DHHL management partners.
Landscaping	The park would be more welcoming if it were greener and well landscaped. The park needs an irrigation system. Many of the trees that were planted have died due to a lack of water and maintenance. The park is very hot for most of the year and needs more shade trees. New plantings should be native and appropriate for the environment. Managers need knowledge of landscaping. Need to plant the right things. Not Monkeypod.	The SAP calls for landscaping the park with plant species that are appropriate for the conditions found at the park. To reestablish a native coastal plant community, endemic and indigenous plant species, both common and rare, should be planted in place of removed alien vegetation. Plants chosen for restoration should be based on knowledge of those that are adapted to the coastal conditions of the Kaunakakai region and any available information on native flora that previously existed in the park. Park landscaping can also be used as an opportunity to reintroduce rare indigenous and culturally significant plants that may have become extirpated from the area. Non-invasive, naturalized species that are suited for harsh coastal conditions (i.e., exposure to wind, salt and heat) can also be incorporated, if

		appropriate. Planting of species known to be toxic to animals and/or people, or those with invasive qualities, should be avoided. Table 5-2 in the SAP lists candidate species of indigenous plants for restoration at the park. These species are known to tolerate the local conditions and are compatible with a park environment.
Irrigation System	The irrigation system needs repair. Negotiation is needed with the County to repair irrigation.	The water meter for the existing irrigation system is located on the County-owned portion of the park. The SAP provides three alternatives for providing water access to the mauka portion of the park to allow for the operation of the irrigation system. The SAP also recommends that future park managers rehabilitate the existing irrigation system. This effort will involve removing the old water line and replacing it with new water lines, installing new sprinkler heads, and connecting the system to the new water meter. Before any ground disturbing work for water line or irrigation improvements may commence, park managers must first consult with DHHL and DOH to mitigate potential exposure to ground contaminates. An archaeological monitor should also be present during construction to identify and mitigate potential impacts to subsurface historic properties.
Open Space	The park should not be overdeveloped. Open space should be preserved.	The SAP calls for minimum development to maximize open space. Proposed development calls for the adaptive reuse of existing structures (historic weigh station for a new gathering pavilion) or the expansion of existing facilities (hālau waʻa). Other new development may include walkways, a boardwalk over the wetland, irrigation improvements, water service improvements, and a new bathroom area.
Wetland	The wetland habitat should be restored and used to collect stormwater runoff. Remove the pickleweed and replace with native wetland plants. It should be used for educational programs. A boardwalk should be built across so people can view the wetland and get to the beach without walking through it.	The SAP will authorize DHHL to formalize agreements with a community-based organization to provide the appropriate stewardship of the wetland. Future partners will be expected to provide a minimal standard of care for the wetland and utilize the

		area for educational programs. The SAP will also recommend for future partners to develop a boardwalk over the wetland pending Department approval of the design. The SAP recommends the restoration of the wetland environment through the removal of invasive species and outplanting of native wetland plants. Though the wetland area is not designated as Critical Habitat, its restoration could be beneficial for indigenous birds such as the kioea and the endangered aeʻo, whose recovery plan points to habitat loss and degradation as key factors in population decline. Pickleweed growth should be controlled to reduce the density of coverage and create desirable nesting areas. The restored wetland environment is also recommended for ʻāina based education purposes. The wetland could serve as a demonstration area for teaching about the value of wetlands and the role they play in the ahupuaʻa, and to serve as a template for restoration projects elsewhere.
Malama Platform	Kiawe is growing on the platform and damaging the structure. The platform should be preserved and used to teach about Hawaiian culture. Interpretive events could tell the story of the platform's history. The plan should also consider restoration of the platform.	The Sap will authorize DHHL to formalize agreements with a qualified cultural-based community organization for the protection and restoration of the Malama Platform for present and future generations. Future partners will be expected to provide a minimal standard of care for the park's cultural resources and utilize the Malama Platform for cultural educational programs. The SAP calls for additional testing at the Malama Platform. Future park managers should consider retaining a qualified professional archaeologist to perform subsurface excavation of the platform site. Park managers are encouraged to consider coordinating with the archaeologist to develop an archaeological field school to engage with and involve interested beneficiaries and community members in the process of collecting and synthesizing archaeological data. Any activities near this Malama Platform Zone area should consider the cultural sensitivity of this area due to the probable location of the Mahinahina Heiau and the potential to

		encounter iwi kūpuna. A Preservation Plan developed in accordance with HAR Chapter 13-277 should be developed to identify threats to the platform, prescribe a vegetation and debris removal program, and develop short-term and long-term preservation measures. The SAP then recommends conducting complementary rehabilitation, restoration, and adaptive reuse of the platform for passive purposes. Future park managers are encouraged to work with cultural leaders to determine the nature of restoration and for what purpose. Signage and interpretive events are recommended to teach park visitors about the history and significance of the platform site.
Community events and economic opportunity	The park holds high economic value as the gateway to Molokaʻi from the harbor. The amphitheater and stage area would be a good place for holding farmers markets or craft fairs. The area could be used to host live performances like hula, live music, or show Hawaiian films. The park is within walking distance to Kaunakakai town and could attract many residents and visitors. Revenue generated from sales could be used towards funding park improvements and maintenance activities.	The SAP will recommend that the mauka portion of the park encompassing the amphitheater and stage (Community Focused Zone) be designated for community events and economic opportunity. The Community Focused Zone allows for revenue generating activities such as farmers markets, craft fairs, swap meets, performances, and other related community economic develop activities. This zone is intended to provide a space for local farmers and artisans to promote and sell their goods, while also allowing an opportunity for park managers to generate revenue for routine park maintenance and improvements.
Parking and access	Uncertainty about where to park. Remove the abandoned boats along Hio Place and make more parking areas. The park would be a great place for a bike share station. The canoe clubs should have a separate parking area from other guest parking. Access from County side of the park should be ensured.	The existing parking lot servicing the Molokaʻi Canoe Club will remain for canoe area use. Public parking will be provided at the mauka entrance along Hio Place. Abandonment of boats or other vehicles will be prohibited. Future park managers are encouraged to coordinate with the Department of Parks and Recreation to obtain an access agreement for parking. Bicycle facilities are also encouraged.
Water	The park needs access to water. The irrigation system is currently broken and needs to be improved. Each management area should have its own water meter.	Scenarios for water access and distribution will be presented in the SAP. The SAP will recommend the repair or replacement of the irrigation system.

Bathrooms	The park needs a usable bathroom. DHHL should coordinate with the County to improve the existing comfort station. If the existing County-owned bathroom cannot be repaired and reopened, then a new bathroom should be built on the DHHL-owned site in the mauka portion of the park. The bathroom must be regularly cleaned and maintained.	The existing restroom facility is located on the County-owned portion of the park. The SAP encourages future park stewards to coordinate with the Department of Parks and Recreation to resolve issues related to the restrooms. In the absence of a solution, the SAP has allocated a space for a new restroom facility at the site of the existing jailhouse. This site is ideal because of its central location and proximity to the existing wastewater line. The SAP provides a range of restroom types that could be appropriate including a concrete pad for portable toilets, a composting toilet, or a permanent restroom facility. Future park stewards will be responsible for maintaining the restrooms as part of their land use agreement.
Removal of jailhouse	The jailhouse is old and dangerous. It is not a part of our history that we want to preserve. It should be removed.	DHHL acknowledges that the jailhouse is in poor condition and poses a threat to human health and safety. The SAP will recommend the demolition and removal of the structure from the park in accordance with HRS Chapter 6E-42.
Soil Contamination	The soils at the park have been contaminated by petroleum spillage. What can be done to remediate the issue?	The State Department of Health (DOH) and Chevron are working on an agreed methodology in determining the extent of the contamination in the park. DOH assured DHHL that it's safe to access the park for passive activities that do not involve ground disturbing activities. Any ground disturbing activities may require communication and coordination with DHHL/DOH and possibly a construction environmental hazard management plan.
Litter and Waste Management	Litter is an issue in the park. There are no trash cans. DHHL needs to get rid of rubbish first before bringing it back for community use.	The SAP calls for a waste management program that involves litter collection and maintaining waste receptacles. Future park managers will be responsible for implementing the waste management program for their respected disposition area.
Management models	DHHL should make agreements with community-based organizations to take over the management of the park. Preference for multiple organizations to manage specific delineated zones with certain defined responsibilities. In the future, an umbrella organization could take	The SAP will delineate specific park zones that require certain management responsibilities unique to the resources and desired uses within. The SAP will define the management needs for each zone and establish a minimal level of

	over the primary management responsibilities to coordinate with DHHL and reduce the burden on the sub-organizations.	care. The SAP will also outline the criteria for potential management partners to receive a disposition. The plan will authorize DHHL to formalize agreements with qualified community-based organizations to provide stewardship for each zone and the resources within. Approved community organizations will obtain an appropriate disposition for the delineated zone for an agreed-to period of time. The SAP will also provide the flexibility to allow for an umbrella organization to assume management responsibilities at a future time.
Solicitation process	Homestead groups should receive preference during the solicitation process for park area dispositions.	DHHL will evaluate each application submitted during the disposition solicitation process. The applying entity that can best demonstrate their abilities and qualifications to enact the SAP's stated management goals and strategies associated with the requested disposition area shall be nominated for the award.
Future beneficiary consultation	There is a concern about commercial activity and commodification of the park by organizations. What type of activities will organizations do to raise money for maintaining areas? Beneficiaries should be consulted during the disposition process to approve of the disposition agreement and the activities to be conducted.	Future community park managers will decide the types of suitable economic activities that will take place in the park. Entities interested in partnering with DHHL in the management of the park will be required to submit a Request Form for Non-Homesteading Land Use describing the types of uses and activities that are envisioned for a specified area within the park. Before the issuance of a land disposition, DHHL will conduct a consultation meeting to seek final beneficiary approval of the applying entity's requested activities.
Maintenance support	Future park managers may struggle with the day-to-day maintenance required. They may not have the equipment or expertise to manage a park. Volunteers come and go and the capacity for the organization to manage the space may wane over time. There may be a need to hire a vendor to provide routine activities like trash collection, landscaping, bathroom maintenance, security, and utility repairs.	The SAP acknowledges that volunteer bases often ebb and flow over time. Periods when membership is low could create an impediment for the implementation of the required management activities. To address this concern, future park managers may seek the support from a third-party vendor and other resources to assist with routine maintenance, security, and repairs, in accordance with the terms of their DHHL land disposition.

DHHL maintenance	DHHL has employees on island. Staff is needed on site to ensure consistency. At minimum, staff could be assigned to maintain the restroom.	The Department's primary focus is on homesteading. The District Office does not have the capacity to provide routine park maintenance. The Department and beneficiaries would have to advocate at the Legislature for additional positions in the DHHL Molokaʻi District Office if DHHL is to have a more hands-on role in maintenance of the park. In the absence of a community partner to manage certain areas in the Park, the District Office could continue to provide a minimum level of care, e.g. monthly weed whacking, mowing, trimming trees and/or hauling out green debris . Alternatively, a vendor could be hired for certain maintenance services should DHHL have sufficient funds to procure maintenance services for the park.
Funding Opportunities	How can park managers pay for the improvements and maintenance that the SAP recommends?	Future park managers should seek funding and other resources as broadly as possible to support park improvements and sustain maintenance activities. It is also recommended that park entities track and apply for DHHL grant opportunities.

Input by beneficiaries and community stakeholders was the key factor for the development of the concepts and strategies discussed in this plan. Detailed minutes from each of the beneficiary consultation meetings as well as comments received during the Draft SAP 30-day comment period are provided in *Appendix A*.

Stakeholder Consultation Log

Consultation meetings were held with key stakeholders to gather information about the park and input on the Special Area Plan. *Table 2-3* lists the agencies, community organizations, citizen groups, and individuals who were either formally consulted, provided a presentation, or notified early in the process of project design or are part of an ongoing consultation effort.

Table 2-3: List of Consulted Parties

Organization	Name	Position	Initial Meeting
Ahupuaʻa o Molokaʻi	Doreen "Pinky" Gaspar	Board President	07/28/2020
Kalamaʻula Homesteaders Association	Stephanie Kapua Lauifi	President	07/28/2020
Kalamaʻula Mauka Homestead Association	Sybil Lopez	President	07/28/2020
Kamiloloa-One Aliʻi Homestead Association	Davidette "Hala" Pa-Kala	President	07/28/2020

Kapa‘akea Hawaiian Homestead Association	Lorna K Reyes	President	07/28/2020
Maui Co. Dept. of Water Supply	Bonnie Saust	Field Operations	09/22/2020
Maui Co. Development Services Administration	Arnold Abe	Civil Engineer	07/23/2020
State of Hawai‘i Department of Health, Wastewater Branch	Lori Morikami	Planner	07/23/2020
Moloka‘i Canoe Club	Liko Wallace	President	07/28/2020
Wa‘akapaemua Canoe Club	Penny Martin	Vice President	07/28/2020
DHHL Hawaiian Homes Commission	Zachary Helm	Hawaiian Homes Commissioner for Molokai	12/08/2020
Moloka‘i Homestead Farmers Alliance	Faith Tupulotu	President	07/28/2020
Moloka‘i Hawaiian Home Lands Kupuna Committee	Beverly Pauole-Moore	President	07/28/2020
Maui Co. Dept. of Parks and Rec.	Karla Peters	Director	12/07/2020
Maui Co. Council	Keani Rawlins-Fernandez	Chair of the Budget, Finance, and Economic Development Committee	07/28/2020
Ahonui Homestead Association	Cora Schnackenberg	President	07/28/2020
State of HI Department of Transportation, Harbors Division	Harley Tancayo,	Harbor Master	3/12/2021
Aha Kukui O Moloka‘i	Adolf Helm	President	3/12/2021
Moloka‘i Mokupuni Council	Sybil Lopez	President	5/27/2021
Office of Indigenous Innovation	Kamu Enos	President	7/29/2021
State of HI, Department of Land and Natural Resources, Division of State Parks	Martha Yent,	Archaeologist Parks Interpretive Program and LWCF Coordinator	8/18/2021
Maui Visitors and Convention Bureau	Meagan DeGaia	Destination Manager	1/31/2022
Arcadis	Nick Wood	Senior Environmental Engineer	2/3/2022
Chevron	Jeff Moore	Public Affairs Advisor	2/17/2022
State of HI, Department of Health	Iris Van Der Zander	Environmental Health Specialist	3/7/2022

Site Analysis

In addition to beneficiary and stakeholder input, the SAP was developed based on site observations and technical studies for the purpose of identifying and evaluating park resources and assessing the existing conditions of the property. Technical studies included:

- a Biological Assessment conducted by Group 70 (Appendix B)
- an Archaeological Literature Review and Field Inspection conducted by Keala Pono Archaeological Consulting, LLC (Appendix C), and
- an Engineering Assessment conducted by G70 (Appendix D)

Key findings and recommendations from the technical reports are discussed in *Chapter 3* of this SAP.

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Chapter 3: Existing Conditions

The Malama Cultural Park is a special wahi pana for the people of Molokaʻi. For many, the park is a connection to the past and the future, providing a source of pride and identity for the Molokaʻi community and for many Hawaiian families. This chapter provides an overview of the Plan Area's existing conditions and the natural and cultural resources present.

Planning Area and Land Use

The Malama Cultural Park is centrally located on the island near the town center of Kaunakakai within the traditional ahupuaʻa of Kaunakakai (*Figure 3-1*). The DHHL-owned portion of the Malama Cultural Park, comprising the Plan Area, is situated upon three parcels (TMK (5)-3-001:002, 3-001:097, & 3-001:100) totaling approximately 4.56 acres that abuts the Pacific Ocean at Kaunakakai Harbor (*Figure 3-2*). Neighboring the park are a variety of industrial uses including New Horizon Enterprises to the north, Senter Petroleum to the east, and the Kaunakakai Wharf to the south. The Molokaʻi Veterans Center is also located east of the park. West of the park is the Kaunakakai Gulch, which brings water from the mauka regions of Kamakou down to the ocean, where a wetland meets the shoreline.

The entire Malama Cultural Park, as originally planned in the 1995 Master Plan, includes two parcels west of the Plan Area. These two parcels are owned by the County of Maui under the jurisdiction of the Department of Parks and Recreation (DPR). These adjacent parcels have been leased to the Molokaʻi Yacht Club (TMK (5)-3-001:003), and the Aha Kukui o Molokaʻi (TMK (5)-3-001:005).

Nearby DHHL homestead communities include the Kalamaʻula homestead to the west, and the Kapaʻakea and Kamiloloa-Makakupaia Homesteads to the east (*Figure 3-3*).

Under the DHHL land use system, the Plan Area is designated as Special District. Special District lands are areas that require special attention because of unusual opportunities or constraints. These may include natural hazard areas, open spaces, raw lands far from infrastructure, mixed use areas, or greenways.

The Plan Area is located within the State Urban District (*Figure 3-4*). The Urban District generally includes lands characterized by "city-like" concentrations of people, structures and services. This District also includes vacant areas for future development. The Maui County zoning for the Plan Area is Interim (*Figure 3-5*). The purpose of this zoning class is to provide interim regulations pending the formal adoption of a comprehensive zoning ordinance and map. Development for the island of Molokaʻi is guided by the State Land Use Districts, as well as the Maui County land use zoning code. However, since the Hawaiian Homes Commission Act was passed by Congress in 1921, over 30 years before the State and County was created, responsibility for determining appropriate land uses on Hawaiian Home Lands lies solely with the HHC.

The entire Plan Area is located within the Special Management Area (SMA) (*Figure 3-6*). The Hawaiʻi Coastal Zone Management Program (HRS Chapter 205A) regulates all types of land uses and activities in the SMA. The SMA on Molokaʻi is regulated by the County of Maui, Department of Planning.

The Molokaʻi Island Community Plan designates the Plan Area as Park and Public/Quasi Public (*Figure 3-7*). Areas designated as Park are intended for recreational uses, including public and private active and passive parks, and related compatible uses. Public/Quasi Public areas are designated for schools, libraries, fire and police stations, government buildings, public utilities, hospitals, churches, cemeteries, community centers, and related and compatible uses.

FIGURE 3-1 AHUPUA‘A

FIGURE 3-2 TMK AND ADJACENT LANDOWNERS

FIGURE 3-3 DHHL LANDS ON MOLOKA'I

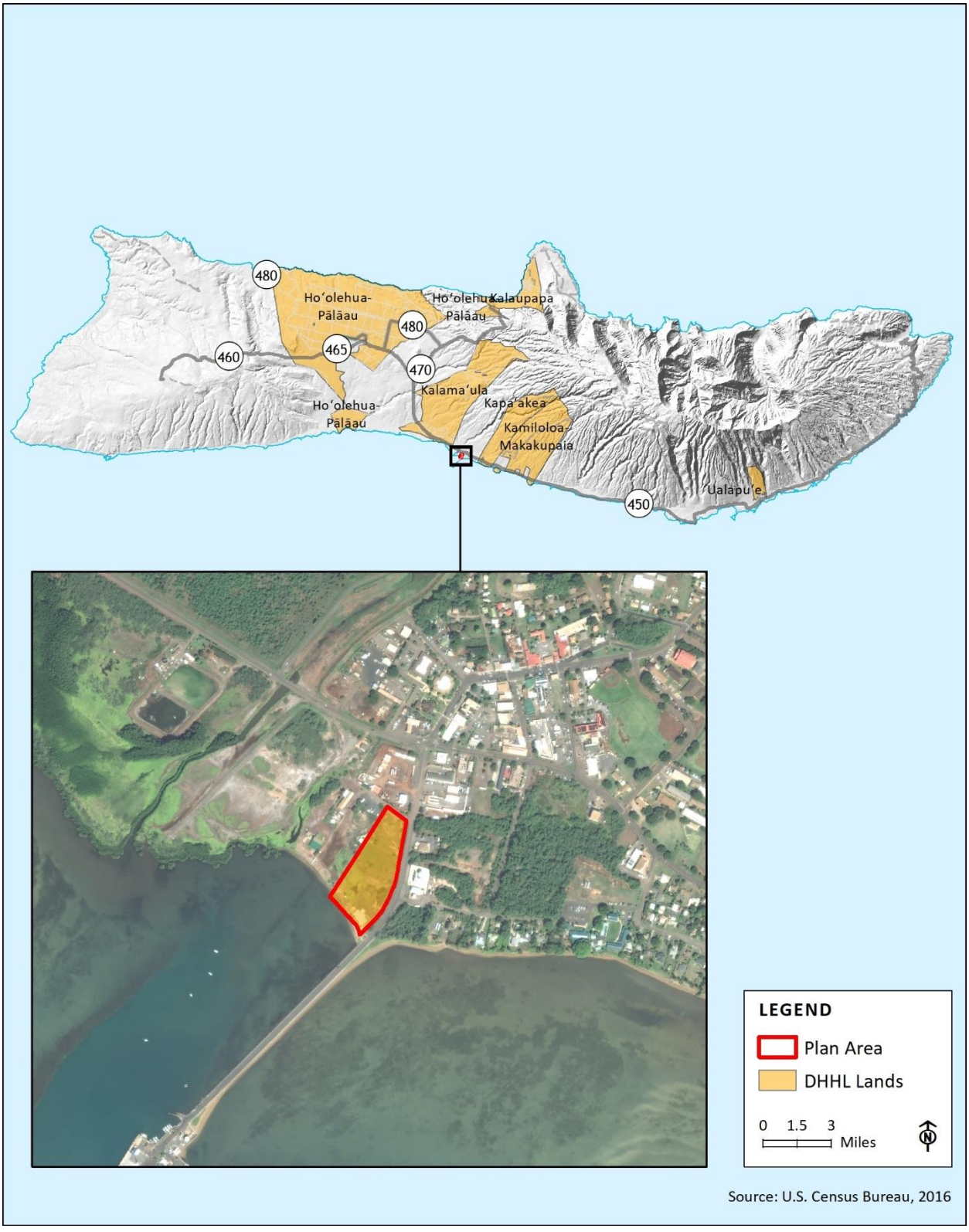


FIGURE 3-4 STATE LAND USE DISTRICT

FIGURE 3-5 MAUI COUNTY ZONING

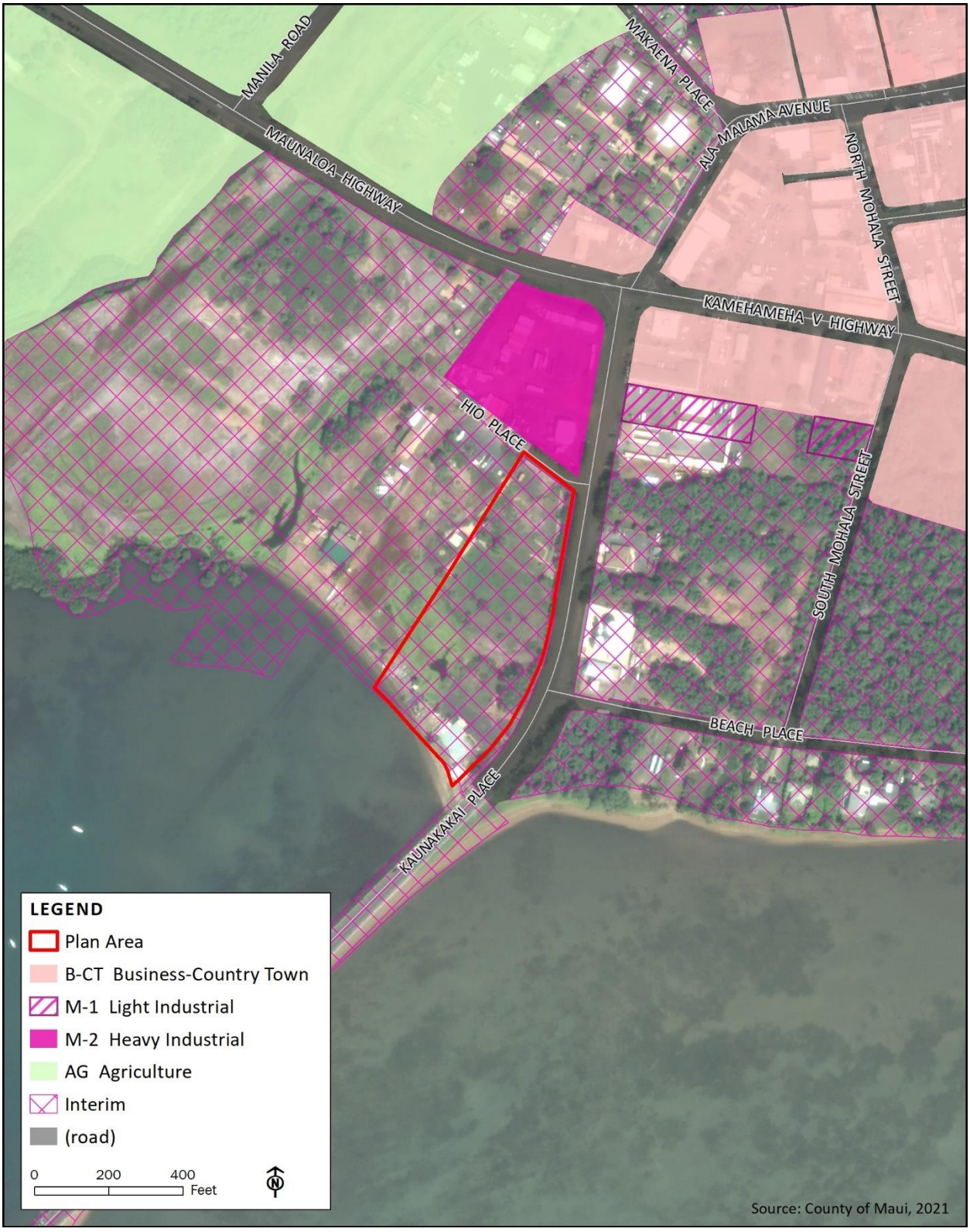
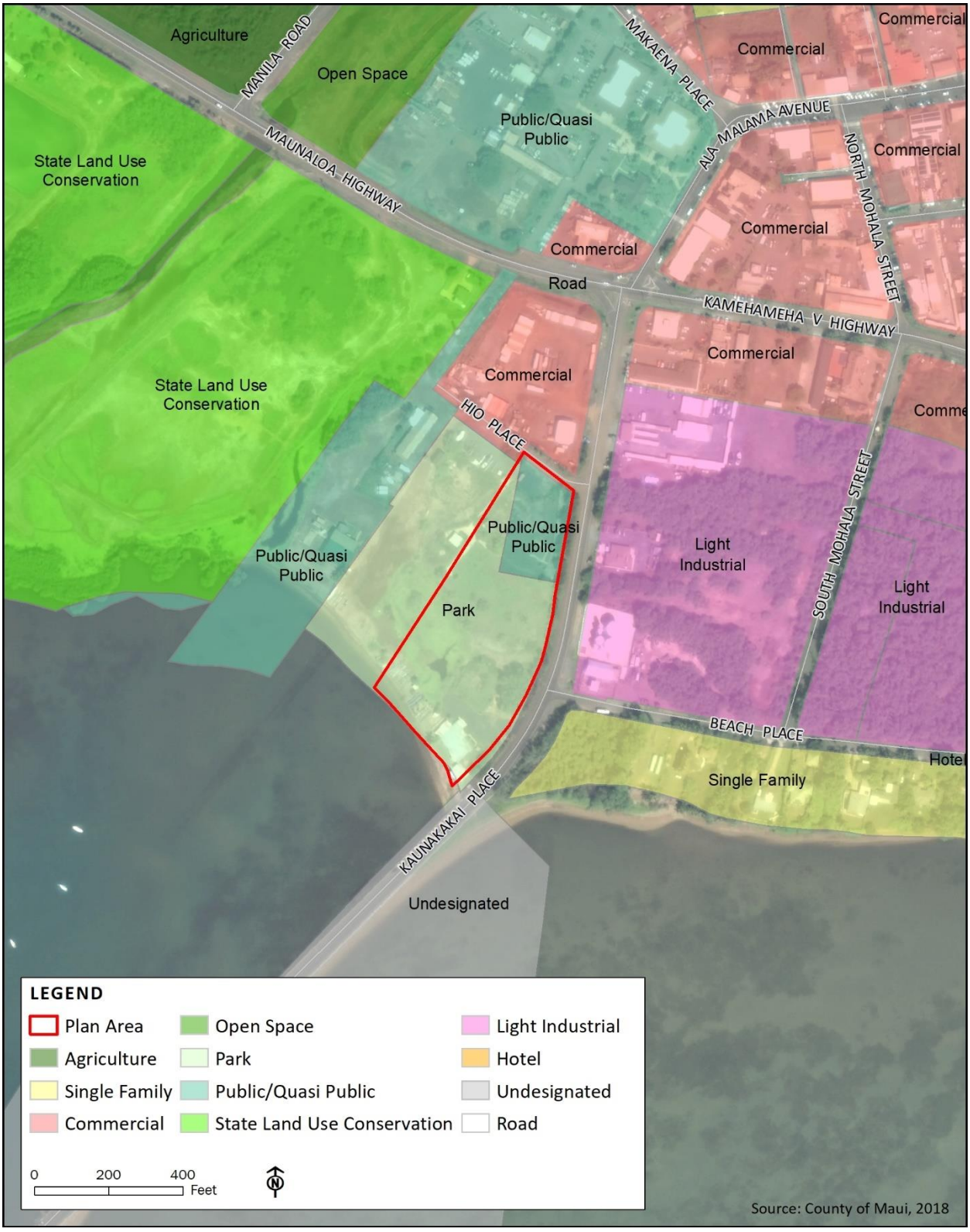


FIGURE 3-6 MAUI COUNTY SPECIAL MANAGEMENT AREA

FIGURE 3-7 MOLOKA'I ISLAND COMMUNITY PLAN DESIGNATIONS



Existing Uses and Programs

The existing Plan Area can be described as a generally flat open space environment along a sandy shoreline. Key features in the park include two existing canoe club facilities, a small wetland, the historic Malama Platform, an earthen amphitheater and stage, and an open grassy lawn (*Figure 3-8*). The following sections will provide further detail regarding the park's existing uses and resources.

Canoe Clubs

Prince Kūhiō recognized the value of perpetuating and celebrating the practice of Hawaiian canoe paddling. He was an avid patron of canoe racing and wanted the fastest racing canoe in the Islands. In 1902, he commissioned the construction of a koa canoe named the Aʻa (originally named A). The Aʻa was the first canoe specifically designed as a six-man racing canoe. In September of 1906, captained by Manuia Maunupau, the Aʻa won its first race on the island of Oʻahu. This race marked one of the first uses of the modern ama (outrigger float) and ʻiako (outrigger boom), which were attached to the Aʻa. The Aʻa would go on to win many competitions between 1906 and 1910 (Holmes, 1981). To some, Prince Kūhiō is considered the father of modern day Hawaiian canoe racing.

DHHL acquired the Plan Area with two existing tenants. The Molokaʻi Canoe Club and the Waʻakapaemua Canoe Club have both had an active presence in the park since before the Plan Area was transferred from the DLNR to DHHL in 2011. Both clubs have played an important role in the stewardship of the park with a focus on preserving and perpetuating the practice of traditional Hawaiian canoe paddling. Both clubs have permanent structures located near the shoreline for storing canoes and hosting canoe related events.

The Molokaʻi Canoe Club is open to interested island residents and has approximately 100 members. Almost half of members are keiki (children) ages 6 to 18. Nearly 95% of these keiki are Native Hawaiian. The club activities help to immerse this keiki in the traditions and practices of Hawaiian outrigger canoe paddling. Club facilities include a covered pavilion with picnic tables, an open canoe storage area, equipment storage containers, sinks, and an outdoor shower area (*Figure 3-9, 3-10, 3-11, 3-12*). The areas surrounding the facilities have been landscaped and cared for by club members and volunteers (*Figure 3-13 and Figure 3-14*). Existing maintenance procedures include the clearing of rubbish, debris and brush; planting and watering native landscaping; maintaining the canoe hale and other structures on site, and keeping the adjacent Malama Platform, an important cultural site, clear of overgrowth. The Molokaʻi Canoe Club also recruits community members outside the club to help mālama (care for) the facility and grounds for volunteer community service hours.

The Waʻakapaemua Canoe Club has approximately 100 members and registration is open to all Molokaʻi residents age 8 and up, with members currently ranging from ages 8 to 70+ years old. Club facilities include an outdoor canoe storage area, picnic table, outdoor showers, and a small storage container (*Figure 3-15*). Existing stewardship activities include clearing rubbish, debris, and non-native species; revegetating and maintaining native landscaping; and keeping the premise clean, sanitary and in orderly condition. The Waʻakapaemua Canoe Club has hosted numerous educational activities in the park for Molokaʻi school keiki to share their knowledge of earth sciences, ecosystem health, and Hawaiian history and culture.

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FIGURE 3-8 MALAMA CULTURAL PARK EXISTING CONDITIONS

FIGURE 3-9 MOLOKA'I CANOE CLUB PAVILION

FIGURE 3-10 MOLOKA'I CANOE CLUB STRUCTURES

FIGURE 3-11 MOLOKA‘I CANOE CLUB SINK AREA

FIGURE 3-12 MOLOKA‘I CANOE CLUB SHOWERS

FIGURE 3-13 LANDSCAPING AROUND THE MOLOKA'I CANOE CLUB

FIGURE 3-14 VOLUNTEER MAINTENANCE OF THE MOLOKA'I CANOE CLUB GROUNDS

FIGURE 3-15 WA‘AKAPAEMUA CANOE CLUB FACILITIES

Amphitheater and Stage

The amphitheater and stage were two of the original components of the 1995 Master Plan and among the few actions that were completed. The stage area is approximately 12,000 square feet and was elevated with approximate 10 feet of fill material. This area was intended to be a performance space for hula, music, and other outdoor stage performances (*Figure 3-16*). The stage had been equipped with permanent electrical connections to run audio and video equipment and an irrigation system for the area lawn. However, over times, both the power and irrigation have fallen into disrepair and are no longer in use.

A crescent shaped, grassy, gently sloped lawn area is located makai of the stage. This area was intended to serve as an “amphitheater” seating area for approximately 1,000 people. In the past, this area was also used for hosting a farmers market and weddings. The outer crest of the amphitheater lawn was planted with monkey pod trees (*Samanea saman*) as shade for viewers and vendors during performances. However, the trees have since died and stand as leafless trunks overlooking the park.

FIGURE 3-16 AMPHITHEATER STAGE

Mural Walk

Along Kaunakakai Place is a grove of milo trees (*Thespesia populnea*) that provides a shady walkway along the eastern border of the Plan Area (*Figure 3-17*). These trees were planted by the DLNR. Adjacent to this walkway is a historic weigh station, on which a series of artistic murals have been drawn with the word "Mālama" (*Figure 3-18).*

The roadway along the wharf to Kaunakakai Harbor is a popular place for joggers and dog walkers during the morning and late afternoon hours before sunset. Many people pass through the hallow of trees on their way to and from the wharf. The concrete ledge of the weigh station is often used as a seating area to relax and cool off under the canopy of the trees.

FIGURE 3-17 GROVE OF MILO TREES

FIGURE 3-18 MURAL WALL ON HISTORIC WEIGH STATION

Memorial

Near the makai end of the historic weigh station is a small makeshift memorial that was created by family members to honor the memory of Mr. Herman "Ekolu" Coelho, who passed away in May 2020. This improvised space serves as a dedication area with flowers, mementos, and a placard (*Figure 3-19*). Small solar powered lights have been put in place to illuminate the memorial space during the evening. A bench is located next to the memorial under the shade of a milo tree to offer visitors a place for reflection in the shade. At present, the memorial is an informal family-created use that would need to be formally assessed for its long-term and continued use. Given the sensitivities to this space, DHHL is willing to help and work with the family and community for a permanent long-term solution.

FIGURE 3-19 MEMORIAL

Past and Present Events

Malama Cultural Park and the offshore area are used for family gatherings, barbeques, exercise, canoe practice, regatta activities, swimming, water sports, fishing, and the Akaula School's annual makahiki games. Other previous events at Malama Cultural Park have included a farmers market, softball games, Hoʻolauleʻa, and Aloha Week festivities. Annually, the Malama Cultural Park hosts the August Rawlins Classic Race, Molokaʻi Master Blaster, which is a six-mile route for Masters Division paddlers that finishes at the shoreline of the park. The park is also a popular destination for photography and weddings.

Historical Context and Traditional Native Hawaiian Use

Traditionally, native Hawaiians were the caretakers of resources and ecosystems that lie within or adjacent to their communities. Five basic principals of Hawaiian stewardship and use of natural and cultural resources, which are

also relevant to sustaining the well-being of native Hawaiians are identified by McGregor et al. in *An Ecological model of Native Hawaiian well-being* (2003). First, the ahupuaʻa (traditional Hawaiian land section that typically ran from the mountains to the sea and included coastal and nearshore resources) is the basic unit of Hawaiian cultural resource management. Second, the natural elements (land air, water, and ocean) are interconnected and interdependent. Third, of all the natural elements, fresh water is the most important for life and needs to be considered in every aspect of land use and planning. Fourth, Hawaiian ancestors studied the land and the natural elements and became very familiar with its features and assets. Ancestral knowledge of the land was recorded and passed down through place names, chants which name the winds, rains, and features of a particular district, and legends. Fifth, an inherent aspect of Hawaiian stewardship and use of resources is the practice of malama ʻāina (care for the land) to ensure the sustainability of resources for present and future generations. Thus, this section examines the moʻolelo (story, tradition, history) and traditional cultural practices associated with the Plan Area, which provides a foundation for developing the management strategies presented in *Chapter 5*.

The Plan Area lies in the ahupuaʻa of Kaunakakai in the moku of Kona (*Figure 3-1*). As the setting for a number of different moʻolelo, the area was an important place in traditional Hawaiian times. During this early period, the coastal zone was used as a canoe landing and also supported a small population, while upland areas were used for agriculture and were settled later. With freshwater springs preventing the growth of coral, a natural harbor was formed. Most of the moʻolelo as well as early historic references to Kaunakakai present it as a destination for those traveling by boat. Two heiau, Kamalae and Mahinahina were also known for the area, with Mahinahina Heiau believed to have been located within the Plan Area.

The settlement pattern for the central region of Molokaʻi's southern shore suggests that the coastal habitation zone was populated by the 13th century, with the mauka portions being settled by the 15th century (Weisler, 1989). The upland zones were the location of agricultural activities, and much of the existing archaeological research has recorded the presence of temporary shelters among other site types (Weisler, 1989). Archaeological studies have shown that the swampy coastal areas affected by tidal levels were not ideal for settlement and habitation (Tomonari-Tuggle, 1990). Because of this, and the presence of fresh water in Kaunakakai Stream, the coastal flat mauka of this swamp became the center of the area's settlement.

Based upon archaeological and oratorical evidence, subsistence focused on coastal resources, as the region is too dry for wetland agriculture. Fishponds exist along the southern coastline of Molokaʻi, though not in the immediate within or fronting the Plan Area. Kaunakakai was known for harvesting of aloalo shrimp (*Gonodactylus falcatus*). Cultivation of crops occurred in spring-fed areas and along the two main watercourses of the region, Kamiloloa and Kaunakakai Stream. Dryland agriculture, focusing on sweet potato (Ipomoea batatas) cultivation, was likely practiced on the slopes above the town, and salt was produced at the coast.

The region's significance continued into the historic era, when Mōʻī Lot Kapuāiwa Kalanimaku Aliʻiolani Kalani Kapuapaikalaninui, or Kamehameha V, made his home, Malama, on the shores of Kaunakakai. Born in 1830 to Elizabeth Kīnaʻu and and Mataio Kekūanāoʻa, Kapuāiwa ruled the Kingdom of Hawaiʻi from 1863 following the passing of his brother Alexander Liholiho until his death in 1872. Said to have been the favorite island of Kapuāiwa, the monarch frequented the island of Molokaʻi and built a "country estate" for himself within the current Plan Area (Summers 1971:23). The platform on which the residence was constructed upon is thought to be the previous location of Mahinahina Heiau.

The beach fronting Malama was reserved strictly for the use of the aliʻi who enjoyed sunbathing on a sandy spit named Ka Lae o Ka Manu after the kōlea (*Pluvialis fulva*) which would return there each year (Cooke, 1949).

In numerous moʻolelo, one can see multiple Hawaiian language sources which refer to the area as "Kaunakahakai." According to Mary Kawena Pukui, the original, Kaunakahakai, is translated as "resting-on-the-beach" or "beach-landing" as it was a landing place for the fishing canoes which were attracted by the multitude of fish in the area (Pukui, 1986).Another explanation for the name is provided by Ms. Harriet Ne, well respected kupuna and Kumu Hula of Molokaʻi, who describes the name as a homage to a foreigner assisting the Kapuāiwa, or Kamehameha V.

This sunburned foreigner who helped manage the chief's finances gave the chief the idea to dig paddies where sea water could enter during high tide, and dry during low tide, thus creating salt flats. When naming the village, the foreigner asked the chief how one would say "current," and the chief named the place Kaunakahakai, or "current of the sea."

Astronomy, particularly the moon, is a common theme for place names in Kaunakakai. The name of Kamehameha V's residence, Malama, translates to month or moon. Mahinahina is translated as silvery haze (as of moonlight). Mahinahina Heiau and, Malama are clearly related to each other and to the island of Molokaʻi as a whole. Hina, the moon goddess is considered the mother of Molokaʻi. This gave rise to the saying "Molokaʻi Nui a Hina," "Great Molokaʻi Child of Hina" (Fornander, 1969). It is also important to note that Mahinahina Heiau may be associated with human sacrifice (Stokes, 1909). Traditionally, sacrificial ceremonies were conducted according to the lunar calendar with one ritual known as the "feeding of the moon" (Valeri, 1985). Although the form and function of heiau were known to change over time, the presence of this heiau suggests that the location was important both politically and spiritually.

Constructed at the turn of the 19th century, Kaunakakai Wharf played a vital role in the development of Kaunakakai as the urban center of Molokaʻi. The wharf was a hub for commerce and entry to the island and a railroad once connected the wharf to other parts of Molokaʻi. Several sources relate that the wharf was made from stones taken from two nearby heiau (Hammatt et al, 2019).

Contemporary Native Hawaiian Use

The rights of hoaʻāina (native tenants) have and continue to be secured through the passage of laws that extend as early as the 1840 Constitution in the Kingdom of Hawaiʻi. These laws are an integral part of the complex transformation that occurred during this historical period of transition in land tenure practices, incorporating concepts of private property rights for the first time. Under the auspices of these laws, Native Hawaiians hold unique rights to exercise traditional and customary practices for subsistence, cultural, and religious purposes as codified in Article XII, section 7 of the Hawaiʻi State Constitution and Section 1-1 (Common law of the State; exceptions) and 7-1 (Building materials, water, etc; landlords' title subject to tenants' use) of the Hawaiʻi Revised Statutes.

Many court cases have been decided since 1858 to reaffirm these native tenant rights. One of these cases, *Ka Paʻakai O Ka ʻĀina v. Land Use Commission (Ka Paʻakai)* (2000), resulted with the Hawaiʻi State Supreme Court introducing an analytical framework in which a government agency must at minimum identify the scope of existing cultural, historic, or natural resources and evaluate to the extent of which traditional and customary rights are exercised in a proposed project area and must assess the potential impact, alternatives, and mitigating measures of the project to reasonably protect these rights.

In the recent past, the Malama Cultural Park was used as the site for the annual Ka Molokaʻi Makahiki Festival. Traditionally, Makahiki was a time set aside for tribute, harvest, sport, and play. Makahiki usually begins mid-November and ends in late January or February. The roughly four-month period of Makahiki was a time of peace and plenty, relaxation and games, and for harvest. It was also a time to honor the god Lono. During this time, war between the aliʻi was forbidden. Some of the games that were enjoyed include: heihei kūkini (racing), mokomoko (boxing), hākōkō (a wrestling style similar to sumo), pūhenehene (a skilled-game of deception), uma, huki (tug-of-war), ʻulumaika (a traditional game that uses a stone in a bowling-like sport), and kōnane (a board game most resembling chess). Makahiki also signifies a time of rest and rejuvenation for both the land and the people. This period served as an opportunity to both fortify existing bonds and forge new relationships.

Today, the island of Molokaʻi hosts their Ka Molokaʻi Makahiki Festival every January where attendees can learn about the history of the celebration, watch hula dancers, participate in arts and crafts workshops and sporting competitions; all while enjoying local music and food. The event, once hosted at the Malama Cultural Park, has since been relocated to the Mitchell Pauole Center in Kaunakakai Town.

Known well-established traditional and customary practices understood to be associated with the Plan Area today include subsistence-based fishing and Hawaiian canoeing paddling. The existing canoe clubs practice paddling in the park and pass on the knowledge of traditional Hawaiian canoeing to residents, visitors, and keiki. An amphitheater and stage were constructed for live performances and hula; however it is not used on a regular basis. Many residents have expressed a hope that the SAP will reinvigorate the Malama Cultural Park and allow for more culturally-based activities.

Historic Resources

Keala Pono Archaeological Consulting, LLC completed an Archaeological Literature Review and Reconnaissance Survey (ALR-RS) of Malama Cultural Park on behalf of G70 and DHHL *(Appendix C).* Three archaeological sites were identified during the ALR-RS *(Figure 3-20)* consisting of:

1) The Malama Platform (State Inventory of Historic Places (SIHP) 50-60-03-1030)
1) An extensive cultural deposit (SIHP 50-60-03-630)
2) The remains of a historic pier (SIHP 50-60-30-890)
3) The old Kaunakakai jailhouse (No SIHP number)
4) A historic weigh station (No SIHP number)

Malama Platform

The Plan Area itself is the location of the former residence of the Kamehameha V. The house, known as Malama, was built circa. 1859, possibly on top of Mahinahina Heiau. The Malama house was later moved and Kala‘iakamanu Church was built on top of the house platform. The church was relocated nearby in the 1920s and then moved again because of the 1946 tsunami. The existing Malama Platform (Site 1030) is located just behind the Wa‘akapaemua Canoe Club facilities on the southern portion of the Plan Area. The platform is currently overgrown with invasive plants and grasses, particularly along the platform walls, but is otherwise in good condition (*Figure 3-21 and 3-22*).

Cultural Deposit

Earlier archaeological studies of the park revealed a subsurface deposit consisting of shellfish, charcoal, and fish bone as well as historic artifacts such as a pearl-shell button. Traditional artifacts include a basalt grinding or polishing stone and a coral abrader. This site was later designated as SIHP 50-60-03-630. The full extent of Site 630 is unknown; however, it has been identified on the entire mauka portion of the current Plan Area, north of the Malama Platform to Hio Place. As mentioned previously, the coastline was much farther inland than it is today. The area of the park likely contains the original coastline and sand flats now buried by alluvium.

A previous study of this area excavated four test pits and 26 trenches, obtaining C14 dates of AD 1230–1340 and AD 1435–1665. Historic material dating to the time of Kamehameha V’s residence was also noted in addition to twelve features uncovered during test excavations. These included eight hearths, two post molds, a pit feature, and a wall. Subsurface cultural deposits were either disturbed or absent in the east side of their survey area, closest to the wharf. Additional components and artifacts associated with Site 1030; the Malama Platform may be located within this extensive cultural deposit. The historical deposits were highly disturbed from previous grading, bulldozing, and land filling activities, and structural remains could not be positively identified. Analysis of bottle glass suggests the occupation of this location may have begun about 1860–1870, which is the time Kamehameha V utilized the area. Prehistoric deposits were also evident in the underlying calcareous sand, consisting of shell midden remains, hearth features, and other materials. Undisturbed deposits, however, were limited to only a few areas, being densest in the southwestern quadrant of the property.

FIGURE 3-20 HISTORIC RESOURCES

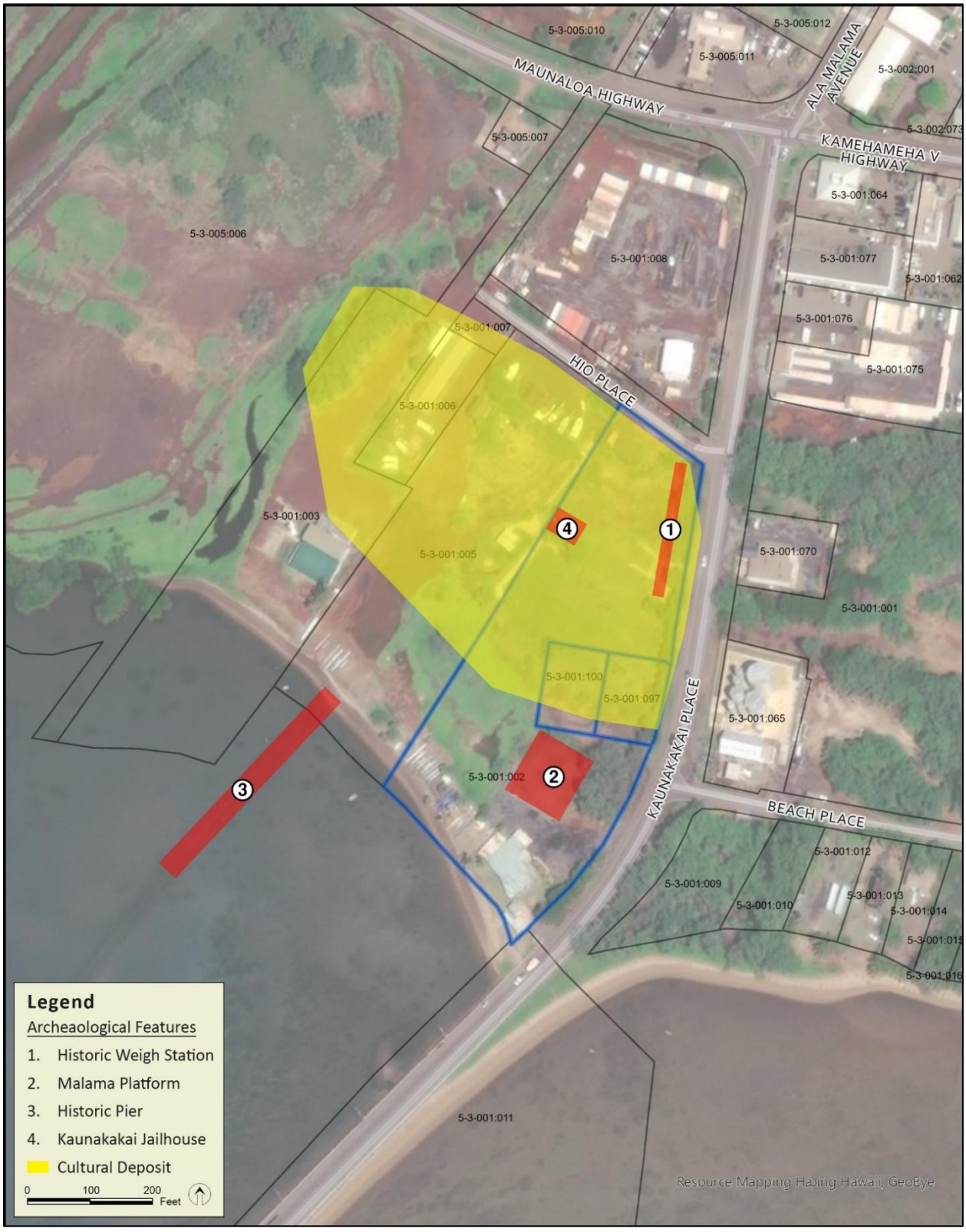


FIGURE 3-21 PHOTOGRAPH OF MALAMA, KAMEHAMEHA V'S RESIDENCE IN 1908

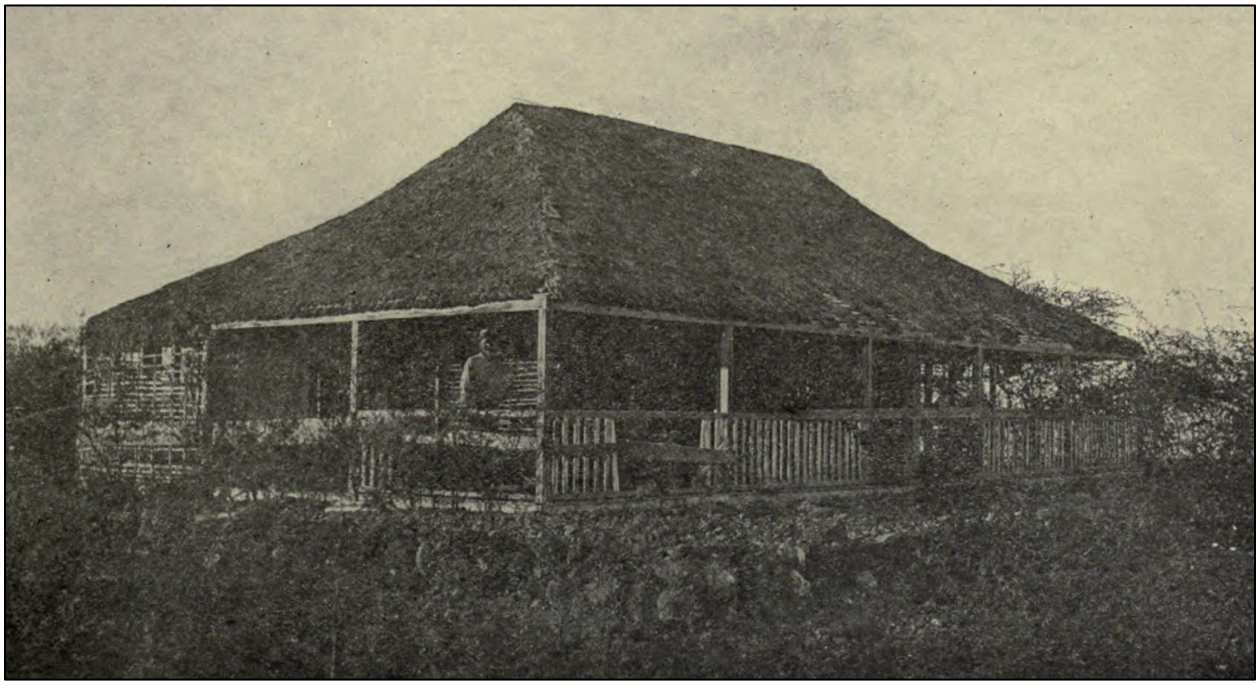


FIGURE 3-22 EXISTING MALAMA PLATFORM

Historic Pier

The remains of a historic pier (Site 50-60-30-890) are located just offshore to the west of the Plan Area. The remnant structure, consisting of two alignments of stacked basalt spaced about 8 feet apart, was possibly built around the year 1900. The majority of the remains are most likely submerged beneath the silt loam. The structure is only visible during low tide.

Kaunakakai Jailhouse

The historic jailhouse is considered to be the oldest wooden structure on Molokaʻi and has been moved to different locations around the island over the years (*Figures 3-23 and 3-24*). It was originally located in Pūkoʻo in the early 1800s and was then moved to ʻUalapuʻe around 1925. The jailhouse was relocated again roughly ten years later to 15 Ala Malama Avenue, where the Molokaʻi Public Library stands today, before coming to its current location on the mauka end of Plan Area near the restroom. At least four Molokaʻi residents of Japanese heritage were temporarily detained at the Kaunakakai courthouse and jail after the bombing of Pearl Harbor. The World War Two (WWII) prisoners from Molokaʻi and Lānaʻi were then transferred to Maui County Jail and subsequently to internment camps on Oʻahu.

Since the structure has been moved from its original location and is in very poor condition, it is ineligible for inclusion on the National Register of Historic Places. It was evaluated in 2015 by the National Park Service due to its association with the Japanese internment camps in Hawaiʻi during WWII but was considered to have "no integrity remaining." Currently, the jailhouse is in poor condition with a collapsed roof and missing walls.

FIGURE 3-23 HISTORIC JAILHOUSE BEFORE MOVED TO MALAMA CULTURAL PARK

FIGURE 3-24 EXISTING HISTORIC JAILHOUSE

Historic Weigh Station

The properties east of the Plan Area across Kaunakakai Place hosted a variety of tenants in the 1940s, from the military to the E.K. Fernandez circus, and in the 1950s, the Libby, McNeil, & Libby Pineapple Co. Pineapple was quickly becoming Molokaʻi's primary export by this time, with roughly 6,800 hectares (16,800 acres.) of fields on the island by 1968. The pineapple company built the cement truck weigh station along the eastern side of the property, which remains today as a quiet reminder of Molokaʻi's pineapple heyday (*Figure 3-25*).

The historic weigh station at the Plan Area is part of the railroad, which ran along Kaunakakai Place and gave the pineapple plantations access to the wharf. The weigh station is located on the northeast corner of the Plan Area and runs parallel to Kaunakakai Place. A cement slab, which probably once held the scale, juts out from the eastern edge of the structure. A newspaper article from August 11, 1899 mentions that the railway "will be built to the end of the wharf", while a historic map drawn in May 1900 depicts the scale and railway already in place. Therefore, it can be assumed that the weigh station and scale were constructed in either late 1899 or early 1900. The structure is currently in good condition.

FIGURE 3-25 EXISTING HISTORIC WEIGH STATION

Natural Resources

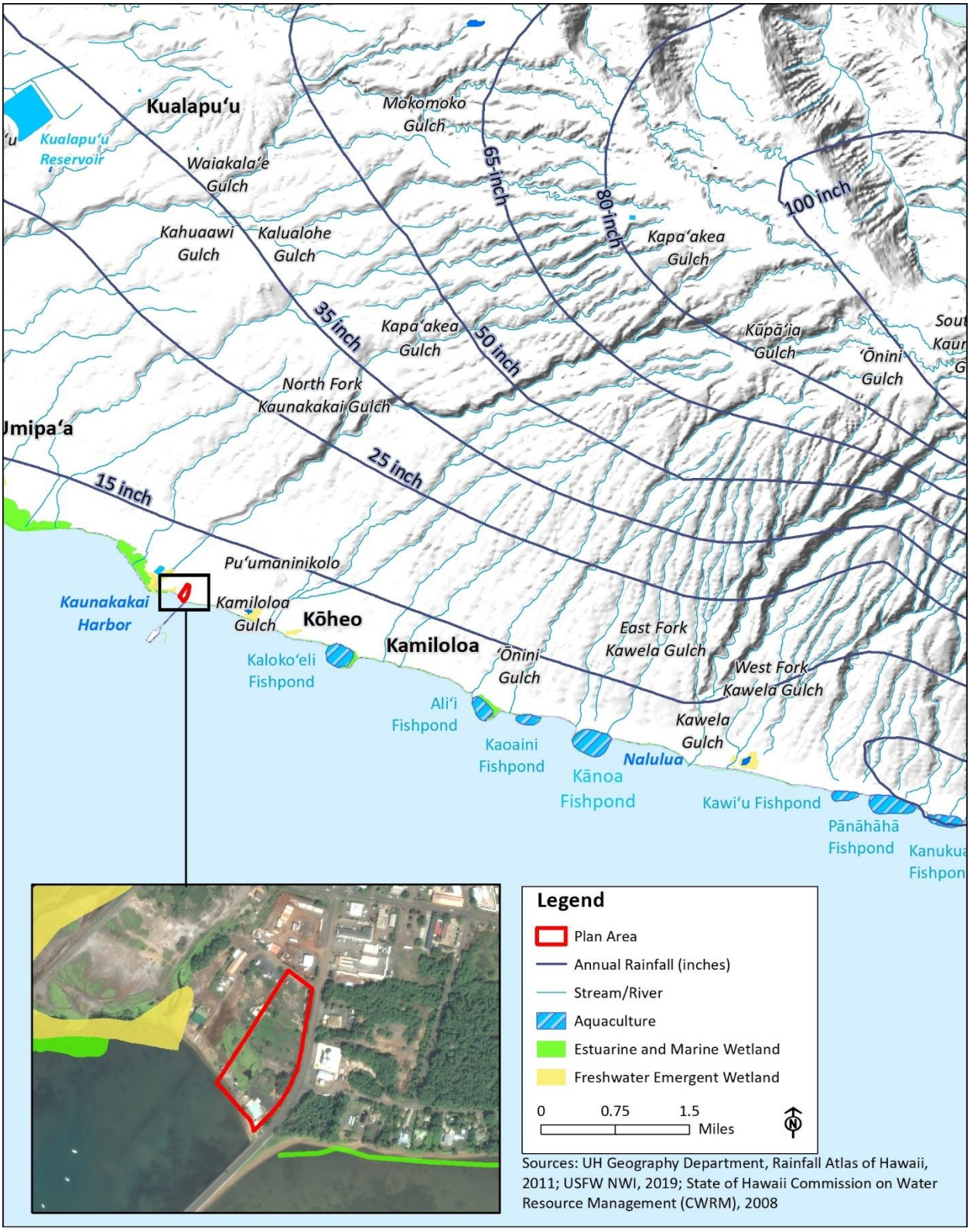
Climate

Climate in Kaunakakai can be characterized as having clear skies and dry conditions. Temperatures for Kaunakakai are mild, ranging between upper 70 degrees Fahrenheit in the winter months and mid 80 degrees Fahrenheit in the summer months.

The Plan Area is located on the drier south side of the island which brings an average of 10 to 15 inches of rain per year (*Figure 3-26*). The wettest month of the year is January with an average of 2.78 inches of rain and the driest month of the year is June with an average of 0.08 inches of rain.

Although the park itself receives minimal rainfall, the mauka areas of the Kaunakakai Watershed above 800 feet of elevation receive up to 100 inches or rain per year on average (*Figure 3-27*).

FIGURE 3-26 AVERAGE ANNUAL RAINFALL, WATERSHEDS, AND WETLAND AREAS



Sources: UH Geography Department, Rainfall Atlas of Hawaii, 2011; USFW NWI, 2019; State of Hawaii Commission on Water Resource Management (CWRM), 2008

FIGURE 3-27 KAUNAKAKAI WATERSHED

Topography

The topography of the site is generally flat with contours sloping northeast to southwest at approximately 1% (*Figure 3-28*). There are localized low and high point areas within the site, which creates the natural wetland and impounds water. A mound is located adjacent to the wetland. In addition, a relatively flat, constructed earth platform, intended for use for performances, is also located north of the natural wetland. The site has elevations ranging from approximately 5 feet above mean sea level (MSL) near Hio Place to elevations at or below mean sea level (±0' along the shoreline).

FIGURE 3-28 TOPOGRAPHY AND BATHYMETRY (5 FT CONTOUR)

Coastal Geology

An elevated berm separates the sandy foreshore from a small wetland area located in the backshore. The foreshore is broad and gently sloping. Beach sediments are dark brown in color and composed of coarse-grained carbonite sands, cobbles, silt, and organic material. The beach fronting the Plan Area is bounded by the Kaunakakai harbor to the east, and by a delta at the mouth of the Kaunakakai gulch to the west. Thick mangrove (*Rhizophora mangle*) vegetation is present in the delta area.

Very little wave action is present at the site. Larger incoming ocean waves break on a fringing reef about a mile offshore. The offshore environment can be described as a tidal mudflat comprised of marine deposits of unconsolidated silty clay and organic matter. The coastal plain has spread nearly a mile across the reef in historic time, due to accelerated weathering after the introduction of agriculture and livestock. Land use practices including deforestation, overgrazing, and open-ground agriculture have accelerated erosion and runoff of the uplands, which reaches the nearshore with high sediment concentrations, altering the water clarity during the entire year.

Significant coastline progradation has been documented in the vicinity of the Plan Area. This buildup is due to the outlet of Kaunakakai Stream, which runs from the mountains through the Kaunakakai Gulch, exiting into the ocean not far from the Plan Area (*Figure 3-27*). Historic maps show that between 1882 and 1924, the shoreline accretion rate was approximately 8 feet (2.4 m) per year. However, the shoreline showed little change after 1924 (Shun, 1982).

Coastal profiling was conducted on January 26, 2021 using the Emory Technique to determine the shape and slope of the beach. Data was collected along a 90-ft transect at the area shown below (*Figure 3-29*). The transect was started at the edge of the wetland and extended approximately 25 feet offshore. Low tide was at 10:19 am with a height of 2.4 inches MLLW. A profile of the coastal zone is illustrated in *Figure 3-30*.

FIGURE 3-29 LOCATION OF TRANSECT FOR SHORELINE STUDY

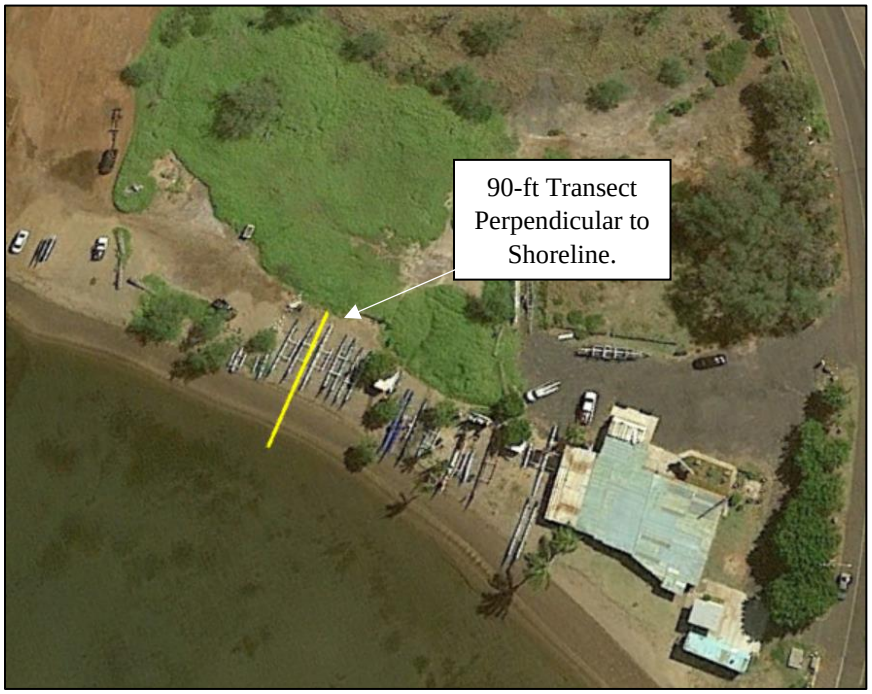
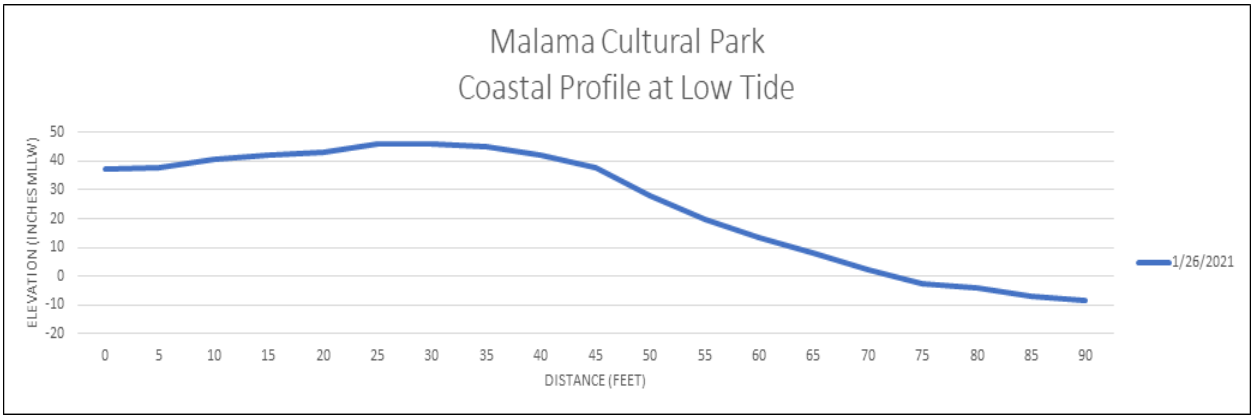


FIGURE 3-30 COASTAL PROFILE



Soil Conditions

Kealia silt loam (KMW) is uniformly distributed throughout the site (*Figure 3-31*). Kealia silt loam is described as having moderate permeability, high hazard for wind erosion, slow to very slow runoff and no more than slight water erosion hazards. Kealia silt loam is poorly drained and has a high content of salt. Ponding occurs in low areas after a heavy rain. When the soil dries, salt crystals accumulate on the surface. This soil is used for wildlife habitat and pasture, but has low grazing value. It is not used for crops, because of poor drainage and high salt content (Foote et al. 1972).

It is important to note that Jaucas sand, 0–15% slopes (JaC), a notable soil substrate type known for its use for traditional Hawaiian burials, is located along the coast, approximately 350 feet east of the Plan Area. A review of historic maps and photos of the area show that the coastline was much farther inland than its present location. The shoreline fronting the Plan Area has experienced accretion resulting from extreme sedimentation rates due to the influx of alluvium down the Kaunakakai Gulch. It is likely that older beach deposits (possibly composed of Jaucas sand) exist buried by alluvium under portions of the park.

FIGURE 3-31 SOILS

Biological Resources

A field survey and report were conducted by G70 to document the biological composition and identify significant plant and wildlife at the Plan Area (*Appendix C*). A botanical survey, wetland delineation, avian-point count survey, and two nearshore surveys of algae/limu and invertebrate communities were completed.

Critical Habitat

Critical Habitat is defined by the Endangered Species Act as specific geographic areas that contain features essential to the conservation of an endangered or threatened species that may require special management and protection. It may also include areas that are not currently occupied by the species, but that will be needed for its recovery and conservation. There is no federally designated Critical Habitat for any species within the Plan Area.

Flora

Plant communities within the Plan Area can be categorized as beach strand, salt marsh, and coastal dry shrub and grassland (*Figure 3-32*). Of the 40 identified plant taxa, approximately 11 (27.5%) may be considered native (either indigenous to Hawai‘i or of Polynesian introduction) (*Figure 3-33*). Species sighted included ‘uhaloa (*Waltheria indica*), pōhinahina (*Vitex rotundifolia*), ‘akulikuli (*Sesuvium portulacastrum*), ‘aki‘aki (*Sporobolus virginicus*), seaside heliotrope or kipukai (*Helitropium cuassavicum*), coconut (Cocos nucifera), milo (*Thespesia populnea*), and kou (*cordia subcordata*).The wetland habitat is dominated by pickleweed (*Batis maritima*), with kiawe (*Prosopis pallida*) and Indian fleabane (*Pluchea indica*) growing occasionally along the pickleweed border (*Figure 3-34*). The 9ark’s interior contains large patches of bare ground and sparse vegetation which consist primarily of alien species such as grasses from the Chloris and Cenchrus genera, Bermuda grass (*Cynodon dactylon*) and ground covers such as Indian fleabane and Australian saltbush (*Atriplex semibaccata*)(*Figure 3-35*). Coconut and milo growing near the shoreline were in various states of health, presumably due to shoreline erosion, high salinity, and low nutrient content of the sandy substrate (*Figure 3-36).*

FIGURE 3-32 DOMINANT VEGETATION COVER AND SIGNIFICANT TREES

FIGURE 3-33 EXAMPLES OF INDIGENOUS PLANTS OBSERVED: KIPUKAI, ʻUHALOA, AND ʻĀKULIKULI

FIGURE 3-34 WETLAND ENVIRONMENT DOMINATED PRIMARILY OF PICKLEWEED

FIGURE 3-35 PARK'S INTERIOR CONSISTING PRIMARILY OF ALIEN GRASSES

FIGURE 3-36 PATCHES OF MILO GROWING NEAR THE COAST

Fauna

Avian point-count surveys detected 15 bird taxa from 14 genera. Zebra doves (*Geopelia striata*) and chickens (*Gallus gallus*) were among the most common. Indigenous birds included the migratory shorebird kōlea or Pacific golden plover (*Pluvialis fulva*) and the ae‘o or Hawaiian black-necked stilt (*Himantopus mexicanus knudseni*). While not observed, the call of the kioea or bristle-thighed curlew (*Numenius tahitiensis*) was heard. Also observed was an ‘auku‘u or black-crowned night-heron (*Nycticorax nycticorax hoatil*) and a laughing gull (*Leucophaeus atricilla*). A few dogs (leashed and/or accompanied by owners), and one cat (inside the jailhouse) were observed during the time of these surveys. The presence of cats may influence the observed bird populations within the park.

Coastal Ecology

Nearshore surveys of the limu and invertebrate communities identified a total of 6 limu taxa from 6 distinct genera and 7 invertebrate taxa from 7 genera. Limu biomass was overwhelmingly composed of invasive alien species, however, pieces of limu identified as indigenous species were caught in the morass washing up on the shoreline. Invasive species of limu included gorilla ogo (*Gracilaria salicornnia*), hookweed (*Hypnea musciformis*) and prickly seaweed (*Acanthophora spicifera*). Pieces of the indigenous limu pūko‘ako‘a (*Halimeda opuntia*) was periodically sited, as were pieces of southern padina seaweed (*Padina australis*). A small patch of limu ‘ele‘ele (*Enteromorpha flexuosa*) was located near the Kaunakakai Pier. Invertebrates encountered included the mantis shrimp (*Gonodactylus falcatus*), ‘ōhiki or pallid ghost crab (*Ocypode pallidula*), ‘alamihi or rock crabs (*Metopograpsus thukuhar*), and papa‘i, also known as blue pincher crabs or mangrove swimming crabs (*Thalamita crenata*). Weli or conspicuous sea cucumber (*Opheodesoma spectabilis*) and loli or black sea cucumber (*Holothuria atra*) were also observed washing up in the clumps of seaweed.

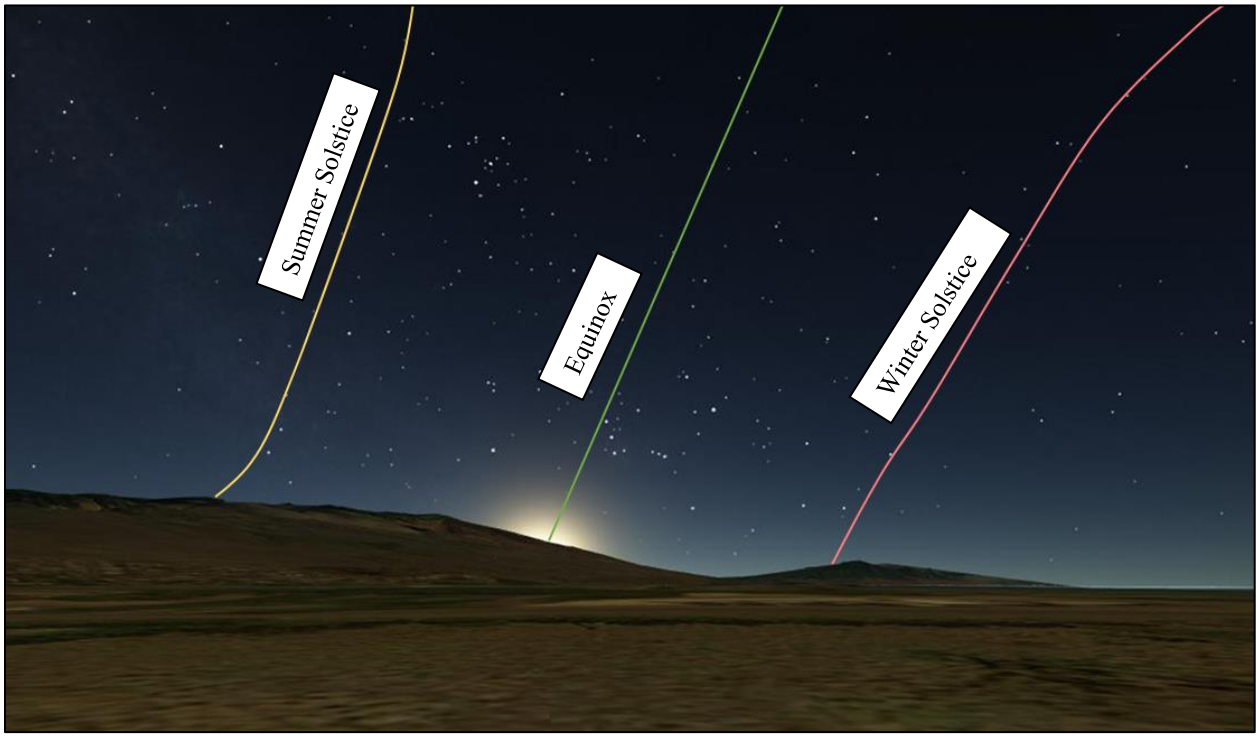
Views

The Plan Area’s location along the south Moloka‘i coast offers picturesque views of the Pacific Ocean and the islands of Maui and Lānai. The commercial harbor is also visible jutting off the coast. The roadway on the wharf leading out to the harbor is a popular place where locals and visitors come to watch the sunset.

Views in the mauka direction include the warehouse and container yard belonging to New Horizon Enterprises. Further mauka, the impressive slopes of Moloka‘i’s largest mountain, Kamakou, dominates the skyline above Kaunakakai. Views to the east of the site include Kaunakakai Place, the large storage tanks at Senter Petroleum, and the Moloka‘i Veterans Center building. Views to the west of the Plan Area include the Moloka‘i Yacht Club building, a vegetated area comprising the Kaunakakai Wetland, and thick groves of mangroves along the coast.

The Plan Area also offers a unique perspective of the sunrise. *Figure 3-37* illustrates the sun path as viewed from the park. The green line represents the sun’s path on both the spring and autumn equinox. The yellow line and red line represent the summer and winter solstices, respectively. During the summer solstice, the sun appears to rise just to the right of the Kamakou’s peak. On the winter solstice, the sun appears to rise in the distance from the top of Maui’s Haleakalā.

FIGURE 3-37 VIEW OF SUNRISE FROM MALAMA CULTURAL PARK



Human Environment

Access, Roadways, and Parking

The Plan Area is bound by two Maui County-owned roads, Kaunakakai Place to the east and Hio Place to the north. Kaunakakai Place is a two-lane, asphalt-paved roadway extending from Kamehameha V Highway (State) to the entrance of Kaunakakai Small Boat Harbor. Hio Place is a two-lane, asphalt-paved roadway extending from Kaunakakai Place until terminating at a dead-end.

Existing vehicle access serving the property is identified on Kaunakakai Place near the entrance of the Kaunakakai Small Boat Harbor and along Hio Place (*Figure 3-38 and 3-39*). This vehicle access point immediately leads to a gravel and dirt parking area. There are no County standard driveway aprons serving the Plan Area.

There are currently two existing dirt or gravel parking areas located within the property limits. One of the parking areas serves the Molokai Canoe Club and is located along Kaunakakai Place. The other parking area straddles both the Plan Area and the adjacent Maui County-owned park lot, and is located along Hio Place (*Figure 3-40*). The Hio Place parking area serves general park users and is used as storage for boats. Large rock bollards have been placed in the DHHL-owned portion of the Hio Place parking area to prevent the abandonment of vehicles and boats. Two paved handicapped stalls are located on the County-owned portion of the parking lot area.

Due to the limited availability of parking, many visitors park along the Kaunakakai Wharf Road leading out to the harbor. Other visitors drive into the county-owned parcels of Malama Cultural Park and park vehicles near the shoreline.

Concrete stairs provide pedestrian access is located off of Kaunakakai Place and leads to the beach area fronting the Plan Area (*Figure 3-41*). There are no bicycle facilities at the Plan Area.

FIGURE 3-38 DRIVEWAY AND GRAVEL PARKING AREA FOR THE MOLOKA'I CANOE CLUB

FIGURE 3-39 ACCESS TO THE PARK VIA HIO PLACE FROM KAUNAKAKAI PLACE

FIGURE 3-40 GRAVEL PARKING LOT ALONG HIO PLACE

FIGURE 3-41 PEDESTRIAN ACCESS TO THE BEACH FROM KAUNAKAKAI PLACE

Utilities and Infrastructure

Potable Water Systems

Potable water service for the Plan Area is provided by the Maui County Department of Water Supply (Maui DWS) and operates within the Kaunakakai-Kawela water system (*Figure 3-42*). A 12-inch main water line within Kamehameha V Highway feeds the Plan Area. From the 12-inch water main, an 8-inch water main tees off and extends down Kaunakakai Place. At the intersection of Hio Place and Kaunakakai Place, there is an 8-inch by 4-inch tee, and the 8-inch continues down Hio Place and the 4-inch continues down Kaunakakai Place towards the harbor.

The potable water system serving the site is fed from the 4-inch line in Kaunakakai Place and the service is active per correspondence with Maui DWS. According to Maui DWS there is a 5/8-inch water meter (M/N: 95507262) located near the Molokai Canoe Club parking entrance along Kaunakakai Place. The meter location is also being shared with the water structures needed to serve the Kaunakakai Small Boat Harbor such as a 2-inch domestic water meter, a 4-inch reduced backflow preventer, and an 8-inch detector assembly. A site visit confirmed potable water fixtures being used such as hose bibs, outdoor sinks, and showers at the Moloka‘i Canoe Club facilities.

Irrigation System

An existing irrigation system is located within the Plan Area at the amphitheater and stage area. The existing system is currently nonoperational and is need of repair, improvements or replacement.

Fire Water System

There are three existing fire hydrants located along the county right-of-way on Kaunakakai Place and Hio Place (*Figure 3-42*). The fire hydrants along Kaunakakai Place are served by the 4-inch water line, and the fire hydrant along Hio Place is also served by a 8-inch water line. Maui DWS has provided fire hydrant data for the hydrant on Kaunakakai Place nearest to the Kaunakakai Small Boat Harbor with results showing a static pressure around 96 psi. The data provided indicates that fire flow is available for potential developments at the Plan Area.

There is no existing on-site fire water system or fire hydrants.

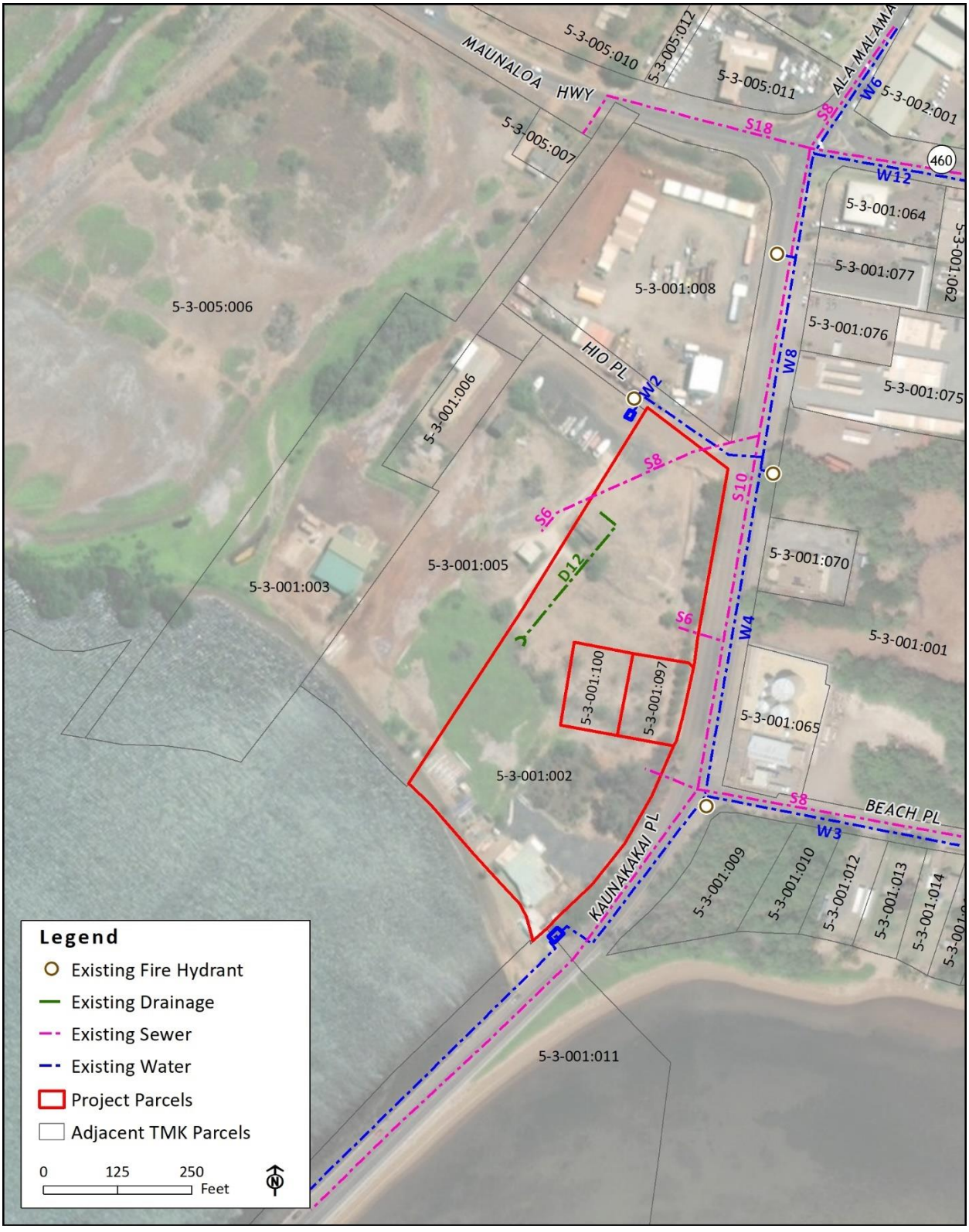
Wastewater System

A 10-inch sewer line within Kaunakakai Place connects to an 18-inch sewer main within Kamehameha V Highway at a manhole (*Figure 3-42*). The main in the highway flows by gravity before entering a pump station west of Kaunakakai Place and continuing to the west towards the County of Maui wastewater treatment plant serving Kaunakakai. Within Kaunakakai Place is a sewer line that branches off the 10-inch sewer and extends into Hio Place and serves the park facilities adjacent to the Plan Area. As-builts obtained by the County show 8-inch sewer line within Hio Place and extending through the Plan Area up until the connection point at the public restrooms on the adjacent County-owned park property.

Drainage Infrastructure

As-builts for improvements on the County-owned Malama Cultural Park parcels show drainage infrastructure extending onto the Plan Area which includes 12-inch drain inlets and an outlet structure discharging into the wetland (*Figure 3-42*). Surveyors of the site could not verify the location of this system, and further validation will be needed with County agencies about the system shown on the plans.

FIGURE 3-42 UTILITIES MAP



Electrical Infrastructure

Electrical services to the Plan Area are provided by existing overhead electrical lines along Kaunakakai Place and Hio Place. An overhead electrical line and electrical meter is located on the Plan Area serving the Moloka‘i Canoe Club facilities. The Plan Area does not have site lighting and is very dark at nighttime.

Additional permanent power connections are located on the constructed earth mound for community performances; however the condition of the power connections was in a state of either being intentionally terminated or vandalized. It appears that the source of the power for this system originated from the County side of Malama Cultural Park since an electrical meter was identified in close proximity to the system and near the property line.

Hazards

Flood

Site visit observations confirmed known drainage and flooding issues from storm surge, high tides, and coastal flooding for areas of Malama Cultural Park. Low points around the park were identified with ponding conditions from both rainfall runoff during the site visit as well as possible ponding conditions due to wave inundation indicated by salt deposits on the ground surface (*Figure 3-43 and Figure 3-44*).

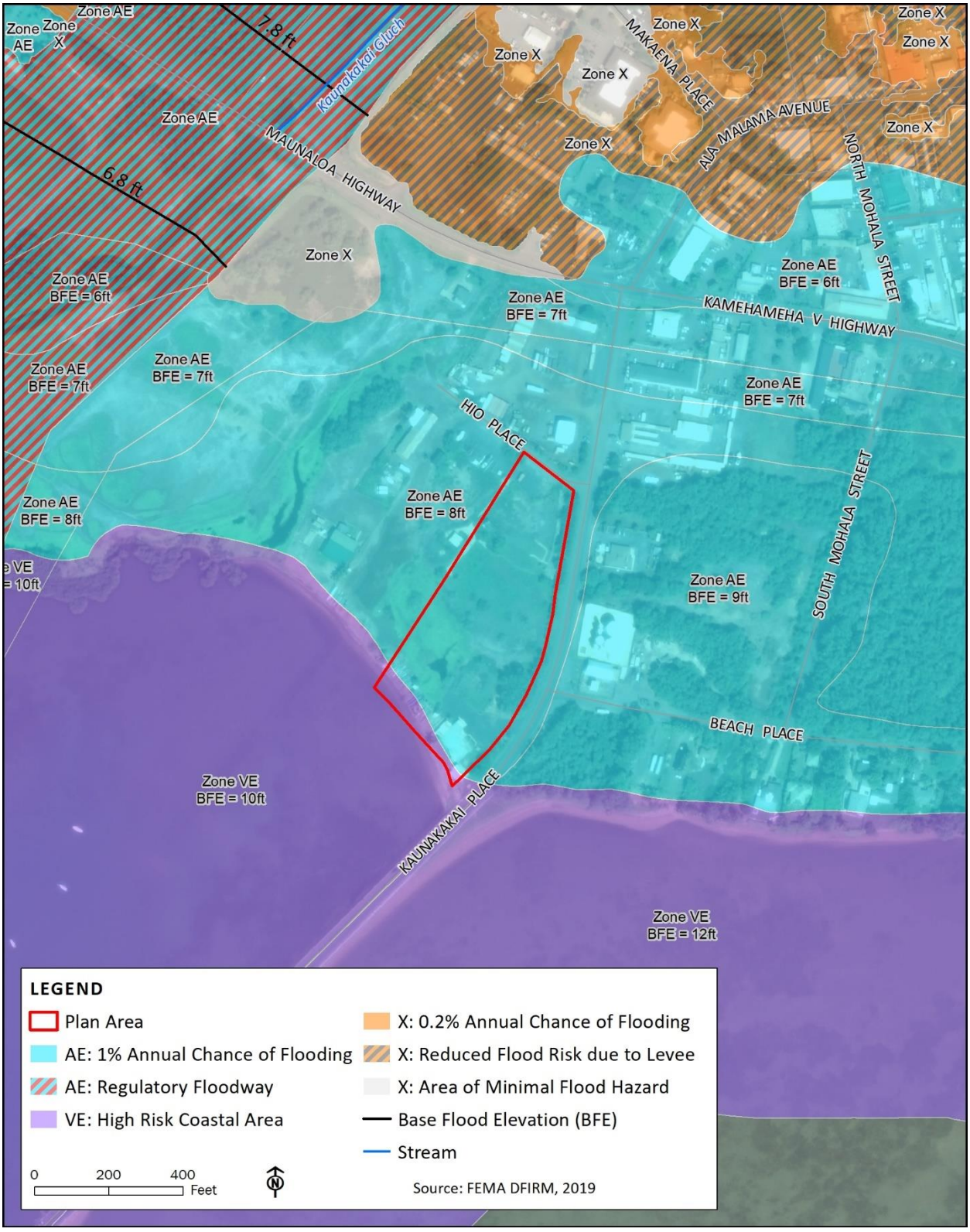
According to FIRM Maps, the Plan Area is primarily located in flood zone AE with a base flood elevation (BFE) of 8’ (*Figure 3-45*). Areas in zone AE are areas subject to the inundation by the 1% annual chance flood event from rainfall and upland events. A BFE is the elevation of surface water resulting from a flood that has a 1% chance of equaling or exceeding that level in any given year.

A portion of the site along the coastline is also located in flood zone VE with a base flood zone elevation of 10’. Areas in zone VE are areas subject to the inundation by the 1% annual chance flood event with additional hazards due to storm-induced velocity wave action.

FIGURE 3-43 PONDING OBSERVED ON THE ADJACENT COUNTY PARKING AREA

FIGURE 3-44 EXAMPLE OF SALT DEPOSIT IN WETLAND AREA

FIGURE 3-45 FLOOD, FEMA DFIRM PANEL NUMBER 15000030189F (11/04/2015)



Tsunami

Tsunamis are caused by a sudden movement of the seafloor that generates a series of waves that travel across the ocean until they reach a coast. Tsunamis can cause great loss of life and property damage in coastal areas. Very large tsunamis can cause damage to coastal regions thousands of miles away from the earthquake that caused them.

The entire Plan Area is located within both the Maui County designated Tsunami and Extreme Tsunami Zones (*Figure 3-46*). While the entire Kaunakakai coastal zone is low-lying, the tsunami hazard is greater for the coastlines nearest the Kaunakakai Harbor, because the deep reef pass there allows greater wave energy to reach the shore (USGS, 2002). Tsunami's have impacted the park in recent history. In 1946, deadly tsunami waves struck the south shore of Molokaʻi, resulting in damages to the Kalaʻiakamanu Church on the site. As a result, the church was moved to its present location mauka of Maunaloa Highway.

The nearest emergency evacuation shelter to the site is the Kaunakakai Elementary School, which is also located within the tsunami evacuation zone. Molokaʻi High School and Kualapuʻu Elementary Schools are two other emergency evacuation shelters thar are located outside of the tsunami evacuation zone.

Sea Level Rise

Sea level rise is a primary factor driving historical shoreline changes in Hawaiʻi. The average annual global sea level rise over the last century was approximately 1.88 millimeters, with studies indicating that this rate may accelerate in the coming decades. University of Hawaiʻi School of Ocean and Earth Science and Technology (UH SOEST) climate researchers predict that rising sea levels mostly caused by man-made climate change will affect coastal locations around the State of Hawaiʻi. The National Oceanic and Atmospheric Administration (NOAA) provides an intermediate-high sea level rise scenario for Molokaʻi projecting over a three-foot increase by 2070 (NOAA Sea Level Rise Viewer).

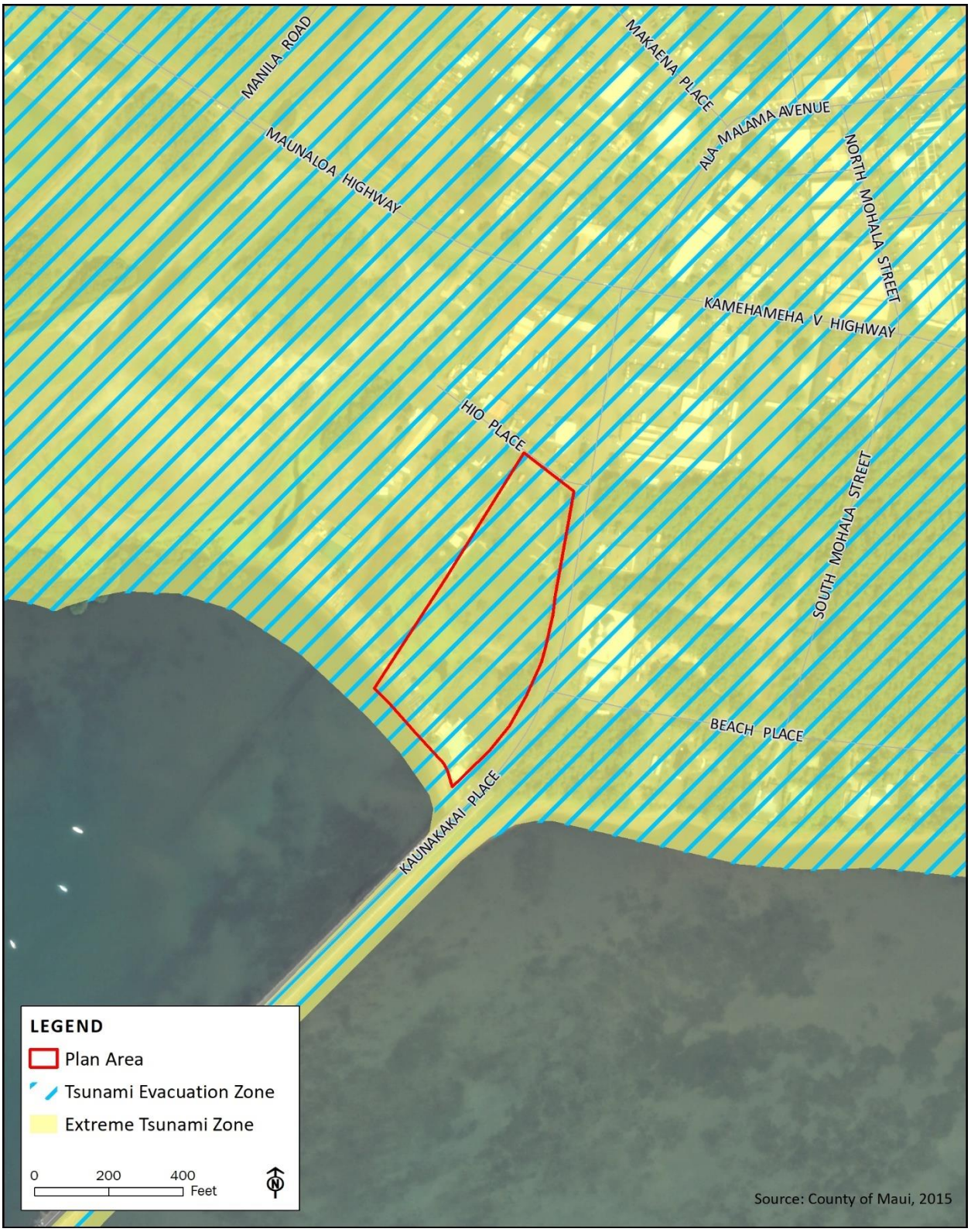
A 3.2-foot sea level rise scenario is depicted in *Figure 3-47*. Modeling indicates that sea level rise could significantly impact the Plan Area. The model shows that a 3.2-foot increase in sea level will cause chronic inundation of nearly the entire Plan Area except for the portions that have been elevated to create the amphitheater. These areas will be submerged by coastal erosion, direct marine flooding from tides and waves, or become new wetlands behind the shoreline from rising water tables and reduced drainage. The County-owned portion of the park already experiences regular flooding in low lying areas. These conditions are expected to worsen in the decades ahead. In addition, fishing and cultural practices taking place along the shore would be impacted as beaches erode.

Properties in the vicinity of the park are also expected to experience impacts of sea level rise. The main harbor on Molokaʻi, Kaunakakai Harbor, is used for cargo, recreation, and commercial purposes and would experience chronic flooding as a result of 3.2 feet of sea level rise. Interruption to interisland shipping and travel would impact residents, visitors, and economic activity. DHHL should coordinate with the Harbor to identify potential opportunities for protecting the shoreline and vulnerable infrastructure.

Approximately a quarter mile to the west, the Kaunakakai Wastewater Treatment Plant is also located within the 3.2-foot sea level rise exposure area. When flooded, this facility has the potential to release wastewater or contaminants down the Kaunakakai Gulch and into nearshore waters.

Future stewards of the Plan Area should consider the potential long-term cost savings from implementing sea level rise adaption measures as early as possible (e.g., flood proofing and relocating facilities sooner than later) compared to the cost of maintaining and repairing chronically threatened infrastructure in place over the next 30 to 70 years. Strategic planting of salt tolerant native plants near the beach area could reduce erosion and act as natural shoreline protection. The addition of landscaping may improve water retention and drainage to prevent ponding, runoff, erosion, or beach washout during heavy rainfall events. Elevating low lying areas with fill material may be needed to prevent them from becoming permanently inundated.

FIGURE 3-46 TSUNAMI



Wave Inundation

Waves are generated when wind blows across water. The size of waves depends on the speed of the wind and the length of time and distance over which it blows. During a storm, wind speeds tend to be higher and last longer, creating larger, more powerful waves. When these energy-packed waves crash against the coast, they can cause significant damage to anything in their way.

The wave climate in Hawai‘i is typically characterized by four general wave types. These include northeast tradewind waves, southern swell, North Pacific swell, and Kona wind waves. Tropical storms and hurricanes also generate waves that can approach the islands from virtually any direction. Unlike winds, any and all of these wave conditions may occur at the same time.

Tradewind waves occur throughout the year and are the most persistent April through September when they usually dominate the local wave climate. They result from the strong and steady tradewinds blowing from the northeast over long fetches of open ocean. Tradewind deepwater waves are typically between 3 to 8 feet high with periods of 5 to 10 seconds, depending upon the strength of the tradewinds and how far the fetch extends east of the Hawaiian Islands. The direction of approach, like the tradewinds themselves, varies between north-northeast and east-southeast and is centered on the east-northeast direction. The Plan Area is well sheltered from the direct approach of tradewind waves by the Kaunakakai Wharf.

Southern swell is generated by storms in the southern hemisphere and is most prevalent during the summer months of April through September. Traveling distances of up to 5,000 miles, these waves arrive with relatively low deepwater wave heights of 1 to 4 feet and periods of 14 to 20 seconds. Depending on the positions and tracks of the southern hemisphere storms, southern swells approach between the southeasterly and southwesterly directions. The south shore of Moloka‘i is directly exposed to swell from the southerly direction and these waves represent the greatest source of wave energy reaching the Plan Area.

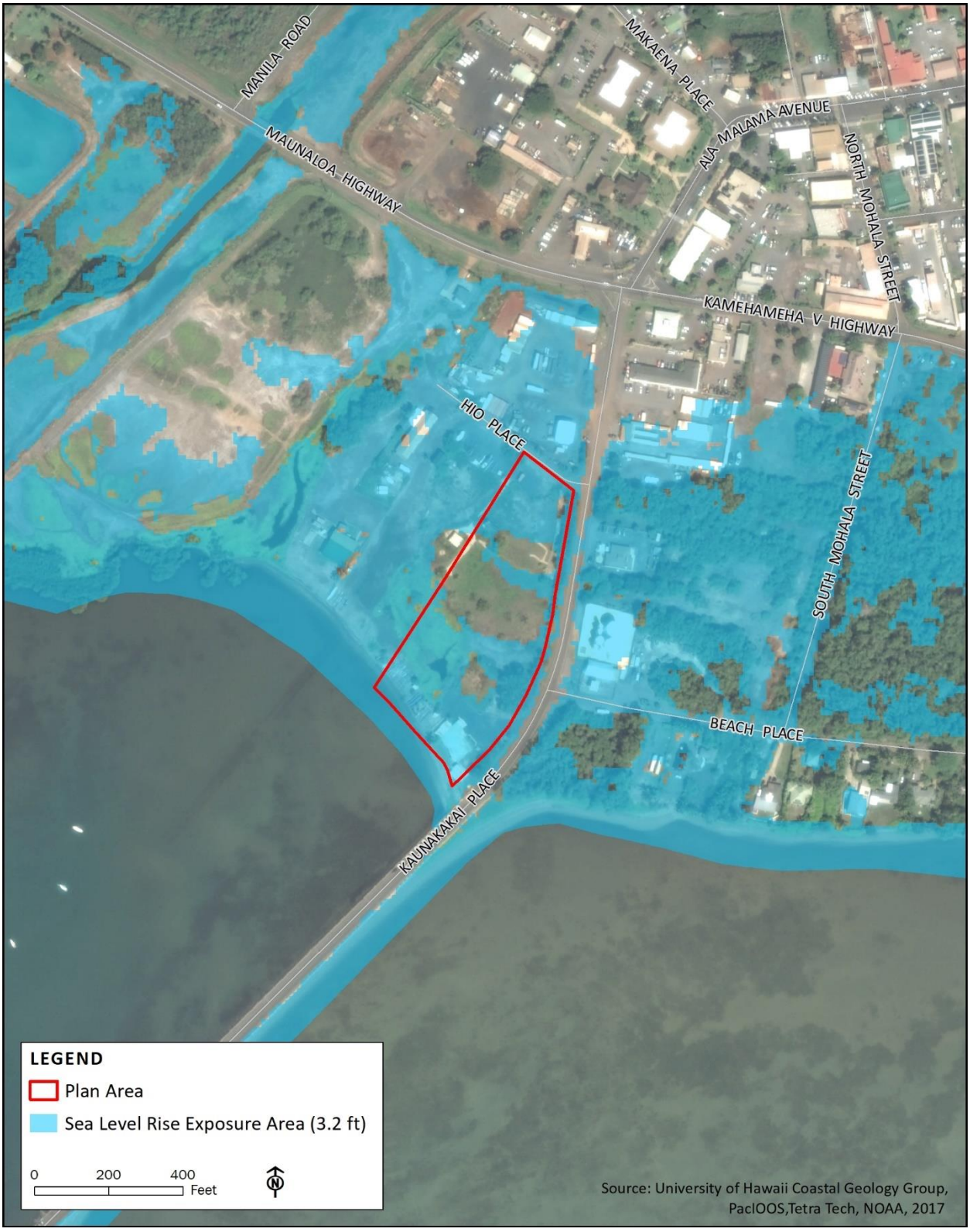
During the winter months in the northern hemisphere, strong storms are frequent in the North Pacific in the mid latitudes and near the Aleutian Islands. These storms generate large North Pacific swells that range in direction from west-northwest to northeast and arrive at the northern Hawaiian shores with little attenuation of wave energy. Deepwater wave heights often reach 15 feet and in extreme cases can reach up to 30 feet. Periods vary between 12 and 20 seconds, depending on the location of the storm. The Plan Area is sheltered by the island itself from swell approach from the north and northwest.

Kona storm waves also directly approach the Plan Area; however, these waves are fairly infrequent, occurring only about 10 percent of the time during a typical year. Kona waves typically range in period from 6 to 10 seconds with heights of 5 to 10 feet, and approach from the southwest. Deepwater wave heights during the severe Kona storm of January 1980 were about 17 feet. These waves have a significant impact on the south and west shores of Moloka‘i.

Coastal Erosion

Coastal erosion is the process by which local sea level rise, strong wave action, and coastal flooding wear down or carry away rocks, soils, and sands along the coast. Erosion threatens the integrity of structures and infrastructure located along the coast. Moreover, beach loss results in a variety of negative economic, social, cultural, and environmental impacts. In the future the effects of climate change, sea level rise, and more frequent extreme weather scenarios could increase coastal erosion and the Plan Area’s exposure to coastal hazards such as flooding, storm surge, and beach loss.

FIGURE 3-47 SEA LEVEL RISE EXPOSURE AREA (3.2 FEET)



Soil Contamination

An Environmental Site Assessment Phase I was conducted by Arcadis U.S., Inc. in 2016 to identify the nature and extent of potential petroleum contamination at the Former Kaunakakai Chevron Bulk Storage Terminal (Senter Petroleum) adjacent to the Plan Area along Kaunakakai Place. The study states that the use of the former fuel storage facility since 1925 may have resulted in petroleum discharge and seepage to the surrounding properties including Malama Cultural Park. The Hawai‘i Department of Health (HDOH) and Chevron are working on an agreed methodology in determine the extend of the contamination in the park. HDOH has provided assurance that the park is safe to access for passive activities that do not involve ground disturbing activities.

Any ground disturbing activities may require communication and coordination with DHHL and HDOH and possibly a construction environmental hazard management plan.

Acoustic Environment

The overall noise environment is comparable to a light industrial area. The primary sources of noise near the Plan Area include traffic on Kaunakakai Place, industrial machinery, and noise from foliage movement in the wind. Observed sounds on a non-canoe practice/race day include wind rustling in the trees / rattle of kiawe pods, bird songs, trucks hauling equipment to and from the commercial harbor, rooster crows, slosh of waves at the shoreline, industrial humming sounds emitting from Senter Petroleum, and the beeping sound of forklifts emitting from New Horizon Enterprise yard. Wildlife and park visitors are not exposed to any high-level decibels for an extended period of time.

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Chapter 4: Key Park Issues

Opportunities and Constraints

The existing conditions of the Plan Area, as discussed in *Chapter 3*, have been analyzed to determine potential opportunities and constraints for future park management. The analysis, summarized in *Table 4-1* through *Table 4-4* below, focuses on four primary categories: Physical Conditions, Natural and Cultural Resources, Hazard Threats, and Infrastructure and Public Facilities. *Figure 4-1* illustrates a summary of this analysis in map form.

Physical Conditions

Table 4-1: Physical Conditions

Unit of Analysis	Existing Conditions	Opportunities or Constraints
Topography and Elevation	Average elevation of 3 ft. Low lying shoreline area. Crescent shaped area previously graded and filled for an amphitheater is the highest elevation.	Vulnerable to wave inundation, erosion, and flooding. Area above 15 ft is safe from 3.2 ft sea level rise exposure area.
Streams and Waterways	Kaunakakai Stream and Wetland lie to the west.	Potential for flood hazard. Kaunakakai levee not certified.
Soil Type and Productivity	Kealia Silt Loam. Poor drainage and high salt content. Ponding occurs in low areas after periods of heavy rain. When soil dries, salt crystals accumulate on ground surface. Brackish water table occurs at depth of 12 to 40 inches, depending on tide.	Not suitable for agriculture. Soils subject to poor drainage. Any excavation should be minimal due to shallow water table and potential petroleum contamination.
Wetlands	Small wetland has recurring ponding issues and invasive pickleweed plant.	Measures should be taken to reduce runoff flowing into wetland, including restoration of the wetland with native plants and supporting existing and expanding future educational/place-based learning opportunities.
Shoreline	Sandy beach area with small dune. Tidal flats offshore.	Erosion hazard with future SLR projections. Consideration of County Shoreline Setback line of 150 ft.
Rainfall	Mean annual rainfall is less than 15 inches at the site.	Climate change expected to bring more heavy rain events in the future.

Table 4-2: Natural and Cultural Resources		
Unit of Analysis	**Existing Conditions**	**Opportunities or Constraints**
Threatened and Endangered Species and Habitat	Endangered and threatened shorebirds inhabit the wetland environment.	Habitat restoration and educational opportunities.
Cultural and Historic Sites	Site 50-60-03-1030, Malama Platform, was site of King Kamehameha V's fishing lodge. Site 50-60-03-630, extensive subsurface cultural deposit, underlies some of Plan Area. Historic weigh station. Dilapidated historic jailhouse.	Malama Platform to be protected with a 25' no-development/protection temporary buffer until final preservation plan can be developed. Any excavation must be closely monitored w/SHPD-approved AMP. Restoration and educational opportunities. Jailhouse is unsafe and should be demolished.
Substrate	Jaucas Sand to the east of the Project area. Potential for Jaucas under Plan Area as the park has experienced significant accretion.	Jaucas Sand has the potential for burial sites. Any excavation must be closely monitored with SHPD-approved AMP
Vegetation	The crescent shape mound for the amphitheater was planted with monkey pod trees. These trees have since died. There is a grove of milo and niu planted near the coast and along Kaunakakai Place. Gorilla ogo dominating coastal waters. Mangroves growing adjacent to Plan Area in the Kaunakakai Wetland.	Area under monkey pod trees is where vendors used to set up for events. New landscaping of trees, shrubs, and groundcovers should be salt tolerant.
Existing Cultural Uses	Canoeing, fishing and limu gathering.	These areas should be retained or improved for community use. Jurisdictional agreements between Canoe Clubs needs to be explored. Site was once used for contemporary Makahiki festivals.

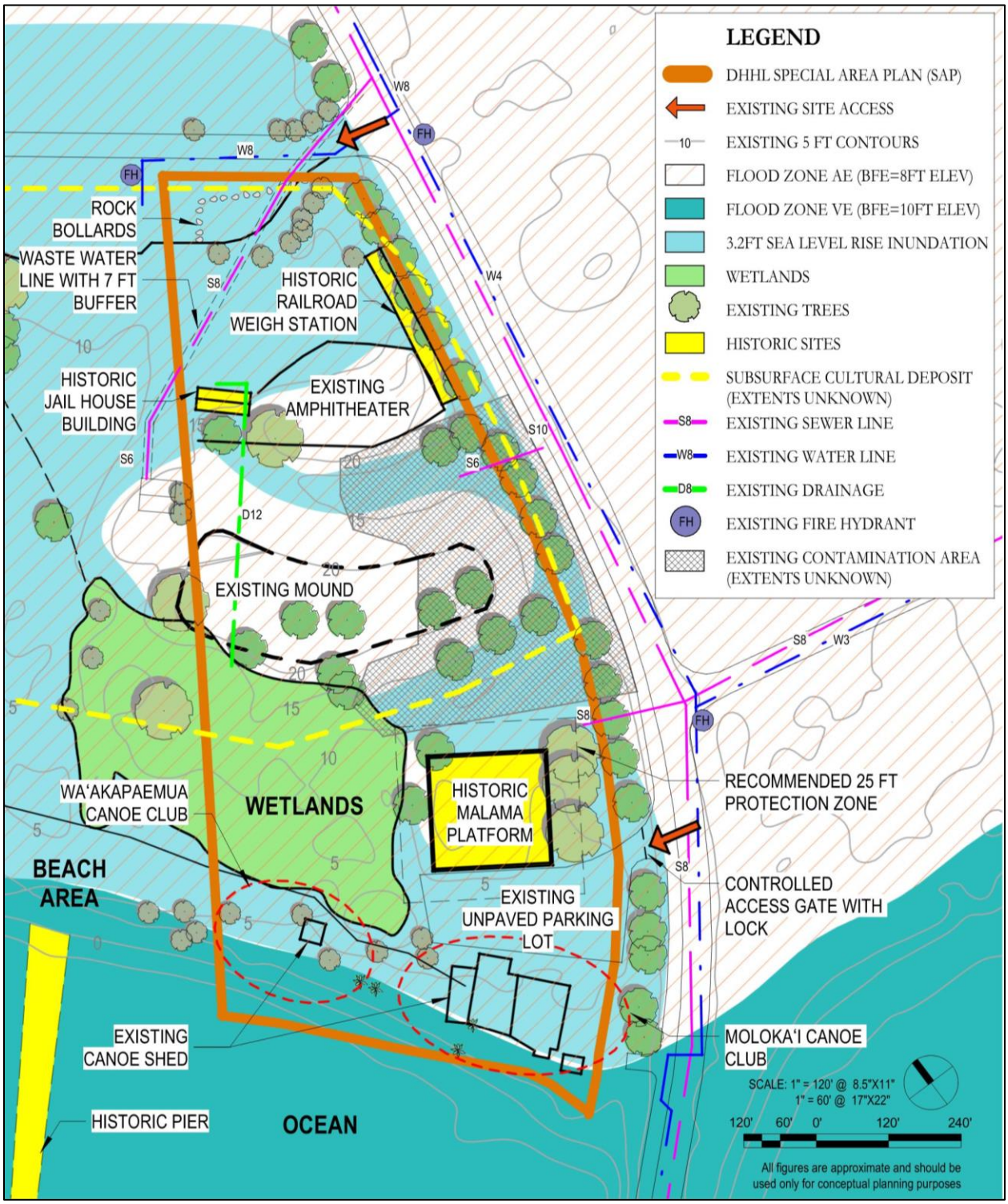
Hazard Threats

Table 4-3: Hazard Threats		
Unit of Analysis	**Existing Conditions**	**Opportunities or Constraints**
Flood	Flood Hazard Area AE. FBE 8', VE at shoreline	Flood mitigations need to be explored to protect park assets.
Drainage	Poor drainage. Ponding occurs in low areas after periods of heavy rain.	Mitigations should be explored to increase drainage and protect park assets.
Hazardous Materials	Contamination from Chevron. Potential for wastewater treatment plant to contaminate coastal waters.	Soils will need to be tested and mitigated to prevent future contamination. Soil and bio-remediation should be explored.
Tsunami and Storm Surge	Project Site is within the Tsunami Evacuation Zone	Access improvements. Early warning systems. Shoreline mitigation to protect park assets.
Sea Level Rise	Large portion of park will be inundated with a 3.2 ft rise in SLR.	Portion of park elevated above 15ft will be safe from SLR.

Infrastructure and Public Facilities

Table 4-4: Infrastructure and Public Facilities		
Unit of Analysis	**Existing Conditions**	**Opportunities or Constraints**
Water	Water meter located along Kaunakakai Place. Broken irrigation system.	May need MOU with county to manage water meters.
Wastewater	Existing 18" sewer line runs along Kaunakakai Place, which connects to 18" sewer line on Mauna Loa Hwy that runs to Kaunakakai WWTP. 8" sewer line connects to existing restroom on the County park side.	There are no restroom facilities on DHHL side of the park. Evaluate considerations of expanded park use and options for bathroom facilities.
Underground Utilities	Irrigation, phone and electric lines installed in the 1990's. Current conditions unknown.	As-built plans exist, but actual installation may be different. Need to further assess in the preparation of an on-site infrastructure and landscaping plan
Roadway Access	Regional access is via Mauna Loa Hwy / Kamehameha V Hwy. Site access via Kaunakakai Pl along the east and Hio Pl to the north. Two parking areas: 1) Canoe Club parking along Kaunakakai Pl, 2) Public parking along Hio Pl.	Parking along Hio Place is used primarily as boat storage. Need to identify jurisdictional agreements that exist within the park, and what comes with that in responsibilities, i.e. care and maintenance of roads, parking, etc.
Bike Routes	No bike facilities at the park.	Improve bicycle access.

FIGURE 4-1 OPPORTUNITIES AND CONSTRAINTS ANALYSIS



Management Issues and Challenges

The Malama Cultural Park faces an unusual number of challenges due to its size, shoreline location, environmental attributes, and limited resources allocated to maintain and improve the park. This section discusses the seven primary management issues facing the park that have been identified through site analysis and beneficiary input.

Park Governance

The existing Plan Area lacks a comprehensive management approach to maintain the park and its resources. The lack of a single entity responsible for the management of the Plan Area as a whole complicates the development of policy and programs to address the desires of various existing and future user groups. This also impedes the implementation of timely responses to challenges like sea level rise and coastal erosion.

As the landowner, DHHL currently provides minimal maintenance support in the form of groundskeeping and trash collection, as DHHL's priority is to provide homesteading opportunities to address the waitlist. As such, limited budget resources are allocated to the ongoing and long-term stewardship of the Plan Area.

A vast majority of the existing park maintenance has been volunteer based, primarily from community members and the existing canoe clubs. There are no formal agreements at present between DHHL and community volunteers. In the absence of a park management plan, there is a general sense of confusion regarding the process to make needed improvements and mālama the park's cultural and natural resources. In addition, without a formal disposition to operate in the park, existing volunteer groups have faced challenges in raising funds.

Without a system in place to manage the Plan Area, many of the park's resources and utilities have become neglected and fallen into a state of disrepair. The degrading nature of the park has been a cause for concern by the community, and has hampered the highest and best of use of the park.

Cultural Resource Management

The term, wahi kūpuna, is a modern term coined in the 1990s as a way to reassert a Native Hawaiian perspective and the associated responsibilities to the care and protections of ancestral spaces and places. Wahi kūpuna refers to a physical site, area, or landscape that is significant to Native Hawaiians, past and present and also hold special prominence given the relationship and interconnection of people to place. Malama Cultural Park is a wahi kūpuna given its historical and cultural significance over generations. Malama Cultural Park is important as a repository of ancestral knowledge and therein a source of mana for its people.

Malama Cultural Park amplifies the existence of an intergenerational relationship with certain inalienable ancestral responsibilities that at the heart lies a sense of Native Hawaiian identity and well-being for this community. In this context, cultural resource management is more than the immediate care and response to the protection of tangible sites and features but also to a continuity of this place as ancestrally relevant over time and generations. The fundamental principal to protect this place where Native Hawaiian practices can thrive in perpetuity must be considered as paramount for this ʻāina.

Accordingly, a cultural resource management strategy for the Plan Area should include the adequate documentation and inventory of oratorical traditions and identifiable physical cultural resources; a conditions and threats assessment with a prioritization of threat mitigation to the resource; opportunities towards proper restoration of the resource coupled with place-based stewardship training so that the linkages between past, present, and future of this wahi kūpuna can be maintained. At present, known cultural resources within the Plan Area are threatened by exposure to erosion, flooding, invasive species, and vandalism. Without a long-term commitment of collaborative management, these resources are at risk of deterioration and neglect.

Natural Resource Management

A healthy native ecosystem thrives with the integrity of its defining natural resources in a state of balance. Resource integrity can be defined by three defining elements:

1) Land cover. In simple terms, this is the dominant physical characteristics of a given area inclusive of coverage by forest or coastal lands, wetlands, impervious surfaces, water types and combination therein of native, non-native, or mixed vegetation. Native land cover would be for areas that a native canopy exceeds 50% cover by area. Non-native land cover or highly-transformed land cover are those areas where a non-native canopy exceeds 75% cover by area or where changes in land have severely transformed native habitat. Malama Cultural Park could be characterized as a marginal/transitional land cover where the native canopy is between 25% to 50% by area.

2) Biodiversity. The variety of native life forms that abide in a given ecosystem is indicative of an ecosystem's abundance and health. Biodiversity can shift over time due to natural or man-made impacts to the landscape. Malama Cultural Park appears to have shifted historically from a predominant native system to a more marginalized or transitional system, where its native species are perhaps below historic levels. The wetland and coastal area still maintain some "richness" of this biodiversity but without meaningful intervention could become impaired over time where native species are no longer present.

3) Recruitment. While land cover and biodiversity provide indictors as to an ecosystem's current state, the concept of recruitment is a measurable indicator for the propensity of future growth and regeneration. The cycles of reproduction and the genetic adaptation helps to ensure the long-term persistence of native species within an ecosystem. Successful recruitment is predicated upon the specific characteristics of species reproductive biology. However, the ability for a species to thrive and reproduce can and is often restrained or improved by external natural or manmade inputs. At present, the extent of native species within Malama Cultural Park thrives partially due in part to each identifiable native species having adapted to the changes that have occurred over time but also maintained by ongoing efforts of clean-ups and removal of invasive species. However, it is unclear in this scope of study if specific species will have the ability to maintain a baseline towards long-term survival without specific intervention.

Traditional Hawaiian beliefs hold that kanaka and ʻāina exist in a reciprocal relationship that is amplified by a well-known Hawaiian proverb that stipulates I ola ʻoe, I ola mākou nei - if the land is healthy and thriving in abundance, so are we as humans that abide in its environment. The Plan Area's wetland, dunes, soils, and vegetation are at risk of degradation. This is caused in part by external influences of exposure to invasive species, chronic inundation from upland-based flooding which has results in extensive erosion, unmanaged localized pedestrian and vehicular access, litter, and contamination by off-site sources. Protecting the dunes and wetland is especially important to maintain the ecological integrity of the sensitive environment at Malama Cultural Park.

Waste Management

During consultation, park users reported that litter is often present throughout the Plan Area. Presently, there are no waste receptacles located in the park and litter is collected and disposed of primarily on a volunteer basis. The DHHL Molokaʻi District Office also supports the park with monthly litter collection and hauling out of green debris.

Trash and food scraps can attract non-native predators to an area such as mongoose, rats, feral cats, and pigs. Despite the efforts of DHHL to try and maintain the quality of the area, the current management of on-site trash becomes dependent upon informal care by park users which can have the potential to further degrade the overall health and appearance of the park, deterring visitors and contributing to its disuse.

Facility Maintenance and Security

Many of the previously developed facilities and utilities have been neglected without a set maintenance schedule or damaged by vandalism. The comfort station on the County portion of the park is now inoperable, leaving the Malama Cultural Park without functioning bathrooms. The existing irrigation and power systems on the Plan Area's amphitheater and stage are also no longer operable. As the Plan Area relies on volunteer support, there is no regular maintenance schedule or designated group or individual to provide needed repairs.

Many community members have expressed a concern for safety and security in the park. Factors contributing to this concern include insufficient lighting at night, the severely deteriorated and unstable jailhouse, unpermitted camping, and unsanctioned graffiti. In recent years, the Malama Cultural Park has garnered a reputation for criminal activity.

Fewer visitors and a lack of activity in the park has caused some areas to remain underutilized or empty for extended periods of time. These low traffic areas have attracted individuals experiencing houselessness who seek a place to be left undisturbed. Consultation with various park users has revealed a concern with a growing population of houselessness in Malama Cultural Park.

Parking and Access

The Plan Area has no public parking or bicycle facilities. Without sufficient parking, the Plan Area cannot accommodate the types of activities and large events that the community desires.

The gravel lot along Hio Place, designated for parking in the 1995 Master Plan, has since been barricaded with large boulders to prevent the parking and abandonment of boats. Today, visitors will typically either park along the Kaunakakai Wharf Road or enter through the County-owned parcels and park vehicles near the shoreline. Unrestricted vehicular access has resulted in erosional scars and the leakage of oil into the beach sand.

Sea Level Rise

Within the Plan Area, the park itself and its resources are susceptible to sea level rise effects. Sea level rise will incrementally increase coastal flooding and erosion, thus posing major risks for low lying structures, infrastructure, and properties. The Plan Area's shoreline is vulnerable to erosion and wave damage due to sea level rise, storm surge, tsunami and more frequent and intense storms. The shoreline fronting the Plan Area, one of the only safe, permitted canoe landing points along Moloka‘i's south shore, is vulnerable to future sand loss. Expected increases in rainfall combined with a possible higher groundwater level due to sea level rise will increase flooding and drainage problems. Cultural resources in low-lying areas, like the Malama Platform or cultural features in the subsurface, could be inundated, damaged, or washed away. Sea level rise will also increase shoreline hazards to people and existing facilities and infrastructure. All future consideration of park improvements will need to accommodate the long-term effects of sea level rise into planning, development, and maintenance.

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Chapter 5: Management Plan Goals and Strategies

Management Goals and Desired Outcomes

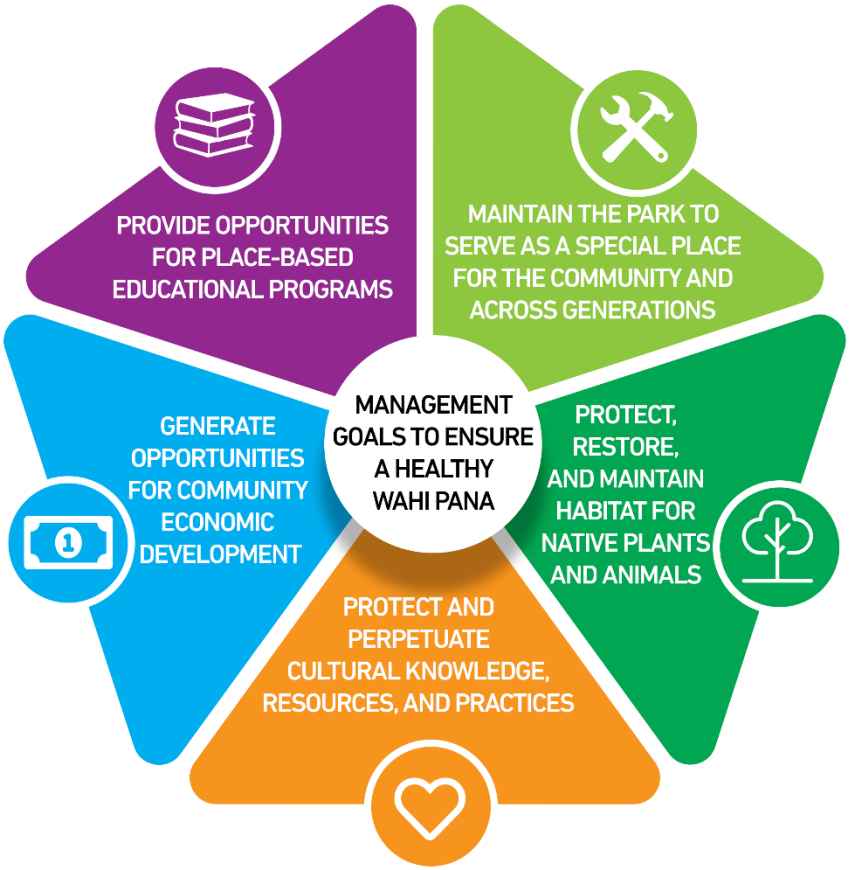
In recognition of the role of Malama Cultural Park as a valuable wahi pana of Molokaʻi that must be protected and managed for the benefit of current and future generations, the goals and desired outcomes of this SAP are to:

- **Maintain the park to serve as a special place for the community and across generations so that the park will be a safe environment for all to use and enjoy and the sense of place that is uniquely Kaunakakai will be maintained.**
- **Protect, restore, and maintain habitat for native plants and animals so that native plants and animals are protected and can exist with human activities.**
- **Protect and perpetuate cultural knowledge, resources, and practices so that cultural practices and knowledge are perpetuated, and natural and cultural resources are cared for.**
- **Generate opportunities for community economic development so that the demand for recreational and community economic development areas are balanced with the need to protect the natural environment from overuse.**
- **Provide opportunities for place-based educational programs to build community capacity to manage resources and develop the next generation of park stewards.**

The SAP does not call for significant development of the park. Rather, beneficiaries preferred for the park to retain its open and natural characteristics. Beneficiaries also recognize that the future improvements recommended in this plan would be funded by and implemented by themselves or other community partners. A Community-Oriented Management Model is envisioned in which qualified volunteer groups accept and share the stewardship responsibilities for the park. This model involves stakeholders in all aspects of decision making, management, and funding.

The exact location and future design of any proposed improvement will be subject to further study and review as specific ideas are carried forward by key partners during the plan's implementation.

FIGURE 5-1 SPECIAL AREA PLAN MANAGEMENT GOALS



Management Strategies

There are four tiers to consider in the types of interaction that can occur with natural and cultural resources. A baseline is the idea of existence value – which simply means that having an awareness that natural and cultural resources exists and are healthy lends to an appreciation of a place's value. A second tier is an engaging action of "learning and experience" which can be implemented through site visits and fields trips that provide beneficiaries with an opportunity to experience an ecosystem. A third tier considers the utilization of natural resources for purposes of cultural or subsistence use practices and/or specific educational purposes to garner further understanding of a place. Stewardship is the fourth and highest tier in which beneficiaries are provided a means to exercise their core values and beliefs while advancing their own intellectual, intuitive, emotional, spiritual, social, and physical development. A true connection between person and place that over time transfers from generation to generation. Malama Cultural Park has opportunities to engage in all four tiers of beneficiary interaction with the implementation of the management strategies summarized in Table 5-1 and discussed in the following sections. These strategies are designed to align with the five SAP management goals.

Table 5-1: Summary of Management Goals and Strategies		
	**Goal 1:** Maintain the park to serve as a special place for the community and across generations	**Strategy 1A:** Manage vehicular access, activities, and uses **Strategy 1B:** Demolition of the jailhouse **Strategy 1C:** Consider providing bathrooms in the Community Focused Zone **Strategy 1D:** Improve water delivery and access **Strategy 1E:** Develop kūpuna area and memorial garden
	**Goal 2:** Protect, restore, and maintain habitat for native plants and animals	**Strategy 2A:** Reduce trash and maintain waste receptacles **Strategy 2B**: Invasive species removal and control **Strategy 2C**: Restoration and recovery of coastal plant communities **Strategy 2D**: Enhance vegetated sand berm along the edge of the shoreline **Strategy 2E**: Mitigate exposure to soil contamination
	**Goal 3:** Protect and perpetuate cultural knowledge, resources, and practices	**Strategy 3A:** Develop an overall mitigation plan for cultural resources **Strategy 3B:** Ensure perpetuation of canoe culture **Strategy 3C:** Support development of a new hālau waʻa for canoe club use
	**Goal 4:** Generate opportunities for community economic development	**Strategy 4A:** Establish a community farmers market area **Strategy 4B:** Develop a new covered pavilion or visitor center
	**Goal 5:** Provide opportunities for place-based educational programs	**Strategy 5A:** Educate and engage the public **Strategy 5B:** Establish a monitoring program

Strategy 1A: Manage Vehicular Access, Activities, and Uses

Given the limited parking availability at the Plan Area, rules must be established and enforced to avoid any vehicular use beyond authorized parking areas, particularly on or near the coastal areas. Vehicular access for the general public should only be permitted in the designated parking area in the mauka lot along Hio Place to prevent inadvertently contaminating beach sands, accelerating erosion, causing degradation of habitat for native species, or damage to the overall ecosystem. Installation of perimeter fencing is an option to control unwanted vehicular access. The alignment of the fence and selection of materials is subject to further review and approval.

Threats to resources can be mitigated through the management of permitted activities and uses. Signage to inform the public regarding vehicular access, permitted activities and uses is needed at the primary entry points into the Plan Area. At present, temporary rock barriers have been constructed at the mauka parking lot to prevent vehicular access onto the park lawn. After the parking area has been expanded, it is important that these rock barriers remain to prevent the encroachment into the Community Area.

In addition, successful stewardship of the Plan Area will require the presence of dedicated personnel to deter actions that may damage resources, report illegal activities, and serve in an educational capacity. On-site presence and enforcement of rules are critical elements of future management for the protection of resources and visitor safety.

Strategy 1B: Demolition of the Jailhouse

The jailhouse structure is a threat to the health and safety of park visitors. The dilapidated structure is not only at risk of collapse, but loose materials could become airborne with intense winds, becoming dangerous projectiles. The structure may also be a host to harmful invasive species like feral cats and termites. The jailhouse should be demolished and completely removed from the Plan Area.

As the jailhouse is over 50 years old, it qualifies as a historic structure and is subject to SHPD to review under HRS Chapter 6E-8 review. Before demolition may commence, DHHL must consult with SHPD to complete the historic preservation process promulgated in HRS Chapter 6E-8. An Archaeological Inventory Survey (AIS) and /or Archaeological Monitoring Plan (AMP) may be required if any excavation activities are required to mitigate impacts to the subsurface cultural layer.

Demolition waste generated by the project may include metal, plastic, concrete, and excavated soil. Park managers will be responsible for proper disposal of all waste and debris generated by demolition and will be subject to applicable rules and regulations governing waste management.

Hazardous waste is waste that meets criteria established in the Resource Conservation and Recovery Act (RCRA) or specified by the United States Environmental Protection Agency (EPA) in 40 CFR 261 or which has been designated as hazardous by a RCRA authorized state program. An Asbestos and Lead Paint Survey should be conducted to identify the presence of hazardous waste.

Hazardous materials on the site will require proper handling, removal, and disposal in accordance with Federal and State regulations. At least ten (10) working days before staring disturbance at the project site, a “Notification of Demolition and Renovation” must be sent to the Hawai‘i Department of Health (HDOH). The Moloka‘i-Naiwa Landfill & Recycling Center must be consulted as to their requirements and procedures for the disposal of hazardous materials at their facility. The landfill must be notified prior to the disposal of hazardous materials so they can be appropriately segregated or handled in a manner to prevent landfill employees from being exposed during their operations. Metal debris will be recycled when possible to decrease the amount of waste taken to the landfill and to minimize the likelihood of the Toxicity Characteristic Leaching Procedure samples exceeding leaching criteria.

Strategy 1C: Consider Providing Bathrooms in the Community Area Zone

Adequate sanitary facilities are crucial to maintain a safe and clean environment, especially if public use is anticipated to increase in the future. Certain areas have been reported to be littered with toilet paper and used as a bathroom because existing bathroom facilities are no longer operable and closed to public use.

It is recommended that future park managers coordinate with the County to resolve issues related to the existing County comfort station. Park managers, DHHL, and the County Department of Parks and Recreation are encouraged to seek a joint agreement for the access, rehabilitation, and maintenance of the existing comfort station facilities for the benefit of all park users.

In the absence of an agreement to rehabilitate the existing County comfort station, it is recommended that future park managers consider constructing a new bathroom facility in place of the demolished jailhouse. This location is preferred due to its central location in the park, its safe distance from sensitive habitats and significant cultural sites, and the proximity to the existing buried wastewater line.

The ultimate scale and design of the new bathroom facility must be vetted and approved by DHHL. The facility could be designed as a new comfort station structure that taps into the existing wastewater line. For a lower footprint and reduced cost, a concrete slab could be installed for placing portable toilets. Park managers may seek the assistance of a third-party vendor for the provision and servicing of the portable toilets.

Park managers may choose to implement the new bathrooms in phases using portable toilets in the near-term and scaling up to a full-sized comfort station at a later time when funding become available.

Outstanding issues related to security, permitted access, and hours of operation would need to be negotiated between DHHL and the future park manager.

Increased amenities may attract more visitors to the Plan Area and will require on-going maintenance. Accessibility by maintenance vehicles must also be taken into consideration. A gravel loading area and driveway may be necessary to provide adequate access for maintenance vehicles.

Strategy 1D: Improve Water Delivery and Access

During consultation, beneficiaries emphasized the importance of access to water. At present, the Plan Area is serviced by two water meters. One meter is located along Kaunakakai Place near the shoreline (makai meter). This meter provides water for the two canoe clubs operating within the Plan Area. Sharing a single water meter among multiple users has presented challenges in monitoring water usage and paying proportionate shares for water utility costs. The A second water meter is located on the adjacent County-owned parcel and at one time provided water services for the irrigation system located in the mauka portion of the Plan Area (mauka meter). The irrigation system is no longer operable and is in need of repair or replacement. Complicating the matter more is the fact that DHHL has no control over the meter on the County-owned parcel.

To resolve issues related to water access, the SAP provides two water system configuration alternatives that may be implemented by future park managers. *Figure 5-2* illustrates the option to create a new water meter for the mauka portion of the park. This meter would provide services for the irrigation system and bathroom facilities. The makai water meter is reconfigured with the installation of two submeters to track usage between the two canoe clubs. *Figure 5-3* illustrates the option to abandon the makai meter and to install a new master meter. Various submeters may be installed off the new master meter for tracking various usages throughout the park.

It is ultimately the future park managers responsibility to implement the preferred water system configuration and metering options. The installation of any new water meters will require coordination and approval from the County. Sub-meters, however, do not require County approval. The future park manager responsible for the meter will be responsible for receiving the reads from the sub meters and billing the various users accordingly.

FIGURE 5-2 WATER CONFIGURATION ALTERNATIVE ONE

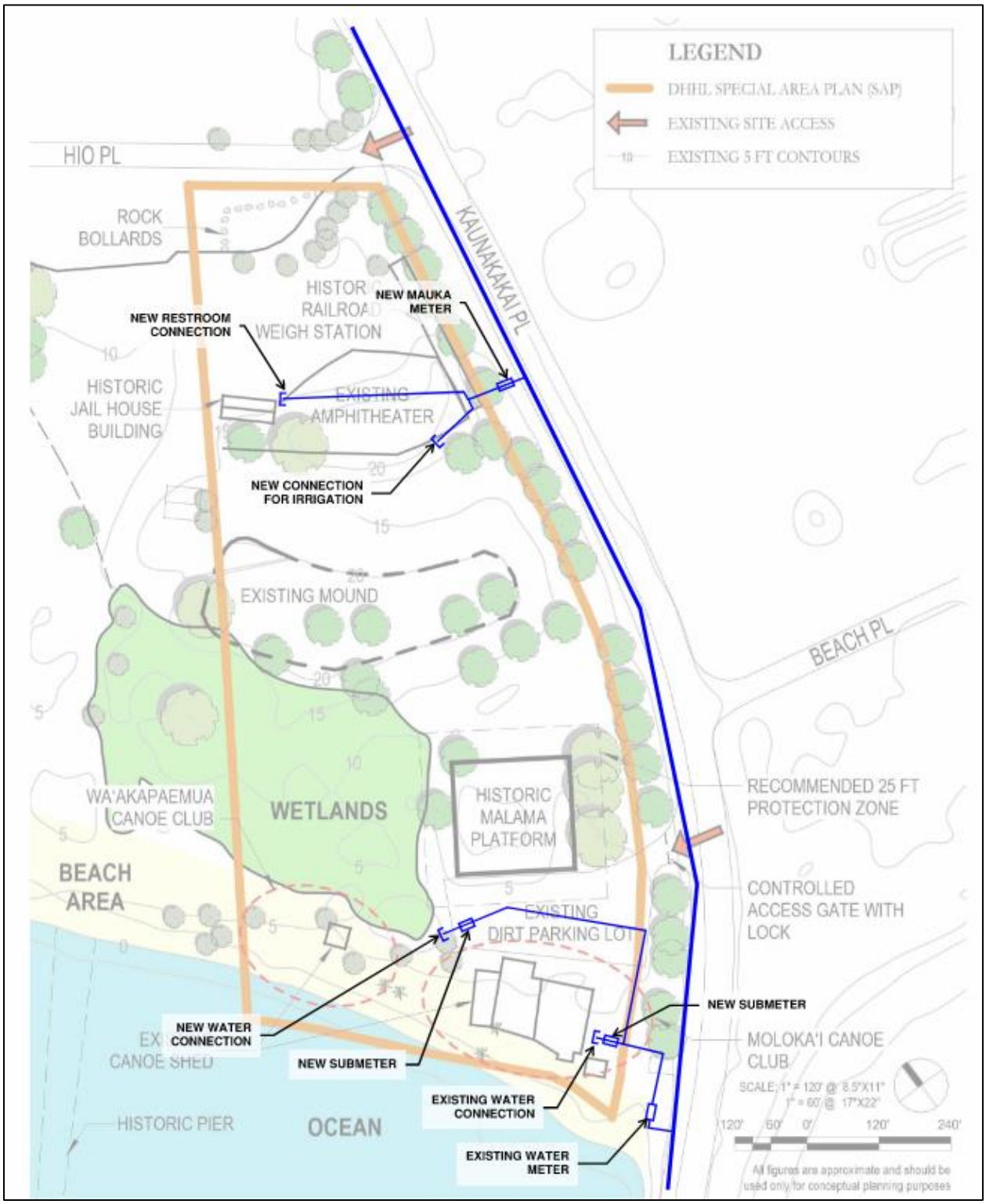
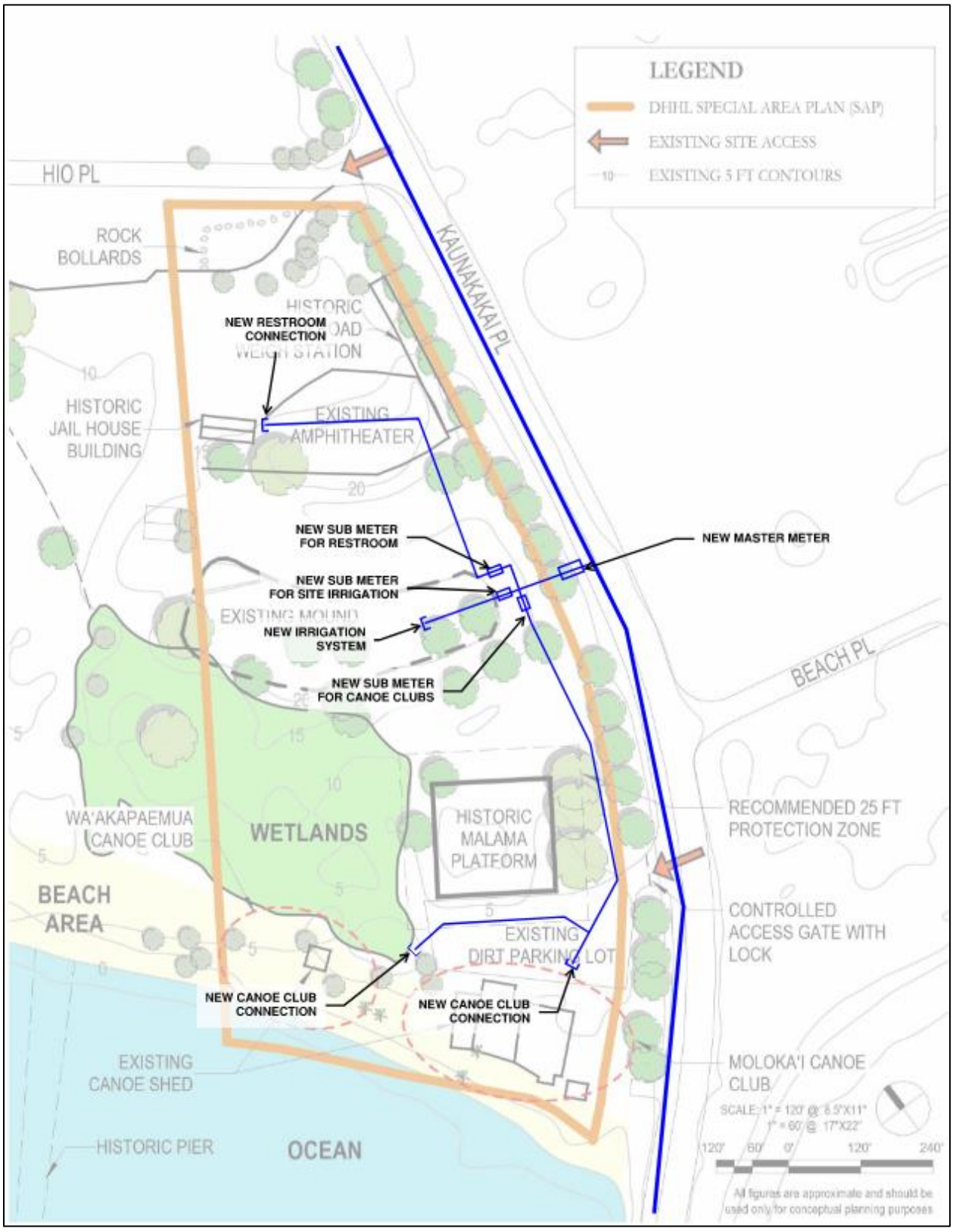


FIGURE 5-3 WATER CONFIGURATION ALTERNATIVE TWO



The SAP also recommends that future park managers rehabilitate the existing irrigation system. This effort will involve removing the old water line and replacing it with new water lines, installing new sprinkler heads, and connecting the system to the new water meter. The new irrigation system should occupy the same footprint as the existing lines to avoid extraneous ground disturbance.

Before any ground disturbing work for water line improvements may commence, park managers must first consult with DHHL and DOH to mitigate potential exposure to ground contaminates. An archaeological monitor should also be present during construction to identify and mitigate potential impacts to subsurface historic properties.

Strategy 1E: Develop a Kūpuna Area

The word kūpuna infers a respect to our ancestors and our elders but also means to be a starting point of one's own growth and understanding. Malama Cultural Park is a wahi kūpuna in which the SAP aims to support the invocation of kūpuna through the perpetuation of specific cultural practices, the restoration of cultural and natural resources, and to the extent feasible, allow for the creation of spaces that honor the legacy of all those who have come before.

The 1995 Master Plan for Malama Cultural Park envisioned a peaceful area designated within the park for kūpuna to gather and socialize. During beneficiary consultation, participants identified the kūpuna area as the top action from the 1995 Master Plan that they wished to see carried forward in the SAP. The kūpuna area should be located near an accessible walkway and may include shade trees, seating, and landscaping. It is recommended that seating be placed in a conversational arrangement to encourage social interactions.

This designated area would also be appropriate for serving as a "place for reflection" to honor and perpetuate the memory of loved ones who have passed before. A memorial garden concept may be incorporated into this area as a means to pay tribute to loved ones while providing a quiet place for reflection and remembrance. Families who wish to use this space for special events or honorary plantings should coordinate with the future park managers for approval.

Strategy 2A: Reduce Trash and Maintain Waste Receptacles Throughout the Plan Area

Trash is present throughout the site, and marine debris is prevalent along the coast. Waste receptacles should be provided throughout the Plan Area. The waste receptacles need to be secured, covered, and maintained regularly so they do not attract non-native predators that may pose harm to native species. The need for additional receptacles should be assessed periodically if public use is anticipated to increase in the future. Additional receptacles may also be needed for special events in the park when large crowds are expected.

Beach clean-ups should also be conducted when necessary. Trash and marine debris removal will beautify the shoreline and improve the overall health of the park.

Strategy 2B: Invasive Species Removal and Control

The Plan Area is currently dominated by alien vegetation, including both known invasive and potentially invasive species. Invasive species such as buffelgrass and Indian fleabane should be removed to the extent possible to prevent further spread. Other alien vegetation may be removed and/or controlled to provide open space for native plant species to be planted and for any natural regeneration that may occur. Effective control methods may vary depending on the species and may include a combination of manual and chemical options. Care should be taken to avoid impacting the patches of kipukai that exist throughout the site when performing any methods of control.

Though the wetland area is not designated as Critical Habitat, its restoration could be beneficial for indigenous birds such as the kioea and the endangered ae'o, whose recovery plan points to habitat loss and degradation as key factors in population decline.

Pickleweed growth should be controlled to reduce the density of coverage and create desirable nesting areas. Pickleweed may be cleared through mechanical or manual methods, or through the application of chemicals. The kioea breeds in Alaska during the summer months before migrating to Hawai‘i for the winter, however some small populations may remain in the islands to nest. Control work should be performed outside of the peak ae‘o nesting season (approximately May-July) and the area should be scouted for nesting sites prior to initiation.

Control of the mature invasive red mangrove forest to the west of the Park is also recommended. This should be done using mechanical control methods. The use of herbicides is not suggested for the health of the marine environment. Mechanical control involves cutting down the trees and topping them below the low tide water line to prevent regrowth.

‘Auku‘u are known to roost and nest in large mangrove trees nearly year round with a breeding season typically lasting from August through December. Though it is not a protected species, the state should be contacted prior to conducting any actions that may damage nests or eggs. Mangrove control should be undertaken outside of the nesting season and the area should be checked for the presence of nests and eggs or hatchlings before work takes place.

The ongoing removal of mangrove propagules will be necessary to keep a population from establishing along the beach front of the Park. The infestation of invasive algae/limu in the nearshore environment is part of a much broader problem affecting dozens of miles of Moloka‘i’s southern shoreline. Continuous, large-scale coordination is required to effectually reduce the biomass of these invasive species. The Plan Area could serve as a base for coordinating this offshore work along the south coast.

Previous efforts by the DLNR Aquatic Invasive Species team to remove and monitor for invasive limu along Moloka‘i’s south shore suggest that removal should take place every 3-4 months and continue regularly to prevent regrowth and successfully reduce the population over time. A combination of mechanical (i.e., super sucker) and manual (hand-removal) control methods is recommended as being most effective.

The super sucker device sucks up the algae and pumps it onto a barge for sorting to ensure the exclusion of fish and other animals that might become trapped in the process. The sorted algae remaining on the barge is then brought to shore for disposal. Disposal options include composting or combining it with cut mangrove to create biochar. Brief dialogues with some of the MCC members encountered during the surveys indicate that the heaps of invasive limu washed up on the beach fronting the hālau wa‘a are collected for composting during community limu huki events.

Research has also suggested that collector urchins will feed on gorilla ogo and may be effectively used as a biocontrol. The DLNR-AIS team should be consulted for further information on this approach.

Lastly, predator control is a critical component of creating a safe environment for native birds. Feral animals should be removed and excluded from the Plan Area to the extent possible. Dogs accompanying visitors of the park should be kept on leashes.

Strategy 2C: Restoration and Recovery of Coastal Plant Communities

Hawaiian coastal plant communities should be protected to preserve the diversity and species richness of these areas. These plant communities are comprised of species uniquely adapted to survive the harsh environmental conditions and natural disturbances associated with coastal areas and are capable of regenerating after periodic trauma.

Native coastal plant communities are most often subject to fragmentation, with populations being effectively cut off from each other through extensive land disturbance activities. This disturbance, coupled with the spread of alien and invasive species, has cascading effects for coastal ecosystems. Native plants are prevented from reproducing causing a decline in their populations, altering the composition of the plant community, and degrading important habitat for other native species.

As discussed in the previous section, the first step to successful restoration and recovery of these communities is the reduction or elimination of threats and stressors such as invasive species. The goal of these restoration efforts is a native plant community that is self-maintaining.

To reestablish a native coastal plant community, endemic and indigenous plant species, both common and rare, should be planted in place of the removed alien vegetation. Plants chosen for restoration should be based on knowledge of those that are adapted to the coastal conditions of the Kaunakakai region and any available information on native flora that previously existed in the Plan Area.

Park landscaping can be used as an opportunity to reintroduce rare indigenous and culturally significant plants that may have become extirpated form the area. Non-invasive, naturalized species that are suited for harsh coastal conditions (i.e., exposure to wind, salt and heat) can also be incorporated, if appropriate. Planting of species known to be toxic to animals and/or people, or those with invasive qualities, should be avoided.

Certain native plants have been identified that can remove and/or stabilize toxic substances (phytoremediation), in this case, from petroleum-contaminated soils. Among those plants shown to have promise are naio (*Myoporum sandwicense*), milo, and kou. These plants grow well in coastal conditions (kou and milo already grow at the Park) and would be suitable for planting in the park due to the surrounding industrial operations and potential for contamination exposure.

Table 5-2 lists candidate species of indigenous plants for restoration at Malama Cultural Park. These species are known to tolerate the local conditions and are compatible with a park environment. This is a partial list and should not be considered exhaustive.

Vegetation restoration should be done in consultation with local community groups, cultural practitioners, local community organizations, and other stakeholders to ensure that proposed plant removal and outplanting do not negatively affect the integrity of the overall ecosystem, cultural sites and/or habitat for threatened and endangered species.

The community should be actively engaged in restoration efforts in order to promote a greater sense of respect for the place. For example, partnering with local school groups to engage students in restoration work would provide an educational opportunity to students while encouraging a greater sense of respect and appreciation for the park ʻāina.

Table 5-2: Candidate Species of Indigenous Plants for Restoration at Malama Cultural Park	
Species	**Scientific Name**
Trees	
hala	*Pandanus tectorius*
hau*	*Hibiscus tiliaceus*
kamani	*Calophyllum inophyllum*
kou*	*Cordia subcordata*
loulu	*Pritchardia spp.*
papalakepau	*Pisonia umbellifera*
naio	*Myoporum sandwicense*
Shrubs	
ʻākia*	*Wikstromia uva-ursi*
kokiʻo keʻokeʻo	*Hibiscus immaculatus*
maʻo hau hele	*Hibiscus calyphyllus*
naupaka kahakai*	*Scaevola taccada*
pōhinahina*	*Vitex rotundifolia*
ʻuhaloa*	*Waltheria indica*
Groundcovers & Vines	
ʻakulikuli	*Sesuvium portulacastrum*
ʻakiʻaki	*Sporobolus virginicus*
ʻākia*	*Wikstromia uva-ursi*
ʻilima papa	*Sida fallax*
kipukai*	*Helitropium cuassavicum*
maiapilo	*Capparis sandwichiana*
ʻohai	*Sesbania tomentosa*
nehe	*Lipochaeta integrifolia*
pā ʻūohiʻiaka	*Jacquemontia sandwicense*
pohuehue	*Ipomea pes-caprae*

**Found at the Project site*

Strategy 2D: Enhance Vegetated Sand Berm along the Edge of the Shoreline

The beach berm is the flat area of the beach landward of the beach slope as shown in *Figure 5-4*. The Plan Area could benefit from an enhanced vegetated sand berm along the edge of the shoreline. Berm enhancements raise the elevation of the berm and supports the beaches function as a natural dissipator of wave energy. Implementation of a berm enhancement also serves to reduce backshore flooding. In addition to providing flood protection, an increase berm elevation would help to maintain a larger dry beach area as water levels rise. Berm enhancement involves adding sand to nourish the beach and increase the berm elevation.

FIGURE 5-4 BEACH BERM LOCATION AT MALAMA CULTURAL PARK

There are multiple options to raise the berm height of the beach, including placement of sand, or placement of sand on top of a solid core such as a geotextile mattress or a rock-filled high-density polyethylene (HDPE) mattress. Placing a buried core in the berm helps to hold the sand in place while providing a solid backstop in extreme erosion events.

As part of the processes of identifying a sand source, it is recommended that the new sand match the characteristics of the existing sand on the beach. A considerable amount of sand has accumulated on the eastern side of the Kaunakakai Wharf. This man-made structure impedes lateral movement of sediment along the shoreline between causing it to accumulate on the Wharf's updrift side. In addition, sand and sediment has been deposited by altered current patterns along the eastern side of the wharf where it meets the revetment that protects the small boat harbor. Both areas could provide sand for restoring the shoreline.

Future park managers should work in collaboration with the Hawai‘i DOT, Harbors Division, and the DLNR, Division of Boating and Ocean Recreation, to explore the beneficial reuse of the accumulated sand. A sieve analysis is recommended to ensure the sand used for restoration is of the right grain size, coarseness, density, color, and is free of fines and silt so it is compatible with the environment where it would be placed. It is important to use the right coarseness of sand, so the sand grains stick to the beach and are not easily washed away by normal currents and wind. The sand must lack fine silt or clay that could cause turbidity and pollute marine waters. The color of the sand should also be compatible with the area in which the sand is being used or placed. It is important to use sand that is comparable to the native sand in the vicinity of the restoration, both from an ecological and aesthetic

perspective. However, the sand that has accumulated in this area was originally from updrift and east of the wharf, implying that it is from a native source and is therefore appropriate restoration activities.

Strategic plantings of native shrubs and groundcovers along the enhanced berm will help stabilize the coastline and mitigate future coastal erosion. ʻAkiʻaki grass has proven successful in this area and would be a simple near-term solution to stabilize the shoreline and mitigate erosion. Pedestrian and recreational use should be directed to marked pathways so that fragile, shallow dune plants and their roots would not die from being trampled by foot traffic or crushed by canoes.

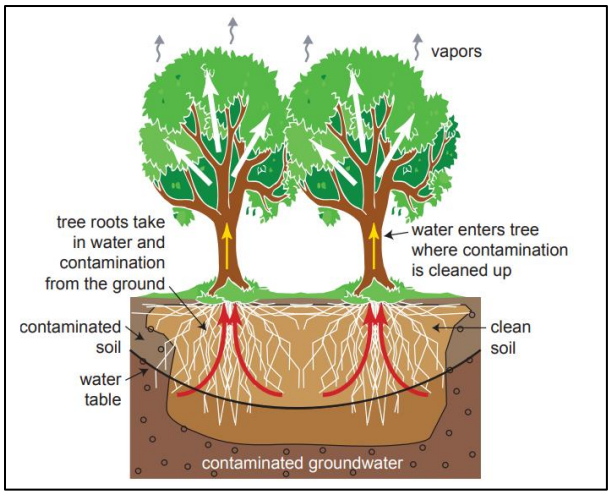
Strategy 2E: Mitigate Exposure to Soil Contamination

Exposure to petroleum contaminated soils poses a threat to human health. Before the commencement of any ground disturbing activities, future park managers should first consult with DHHL and the HDOH to determine if a Construction Environmental Hazard Management Plan (C-EHMP) is necessary. A C-EHMP documents the presence of a contaminated environmental medium (e.g., soil, soil vapor, sediment, surface water, and/or groundwater) on a site and describes how the contamination must be managed during planned construction activities. C-EHMPs are typically for handling contamination during surface or subsurface construction activities that could expose construction workers, nearby people, or ecological receptors.

Phytoremediation, when properly managed, is an environmentally sound and cost-effective method of treating soils containing organic chemicals. Phytoremediation is the process of using plants to clean up contaminated environments. Plants also help prevent wind, rain, and groundwater flow from carrying contaminants away from the site to surrounding areas or deeper underground (Environmental Protection Agency, 2021). Certain plants are able to remove or break down harmful chemicals from the ground when their roots take in water and nutrients from the contaminated soil, sediment, or groundwater (*Figure 5-5*). Plants can help clean up contaminants as deep as their roots can reach using natural processes to:

- Store the contaminants in the roots, stems, or leaves.
- Convert them to less harmful chemicals within the plant or, more commonly, the root zone.
- Convert them to vapors, which are released into the air.
- Sorb (stick) contaminants onto their roots where very small organisms called “microbes” (such as bacteria) that live in the soil break down the sorbed contaminants to less harmful chemicals.

FIGURE 5-5 PHYTOREMEDIATION PROCESS



Source: A Citizen’s Guide to Phytoremediation (Environmental Protection Agency, 2021)

Phytoremediation takes advantage of natural plant processes and requires less equipment and labor than other remediation methods since plants do most of the work. Also, the site can be cleaned up without digging up and hauling soil or pumping groundwater, which saves energy. Trees and smaller plants used in phytoremediation help control soil erosion, make a site more attractive, reduce noise, and improve surrounding air quality. The use of native plants is encouraged since they are better adapted to the area's conditions and less likely to attract nuisance animals or pests. Phytoremediation may take several years to clean up a site. Plants may have to be replaced if they are damaged by extreme weather, pests, or animals.

Strategy 3A: Develop an Overall Mitigation Plan for Cultural Resources

Archaeological studies conducted for this property indicate the presence of a rich cultural landscape. At present, no AIS has been conducted for the Plan Area. The LRFI of the property prepared by Keala Pono Archaeological Consulting, LLC, 2021 provides the most current archaeological information of sites at the Plan Area and could be used as the basis to develop an AIS in compliance with HAR Chapter 13-275. The AIS would serve as a regulatory guidance document upon approval from SHPD and would provide significance evaluations and treatment recommendations for all sites within the area. Considering the large area of the Plan Area, a phased approach to the AIS is recommended.

Additional testing at the Malama Platform should be conducted as a priority. Future park managers should consider retaining a qualified professional archaeologist to perform subsurface excavation of the platform site. Park managers are encouraged to consider coordinating with the archaeologist to develop an archaeological field school to engage with and involve interested beneficiaries and community members in the process of collecting and synthesizing archaeological data.

Any activities near this Malama Platform Zone area should consider the cultural sensitivity of this area due to the probable location of the Mahinahina Heiau and the potential to encounter iwi kūpuna. A Preservation Plan developed in accordance with HAR Chapter 13-277 should be developed to identify threats to the platform, prescribe a vegetation and debris removal program, and develop short-term and long-term preservation measures.

As the Plan Area contains a known subsurface cultural deposit, any improvements that include ground disturbing activities must consult with SHPD prior to commencement. Archaeological Monitoring is advised to mitigate potential impacts to buried cultural features. If historic properties are encountered during construction, work should immediately stop in the general vicinity and the appropriate DHHL representative and SHPD should be contacted immediately and the applicable rules under HRS 6E and its associated administrative rules should be administered. If the discovery involves the find of human remains, all work should immediately cease in the general vicinity and the appropriate DHHL representative, SHPD, and the Molokaʻi Police Department should be contacted. A reasonable effort to protect the burial should be made in the interim period. Since DHHL lands are defined as tribal lands under the Native American Graves Protection and Repatriation Act (NAGPRA) of 1990, if iwi kūpuna, funerary objects, sacred objects, or objects of cultural patrimony are encountered, they are to be cared for as an inadvertent discovery pursuant to procedures provided under 43 Code of Federal Regulations Section 10.4.

Strategy 3B: Ensure Perpetuation of Canoe Culture

During beneficiary consultation, it was evident that the community valued the presence of canoe clubs at the park and believed that the Plan Area should support and encourage the practice of Hawaiian outrigger canoeing. Canoeing has deep roots in the history of the park and has played an important role in encouraging healthy lifestyles and building community.

The SAP calls for the Plan Area to be utilized to perpetuate the practice of Hawaiian outrigger canoeing so the legacy of waʻa culture will be passed on to future generations. The makai portion of the SAP area will continue to provide access to the shoreline, storage, and facilities to support canoe activities.

Strategy 3C: Support Development of a New Hālau Waʻa for Canoe Club Use

Consultation with the Waʻakapaemua Canoe Club revealed that additional facilities are required to safely store and protect canoes and paddling equipment from the natural elements and vandalism. The SAP recommends that a new open covered canoe and equipment storage hālau waʻa be developed at the site of the existing Waʻakapaemua Canoe Club facility. It is recommended that the new structure's design emulate a traditional Hawaiian hālau waʻa that reminds visitors of the past while supporting contemporary activities linked to the past and using traditional and modern materials that are practical to meet the building criteria.

Construction of the hālau waʻa should not artificially fix the shoreline. Best Management Practices (BMPs) should be implemented as part of the construction phase of the project, in order to prevent erosion and runoff into nearshore waters or the adjacent wetland. It is recommended that the hālau waʻa be elevated above the base flood elevation, and its design should incorporate breakaway construction and other measures to withstand coastal storm events and to avoid impeding the natural flow of coastal flood waters.

DHHL must review and authorize the design of the hālau waʻa before construction may commence.

Strategy 4A: Establish a Community Farmers Market Area

The Community Focused Zone, within the mauka portion of the Plan Area, may be utilized as a community farmers market area. Agricultural products, value added goods, prepared meals, and arts and crafts could be sold locally within the designated area of the park.

Farmers markets reconnect communities to their food system. They create an opportunity where farmers can simultaneously sell fresh, local food and serve as food educators, revitalizing the way consumers shop and eat. They are also places where farmers and neighbors meet to socialize and exchange ideas around cooking, nutrition, culture and agriculture.

The farmers market should be managed by a qualified non-profit organization and have a Board of Directors to provide overall direction and policy. It is recommended that the Board be composed of producers, consumers, community leaders, agribusiness managers, and other individuals who can lend support and skills to managing the market. Among its responsibilities, the Board of Directors should:

- Establish policy concerning hours, days, and months of market operation;
- Determine who may sell at the market;
- Set fees for selling in the market;
- Select employees or volunteers;
- Specify the responsibilities of the manager plus the extent of the manager's authority;
- Make provision for careful accounting of resources and funds; and
- Assure that annual reports to DHHL are prepared and submitted.

Strategy 4B: Construct a New Covered Pavilion or Visitor Center

Beneficiaries expressed a desire for a gathering place within the park for hosting meetings, educational programs, cultural events, and other community activities. The SAP recommends that a portion in the mauka area of the park be used for a new covered pavilion or visitor center. This new structure would provide a nexus for gathering and serve as the gateway to Malama Cultural Park. The northeast corner of the Plan Area encompassing the historic weight station would be an ideal location for this new structure due to its visibility from the primary access route along Kaunakakai Place, and proximity to the Hio Place parking lot.

The new covered pavilion could utilize the adaptive reuse of the historic weigh station for the foundation for the new structure. Adaptive reuse refers to the repurposing of an existing structure for a new use. Adaptive reuse can breathe new life into historic structures by converting them into something useful for the community. Adaptive reuse can also lower construction costs be reusing materials and forgoing demolition expenses. Prior to the commencement of any construction, park managers should first consult with SHPD go through the proper steps of HRS 6E-42 inclusive of appropriate inventory, evaluation of significance, and mitigation.

It is recommended that the new structure's design incorporate traditional Hawaiian and modern materials that are practical to meet the building criteria. It is also recommended that the new structure provide lighting for hosting night time events. An imu pit may also be constructed near the facility for preparing meals.

Outstanding issues related to security, permitted access, and hours of operation would need to be negotiated between DHHL and the future park manager.

Strategy 5A: Educate and Engage the Public

Educate the public about the cultural sites and natural resources present within the Plan Area, through on-site and off-site materials and programs. Future park managers should collaborate with local experts, teachers, and organizations to develop and implement an education and outreach program that highlights the important aspects of the Malama Cultural Park. The community should be actively engaged in restoration and preservation efforts in order to promote a greater sense of respect for the wahi kūpuna.

Long-term monitoring programs are recommended for all restoration areas for the purpose of tracking ecosystem health, observing trends, and adapting management decisions accordingly. Maintenance actions should respond to the needs of the restored areas while outreach and education in the community helps to promote awareness and encourages Park visitors to engage in the restoration process.

Educational outreach could include: installing interpretive educational signs to raise public awareness about the park's cultural sites and natural resources; conducting a series of talk story events (e.g., discussion on specific resources at the park; kūpuna share their experiences and knowledge of the area); partnering with local schools; and providing volunteer opportunities to restore and maintain the park.

Signs should be posted in areas to inform the public about the cultural significance of the area, caution the public about disturbing cultural sites and important habitat areas for native species, and cite penalties for violations of laws, where applicable. The community, particularly beneficiaries and cultural and lineal descendants, should be encouraged to participate in creating and posting signs to promote local ownership over stewardship of cultural sites.

Strategy 5B: Establish a Monitoring Program

Natural Resource Monitoring

Monitoring programs can help detect changes at restored sites and, when paired with active maintenance, can prevent invasive species from regaining a foothold. Regular vegetation monitoring in active restoration areas is recommended. Establishing photopoints at specific sites within a restoration area is an easy way to track and assess changes that take place in the plant community over time. Other metrics such as species richness (number of species present in a given area) and estimates of relative abundance (number of plants of each species) can be included in surveys to observe changes in community composition and character.

The health of individual plants that may have been reintroduced to the site as part of a restoration project can be monitored by measuring plant growth (i.e., height) and observing general changes to its condition (i.e., yellowing of leaves, wilting, damage, etc.). For wetland areas where reduction in pickleweed cover is the primary goal, photopoint monitoring is also a valuable tool to determine how quickly regrowth occurs and used to adjust the level of maintenance as necessary.

Point count surveys may be useful monitoring tools for tracking the health of populations of native waterbirds like the kioea and ae‘o in the Park area. These surveys may also serve as indicators of the health of the Park’s ecosystems as the return of native bird populations is a marker of a healthy habitat.

The point count method utilizes the same stations each time a survey takes place. Bird species are identified and counted from each of these stations for a specified period of time. Surveys should be conducted during the early to mid-morning hours when birds are most active. Any observed waterbird nesting sites in the wetland area should also be recorded.

The DLNR Department of Forestry and Wildlife coordinates biannual waterbird surveys statewide. Resources such as survey protocols, data sheets, and photographic ID guides may be available through this program.

Coastal Monitoring

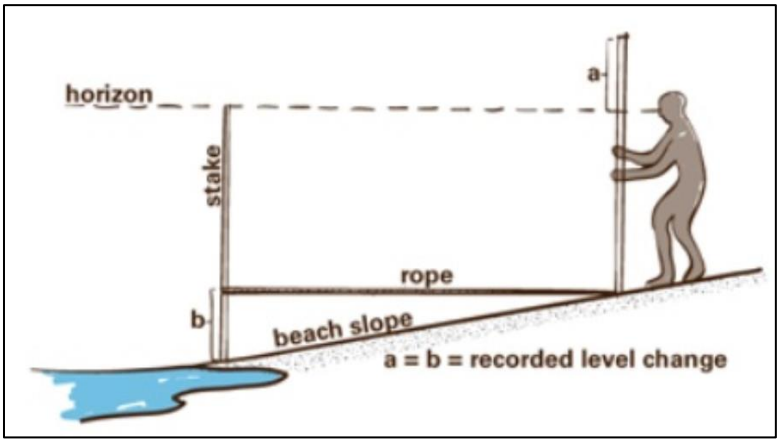
The Emory Method is an inexpensive and relatively easy way to measure the morphology and volume of sand on a beach. For these reasons, the Emory Method is a desirable technique for citizen science-based monitoring of the coastline and for empowering communities to play an active role in the management of their coastal resources.

The Emory Method requires two wooden rods, each about 5 ft long. Notches are cut at 1-ft intervals along each rod, with smaller notches at 1/10th ft intervals throughout. A small wooden pad about 4 inches squared can be attached to the bottom end of each rod to prevent the rod from sinking into loose sand. A 5-ft piece of twine is measured and fastened to each rod to ensure a consistent distance between measurements. Two or three operators are required to make measurements (one holding each rod and one to record the measurements).

Once the transects locations are determined, surveyors may begin collecting the data. In use, the rods are held vertically 5 ft apart (the length of the twine) in the direction perpendicular to the coast. The observer holding the landward rod, aligns their eye with the top of the seaward rod and the horizon. The observer then reads and records the distance down from the top of their own rod of the point which is intersected by this line of sight, interpolating to hundredths of a foot. Assuming the line of sight to be level, the distance from the top of the rod is a measure of difference in elevation between the two points. The difference in elevation is recorded as either minus or plus according to whether the leading rod is lower or higher than the following one. Refer to the diagram in *Figure 5-6* for a visualization of the Emory Method measurements.

To continue the profile, one of the rods is moved to a point 5 ft on the opposite side of the other rod and a second measurement is made. This technique can be repeated along an entire transect from behind the berm to the beach toe. The differences in elevation can be plotted against horizontal distance in order to obtain a profile across the whole width of the beach.

FIGURE 5-6 DIAGRAM OF THE EMORY METHOD FOR COASTAL MONITORING



Routine measurements can be useful for visualizing changes in the beach shape and volume over time. For example, the morphology of the beach during the calmer ocean conditions of summer can be compared to the rougher conditions of the winter swell. Long-term monitoring of the shoreline will reveal trends in overall erosion or accretion of the beach. Monitoring can also identify specific locations on the beach where erosion may be occurring at a faster rate. Longitudinal observations of shoreline data are useful for identifying locations where interventions may be required as well as for evaluating the success of implemented mitigations.

Community work days may be organized for gathering transect data and plotting profiles on a routine basis. Community groups could join and collaborate, strengthening partnerships, raising awareness of the issues and hazards of coastal erosion, and building capacity to sustain long-term protective and restoration initiatives.

Park Management Zones

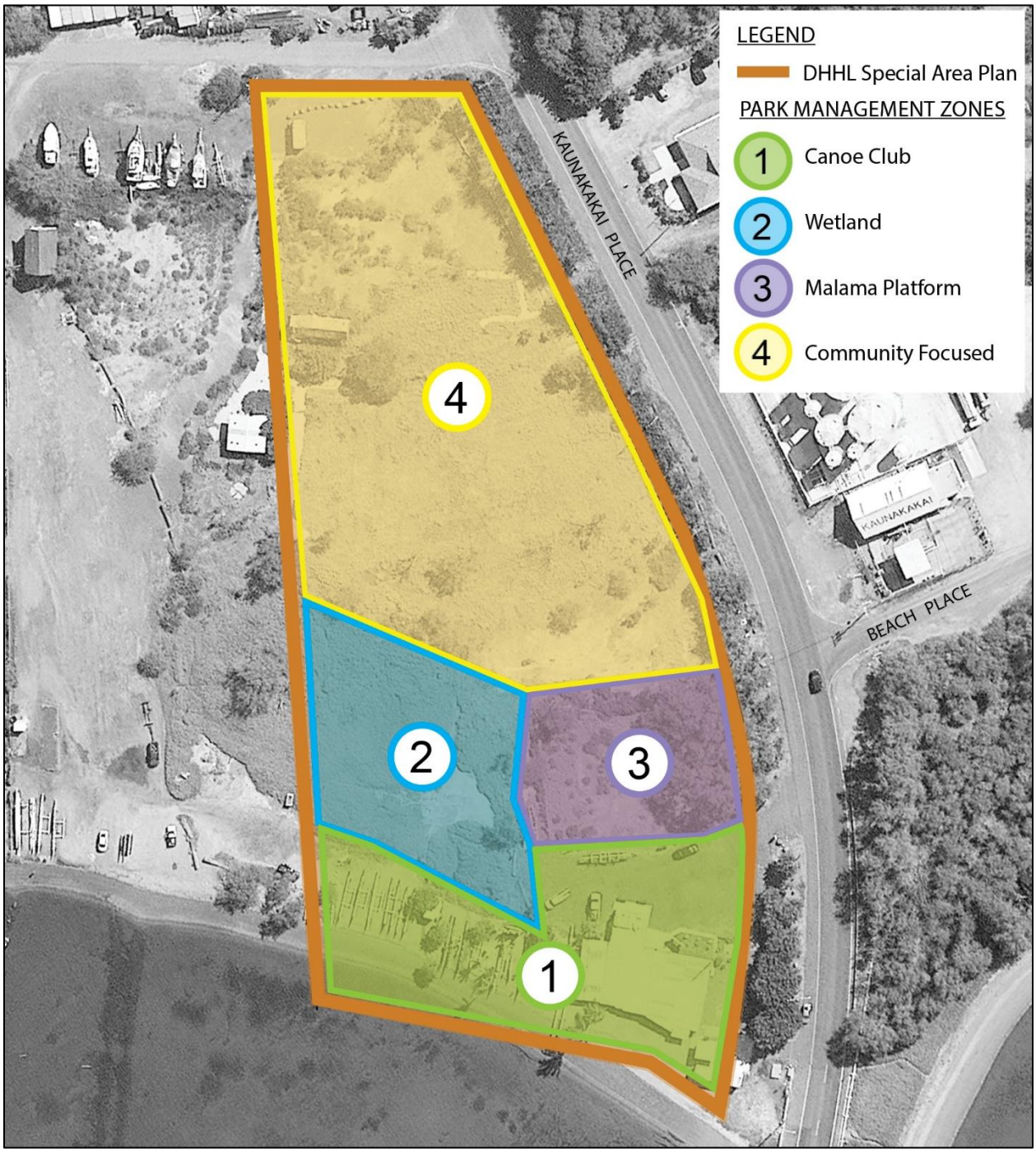
Based upon the Opportunities and Constraints analysis presented in *Chapter 4*, four Park Management Zones emerged as unique areas with distinctive resources, uses, challenges, and community priorities (*Figure 5-7*). These four zones include:

1. Canoe Club
2. Wetland
3. Malama Platform
4. Community Focused Area

This SAP discusses the types of activities and uses that are appropriate for each specific Planning Management Zone throughout the Plan Area. This plan also describes the needs and management requirements for each zone, and identifies locations where select improvements may be made in a phased approach over time.

The following sections will discuss the management strategies and actions for each Park Management Zone (*Figure 5-8 through 5-11*). The accumulation of these strategies and actions is presented in the Conceptual Special Area Plan presented in *Figure 5-12*.

FIGURE 5-7 PARK MANAGEMENT ZONES



1 Canoe Club Zone

The Canoe Area zone is defined as the coastal edge of the property along the southern boundary of the Plan Area (*Figure 5-8*). This zone encompasses the sandy beach, dunes, and the existing canoe facilities.

Existing Conditions:
The Canoe Club Zone is an approximatly .90-acre sandy beach area where the Waʻakapaemua and Molokaʻi Canoe Clubs presently operate. The canoe clubs maintain the existing canoe facilities and grounds. Gorilla ogo often accumulates on the beach sand. A small staircase provides pedestrian beach access from Kaunakakai Place.

Purpose of Zone:
The purpose of the Canoe Club Zone is to allow for activities that will perpetuate the importance of Hawaiian canoe culture for future generations.

Management Issues:
Trash, tresspassing, security, invasive species, and erosion.

Threats:
Coastal erosion, storm surge, oil contaminiation from parked vehicles, litter, and vandalism.

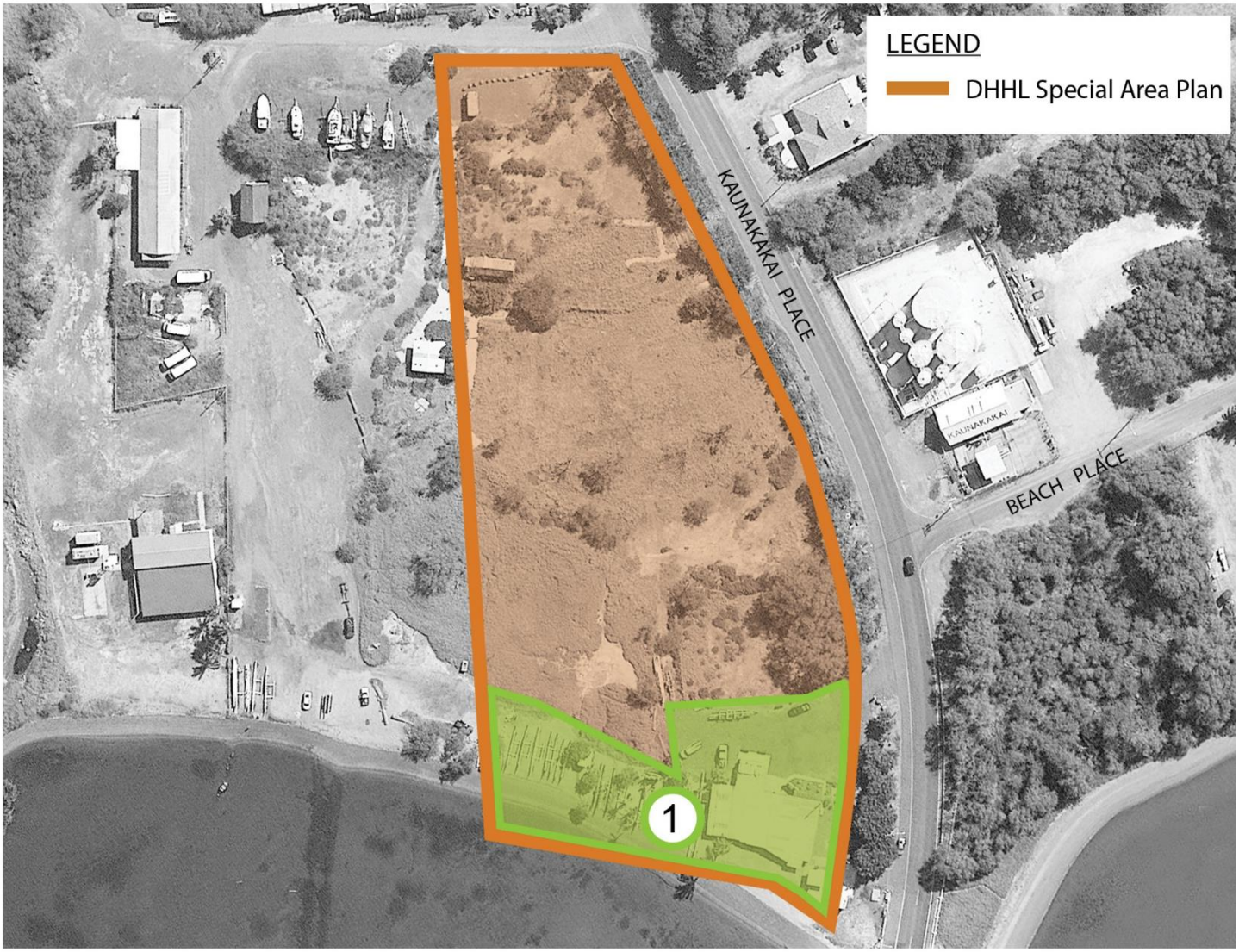
Pending Threats:
3.2 feet of sea level rise by 2050.

DHHL Management Action:
Form an agreement with a qualified non-profit organization that have experience and familiarity to promote the cultural importance of Hawaiian canoe culture.

Future Actions for DHHL Community Partners and Allowed Uses:

- Utilize shoreline area for canoe club activities.
- Provide maintenance and care of the shoreline environment and canoe facilities.
- Provide educational activities.
- Plant appropriate coastal trees, shrubs, and groundcovers.
- Use the strategic planting of ʻakiʻaki grass to stabilize the shoreline and mitigate erosion.
- Implement a vegetated berm enhancement along the shoreline as recommended in the SSEMP.
- Construct a new open covered hālau waʻa for canoe club use.
- Reconfigure the canoe club parking area so as not to encroach upon the Malama Platform's 25 ft. protection buffer.
- Prohibit the driving or parking of motorized vehicles on the beach.
- Consider installation of fencing to control unwanted vehicular access.
- Install sub-meters to monitor water usage amongst multiple users.
- Minimal maintenance activities shall include: weed whacking around canoe facilities, removal of invasive species, planting native plants, maintaining trash receptacles, collection of litter, and erosion mitigation.
- Illegal activity must be reported to the police department and DHHL.
- Future managers must obtain liability insurance and submit annual reports to DHHL.

FIGURE 5-8 CANOE CLUB ZONE



GOAL 1

Strategy 1A
Manage vehicular access, activities, and uses

Strategy 1B
Improve Water Delivery and Access

GOAL 2

Strategy 2A
Reduce trash and maintain waste receptacles

Strategy 2B
Invasive species removal and control

Strategy 2C
Restoration and recovery of coastal plant communities

Strategy 2D
Enhance vegetated sand berm along the edge of the shoreline

GOAL 3

Strategy 3A
Develop and overall mitigation plan for cultural resources

Strategy 3B
Ensure Perpetuation of Canoe Culture

Strategy 3C
Support development of a new halau waʻa for canoe club use

GOAL 4

No direct strategy but supports other area actions

GOAL 5

Strategy 5A
Educate and engage the public

Strategy 5B
Establish a monitoring plan

2 *Wetland Zone*

The Wetland zone is defined as the area delineated as a wetland environment within Plan Area (*Figure 5-9*).

Existing Conditions:
The wetland environment is an approximately .65-acre area populated primarily by pickleweed. Salt deposits form in low lying areas.

Purpose of Zone:
Provide stewardship of natural resources for ecological conservation and restoration.

Management Issues:
Invasive species, trash, and managed access.

Threats:
Invasive pickleweed, litter, contamination, and trampling of plants by human activity.

Pending Threats:
3.2 feet of sea level rise by 2050. Coastal erosion.

DHHL Management Action:
Form an agreement with a qualified non-profit cultural-based community organization that has demonstrated experience in the care of wetland ecosystems for its long-term stewardship.

Future Actions for DHHL Community Partners and Allowable Uses:

- Restore the wetland by removing invasive pickleweed and revegetating with appropriate native wetland plants.
- Revegetation efforts should prioritize native plants and ideally species native to Kaunakakai to the greatest degree possible.
- Install a wood plank border designating the wetland area as a protected area.
- Construct an elevated walkway to allow pedestrian access to the shoreline from the mauka portion of the park.
- Utilize wetland for ʻāina based education.
- Illegal activity must be reported to the police department and DHHL.
- Future managers must obtain liability insurance and submit annual reports to DHHL.

FIGURE 5-9 WETLAND ZONE

GOAL 1

Strategy 1A
Manage vehicular access, activities, and uses

GOAL 2

Strategy 2A
Reduce trash and maintain waste receptacles

Strategy 2B
Invasive species removal and control

Strategy 2C
Restoration and recovery of coastal plant communities

GOAL 3

Strategy 3A
Develop and overall mitigation plan for cultural resources

GOAL 4

No direct strategy but supports other area actions

GOAL 5

Strategy 5A
Educate and engage the public

Strategy 5B
Establish a monitoring plan

3 *Malama Platform Zone*

The Malama Platform Zone coincides with the extent of the historic platform site and its 25 ft protective buffer (*Figure 5-10*).

Existing Conditions:
The approximately .65-acre zone is the site of the historic Malama Platform. The platform is overgrown with invasive plants and grasses, particularly along the platform walls, but is otherwise in good condition.

Purpose of Zone:
The purpose of this zone is for the ancestral stewardship of cultural resources for future generations with regulatory compliance of state historic preservation laws and applicable federal law such as NAGPRA.

Management Issues:
Landscaping and irrigation of the ground surrounding the platform. Invasive species control and removal. Trash. Controlled access.

Threats:
Kiawe trees and invasive species growing on and around platform threating structural integrity. Litter and vandalism.

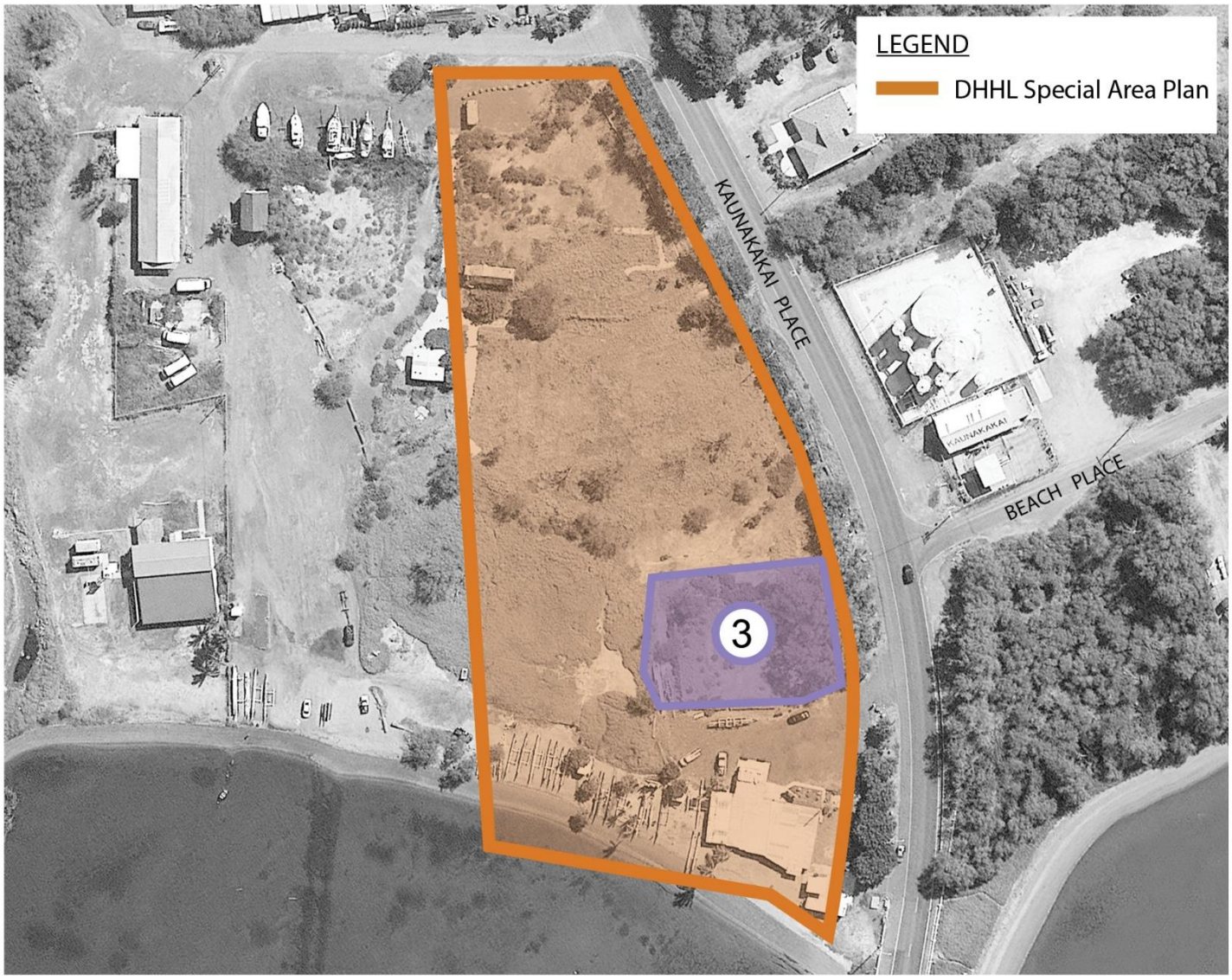
Pending Threats:
3.2 feet of sea level rise by 2050. Risk of deterioration and neglect without long-term stewardship commitments.

DHHL Management Action:
Form an agreement with a qualified non-profit cultural-based community organization for the long-term stewardship of the wahi pana.

Future Actions for DHHL Community Partners and Allowable Uses:

- Use the site for ʻāina based / wahi pana-based educational programs.
- Conduct further site investigation and complementary restoration for passive purposes.
- Maintain a 25-foot protective buffer around the platform.
- Install signage and interpretive events to teach about the significance of the platform site.
- Future partners must go through the proper steps of HRS 6E-42 inclusive of appropriate inventory, evaluation of significance, and mitigation inclusive of preservation plan and monitoring.
- Maintenance activities shall include weed whacking around the platform, collection of litter, removal of invasive species, and erosion mitigation.
- Illegal activity must be reported to the police department and DHHL.
- Future managers must obtain liability insurance and submit annual reports to DHHL.

FIGURE 5-10 MALAMA PLATFORM ZONE



GOAL 1

Strategy 1A
Manage vehicular access, activities, and uses

GOAL 2

Strategy 2A
Reduce trash and maintain waste receptacles

Strategy 2B
Invasive species removal and control

Strategy 2C
Restoration and recovery of coastal plant communities

GOAL 3

Strategy 3A
Develop and overall mitigation plan for cultural resources

GOAL 4

No direct strategy but supports other area actions

GOAL 5

Strategy 5A
Educate and engage the public

4 Community Focused Zone

The Community Focused Zone is defined as the mauka portion of the Plan Area encompassing the amphitheater/ stage and historic weigh station (*Figure 5-11*).

Existing Conditions:
The approximately 2.35-acre zone is primarily open green space with a stage and amphitheater. Historic sites present include a dilapidated jailhouse, weigh station, and a subsurface cultural layer. An existing irrigation and electrical system are no longer in use. A memorial dedicated to the life of Herman Rego "Ekolu" Coelho III is located near the eastern edge of the park.

Purpose of Zone:
The purpose of this zone is to utilize and maintain the area for community building and economic development.

Management Issues:
Landscaping and irrigation, invasive species control and removal, trash, security, and historic preservation compliance for jailhouse, weigh station, and cultural layer.

Threats:
Structural integrity of the jailhouse poses a human health and safety risk. Litter and vandalism. Illegal camping. Potential soil contamination. Coastal flooding.

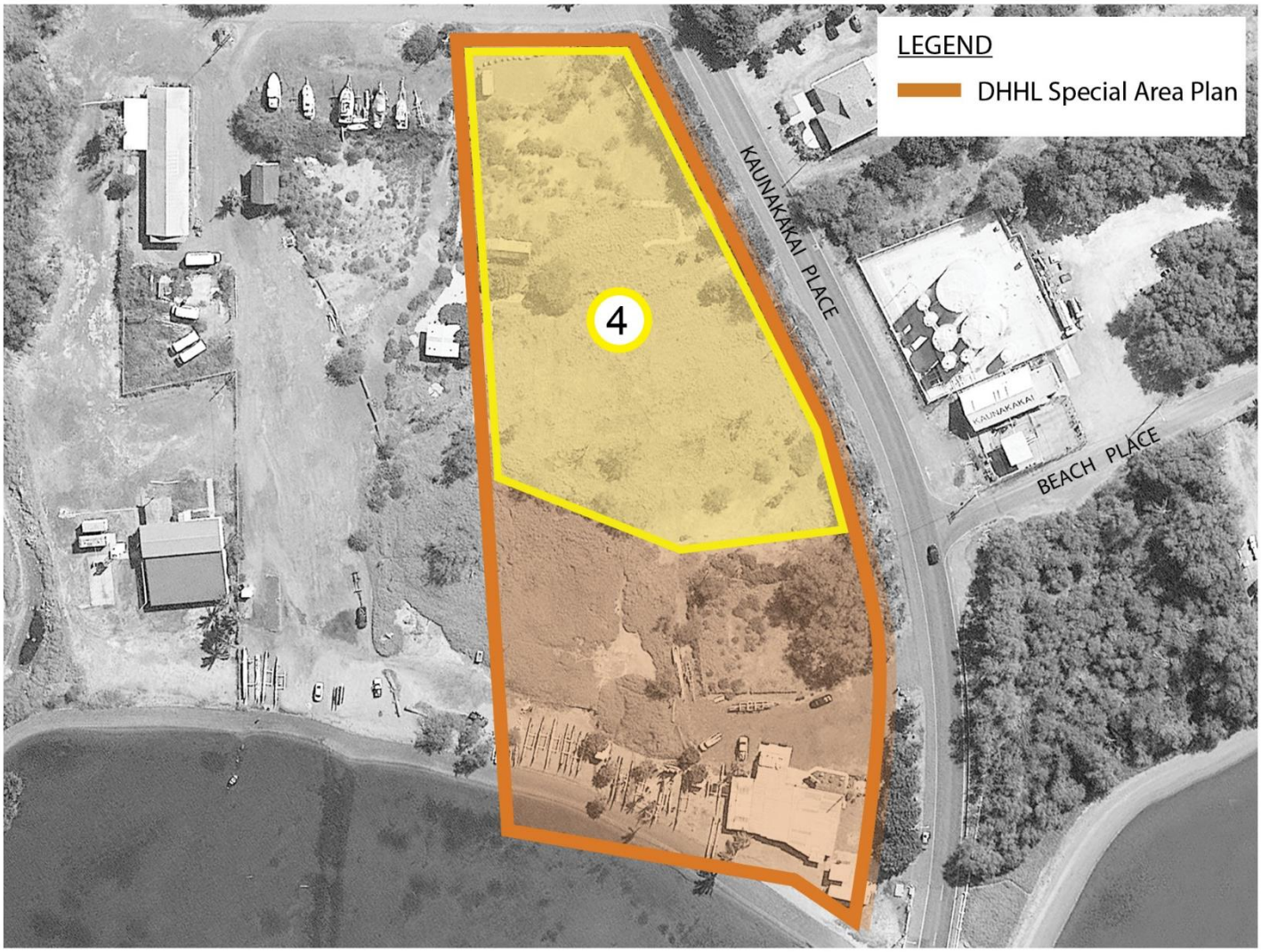
Pending Threats:
3.2 feet of sea level rise by 2050.

DHHL Management Action:
Form an agreement with a qualified non-profit community organization(s) for the long-term use and stewardship of the Community Focused Zone.

Future Actions for DHHL Community Partners and Allowable Uses:

- Utilize the existing amphitheater and stage as a performance space for live events.
- Utilize the mauka lawn for community-based economic activities like a farmers market or craft fair.
- Provide welcome signage and display park hours and rules.
- Construct a new network of walking paths to provide adequate pedestrian access throughout this area.
- Develop a kūpuna area and memorial garden.
- Demolish and remove the dilapidated jailhouse in accordance with HRS 6E-42.
- Develop new bathroom and park maintenance equipment shed in place of the jailhouse.
- Construct a new covered pavilion or visitor center.
- Construct an imu pit.
- Provide picnic tables and park benches near walking paths.
- Plant native and salt tolerant landscaping to green the park and create shade.
- Improve the electrical and irrigation system to a working condition.
- Provide light poles at parking lots and along new walking paths for the illumination of human activity and security. Consider installation of solar powered lights. Use shielded downward directed lights to mitigate impacts to seabirds.
- Expand and improve the existing Hio Place parking area.
- Provide bicycle facilities.
- Mitigate exposure to soil contamination during ground disturbing activities.
- Maintenance activities shall include: watering of the lawn and landscaping, weed whacking, tree trimming, removal of invasive species, maintaining trash receptacles, collection of litter, cleaning of bathroom and pavilion areas, and maintenance and repairs of facilities and utility systems.
- Illegal activity must be reported to the police department and DHHL.
- Future managers must obtain liability insurance and submit annual reports to DHHL.

FIGURE 5-11 COMMUNITY FOCUSED ZONE



GOAL 1

Strategy 1A
Manage vehicular access, activities, and uses

Strategy 1B
Demolition of the jailhouse

Strategy 1C
Consider providing bathooms in the Zone

Strategy 1D
Improve Water Delivery and Access

Strategy 1E
Develop a kūpuna area

GOAL 2

Strategy 2A
Reduce trash and maintain waste receptacles

Strategy 2B
Invasive species removal and control

Strategy 2C
Restoration and recovery of coastal plant communities

Strategy 2E
Mitigate exposure to soil contamination

GOAL 3

Strategy 3A
Develop and overall mitigation plan for cultural resources

GOAL 4

Strategy 4A
Establish a community farmers market area

Strategy 4B
Adaptive reuse of existing historic weigh station platform for covered pavilion or visitor center

GOAL 5

Strategy 5A
Educate and engage the public

Strategy 5B
Establish a monitoring plan

FIGURE 5-12 CONCEPTUAL SPECIAL AREA PLAN

Chapter 6: Implementation Plan

Implementation of the management strategies identified in *Chapter 5* will require partnership with DHHL, beneficiaries, community organizations, cultural practitioners, lineal descendants, researchers, educators, elected officials, and governmental agencies to carry out many of the actions outlined. A collaborative effort is critical to successfully execute the strategies described in this SAP. The following sections describe the desired management model for the Plan Area, potential management structures, and the process by which DHHL may issues land dispositions to appropriate community partners.

Management Model: Community-Based Stewardship

Through the SAP's consultation process, it became evident that the community held a strong desire to play a larger role in the management kuleana for the Plan Area and its resources. Beneficiaries expressed a hope that community organizations could have the opportunity to help operate and manage the SAP Area through formalized partnership agreements with DHHL.

The HHCA, 1920, as amended, Section 204(a)(2) and Section 207(c)(1)(a), authorizes DHHL to issue dispositions of its lands for non-homesteading purposes. DHHL recognizes that a community-led model of park management can serve to create social, economic, and environmental benefits. Community control of the Plan Area, and genuine involvement in the governance and decision making for it, can boost a sense of belonging and connection to the park ʻāina. Self-management of the park and its various natural and cultural resources can offer beneficiaries the opportunity to gain new skills in natural or cultural resource management, community organizing, and social enterprise. The park's environment would also benefit by having management activities administered by individuals with specific local place-based knowledge and expertise in grassroots organizing.

As such, the SAP is intended to be implemented by community partners selected by DHHL through a completive solicitation process. At this time, the specific community partners have not yet been identified. Upon the official adoption of this SAP by the HHC, DHHL may initiate the solicitation process to evaluate applicants interested in serving as future management partners.

DHHL will evaluate each application submitted during the solicitation process. The applying entity that can best demonstrate their abilities and qualifications to enact the SAP's stated management goals and strategies associated with the specific management area shall be nominated for a land disposition.

Before the issuance of a land disposition, DHHL will conduct a consultation meeting to seek final beneficiary approval of the nominated entity.

Park Management Structure

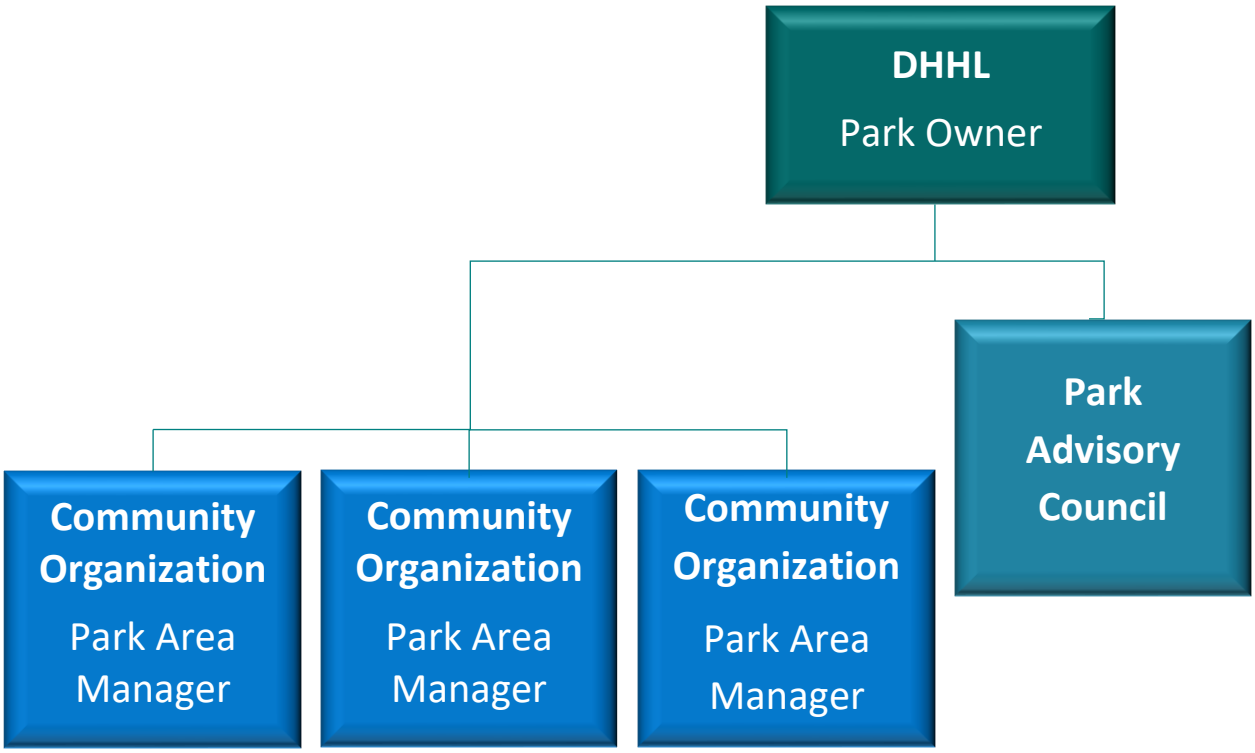
Park Advisory Council

To support DHHL in the management of its park lands, Park Advisory Councils (PAC) are established in each area where DHHL operates a District Office. Per HAR §10-4-33, the purpose of the PAC is to advice the department on rules, practices, and activities on and affecting its parks. Each PAC will consist of five members appointed by the DHHL chairman and confirmed by the HHC. Members must be native Hawaiian, at least eighteen years of age and a resident of the area served by the district office in which the council is established. At present, a PAC has not yet been established for the Molokaʻi District.

Multiple Entity Approach

During consultation, beneficiaries acknowledged that the SAP Area is too large, with too complex of issues, for a single organization to solely manage. Beneficiaries preferred a management structure involving multiple managing entities with delineated areas and defined responsibilities (*Figure 6-1*). Under this strategy, a community organization may submit an unsolicited application for non-homesteading use of a clearly defined area within the park. Awarded organization would be responsible for all the management activities required within the specified disposition area. Those required activities would include all the strategies defined within the disposition area's correlating Park Management Zones (*Figure 5-5* through *Figure 5-9*).

FIGURE 6-1 MULTIPLE ENTITY APPROACH



The specific disposition areas are not defined in this SAP. The exact boundaries of the disposition areas will be negotiated at a future time during the disposition procurement process. A disposition area may encompass multiple Park Management Zones. In this case, the awarded community organization must implement the management strategies for all the zones located within its delineated disposition area.

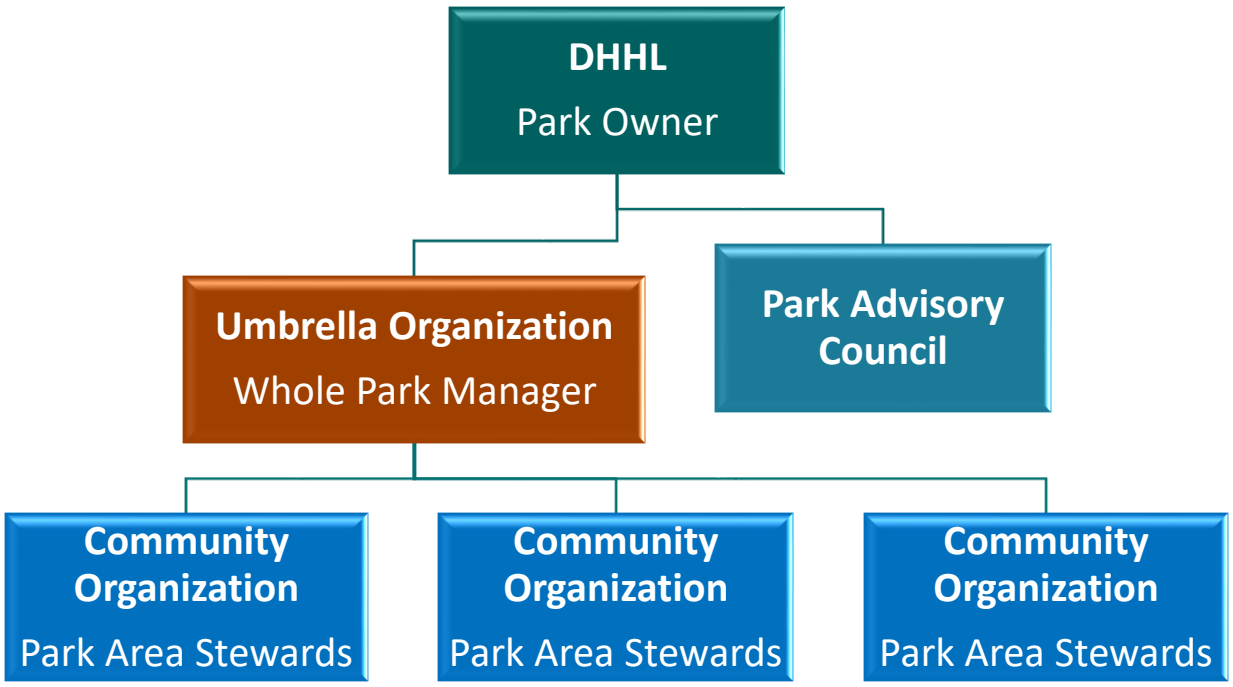
An advantage of this approach is that the SAP Area would be divided into smaller areas that would be more manageable for a single organization. Another advantage is that the smaller disposition areas could be managed by organizations having specialized knowledge and experience in stewarding the area's unique resources.

A challenge associated with this approach is that it will require a coordinated effort between the multiple community-led organizations. The multiple organizations must work together to plan park-wide events, resolve disputes, respond to hazards, and make payments for shared utilities. Each organization will also be required to maintain communication with DHHL, submit annual reports, and obtain liability insurance.

Umbrella Approach

Another viable management structure is an umbrella approach. An umbrella approach is similar to the multiple entities approach, with the addition of another single entity (the umbrella organization) that coordinates the care and management for the entire SAP Area. The umbrella organization would be granted the primary management role with the responsibility for overseeing the multiple community organizations (park area stewards) that have delineated areas and defined responsibilities (*Figure 6-2*). Community organizations interested in the use of a particular area within the park would coordinate directly with the umbrella organization to negotiate the terms of the use. Use agreements must also be approved by DHHL before issuance.

FIGURE 6-2 UMBRELLA APPROACH



An advantage of the umbrella approach is that DHHL would only need to coordinate directly with the umbrella organization as the principal point-of-contact. The umbrella organization would be responsible for submitting annual reports to DHHL, coordinating park-wide events, paying utility bills, and obtaining liability insurance. The umbrella organization would also play a role in resolving disputes between community organizations and enforcing the park rules. With the umbrella organization taking on the overall managerial tasks, the other community organizations would be alleviated of those responsibilities and could focus efforts on specific resource management, cultural and educational programming, or community development activities.

It may not be feasible to implement the umbrella approach immediately. DHHL may decide to implement a phased approach, whereby the multiple entity approach is implemented in the near term, and then transition to an umbrella approach at a future time.

Third-Party Vendors

A concern that was raised during beneficiary consultation was that future managing partners may not have the organizational capacity to manage the awarded park space. It was acknowledged that volunteer bases often ebb and flow over time. Periods when membership is low could create an impediment for the implementation of the required management activities.

It was also acknowledged that holistic park management requires a myriad of professional skills and knowledge in park maintenance. An awarded managing entity with a particular interest and expertise may not have the acquired knowledge in all aspects of park management.

To address this concern, future park managers may seek the support from a third-party vendor to assist with routine maintenance, security, and repairs. The future park manager would be responsible for the procurement of the third-party vendor in accordance with the terms of their DHHL land disposition.

Types of activities that would be appropriate for a third-party vendor may include:

- Landscaping services such as lawnmowing, weed whacking, tree trimming, and monitoring and treating of pests
- Utility maintenance and repairs
- Bathroom or facility maintenance
- Parking lot repair and upkeep
- Trash collection
- Litter and debris removal
- Biohazard clean-up
- Park security services

Funding Opportunities

Future park managers should seek funding and other resources as broadly as possible to support park improvements and sustain maintenance activities. It is also recommended that park entities track and apply for DHHL grant opportunities.

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Appendices

Appendix A
Beneficiary Consultation Meeting Notes

CONFERENCE REPORT

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TO:	Department of Hawaiian Home Lands (DHHL)		
FROM:	G70		
DATE:	October 12 and 13, 2020	**LOCATION:**	Virtual Meeting Via Zoom
PROJECT:	Malama Cultural Park, Molokaʻi Special Area Plan		
SUBJECT:	Beneficiary Consultation #1	**NO. OF PAGES:**	6
THOSE PRESENT:	DHHL: Andrew Choy, Pearlyn Fukuba, Commissioner Zachary Helm	G70: Kawika McKeague, Cody Winchester, Janice Jensen, Kai Akiona-Ferriman	

The Department of Hawaiian Home Lands (DHHL) and G70 held a joint public meeting with beneficiaries and park users from the Island of Molokaʻi. Due to the COVID-19 pandemic, the meeting was held virtually via Zoom on October 12, 2020, from 10:30 am to 12:00 pm. A second beneficiary consultation was also held virtually on October 13, 2020, from 6:30 pm to 8:00 pm. The agenda for both meetings was the same. The purpose of the meeting was to introduce the project team, discuss the purpose and background of the project, reflect on past planning efforts, and discuss opportunities and constraints at the park site. An approximate total of 19 attendees participated in the first round of meetings. Presentation materials were distributed prior to the meeting and are also available on the DHHL website.

Welcome & Pule

- The meeting on October 12, 2020 commenced at approximately 10:35 am.
- Cody Winchester (G70) welcomed attendees to the meeting and Kawika McKeague (G70) provided the pule.
- It was Prince Kūhiō's vision for DHHL to help foster healthy Hawaiian communities. Part of that effort involves the stewardship of natural and cultural resources as well as building community.
- A brief orientation to Zoom was provided so that attendees would feel comfortable participating and understand how they could communicate with the project team during the meeting.
- Pearlyn Fukuba (DHHL) described the mission of DHHL and introduced the department's project team.
- Kawika McKeague (G70), introduced the G70 project team and shared past and ongoing planning efforts on Molokaʻi.

- G70's role is to act as a facilitator and provide technical support that will serve to bring the community's vision of the park to life. Community input is critical to the process. Participants are encouraged to email the project team as a direct means of communication at MalamaCulturalPark@g70.design
- The meeting agenda included a presentation portion as well as an opportunity for group discussion.

Presentation by Cody Winchester (G70):

The presentation had a duration of approximately 1 hour and covered the following topics:

1. Describe the existing conditions at the project site and surrounding area
2. Share the purpose and scope of the project
3. Define the goals, process, and expectations for the Special Area Plan
4. Discuss how beneficiaries help in this planning process
5. Summarize the feedback received during the small group community leader meeting on July 28th, 2020
6. Reflect on prior planning efforts for the park
7. Identify how the ʻāina informs the development of the plan
8. Evaluate strategies, challenges, needs and concerns

In 1995, the State of Hawai'i, Department of Business, Economic Development and Tourism (DBEDT), proposed the development of the Malama Cultural Park. At the time, land ownership of the 11.734-acre Malama Cultural Park site was shared between the County of Maui (7.14 acres) and the State of Hawai'i (4.594 acres). The project resulted in the creation of a Master Plan and Environmental Assessment (EA). The purpose of the original Master Plan was to develop a public park which would provide a focal point for Moloka'i's history and culture.

The presentation showcased an updated version of the 1995 Master Plan for the Malama Cultural Park. Components highlighted and discussed in this plan include:

- Conservation of the wetland environment
    - Construction of an overlook for visitors to view the native plants and birds that inhabit the area.
    - The wetland would be used for educational purposes by including signs with information about the species present.
- Hale Malama (visitor information center for the Malama Platform)
    - Construction of a visitor center providing information on the history and significance of the Malama Platform.

- Kūpuna area
    - Shaded area near Malama Platform with seating provided in a conversational arrangement.
- Amphitheatre / Pā Hula
    - Development of a grassy, gently sloped lawn area for outdoor performances.
    - Raised wood or concrete floor area to serve as a stage.
    - Planting of large umbrella type trees planted along the south and west side of the amphitheater for shade.
- Hula Hālau Pavilion
    - Development of a structure to serve as a backstage area with toilets and dressing rooms for performers.
    - Structure for hula instruction and rehearsal located near the amphitheater.
- Language Immersion School
    - Space for keiki to learn Hawaiian language and culture.
- Canoe sheds
    - Structures for storing canoe club equipment designed with traditional Hawaiian construction practices.
- Beach Support Building
    - Used for lūʻau preparations, fish cleaning, etc.
    - Equipped with showers and toilets.
- Arts and Crafts Building
    - Construction of an area for gathering and making local crafts.
    - Used as marketplace to sell the artwork and pre-prepared food.
    - Equipped with public toilets.
- Parking lot
    - Asphalt pavement.
    - Space for 139 automobiles.
- Orientation kiosks and signage located at main points of entry

- Removal of Historic Jailhouse
    - The structure is in poor shape and a potential safety hazard.
- Landscaping with native Hawaiian trees and shrubs
- Site lighting to improve safety and hold nighttime events.

Only a few of the actions planned in the 1995 Plan for the Park were actually realized including a comfort station with restroom and showers developed on the County portion of the park, paved walkways, and partial construction of the pā hula.

The presentation included a series of poll questions to determine which components from the 1995 Master Plan the beneficiaries still liked and wanted to see carried forward in the Special Area Plan.

Group Discussion:

At the conclusion of the presentation, the audience had a 45-minute opportunity to ask questions and provide comment. Beneficiaries were asked the following question:

When can Malama Cultural Park be more than just a park?

Discussion Highlights:

- There was a general public confusion about whether the park is accessible. A “no trespassing” sign had been posted.
- The Malama Cultural Park has been a place for the canoeing. It is the heart of canoe paddling.
- Fisherman used to hanapa‘a at the park.
- The park used to be a softball field and a family gathering place.
- The park should tie into Moloka‘i history and culture.
- The park should be a place for cultural-based natural education – a place to learn about wetlands, plants, and animals.
- People gather at the park for fellowship.
- The park is a little oasis. Kauankakai is a hot place.
- The park is Kaunakakai’s beach. Even though it is surrounded by industrial uses, its still *our* beach. It’s a place to surf, collect limu, and gather as a community. The park is a place to take a little break from the city.

- Originally the park was meant as a place for cruise ship visitors to learn about and experience Hawaiian culture. It could be the first stop for folks getting off the boat. It could be a place for Hawaiian education and a market before going into town.
- The park was gorgeous when it first opened. Now it's in disarray.
- The park is known as "the canoe place." It is the only place where canoes can access the island. Canoes need to be by the water.
- As kids, we grew up in that area. Parents. Grandparents paddles. Kids and grandkids have "continued on" taking care of that space.
- The park should continue to support education. Each of the schools used to come down and share their science projects. It's awesome that we have that area for future generations to learn of their history and to take care of their area- both the water and the land.
- The 1995 Plan by DBEDT was supposed to have 3 phases. Canoes are supposed to be where they are. There was a lot of involvement by our community. The other two phases did not come into being. There was a problem with the water system. A lot of trees died that would have provided shade and would have been beautiful.
- The park is a place to go and enjoy lunch. People go to the "Canoe Shack".
- The park does not have trash pick-up or maintenance. We need to think about educating people to pick up rubbish.
- There is a concern about sea level rise. The park should be designed for future projections of sea level rise. What is the lifetime of those buildings?
- The park should focus on maintenance (leech systems, security, issues of homelessness, and rubbish).
- The park should be greener and more welcoming. It needs an irrigation system. The plan should look at alternative non-potable water sources.
- The Park can be more than just a park when ʻohana feel connected to place. When visitors know of the cultural connection to this place.
- A small memorial was built and family allowed to go and visit often. Family has taken the kuleana to mālama the park. The park is a place for healing. The family spends hours cleaning up the space.
- What is MCP going to look like is important, but how it will be maintained is more important. The park must have an implementation plan. The plan should really support family and community stewardship of the place.

- Nephews and nieces go to see “dad’s park” – a sense of connection. Keiki start asking questions about what this place was, but for them it starts with “dad’s park”. With this vision, they see greater responsibility.

- There are issues of homelessness and drug use in the park. If there is no stewardship component, then it will be hard to ensure proper management. Who is going to kick out that aunty living in the bathroom or uncle defecating?

Beneficiary Consultation #1, held on October 12 and 13, 2020, ended approximately one and a half hours after the meetings had commenced.

CONFERENCE REPORT

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TO:	Department of Hawaiian Home Lands		
FROM:	G70		
DATE:	April 29, 2021	**LOCATION:**	Virtual Meeting via Zoom
PROJECT:	Malama Cultural Park, Molokaʻi Special Area Plan	**PROJECT NO:**	219014-01
SUBJECT:	Beneficiary Consultation Meeting #2	**NO. OF PAGES:**	7
THOSE PRESENT:	DHHL: Pearlyn Fukuba, Andrew H. Choy, Commissioner Zachary Helm G70: Kawika McKeague, Cody Winchester, Janice Jensen, Piʻilani Smith, Kai Akiona	Community Members: Charles Kaʻahanui III, Cora Schnackenberg, Sybil Lopez, Penny Martin	

SUMMARY:
The Department of Hawaiian Home Lands (DHHL) and G70 hosted a second beneficiary consultation meeting with beneficiaries from the Island of Molokaʻi. Due to limitations of social distancing and travel restrictions to the island of Molokaʻi due to the COVID-19 pandemic, the meeting was held virtually on April 29, 2021, from 6:30-9:00pm via Zoom. The purpose of this meeting was "Laying the Foundation" and covered a summary of research, site investigations, and community input that resulted in some preliminary key findings, vision statement, and initial opportunities and constraints mapping for the Malama Cultural Park Special Area Plan (Malama SAP). Presentation materials were distributed prior to the meeting and are also available on the DHHL website. Survey questions were made available on the DHHL website via Survey Monkey.

Welcoming & Pule

- The meeting commenced at approximately 6:40pm.
- Commissioner Zachary Helm opened with a pule.
- Kawika McKeague (G70) provided introductions for the G70 team.
- Pearlyn Fukuba (DHHL) provided introductions for the DHHL team.
- Prince Kūhiō's vision for DHHL is to help foster healthy Hawaiian communities. Part of that effort involves the stewardship of natural and cultural resources as well as building a sense of community.
- A project timeline was shared to inform beneficiaries of the work that has been completed to date and the next stages of the community planning process.

Presentation
G70 presented key findings from previous research and community meetings including viewplanes, historic sites, biological resources, infrastructure and facilities, uses and users, and key community concerns. To highlight the historical significance of the park and understanding of natural cycles in lunar timekeeping and celestial navigation, ancestral knowledge inclusive of the preliminary identification of pathways of the sun and moon during equinoxes and solstices as seen from the park were shared for feedback.

Based upon the attendance of the four beneficiaries present, the meeting was reconfigured as an open dialogue in which attending participants were able to share a series of questions, concerns, and points of clarification as to the overall planning process to specifics of vision and planning elements.
The following matrix summarizes the extent of key comments shared by attendees and the planning team's initial responses during the meeting. For those comments that may have required some additional post-meeting action by the planning team, the matrix below makes specific note of that.

Comment	Response
There are concerns about sea level rise and king tides. Beach sand comes and goes with the tide and the season. The park should be identified as part of the South Moloka'i Shoreline Erosion Management Plan.	There are tools to monitor long-term changes along the coast. Historically, the beach has been experiencing a period of accretion. This trend may change as sea level rise and inundation impact the coastline. Park planning efforts will be done in concert with the South Moloka'i Shoreline Erosion Management Plan.
There is a concern of homeless individuals occupying the park and leaving rubbish. Attendees asked how DHHL will address the homeless?	Comment is noted and acknowledged. The Malama SAP intends to identify park management options and formulate recommendations to address those concerns.
'Ōpala in the park is a problem. The canoe clubs are the ones who mālama the area for 'ōpala.	Comment is noted and acknowledged. The Malama SAP intends to identify management actions and recommendations to address those concerns. The planning process will include an evaluation of viable long-term waste collection and management alternatives.
"The issue has been availability/access to water on-site. We constantly raise that up because nobody wants to take responsibility. Whether the water sits on the county, whether it sits on DHHL. We would want DHHL to address those types of infrastructures."	Comment is noted and acknowledged. The Malama SAP intends to address those concerns.
Who is responsible for the active water meter?	A water meter is located on the DHHL property. Water service for grounds maintenance and club events are paid for by the Moloka'i Canoe Club. The Malama SAP will assess options for water delivery to other portions of the park.
What was the outcome of the contamination study and who is paying for the contamination study?	DHHL opined that the contamination study was initiated by Chevron and the environmental study evaluating the magnitude and extent of soil contamination impacts in the park remains ongoing. DHHL will share the results with the planning team once they receive the information.
Is there an memorandum of agreement (MOA) between DHHL and Maui County for access to the restrooms and the historic courthouse?	There is currently no MOA. Each agency has its own respective kuleana generated by its specific mission and priorities. An MOA would be based on both agencies recognizing that they have certain responsibilities to these assets, and that it would be to the benefit of both parties to meet the standard of care desired.
Why is there a chain across the parking lot driveway?	Access is a concern and at present, parking is available in the mauka section of the park. Resolving parking concerns will be addressed in the Malama SAP.

Is the park available to the public or is access restricted?	Comment is noted and acknowledged. The Malama SAP intends to address the concern.
Have you estimated the cost of what this project will be?	Cost estimates for identified improvements will be included in the Malama SAP. DHHL opined that homesteading is the department's main priority (Na'iwa/'Ualapu'e). Therefore, it is important to note that all future improvements and the long-range management and stewardship of the park should be a community-based initiative.
Malama Cultural Park was identified as a priority project in the Moloka'i Island Plan. Community members wanted clarification for the funding portion for the park; was it to fund planning or for management?	DHHL stated that funding allocated for Malama Cultural Park was specific to the development of the Malama SAP. Financing options for the specific actions and strategies within the Plan will need to be explored.

Visioning Exercise

The word cloud pictured below highlights key themes from the 1995 Malama Cultural Park Master Plan as well as words expressed by beneficiaries during the first round of beneficiary consultations for the Malama SAP. The following preliminary vision statement was crafted by the planning team based upon these words and sentiments shared by the community.

"An oasis rich in cultural tradition and a place for 'ohana to gather, Malama Cultural Park is 'āina; where kuleana has and continues to be carried forward from generation to generation."

G70 discussed the approach to developing the preliminary vision statement and solicited feedback from the attendees. Without wider community participation, some attendees were uncomfortable with creating a vision statement and were glad that no final decisions would be made during the night of the meeting. Feedback included:

- "I like the first round of putting together a vision statement. Sounds great for a first round".
- Change the word "oasis," it's too western. Perhaps there are other words in the Hawaiian culture and tradition to use.

- The vision statement has to resonate with those who come from/to the place. Its hard to proceed with visioning without all the players being involved. Attendees acknowledged that if the park is to be a community driven plan, then community members need to be present and involved in the planning process.

- Participants were not sure if the preliminary vision statement captured all the moʻolelo, manaʻo, ʻike and history of the place. Prince Kūhiō was an avid canoe paddler and would come into Kaunakakai here via canoe. The name for the sands on the south shore is Kalaeokamanu, where plovers settle in the evening. It was the birds here that reminded the chiefs of children.

To further develop ideas captured within the vision statement, participants were asked to respond to three questions:

What does ʻāina mean to you?

- ʻĀina means more than surface, it means the root, to be cultivated. Would like to have more clarity in the vision statement. The use of English doesn't capture the essence.

- It would be such a beauty to emphasize the significant sites.

- We look at this place like a lifeline, especially with Kaunakakai Harbor. Over 90% of goods are imported to Molokaʻi and majority of good are received at the harbor.

- Location is key in regards to ʻāina.

What cultural traditions are important to carry forward and why?

- Malama Cultural Park is a very popular area where locals go to take photographs. It captures the essence of who we are.

- A wetland is located near where the Waʻakapaemua Canoe Club is located. Members of the club have been working with Kaunakakai School keiki to understand the wetlands by adding a piezometer, a device that monitors the pressure and depth of groundwater.

What matters most to ʻohana here?

- "ʻOhana means a way of supporting each other, families, extended friend's families, etc. It's all about relationships, you know when make luau?"

- One way to reach the community is via the Molokaʻi Mokupuni meetings, held on the fourth Thursday of every month from 4:30-7:30pm. They will be happy to put us on the agenda.

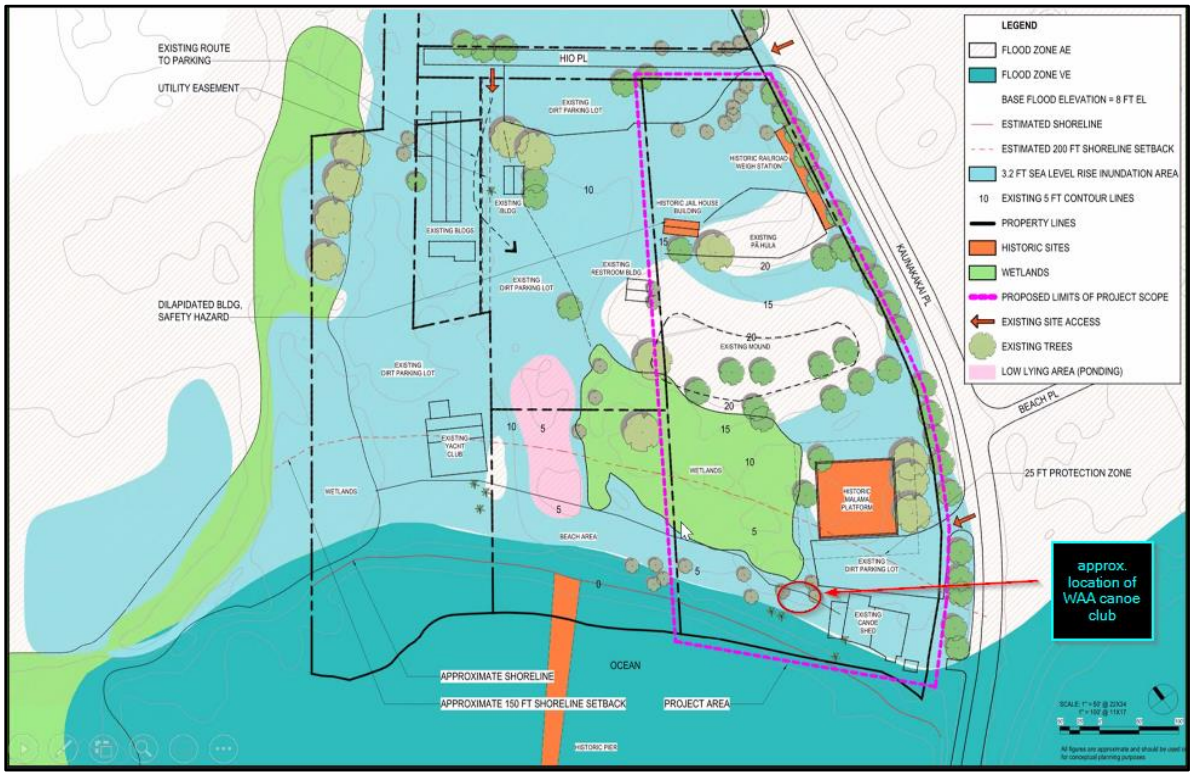
- When the Department of Land and Natural Resources had the area (before transfer to DHHL), it was host to Aloha Week festivities because of its central location. It's also a place for weddings.

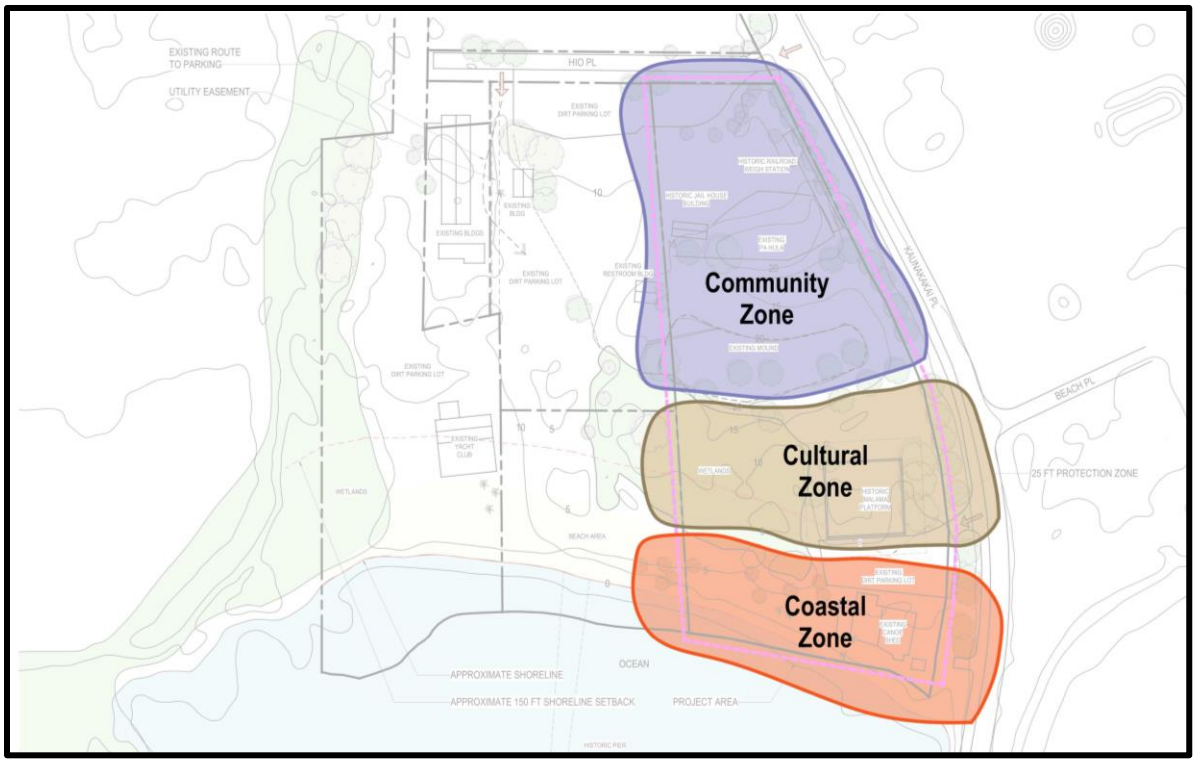
- Looking to have a market/center hub/open market for beneficiaries.

Opportunities and Constraints

G70 shared a preliminary opportunities and constraints map. This map overlays an array of information that includes existing conditions, setback requirements, flood zones, sea level rise, natural and cultural resources and recommended buffers, infrastructure and other factors that may influence specific future actions. The opportunities and constraints map lends itself to examining the park in three distinct “zones”: coastal, cultural, and community.

Coastal is heavily restricted by shoreline setback, coastal erosion/accretion, and understanding uses suitable for the coastline like canoe access and launch. The cultural zone emphasizes a need to consider suitable protections around both the wetlands and the historic site. The community zone highlights the opportunities to revitalize the central gathering space and the resources such as the pa hula and the weigh station as community assets. This is where the greatest potential for some limited future improvement/development could occur.





Community members responded:

- Attendees were concerned with the absence of Wa‘akapaemua Canoe Club on the opportunities and constraints map. G70 took responsibility for this unintentional error and provided assurances that it would be corrected. Wa‘akapaemua will be included on an updated version of the map.
- Attendees questioned whether investing in infrastructure is feasible with sea level rise.
- Participants questioned the longevity/life usage of structures. Phased construction and flexible uses were discussed as alternatives.
- Would like to see more trees, natural beauty, boardwalk, a stone wall-like pavillion, something similar to Kulana ‘Oiwi.
- Canoe clubs were there before DHHL and were/are looking into a traditional hale wa‘a.
- It would be appropriate to perpetuate canoe paddling because Kalaniana‘ole was an avid canoe paddler.
- The park should preserve open space and keep cultural traditions.
- The Plan should address issues of ingress/egress and parking. The Wa‘apaekamua Canoe Club does not have designated parking. Club members access the park from the county-owned side.
- The project needs a champion.

- Only two out of four homesteads on Molokaʻi have a park.
- This is the only beach in town and the only place for canoe clubs. The canoe clubs have nowhere else to go.
- “It is more than just a park; I want to see it done right and to help everybody.”

G70 gave the final pule. The meeting ended at approximately 9:00pm.

CONFERENCE REPORT

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TO:	Department of Hawaiian Home Lands		
FROM:	G70		
DATE:	November 2, 2021	**LOCATION:**	Virtual Meeting via Zoom
PROJECT:	Malama Cultural Park, Molokaʻi Special Area Plan	**PROJECT NO:**	219014-01
SUBJECT:	Beneficiary Consultation Meeting #3	**NO. OF PAGES:**	6
THOSE PRESENT:	DHHL: Pearlyn Fukuba, Andrew H. Choy, Shelly Carreira, Mona Kapaku Commissioner Zachary Helm Councilmember Keani Rawlins-Fernandez G70: Kawika McKeague, Cody Winchester, Janice Jensen	Community Members: Iwalani Kadowaki, Irene, Olivia Ming-Toi Riel, Charles Kaʻahanui III, Patricia Tamashiro, Liko Wallace, Cora Schnackenberg, Lu Ann Mahiki Lankford-Faborito, Ahu Kukui O Molokai (AOM), Bridget Mowat, ph# 808-213-5091, Ruth Tanielu, Galaxy A10e, Sybil Lopez, Penny Martin, Kapua, Ikaika Tanabe, Pat Tamashiro	

SUMMARY:
The Department of Hawaiian Home Lands (DHHL) and G70 hosted a third beneficiary consultation meeting with beneficiaries from the Island of Molokaʻi. Due to limitations of social distancing and travel restrictions to the island of Molokaʻi due to the COVID-19 pandemic, the meeting was held virtually on November 2, 2021, from 6:00-8:00pm via Zoom. Approximately 17 meeting attendees participated in this meeting.

The purpose of this meeting was to provide updates to the community of where the project stands in the overall process to create the Malama Cultural Park Special Area Plan (Malama SAP). The meeting focused on identifying issues, opportunities, and priorities in five (5) planning zones within the park. The meeting also presented a range of management strategies and an introduction to the disposition options that would be available during project implementation. Beneficiary input was sought on all of these discussion items. Additionally, presentation materials were distributed prior to the meeting and are also available on the DHHL website. Survey questions were made available on the DHHL website via a Google Form.

Welcoming & Pule

- The meeting commenced at approximately 6:03pm.
- Pearlyn Fukuba (DHHL) provided a welcome.
- Kawika McKeague (G70) provided introductions for Commissioner Helm, the DHHL team, and the G70 team.
- Community member Liko Wallace opened with a pule.
- Prince Kūhiō's vision for DHHL is to help foster healthy Hawaiian communities. Part of that effort involves the stewardship of natural and cultural resources as well as building a sense of community.
- A project timeline was shared to inform beneficiaries of the work that has been completed to date and the next stages of the community planning process.

Background Information
G70 provided a presentation outlining the purpose and need of the Special Area Plan; key findings from previous research, site visits, studies, and consultations; key management issues, and five management goals identified for the Park. A diagram illustrating the planning process was also presented to show the work completed to date and the next steps for completing the Special Area Plan.

Park Planning Zones
G70 shared a figure identifying the five Park Management Zones. The five zones include 1) Canoe Area, 2) Wetland, 3) Malama Platform, 4) Community Area, and 5) Parking. Each zone was evaluated based on the existing conditions, management issues, threats, and future action alternatives. Beneficiaries were then asked to reflect upon and respond to the following questions:

1. What kinds of activities should occur in each zone?
2. What skills and experience should a future community partner possess?
3. What do future community partners need to conduct appropriate activities and uses with each zone?

A summary of beneficiary feedback is provided below. It should be noted that rather than summarizing the range of mana'o shared, the descriptions provided below, although not verbatim minutes, try to authentically represent the "voice" of the comment as shared to us in the meeting:

<u>Zone 1: Canoe Area</u>

- For this zone we want to leave it as the canoe area because we have nowhere else to go. There are other places to BBQ. We have nowhere else to run practices. We've never refused anybody from the club. We have scholarships in place for real hardship. We try hard to be inclusive. We see other activities- gathering limu, swimming, walking dogs, running. Canoe clubs have a real visible big presence, but we don't use it exclusively and we won't tell people to get out if they don't belong to our club, but we're here because we have nowhere else to go. Our storage shed is mobile and small just big enough to hold our paddles, etc. Our parking area next to the canoe hale should not be a concern for oil leaks. We have trash cans there and we empty them. Who is going to take care of it? People come and use it but don't take care. If people ask for that stuff, please identify who should be responsible for that.
- My suggestion would be to keep the canoe area as the canoe area. It's historical- fits the park. It's established already. There is a lot of space in other parts of the park to have your picnic areas. I think we have to plant trees (in other planning zones) for shade to draw families to picnic in that area. It's so dry, I don't know if there's even water (access) over there. We should be planting now, doing it as a community. I am very supportive of the canoe clubs to be there. They mālama the place. We use the canoe club hale for many other things. It's a good staging area for other events, as well as canoe races.
- Those of us in the canoe clubs have been doing our part. We are very accepting of other uses. We don't chase people away. The area we've been using all these years is perfect for the canoe culture. I don't want the canoe area to turn into a picnic area. There are other areas in the park for that. When we do hui and maintain/clean the park (all the zones) it would be nice if everybody was involved in caring for the area. Community members will often work off their community service hours in the Park.
- It is a small area, but during the canoe seasons we are down there almost 7 days a week. We need access to our equipment, and the ability to come and go at all hours of the day (early morning and evening).
- AOM supports the canoe clubs staying in Zone 1.
- The canoe area is not that big. It is the staging area for race events. Historically, it has had a physical presence for generations.

- The canoe clubs are fine in this area. I just want to make sure we have access to the beach to take our grandchildren crabbing and swimming. Perhaps on the west side of the property there can be a clear dedication of beach access.
- Who takes care of the maintenance of this park? Are you looking for a group/association to come and take care of the park?
- Canoe area is in a good location and they have maintained and improved that area.
- The stairs by the road are there for public access. You can go down to the beach any time. We were told to stop building/planting, doing wetland restoration when DHHL took on the property. That's why we took on this plan so that we can move forward. Of course, we want to put more plants down there that are appropriate. We've also done tons of education at the Moloka'i Canoe Club. It is very accessible and easy for kids to use the facilities for these purposes. The two canoe clubs pay the bill for the water that is already there.
- Everyone seems to be on the same page of what should be there- the canoe clubs should continue to be there.

Zone 2: Wetland

- We do not want a big focus on the wetlands to the point where we are kept away/restricted from the area (i.e., due to securing permits and government approvals like the Army Corp of Engineers). The wetlands provide opportunities for ʻāina based education. We teach kids about the benefits of having a wetland.
- If you want to restore the wetland, all the invasive pickleweed has to go. It can be restored. I've talked to a wetland expert who has said she would help us. Businesses have volunteered equipment and work to do the restoration with native plants. There would also have to be predator control for when the native birds return. Even in its current form we have been able to teach about wetlands. We have dreamt of having interpretative signage, fencing, and a boardwalk around it to be accessible as an area for education. We talked to the oil company and they have monies for these projects and were interested in helping us as well. We've done our research.
- The wetland catches the water coming from mauka. I look for ʻuhaloa in that area and notice that it's very, very dry. We should prepare it for the water that is supposed to come during climate change, but there are other areas that need more attention right now.
- For wetlands, people expect to see water, but just because you don't see water doesn't mean it's not a valid wetland. They cored the area, and it is indeed a classified wetland, the water is underneath. They have a valid role in our environment. Wetlands capture toxins in the environment. We've lost a lot of our wetlands to development.

Zone 3: Malama Platform

- Are the archaeological sites kapu? **G70 response:** Any consideration of restoration would require addressing the need of a preservation plan. Any subsurface excavation/construction may require consultation with the State Historic Preservation Division (SHPD) due to the presence of the subsurface archaeological layer throughout most of the upper areas of the park (Zone 4 and 5). This layer may contain some tangible evidence of prehistoric settlement. Additional cultural studies and archaeological mitigation may be required before restoration of the platform could occur.

Zone 4: Community Area

- I would like to see more activities offered to youth and teens. I would like to see BBQs, tables, vegetation. For landscaping, certain plants could help with erosion and fire prevention. For commerce, a farmer's market wouldn't be a bad idea. Also, the park could have bike rentals to ride down to the wharf and have some sort of bike path.
- Could there be something like a covered pavilion type area for shade? It could host cultural education events.
- The jailhouse should be removed. It is dangerous and could blow over in the wind.
- Our canoe club used the bathrooms in the past and volunteered to clean it regularly. There have been weddings there, big events. The hula mound is not dedicated. I think it was just built as a stage. I could see this as a place where homesteaders come to do markets and family events. We could have hosted a film showing there. Who will pay the bills and who is in charge of it? **G70 response:** We are looking for specific individuals/ groups who want to be in charge of management actions like this.
- In the past we discussed it being more of a natural setting. Not so much for parties, but a community space for outdoor gatherings and entertainment. You sit around the amphitheater where the entertainment would be and have booths on the side. There isn't any lighting in that area. There are no bathrooms or working water. The hui should get together and decide how we would like to get these things done. The trees were beautiful, but they didn't get watered.
- This would have been a good place to showcase the George Helm film.
- It was beautiful with the trees, but I think we need plants that belong in that area and are designed for those conditions with little irrigation. That would help solve the water problem. The monkey pods don't belong and should be removed.

Zone 5: Parking

- The canoe club has a 20 foot container in the parking area that currently houses equipment. We took it upon ourselves to put it there because all the boats are parked there. I don't like the boats there.

Management Strategies

G70 shared four potential management strategies that could be implemented at the Park. The four strategies include 1) a single entity managing the entire park and its resources, 2) a single umbrella organization that coordinates the care and management of the park, 3) having multiple entities with delineated areas and defined responsibilities, and 4) having multiple entities, each with a specialized expertise, managing dedicated resources throughout the entire park. Beneficiaries were asked to reflect upon and respond to the four options presented. A summary of beneficiary feedback is listed below:

- I like how it has been run. So, I guess that is the option of multiple entities with delineated areas. But because we're individual clubs, we still want to be part of the whole. We were looking at a nonprofit that would run the "A" portion (umbrella scenario) that would consist of the hui that would be made up of community people so that it's not just one person making the decisions and managing it. Our specific area is fine by ourselves (canoe club), but we help mālama the area around us to give back. But if that area would be included in the whole park for maintenance, it would be one less worry for the clubs and involve more of the community.
- The short term may be multiple entities, but maybe over time it would make sense for different reasons to evolve into an umbrella entity. The plan should reflect a periodic update and evaluation to see if it's working in the current model.
- It depends on community involvement and dedication/interest. Community interest may increase in the future.

- I like the umbrella entity because you have the "A" group taking on the administrative kuleana and the "B's" and "C's" under that group can still maintain their kuleana. The "A" group should have a 501(c)3 and have executors in place to do the paperwork required to run something like this and then we would report to them and work together with them to maintain our areas that fall into their larger area. Multiple entities option is working for the canoe clubs, but the park is suffering. The umbrella keeps us with the piece of that pie and we're still doing our part. We could probably get insurance through that "A" group.
- We do have this multiple entity strategy in place right now - do we start from there? The umbrella strategy could support an organization that could have the ability to raise funds while the smaller hui(s) take care of their kuleana
- The canoe clubs are able to raise funds. If you're talking about the park as a whole, then I think the umbrella entity might be a good idea.
- If you're worried about the administrative portion, we have no problem talking to DHHL.
- What I'm hearing from DHHL, is that they're not wanting to be that "A" group. Some of the groups that have offered to be that umbrella, have paid positions in their nonprofit. I don't have a problem with the way things are now, except that things have been put on hold. I feel like we're in limbo. We're looking at not just the canoe clubs, but the whole park. DHHL does not want to be that entity that we call when we have needs. The umbrella shows that someone would take on that role and oversee the whole thing. **G70 response:** The idea of the "A" here is not DHHL. It would be a community hui that would interface with DHHL. The plan would document existing conditions and formalize what you are doing there now. Once we identify the strategy, how we get there with the options that exist in the present DHHL structure can be done in one of 4 ways (disposition slide). The plan could also document that the strategy to be deployed in the "short" term (to be defined) could be the multiple entities scenario but based upon certain criteria, the management of the park could evolve to an umbrella scenario.

Disposition Options:
G70 shared a table illustrating four disposition options that could be issued to a community organization wanting to take on a specific kuleana in the park. The four options include 1) General Lease, 2) General Lease Nonprofit, 3) License, and 4) Right-of-Entry. Beneficiaries were asked to respond to the disposition options available.

- License looks like the best choice.
- Whatever disposition instrument we use, it should be issued in a way that allows us to change course.
- Can we keep the multiple use (that's ideal for us as the canoe clubs) and still have another group like AOM fill the other spaces in the multiple use chart? **G70 response:** That is an option.
- Has DHHL considered a commercial lease for the park? **DHHL response:** Because of state procurement laws, DHHL would not be able to directly negotiate with an entity. We would have to put it out for bid and specify the characteristics we would like to see from a prospective lessee.
- So, you could say we have to put it out for bid, but the canoe clubs have to stay there? **DHHL response:** That is correct. We could say that you have to take the canoe clubs as they are, but you have to show us how you would take care of the other park zones. With other formats, like the multiple users, we would probably prefer to do one of the disposition options where we could negotiate directly with an entity.
- How does it work with the homesteader rules? Would you have to be a homesteader? **DHHL response:** In the other examples, there are facilities that people rent. There are no existing facilities to rent at the park right now. Should there be one in the future, we would probably work directly with the group that has the disposition. We would work with that community partner to figure out a procedure and protocol to rent out that facility.

- If we were under the general lease nonprofit, for instance, we could still do Saturday markets and things like that? **DHHL response:** You could still pursue revenue-generating activities, but you would have to show that the revenue is put back into the operations of the non-profit.
- Under the license option, could you have farmers coming to the Park to sell their produce and keeping their earnings? **DHHL response:** It could be, it is a possibility. I want to emphasize that these are possible tools to implement the strategies we discussed earlier. You are familiar with the conditions in your homestead lease. There would be conditions for the prospective lessee.
- I heard over and over that we would like to see a Saturday market and cultural events. I think when we plan for these things, we need to understand these disposition options. It would be bad for us to agree to something and then find out it can't happen because of these conditions. We need to understand how our dreams and visions falls into each space on the table. **DHHL response:** I hear that we want to maintain flexibility to change the management mechanism depending on the activities, and not to lock you in so that you can't do the things you want to do in the future. It might take some creative thinking to not have any one entity locked in.
- When you asked us what our vision was for the park, I wasn't thinking about all this stuff and how these dispositions dictate what we are allowed to do. How do private homestead farmers wanting to sell their produce fall into this? **DHHL response:** We would look at it the other way - what are your dreams, and what vehicle would best serve those dreams. An example from Hawai'i Island is the Maku'u Farmers Market on Sundays. There is a nonprofit that manages the market area but allow small for-profit vendors to participate in selling goods. We could look at something similar should there be strong community feedback that they want these things. The purpose is to show the options for executing one or more of these strategies so that when we do move towards implementation, these terms and ideas are a little more familiar. The ideas we have heard from you all tonight could fall into one of these four categories. There is a means to implement these ideas.

Closing Remarks from Commissioner Helm:
My recommendations, as a former park administrator are to allow general access, to protect and preserve the park historical resources, to keep the canoe clubs involved in the park and planning, have the comfort station use county facilities, install solar lights, plant native plants, develop the parking area using gravel material, install rubbish containers around the park, and install a 5 foot chain link fence on the east side going to the pier to keep traffic out. I would not overdevelop the park. Sea level rise impacts will affect the park. 501(c)3 groups should take over management responsibilities. Contract out maintenance and hire security (for nighttime). To me, the biggest obstacle is liability.

Closing Remarks from Councilmember Keani Rawlins-Fernandez:
I want to lend my support however I can help make this park a success.

Closing:
G70 reminded attendees that they could provide feedback after the meeting using the Google Form survey on the DHHL website. The meeting concluded at approximately 8:15 p.m.

CONFERENCE REPORT

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TO:	Department of Hawaiian Home Lands		
FROM:	G70		
DATE:	May 26, 2022	**LOCATION:**	Kūlana ʻŌiwi Hālau 600 Maunaloa Highway, Kalamaʻula, Molokaʻi
PROJECT:	DHHL Malama Cultural Park Special Area Plan	**PROJECT NO:**	219014-01
SUBJECT:	Beneficiary Consultation #4	**NO. OF PAGES:**	4
THOSE PRESENT:	DHHL: Pearlyn Fukuba, Andrew H. Choy, and Juan Garcia Hawaiian Homes Commissioner Zachary Helm G70: Kawika McKeague and Cody Winchester	Community Members: Adolph Helm, Kanoho Helm, Katy Mokuau, Jessica Parker, Liko Wallace, Pinky Gaspar, Cora Schnackenberg, Edwin Greenleaf, Russel Phifer, Darin Kimoto, Marc Aguino, Kapua Lauifi, and Lori Buchanan	

SUMMARY:

The Department of Hawaiian Home Lands (DHHL) and G70 hosted a fourth beneficiary consultation meeting with beneficiaries from the Island of Molokaʻi. The meeting was held in-person on May 26, 2022, at the Kūlana ʻŌiwi Hālau from 6:00-8:00pm. Approximately 13 meeting attendees participated in this meeting.

The purpose of this meeting was to discuss the Draft Special Area Plan that was published to the DHHL website and available for review. The meeting focused on verifying the management goals and strategies for the park, the types of activities that beneficiaries would like to see within each of the park's four (4) planning zones, and the overall management structure. Beneficiary input was sought on all these discussion items. Presentation materials were distributed prior to the meeting and are also available on the DHHL website.

Beneficiaries were informed about where they could view the Draft Special Area Plan on the DHHL website and how to provide comments. A 30-day beneficiary comment period will commence from May 26 to June 25, 2022. Beneficiaries were provided opportunities to submit comments orally or with comment forms at the meeting, or by email or mail following the meeting.

WELCOME & PULE

- The meeting commenced at approximately 6:20 PM.
- Kawika McKeague (G70) provided a welcome.
- Hawaiian Homes Commissioner Zachary Helm provided an opening pule.
- Meeting attendees took turns introducing themselves.
- A project timeline was shared to inform beneficiaries of the work that has been completed to date and the next stages of the community planning process.

BACKGROUND INFORMATION

G70 provided a presentation illustrating the key findings from previous research, site visits, studies, and consultations. These findings were summarized on an overall Opportunities and Constraints map. Next, the park's recommended management goals and strategies were shared and discussed.

PARK PLANNING ZONES

G70 shared a figure identifying the four Park Management Zones. The four zones include 1) Canoe Area, 2) Wetland, 3) Malama Platform, and 4) Community Focused Area. The specific uses and management actions for each zone were discussed. Beneficiaries were then asked to reflect on the zones and comment on the recommended uses and management actions. The following sections summarize the feedback received for each zone.

Zone 1: Canoe

- This area was recognized as a priority area in DHHL South Shore Erosion Management Plan (SSEMP). The Special Area Plan should incorporate the findings from the SSEMP to protect the park from sea level rise and erosion.
- The actions taking place in this area will have the highest impact on the succuss of the park.
- The canoe clubs have done a great job with planting ʻakiʻaki grass here. The ʻakiʻaki has been successful and should be planted more in this area. ʻAkiʻaki would be better than naupaka.
- The canoe clubs should have a separate parking from other guest parking. Access from County side of the park should be ensured.
- There are serious flooding issues on the County side. Rain creates ponding . The stormwater should be diverted west to the Kaunakakai Stream.
- The Kaunakakai Drainage Plan has been amended.

Zone 2: Wetland

- It would be very labor intensive to remove the pickleweed from the wetland. The pickleweed is doing its job by providing habitat and filtering water. It should be left alone.
- It would cost a lot of money to remove the pickleweed and replace with native plants.
- The park needs more shade trees. Milo would be nice.

Zone 3: Malama Platform

- The plan should consider restoration of platform.
- Cultural resources need protection from sea level rise. Subsurface resources could be lost from erosion.
- The Molokaʻi Canoe Club has been caring for the platform and would like to continue to do so.

Zone 4: Community Focus

- This area has high value as the gateway from the harbor.
- Community events could be hosted to raise funds for maintenance. Money could be raised by selling crafts, t-shirts, and luau.

- Don't over-develop. Keep this area open.
- Maintain open space. Any development should include transient uses or mobile structures.
- A meeting place would be good for this area like a nice pavilion for people to gather.
- There is a concern about soil contamination.
- This area has become a dumping site. Trash and recycling bins are needed for this area.
- This area should use a renewable energy source for lighting.
- Lights could be set to a timer when activities generally occur.
- Lighting is beneficial for security. It is a deterrent for crime.
- Light will not be harmful to sea birds at this location.
- The park needs to have constant use. Constant activity will make the park safer and more desirable to visit.
- There is a concern about homeless encampments and drug use.
- Signs need to be posted that say, "Keep Out". Otherwise, the police cannot enforce the area.
- This area needs access to water. This should be a top priority. Water is needed for any use of this area.
- DHHL should negotiate with the County to fix the irrigation system.
- The plan should prioritize the goals and strategies. The first action should be to clean up the park.
- The issue about the bathroom needs to be resolve. It is on the County side. No one is taking care of it and it no longer works. People are living in there.
- The area needs to remove the rubbish before bringing it back for community use.
- Need to secure restrooms. Maintain restrooms is key.
- Future stewards need knowledge of landscaping. Appropriate plants should be planted here. Not monkeypods.
- The park is not accessible. The condition of the parking is not adequate. People go to the yacht club side to park and use the coastline.
- A market in the park will bring many more cars.
- DHHL should help the community understand how they can help.

MANAMEMENT SRUCTURES

G70 shared four potential management structures that could be implemented at the Park. The four strategies include 1) a single entity managing the entire park and its resources, 2) a single umbrella organization that coordinates the care and management of the park, 3) having multiple entities with delineated areas and defined responsibilities, and 4) having multiple entities, each with a specialized expertise, managing dedicated resources throughout the entire park. The Draft Special Area Plan recommends that the multiple entities with delineated areas and defined responsibilities by used in the near term. The plan also describes an option to phase into an umbrella structure at a future time. Beneficiaries were asked to reflect upon the recommended management structures. A summary of beneficiary feedback is listed below:

- Multiple entities with delineated areas is the preference. This option is good because it shares the responsibility.
- The multiple entity with delineated areas is good because it avoids burnout of single entity that would have to manage the entire park by themselves.
- Volunteers can team up with organizations to manage the areas.
- Park stewards could provide educational opportunities. Visitors could have a chance to learn about Hawaiian culture and history.
- The Moloka‘i Canoe Club wants to take care of their existing area with includes the canoe facilities and Malama Platform.
- Multiple entities with delineated areas is a good place to start. It’s already working right now.
- There is a concern for the consistency of volunteers. People lose interest. Volunteers are hard to keep. The park needs care and security every day. DHHL should use their staff to maintain the park. A private vendor could also be hired to ensure consistency.
- There is a concern about commercial activity and commodification of the park by organizations. What type of activities will organizations do to raise money maintain areas? Future beneficiary meetings should occur as part of the disposition process.
- The plan should include options involving hired maintenance and security services.
- DHHL needs a structure in place to manage organizations and provide oversight. DHHL needs to ensure and enforce maintenance.
- The plan should define DHHL’s role in the park. It feels like all the responsibility is being dumped on the community. Community organizations may lack the capacity and unprepared to run a park. Someone with professional knowledge and experience in park management is needed.
- The physical borders shown in the plan don’t make sense. The park needs a comprehensive approach.
- Electrical utilities and irrigation systems need reconstruction. Repairs and improvements need to get done right the first time.
- DHHL would need to advocate for more resources if they were to have a role in the future maintenance of the park.
- The County Department of Parks and Recreation contracts out employees for maintenance. This is also beneficial because it employs local people.
- A farmers’ market could collect fees from vendors and put towards maintenance costs. The revenue could be used to pay for a routine cleaning service.
- DHHL should come back to community for consultation when partnerships are made.

Comment Letter

From: Penny Martin [redacted]
Sent: Saturday, June 25, 2022 10:43 PM

Subject: DHHL Area Plan for Malama Park

Aloha e Cody,
Today is June 25th, last day to submit comments on the Malama Cultural Parks, Special Area Plan.
I have some comments on some of the 15 stratgies listed to support the goals for Malama Park. In reading the strategies, it seems like all of our suggestions, needs, wants, have fallen on deaf ears. I don't know how many times we have to say things. As requested, we wrote proposals, attended or tried to attend the numerous meetings where we pretty much said the same things over and over. We fought for the multi purpose designation so the canoe clubs could stay where they are and co-exist with the rest of the park.Some of the strategies like:
> "Support the development of a new canoe and equipment pavilion does not make sense for the canoe clubs. A common area pavilion for multiple use with maybe a place for the koa canoe to be stored would make more sense. Let the canoe clubs remain where they are like the rest of the state. Canoe clubs are found all along the coastal areas throughout the state like Hilo Bay, Keauhou, Kona, Kahului, Kihei, Kahana, Sand Island, Ke'ehi Lagoon, Kailua Beach, Waimanalo, Maunalua Bay, Hanalei to name a few.
>vegetative berm enhancement along the edge of the shoreline does not make sense...something like planting aki aki grass to hold the sand makes more sense..the aki aki grass can handle the canoe traffic and still hold the sand...a berm would be in the way
>establish an invasive species removal and control program....restoration and recovery for coastal plant communities. We have been talking over and over about restoring the wetland and also landscaping the rest of the park area with native plantings that are appropriate for the area.
>educate and engage the community...This is already going on and has been for years with school kids, visitors, special groups, etc.. When they say "community", who are they talking about?
>Mitigation for soil erosion. I wonder, what are the results of the recent soil study at Malama Park? Are the results available to the public?
Cody, I do have more to say but it's late and I am exhausted and things are getting blurry in my head. Last thing, we just had our 2nd canoe regatta today. The races start at 9AM. The cars started lining the wharf from 7AM. So many spectators. The people are happy to have the regattas back. You know Kuhio is smiling. One of his favorite pastimes. We had paddlers from as young as 9 years old to 70 years +. In order to best serve our Hawaiian canoe paddling and racing community, the canoe clubs need to stay right where they are.
Penny Martin

Appendix B
Biological Assessment

Biological Survey and Assessment for the Malama Cultural Park TMK: 2-5-3-001-002, 2-5-3-001-100, 2-5-3-001-097 Kona, Molokaʻi

March 2021

Report Prepared for:

G70
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Prepared by:

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Contents

Executive Summary

This report was prepared for the Department of Hawaiian Home Lands' (DHHL) proposed Special Area Plan for the Malama Cultural Park. Field surveys were requested to identify any significant plant or wildlife species and document the biological composition of the area within the boundaries of Malama Cultural Park (Park). A botanical survey, wetland delineation, avian point-count survey, and two nearshore surveys of algae/limu and invertebrate communities were completed by Janice Jensen and Cody Winchester of G70 and took place on January 25 and 26, 2021.

The botanical survey identified a total of 40 taxa from 21 plant genera, approximately 27% of which may be considered native to the Hawaiian Islands. The identified plant communities can roughly be categorized as beach strand, salt marsh, and coastal dry shrub and grassland. Historical land use patterns as well as ongoing human activities have played a major role in the current character of the Park's vegetation. Each community appears to have undergone a high degree of disturbance and is dominated by alien species. No plants which are proposed or listed as threatened or endangered species under state or federal regulations were observed during these surveys.

Removal and/or control of invasive and alien vegetation is recommended as an important first step in the restoration of any native plant communities at the Park. Park landscaping is recommended to include both common and rare native coastal plants, or, if appropriate, introduced species with a tolerance for coastal conditions (i.e., exposure to salt, wind and heat) and which are not considered invasive. While not within the Park boundaries, the removal of the mature red mangrove forest growing to the west should also be pursued to prevent further establishment of this species along the coastline and improve the nearshore habitat for native birds and marine life.

The salt marsh area is a designated wetland feature and is protected under federal regulations of the Clean Water Act. This area contains a dense growth of pickleweed which was used as a proxy measure for the wetland delineation. Recommended management actions for this area are based on its potential as habitat for waterbirds such as the kioea and ae'o. These include using appropriate control methods (chemical, manual, or mechanical) to reduce the density of pickleweed growth and create space for potential nesting sites, as well as consistent monitoring to prevent new pickleweed growth from encroaching on recovered habitat.

Avian point-count surveys identified 15 taxa from 14 genera, approximately 25% of which were identified as indigenous species. These included state-listed species of greatest conservation need: the kōlea, kioea, and 'auku'u, as well as the ae'o, a federally-listed endangered species. A majority of the birds observed were introduced and considered naturalized throughout the main Hawaiian Islands. The red-crested bulbul, recognized as an invasive species, was among those observed. Control of this species is not recommended to take place within the Park as the methods may be incompatible with Park use. Restoration of the wetland habitat for native birds is recommended, as discussed above. Successful programs will also need to consider actions for predator control (i.e., feral and domesticated animals).

Nearshore surveys of the limu and invertebrate communities identified a total of 6 limu taxa from 6 distinct genera and 7 invertebrate taxa from 7 genera. Limu biomass was overwhelmingly composed of invasive alien species, however, pieces of limu identified as indigenous species were caught in the morass

washing up on the shoreline. A majority of the invertebrate species encountered were indigenous to Hawai‘i.

Invasive limu affects a much larger portion of the southern shoreline than that of just the Park. Removal of these species from the forereef along this stretch of coastline will be an enormous undertaking requiring much coordination, collaboration, and manpower over an extended period of time. As one of several areas affected by the infestation, the Park may serve as a staging area for offshore operations and ongoing monitoring work. Community-led “limu hukis” to remove and compost the limu build up from the Park’s nearshore and shoreline areas are recommended to continue while long-term solutions are pursued for the benefit of the south shore’s marine ecosystems, as well as for Park users.

Introduction

Setting and Climate Conditions

Malama Cultural Park (Park) is located on the south shore of Molokaʻi in the district of Kona and the ahupuaʻa of Kaunakakai, within the limits of the town of the same name. Kaunakakai has the greatest density of urban area on the island. This region is generally dry, receiving approximately 15 inches of mean annual rainfall.

The Park lies along the coast, bordered by Kaunakakai Place and Kaunakakai Pier to the southeast and Molokaʻi Yacht Club (MYC) to the northwest. Just west of the MYC is wetland environment divided by a stream which empties into the bay. On the mauka side of the Park is Hio Place, which intersects with Kaunakakai Place. The DHHL-owned parcel which is the designated Project Area (Figure 1) is one of two parcels forming the Malama Cultural Park, the other being owned by the County of Maui. The Project Area refers specifically to the DHHL parcel on the southeastern side of the Park. Surveys were conducted throughout the entire Park area so as to provide a more complete picture of current site conditions for the purposes of this report.

Elevation and Soil Types

The Park and the surrounding area of Kaunakakai is relatively flat coastal plain. The Park's terrain varies from mauka to makai with an average elevation of approximately 3 feet. Large portions of the Park's interior have been previously altered by grading and grubbing activities to facilitate the use of the space in both historical and modern contexts. These uses are briefly discussed below in **Prehistorical and Historical Land Use Patterns**. The most low-lying areas occur toward the coastline where the terrain slopes into a depression before rising again and sloping to the shoreline. This natural depression collects and retains water from surface runoff long enough to create wetland conditions.

Soil types in the area were determined using the Natural Resources Conservation Service Web Soil Survey (Accessed 10/9/2020). Profiles created for the character and properties of each soil type were used to describe those soils that were mapped within the Project Area boundary. Wetland conditions observed during the survey also included standing water and halophytic (salt-tolerant) vegetation.

The soils within the designated Project Area consist of Kealia silt loam (KMW). KMW soils are described as poorly drained soils typically found in landforms such as tidal flats or salt marshes found at low elevations (0-260 feet) such as coastal areas. These soils are characterized as having moderately rapid permeability, slow to very slow runoff, and are prone to frequent flooding or ponding. When the soil dries, salt crystals accumulate on the surface. The depth to the water table ranges between 12-42 inches.

A wetland determination study performed by Robert Hobdy in October of 2008 confirmed the presence of the KMW soil. The study concluded that portions of the Park property that had been filled in for the past century had concentrated a wetland effect in a naturally lower spot on the property which straddles the property boundary between TMK Parcel (2) 5-3-001:005 and Parcel 003.

Although not observed within the Park boundaries, deposits of Jaucas sand (JaC) are located along the coast east of the Kaunakakai Pier. This sand is derived from a combination of deposits of sedimentary rock and sand-sized grains of coral and seashells. This type of sand deposit was commonly used for the burial of ʻiwi kūpuna.

Coastal and Shoreline Conditions

Moloka'i's southern coast is protected from wave swells by an offshore fringing reef. Very little wave action was observed during the site visit and circulation in the area appears to be limited. The coastal ecosystem of the nearshore area of the Park can best be described as a tidal mudflat. The substrate along the coastline where the assessment took place consisted of sand and fine silt at shallow depths typical of a mudflat or estuarine environment.

The shoreline fronting the Project Area consisted primarily of sand. Some erosion appears to be taking place toward the north end of the Park near the shared fence bordering the MYC parcel. Another wetland area occurs just beyond the MYC parcel and a stand of mature invasive red mangroves (*Rhizophora mangle*) grows a little further down the beach in the area fronting this wetland.

Large quantities of limu were encountered over the course of the two days spent conducting surveys at the Park with much of it appearing to linger at the shoreline and accumulate along the Pier, washing up on the beach during the lowest tides.

Prehistorical and Historical Land Use Patterns

With its hot, dry climate not lending to the cultivation of kalo, Kaunakakai's early inhabitants likely relied on coastal resources (fish, shellfish, salt) for subsistence. The alteration of Moloka'i's south shoreline began during pre-contact times with the extensive construction of loko 'ia or fishponds. These structures likely altered the patterns of long-range sediment transport along the coast. Archaeological reports of the Park do not indicate the prior existence of loko 'ia on the shoreline immediately fronting the Park area. This is likely related to its use as a canoe landing spot, with easy passage through the natural reef channel, as well as other coastal activities such as fishing and gathering salt from the salt pans on an ebb tide.

Archaeological documentation and analysis suggest that areas of the Park may have been used for other cultural purposes, however, the site was likely not inhabited until Kamehameha V constructed his summer residence there in the 1800s. The site of his former home is also the current location of the historic Malama Platform.

Moloka'i's landscapes had already begun to be altered by early Hawaiians to suit their subsistence living needs, however this pace and scale of this alteration accelerated with western contact and the introduction of grazing livestock (i.e., goats, cattle, sheep, pigs) and deer and eventually, commercial agriculture. Watersheds across the island lost native plant cover to land clearing and intense ungulate grazing, shifting the vegetation profile to alien-dominated ecosystems. Soil compaction contributed to an increase in runoff and erosion, carrying nutrients to the south shore.

Commercial agriculture was the dominant activity on the western portion of the island dating back to the late 1890s when the Molokai Ranch first purchased thousands of acres of land for the purpose of starting a sugar plantation.

Historical accounts of Kaunakakai Harbor report that the concept of the harbor arose in 1899 from the interests of agriculture businessmen who wanted to transport their products off-island. The result was

the construction of a harbor with a wharf and a railroad track leading up to the plantations on Hoʻolehua plateau. In 1934 the natural reef inlet was dredged to create a larger and deeper channel for inter-island transport. Several large stones encountered during the nearshore survey at the western end of the Park boundary at low tide were presumed to be remnants of the original pier construction.

Kaunakakai Harbor became the primary means of shipping cargo to and from Molokaʻi for many decades and has remained the main port on the island to this day. With agriculture and the processing of agricultural products driving economic activity at the port, Kaunakakai town grew to become the island's center of commerce.

Following the decline of the sugar industry in the mid-1920s, pineapples became the primary commercial product to be shipped in bulk via Kaunakakai Harbor. A concrete weighing platform constructed in the 1920s by the Libby pineapple company remains in its original location at the eastern edge of the Park. When the pineapple industry began its decline in the mid-late 1970s, these lands were transitioned to a more diversified model of agriculture and livestock.

The development and ongoing production of agriculture on the Hoʻolehua plateau, combined with the subsequent growth of the town with the wharf and harbor at its epicenter has played a major role in shaping and reshaping the landscape at Malama Cultural Park to the state in which it currently exists. For example, the Park's interior topography has been altered and reportedly been raised in places using sand and coral rubble fill material from the repeated dredging of the harbor, as well as red cinder from nearby cinder pits.

Current Land Use Patterns

The parcels containing the Project Area are currently owned by the DHHL, though the larger Park area is comprised of two additional parcels owned by the County of Maui Department of Parks and Recreation.

Located directly adjacent to Kaunakakai Pier and other industrial use areas, the Park is close to the center of commercial activity in downtown Kaunakakai and is part of the fabric of this urbanized landscape. Noise from traffic on the nearby Mauna Loa Highway, and construction vehicles and equipment were prevalent throughout the Park area during the daytime surveys. The hum of industrial compressors emanated from the refinery belonging to the Par Hawaii Refining facility, located directly across from the Park at the intersection of Kaunakakai Place and Beach Place.

Two canoe clubs, the Molokaʻi Canoe Club (MCC) and the Waʻakapaemua Canoe Club (WCC), base their operations in the Park. Their facilities include a hālau, a small shed, and canoe racks located makai of the Malama Platform and the wetland area. Neither of the canoe clubs were meeting or practicing during these surveys, however a small gathering of MCC members was observed in the hālau waʻa pavilion.

The historical Malama Platform and the World War II jailhouse (moved to the Park from its original location) are overgrown with brush and scrub vegetation. It is difficult to determine the condition of the Platform due to the overgrowth, however the jailhouse shows extreme signs of dilapidation. The weighing station also remains at the eastern edge of the Park and a memorial has been erected between two kou trees at the end of the concrete platform.

A hula pā (mound) and amphitheater in the Park's center were among the more recent construction efforts meant to revitalize the Park as a significant cultural hub for the island.

A comfort station, also of more recent construction, was located near the historic jailhouse on the western edge of the Park. From the outside, this facility showed signs of human habitation, though no one was seen entering or leaving it while surveys were being conducted.

According to the determination study completed by Hobdy in 2008, the wetland area has likely existed for many years in the same general location it is found today. The wetland occurs in a natural depression on the site and its conditions have likely been perpetuated due to the continual filling of the surrounding area. The wetland must be preserved according to existing federal regulations under the Clean Water Act.

Adjacent to the wetland on the west is a large area of red silty soil, bare of vegetation but containing a large pond of standing water, presumably the collection of surface overflow due to rain events. This area reportedly acts as an outlet for the wetland to drain into the bay when inundation occurs. Bacteria mats were observed in places where water had been allowed to pond, undisturbed. It also connects the shoreline with the road at Hio Place. Two cars were seen using this route for access to the shoreline. On one of these occasions a man dumped a dozen squid from a cooler into the bay directly in front of this dirt pathway.

Though locals appear to use the beachfront, the hālau waʻa, and the dirt access road from Hio Place, no visitors were observed in the Park's interior while these surveys were being conducted.

A survey by the Coral Reef Assessment and Monitoring Program (CRAMP) of the Hawaiʻi Institute of Marine Biology postulates that the Pier structure may be a contributing factor in damage to the fringing reef at Kaunakakai. Ocean currents naturally flowing from both the east and west directions along the south shore converge where Kaunakakai stream empties into the bay and are then redirected back out to sea. The structure acts as a groin, interrupting the long-range transport of sediments along the southern shoreline and causing their accumulation. The large build-up of mud and sediment is then pushed back out over the reef, effectively smothering the coral and lending to further coral cover decline in this area.

Critical Habitat

Critical Habitat is defined by the Endangered Species Act as specific geographic areas that contain features essential to the conservation of an endangered or threatened species that may require special management and protection. It may also include areas that are not currently occupied by the species, but that will be needed for its recovery and conservation. There is no federally designated Critical Habitat for any species within the Project Area or the greater Park area.

Methods

Surveys of existing botanical, avian, and nearshore communities took place within the Project Area (TMKs: 2-5-3-001-002, 2-5-3-001-100, and 2-5-3-001-097) and adjoining parcels comprising the Malama Cultural Park. These surveys were conducted by Janice Jensen and Cody Winchester over a two-day period from January 25, 2021 to January 26, 2021. Specific survey methods are described below.

Botanical Survey and Wetland Delineation

The entire Park area, inclusive of the designated Project site, was walked proceeding in a north-south direction (mauka to makai). Plants were identified and logged as they were encountered. General observations and approximate locations of specific trees and plant communities were recorded manually on a map of the Park area. Photos were taken to profile the character of the Park's vegetation. Any plants that could not be identified in the field were also photographed and documented for later identification.

A wetland determination study (2008) had been conducted for the shallow depression area of the Park near the coastline using a hand auger to dig test pits to analyze groundwater hydrology and soil characteristics. This survey did not attempt to replicate the determination using the previous test pit methods. Instead, the presence/absence of pickleweed *(Batis maritima)* was used as a proxy to delineate the approximate boundary of the wetland area. Results from the 2008 study indicated that pickleweed was the dominant form of halophytic (salt-tolerant) vegetation found in the wetland area and was bordered sharply by other forms of vegetation, as well as sand on the side nearest the shoreline. The surveyor walked the perimeter of the pickleweed growth using the Trimble TDC100 handheld GPS unit and Trimble R1 GNSS receiver to record the approximate delineation of the wetland.

Avian Point Count Survey

An avian point count survey was conducted on January 26th between 6:30-10 AM when birds are most vocal. Seven transect lines were established in the Park running parallel to the shoreline. These transects were evenly spaced by approximately 100 feet with each transect line containing at least one point count station. Stations 7 and 8 were established on the same shoreline transect at either end of the Park. A total of eight (8) stations were established (Figure 4) and each was marked using a Trimble TDC100 handheld GPS unit. Counts were conducted at each station proceeding in a north-south (mauka to makai) direction.

Surveyors remained fixed at a point-count station for a period of 8 minutes to conduct observations before moving to the next. Binoculars were used to identify species and take counts where possible. Vocalizations were used to identify birds when visual observations were not possible. Vocalizations that could not be identified in the field were recorded on a cellular phone for later identification.

Nearshore Survey

Two surveys were conducted to identify algae/limu and invertebrate species comprising the Park's shoreline and nearshore community. These surveys were completed on January 25, 2021 during each of the low tide events in the morning and at night (Figure 5). The morning survey was conducted between 9:30-10:30 AM (for the low tide event of 0.3 feet at 9:46 AM), while the night survey was conducted between 7:00-8:00 PM (for the low tide event of -0.1 feet at 7:27 PM). Photos were taken during the day to document shoreline conditions.

Surveyors walked the shoreline beginning at the western end of the Park and concluding in the east where Kaunakakai Pier meets the beach. A surveyor waded into the water up to a depth of approximately 10 inches (e.g., shin height) to observe the submerged limu and search for invertebrates. Species were identified and recorded as they were encountered. Any organisms that could not be identified in the field

were also photographed for later identification. Points of interest were documented using a Trimble TDC100 handheld GPS unit (Figure 6).

The night survey was conducted using the same methods described above, however a headlamp and flashlight were used to aid with visual observations.

Figure 1 Aerial view of the Malama Cultural Park including the Project Area boundary (red) and surrounding area of Kaunakakai.

Results

Botanical Survey and Wetland Delineation: Plant Communities and Vegetation Zones

The botanical survey identified 40 plant taxa, of which approximately 11 (27.5%) may be considered native (either indigenous to Hawai‘i or of Polynesian introduction). Prior reports of the vegetation found in the Park area did not provide details on species abundance, however, the plant communities described strongly resembled those observed during this survey. Barren areas and bare ground were also frequently reported and were also encountered throughout the Park landscape.

A complete inventory of plant species observed during this survey is provided in a table found in Appendix II. This table is organized in alphabetical order by family name and lists each species by its scientific name, followed by the common and/or Hawaiian name. Species status in the islands and an estimation of abundance are also noted.

No plants which are proposed or listed as threatened or endangered species under state or federal regulations were observed during this survey.

The plant communities within the Park area can roughly be characterized as beach strand, salt marsh, and coastal dry shrub and grassland. Each community appears to have undergone a high degree of disturbance and is dominated by alien species. Figure 2 offers a visual breakdown of the locations and typical vegetation for each of these plant communities.

The beach strand community occurs as a narrow strip interrupted by the presence of the hālau wa‘a, shed, and canoes stored on the beach. This area, located immediately adjacent to the shoreline and typically comprised of low growing, mat forming vegetation, was occupied by coconut (Cocos nucifera) and milo (*Thespesia populnea*) trees, along with small patches of ‘aki‘aki (*Sporobolus virginicus*) and pickleweed (*Batis maritima*). The coconut and milo were in various states of health with several trees appearing to be dead (or chopped down) or dying. Shoreline erosion, high salinity and low nutrient content of the sandy substrate may be contributing factors in the decline of these trees.

The salt marsh is present behind the high shoreline berm, straddling the boundary of the Project Area and the neighboring parcel. It has been distinguished by previous surveys as a wetland habitat (Figure 3) and is dominated by a dense growth of pickleweed. Kiawe (*Prosopis pallida*) and Indian fleabane (*Pluchea indica*) grow occasionally along the pickleweed border. The wetland is designated as a water body of the US and as such must be preserved according to the federal regulations of the Clean Water Act.

The central area of the Park is a mixture of patches of bare ground and sparse vegetation resembling a coastal dry shrub and grassland community. Dominant alien species include grasses (*Chloris spp.* and *Cenchrus spp.),* Bermuda grass (*Cynodon dactylon*) and ground covers such as Indian fleabane, Australian saltbush (*Atriplex semibaccata*). The most densely vegetated areas of the Park were the historical structures of the jailhouse and Malama Platform which have been allowed to become overgrown.

Indigenous species (both endemic and Polynesian introduced) were present throughout the Park, though in much lower abundances. Species sighted included ‘uhaloa (*Waltheria indica*), pōhinahina (*Vitex rotundifolia*), and ‘akulikuli (*Sesuvium portulacastrum*) and a patch of ‘aki‘aki on the shoreline next to the Pier. The seaside heliotrope, kipukai (*Helitropium cuassavicum*), was found in scattered patches. This coastal ground cover species is listed by the state as one of greatest conservation need and should therefore be encouraged to propagate and spread.

Kiawe and milo trees have been incorporated into the landscape with five kiawe trees planted in a semicircle in the Park's interior and a long stand of over 30 milo trees bordering the length of the Park on Kaunakakai Place to the east. The milo trees appeared to be either fully mature or reaching maturity (one section of the grove appears to have been planted later than the others.)

A few of the kiawe trees planted in the central area of the Park were in varying stages of dying. A closer inspection of these trees revealed bark lifting away from the trunk and dozens of boring holes and what appeared to be insect frass, underneath. The observed holes may be attributed to the kiawe round-head borer beetle (*Plascosternus crinicornis*) which is known to damage kiawe wood by boring small holes into its bark; however, no insects were spotted at the time of the survey and the exact cause remains undetermined.

*Figure 2 Dominant vegetation cover and the locations of significant trees growing in Malama Cultural Park. Open areas in the Park's interior consisted of a mixture of grasses and native and non-native coastal ground cover vegetation, as well as a wetland area. Tree canopy was generally confined to the eastern border where a large grove of milo trees has been maintained, though kiawe trees (*Prosopis pallida*) were found throughout. Locations of trees and vegetation coverage approximated based on observations recorded on a paper field map and plotted manually using the Google Earth application.*

*Figure 3 Pickleweed (*Batis maritima*) dominates the depression in the Park landscape. This vegetation was used as a proxy for the delineation of the current wetland boundary. The area of vegetation coverage is approximated based on observations and collected GPS data. Halophytic vegetation such as pickleweed grows where wetland conditions persist. This wetland may have been enhanced due to the continual disturbance of the surrounding Park areas.*

Avian Survey

The avian point-count survey revealed 15 taxa from 14 genera. A majority of these birds are introduced and considered naturalized in Hawai‘i, though approximately a quarter of the species observed could be considered indigenous to the islands. This does not include chickens (*Gallus gallus*) and ducks (*Anas sp.*) which cannot be determined to be native or introduced solely by observation. These species may require genetic confirmation due to questions of their origination in Hawai‘i (chickens) and the high rate of hybridization between native and introduced populations (ducks).

A complete inventory of the avifauna species observed during the point-count surveys is provided in Appendix III. This table is organized in alphabetical order by family name and lists each species by its scientific name, followed by the common and/or Hawaiian name. Species status in the islands and an estimation of abundance are also noted.

Doves from the genus Columbidae were the most regularly sighted bird type during the survey period. Of the two species of dove identified, zebra doves (*Geopelia striata*) were the most abundant and were both observed, and their calls heard, at every station. Chickens (*Gallus gallus*) were also extremely common. The sounds of crowing roosters and clucking chickens could be heard throughout the Park and both were observed to be foraging in the Park during the surveys. A laughing gull (*Leucophaeus atricilla*) was observed flying the length of Kaunakakai Pier. Though gulls have occasionally been sighted in Hawai‘i they are not considered indigenous.

Several indigenous birds were observed in the vicinity of the Park. These included the migratory shorebird kōlea or Pacific golden plover (*Pluvialis fulva*) and the ae‘o or Hawaiian black-necked stilt (*Himantopus mexicanus knudseni*). The kioea or bristle-thighed curlew (*Numenius tahitiensis*) known to inhabit the neighboring Koheo Wetland was not observed, however its calls could be heard from the stations located on the west side of the Park. An ‘auku‘u or black-crowned night-heron (*Nycticorax nycticorax hoatil*) was also seen traversing the small bay outside of the timing of the surveys.

The state has listed the kōlea, kioea, and ‘auku‘u as species of greatest conservation need. The ae‘o and koloa are both Federally listed endangered species.

Birds were generally observed in trees, on wires or flying. Only chickens were observed on the ground at any given time. This may be due to the presence of feral cats observed lingering in the Park near the restroom and perched in the historic jailhouse structure.

Figure 4 Avian survey point locations. Points are numbered 1-8 in the order in which the occurred. Observed avifauna consisted primarily of introduced species. Species indigenous to Hawai'i were sighted, though they ocurred with far less abundance. Area of coverage is approximated based on observations and collected GPS data.

Nearshore Survey

Surveys of the nearshore algae/limu and invertebrate communities identified a total of 6 limu taxa from 6 distinct genera and 7 invertebrate taxa from 7 genera. Additionally, two unidentified species were encountered—one flatworm and cndarian.

A complete inventory of limu and invertebrate species observed during both the morning and nighttime surveys is provided in Appendix IV. This table is organized in alphabetical order by family name and lists each species by its scientific name, followed by the common and/or Hawaiian name. Species status in the islands and an estimation of abundance are also noted.

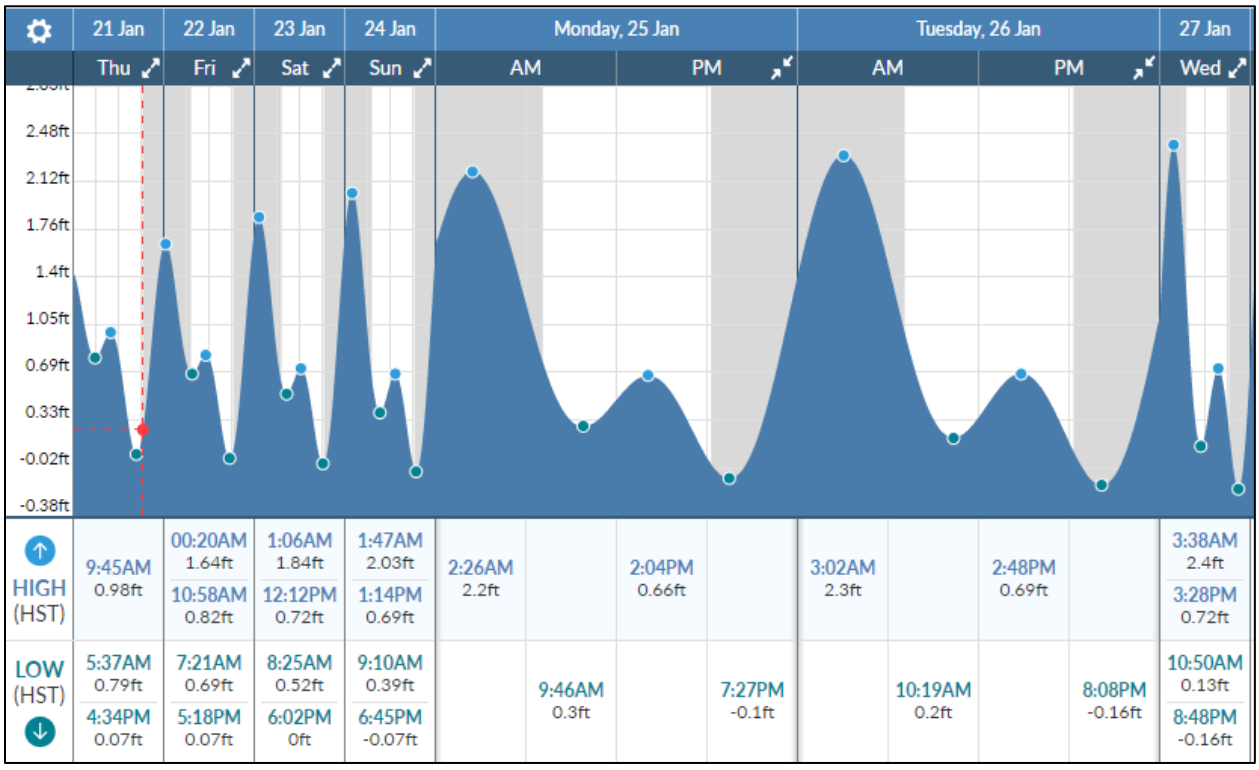

Figure 5 Two surveys (morning and evening) were scheduled to coincide with the estimated low tides for Kaunakakai, Molokaʻi on January 25, 2021. Low tides occurred at 9:46 AM (0.3 feet) and 7:27 PM (-0.1 feet). Source: tide-forecast.com.

Limu community composition did not differ between the two nearshore surveys conducted during daytime and nighttime low tide events. However, differences in the composition of the invertebrate community were revealed, as daytime surveys were more conducive to the observation and identification of mollusks and sea cucumbers, while crustaceans were mainly observed and documented at night.

Algae/Limu

Thick and extensive mats of gorilla ogo (*Gracilaria salicornnia*) had accumulated along the shoreline during the time spent on site. Tangled up in these mats were other species of algae/limu, both indigenous and invasive. The invasive limu species hookweed (*Hypnea musciformis*) and prickly seaweed (*Acanthophora spicifera*) were second only to the gorilla ogo in abundance. Fragments of the indigenous pūkoʻakoʻa (*Halimeda opuntia*) were periodically sited caught in the web of invasive limu, as were pieces of southern

padina seaweed (*Padina australis*). A small, tufted patch of limu ‘ele‘ele (*Enteromorpha flexuosa*) was located near the Kaunakakai Pier.

Visual observations conducted from approximately the middle of the Pier suggest that gorilla ogo was present in large quantities throughout the entire bay at the time of the survey.

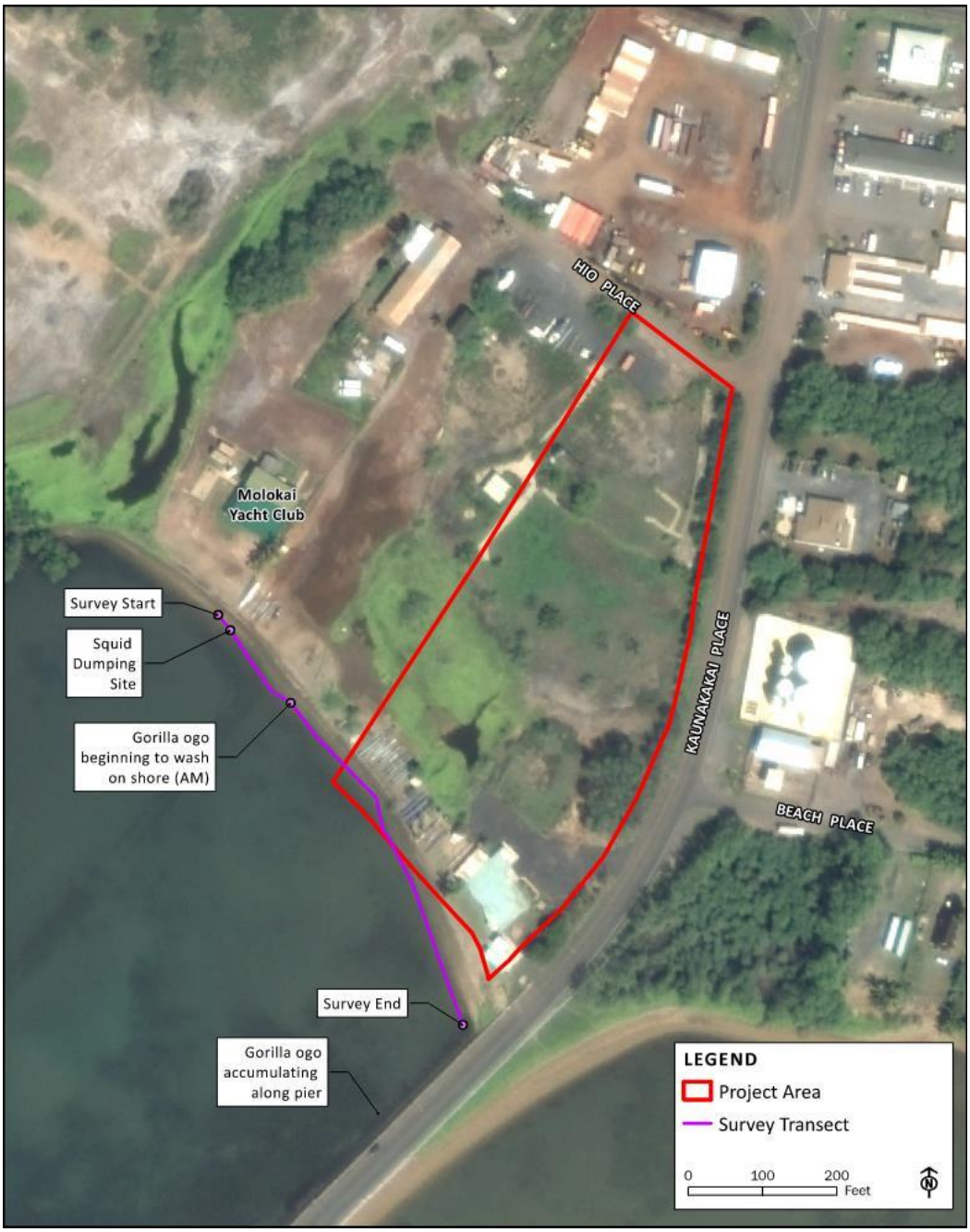

Figure 6 The shoreline fronting the Park was walked during daytime and nighttime nearshore surveys for limu and invertebrates. Thick mats of invasive limu (gorilla ogo, prickly seaweed, and hookweed) were observed during both survey times. Identified invertebrates consisted of majority indigenous species. The shoreline transect is approximated based on observations and collected GPS data.

Efforts to control the spread of invasive limu along Molokaʻi's southern coast have been ongoing. In 2011 the Molokaʻi Community-Based Invasive Species Control Project conducted by the state Department of Land and Natural Resources (DLNR) Aquatic Invasive Species (AIS) team led to the removal of 17 tons of invasive alien limu from Kaunakakai Harbor. The mass of removed algae was locally processed into organic fertilizer.

A 2016 study presented by the DLNR Division of Aquatic Resources describes an extensive invasive algae survey conducted by scientists and volunteers from The Nature Conservancy and DLNR along more than 30 miles of Molokaʻi's southern coastline. All three types of invasive limu species found in this nearshore survey were identified in the 2016 study. The 2016 survey also determined to make up 10-45% of the algae cover. Additionally, the shorelines to the west of Kaunakakai Pier (inclusive of the those fronting Malama Cultural Park) were described as having the worst algae infestations.

Invertebrates

The majority of invertebrate species encountered during the nearshore surveys were indigenous to Hawaiʻi. The one exception was the mantis shrimp (*Gonodactylus falcatus*) which is native to the Indo-Pacific region and the Philippines but has become naturalized to the shallow reefs of Hawaiʻi and is therefore also known by the Hawaiian name of aloalo.

Several ʻōhiki or pallid ghost crab (*Ocypode pallidula*) were present along the beach during the morning surveys, as were few ʻalamihi or rock crabs (*Metopograpsus thukuhar*) hiding in the rocks forming the Pier at the end of the shoreline transect. ʻAlamihi were also observed at night (in the same location of the Pier), as were a few papaʻi, also known as blue pincher crabs or mangrove swimming crabs (*Thalamita crenata*) which were seen swimming just offshore between floating patches of algae.

A weli or conspicuous sea cucumber (*Opheodesoma spectabilis*), distinctive for its soft, fleshy form, coloring, and segmentation, was first encountered in shallow water among the accumulation of gorilla ogo. During the nighttime survey, it was located again, this time washed up onshore several yards west of where it was first encountered in the water. Weli are typically found in quiet waters such as those of mudflat environments but are generally uncommon. A small juvenile loli or black sea cucumber (*Holothuria atra*) was found attached to a branch of gorilla ogo that had washed up on shore.

The gorilla ogo acts as a net, effectively ensnaring a variety of organisms as tidal currents carried it to the shoreline and deposited it on the beach. Several small bait fish, some mantis shrimp, the unidentified flatworm, and the juvenile hairy triton snail (*Monoplex sp.*) were among the collection of trapped marine life discovered in closer examination of the debris.

A half-shell from a bivalve found on the beach was also identified as an indigenous species of edible tellin (*Quidnipagus palatum*), however it was not included in the species checklist in Appendix IV as it was not living, and its fidelity to the site could not be confirmed.

Invasive Species

The Hawaiʻi Invasive Species Council (HISC) lists four of the taxa identified in these surveys as meeting the federal definition of an invasive species. These include one species of plant, two species of limu, and one bird. HISC currently directs funding toward these species for prevention, control, and/or research purposes.

These organisms, their invasive qualities and general presence in the Project Area, are described below:

- **Red mangrove (*Rhizophora mangle*)**
  A tree native to Florida, the Caribbean, and South America which grows on mudflats, as well as salt marshes, streams and beaches. It is easily spread by the prolific floating seeds or propagules. Mangroves can reach up to 30 feet tall with their stilted aerial roots, forming impenetrable thickets which can block streams and increase the risk of flooding. They may also harbor invasive algae which could become trapped in or attach itself to the stilted roots. Mangroves are damaging to the coastal environment as they restructure and reshape these ecosystems, often causing the loss of wetland habitat.

  Red mangroves were observed growing along the coastline to the west of the Park, and many propagules (mangrove seeds which have germinated on the parent tree before dropping into the ocean) were observed sprouting in the dense algae growth along the Park's shoreline.

- **Gorilla ogo (*Gracilaria salicornia*)**
  A brittle red algae native to the Indian Ocean and South Pacific and documented on the coasts of Oʻahu, Hawaiʻi Island, and Molokaʻi. Gorilla ogo grows in calm, protected waters of reef flats and intertidal zones at depths of up to 4 meters. It presents in a range of color shades such as yellow, brown, and green. Gorilla ogo spreads easily through fragmentation (pieces of the algae break off and float to new locations) and grows quickly, forming thick mats. This thick growth changes the benthic habitat by preventing new corals and seaweeds from attaching to the bottom and blocking larger animals from seeking shelter in the reef.

  Gorilla ogo was by far the most abundant species of limu present in the shallow nearshore environment where the surveys occurred, as well as along the Pier. Dark patches were also observed throughout the bay from the Pier, likely indicating accumulation. Large quantities of gorilla ogo were amassed on the beach after a high tide event. These accumulations were generally entangled with other invasive species of limu (prickly seaweed and hookweed). Some limu species identified as native were occasionally found in the onshore mass, as were small fish and invertebrates that appear to have been trapped in the extensive branches as the tide receded.

- **Hookweed (*Hypnea musciformis*)**
  A red algae with long slender, hook-like branches which is commonly distributed in the warmer, tropical regions of the Atlantic Ocean, the Mediterranean, the Indian Ocean, and several island chains in the Indo-Pacific. It has been found on the coasts of Maui, Oʻahu, and Molokaʻi, as well as the Northwestern Hawaiian Islands. Hookweed is typically reddish-brown in color and found attached to other algae in shallow reefs and intertidal areas. Hookweed spreads by fragmentation and can alter the reef ecosystem by outgrowing other seaweeds and shading out coral and creating an algae-dominant ecosystem.

  Hookweed was typically found entangled with gorilla ogo and was among the dominant species of limu present in the nearshore environment.

- **Red-vented bulbul (*Pynonotus cafer*)**

A mostly black bird with a crested head and a patch of red feathers under its tail (both males and females). Bulbuls are native to Asia (Pakistan and China) and have been observed on a majority of the main Hawaiian Islands. Bulbuls are aggressive towards other birds, competing with them for food and space. They are also generalist feeders and contribute to the spread of invasive plants through the consumption of fruits, seeds, vegetables, and insects.

Three red-vented bulbuls were observed during the avian point-count surveys, indicating the presence of an established population on the island.

Taxa that do not appear on the HISC list may still be considered invasive as their characteristics (i.e., reproduction, growth, and potential to spread) allow them to infiltrate, disrupt, and subsequently alter, functional native ecosystems.

Several unlisted, but potentially problematic species fitting this definition exist at the site. A brief description of each of these species, their invasive qualities, and general presence within the Project Area are provided below:

- **Indian fleabane (*Pluchea indica*)**
  A shrub native to South Asia and present on all main Hawaiian Islands except Hawai‘i Island. Indian fleabane can grow up to 6 feet tall and is recognizable for its pink and lavender flowers. Its preferred environment consists of marshes and areas with saline soils, displacing the native flora and destroying habitat for water birds.

  Indian fleabane was present throughout the Project Area, most notably where historical structures (jailhouse and Malama Platform) were located.

- **Buffel grass (Cenchrus ciliaris)**
  A perennial bunchgrass native to Africa and tropical Asia which has become naturalized worldwide. Buffel grass can be found on all Hawaiian Islands except for Ni‘ihau. It can grow up to 5 feet tall and generally occupies dry, disturbed areas, excluding native species and are extremely fire prone.

  Density of buffel grass growth was observed to be greatest on and around the two historic structures in the Park which currently appear to be unmaintained.

- **Kiawe (Prosopis pallida)**
  A large thorny tree that is native to South America and is found on all Hawaiian Islands except Ni‘ihau. Kiawe primarily inhabits dry coastal areas and can reach up to heights of 30 feet. The roots penetrate deep into the soil, drawing water away from shallower-rooted plants, while the leafy canopy shades out native coastal plants.

  Kiawe trees in the Project Area appear to fall into two categories: intentional plantings and spontaneous volunteers. Trees that appear to have been deliberately planted in the central part of the Park are in varying states of health. Volunteer trees were observed growing along the edges

of the wetland and the Malama Platform structure. Two old growth trees flank the entrance to the MCC hālau waʻa structure along Kaunakakai Place.

- **Pickleweed (*Batis maritima*)**
  A coastal marsh succulent plant native to tropical and subtropical America and the Galapagos and found in brackish ponds and saline soils on all main Hawaiian Islands. Pickleweed grows as a creeping shrub and can reach a height of 3 feet. Its seeds are adapted to float in sea water, enabling its spread. Left unchecked, pickleweed can smother low-growing coastal native plants. Its dense growth can also provide cover for potential predators of nesting birds such as feral cats and mongoose.

  Pickleweed growth is currently confined to the lowest area of the Park where wetland conditions have been perpetuated by a combination of natural geological factors and the high degree of land disturbance at the Park over time.

- **Prickly Seaweed (*Acanthophora musciformis*)**
  A type of red algae with short, dense, spiny branches. Prickly seaweed is highly adaptable, with a nearly continuous distribution throughout the world's tropical and subtropical seas and has successfully established itself throughout the Hawaiian Islands where it competes with native species. It grows from a holdfast attached to hard substrates in intertidal areas with high levels of water movement, as well as shallow reef flats and is also capable of reproducing via fragmentation. It presents in a variety of color shades including red, purple, yellow, orange, and brown.

  Prickly seaweed was among the most abundant types of limu recorded during the nearshore surveys and was consistently observed entangled with gorilla ogo (and the attached hookweed) rather than on its own.

Though not fully within the purview of these surveys, observations of animals that could potentially be classified as invasive were noted. Animals known to pose a threat to native vegetation and avifauna include rats, mongooses, feral ungulates such as pigs, goats and axis deer, and domesticated animals which may have become feral, such as dogs and cats. Of these, only a few dogs (leashed and/or accompanied by owners) and one cat were observed in the Park at the time of these surveys.

As previously stated in the **Results** section, the presence of cats may influence the observed bird populations within the Park. Populations of native birds like the kioea and aeʻo inhabit low-lying wetland areas making them particularly vulnerable to predation.

Management Recommendations

Natural resource management in Hawai'i requires both the protection of existing natural or near-natural ecosystems and the restoration of those that have become degraded due to the introduction of harmful alien species.

Effective restoration of a natural area requires knowledge of the previously existing conditions of that ecosystem. This aspect of restoration is often the most challenging as Hawaiian landscapes have undergone rapid, large-scale alterations such that this knowledge may have been lost or difficult to reconstruct for a specific moment in time. Coastal terrestrial ecosystems are particularly difficult in this way as they are altered so frequently.

As the Project Area is intended for continued use as a community park, it may also be undesirable to restore the full area of the Park to natural conditions. However, the Park and surrounding areas would benefit from management intervention to prevent the further degradation of important natural resources.

The following management goals are recommended for the Park area:

> *1) Remove and/or control invasive species (plants, animals, and marine algae/limu),*
>
> *2) Promote the recovery of nearshore and wetland habitat for native birds,*
>
> *3) Reintroduce indigenous plant species known from the area and/or common to the identified plant communities,*
>
> *4) Establish monitoring programs to detect natural environmental trends and changes in community species composition.*

These goals are expanded upon in the recommendations below. Recommendations are based on information compiled from a variety of scientific literature and other sources including existing resource management plans, surveys, reports, and academic studies and research.

Invasive Species Removal and/or Control

Coastal and Wetland Vegetation

The Park is currently dominated by alien vegetation, including both known invasive and potentially invasive species. Invasive species such as buffelgrass and Indian fleabane should be removed to the extent possible to prevent further spread. Other alien vegetation may be removed and/or controlled to provide open space for native plant species to be planted and for any natural regeneration that may occur. Effective control methods may vary depending on the species and may include a combination of manual and chemical options. Care should be taken to avoid impacting the patches of kipukai that exist throughout the site when performing any kind of control.

Though the wetland area is not designated as Critical Habitat, its restoration could be beneficial for indigenous birds such as the kioea and the endangered ae'o, whose recovery plan points to habitat loss and degradation as key factors in population decline.

Pickleweed growth should be controlled to reduce the density of coverage and create desirable nesting area. Pickleweed may be cleared through mechanical or manual methods, or through the application of chemicals. The kioea breeds in Alaska during the summer months before migrating to Hawai‘i for the winter, however some small populations may remain in the islands to nest. Control work should be performed outside of the peak ae‘o nesting season (approximately May-July) and the area should be scouted for nesting sites prior to initiation.

Control of the mature invasive red mangrove forest to the west of the Park is also recommended. This should be done using mechanical control methods. The use of herbicides is not suggested for the health of the marine environment. Mechanical control involves cutting down the trees and topping them below the low tide water line to prevent regrowth.

‘Auku‘u are known to roost and nest in large mangrove trees nearly year round with a breeding season typically lasting from August through December. Though it is not a protected species, the state should be contacted prior to conducting any actions that may damage nests or eggs. Mangrove control should be undertaken outside of the nesting season and the area should be checked for the presence of nests and eggs or hatchlings before work takes place.

The ongoing removal of mangrove propagules will be necessary to keep a population from establishing along the beach front of the Park. The surveyors were informed by community members that MCC members regularly gather to remove the sprouting propagules as part of their caretaking duties.

Birds

The presence of the red-vented bulbul suggests the existence of a larger population on the island. Controlling this species is important for agricultural and forest health, but the methods of doing so may be incompatible with the use of a Park. The Hawaii Department of Agriculture should be contacted for further information on efforts to control the bulbul population on Moloka‘i.

Marine Algae/Limu

The infestation of invasive algae/limu in the nearshore environment is part of a much broader problem affecting dozens of miles of Moloka‘i’s southern shoreline. Continuous, large-scale coordination is required to effectually reduce the biomass of these invasive species. The Park could serve as a base for coordinating this offshore work along the south coast.

Previous efforts by the DLNR-AIS team to remove and monitor for invasive limu along Moloka‘i’s south shore suggest that removal should take place every 3-4 months and continue regularly to prevent regrowth and successfully reduce the population over time. A combination of mechanical (i.e., super sucker) and manual (hand-removal) control methods is recommended as being most effective.

The super sucker device sucks up the algae and pumps it onto a barge for sorting to ensure the exclusion of fish and other animals that might become trapped in the process. The sorted algae remaining on the barge is then brought to shore for disposal. Disposal options include composting or combining it with cut mangrove to create biochar. Brief dialogues with some of the MCC members encountered during the surveys indicate that the heaps of invasive limu washed up on the beach fronting the hālau wa‘a are collected for composting during community limu huki events.

Research has also suggested that collector urchins will feed on gorilla ogo and may be effectively used as a biocontrol. The DLNR-AIS team should be contacted for further information on this approach.

Other

Predator control is a critical component of creating a safe environment for native birds. Feral animals should be removed and excluded from the Park to the extent possible. If dogs are to be permitted in the Park, they should be kept on leashes.

Restoration and Recovery of Coastal Plant Communities

Hawaiian coastal plant communities should be protected to preserve the diversity and species richness of these areas. These plant communities are comprised of species uniquely adapted to survive the harsh environmental conditions and natural disturbances associated with coastal areas and are capable of regenerating after periodic trauma.

Native coastal plant communities are most often subject to fragmentation, with populations being effectively cut off from each other through extensive land disturbance activities. This disturbance, coupled with the spread of alien and invasive species, has cascading effects for coastal ecosystems. Native plants are prevented from reproducing causing a decline in their populations, altering the composition of the plant community, and degrading important habitat for other native species.

As discussed in the previous section, the first step to successful restoration and recovery of these communities is the reduction or elimination of threats and stressors such as invasive species. The goal of these restoration efforts is a native plant community that is self-maintaining.

To reestablish a native coastal plant community, endemic and indigenous plant species, both common and rare, should be planted in place of the removed alien vegetation. Plants chosen for restoration should be based on knowledge of those that are adapted to the coastal conditions of the Kaunakakai region and any available information on native flora that previously existed in the Park.

Park landscaping can be used as an opportunity to reintroduce rare indigenous and culturally significant plants that may have become extirpated form the area. Non-invasive, naturalized species that are suited for harsh coastal conditions (i.e., exposure to wind, salt and heat) can also be incorporated, if appropriate. Planting of species known to be toxic to animals and/or people, or those with invasive qualities, should be avoided.

Studies have recently been published on the properties of certain native plants to remove and/or stabilize toxic substances (phytoremediation), in this case, from petroleum-contaminated soils. Among those plants shown to have promise are naio (*Myoporum sandwicense*), milo, and kou. These plants grow well in coastal conditions (kou and milo already grow at the Park) and would be suitable for planting in the Park due to the surrounding industrial operations and potential for contamination exposure.

The following table lists candidate species of indigenous plants for restoration at Malama Cultural Park. These species are known to tolerate the local conditions and are compatible with a Park environment. This is a partial list and should not be considered exhaustive.

Species	Scientific Name
Trees	
hala	*Pandanus tectorius*
hau*	*Hibiscus tiliaceus*
kamani	*Calophyllum inophyllum*
kou*	*Cordia subcordata*
loulu	*Pritchardia spp.*
papalakepau	*Pisonia umbellifera*
naio	*Myoporum sandwicense*
Shrubs	
ʻākia*	*Wikstromia uva-ursi*
kokiʻo keʻokeʻo	*Hibiscus immaculatus*
maʻo hau hele	*Hibiscus calyphyllus*
naupaka kahakai*	*Scaevola taccada*
pōhinahina*	*Vitex rotundifolia*
ʻuhaloa*	*Waltheria indica*
Groundcovers & Vines	
ʻakulikuli	*Sesuvium portulacastrum*
ʻakiʻaki	*Sporobolus virginicus*
ʻākia*	*Wikstromia uva-ursi*
ʻilima papa	*Sida fallax*
kipukai*	*Helitropium cuassavicum*
maiapilo	*Capparis sandwichiana*
ʻohai	*Sesbania tomentosa*
nehe	*Lipochaeta integrifolia*
pāʻūohiʻiaka	*Jacquemontia sandwicense*
pohuehue	*Ipomea pes-caprae*

**Found at the Project site*

Long-Term Monitoring and Maintenance

Monitoring, maintenance, and education and outreach programming are key components to an effective management strategy for a restored area.

Long-term monitoring programs are recommended for all restoration areas for the purpose of tracking ecosystem health, observing trends, and adapting management decisions accordingly. Maintenance actions should respond to the needs of the restored areas while outreach and education in the community helps to promote awareness and encourages Park visitors to engage in the restoration process.

Coastal and Wetland Vegetation

Monitoring programs can help detect changes at restored sites and, when paired with active maintenance, can prevent invasive species from regaining a foothold.

Regular vegetation monitoring in active restoration areas is recommended. Establishing photopoints at specific sites within a restoration area is an easy way to track and assess changes that take place in the plant community over time. Other metrics such as species richness (number of species present in a given

area) and estimates of relative abundance (number of plants of each species) can be included in surveys to observe changes in community composition and character.

The health of individual plants that may have been reintroduced to the site as part of a restoration project can be monitored by measuring plant growth (i.e., height) and observing general changes to its condition (i.e., yellowing of leaves, wilting, damage, etc.).

For wetland areas where reduction in pickleweed cover is the primary goal, photopoint monitoring is also a valuable tool to determine how quickly regrowth occurs and used to adjust the level of maintenance as necessary.

Birds

Point count surveys may be useful monitoring tools for tracking the health of populations of native waterbirds like the kioea and ae'o in the Park area. These surveys may also serve as indicators of the health of the Park's ecosystems as the return of native bird populations is a marker of a healthy habitat.

The point count method utilizes the same stations each time a survey takes place. Bird species are identified and counted from each of these stations for a specified period of time. Surveys should be conducted during the early to mid-morning hours when birds are most active. Any observed waterbird nesting sites in the wetland area should also be recorded.

The DLNR Department of Forestry and Wildlife coordinates biannual waterbird surveys statewide. Resources such as survey protocols, data sheets, and photographic ID guides may be available through this program.

Marine Algae/Limu

Monitoring programs should be planned as part of the larger coordinated control efforts in the region. Prior to any removal, baseline surveys of invasive algae on the forereef and reef flat should be performed at the selected locations using photopoint plots and documenting the percent cover of each species. After the removal takes place, returning to these sites to monitor on a regular basis (i.e., monthly) is important to track the speed of algae regrowth and adapt the management strategy appropriately.

Education and Outreach

Public engagement is desirable and necessary to maintain community awareness and to prevent unintended consequences such as the reintroduction of invasive species or the destruction of native wildlife habitat. The community can play an active role in tracking the recovery of the Park's important natural resources by participating in resource monitoring programs.

Outreach communication, education messaging, and program activities should also be encouraged as part of any ongoing restoration effort to keep the greater community and Park visitors informed. This can include the installation of interpretive signage, the creation of volunteer and educational programs, or the appointment of a Park resource guide/manager.

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Appendix I: Photos

Botanical Survey

Figure A1 Views of the Park interior facing **A)** the front and **B)** behind the raised pā hula area with bare ground and patchy vegetation growth. Stands of milo trees can be seen in the distance along the Park boundary.

Figure A2 Two rows of milo trees (*Thespesia populnea*) were planted along the Park's eastern edge between the concrete weighing platform and Kaunakakai Place. This stand of trees continues down the length of the Park to the beginning of Kaunakakai Pier. The trees appear to have been planted at different times with some in the row having reached full maturity while others have not yet.

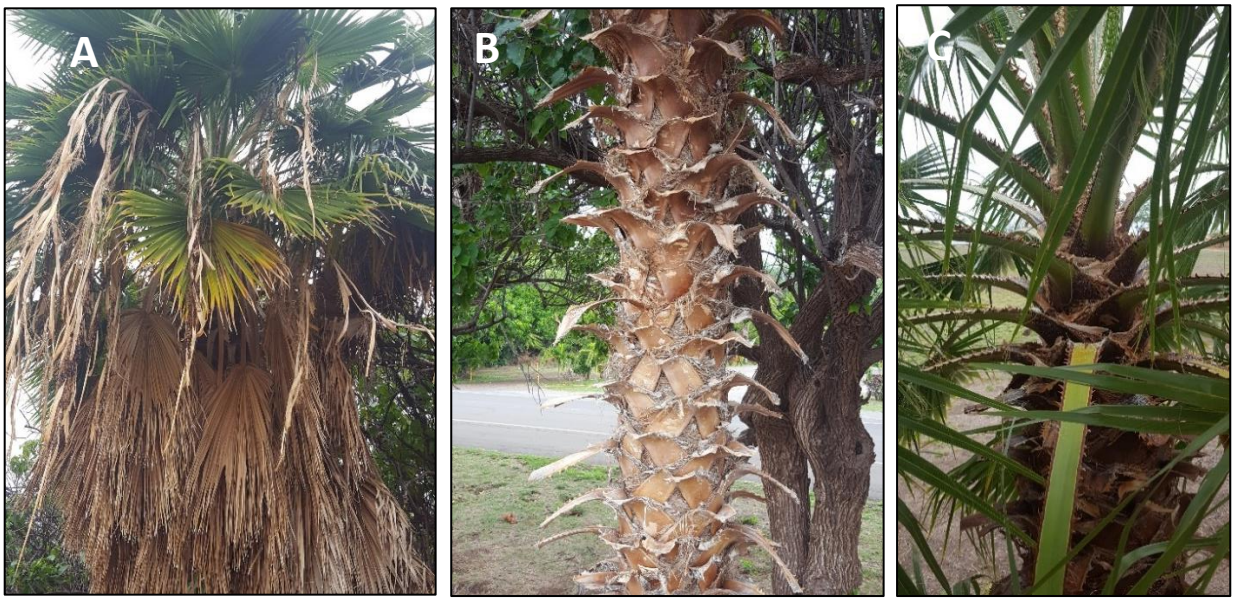

Figure A3 Four Mexican fan palms (*Washingtonia robusta*) grow near the milo grove at the eastern side of the Park. One small tree appears to have been a more recent planting in the Park interior, while the three larger trees are situated along the concrete weighing platform with the milo grove.

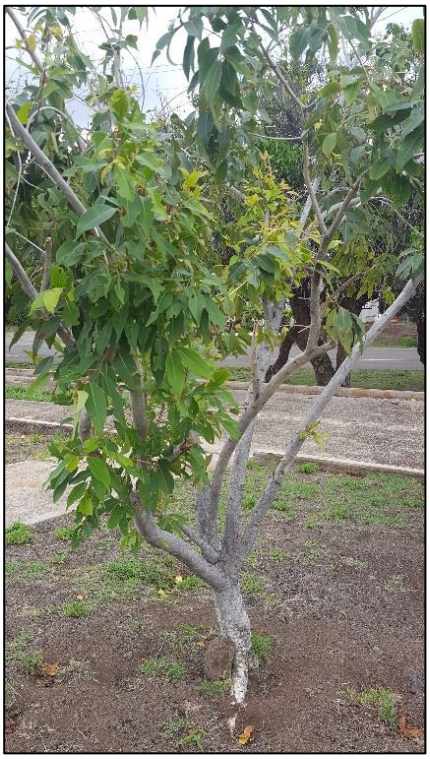

Figure A4 Java plum (*Syzigium cumini*) was planted on the eastern side of the Park near the young Mexican fan palm.

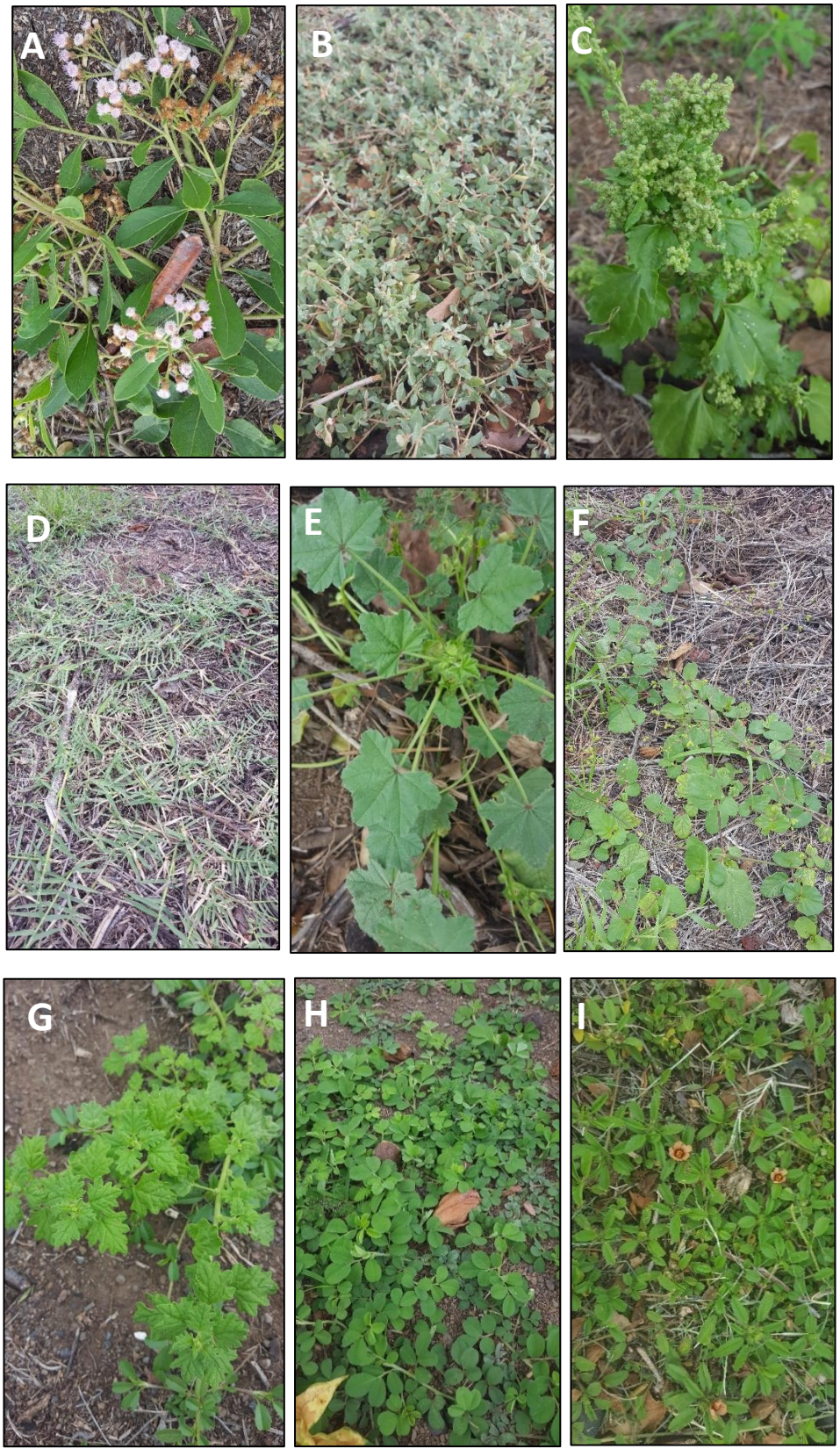

Figure A5 Several examples of the highly disturbed vegetation observed throughout the Park interior: **A)** Indian fleabane (*Pluchea indica*), **B)** Australian saltbrush (*Atriplex semibaccata*), and **C)** nettle-leaf goosefoot (*Chenopodium murale*), **D)** Bermuda grass (*Cynodon dactylon*), **E)** common mallow (*Malva neglecta*), **F)** red spiderling (*Boerhavia coccinea*), **G)** keeled wormseed (*Dysphania carinata*), **H)** creeping indigo (*Indigofera spp.*), and **I)** bracted fanpetals (*Sida ciliaris*).

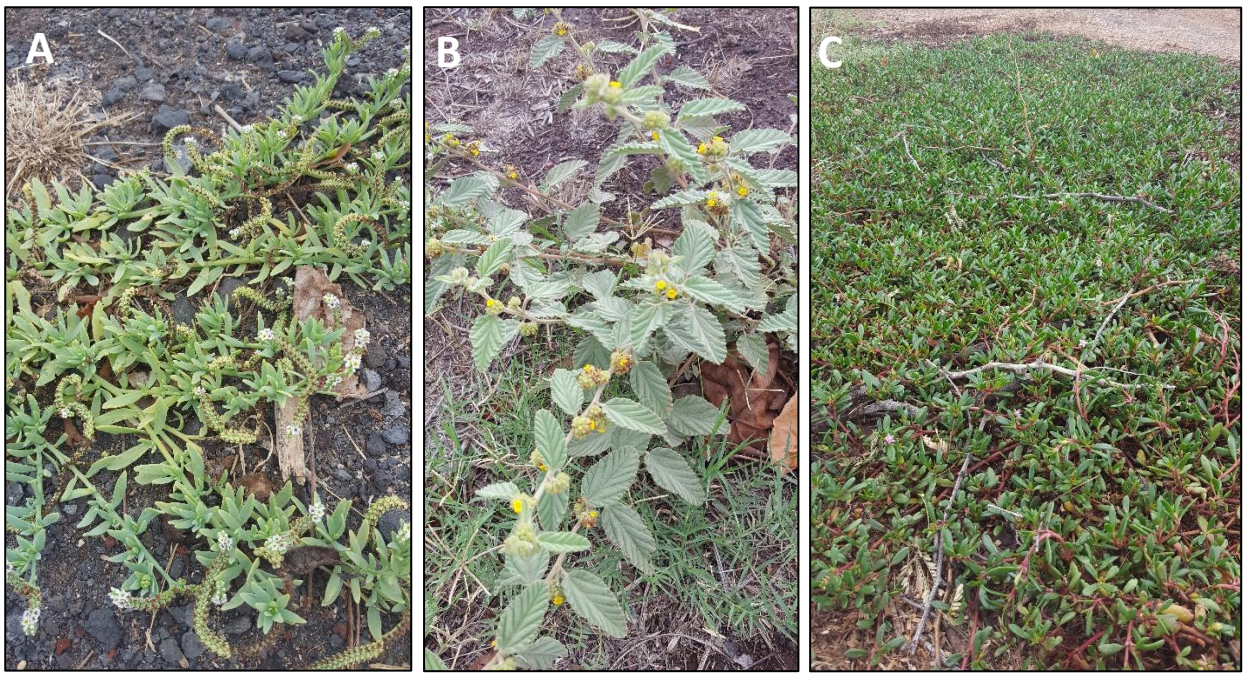

Figure A6 Examples of indigenous plants observed in the Park interior include A**)** kipukai (*Heliotropium cuassavicum*), **B)** ʻuhaloa (*Waltheria indica*), and **C)** ʻākulikuli (*Sesuvium portulacastrum*).

Figure A7 A fenced area surrounding the historic jailhouse contained dense bushes of **A)** Indian fleabane (*Pluchea indica*) and a variety of tall grasses including **B)** California grass (*Urochloa mutica*), **C)** Rhodes grass (*Chlrois gayana*), and **D)** buffel grass (*Cenchrus ciliaris*).

Figure A8 A row of kiawe trees (*Prosopis pallida*) planted in the central interior of the Park. Three of these trees are dead/dying.

Figure A9 Close-up photos of the dead/dying kiawe trees. The trunks of these trees were covered with small holes that may have been caused by the kiawe round-head borer and were shedding the outer layer of bark.

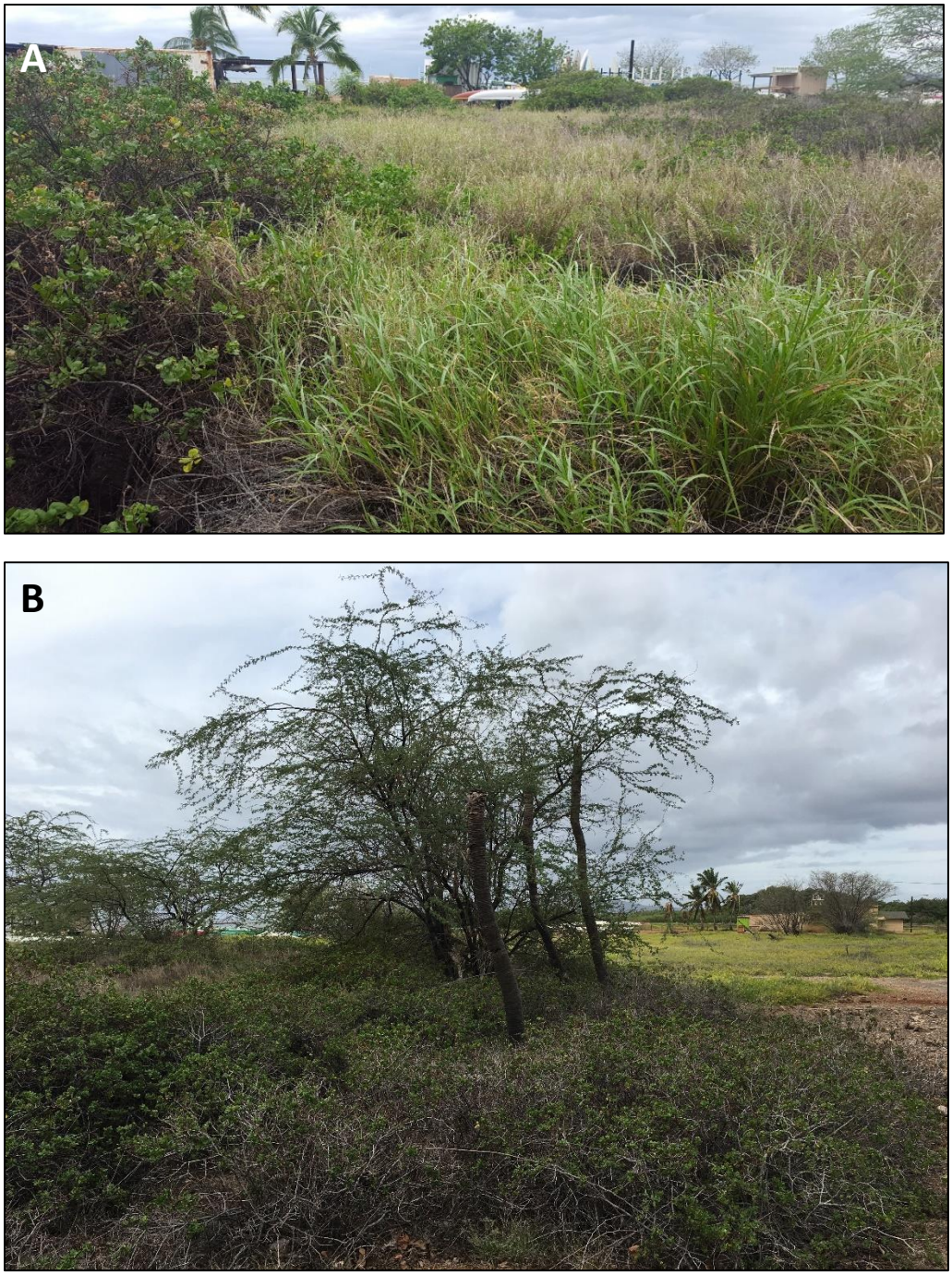

Figure A10 Views of the Malama Platform facing **A)** south and **B)** west. The Platform was overgrown with vegetation similar to that found near the historic jailhouse structure including Indian fleabane (*Pluchea indica*) and a variety of tall grasses. Kiawe also grew along some of the Platform edges.

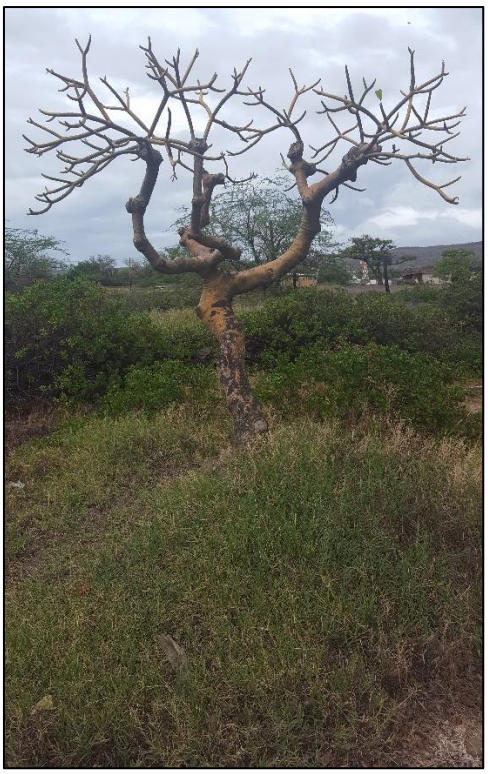

Figure A11 A plumeria tree (*Plumeria spp.*) grows in a large patch of stargrass (*Chloris divaricata*) on the southeast end of the Malama Platform structure.

Figure A12 Devil's backbone (*Euphorbia tithymaloides*) cultivated next to a mature kiawe tree near the Moloka'i Canoe Club driveway entrance.

Figure A13 Views of the wetland area facing **A)** mauka (north) and **B)** makai (south). The wetland area vegetation consisted mainly of pickleweed (*Batis maritima*). Small stands of kiawe grew on the outskirts.

Figure A14 A) A large ponding area with standing water located within the Park boundary, but outside of the Project Area. **B)** Areas that appear to have been left undisturbed have developed a thin film caused by bacteria oxidizing the material in the soils. These conditions could indicate that this part of the Park should also be considered part of the wetland area.

Figure A15 Coconut trees (*Cocos nucifera*) with exposed roots along the shoreline. The trees in this area have been cut down, though some are still growing near the hālau waʻa. Milo trees also grew in this area, though further back from the shoreline.

Nearshore Surveys

Figure A16 Shoreline erosion occurring at the west end of the beach fronting the Park (outside of Project Area boundaries), near the start of the nearshore survey transect.

Figure A17 View of the beach facing west during the morning low tide (~0.3 feet). Red mangroves (*Rhizophora mangle*) grow along the shoreline in the distance. Invasive gorilla ogo (*Gracilaria salicornia*) is beginning to accumulate on the beach.

Figure A18 The shoreline substrate varied slightly down the length of the beach but was primarily mid- to fine-grained sand and silt with small rocks and pebbles scattered in areas most affected by erosion.

Figure A19 Nearshore survey end point at the Kaunakakai Pier. The overnight accumulation of gorilla ogo on the beach was demonstrated over the course of the two days of site surveys: **A)** Photo taken on the morning of January 25, 2021. **B)** Photo taken on the morning of January 26, 2021. This photo also demonstrates the potential high tide mark for the 24-hour period, as algae is presumed to have been carried up the beach incline on the rising of the tide.

Figure A20 A) A close-up of the most abundant species of algae, the invasive gorilla ogo (*Gracilaria salicornia*), identified during nearshore surveys on January 25, 2021. **B)** A holdfast attached to a piece of coral substrate. **C) and D)** Algae accumulation, (primarily gorilla ogo) along the length of the beach fronting the Park.

Figure A21 Large mats of gorilla ogo lingering just offshore provide substrate for mangrove propagules to take root.

Figure A22 Algae mats were prevalent along the west side of the Kaunakakai Pier and could be viewed extending out into the shallow areas of the small bay fronting Malama Cultural Park.

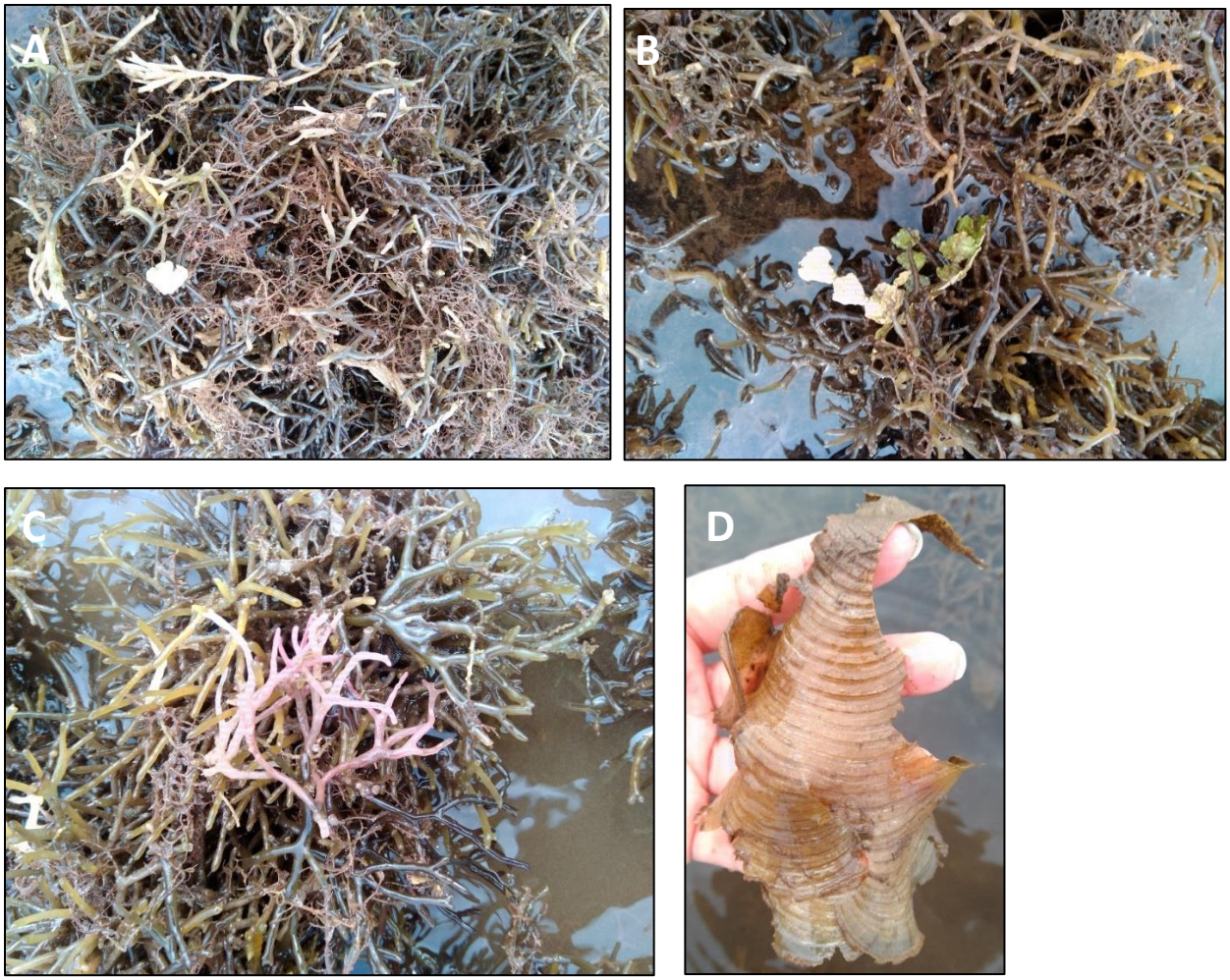

Figure A22 Algae accumulating on the shoreline in large clumps primarily consisted of invasive gorilla ogo in various colors, prickly seaweed (*Acanthophora spicifera*), and hookweed (*Hypnea musciformis*). Two species of indigenous algae were occasionally found tangled in the mass: **B)** halimeda or pūkoʻakoʻa (*Halimeda opuntia*), and **D)** southern padina (*Padina australis*).

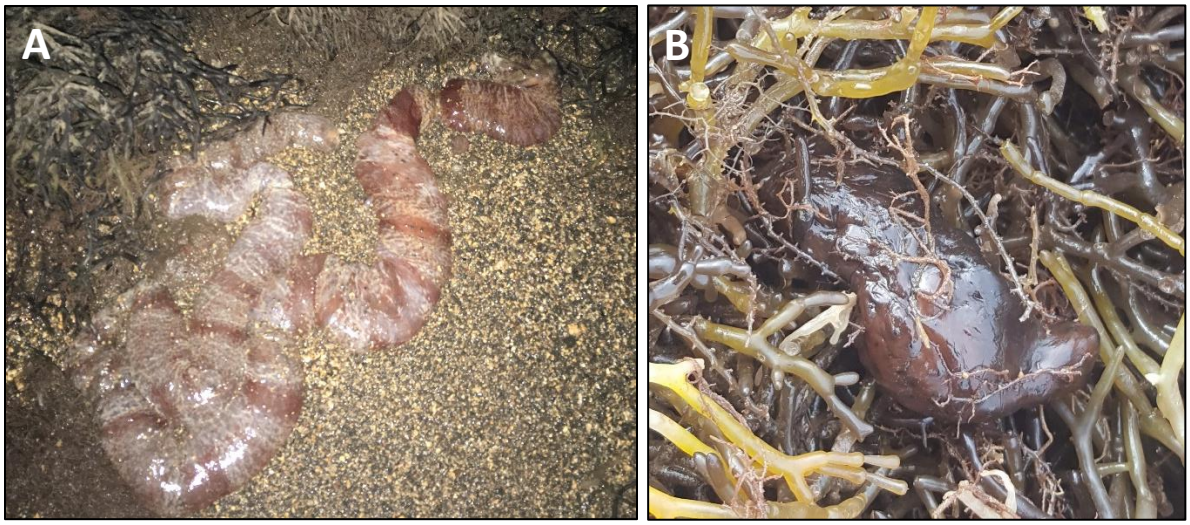

Figure A23 Two indigenous species of sea cucumber: **A)** conspicuous sea cucumber or weli (*Opheodesoma spectabilis*), and **B)** black sea cucumber or loli (*Holothuria atra*).

Figure A24 An unidentified species of flatworm attached to a branch of gorilla ogo.

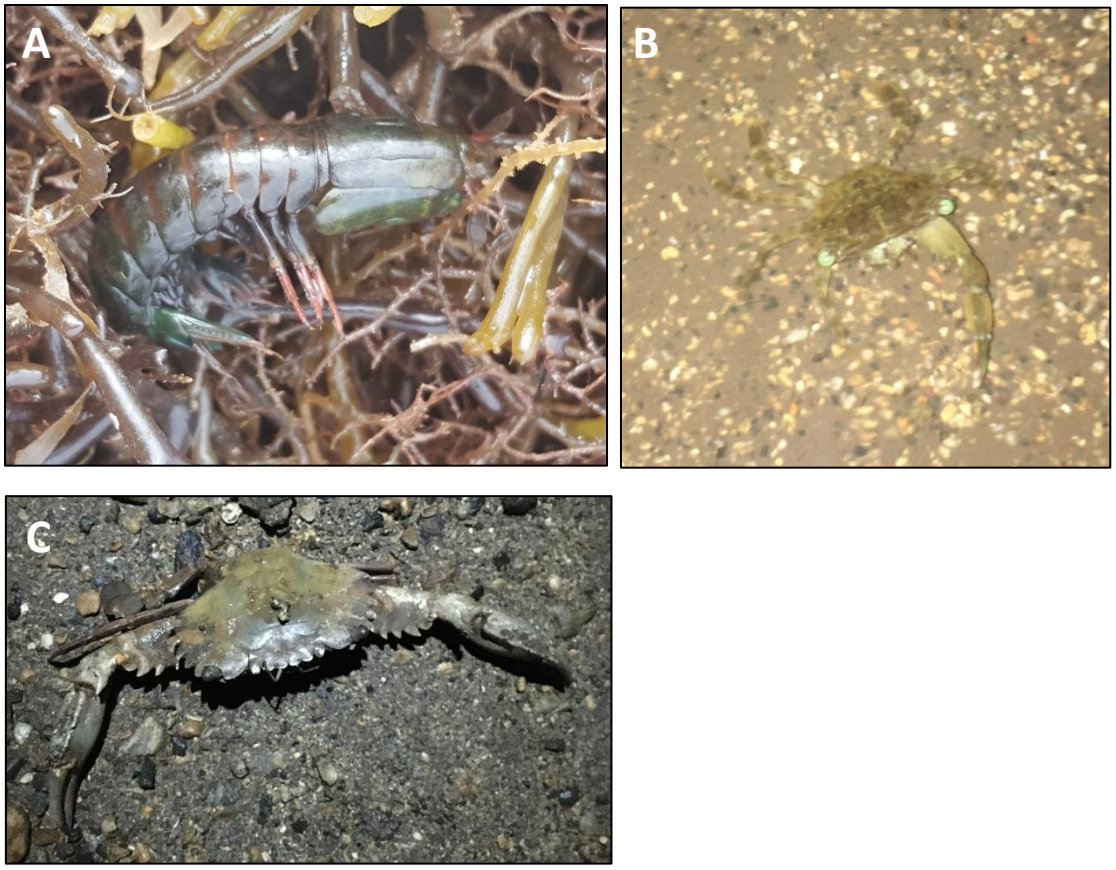

Figure A25 Crustacean species encountered include **A)** mantis shrimp (*Gonodactylus falcatus*), **B)** ʻalamihi or rock crab (*Metopograpsus thukuhar*) and **C)** papaʻi or mangrove swimming crab (*Thalamita crenata*). Not pictured: ʻōhiki or pallid ghost crab (*Ocypode pallidula*).

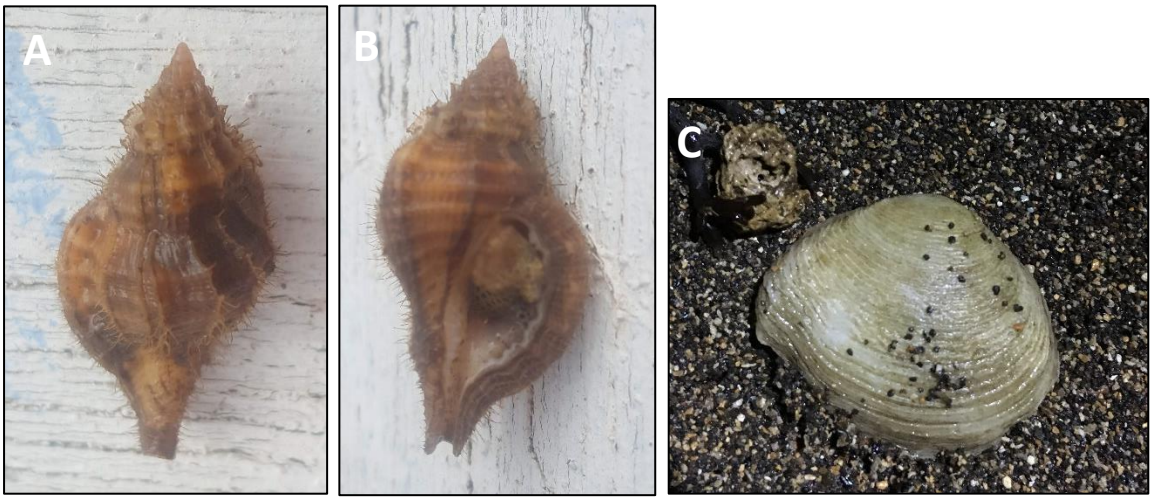

Figure A26 A) and B) A juvenile hairy triton snail (*Monoplex sp.*) and **C)** edible tellin (*Quidnipagus palatum*) (not included in the list of species in Appendix IV). Both species are indigenous to Hawaiʻi.

Appendix II: Plant Checklist

The following checklist was prepared after the conclusion of a botanical survey conducted in Malama Cultural Park, Kona, Moloka'i on January 25, 2021. During this survey, a total of 40 plant taxa were identified including 10 indigenous (including Ind? species), one (1) Polynesian-introduced (including Pol? species) and 27 naturalized species. This survey also identified one (1) species characterized as invasive (Inv).

The list is divided into two groups: dicots, and monocots. Each group is organized alphabetically by family, then by scientific name (e.g., genus, species). The common and Hawaiian names are also included. A key with explanations of the abbreviations used in the checklist is provided below.

PLANT CHECKLIST KEY

Biogeographic Status

Nat	Naturalized: Introduced to Hawai'i by humans, either directly or indirectly, since Western contact. Includes ornamentals and plants that may have formerly been cultivated.
Pol	Polynesian introduction: Introduced to Hawai'i by the original Polynesian settlers.
Pol?	Possible Polynesian introduction: May have been introduced to Hawai'i by the original Polynesian settlers; or may have been introduced post-Western contact.
Ind	Indigenous species: Occurs naturally both within and outside of the Hawaiian Islands.
Ind?	Possible indigenous species: May occur naturally in Hawai'i; or may have been introduced post-Western contact.
Inv	Invasive species: An alien species which has been introduced by human assistance and is recognized to have deleterious effects on the native species or environment.

Abundance

R	Rare: 1-3 individuals observed.
U	Uncommon: Several to a dozen individuals observed.
O	Occasional: Found regularly at the site.
C	Common: Observed numerous times; makes up a large portion of the vegetation.
A	Abundant: Large numbers of plants observed; likely a locally-dominant species.

Scientific Name	Common/Hawaiian Names	Status	Abundance
FLOWERING PLANTS - DICOTS			
AIZOACEAE			
Sesuvium portulacastrum	sea purslane/ ʻākulikuli	Ind	U
AMARANTHACEAE			
Alternanthera pungens	khaki weed	Nat	U
Atriplex semibaccata	Australian saltbush	Nat	C
APOCYNACEAE			
Plumeria sp.	plumeria	Nat	R
ASTERACEAE			
Pluchea indica	Indian fleabane	Nat	C
BATACEAE			
Batis maritima	pickleweed	Nat	A
BORAGINACEAE			
Cordia subcordata	kou	Pol	R
Helitropium cuassavicum	seaside heliotrope/ nena, kipukai, lau poʻopoʻohina	Ind	O
CHENOPODIACEAE			
Chenopodium murale	nettle-leaf goosefoot	Nat	U
Dysphania carinata	keeled wormseed	Nat	U
EUPHORBIACEAE			
Euphorbia hirta	hairy spurge	Nat	U/O
Euphorbia tithymaloides	slipper flower, devil's backbone	Nat	R
FABACEAE			
Desmanthus pernambucanus	slender mimosa	Nat	U
Leucaena leucocephala	lead tree/ koa haole	Nat	U
Prosopis pallida	mesquite/ kiawe	Nat	U
GOODENIACEAE			
Scaevola taccada	beach naupaka/ naupaka kahakai	Ind	R
MALVACEAE			
Hibiscus sp.	hibiscus	Nat	R
Hibiscus tiliaceus	hau	Ind?	R
Malva neglecta	common mallow	Nat	U
Sida ciliaris	bracted fanpetals	Nat	R
Thespesia populnea	portia tree/ milo	Ind?	A
MYRTACEAE			
Syzygium cumini	Java plum	Nat	R
NYCTAGINACEAE			
Boerhavia coccinea	red spiderling, boerhavia	Nat	R
RHIZOPHORACEAE			
Rhizophora mangle (propagules)	red mangrove	Inv	A

RUBIACEAE			
Gardenia taitensis	Tahitian gardenia, tiare	Nat	R
STERCULIACEAE			
Waltheria indica	ʻuhaloa	Ind?	R
THYMELAECEAE			
Wikstromia sp.	ʻākia	Ind	R
VERBENACEAE			
Vitex rotundifolia	beach vitex/ pōhinahina	Ind	R
XANTHORRHOEACEAE			
Aloe vera	Aloe	Nat	U
FLOWERING PLANTS - MONOCOTS			
ARECACEAE			
Cocos nucifera	coconut tree	Ind?	U
Washingtonia robusta	Mexican fan palm	Nat	R
POACEAE			
Cenchrus ciliaris	buffel grass	Nat	C
Cenchrus echinatus	sand bur	Nat	U
Chloris barbata	swollen fingergrass	Nat	C
Chloris divaricata	stargrass	Nat	C
Chloris gayana	Rhodes grass	Nat	C
Cynodon dactylon	Bermuda grass	Nat	C
Cymbopogon sp.	lemongrass	Nat	R
Sporobolus virginicus	seashore rush/ ʻakiʻaki	Ind	C
Urchloa mutica	California grass	Nat	U

Appendix III: Avian Species Checklist

The following checklist was prepared after the conclusion of an avian point count survey conducted in Malama Cultural Park, Kona, Moloka‘i on the morning of January 26, 2021. During this survey, a total of 14 taxa were identified including four (4) indigenous (including Ind? species), one (1) Polynesian-introduced (including Pol? species), nine (9) naturalized (including Inv species), and one (1) unknown.

Each group on this list is organized alphabetically by family, then by scientific name (e.g., genus, species). The common and Hawaiian names are also included. A key with explanations of the abbreviations used in the checklist is provided below.

CHECKLIST KEY

Biogeographic Status

Nat	Naturalized: Introduced to Hawai‘i by humans, either directly or indirectly, since Western contact. Includes ornamentals and plants that may have formerly been cultivated.
Ind	Indigenous species: Occurs naturally both within and outside of the Hawaiian Islands.
Inv	Invasive species: An alien species which has been introduced by human assistance and is recognized to have deleterious effects on the native species or environment.
Pol?	Possible Polynesian introduction: May have been introduced to Hawai‘i by the original Polynesian settlers; or may have been introduced post-Western contact.
Unk	Unknown: Species could not be identified.

Abundance

R	Rare: 1-3 individuals observed.
U	Uncommon: Several to a dozen individuals observed.
O	Occasional: Found regularly at the site.
C	Common: Observed numerous times; makes up a large portion of the community.
A	Abundant: Large numbers observed; likely a locally-dominant species.

Scientific Name	Common/Hawaiian Names	Status	Abundance
ANATIDAE			
Anas sp.	mallard duck/ koloa	Unk†	R
ARDEIDAE			
Nycticorax nycticorax hoatil *	black-crowned night-heron/ ʻaukuʻu	Ind	R
COLUMBIDAE			
Geopelia striata	zebra dove	Nat	A
Spilopelia chinensis	spotted dove	Nat	O
CHARADRIIDAE			
Pluvialis fulva	Pacific golden plover/ kōlea	Ind	R
ESTRILDIDAE			
Lonchura oryzivora	Java sparrow	Nat	O
LARIDAE			
*Leucophaeus atricilla**	laughing gull	Nat	R
PASSERIDAE			
Passer domesticus	house sparrow	Nat	U
PHASIANIDAE			
Gallus gallus	chicken	Pol?	C
PYCNONOTIDAE			
Pycnonotus cafer	red-vented bulbul	Inv	R
RECURVIROSTRIDAE			
Himantopus mexicanus knudseni	Hawaiian black-necked stilt/ aeʻo	Ind	R
SCOLOPACIDAE			
Numenius tahitiensis	bristle-thighed curlew/ kioea	Ind	N/A**
STURNIDAE			
Acridotheres tristis	common myna	Nat	R
THRAUPIDAE			
Paroaria coronata	red-crested cardinal	Nat	R
ZOSTEROPS JAPONICUS			
Zosterops japonicus	mejiro, warbling white-eye	Nat	R

*Observed outside of survey

**Heard but did not observe

† The Hawaiian duck/ koloa (*Anas wyvilliana*) is considered genetically endangered as most of the current population are believed to have hybridized with feral mallards.

Appendix IV: Nearshore Species Checklist

The following checklist was prepared after the conclusion of a nearshore survey of algae/limu and invertebrates conducted in Malama Cultural Park, Kona, Molokaʻi on January 25, 2021. During this survey, a total of six (6) algae taxa were identified including three (3) indigenous, and three (3) naturalized (including Inv species). A total of eight (8) marine invertebrate taxa were identified including two (2) unknowns. Five (5) invertebrate species were identified as indigenous.

The list is separated into two groups: algae/limu and invertebrates. Each group is organized alphabetically by family, then by scientific name (e.g., genus, species). The common and Hawaiian names are also included. A key with explanations of the abbreviations used in the checklist is provided below.

CHECKLIST KEY

Biogeographic Status

Nat	Naturalized: Introduced to Hawaiʻi by humans, either directly or indirectly, since Western contact. Includes ornamentals and plants that may have formerly been cultivated.
Ind	Indigenous species: Occurs naturally both within and outside of the Hawaiian Islands.
Inv	Invasive species: An alien species which has been introduced by human assistance and is recognized to have deleterious effects on the native species or environment.
Unk	Unknown: Species could not be identified.

Abundance

R	Rare: 1-3 individuals observed.
U	Uncommon: Several to a dozen individuals observed.
O	Occasional: Found regularly at the site.
C	Common: Observed numerous times; makes up a large portion of the community.
A	Abundant: Large numbers observed; likely a locally-dominant species.

Scientific Name	Common/Hawaiian Names	Status	Abundance
ALGAE/LIMU			
DICTYOTACEAE			
Padina australis	southern padina	Ind	O
GRACILAIACEAE			
Gracilaria salicornia	gorilla ogo	Inv	A
HALIMEDACEAE			
Halimeda opuntia	pūkoʻakoʻa	Ind	O
HYPNACEAE			
Hypnea musciformis	hookweed	Inv	A
RHODOMELACEAE			
Acanthophora spicifera	prickly seaweed	Inv	A
ULVACEAE			
Enteromorpha flexuosa	limu ʻeleʻele	Ind	U
INVERTEBRATES			
GONODACTYLIDAE			
Gonodactylus falcatus	Mantis shrimp/ ʻaloʻalo	Nat	U
GRAPSIDAE			
Metopograpsus thukuhar	rock crab/ ʻalamihi	Ind	C
HOLOTHURIIDAE			
Holothuria atra	black sea cucumber/ loli	Ind	R
OCYPODIDAE			
Ocypode pallidula	pallid ghost crab/ ʻōhiki	Ind	O
PORTUNIDAE			
Thalamita crenata	papaʻi/ blue pincher crab, mangrove swimming crab	Ind	U
RANALLIDAE			
Monoplex sp.	hairy triton snail	Ind	R
SYNAPTIDAE			
Opheodesoma spectabilis	conspicuous sea cucumber/ weli	Ind	R
Unidentified invertebrates			
	Flatworm	Unk	R
	Cnidarian	Unk	U

Appendix C

Literature Review and Reconnaissance Survey (Keala Pono, 2020)

DRAFT—Literature Review and Field Inspection for the DHHL Malama Cultural Park Special Area Plan in Kaunakakai Ahupua‘a, Kona District, Island of Moloka‘i, Hawai‘i

TMKs: (2) 5-3-001:002, :097, and :100

Prepared For:

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August 2020

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DRAFT—Literature Review and Field Inspection for the DHHL Malama Cultural Park Special Area Plan in Kaunakakai Ahupua‘a, Kona District, Island of Moloka‘i, Hawai‘i

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MANAGEMENT SUMMARY

A cultural and historical resources literature review and field inspection was conducted for the proposed Department of Hawaiian Homelands (DHHL) Malama Cultural Park Special Area Plan on TMKs: (2) 5-3-001:002, :097, and :100 in Kaunakakai Ahupua‘a, Kona District, on the island of Moloka‘i. The purpose of this review and field inspection is to identify any archaeological, historical, or cultural properties within the project vicinity in anticipation of the proposed project. The literature review, which consisted of archival research, identified two archaeological sites on the project parcels: an extensive cultural deposit (Site 50-60-03-630), and the Malama Platform (Site 50-60-03-1030). Another archaeological site, the remains of a historic pier (Site 50-60-30-890), is located just offshore to the west. The field inspection identified another two potential historic resources on the property: a wooden jailhouse building and a concrete weigh station. As no construction activities are proposed in the current Malama Cultural Park Special Area Plan, no further archaeological studies are recommended. If ground disturbance or interpretive signage are proposed in the future, an archaeological inventory survey should be conducted, and a preservation plan should be prepared for the archaeological sites.

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INTRODUCTION

At the request of G70 on behalf of the State of Hawai‘i Department of Hawaiian Home Lands (DHHL), Keala Pono Archaeological Consulting conducted a literature review and field inspection (LRFI) for the proposed DHHL Malama Cultural Park Special Area Plan on TMK: (2) 5-3-001:002, :097, and :100 in Kaunakakai Ahupua‘a, Kona District, on the island of Moloka‘i. The Special Area Plan is intended to help DHHL determine how to go about the day-to-day management of the park and provide recommendations about how and when to delegate managerial positions to third parties.

The report begins with a description of the project area and a historical overview of land use and archaeology in the region. Results of the LRFI are summarized and recommendations are made in the final section. Hawaiian words, flora and fauna, and technical terms are defined in a glossary at the end of the document.

Project Location and Environment

The project area is located in Kaunakakai, Kona District, on the island of Moloka‘i (Figure 1). Kaunakakai is the largest town on Moloka‘i and is located on the island’s south shore. The survey area extends over 4.69 acres (1.90 ha) and runs from the coast to approximately .14 miles (225 m) inland. The project area covers three parcels: TMK: (2) 5-3-001:002, :097, and :100 (Figure 2). These adjacent parcels are collectively known as the Malama Cultural Park and are all located on land owned by the State of Hawai‘i. The park is bounded by Kaunakakai Place to the east, Hio Place to the north, the Moloka‘i Yacht Club boathouse and a small commercial building to the northwest, and the sea to the southwest (Figure 3). Malama Cultural Park is situated along Kaunakakai Harbor, just west of the Kaunakakai Wharf.

The project area is relatively flat and mostly undeveloped. Currently on the parcel are a grass stage (hula mound), a dilapidated historic jailhouse, a small restroom building that is not functional, and several hālau wa‘a and associated structures.

Rainfall is sparse, with a mean of 12.5 inches (317.3 mm) per year (Giambelluca et al. 2013). May to October are the driest months, with .08–.52 inches (2–13 mm) of rainfall, while January and December see the highest amount of rainfall at 2.54–2.62 inches (65–67 mm). The closest watercourse to the project area is Kaunakakai Stream, which lies approximately .25 miles (400 m) to the west of the project area. Vegetation is relatively scarce, consisting predominantly of introduced grasses and mowed lawn with some areas of kiawe trees, pickleweed, and other brush. Just west of the project area is a large wetland habitat known for ae‘o, the endangered Hawaiian stilt.

Soil of the project area consists entirely of Kealia silt loam (KMW). However, Jaucas sand, 0–15% slopes (JaC), a favored substrate for traditional Hawaiian burials, is located along the coast just to the east. Marsh (MZ) is along the coast to the west of Kaunakakai Gulch (Figure 4). According to Foote et al. (1972), Kealia silt loam:

> …is poorly drained and has a high content of salt. Ponding occurs in low areas after a heavy rain. When the soil dries, salt crystals accumulate on the surface…this soil is used for wildlife habitat and pasture, but it has low grazing value. It is not used for crops, because of poor drainage and high salt content. Small areas are used for urban development. (Foote et al. 1972:67–68)

Also in the vicinity are Mala silty clay, 0–3% slopes (MmA) and Mala silty clay, 3–7% slopes (MmB). Smaller sections of Pulehu clay loam, 0–3% slopes (PsA) and rock outcrop (rRO) are

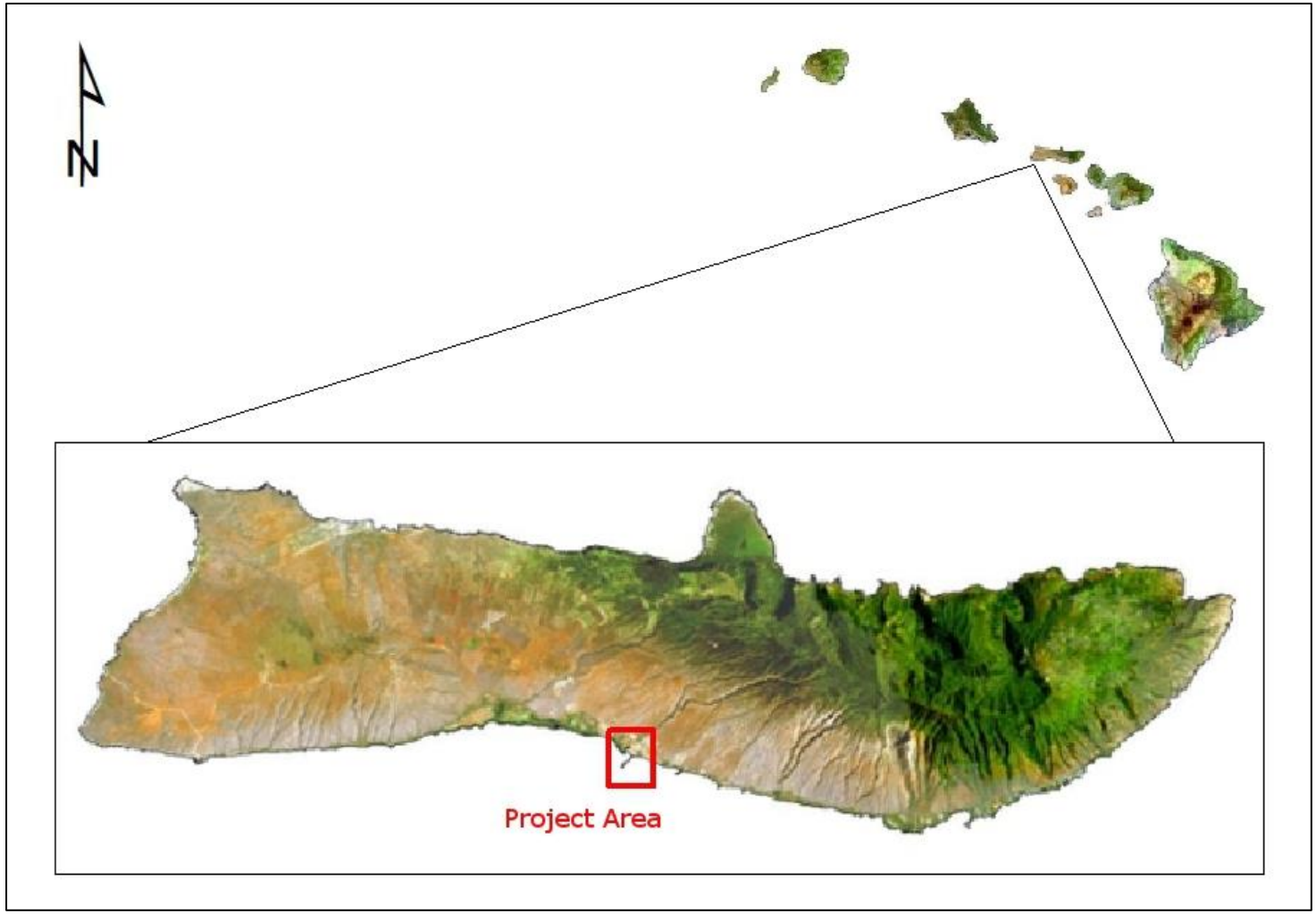


Figure 1. Project location in Kaunakakai, island of Molokaʻi.

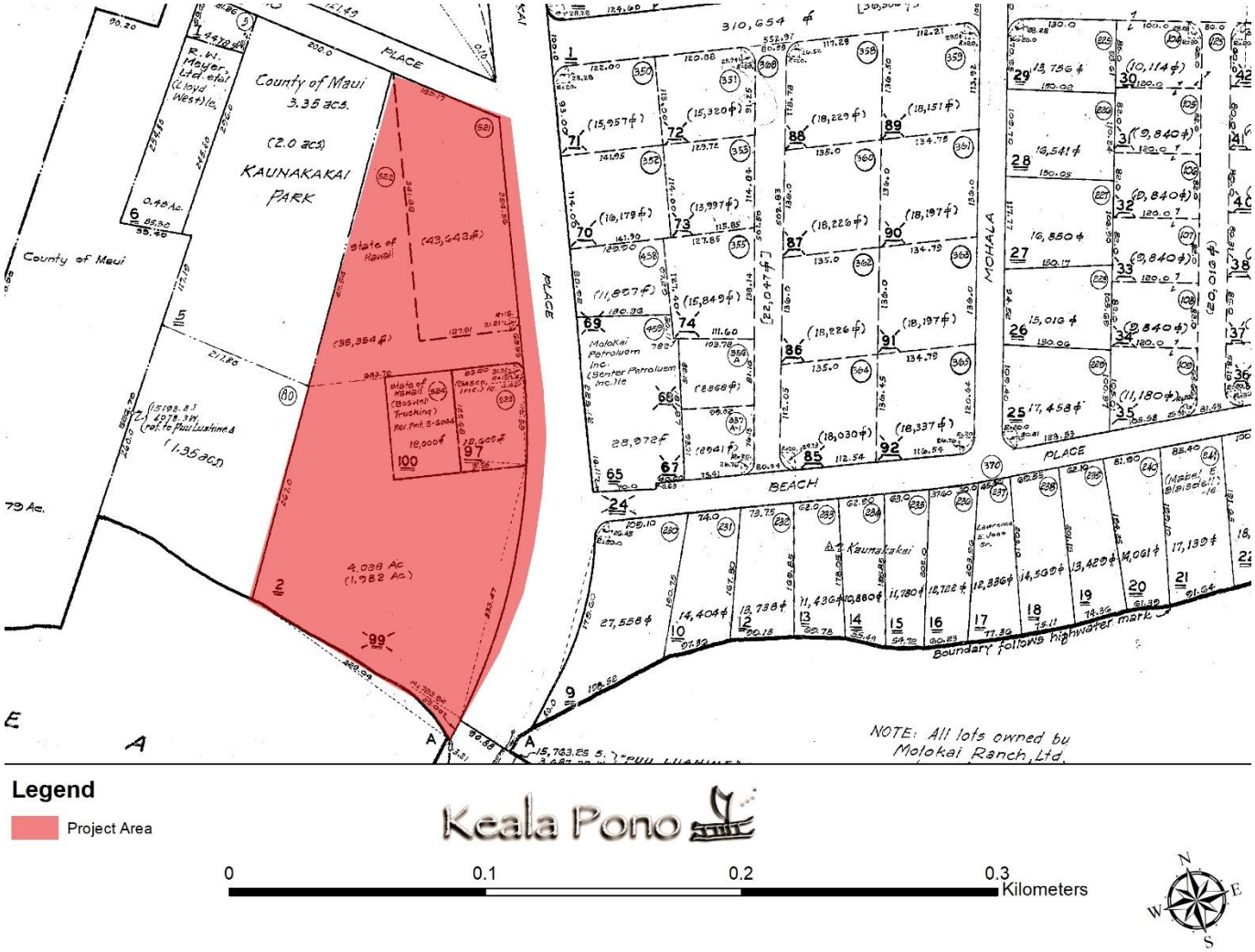


Figure 2. Project area shown on TMK plat map 5-3-001.

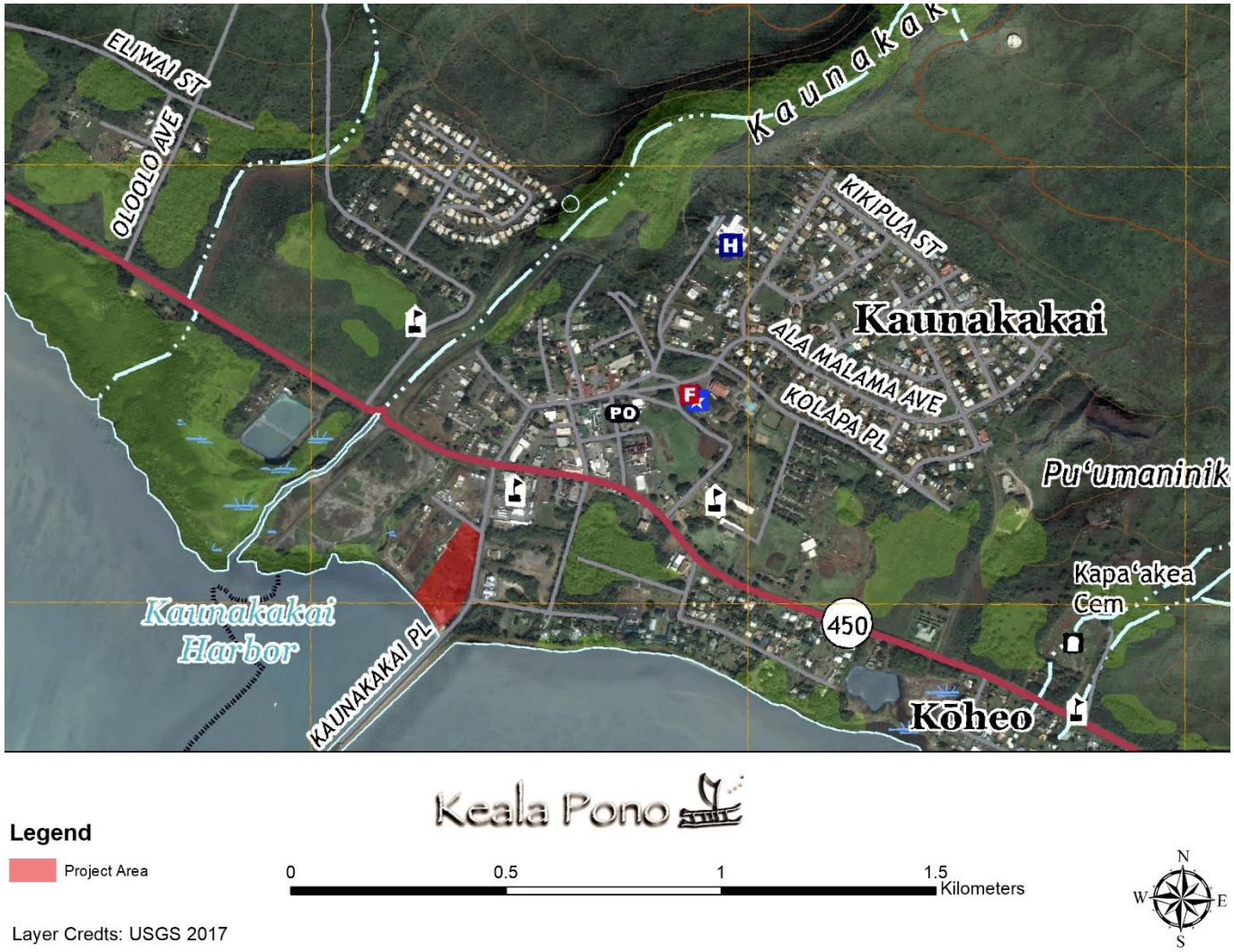


Figure 3. Project area shown on a 2017 USGS Kaunakakai quadrangle map.

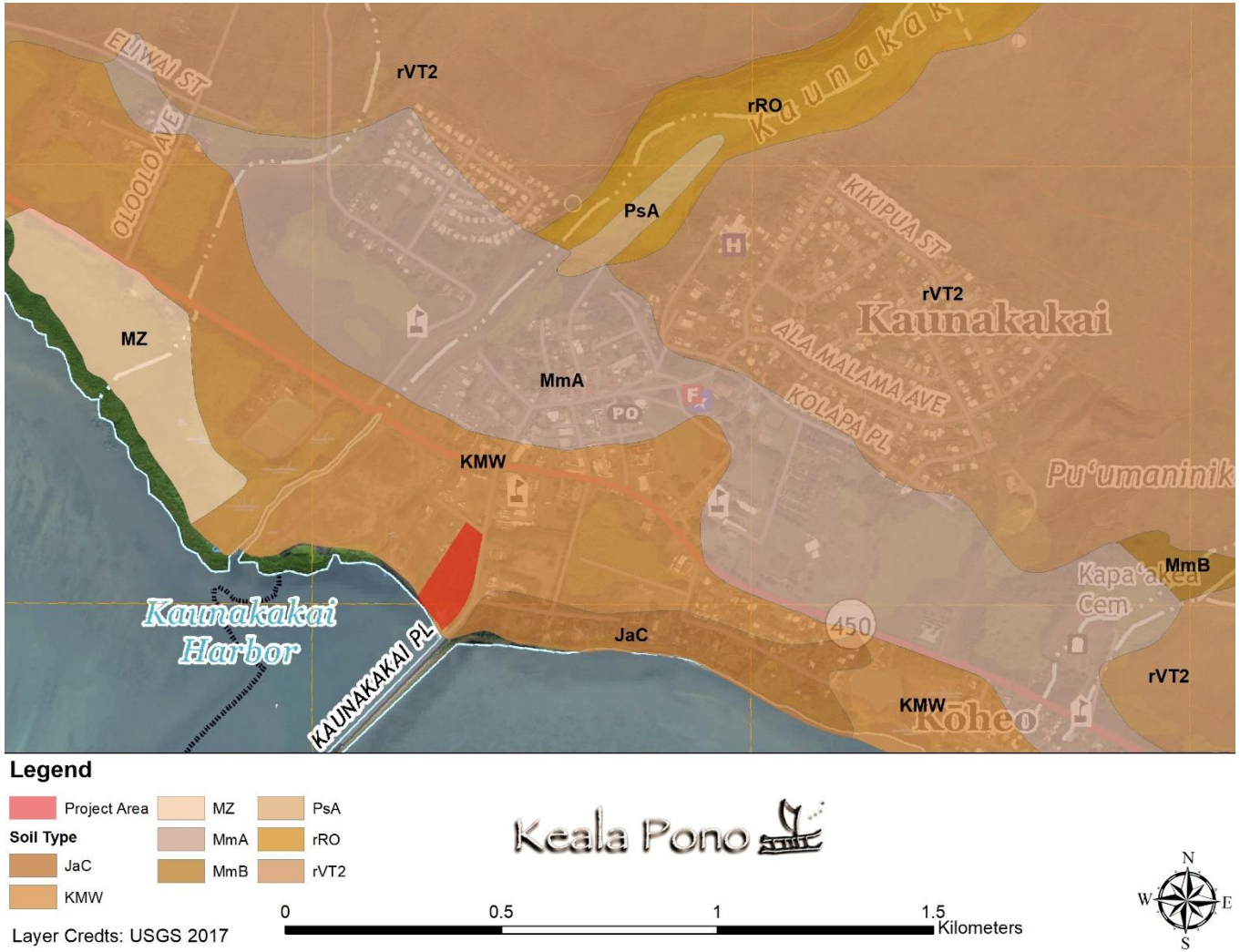


Figure 4. Soils in the vicinity of the project area (data from Foote et al. 1972).

located along the inland portion of the Kaunakakai Gulch. Very stony land, eroded (rVT2) dominates the mauka region of Kaunakakai (Foote et al. 1972).

Significant coastline progradation has been documented in the vicinity of the project area and can be seen on a map created by Titchenal (1998) that correlates maps of the area (Figure 5). This buildup is due to the outlet of Kaunakakai Stream, which runs from the mountains through the Kaunakakai Gulch, exiting into the ocean not far from the project area. Historic maps show that between 1882 and 1924, the shoreline accretion rate was approximately 8 feet (2.4 m) per year (Shun 1982:5). However, the shoreline showed little change after 1924 (Shun 1982:5).

The Undertaking

The Malama Cultural Park Special Area Plan is being developed to help identify the current resources and uses of the area and address key issues such as responsible access, competing uses, stewardship of natural and cultural resources, and the management of park facilities and infrastructure. At a minimum, the plan will provide guidance to the state on issuing land dispositions for non-homesteading uses to diverse stakeholder groups and identify opportunities to leverage resources and long-term collaborations. The plan is intended to help DHHL determine how to go about the day-to-day management of the park and provide recommendations about how and when to delegate managerial positions to third parties. DHHL will conduct a series of outreach meetings with beneficiaries, residents, park stewards and other regional stakeholders to solicit and incorporate local input to the planning process.

This literature review and field inspection are aimed at identifying archaeological features and cultural resources within and close to the project area. While the literature review consists entirely of archival research, the field inspection will be conducted to confirm the presence or absence of surface archaeological and cultural remains. In addition to the LRFI completed by Keala Pono Archaeological Consulting, the Special Area Plan will also include an infrastructure assessment to identify potable water, wastewater, electricity, and transportation services as well as technical reports and a limited biological survey to identify flora and fauna in the area and offshore.

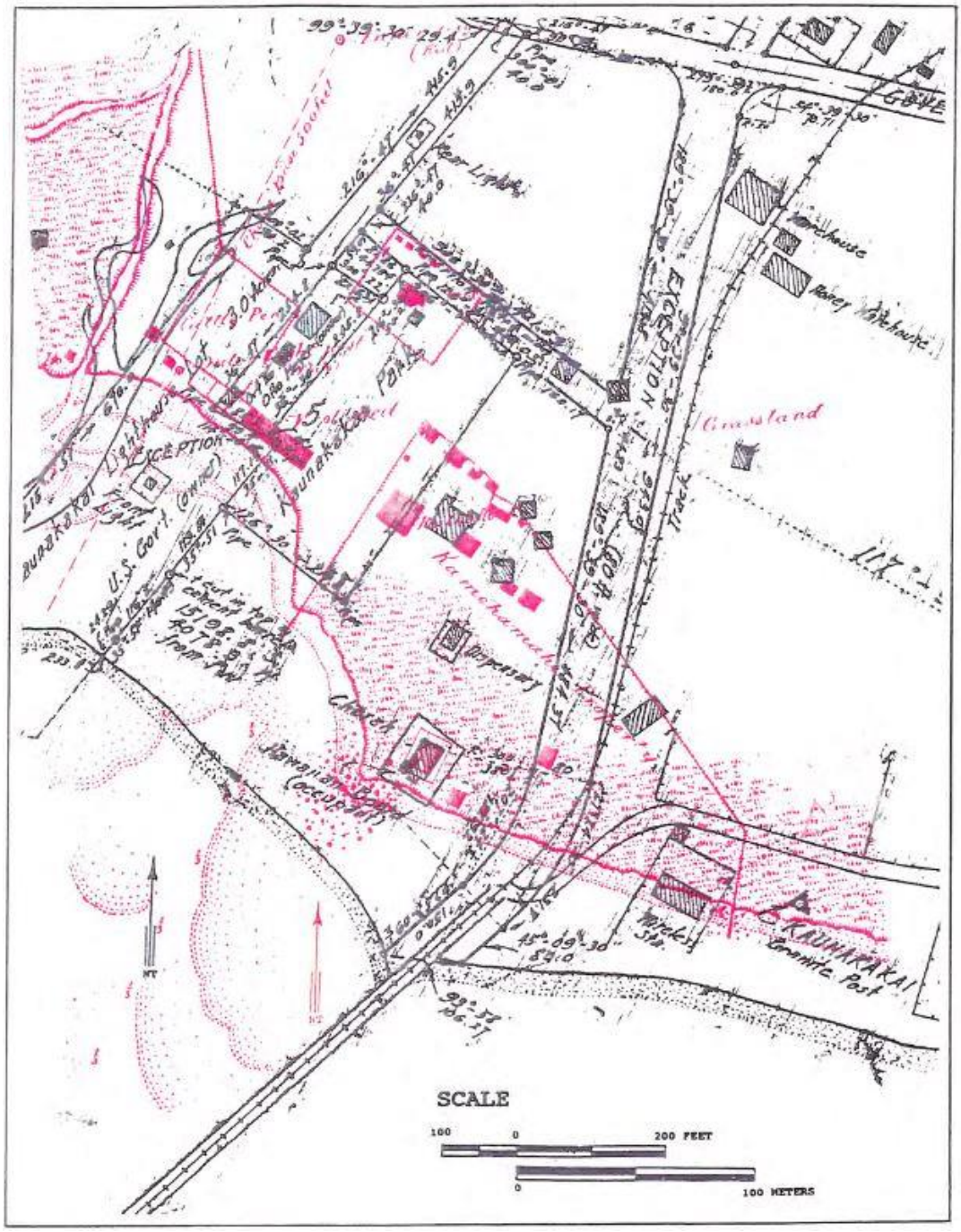


Figure 5. Map from Titchenal (1998) that shows the coastline in 1924 overlaid in pink by a map of the same area in 1882.

BACKGROUND

A brief historic review of the project vicinity is provided below, to offer a better holistic understanding of the use and occupation of the area. In the attempt to record and preserve both the tangible (e.g., traditional and historic archaeological sites) and intangible (e.g., moʻolelo, ʻōlelo noʻeau) culture, this research assists in the discussion of anticipated finds. Research was conducted at the Hawaiʻi State Library, the University of Hawaiʻi at Mānoa libraries, the SHPD libraries, and online on the Office of Hawaiian Affairs website and the Waihona ʻAina, and Ulukau databases. Archaeological reports, historic maps, and historical reference books were among the materials examined. Background research is then evaluated to determine what kinds of archaeological remains might be expected in the project area.

Traditional Cultural Background

Traditionally Molokaʻi was divided into two districts: Koʻolau and Kona. Koʻolau District was composed of the wet valleys on the northern coast of the island as well as Kalaupapa Peninsula, also on the northern coast, while Kona District included the rest of the island. Located in Kona District, Kaunakakai encompasses 5,310 acres (2,149 ha.) roughly in the center of the island and includes a stretch of coastline on the south shore. It is bordered by Kalamaʻula Ahupuaʻa on the west, Kahanui Ahupuaʻa on the north, Kapaʻakea Ahupuaʻa on the east, and the Pacific Ocean on the south.

Information obtained for the traditional Hawaiian period includes a history of the naming of Kaunakakai, a wind name, ʻōlelo noʻeau, moʻolelo, a discussion of subsistence patterns, and an examination of warfare and the presence of aliʻi in the region. Throughout this report, "traditional" refers to the period before 1778 Western contact, and "historic" denotes the time after 1778.

Place Names

One often overlooked source of history is the information embedded in the Hawaiian landscape. Hawaiian place names "usually have understandable meanings, and the stories illustrating many of the place names are well known and appreciated...The place names provide a living and largely intelligible history" (Pukui et al. 1986:xii). Several place names associated with the study area are listed in the *Place Names of Hawaii* (Pukui et al. 1986), along with the meanings of the names and/or comments about the specific locales:

> Kamehameha V. Highway, southeast Molokaʻi. Kamehameha V had a home, Malama, near the Kaunakakai wharf...(Pukui et al. 1986:81)
>
> Kauna-Kahakai. Old name for Kaunakakai, Molokaʻi. *Lit.,* beach landing (Pukui et al. 1986:95)
>
> Kaunakakai. Principal town on Molokaʻi, also quadrangle, land division, gulch, harbor, elementary school, and beach park. There are several surfing sites with summer swells on both sides of the harbor. (Pukui et al. 1986:95)
>
> Kōheo. Coastal area, formerly swamp, Kaunakakai, Molokaʻi. *Lit.,* to show off or to twirl (Pukui et al. 1986:115)
>
> Māhinahina. …A heiau of this name, now destroyed, was near the shore at Kaunakakai, Molokaʻi. *Lit.,* silvery haze (as of moonlight) (Pukui et al. 1986:138)
>
> Malama. Name of Kamehameha V's home at Kaunakakai, Molokaʻi…*Lit.,* month or moon (Pukui et al. 1986:143)

The evolution of the name of Kaunakakai has been attributed to several sources which offer insight into different aspects of the inherent nature of the area. In numerous moʻolelo, several which are presented in the current study, one can see multiple Hawaiian language sources which refer to the area of study as "Kaunakahakai."

According to Mary Kawena Pukui, the original, Kaunakahakai, is translated as "resting-on-the-beach" or "beach-landing" as it was a landing place for the fishing canoes which were attracted by the multitude of fish in the area (Pukui et al. 1986:95). George Cooke, former manager of Molokai Ranch provides the meaning of "Kaunakahakai" as "to go along in the company of four" (Cooke 1949:83).

Another explanation for the name is provided by Harriet Ne who describes the name as a homage to a foreigner assisting Chief Kapuāiwa (Kamehameha V). This sunburned foreigner who helped manage the chief's finances gave the chief the idea to dig paddies where sea water could enter during high tide, and dry during low tide, thus creating salt flats. When naming the village, the foreigner asked the chief how one would say "current," and the chief named the place Kaunakahakai, or "current of the sea." At the same time Chief Kalaimoku remarked that the term "kauna" can also refer to the foreigner who they regarded as a "count" and person of nobility (Ne 1981:23–24). Ne also explains that Kamehameha V had given the name Malama to his residence in Kaunakakai to mean "light" (Ne 1981).

Ka Lae o Ka Manu, or Kalaiakamanu was the name of a sandy beach once used by aliʻi to sunbathe on the shores of the project area (Cooke 1949). The direct translation is "The Cape of the Bird." Plover birds were said to frequent the region and nearby marshland; however another theory suggests an alternative meaning to manu (bird), which is sometimes used in reference to "the quality of those wreathed in bird feathers," or aliʻi (Johnson 1993). According to Harriet Ne of Molokaʻi, this sandy beach was also known as Ke One Aliʻi o Molokaʻi due to its association with Kamehameha V (Johnson 1993).

Astronomy, particularly the moon, is a common theme for place names in Kaunakakai. Mahinahina Heiau and Kamehameha V's residence, Malama are clearly related to each other and to the island of Molokaʻi as a whole. Hina, the moon goddess is considered the mother of Molokaʻi. This gave rise to the saying "Molokaʻi Nui a Hina," "Great Molokaʻi Child of Hina" (Fornander 1969:12). It is also important to note that Mahinahina Heiau may be associated with human sacrifice (Valeri 1985:202). Traditionally, sacrificial ceremonies were conducted according to the lunar calendar with one ritual known as the "feeding of the moon."

Ka Makani a me Ka Ua o Kaunakakai

With their lives closely connected to the natural environment and physical surroundings, Hawaiian winds and rains were individually named and associated with a specific place, region, or island. In Hānau Ka Ua, Akana and Gonzalez (2015:xv) explain that kūpuna "knew when a particular rain would fall, its color, duration, intensity, the path it would take, the sound it made on the trees, the scent it carried, and the effect it had on people."

A wind of Kaunakakai is known as Haualiʻaliʻa and is noted in the moʻolelo of Pākaʻa and the wind gourd of Laʻamaomao, "…Haualiʻaliʻa ko Kaunakakai…" (Nakuina 1990:70). Other winds are Pelu and Hauālialia; and a wind and rain of Kaunakakai is Mālua. These names were noted in the moʻolelo of Pākaʻa and Kūapākaʻa (Akana and Gonzalez 2015:175):

Rain of Kaunakahakai, Molokaʻi

Hāʻule iho, he Mālua ka ua	It falls, Mālua is the rain
He Pelu ka makani	Pelu is the wind
Hauālialia Kaunakahakai	The Hauālialia wind is at Kaunakahakai

The Mālua rain, which also falls in Hilo, is said to be so violent that it shreds clothes. This was found in a mele recited by Hoʻoulumāhiehie (Akana and Gonzalez 2015:175):

Rain that causes loincloths to shred

Ke hōʻikeʻike maila ka ʻamaʻu	The ʻamaʻu fern displays itself
I nā wai hae malo, wai a ka Mālua	In the malo-shredding waters, waters of the Mālua rains

ʻŌlelo Noʻeau and Moʻolelo

Four ʻolelo noʻeau relating to the southern shore of Molokaʻi and Kaunakakai were identified and are presented below.

Molokaʻi koʻo lāʻau.
Molokaʻi of the canoe-poler.
The reef at the southern shore of Molokaʻi extends out as far as one-half mile in some places. At low tide the water is no more than eight feet deep. Because it is so shallow, the people could propel their canoes with poles. (Pukui 1983:238)

Hele i Kaunakakai i Hikauhi.
Go to Kaunakakai to seek Hikauhi.
Go to seek that which is lost. One day, when a man of Molokaʻi was fishing, his wife felt the beginning of labor pains and went to the upland to seek help from her mother. When the husband returned, he searched everywhere in Kaunakakai for his wife. After a time she returned with their daughter, whom they named Hikauhi. (Pukui 1983:82)

I Hikauhi, i Kaumanamana.
At Hikauhi, at Kaumanamana.
A man and his wife lived at Kaunakakai, Molokaʻi. While he was gone fishing one day, she felt the beginning of labor pains and went to her mother's home in another village. When the husband arrived home and his wife was not there, he began to search for her. After he searched fruitlessly for several days, his wife returned with their baby daughter, whom they named Hikauhi. Ever since that day, hikauhi has meant "in vain," and when a person loses something and goes in search, one says, "I Hikauhi, i Kaumanamana." (Pukui 1983:126–127)

Wā ʻōlelo i Kaunakakai.
Loud talking at Kaunakakai.
Said of much boisterous talking. The chiefs liked to play games such as kōnane at Kaunakakai, and their shouts and laughter could be heard for some distance. (Pukui 1983:319)

Kaunakakai is also mentioned in numerous moʻolelo. According to the moʻolelo of ʻAiʻai recorded in Martha Beckwith's *Hawaiian Mythology,* ʻAiʻai, the son of the fishing god Kuʻula, was known to kick "mullet spawn ashore with his foot at Kaunakakai," a reference to the abundance of fish in the waters of the area (Beckwith 1970:22).

In the epic of Hiʻiaka-i-ka-poli-o-Pele, Hiʻiaka, the sister of Pele, traverses the island chain from Hawaiʻi Island to Kauaʻi on a mission to bring Lohiau, Pele's lover, to her home. The moʻolelo

describes this voyage of Hi‘iaka, along which she stops on Moloka‘i after crossing Maui. Following adventures on the north shore of Moloka‘i, Hi‘iaka and the accompanying women depart from Kaunakakai and head to O‘ahu (Beckwith 1970:175).

In a mo‘olelo recounted by Fornander, Maniniholokuaua, known for his “great strength and fleetness,” lived in Kaunakakai, while his mo‘o grandmother, Kalama‘ula, lived in the neighboring ahupua‘a with which she shared the name. When the fastest runner of O‘ahu, Keliimalolo, arrived on the beach of Kaunakakai, he was warned of the thief who would steal his canoe. Sure enough, Maniniholokuaua lifted the canoe onto his back and carried it to a cave, for which Keliimalolo could not find the opening. After traveling to Kaua‘i in search of fast runners who would help him retrieve his canoe, Keliimalolo found Kamaakamikioi and Kamaakauluohia. Once again, as the canoe landed, Maniniholokuaua was there to steal it. Ignoring their warning to not take the canoe, Maniniholokuaua put it on his back and ran to his cave of treasures. Ultimately, Kamaakamikioi caught up with Maniniholokuaua, and as he demanded the cave to open, Kamaakamikioi ordered the cave to close, crushing Maniniholokuaua and the canoe. Inside the cave, Kalama‘ula was dead, and the Moloka‘i residents entered the cave to retrieve their precious belongings stolen by Maniniholokuaua (Fornander 1918–1919:166).

Kaunakakai is also the setting for the mo‘olelo of Halemano. While running from Aikanaka, king of O‘ahu, Halemano, his beautiful wife, Kamalalawalu, and grandmother, Kaaealii, headed to Kaunakakai. There they “remained for some time farming, and when their crops were almost ripe they set out for Lele, Maui, where they sojourned for a time” (Fornander 1918–1919:238). Later in the mo‘olelo, Kamalalawalu landed in Kaunakakai from Kaluako‘i as she searched for her husband (Fornander 1918–1919:260).

In the mo‘olelo of Moikeha, his son Kila, who became the chief of Waipi‘o, sent food to his ‘ohana on Kaua‘i during a famine. However, during the voyage the canoe was only able to go as far as Kaunakakai, where the food was squandered. These men then proceeded to tell Kila that the food indeed made it to Kaua‘i. This happened several times, each time, the men repeating the same lie.

During the voyage of Palila, the mo‘olelo describes Kaunakakai as seen from the rise of Hanauma, where Palila “stood and looked at the heat as it ascended from the pili grass at Kaunakakai, Molokai” (Fornander 1918–1919:148). The Hawaiian translation reads, “Hele aku la ia a luna o Hanauma, nana aku la i ka enaena o ke pili o Kaunakahakai, i Molokai…” (Fornander 1918–1919:149). Note the use of the name “Kaunakahakai” before it was changed to the modern name of “Kaunakakai.”

In a brief story of Kamehameha, the young ali‘i lived at Kaunakahakai and sent a messenger to Kahekili asking to bring back ‘ulu maika to amuse himself with. Giving Kahekili a calabash of feathers as makana offended him and he sent Kamehameha a message telling him to move back to Hawai‘i Island and wait for him to die before he attempts to conquer the kingdom (Keakaloloa in Fornander 1918–1919:689–688).

Traditional Subsistence

The south shore of Moloka‘i is known for its many fishponds, and these likely played a major role in the subsistence economy of Kaunakakai. The pond nearest the project area is Kaloko‘eli Fishpond, which lies approximately 1.5 miles (2.4 km) to the east. Kaunakakai was also famous for a shrimp-like crustacean known as the aloalo, or squilla, which was delicious to eat with poi (Handy and Handy 1991:520). Growing up to four inches in length, aloalo were drawn out of their small holes in coral with a small fish on a string. Only the male aloalo were caught, as they were recognized by their jerky motion, while the females moved in a smooth, gliding manner (Handy and Handy 1991:520).

Handy and Handy note that sweet potato was planted on the southern shore of Molokaʻi, while the only areas of wetland taro cultivation were located in the swamps below Manawainui Gulch, approximately 3 miles (4.8 km) northwest of Kaunakakai (1991:515). Handy and Handy also mention the cultivation of dryland taro on the slopes upland of the village at Kaunakakai. Other crops were grown in the vicinity near Malama, the retreat of Kamehameha V (Cooke 1949:110). One such area was located near a spring that "bubbled up through an eight-inch vent and ran as a stream to the shore. Along the banks of the stream sugarcane, bananas, and taro flourished. There were many shrimp in the spring" (Cooke 1949:110). Two springs, ʻOloʻolo and Kalamaʻula were located on the border between Kalamaʻula and Kaunakakai Ahupuaʻa. ʻOloʻolo is said to have flooded the entire region of Kaunakakai during rainstorms (Johnson 1993:7). Since the construction of levees and other flood control modifications, Kaunakakai rarely floods (Tuggle 1993:21).

Warfare and Aliʻi Presence in Kaunakakai

In the time of Hawaiʻi island chief Alapaʻi Nui, it became known to him that the ruling chiefs of Oʻahu were waging war against the Molokaʻi chiefs, who were largely descendants of Keawe of the island of Hawaiʻi. Alapaʻi sailed from Maui to Molokaʻi and landed at Pukoʻo. The Hawaiʻi fleet was encamped from Waialua to Kaluaʻaha with the battle ensuing at Kamaloʻo (Kamalō) and Kapualei. Oʻahu chief Kapiʻiohookalani stationed himself in Kalamaʻula, while the other Oʻahu chiefs and warriors camped along the area stretching from Nāʻiwa to Kaunakakai. On the fifth day of battle, Molokaʻi and Hawaiʻi warriors surrounded and defeated Oʻahu's forces in Kamiloloa (Kamakau 1992:70–71).

Kamehameha I was known to have landed in Kaunakakai with Keʻeaumoku, Keaweaheulu, Kameʻeiamoku, and Kamanawa, where they went to Kalamaʻula to visit with Kalola Kapupukaohonokawailani on her deathbed. Kalola, the former wife of Kamehameha's uncle Kalaniopuʻu, then married Kaʻopuiki. Kalola granted Kamehameha permission, upon her death, to take his "royal daughter" and sisters to Hawaiʻi island where they would rule as chiefs. When Kalola died, Kamehameha "wailed and chanted dirges, and some were put to sleep with the dead….Kamehameha was also tattooed [along with some of the chiefs] and had his eyeteeth knocked out, and the chiefs and commoners acted like madmen" (Kamakau 1992:149).

It is also recorded that around 1795 Kamehameha and his warriors stayed at Kaunakakai prior to their invasion of Oʻahu (Beckwith 1970:11). When Kauaʻi chief, Kaʻeokulani, and his war party landed in Kaunakakai and saw the size of the ovens and camp left by Kamehameha's army, he stated, "Where the big squid digs itself a hole, there crab shells are heaped at the opening" (Kamakau 1992:159).

Kaunakakai was the landing location of the canoes of Kualiʻi, aliʻi nui of Oʻahu, who traveled to Molokaʻi to assist the people of Kekaha, the Kona region, who were in conflict with the people and chiefs of the Koʻolau side. Kualiʻi stayed in Kaunakakai briefly while meeting with the leeward Molokaʻi chiefs prior to his assisting them in their fight against the windward Molokaʻi chiefs.

The strife started sometime in the beginning half of the 1700s, when the windward, or Koʻolau, chiefs began fighting the leeward, or Kekaha, chiefs over the rich fishing grounds of Kekaha along the south side of Molokaʻi. Kualiʻi was residing in Hilo at the time and heard of the trouble on Molokaʻi. He set out for the island and after arriving in Kamalō was redirected to Kaunakakai, where the Kekaha chiefs were encamped nearby. A council was held in Kaunakakai between Kualiʻi and the Kekaha chiefs after which they left for the Koʻolau side of Molokaʻi, fighting the men around west Molokaʻi by canoe and the chiefs directly overland. The engagement began at Kalaupapa and ended at Pelekunu, both places being along the Koʻolau side of the island. The Koʻolau chiefs were defeated and Molokaʻi went to Kualiʻi, the Oʻahu king. Kualiʻi re-divided the lands of Molokaʻi and

left Paepae and his wife Manau as aliʻi ʻaimoku over Molokaʻi, under himself as aliʻi nui (Fornander 1916:416–421).

Historic Cultural Background

Information found for the historic period includes accounts by early visitors, a selection of maps of the area, Māhele land tenure data, and descriptions of Malama, an aliʻi residence at the project area. This is followed by a timeline of the history of Kaunakakai Wharf, which is just south of Malama.

Early Historic Accounts

During Captain James Cook's expedition of 1778, the first written description of the island is provided by Captain King:

> Morotoi is only two leagues and a half from Mowee to the West North West. The South Western coast, which was the only part near which we approached, is very low; but the land rises backward to considerable height; and, at the distance from which we saw it, appeared to be entirely without wood. Its produce, we were told, consists chiefly of yams. It may, probably, have fresh water, and, on the South and West sides, the coast forms several bays that promise good shelter from the tradewinds. (Cook 1785 in Summers 1971:21)

In 1792, Captain Vancouver provided an early description of Molokaʻi's southern shore:

> The country from Crynoa [Kalaeloa] rises from the sea by an ascent, uninterrupted with chasms, hills or vallies, this uniform surface, on advancing to the westward, exhibited a gradual decrease in population; it discovered an uncultivated barren soil, and a tract of land that gave residence only to a few of the lower orders of the islanders, who resort to the shores for the purpose of taking fish, with which they abound. Those so employed are obliged to fetch their fresh water from a great distance; none but which is brackish being attainable on the western parts of Morotoi. This information I had before gained from several chiefs at Mowee, and was now confirmed in it by Tomohomoha, who was accompanying us to Woahoo; and who also acquainted me, that along the shores of this south side, which are chiefly composed of a sandy beach, anchorage would be found on a clear sandy bottom. But as there were no projecting points for shelter, I did not think a further examination worth the time it would employ, and therefore proceeded to the bay at the west end of the island, for the purpose of seeing if, contrary to my former observations, it was commodious for the refitting of vessels, as it had been reported. …The contrary [west end] had the same dreary and barren appearance as that noticed on the south side, and I was informed it was equally destitute of water. (Vancouver 1798 in Summers 1971:21–22)

Maps

An examination of historic maps of Kaunakakai offers an important look into the past. Information provides knowledge of cultural resources such as land use and settlement, socio-political boundaries, as well as traditional and historic cultural sites. The following section offers a review of several historic maps of Kaunakakai, focusing on the Malama area.

One of the most notable early maps of Kaunakakai was drawn by G.E.G. Jackson in 1882 (Figure 6). Labeled as a Hawaiian Government Survey, the map portrays the extent of the natural harbor which is located within a section of the fringing reef outside of Kaunakakai Village. Much of the water surrounding the land consists of mud and sand flats which are "partially dry" or "dry" during

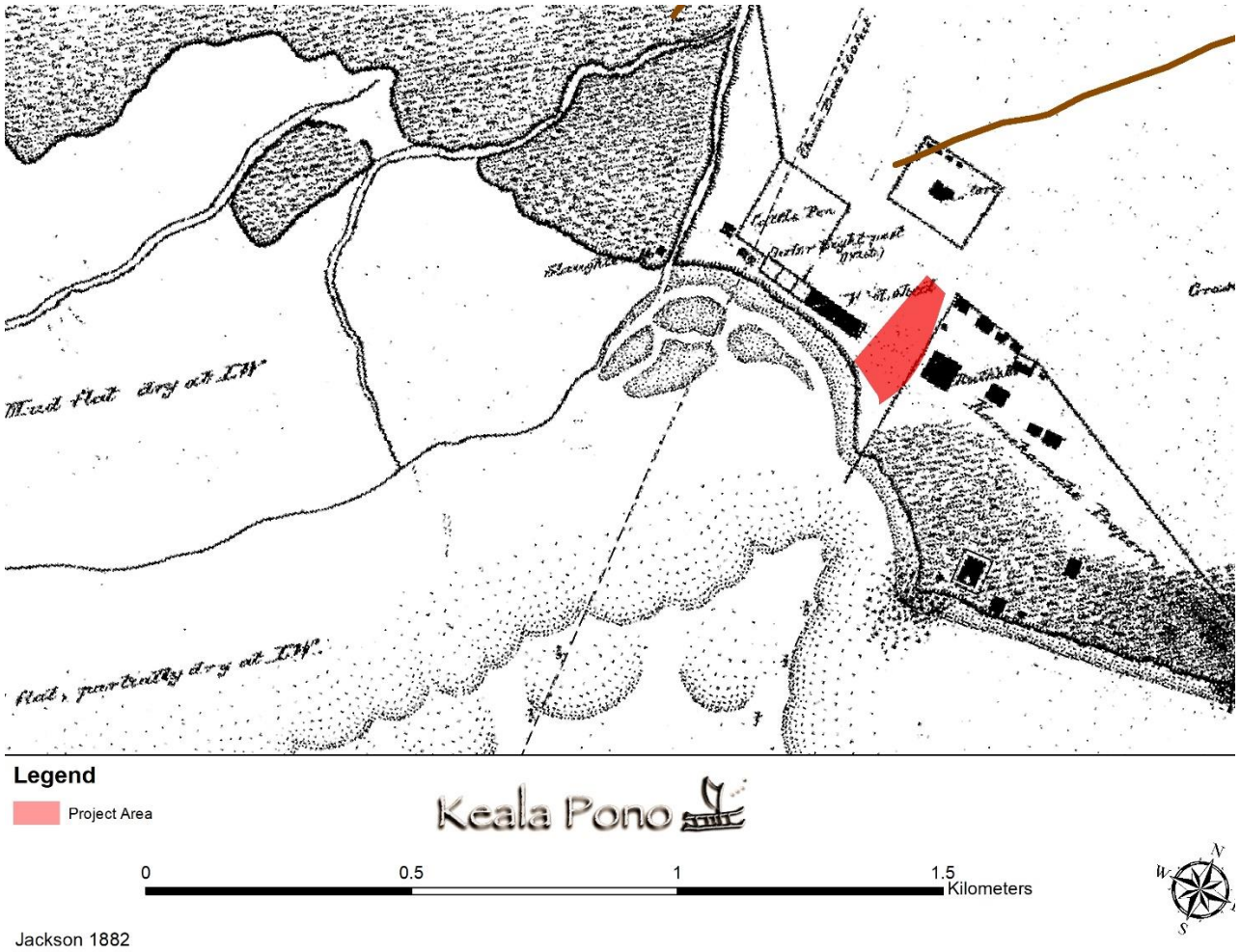


Figure 6. Portion of Hawaiian Government Survey map of Kaunakakai Harbor (Jackson 1882).

low tides. This map shows a rectangular-shaped, walled compound adjacent to the project area labeled as the "Kamehameha Property," within which is a building marked as "Ruth's House." This refers to Princess Ruth Keʻelikōlani, an important figure in the Kamehameha ʻohana and the history of Hawaiʻi who would frequent the Malama residence. There are 15 structures within this area. To the northwest of the "Kamehameha Property" is also a woodhouse, two navigational lights (an outer and an inner light), a cattle pen, a store, and a slaughterhouse. Inland of the Kamehameha property, the area is labeled as grasslands.

A survey by E. Pope on behalf of the American Sugar Company (ASCO) performed in May of 1900 depicts Kaunakakai and "vicinity" highlighting improvements made by the aforementioned company (Figure 7). The largest difference in this map to the previous is the presence of the Kaunakakai Wharf and railroad. Other additions include a lumber yard and warehouses associated with the railroad and agricultural fields. To the northeast of the wharf along the shoreline, a large mud flat area is also noted. A feature labeled "R.R. Scale," or railroad scale, can be seen near the east corner of the project area, associated with economic activities and shipments coming and going from the wharf via railroad. Interestingly, this particular map does not show any structures associated with the royal encampment of the Kamehameha ʻohana.

A 1901 U.S. Coast and Geodetic Survey map shows Kaunakakai Harbor and recorded the various depths and attributes of the ocean floor and shallows (Figure 8). Adjacent to the west of the Kaunakakai Wharf is also the older wharf. Additional information could not be found regarding this wharf; however, extant today are the remains of this structure which consists of stacked basalt boulders (Site 890). There are numerous structures depicted along the coast, none of which are labeled except for the "Front Range Light" and "Rear Range Light."

The U.S. Coast and Geodetic Survey office produced another map in 1916, this time showing the industrial growth of the town (Figure 9). Details of this map present a height of 118 feet (36 m) for a structure labeled "RADIO" to the east of the wharf as well as the frequency which the navigational range lights flash and occult. The area surrounding the wharf is covered with algaroba, or kiawe trees. To the west of the project area, large regions noted as saltpans are recorded, and a post office is also depicted.

In 1924, J. Jorgensen's map of Kaunakakai shows the development of the town, with numerous businesses, churches and even a jail recorded. This map depicts the extended route of the railroad and the building within which Mr. Hagemann operated the wireless station (Figure 10). Chart 4121, mapped by an unknown surveyor, shows a small section of Kaunakakai. Handwritten notes on this chart read "Surveys to 1925." This map depicts the radio station, a church and spire, post office, the navigational range lights, the railroad track route from the wharf to the town, and various unnamed structures (Figure 11). A road runs directly through the project area with "mud" noted offshore and kiawe trees populating a large expanse, including the northern half of the study area.

While the date for a more recent map is unknown, it presents the locations and functions of numerous structures of Kaunakakai such as the saltpans and an "old salt warehouse," Maui County's Kaunakakai Park, Cooke Hall, a dispensary, a honey warehouse, a building labeled "Hawaiian Board" located within the project area, and several private landowner names (Figure 12). The church appears to have been also located within the study area and a dispensary was just outside of where the Malama Cultural Park is. This map exemplifies the expanding Kaunakakai community and diversifying commercial enterprises of the time.

A U.S. Department of Agriculture soil survey map from 1955 depicts the soil types in and around the project lands (Figure 13). According to this map, the project area soils consists mainly of Canto

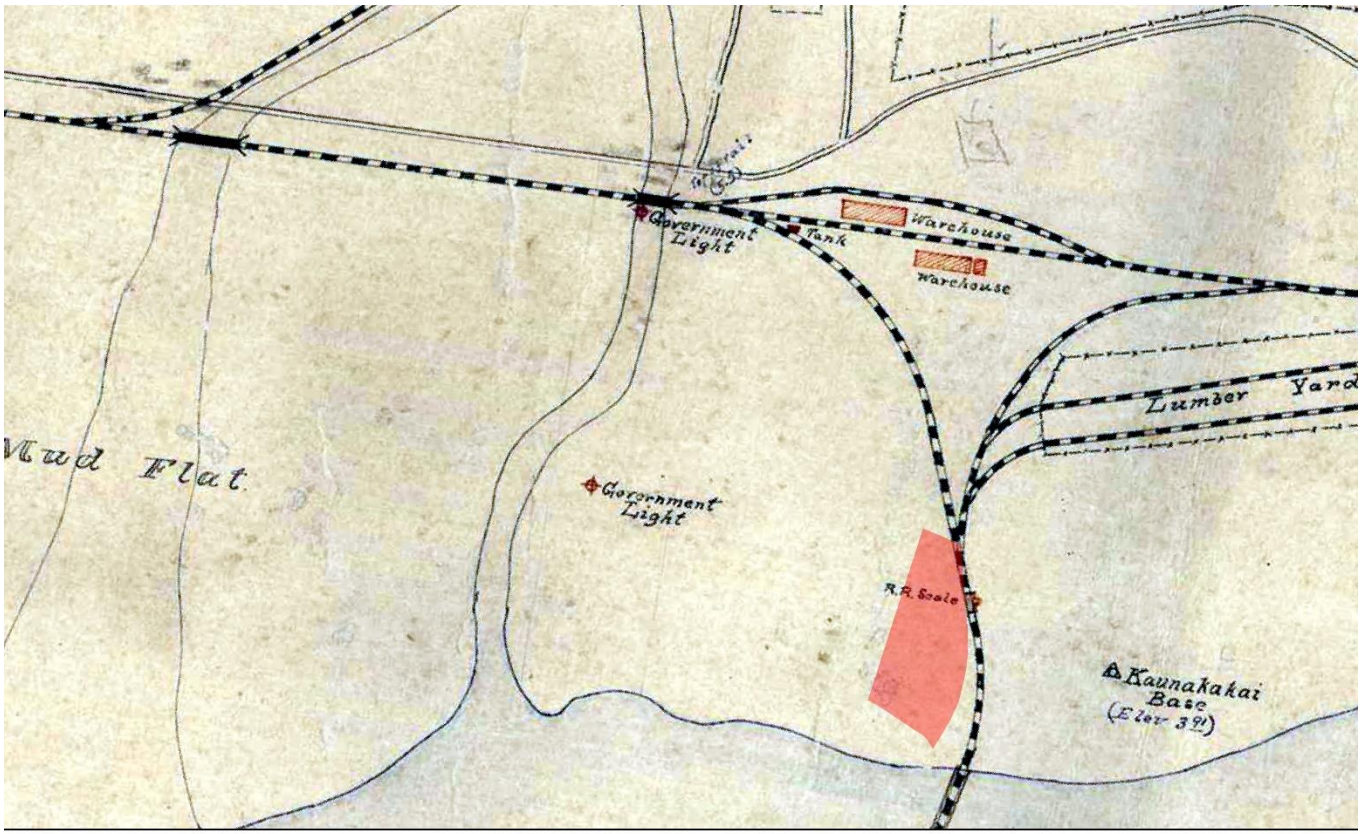
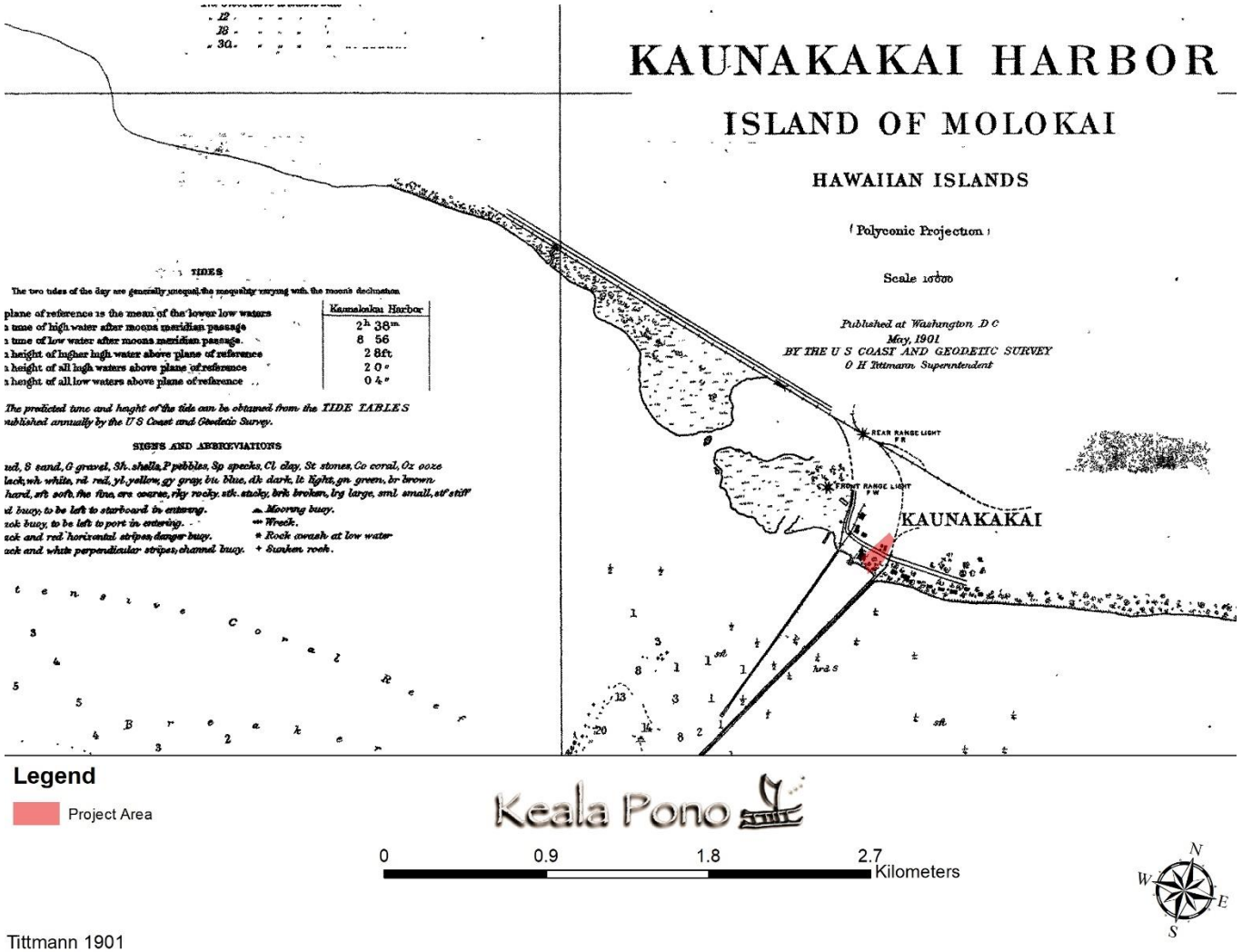


Figure 7. American Sugar Co. map of Kaunakakai (Pope 1900).



Tittmann 1901

Figure 8. Map of Kaunakakai Harbor (Tittmann 1901).

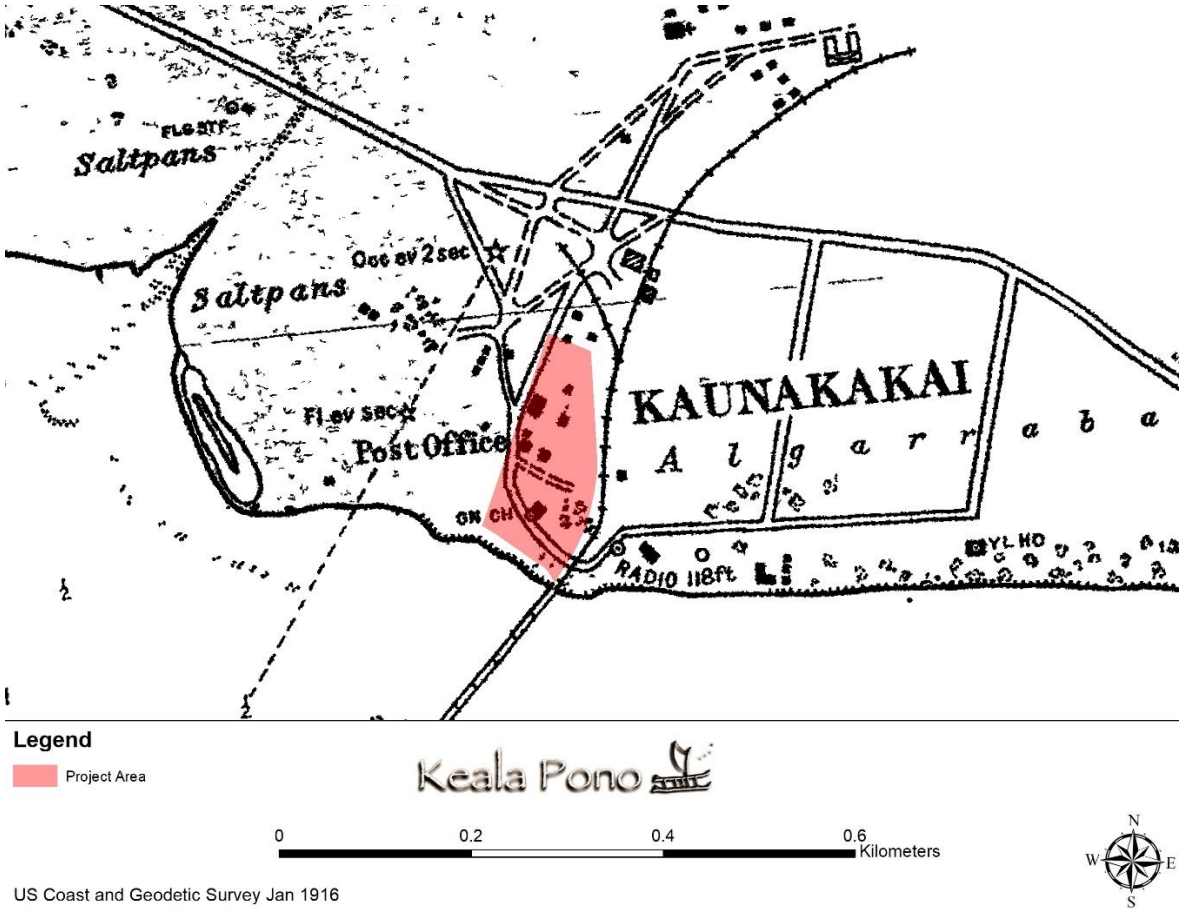


Figure 9. Portion of Kaunakakai Harbor map (Jones 1916).

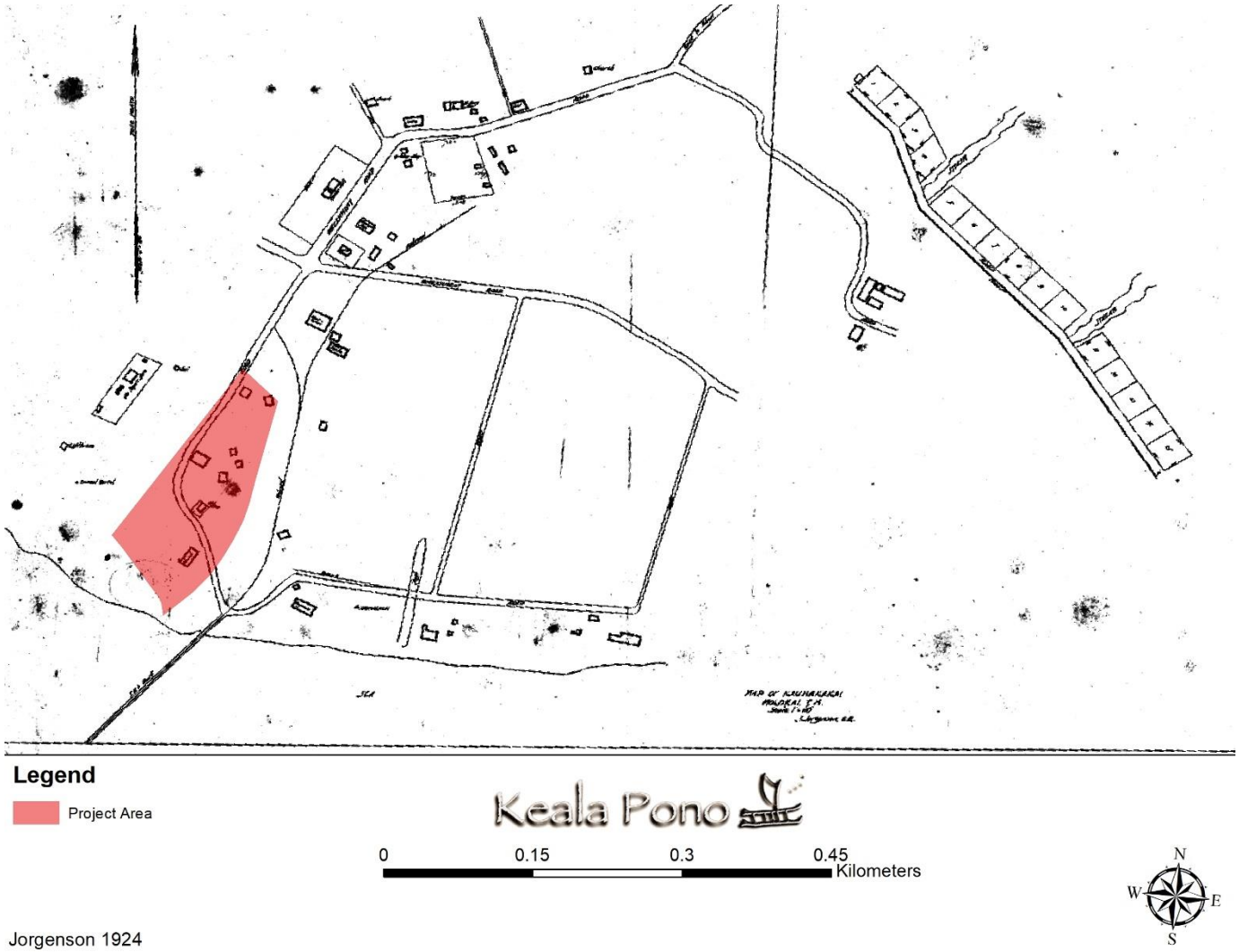


Figure 10. Map of Kaunakakai (Jorgensen 1924).

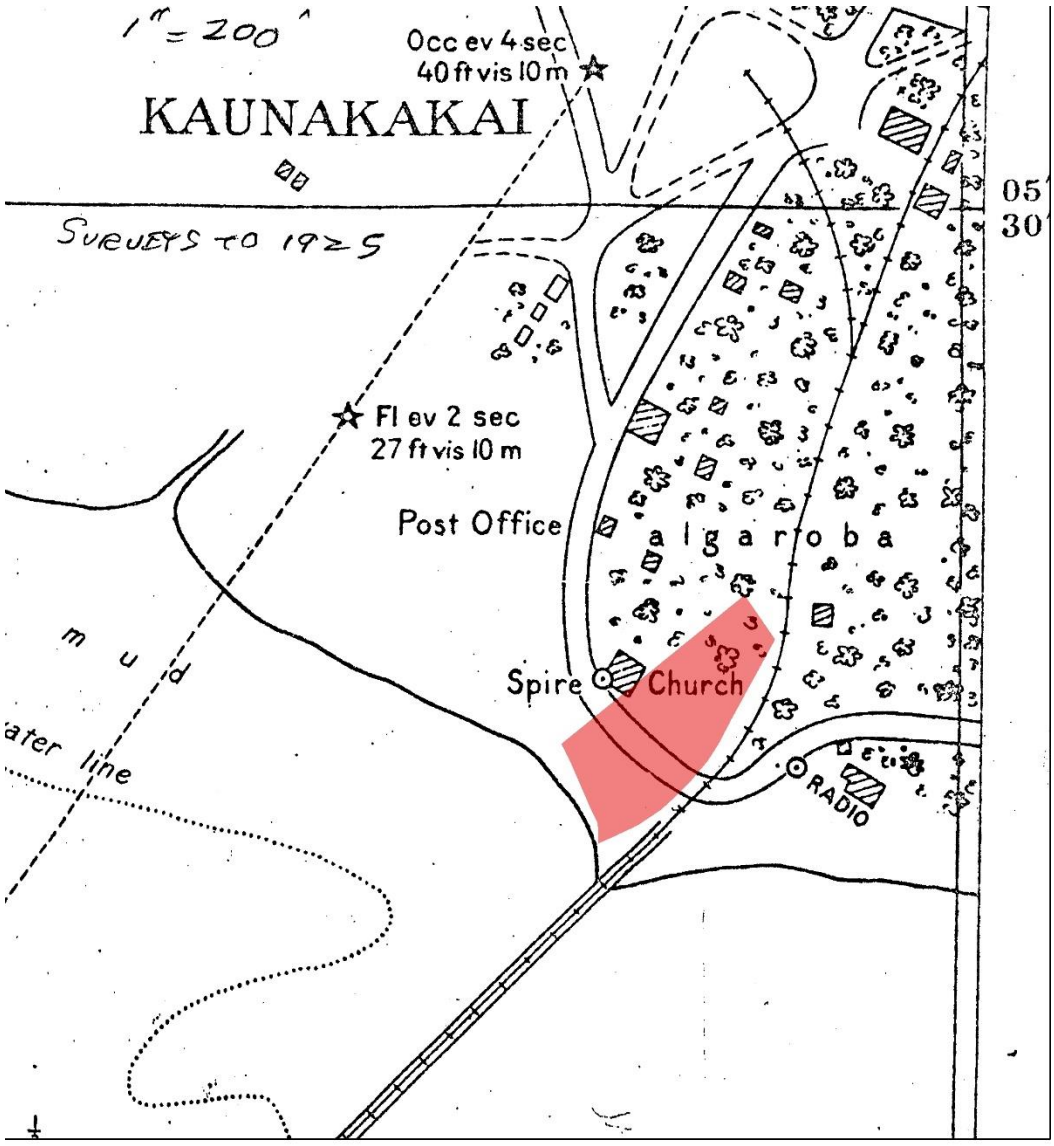


Figure 11. Portion of map showing Kaunakakai post-1925 (Unknown n.d.a).

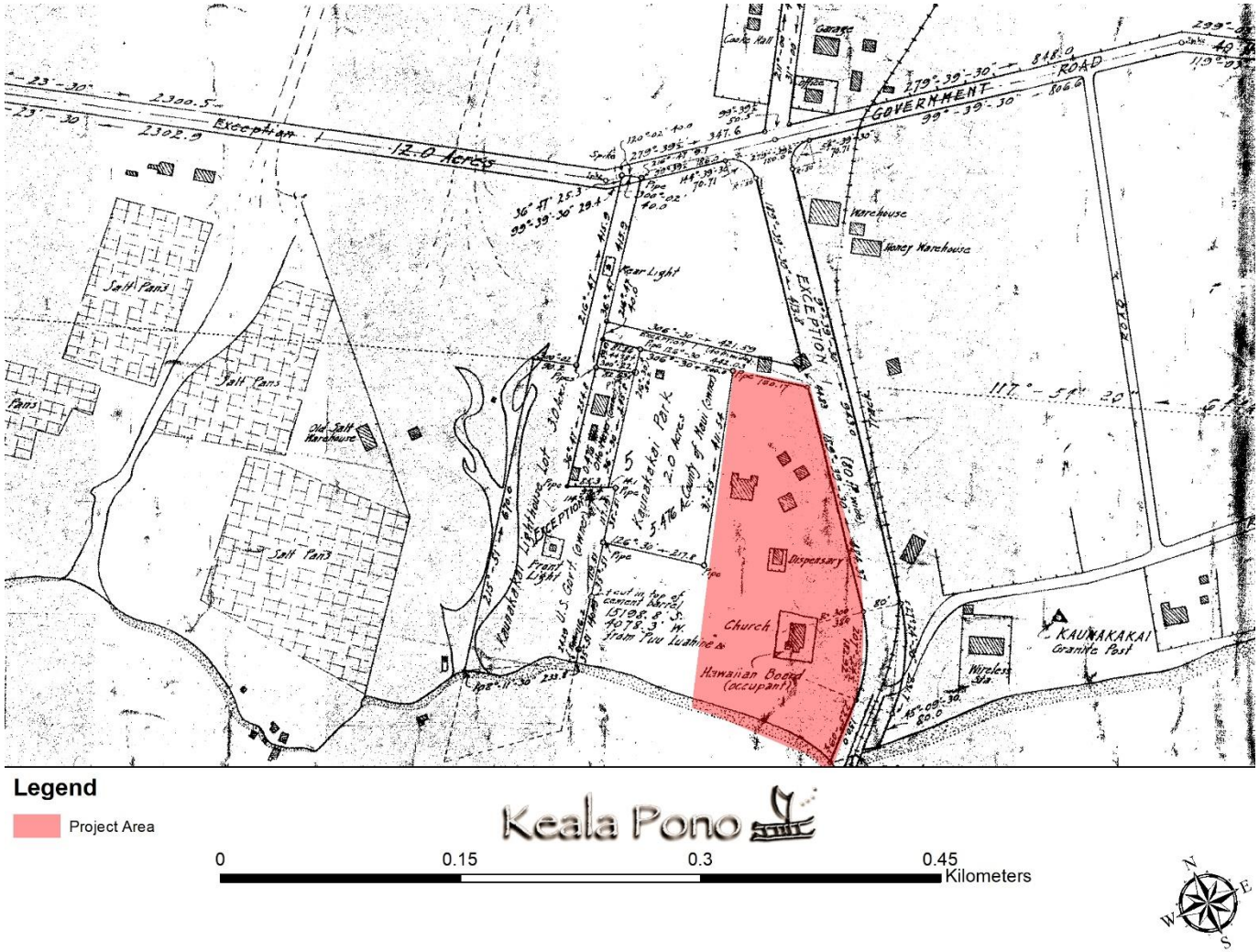


Figure 12. "Land of Kaunakakai" (Wright 1924).

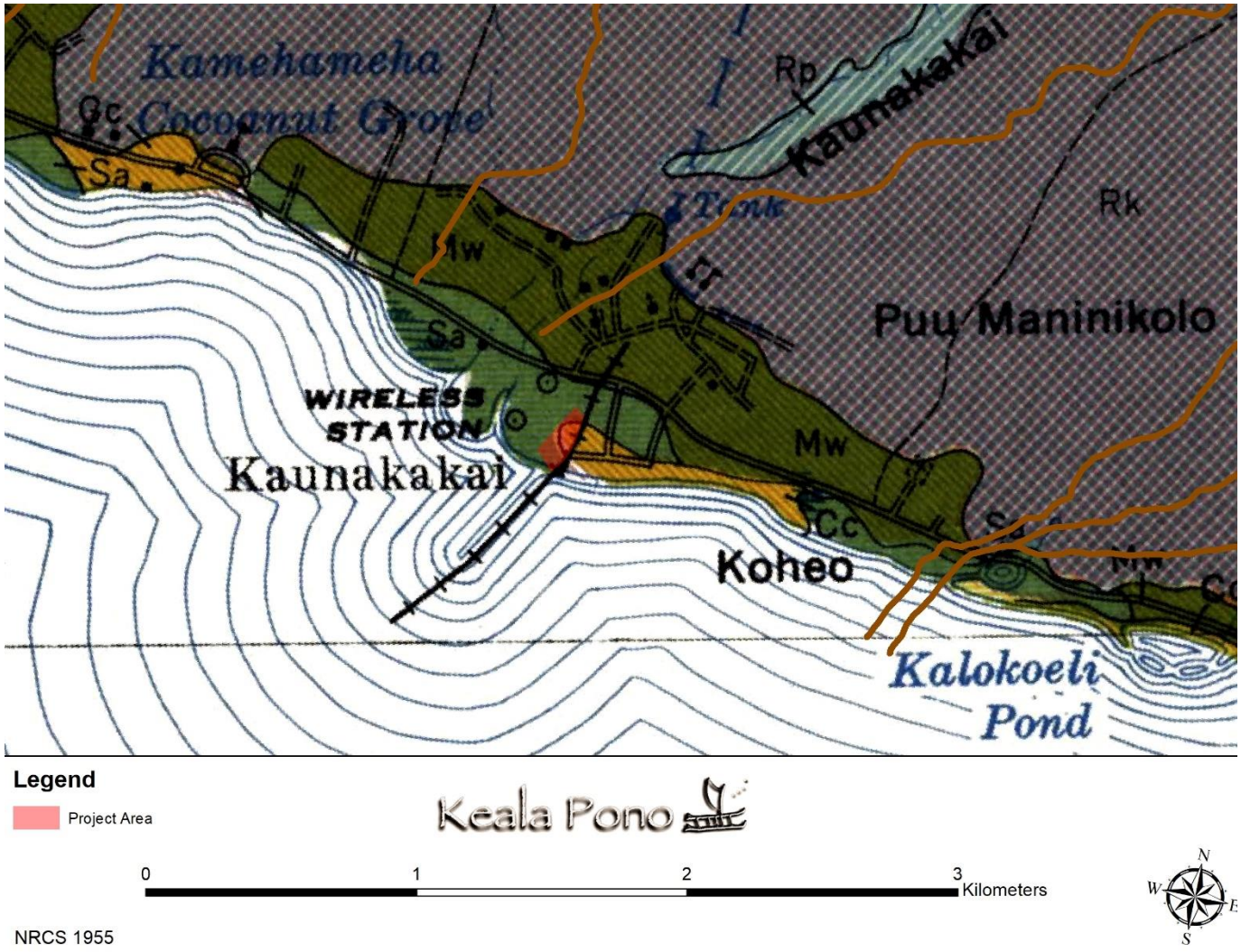


Figure 13. Portion of government soil survey map of Molokaʻi (US Department of Agriculture 1955).

or Kalapana Sand (mustard yellow), which is associated with regosols, beaches, and adjacent areas. There is also a small portion labeled "Sa", which stands for salty soils, undifferentiated.

Māhele Land Tenure

The change in the traditional land tenure system in Hawai‘i began with the appointment of the Board of Commissioners to Quiet Land Titles by Kamehameha III in 1845. The Great Māhele took place during the first few months of 1848 when Kamehameha III and more than 240 of his chiefs worked out their interests in the lands of the Kingdom. This division of land was recorded in the Māhele Book. The King retained roughly a million acres as his own as Crown Lands, while approximately a million and a half acres were designated as Government Lands. The Konohiki Awards amounted to about a million and a half acres, however title was not awarded until the konohiki presented the claim before the Land Commission.

In the fall of 1850 legislation was passed allowing citizens to present claims before the Land Commission for lands that they were cultivating within the Crown, Government, or Konohiki lands. By 1855 the Land Commission had made visits to all of the islands and had received testimony for about 12,000 land claims. This testimony is recorded in 50 volumes that have since been rendered on microfilm. Ultimately between 9,000 and 11,000 kuleana land claims were awarded to kama‘āina totaling only about 30,000 acres and recorded in ten large volumes.

There are no legal Māhele documents referring to the ownership of Kaunakakai Ahupua‘a and no kuleana claims were awarded. There are, however, letters to the Interior Department dating to 1852 and 1854 in which the high chief and father of Bernice Pauahi Bishop, Abner Pākī states that he owns the ahupua‘a (Int. Dept. Letter 1852 and 1854 in Hammatt et al. 2010).

Kaunakakai fell into the hands of Lot Kapuāiwa (Kamehameha V) in 1855 when the ahupua‘a was "conveyed" to him for a sum of two hundred dollars (Int. Dept. Letter 1855 in Hammatt et al. 2010). Lot Kapuāiwa's brother Alexander Liholiho (Kamehameha IV) would later establish a sheep station in Kaunakakai. Kapuāiwa inherited the station upon Liholiho's death and added deer to the animal population of Moloka‘i. As the deer were free roaming, this accelerated the destruction of native vegetation on the island. Kamehameha V also planted a large coconut grove southwest of the current project area along the shore called Kapuāiwa Coconut Grove.

When Lot Kapuāiwa died in 1872, Kaunakakai was bequeathed to Ruth Ke‘elikōlani. Upon her passing in 1883, most of her land holdings were transferred to Bernice Pauahi Bishop, but Kaunakakai was not included among these. When Pauahi died in 1884, however, the trustees of her estate petitioned for and received Kaunakakai.

Hammatt el al. report a dispute in the claim for ownership of Kaunakakai, although Bishop Estate was eventually confirmed as the owner:

> An Interior Department letter of 11/15/1889 indicates that Kaunakakai was owned by Kalani Pueo in 1843, "from whom Mrs. Bishop inherited same," though as mentioned previously, (Interior Dept. Letters, 852 & 1854) Abner Pākī, Bernice Pauahi Bishop's father, indicated he owned Kaunakakai. The relationship of "Kalani Pueo" to Abner Pākī and Bernice Pauahi Bishop is not known to us at this time. (Hammatt et al. 2010:9)

In 1897 large expanses of Moloka‘i were purchased to form the Molokai Ranch by a group who would later become the ASCO (Summers 1971:24). This prompted the construction of the Kaunakakai Wharf:

> A good harbor was imperative so they built a mole one-half mile long over the shores of Kaunakakai to a natural harbor formed by a break in the reef. They built a railroad from the end of the mole up through Palaau and Iloli to the middle of the Hoolehua plateau. Locomotives were imported, and a huge coal dump was formed at Kaunakakai to supply fuel. A large camp was constructed… (Judd IV 1936 in Summers 1971:24)

Kaunakakai became the urban center of the island due to its proximity to the wharf. The ASCO was unsuccessful, however, and the reason for its downfall was the subject of speculation:

> …in the construction of the railroad from the mill to the dock at Kaunakakai, the railroad builders had disturbed a heiau …since the railroad builders at American Sugar Company had not only used the heiau stones in building roadbed, but had also routed the railroad directly through the center of the temple site, the whole organization was doomed to disaster. … (Condé and Best 1973 in Hammatt et al. 2010:9)

Hammatt et al. (2010:9, 13) examine the premise further:

> This may have been the time of the destruction of Kamalae Heiau as reported by John Stokes. The reported heiau location, when plotted on the 1924 Land Court App. 632 map…puts it within the vicinity of Lot 6 which includes walls and a flume. The construction of the walls and flume may have been the agents of destruction. However, the 1886 map, which John Stokes utilized during his 1909 survey does not show a structure (stone or wooden framed) in the locus of the heiau, possibly indicating the heiau was not there at that time, though such structures as heiau were not routinely plotted by Monsarrat anyway. It is also possible that the reference to heiau destruction was to Mahinahina Heiau (Site 131), otherwise said to have been located 500 ft NE of the pier at Kaunakakai.

Summers also lists a heiau in Kalamaʻula (adjacent to Kaunakakai on the west) for which stones were used to build a pier for ASCO, referring to the Kaunakakai Wharf or possibly the Old Kaunakakai Pier:

> SITE 123. PUʻUPAPAI HEIAU, KALAMAʻULA
>
> Located near the crest of the plateau, this heiau is about 1500 ft from the sea. From Kakalahale it bears 51° 28'; 12,775 ft. Originally it was probably three enclosures. It is said…to have been dedicated to Kane and Kanaloa, that is was a platform, for human sacrifice, and that the drums were not heard at night...
>
> In another account, Stokes wrote further about this heiau.
>
> Puupapai was a very important heiau of the sacrificial class. It was torn down about 15 years ago [1899] and the stones used to build a pier about 300 yards long, 20 feet wide and 19 feet high. The natives say that only the stones of this heiau were used, and that the subsequent failure of the company [American Sugar Co.] carrying out the operations was due to the sacrilege of tearing down the sacred structure. (Stokes n.d. in Summers 1971:85)

Communications, Navigation, and Transportation at Kaunakakai Wharf

With freshwater springs limiting coral growth, Kaunakakai Harbor was formed by a natural break in the fringing reef off the southern shore of Molokaʻi (Cooke 1949:75). Its initial use was by the Hawaiian people, who, according to moʻolelo and historic accounts, frequently utilized the break in the reef as a point of entry and departure for their canoes—whether it be for fishing, exchanging goods, traveling, or warring. The following section presents a timeline of events associated with Kaunakakai Wharf and its environs. Also included in this timeline are firsthand accounts of the wharf, various recollections of the area and a newspaper article, followed by historic photographs.

Ca. 1874– The interisland steamer, Kilauea, was making monthly stops to the reefs outside of Kaunakakai. "Because of the abrupt shoaling, only barges or shallow-draft craft could enter the harbor. Cargo was transferred from larger vessels, anchored in deep water, to lighters, which then carried goods and passengers to shore" (Grace and Nishimoto 1974:86 in Dean 1991:89).

According to George Cooke's recollections:

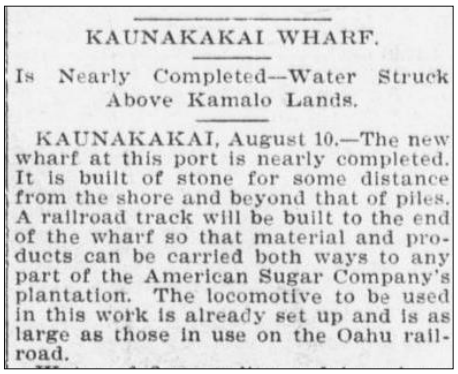
> The harbor was used by small coasting schooners in transporting supplies and island produce. The original method of handling freight was to take ox-carts over the shoals until they reached water deep enough for the shore boats from the schooners to row alongside. The shoal water continues for another several hundred yards from the shore. (Cooke 1949:75)

1880– By request of the minister of the Interior, H.A.P. Carter, Moloka'i resident Rudolph W. Meyer was asked to select sites for front and rear range lights to assist vessel's navigation. The lights themselves were kerosene lamps mounted on wooden spars which could be seen five to seven miles at sea. The lights were lit every night and manned by Kaleimamo from 1880 to 1889, followed by Samuel Kainali from 1889 to 1903 and Joseph Uahinui (Meyer 1880, 1881 in Dean 1991:89).

1897– Molokai Ranch was formed by a group of men and began acquiring lands of Moloka'i. Much of the area which they obtained had been previously owned by Kamehameha V, followed by Princess Ruth Ke'elikōlani in 1872 and Princess Bernice Pauahi Bishop. Upon her death, much of Pauahi's Moloka'i lands were sold to Molokai Ranch by trustees of the Bishop Estate. In 1898, the Molokai Ranch established ASCO, which in the same year constructed the wooden wharf in Kaunakakai.

1898– The original, wooden Kaunakakai Wharf was built by ASCO (Figure 14).

> …When I [George Cooke] first visited Molokai [in 1899], we landed from shore boats on a small pier of kiawe piles leeward of the present mole. The mole, which is one-half mile long, was obtained from a heiau (temple) which is the side of the upper house of the Hawaiian Homes Commission, above their well in Kalamaula, called Oloolo. During construction the loaded cars, running on tracks, carried the rock by gravity to the mole. The wharf itself was constructed of wood on wooden piles, and it was completed by the contractor DeFries before the mole was finished. Large sailing vessels could tie up against this wharf to bring plantation supplies and coal for the pumps. (Cooke 1949:71–72)



KAUNAKAKAI WHARF.

Is Nearly Completed—Water Struck Above Kamalo Lands.

KAUNAKAKAI, August 10.—The new wharf at this port is nearly completed. It is built of stone for some distance from the shore and beyond that of piles. A railroad track will be built to the end of the wharf so that material and products can be carried both ways to any part of the American Sugar Company's plantation. The locomotive to be used in this work is already set up and is as large as those in use on the Oahu railroad.

Figure 14. Article from *The Hawaiian Star*, published on August 11, 1899.

1903– Harbor navigational lights were replaced and the lanterns were mounted on posts, the front post being 40 feet high and the rear post reaching 45 feet high. The front light was changed to a fixed white, and the rear, a fixed red (United States Department of Commerce and Labor 1904:286 in Dean 1991:90).

1907– The front navigational marker of the harbor was lowered to 36 feet (11 m) and triangular shapes were affixed to the markers to assist vessels in approaching and entering the harbor during the day (United States Department of Commerce and Labor 1912:90–91 in Dean 1991:90). The lights became automated in 1912 and elevated on "wooden skeleton towers" with the front tower erected on the roof of a house (Dean 1991:90).

1908– "When I [George Cooke] moved to Molokai [in 1908] the mole was just wide enough for one railroad track. All freight was carried over the wharf by flat cars drawn by mules. This track extended inland as far as Chang Tung's store. ASCO maintained the wharf and the public was allowed free use of it" (Cooke 1949:72). The flat car is shown in Figure 15.

> The Kaunakakai mole, between the wharf and the shore, was too narrow for ordinary road vehicles. To overcome this disadvantage, a railroad flat-car on tracks was drawn by a reliable, "flea-bitten" grey mule named Hattie, who was replaced later by a brown mule named Hannah. The mule and flat-car hauled freight and passengers from steamer to shore. All freight was handled at least six times between suppliers in Honolulu and its destination on the ranch. (Cooke 1949: 87)

1910– The Mutual Telephone Company moved their wireless station from the village of Kamalō to Kaunakakai. It was housed in a building rented to them for one dollar per year by Molokai Ranch (Cooke 1949:82) (Figure 16).

1921– An article from the *Maui News* reports that "under the provisions of House Bill No. 193, Presented by Representative Kalua, the American Sugar Company wharf at Kaunakakai, Molokai, will be acquired by the Harbor Board for public wharf uses" (*Maui News* 1921).

1923– The N.R.A. contracted the Hawaiian Dredging Company for approximately $120,000 to dredge the harbor to a depth of at least 23 feet (7 m) (Cooke 1949:75).

1925– Because of increased sugarcane and cattle operations as well as homesteading developments, the need for fuel became critical. As a result of this demand, The Standard Oil Company built a storage and distribution station at Kaunakakai with Molokai Ranch acting as its agent. This same year, Molokai Ranch lands of Kaunakakai were granted a Land Court title by Judge Banks (Cooke 1949:75).

1926– With funds appropriated by the Territory, the first section of macadam road was paved starting at Kaunakakai and heading toward Hoʻolehua (Cooke 1949:74) Repairs also began during this year by the Harbor Board. These repairs consisted of widening the mole and taking up the old tracks "pending the reconstruction authorized by the appropriation of one hundred twenty-five thousand dollars by the 1923 Legislature" (Cooke 1949:73). The old wooden wharf is shown in Figure 17.

1928– Replacing the wooden wharf with a concrete one, E.J. Lord was awarded a contract from the Territory of Hawaii in 1927, the work being completed in 1928 (Figure 18). A subsequent sum was awarded to contractor Ralph Wooley who was charged with the extension of this wharf in 1929 (Cooke 1949:15).

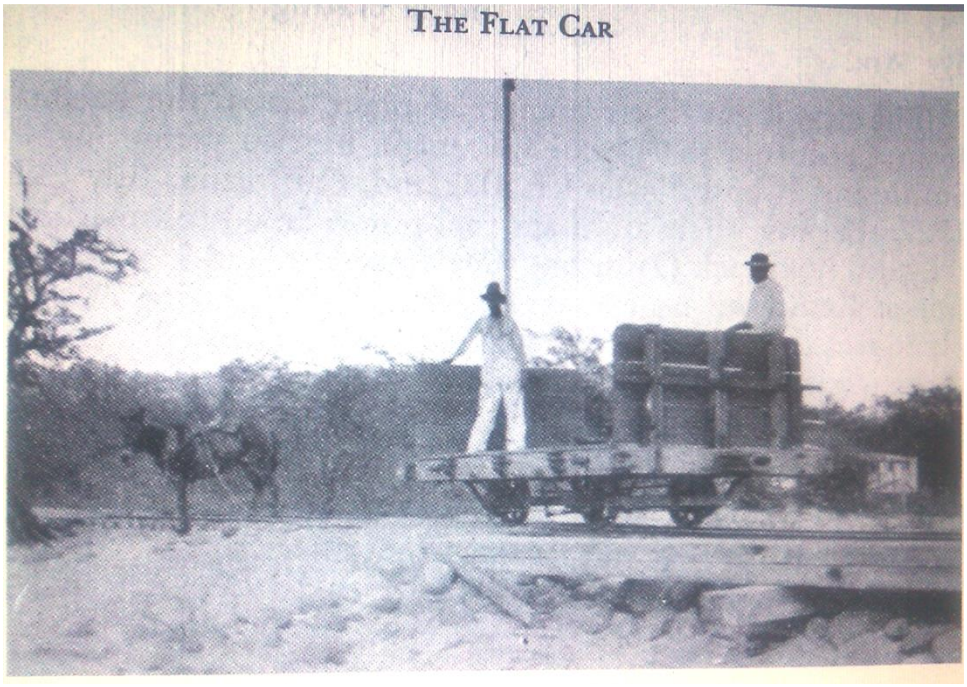


Figure 15. Photo of the flat car at the Kaunakakai wharf (Cooke 1949:87).

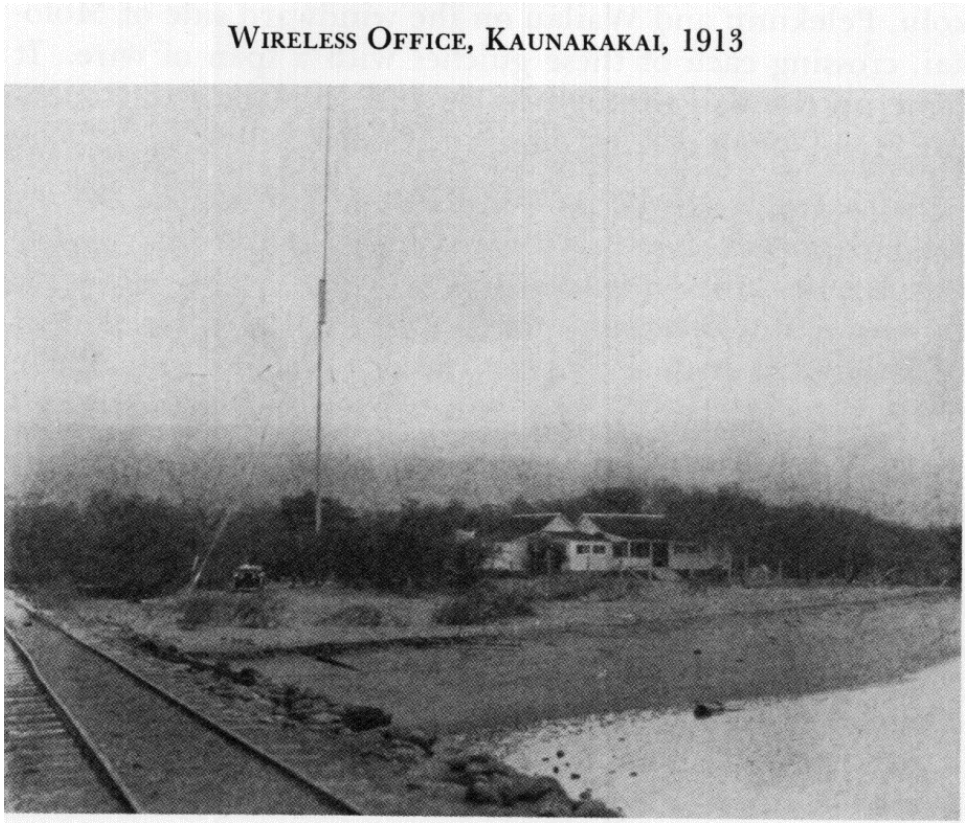


Figure 16. Wireless office in Kaunakakai (Cooke 1949:82).

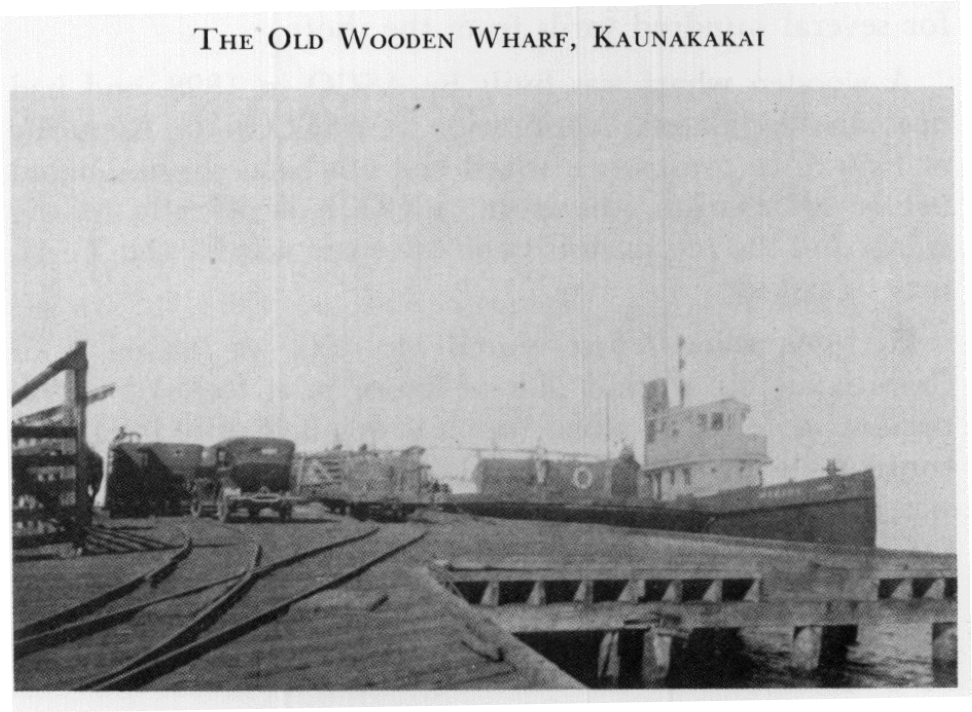


Figure 17. The wooden Kaunakakai Wharf (Cooke 1949:72).

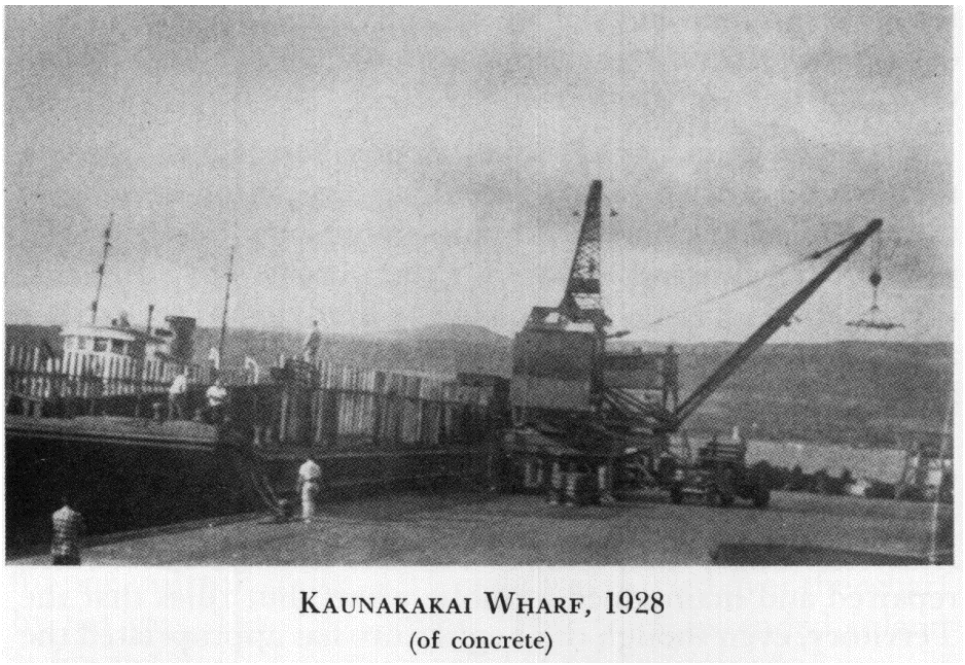


Figure 18. The new concrete wharf (Cooke 1949:74).

1932– One of the Standard Oil tanks at Kaunakakai caught fire, killing one employee, and severely injuring another. Due to lack of equipment to fight the fire, additional equipment had to be brought by tug and barge from Honolulu (Cooke 1949:15–16).

1935– The Molokai Ranch's Manager's Annual Report for that year stated:

> Delegate King has introduced a bill for an appropriation to survey Kaunakakai Harbor, looking forward to making this harbor available for direct shipment to and from the coast. The present plans call for a turning basin of one thousand fifty feet with a slip dredge for the Inter-Island boats, and the whole harbor and entrance dredged to a depth of thirty-five feet. (The last dredging was to a depth of twenty-three feet.) Should this project be approved by the United States Engineers, it may take from five to ten years before an appropriation in the Rivers and Harbors Bill could be obtained. (Cooke 1949:75)

1936– The Tax office and District Court were moved from Pūkoʻo to Kaunakakai, and a "wireless telephone system" was installed by the Mutual Telephone Company, Limited via ʻUlupalakua, Maui (Cooke 1949:20, 84).

1940– From the Manager's Annual report for 1940:

> Indications are that in 1941 the seventy-five thousand dollar loan fund appropriation will be expended in enlarging the deck of the present wharf at Kaunakakai. The plans call for extending the wharf inland from the present wharf and relieve much of the congestion. It will allow the loading and unloading of barges to take place on the inland side of the wharf and leave the outer end for steamers and ships that may call for passengers and freight." (Cooke 1949:75)

1950s– Two photographs were found of the Kaunakakai Wharf in the Hawaiʻi State Archives (Figures 19 and 20). The date on the back of the photos reads "pre-1980s," however, based on the vehicles pictured, the photos likely date to the 1950s. The wharf itself appears much the same as it does today.

Malama: A Royal Enclave

Said to have been the favorite island of Kapuāiwa, or Kamehameha V, the monarch frequented the island of Molokaʻi and built a "country estate" for himself at the current project area (Summers 1971:23). Born in 1830, Kapuāiwa ruled the Kingdom of Hawaiʻi from 1863 until his death in 1872. According to G.P. Judd IV, Kamehameha V "bought up land and cattle from the resident Hawaiians and used Molokai as a vacation ground from the cares of the State" (Judd IV 1936:10 in Summers 1971:23). The house was built ca. 1859 and by 1888, it was highly deteriorated. The structure could be seen until 1908 (Hammatt et al. 2010:20). According to Cooke, the house was eventually "moved to the village, and the property of Wm. Kamakana" (Cooke 1949:151).

An article published in an 1870 edition of the Hawaiian-language newspaper *Ke Au ʻOkoʻa,* offers a detailed and poetic description of the king's vacation home, which was known as Malama.

> It is close to the edge of the sand and if the tide is very high, the murmuring wavelets wash up and whisper to the grains of earth which were rubbed off the royal feet at the threshold of the entrance leading up to the lanai.
>
> It is a grass hut, skillfully thatched, having a lanai all around, with floors covered with real Hawaiian mats. The house has two big rooms. The parlor is well furnished, with glass cases

Figure 19. Kaunakakai Wharf, ca. 1950s (photo courtesy of the Hawaii State Archives).

Figure 20. Kaunakakai Wharf ca. 1950s (photo courtesy of the Hawaii State Archives).

containing books in the English language…This is a very good vacation house for the king, in spite of that sun baked area.

On the northwest side of the house is a large grass house, and it seems to be the largest one seen to this time. The house is divided into rooms and appears to be a place in which to receive the king's guests. There are four other fine, big houses, mostly thatched. These are surrounded by the houses of those who wait on him and some are houses used for storage.

> The royal residence is set apart from the rest by a wooden fence that encloses it on all sides except the sea side. The king's yard covers about three acres and is planted with trees, mostly coconuts, that are thriving nicely. Another reason why we admire it so is that we saw no faucets since we left Honolulu, but when we got there we saw "the water that sleeps in the houses of men." (Holoholopinaau 1870 in Summers 1971:23)

Brigham also provides further detail about the king's Malama residence, as well as insight into his attitudes and preferences:

> When the photograph was taken in 1888 the house was in ruin and quite uninhabitable; were it not for the bars across the lanai openings, cattle might have entered this deserted fishing lodge of the king who, like all his family, was so fond of fishing that he often deserted his court in Honolulu and was paddled to this place where he remained for weeks at a time, out of the reach of the foreigners who he liked none too well. The enclosed corner of the lanai or verandah was very foreign, however, and so were the partitions found within the house. (Brigham 1908:112)

A photograph of Malama appeared in W.T. Brigham's *The Ancient Hawaiian House* (1908:111) (Figure 21). According to George Cooke's memoirs, the beach fronting Malama was reserved strictly for the use of the aliʻi who enjoyed sunbathing on a sandy spit named Ka Lae o Ka Manu after the kōlea (plover) which would return there each year (Cooke 1949:151). Cooke notes the location of Malama in relation to the sandy beach:

> West of the approach to the Kaunakakai wharf is a built-up platform, the name of which is Ka Lae O Ka Manu, the point of the birds. On this site King Kamehameha V had a home, "Malama" which was still standing in 1908. It has since been removed to the village and is on a lot belonging to William Kamakana and his wife. The Reverent Isaac D. Iaea told me that there was a spit of sand beyond this platform where the plover used to settle in the evenings, hence the name, Ka Lae O Ka Manu. (Cooke in Summers 1971)

Kalaʻiakamanu Church was built on top of Malama Platform sometime just after the year 1900 (Figure 22). As it is not certain whether the church was named after the place Ka Lae o Ka Manu, the name of this church has been presented in a few ways. Pukui and Elbert (1986) refer to it as Kalaʻiakamanu, and another report refers to the church as Ka Lae Ka Manu Hou (Athens 1983), although the "Hou" was probably given to the church's name when it moved to its present location. The exact date of its construction is unknown, but an interviewee in a previous study, Walter Kiawe, noted that it was built of ʻōhiʻa wood. The church was moved off the foundation to a nearby location in the 1920s or early 1930s. And because of the 1946 tsunami, the church was moved again to its present location mauka of Maunaloa Highway (Athens 1983:24).

Approximately 50 feet to the west of the Kamehameha V house, the King built a residence for Governor John Dominis and Colonel Charles Judd. Although ultimately succumbing to fire, retainers' houses once stood where the Standard Oil Company's fuel tanks are currently (Figure 23). In that area, there was also a canoe house, which was at the location of the present-day County Park. It was also noted in Cooke's recollections that small boats from steamers would later come to shore to ship sugar and molasses from the Meyer family's operations, and a shed was used to store this sugar (Cooke 1949:110, 151).

In 1995, the State of Hawaiʻi proposed the development of 11.734 acres in Kaunakakai, which would be developed into the Malama Cultural Park. At the time, the project area included three vacant lots leased to third parties for construction equipment storage, LPG operations, and the Molokaʻi Yacht Club. The project relied on community-based management and public funds to turn the flat area into a public park focused on enhancing the socio-cultural, recreational, and potential economic activities

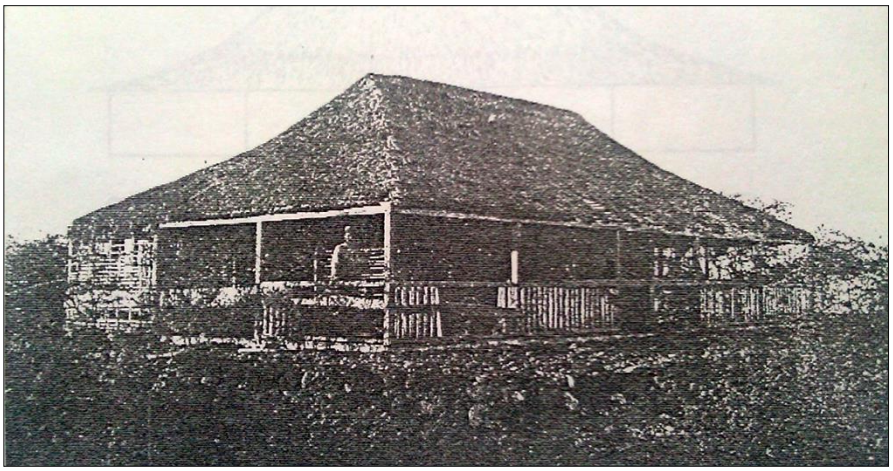


Figure 21. Photograph of Malama, Kamehameha V's residence (Brigham 1908:111).

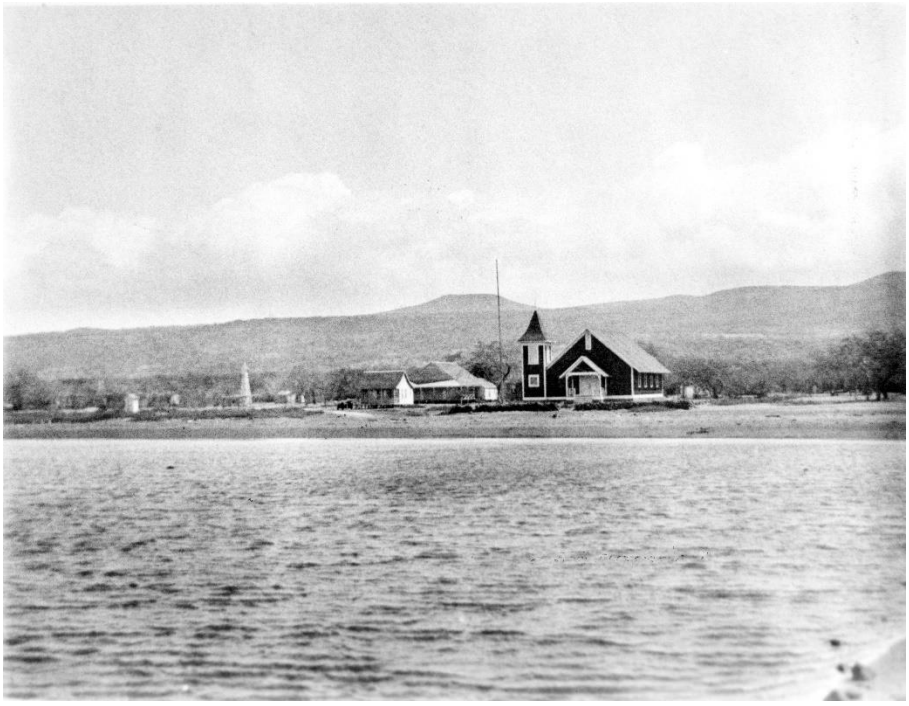


Figure 22. Photograph of Malama and Kala'ikamanu Church from the wharf, 1909 (D.B. Curtis Collection).

KING KAMEHAMEHA V'S RETAINERS' HOUSE, KAUNAKAKAI
(Torn down in 1940)

Figure 23. Kamehameha V's retainer's home (Cooke 1949:111).

on the island. The original plan proposed construction of a grass amphitheater and stage, arts and crafts center, canoe storage building, immersion school, restrooms, and other park facilities, of which the hula mound (grass stage), restroom with showers, and paved pathways have been completed and currently exist on site.

Previous Archaeology

Numerous archaeological studies were performed in Kaunakakai and provide significant data regarding traditional and historic land use and settlement patterns (Table 1). The following section presents previous archaeological investigations in the ahupua'a of Kaunakakai. Studies located in the vicinity of the project area are summarized below and depicted in Figure 24; known archaeological sites are shown in Figure 25. State Inventory of Historic Places (SIHP) numbers are prefaced by 50-60-03 (Table 2).

One of the earliest archaeological surveys was conducted by Catherine Summers. Her island-wide study pulled information from various sources, such as Stokes' 1909 state-wide study of heiau to produce her book, *Molokai: A Site Survey*. She records five sites located in Kaunakakai, three of which were given site numbers. After a brief description of Kamehameha V's Malama residence platform, she goes on to describe Sites 129, 130, 131, and a kahua maika believed to be located in Kaunakakai. The saltworks, visible on several of the historic maps, were situated just west of the current project area at the mouth of Kaunakakai Stream. It is also believed that Mahinahina Heiau was located at the same place as Kamehameha V's residence, Malama, which is within the project area. The following is an excerpt from Summers' book (1971:87–88):

Table 1. Previous Archaeological Studies in the Vicinity of the Project Area

Author and Year	Location	TMK	Type of Study	Findings
Stokes 1909	State-wide	Multiple	Survey	Documented heiau across the islands. Sites recorded in Kaunakakai include the destroyed Kamalae Heiau (Site 130) and Mahinahina Heiau (Site 131).
Summers 1971	Moloka‘i	Multiple	Survey	Sites recorded within Kaunakakai include Kamehameha V’s home, Malama; Site 129, Kaunakakai Saltworks; Site 130, Kamalae Heiau; Site 131, Mahinahina Heiau; and a kahua maika believed to be located in Kaunakakai.
Shun 1981	Kaunakakai, Sewage Treatment Facility	(2) 5-3-005:002	Archaeological Investigations	Three sites were recorded within the 19-acre area of study, of these three, SIHP 129 and 631 were given site numbers. Radiocarbon dating was also performed.
Shun 1982	Kaunakakai, Wastewater Treatment Facilities	(2) 5-3-005:002	Reconnaissance Survey and Test Excavations	This study recorded historic parallel mounds as well as a subsurface cultural deposit dated to AD 1819 ± 50.
Komori 1983	Kaunakakai	(2) 5-3-001:002	Reconnaissance Survey and Historical Research	On Lots 521 and 522, one site was found: SIHP 630, a subsurface midden deposit consisting of shellfish, charcoal, and fish bone as well as traditional and historic artifacts.
Athens 1983	Kaunakakai, Kaunakakai Place and Hio Place	(2) 5-3-001:002	Archaeological and Historical Investigations	As a continuation of Komori’s study of the same year, radiocarbon dating revealed dates of AD 1230–1340 and AD 1435–1665.
Landrum 1984	Kaunakakai, U.S. Coast Guard Harbor Range Lights Facility	(2) 5-3-001:003	Reconnaissance Survey	Within a 3.6-acre area, one site, SIHP 632, a subsurface traditional cultural deposit was recorded. A historic foundation was also present but was not recorded.
Kennedy 1988	Kaunakakai	(2) 5-3-001:077	Survey and Subsurface Testing	No additional sites recorded.
Weisler 1989	Kaunakakai, Ranch Camp	(2) 5-3-001	Survey and Subsurface Testing	Within an approximately 115-acre area, four sites were identified and include agricultural complexes with shelter features, stacked rock wall alignments and mounds, as well as a “massive boundary wall,” SIHP 886, 887, 888, and 889. At time of publication, Sites 886, 887, and 888 collectively were the largest agricultural complex in leeward Moloka‘i, covering an area of 34.6 acres. Radiocarbon dating was also conducted, the earliest date being AD 1280 for a dryland agricultural feature.
Tuggle 1993	Kaunakakai, Malama Platform	(2) 5-3-001:002	Subsurface Testing	Investigations were conducted at SIHP 630, 890 and 1030.

Table 1. (continued)

Author and Year	Location	TMK	Type of Study	Findings
Borthwick and Hammatt 1994	Kaunakakai, Within portion of Drainage System A	(2)5-030-01, -002, -006 & -007	Archaeological Inventory Survey	Within a 2.18-acre area associated with the corridor of Drainage A, two sites were identified, SIHP 895, an enclosure with pavements and 896, a stacked boulder wall.
Collins 1994	Kaunakakai	(2) 5-3-003:001	Field Check	Three sites recorded and found as part of field checks for Soil Conservation Service in area proposed for use as Molokai Community Pasture Project and include SIHP 996, 997, and 998.
Heidel et al. 1998	Kaunakakai, Within portion of Drainage System A	(2) 5-3-002: por. 072; -063 :por. 001; -009: por. 017	Data Recovery	At same location as Borthwick and Hammatt (1994) and McGuire and Hammatt (2000). Investigations consisted of cross-trenching of historic cattle wall (SIHP 896) and areal excavations at SIHP 895.
Titchenal 1998	Kaunakakai, Malama Cultural Park	(2) 5-3-001: por. 002, 005, 097, 099, 100	Archaeological Monitoring	Five subsurface features were encountered during monitoring, which included four features of historic age (19th and 20th centuries) and one of indeterminate age in the SIHP 630 area.
McGerty and Carson 1999	Kaunakakai, Within portion of Drainage System A	(2) 5-3-002:072; -063: 001; -009:017	Supplemental Archaeological Inventory Survey	Recorded additional features of SIHP 895, all of which were determined to be no longer significant through completion of the survey.
McGuire and Hammatt 2000	Kaunakakai, Within portion of Drainage System A	(2) 5-3-002: por. 072; -003: por. 001; -005: por. 008; -009: por. 006, 007, 017, 018, & 022	Archaeological Monitoring	An expanded location from Borthwick and Hammatt (1994) and Heidel et al. (1998). No additional sites or deposits were found during monitoring of drainage installation.
Cordy 2001	Kaunakakai mauka	Multiple	Archaeological Reconnaissance	Student training project conducted reconnaissance-level survey of 500 acres of upland slopes; 12 sites were described, two of which had been previously identified. Most sites were used for habitation with religious sites being the second most common function. All the sites except for a wall (Site 2445) are pre-European or early 1800s.
Dye and Jourdane 2006	Kaunakakai	(2) 5-3-003:014	Archaeological Inventory Survey	No findings.
McGerty and Spear 2006	Kaunakakai Fire Station	(2) 5-3-003:015	Archaeological Inventory Survey	No findings.

Table 1. (continued)

Author and Year	Location	TMK	Type of Study	Findings
Hammatt 2008	Kaunakakai Elementary School	(2) 5-3-002:052	Literature Review and Field Check	No sites were found, although the school's establishment in 1908 qualifies the campus as a historic property.
Madeus et al. 2010	Kaunakakai Elementary School	(2) 5-3-002:052	Archaeological Monitoring	No findings.
Desilets 2011	60 Maluolu Place	(2) 5-3-002:073	Archaeological Monitoring	No findings.
Medrano and Dega 2013	Duke Maliu Field	(2) 5-3-003:012	Archaeological Monitoring	No findings.
McElroy et al. 2013	Duke Maliu Field	(2) 5-3-003:012	Archaeological Inventory Survey	Recorded two mid-20th century glass fragments.
McElroy and Elison 2014	Kaunakakai Wharf	(2) 5-3-001:005 and :011	Archaeological Monitoring	Identified two sites: SIHP 2514, a historic wall, and 2523, possibly a tie beam for the original Kaunakakai Wharf.
Stine et al. 2014	Kaunakakai Wharf	(2) 5-3-001 (various parcels)	Archaeological Monitoring	Identified SIHP 2525, a boulder fill layer associated with the ASCO railroad built in 1898.
McElroy and Eminger 2015a	Kaunakakai Levees	Multiple	Archaeological Inventory Survey	Documented two sites: SIHP 2563, the historic Kaunakakai Levees themselves, and SIHP 896, a wall that is part of a previously recorded complex.
McElroy and Eminger 2015b	Kaunakakai Levee Borings	Multiple	Archaeological Monitoring	No findings.
Lee-Greig et al. 2016	Kaunakakai Drainage System B Improvements	(2) 5-3-001:003 and 008, (2) 5-3-005:006 and 007	Archaeological Inventory Survey	Documented a subsurface cultural deposit during test excavations (SIHP 2573). Associated historic artifacts and remnants of building material were found with the deposit.

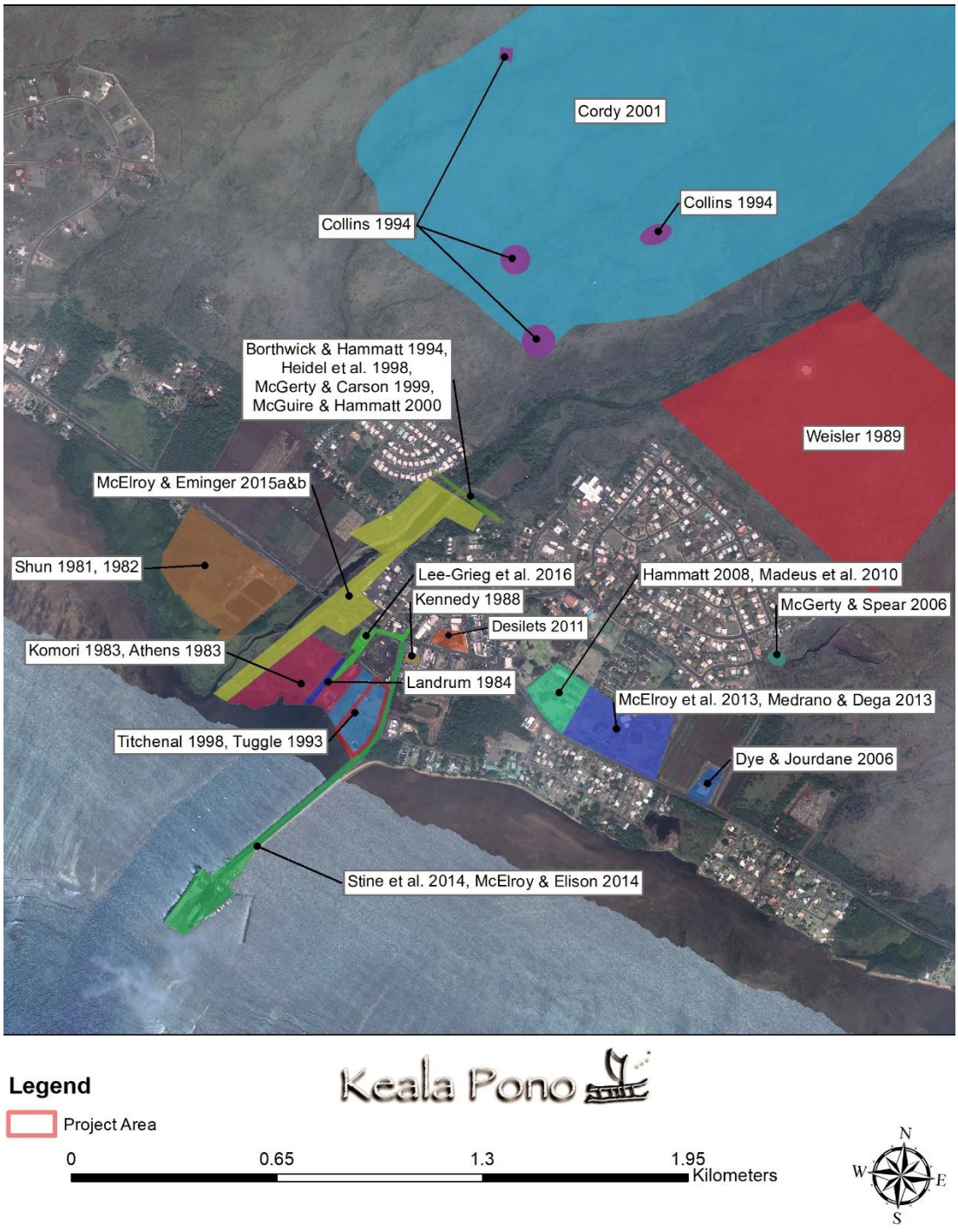


Figure 24. Location of previous archaeological studies near the project area.

Table 2. Archaeological Sites Mentioned in the Text

SIHP	Name	Description	Reference
129	Kaunakakai Saltworks	Thought to have been destroyed; remnants of traditional salt pans have mounds visible above water level.	Summers 1971; Shun 1981; Shun 1982
130	Kamalae Heiau	Temple for human sacrifice that was recorded as destroyed.	Summers 1971
131	Mahinahina Heiau	Thought to be a temple for human sacrifice and is probably the same as the Malama Platform. Stones from the heiau were possibly used to construct the Kaunakakai piers.	Summers 1971
630	Cultural deposit	Extensive cultural deposit with 8 hearths, post molds, a wall, and a pit feature. Radiocarbon dating returned dates as early as AD 1230–1340. Various historic artifacts were also found within the deposit.	Komori 1983; Athens 1983; Tuggle 1993
631	Cultural deposit	Charcoal stained sand dating to AD 1819±50.	Shun 1981; Shun 1982
632	Cultural deposit	Traditional cultural deposit with historic building foundation.	Landrum 1984
886–889	Agricultural complexes	Agricultural complexes with shelter features, wall alignments, and mounds. C^{14} testing produced dates as early as AD 1280.	Weisler 1989
890	Historic pier	Two basalt alignments spaced 2.5 m apart and possibly built around the year 1900. The majority of the remains are most likely submerged beneath the silt loam.	Tuggle 1993
895	Enclosure	The enclosure with pavements produced C^{14} dates of AD 1400–1690.	Borthwick and Hammatt 1994; Heidel et al. 1998; McGerty and Carson 1995
896	Historic cattle wall	Cattle wall made of stacked boulders and dating to AD 1795–1890.	Borthwick and Hammatt 1994; Heidel et al. 1998; McElroy and Eminger 2015a
996	Enclosures	Two rectangular enclosures with a wall of stacked boulders. The smaller enclosure has two interior platforms on the northwest and northeast corners. Noted to be of religious function.	Collins 1994
997	Dryland agricultural complex	A minimum of 20 modified outcrops.	Collins 1994

Table 2. (continued)

SIHP	Name	Description	Reference
998	Enclosure	Large enclosure with walls roughly 1 m high. At least 10–15 modified outcrops and windbreak walls found within. Determined to be a possible agricultural site with habitation features. Later described by Cordy as three irregular enclosures with mounds, clearings, an upright stone, and c-shaped enclosures inside.	Collins 1994; Cordy 2001
1030	Malama Platform	Thought to originally be Mahinahina Heiau before it was the location of the former residence of Kamehameha V. Later the platform was used as the foundation for Kalaʻiakamanu Church.	Summers 1971; Tuggle 1993
2445	Wall	Historic wall from the late 1800s or 1900s that may possibly be a waterline aqueduct.	Cordy 2001
2447	Petroglyphs	Six boulders with carved petroglyphs are noted to be a religious family shrine.	Cordy 2001
2448	Enclosure	Temporary habitation site consisting of a rectangular enclosure with paving and a rectangular mound.	Cordy 2001
2449	Enclosure	Rectangular enclosure of roughly 16 m^2, which functioned as a temporary habitation site.	Cordy 2001
2453	Enclosures	A set of two small rectangular enclosures and one large rectangular enclosure of at least 20 m^2 that served as a permanent habitation site.	Cordy 2001
2454	Enclosure	Single irregularly-shaped enclosure determined to be a temporary habitation site such as a field shelter.	Cordy 2001
2514	Historic wall	Buried historic wall possibly associated with ASCO activities.	McElroy and Elison 2014
2523	Tie beam	Buried historic wall possibly used as tie beam of the original wooden Kaunakakai Wharf from 1928.	McElroy and Elison 2014
2525	Boulder fill	Fill associated with the ASCO railroad built in 1898.	Stine et al. 2014
2563	Historic levees	Historic Kaunakakai levees.	McElroy and Eminger 2015a
2573	Cultural deposit	Historic cultural deposit with associated historic artifacts and remnants of building materials.	Lee-Greig et al. 2016

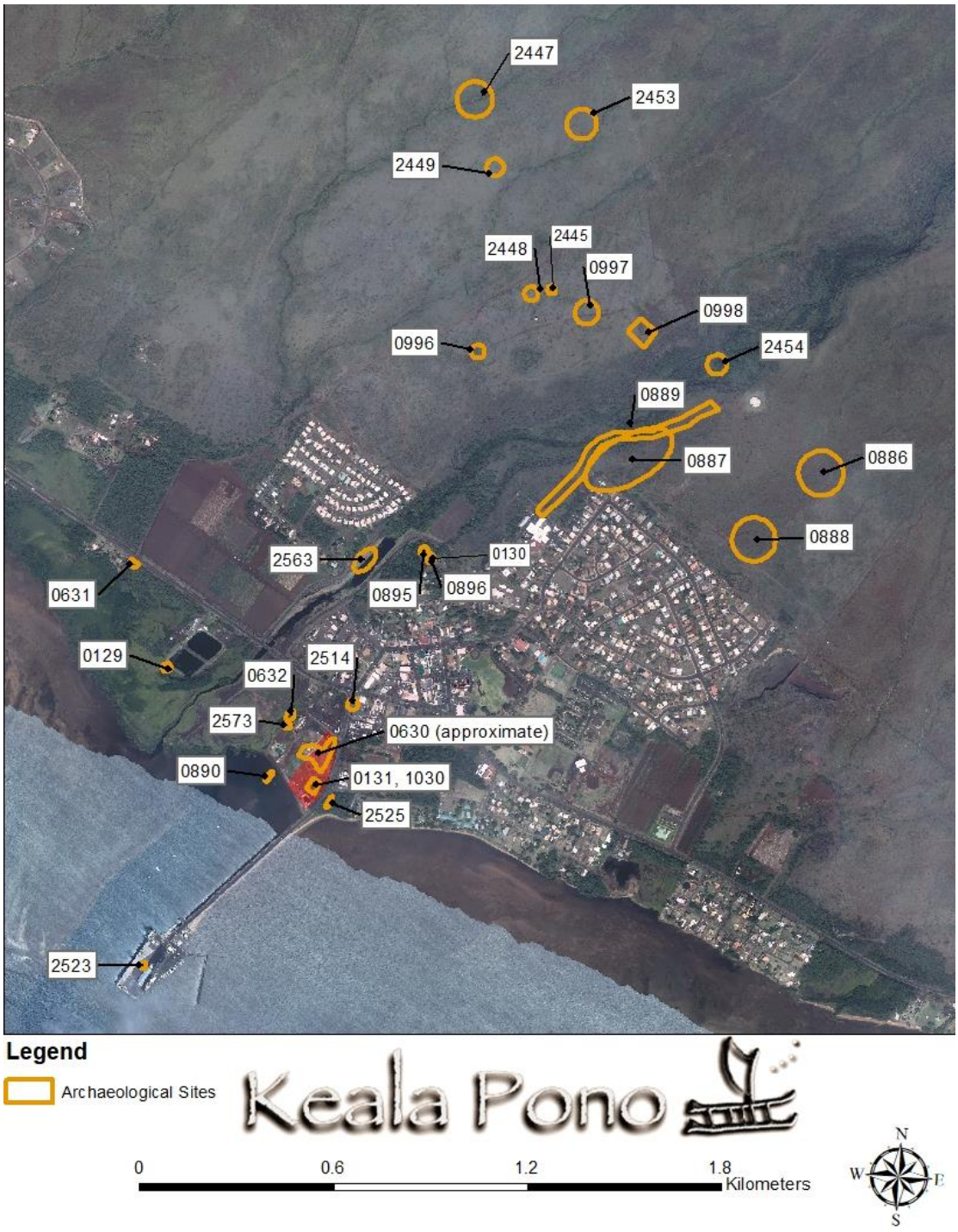


Figure 25. Location of known archaeological sites near the project area.

> West of the approach to Kaunakakai wharf is a platform that was part of Kamehameha V's home, Malama…The beach in front of this site was used exclusively by the aliʻi for sun bathing. There formerly was a spit of sand in front of here called Ka Lae O Ka Manu, so named because the plover used to settle here. At the site of the County Park was a canoe shed.
>
> Site 129. Saltworks, Kaunakakai
> Located at the site of the Kaunakakai dump in 1961, the salt pans were made "something like a taro patch." Sea water was run into the pans at high tide, and when the tide ebbed, some of the water remained. The water was allowed to stand from one to three weeks, after which the salt was gathered and dried. The salt formed here was not as salty as the salt formed by waves from the deep sea—"Our salt here is not too sour, the salt is white."
>
> Site 130. Kamalae Heiau, Kaunakakai
> Located behind Kaunakakai Village, the site of the heiau is at the foot of the median ridge. From Kakalahale ▲ it bears 35°29'30"; 12,890 ft. Stokes wrote of it, "Heiau entirely destroyed. It is said to have been for human sacrifice, and that the drums were heard at night."
>
> Site 131. Mahinahina Heiau, Kaunakakai
> This heiau is located 500 ft NE of the pier at Kaunakakai. According to Stokes, "The site pointed out was a low platform lined with ala, on which a church stood…Said to have been for human sacrifice, and that the drums were heard at night."
>
> Kahua Maika, Kaunkakai (?)
> N.B. Emerson said that he saw a curved kahua maika "…on the plains back of Kaunakakai.
> Two archaeological studies were carried out at the location of the Kaunakakai Wastewater Treatment Facility by Shun (1981, 1982). During investigations located west of the current area of study, three sites were identified. Shun's studies recorded post-contact parallel mounds as well as a subsurface cultural deposit dated to 1819.

A reconnaissance survey at the U.S. Coast Guard Harbor Range Lights Facility was conducted by Landrum (1984). Within a 3.6-acre area, one site, SIHP 632, a subsurface traditional cultural deposit, was recorded. A historic foundation and artifacts were noted but not fully documented.

An archaeological survey with subsurface excavations was carried out just north of the current project area at the present Molokai Pizza Cafe (Kennedy 1988). No new cultural properties were identified.

Archaeological investigations were carried out on a roughly 115-acre area just mauka of Kaunakakai Town (Weisler 1989). Four new sites were identified, including the largest dryland agricultural system on the leeward side of Molokaʻi. These large agricultural complexes were designated as Site 886, 887, and 888, and included shelter features, stacked rock wall alignments, and mounds. Site 889 is a large boundary wall that runs along Kaunakakai Gulch. Charcoal was collected during test excavations, which produced a date of AD 1280, the earliest date of any dryland agricultural site on the island. Other samples submitted for C^{14} analysis yielded dates spanning from AD 1441 to 1955, suggesting a long history of use.

During a study of Malama Platform, remnants of the old Kaunakakai pier (Site 890) were also documented (Tuggle 1993). The old pier is located on the shoreline approximately 70 m (229 ft.) west of the Malama Platform just outside the boundary of the current project area. It is possible that this is the structure Cooke refers to as a "small pier of kiawe piles" (1949:71). Construction of the pier consists of a "double alignment of basalt cobbles that extends to sea from the shoreline" (Ogg

and Spear 2009). These two alignments are spaced 2.5 m apart. Historic maps indicate the pier was built around the year 1900 and was approximately 220 m long (Ogg and Spear 2009). Most of the remains are likely submerged beneath the silt loam, however approximately 20 m (65.6 ft.) of the pier becomes exposed during low tide. Two heiau that have since been destroyed were once located in the vicinity and it is possible that the stones were used to construct the historic pier and the existing Kaunakakai pier (Summers 1971:84). No archaeological studies or subsurface excavations have been conducted on the pier.

Several archaeological studies were conducted within a corridor associated with Drainage "A," the first being an inventory survey by Borthwick and Hammatt (1994). Two sites were identified, SIHP 895, an enclosure with pavements and SIHP 896, a stacked boulder wall. Later data recovery investigations consisted of cross-trenching of a historic cattle wall (SIHP 896) and areal excavations at SIHP 895 (Heidel et al. 1998). A supplemental survey recorded additional features of SIHP 895, all of which were determined to be no longer significant through completion of the survey (McGerty and Carson 1999). Archaeological monitoring did not reveal further sites (McGuire and Hammatt 2000).

A field check was completed in 1994 for the proposed Molokaʻi Community Pasture Project (Collins 1994). Three sites were identified. SIHP 996 has a possible religious function and consists of two enclosures, the smaller of which includes two platforms in the northwest and northeast corners. Site 997 is a possible dryland agricultural complex with at least 20 modified outcrop features. Site 998 is a large enclosure with at least 15 modified outcrop features and windbreak walls within. This site was determined to be agricultural with possible habitation components.

A reconnaissance survey was conducted on a 500-acre area as part of a student training project (Cordy 2001). The survey recorded two previously identified sites (SIHP 996 and 998) in addition to ten new sites, all of which were from the pre-contact era or early 1800s, except for one site, a historic wall. Most of the 12 sites served as habitation, however a dryland agricultural complex, remnants of a dryland agricultural field, a small heiau, and a series of six boulders containing petroglyphs were also documented. The sole historic site is a wall from the late 1800s or early 1900s, which may have been a waterline aqueduct.

In 2006, a survey was completed on a 5-acre parcel where the Kaunakakai Fire Station is currently located (McGerty and Spear 2006). This area was once part of Molokai Ranch pasturelands and straddles the boundary of Kaunakakai and Kapaʻakea Ahupuaʻa. No identifiable archaeological features were present due to past alteration of the landscape.

An archaeological assessment was conducted for the addition of the Verizon Wireless H12 Kaunakakai Cell site, located in the vicinity of the Molokaʻi Education Center (Dye and Jourdane 2006). No significant sites were recorded during past construction of the Molokaʻi Education Center and the assessment yielded no surface or subsurface historic properties in the vicinity.

An archaeological literature review was completed for improvements to a wastewater system for the Kaunakakai Elementary School (Hammatt 2008). No archaeological surface features were identified during the study. However, the establishment of the school's campus in 1908 qualified it as a historic property. Later archaeological monitoring found no significant historical sites (Madeus 2010).

Archaeological monitoring was carried out for soil boring at 60 Maluolu Place, in Kaunakakai Town (Desilets 2011). No findings were reported, and the area was found to be heavily disturbed.

Archaeological monitoring was performed for improvements to portions of Duke Maliu Field (Medrano and Dega 2013). Ground disturbing work included excavations for fence posts, sprinklers,

drains, and a building foundation, as well as tree removal and paving. No findings were reported. An archaeological inventory survey was later conducted for the entire park in anticipation of park improvements, including expansion of the parking lot and replacement of lights on the softball field (McElroy et al. 2013). The archaeological work consisted of a pedestrian survey and excavation of nine test trenches. Two isolated glass fragments were recovered that were likely part of mid-20th century bottles. Aside from these glass fragments, no cultural material, deposits, or surface architecture were recorded, and the survey was reported as an archaeological assessment.

Archaeological monitoring was conducted for improvements to the Kaunakakai Wharf, on the wharf itself and within a corridor of Kaunakakai Place (McElroy and Elison 2014). Two archaeological sites were found. SIHP 2514 is a historic wall located on Kaunakakai Place, across the street from the Molokai Burger driveway. The site may be associated with pursuits of the American Sugar Company, which was active in the region during the early 20th century. SIHP 2523 is a historic wall buried below the Kaunakakai Wharf. It is thought to be a tie beam that functions as structural support for the wharf and may date to 1928, when the old wooden wharf was replaced with a concrete one.

Also in 2014, archaeological monitoring was conducted for the Molokaʻi Hazmat Project located on Kaunakakai Wharf and along Kaunakakai Place to Kamehameha V Highway (Stine et al. 2014). The project consisted of the construction of a new restroom, waiting area, and other improvements on the pier, which required a new water main and sewer force main to connect to the county sewer system. Monitoring was conducted for five auger holes along the east side of Kaunakakai Place, which identified boulder fill associated with the ASCO railroad built in 1898 that once ran along this street to the pier (SIHP 2525).

An archaeological inventory survey for the Kaunakakai levees identified two sites: SIHP 2563, the historic Kaunakakai levees themselves, and a wall that is part of a previously recorded complex SIHP 896 (McElroy and Eminger 2015a). Monitoring for borings associated with the same project produced no findings (McElroy and Eminger 2015b).

In 2016, an archaeological inventory survey was performed for the Kaunakakai Drainage System B Improvements Project (Lee-Greig et al. 2016). A pedestrian survey and subsurface testing were completed for the project area. A subsurface cultural deposit (SIHP 2573) was encountered just outside of their project area during the 21 test trenches. The deposit included remnants of building material and historic artifacts including a nail, glass, wood, kukui nutshell, and marine shell. It was noted that SIHP 2573 may be associated with SIHP 630, the large subsurface cultural deposit located on the current project area.

Cultural Resources within the Project Area

There are two previously identified archaeological sites located within Malama Cultural Park: the Malama Platform (SIHP 50-60-03-1030), and an extensive cultural deposit (SIHP 50-60-03-630) (Tuggle 1993). In addition, the old Kaunakakai Jailhouse as well as a historic weigh station are located within the study area, but these do not have SIHP numbers.

Test excavations were conducted as part of an Environmental Assessment (EA) to determine preservation measures for Site 630, Site 1030, and a historic pier (Site 890), the latter of which is located just west along the coastline outside of the current project area (Tuggle 1993). The study found all three sites to be significant and recommended preservation and interpretation of the Malama Platform (Site 1030), noting that "additional excavations for the collection of information for interpretation would be valuable" (Tuggle 1993:54). Testing and data collection were recommended for any ground disturbance near the cultural deposit (Site 630). Preservation and possibly interpretation for the old pier was also mentioned, however no studies were completed on

the pier. Tuggle suggested organizing a community-based archaeology committee to oversee preservation, interpretation, and research measures regarding the three sites.

In 2009, an EA and Application for Special Management Area Permit were completed for Malama Cultural Park for the proposed construction of two hālau waʻa (canoe houses) and associated facilities for ʻAha Kukui o Molokaʻi (Chris Hart & Partners, Inc. 2009). Ethnographic interviews noted that many Molokaʻi residents have been directly involved with the Malama Cultural Park project. In 2009, the park was used for family gatherings (e.g., birthday parties), barbeques, canoe practice, water sports, fishing, hula practice, and the Akaula School's annual makahiki games (Maunakai & Associates 2009:20). The report was a compilation of an EA, cultural impact assessment, archaeological monitoring plan, preliminary engineering and drainage report, economic report, wetland determination survey, and a traffic impact assessment.

The four cultural properties identified within the project area are described in the following paragraphs.

Malama Platform – Site 50-60-03-1030

Several studies were conducted at the Malama Platform located on the southeast corner of the project area during the original plans for the Malama Cultural Park. The platform was first recorded by Stokes (1909), then Summers during her survey of Molokaʻi (1971:23). Tuggle (1993) excavated eleven test trenches around the site and one trench that bisected the platform. Materials identified in the test excavations were predominantly post-contact artifacts such as metal, glass, and ceramics with just a few traditional artifacts found: basalt flakes, one basalt grinding stone, two flaked cobbles, and Molokaʻi chert (Tuggle 1993:84–85). A few fragments of faunal bones (fish, bird, and mammal), as well as marine shell were identified as food remains (Tuggle 1993:85). It is believed that the platform served as the location of Mahinahina Heiau (Site 131), then later Kamehameha V's summer residence called Malama, and even later Kalaʻiakamanu Church. However, subsurface excavations were unable to confirm that the platform was also used as a heiau.

Tuggle (1993) recorded the height of the platform to be roughly 1.70–1.75 m (5.58–5.75 ft.) asl and discovered two distinct stages of construction. The first is an inner structure of stacked basalt stone facing with crushed coral fill that has been remodeled at least once. The second phase was completed at a later time and consists of a wall built around the original platform that was then filled in. This second phase of construction is what is visible today. Later archaeological monitoring at Malama Cultural Park suggested that the inner structure of the Malama Platform is associated with the summer residence and the second stage of outer rocks was constructed as the foundation of Kalaʻiakamanu Church (Titchenal 1998). Five subsurface features were encountered during monitoring, which included four features of historic age (19th and 20th centuries) and one of indeterminate age.

Cultural Deposit – Site 50-60-03-630

In 1983, two studies were performed at Kaunakakai Place and Hio Place, on the northeastern corner of the current project area. The first reconnaissance survey revealed a subsurface midden deposit consisting of shellfish, charcoal, and fish bone as well as historic artifacts such as a pearl-shell button (Komori 1983). Traditional artifacts include a basalt grinding or polishing stone and a coral abrader. This site was later designated as SIHP 50-60-03-630. The full extent of Site 630 is unknown, however it has been identified on the entire mauka portion of the current project area, north of the Malama Platform to Hio Place and covers at least 70 m² (Tuggle 1993:4). It was noted by Lee-Greig et al. (2016) that Site 630 may be associated with the similar subsurface cultural deposit SIHP 2573 located nearby. It was previously mentioned that the coastline was much farther inland than it is

today. Tuggle notes that "there is no question that the area of the cultural park contains the original coastline and sand flats now buried by alluvium" (1993:24). The second study of this area excavated four test pits and 26 trenches, obtaining C^{14} dates of AD 1230–1340 and AD 1435–1665 (Athens 1983). Historic material dating to the time of Kamehameha V's residence was also noted in addition to twelve features uncovered during test excavations. These included eight hearths, two post molds, a pit feature, and a wall. Subsurface cultural deposits were either disturbed or absent in the east side of their project area, closest to the wharf. Additional components and artifacts associated with Site 1030, the Malama Platform may be located within this extensive cultural deposit. Athens noted that:

> The historical deposits were highly disturbed from previous grading, bulldozing, and land filling activities, and structural remains could not be positively identified. Analysis of bottle glass suggests the occupation of this location may have begun about 1860–1870, which is the time Kamehameha V utilized the area. Prehistoric deposits were also evident in the underlying calcareous sand, consisting of shell midden remains, hearth features, and other materials. Undisturbed deposits, however, were limited to only a few area, being densest in the southwestern quadrant of the property. (Athens 1983:iii)

Kaunakakai Jailhouse

The historic jailhouse is considered to be the oldest wooden structure on Molokaʻi and has been moved to different locations around the island over the years (Stephenson 2011) (Figure 26). It was originally located in Pukoʻo in the early 1800s and was then moved to ʻUalapuʻe around 1925 (Molokaʻi Main Street Association 1996). The jailhouse was relocated again roughly ten years later to 15 Ala Malama Avenue, where the Molokaʻi Public Library stands today, before coming to its current location on the mauka end of Malama Cultural Park near the restroom. At least four Molokaʻi residents of Japanese heritage were temporarily detained at the Kaunakakai courthouse and jail after the bombing of Pearl Harbor (Stephenson 2011). The WWII prisoners from Molokaʻi and Lānaʻi were then transferred to Maui County Jail and subsequently to internment camps on Oʻahu (National Park Service 2015:39).

Since the structure has been moved from its original location, it is almost certainly ineligible for inclusion on the National Register of Historic Places. It was evaluated in 2015 by the National Park Service due to its association with the Japanese internment camps in Hawaiʻi during WWII, but was considered to have "no integrity remaining" (National Park Service 2015:xxiii). Currently, the jailhouse is in poor condition with a collapsed roof and missing walls.

Historic Weigh Station

Previous oral history studies presented in Athens' 1983 report provide important information which may not be present in the archaeological record or on historic maps. According to informants, the area across from Kaunakakai Place hosted a variety of tenants in the 1940s, from the military to E.K. Fernandez circus, and in the 1950s, the Libby, McNeil, & Libby Pineapple Co. Pineapple was quickly becoming Molokaʻi's primary export by this time, with roughly 6,800 ha (16,800 ac.) of fields on the island by 1968. The pineapple company built the cement truck weigh station along the eastern side of the property, which remains today as a quiet reminder of Molokaʻi's pineapple heyday. Athens also notes that some military structures still stand in this area (1983:24).

The historic weigh station at Malama is part of the railroad, which ran along Kaunakakai Place and gave the pineapple plantations access to the wharf. The weigh station is located on the northeast corner of Malama Cultural Park and runs parallel to Kaunakakai Place. A cement slab which probably once held the scale juts out from the eastern edge of the structure. A newspaper article from August 11, 1899 mentions that the railway "will be built to the end of the wharf", while a historic map drawn in May 1900 depicts the scale and railway already in place. Therefore, it can be assumed

Figure 26. Historic jailhouse sometime before it was moved to Malama Cultural Park; date of photograph unknown (D.B. Curtis Collection).

that the weigh station and scale were constructed in either late 1899 or early 1900 (See Figures 7 and 13). The structure is currently in good condition.

Settlement Patterns

Research on pre-contact Kaunakakai reveals that the coastal region was frequently used as a safe and protected canoe landing and launching point. With freshwater springs preventing the growth of coral, a natural harbor was formed. Most of the mo‘olelo as well as early historic references to Kaunakakai present it as a destination for those traveling by boat.

Subsistence likely focused on coastal resources, as the region is too dry for wetland agriculture. Fishponds occur along the coast, though not in the immediate vicinity of the project area. Kaunakakai was known for harvesting of the aloalo shrimp. Cultivation of crops occurred in spring-fed areas and along the two main watercourses of the region, Kamiloloa and Kaunakakai Stream. Dryland agriculture, focusing on sweet potato cultivation, was likely practiced on the slopes above the town, and salt was produced at the coast.

The settlement pattern for the central region of Moloka‘i’s southern shore suggests that the coastal habitation zone was populated by the 13th century, with the mauka portions being settled by the 15th century (Weisler 1989). The upland zones were the location of agricultural activities, and much of the existing archaeological research has recorded the presence of temporary shelters among other site types (Weisler 1989). Archaeological studies have shown that the swampy coastal areas affected by tidal levels were not ideal for settlement and habitation (Tomonari-Tuggle 1990:54). Because of

this, and the presence of fresh water in Kaunakakai Stream, the coastal flat mauka of this swamp became the center of the area's settlement.

Historic period use of Kaunakakai focused on sugar and ranching interests. This largely occurred after 1897, when large expanses of land were purchased to form the Molokai Ranch by a group who would later become the American Sugar Company. This prompted the construction of the Kaunakakai Wharf, which became a major port around which subsequent urban development was centered.

The project area itself is the location of the former residence of the aliʻi Kapuāiwa, or Kamehameha V. The house, known as Malama, was built ca. 1859, possibly on top of Mahinahina Heiau. Not far to the west was a residence for Governor John Dominis and Colonel Charles Judd. Retainers' houses were once located where the Standard Oil Company's fuel tanks are now, however the houses were burned down in a fire. In that area, there was also a canoe house, which was at the location of the present-day County Park. The Malama house was later moved and Kalaʻiakamanu Church was built on top of the house platform. The church was relocated nearby in the 1920s and then moved again because of the 1946 tsunami.

Summary of Background Research and Anticipated Finds

Background research revealed that the original name for Kaunakakai was Kaunakahakai. As the setting for a number of different moʻolelo, the area was an important place in traditional Hawaiian times. During this early period, the coastal zone was used as a canoe landing and also supported a small population, while upland areas were used for agriculture and were settled later. Two heiau, Kamalae and Mahinahina were known for the area, with Mahinahina Heiau, which is probably at the same location as the Malama Platform, located within the project area.

The region's significance continued into the historic era, when Kamehameha V made his home, Malama, on the shores of Kaunakakai on the Malama Platform in the project area. Constructed at the turn of the 19th century, Kaunakakai Wharf played a vital role in the development of Kaunakakai as the urban center of Molokaʻi. The wharf was a hub for commerce and entry to the island and a railroad once connected the wharf to other parts of Molokaʻi. Several sources relate that the wharf was made from stones taken from two nearby heiau.

Previous archaeological studies have been carried out within and in the vicinity of the project area in Kaunakakai. Three archaeological sites are known to exist within the study parcel: a historic pier, expansive cultural deposit, and Malama Platform. The platform is believed to have been constructed in at least two stages and is the location of Mahinahina Heiau, Kamehameha V's residence, and later Kalaʻiakamanu Church. Subsurface midden deposits from the platform date to traditional times, and historic subsurface features and artifacts were identified as well. Also, within the project area are the Kaunakakai Jailhouse, which was moved there and is currently deteriorating, and also a historic weigh station. Neither of these sites were assigned SIHP numbers. To the west of the project area were saltpans and wetlands as depicted on historic maps.

Based on moʻolelo, land use, settlement patterns, and previous archaeological studies, along with the rich historical significance of Kaunakakai and the wharf, expected archaeological finds during ground disturbing activities can be surmised. Due to the presence of culturally significant structures and a cultural deposit within the current project area, both traditional and historic features and deposits may be present. These may include structural remains, midden deposits, human burials, traditional artifacts, as well as historic artifacts or additional cultural deposits. Features associated with the historic saltworks may also be encountered and may consist of the earthen berms used to demarcate the saltpans.

FIELD INSPECTION

A field visit was conducted on July 15, 2020 by Keala Pono archaeologists Jeffery Lapinad; Pūlama Lima, MA; Kalena McElroy, MA; and principal investigator Windy McElroy, PhD. The block of parcels was walked to confirm the presence and location of archaeological and cultural remains and to get a general idea of the current condition of the sites. Most of the study area is open and flat with excellent visibility, and few structures and development. Nevertheless, there are scattered pockets of invasive and wetland vegetation within the open area and these were not further inspected (e.g., Figure 27). Three surface archaeological resources that consist of the Malama Platform, historic jailhouse, and historic weigh station were observed during this brief field visit.

The previously identified Malama Platform (Site 1030) was seen just behind the Waʻakapaemua Canoe Club facilities on the southern portion of the study area (Figure 28). The platform is currently overgrown with invasive plants and grasses, particularly along the platform walls, but is otherwise in good condition (Figure 29). A large segment of the makai wall is cleared and easily visible (Figure 30). A roughly six-inch deep open excavation was observed near the canoe club to repair a small pipe located next to the platform's makai wall (Figure 31). It is not clear who conducted this shallow excavation, but there was no evidence of Jaucas sand during a quick visual inspection of the hole, nor during any portion of the field visit.

Figure 27. Wetlands on the makai portion of the project area just mauka of the canoe hale; orientation is to the northwest.

Figure 28. Malama Platform with canoe club facilities in the background; orientation is to the southeast. Note the vegetation along platform walls.

Figure 29. Malama Platform; orientation is to the west. Note the invasive vegetation along wall face.

Figure 30. Malama Platform makai wall; orientation is to the northwest. Note the tire placed over an existing excavation.

Figure 31. Existing excavation along the Malama Platform's makai wall, plan view. The scale is marked in 10 cm increments.

A concrete weigh station and scale associated with the ASCO railroad and Libby, McNeil, & Libby pineapple operations are located on the northeastern corner of the project area (Figures 32 and 33). This weigh station is visible on Pope's historic map from 1900, where it is labeled as "R.R. scale" (See figure 6). The weigh station runs parallel to Kaunakakai Place and has a small memorial on the makai end marking the location of the recent death of a resident (Figure 34). This weigh station is in good condition, appearing intact and free of vegetation.

Figure 32. Historic railroad weigh station; orientation is to the east.

Figure 33. Historic weigh station platform and scale; orientation is to the northeast.

Figure 34. Memorial at the makai end of the weigh station; orientation is to the southeast.

The old Kaunakakai jailhouse is situated just mauka of the bathroom and was moved to various locations around Molokaʻi over the years. It was most recently relocated to the park from 15 Ala Malama Avenue to make way for the Molokaʻi Public Library (Figures 35 and 36). The jailhouse is in poor condition with a collapsed roof and missing walls. This historic property was evaluated in 2015 by the National Park Service due to its association with Japanese internment camps during WWII, but was considered to have "no integrity remaining" (National Park Service 2015:xxiii).

No remnants of the historic pier (Site 890) were visible during the field inspection (Figure 37). This may be due to the height of the tide at the time of the visit. The previously documented cultural deposit (Site 630) was likewise not observed during this visit as no subsurface excavations were conducted.

Figure 35. Mauka side of the historic Kaunakakai Jailhouse; orientation is to the southwest. The park's restroom building on the right side of the image.

Figure 36. Makai side of the historic Kaunakakai jailhouse showing the dilapidated condition of the roof and wall; orientation is to the northeast.

Figure 37. Approximate location of the historic pier (Site 890); orientation is to the southwest.

The makai portion of the project area between Malama Platform and the ocean is occupied by the Waʻakapaemua Canoe Club (Figure 38). Their facilities include a large hālau waʻa, three shipping container offices, a gated gravel driveway, and a small shave ice shack.

Additional development was completed during earlier phases of the Malama Cultural Park project. There is a restroom with a shower located partially within the study area just makai of the jailhouse (Figure 39). This facility currently has all utilities including water shut off. There is also a hula mound in the central part of the park, which functions as a grass-covered stage (Figure 40). The hula mound exhibits metal utility boxes cemented into the top of the mound. It is not more than 50 years old. Between the hula mound and the wetland area are three rock piles that may have been built at the same time as the hula mound (Figure 41). The rock piles are roughly in line on an east to west axis.

Figure 38. Malama Cultural Park from the wharf; orientation is to the northwest.

Figure 39. Restroom facility with the historic jailhouse in the background; orientation is to the northeast.

Figure 40. Hula mound with weigh station in the background; orientation is to the northeast.

Figure 41. Two of the three rock piles just mauka of the wetland area; orientation is to the southeast.

ASSESSMENT AND RECOMMENDATIONS

A literature review and field inspection were conducted for the Malama Cultural Park Special Area Plan in Kaunakakai, Molokaʻi. The project covers the entirety of TMK: (2) 5-3-001:002, :097, and :100. Several archaeological implications can be made based on the literature review presented above. Key data include information concerning previous land use, LCA records, and the results of previous archaeological work. The overwhelming majority of the project area is undeveloped, however there are existing structures, a wetland area, a gravel driveway, and other infrastructure. Due to previously identified surface and subsurface cultural properties within the project area, it is likely additional subsurface archaeological features remain.

Results of Historical Research on Land Use

The coastal zone was used as a canoe landing and also supported a small population. Traditional subsistence activities occurred in the upland areas, which were settled later. The shoreline was a region of religious importance as well, with two heiau, Kamalae and Mahinahina known for the area. Mahinahina Heiau, which is probably the same location as the Malama Platform, is situated within the project area. The region's significance continued into the historic era, when Kamehameha V made his home, Malama, on the shores of Kaunakakai on this same platform. Retainers houses and homes for Governor John Dominis and Colonel Charles Judd were also known to be in the area. Malama Platform was later used for the foundation of a church, which was moved off the platform in the 1920s. A weigh station shows up on historic maps of the property as early as 1900. It was associated with the ASCO railroad and Libby, McNeil, & Libby pineapple operations. The Kaunakakai Wharf was built in the early 19th century and played a vital role in the development of Kaunakakai as the urban center of Molokaʻi. The wharf was a hub for commerce and key entry point to the island since the railroad once connected the wharf to other parts of Molokaʻi.

Results of Land Commission Awards Search

No LCA claims or kuleana awards were granted in Kaunakakai and no legal Māhele documents refer to ownership of the ahupuaʻa. Letters dating to 1850 and 1854 state that Abner Pākī owned the ahupuaʻa, however a letter from 1855 recorded that Kaunakakai was "conveyed" to King Kamehameha V for $200. The land was bequeathed to Princess Ruth Keʻelikōlani and later to Princess Bernice Pauahi Bishop. Upon Princess Pauahi's death, Bishop Estate petitioned for and received the ahupuaʻa, which large portions were then sold to Molokaʻi Ranch, later becoming the American Sugar Company. This underlines the importance of the area to aliʻi and suggests that agriculture and ranching played a large role in the history and development of the region as early as the late 1800s.

Knowledge from Previous Archaeological Studies and the Current Field Inspection

Previous archaeological studies have uncovered significant archaeological and cultural features within and near the project area. The Malama Platform, an extensive cultural deposit, a historic jailhouse, and a historic weigh station are located on the project parcels. A historic pier is offshore nearby. Remnants of the original Kaunakakai Wharf are adjacent to the project area and salt pan remnants as well as a subsurface cultural deposit are to the west.

The current field inspection identified the Malama Platform, the jailhouse, and the weigh station. While the cultural deposit is known to occur within the project area, it was not observed because subsurface excavations were not conducted. The wharf remnants are thought to be located in the ocean just west of the project. This area was visually inspected from the shore, but no wharf remains were seen. This is possibly due to the tide, which was high at the time of the field visit.

Summary and Recommendations

As no construction activities are proposed in the current Malama Cultural Park Special Area Plan, no further archaeological studies are recommended. If ground disturbance or interpretive signage are proposed in the future, an archaeological inventory survey with subsurface testing will be helpful in gathering more information on the sites located within the project area and possibly identifying additional subsurface cultural resources. It is likely that there are both traditional and historic cultural features and deposits present on the properties. In addition, a preservation plan is recommended for the archaeological sites on the properties if future construction is to occur there.

GLOSSARY

ae‘o The Hawaiian stilt *Himantopus mexicanus knudseni*, endemic and formerly common on the main Hawaiian Islands, but now endangered.

ahupua‘a Traditional Hawaiian land division usually extending from the uplands to the sea.

ali‘i Chief, chiefess, monarch.

ali‘i nui High chief.

aloalo Squilla (*Pseudosquilla ciliata, Lysiosquilla maculata*), a crustacean considered a delicacy.

boulder Rock 60 cm and greater**.**

cobble Rock fragment ranging from 7 cm to less than 25 cm.

hālau Meeting house for hula instruction or long house for canoes.

hālau wa‘a Canoe house.

heiau Place of worship and ritual in traditional Hawai‘i.

Hina Female akua prominent in different traditions, among which are some connected to the moon, some connected to the demigod Maui, and some connected to the island of Molokai.

kahua Open place for sports, such as ‘ulu maika.

kama‘āina Native-born.

kiawe The algaroba tree, *Prosopis* sp., a legume from tropical America, first planted in 1828 in Hawai‘i.

kōlea The Pacific golden plover *Pluvalis dominica*, a bird that migrates to Hawai‘i in the summer; the native trees and shrubs *Myrsine*, the sap and charcoal of which were used as a dye, the wood used for houses and for beating kapa.

kōnane A traditional Hawaiian game played with pebbles on a wooden or stone board.

konohiki The overseer of an ahupua‘a ranked below a chief; land or fishing rights under control of the konohiki; such rights are sometimes called konohiki rights.

kuleana Right, title, property, portion, responsibility, jurisdiction, authority, interest, claim, ownership.

Māhele The 1848 division of land.

makahiki A traditional Hawaiian festival starting in mid-October. The festival lasted for approximately four months, during which time there was a kapu on war.

makai Toward the sea.

makana Gift, reward, prize.

makani Wind, breeze.

mālama To care for, preserve, or protect.

manu	Bird or any winged animal.
mauka	Inland, upland, toward the mountain.
midden	A heap or stratum of refuse normally found on the site of an ancient settlement. In Hawai‘i, the term generally refers to food remains, whether or not they appear as a heap or stratum.
mo‘o	Lizard, dragon, water spirit.
mo‘olelo	A story, myth, history, tradition, legend, or record.
‘ohana	Family.
‘ōhi‘a	Two kinds of forest trees. See also ‘ōhi‘a ‘ai and ‘ōhi‘a lehua.
‘ōhi‘a ‘ai	The mountain apple tree, *Eugenia malaccensis*, a forest tree to 50 ft. high.
‘ōhi‘a lehua	The native tree *Metrosideros polymorpha*, the wood of which was utilized for carving images, as temple posts and palisades, for canoe spreaders and gunwales, and in musical instruments.
‘ōlelo no‘eau	Proverb, wise saying, traditional saying.
‘opihi	Limpets, four types of which are endemic to Hawai‘i: *Cellana exarata* (‘opihi makaiauli), *C. sandwicensis* (‘opihi alinalina), *C. talcosa* (‘opihi ko‘ele), and *C. melanostoma* (no Hawaiian name). ‘Opihi are a prized food in Hawai‘i and considered a rare treat today.
pili	A native grass, *Heteropogon contortus*.
poi	A staple of traditional Hawai‘i, made of cooked and pounded taro mixed with water to form a paste.
stone	Rock fragment ranging from 25 cm to less than 60 cm.
‘ulu maika	Stone used in the maika game, similar to bowling.

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